

FOR CONTRACT NO.: 08-0G4804

# INFORMATION HANDOUT

## **MATERIALS INFORMATION**

LEAD-BASE PAINT IN SOIL INVESTIGATION REPORTS

LEAD-BASE PAINT SURVEY

**ROUTE: 08-SbD-15-R111.6/R120.4/R124.2**

**LEAD-BASED PAINT IN SOILS  
INVESTIGATION REPORT  
Interstate-15  
Afton Road Over-Crossing Bridge #54-0364  
San Bernardino County, California**

**Prepared for:  
California Department of Transportation, District 8  
Task Order No. 26  
Contract No. 08A1542  
EA OG4800**

**February 2, 2010**

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## **1.0 INTRODUCTION**

### **1.1 PROJECT DESCRIPTION AND OBJECTIVES**

At the request of the California Department of Transportation (Caltrans) District 8, an investigation of lead-based paint (LBP) in soils was conducted to support seismic retrofitting of the Afton Road over-crossing bridge along Interstate-15 (approximately 40 miles north of the I-15/I-40 split) in San Bernardino County, California (Figure 1). The project proposes to retrofit the existing columns and abutments of the bridge. All survey work was limited to the existing right-of-way along the unpaved shoulders and medians of I-15.

The overall objective of this investigation was to evaluate lead concentrations in the subsurface soil profile adjacent to the existing columns and abutments and to make recommendations for any special handling or disposal of lead impacted soil. Historical sandblasting of paint on these bridges is speculated to have resulted in lead contamination in soil from LBP. The bridge is supported on six columns with abutments on each end. Stantec understands that proposed improvements will require excavation to six feet in depth and extend approximately two feet laterally from each side of the column or abutment.

### **1.2 SCOPE-OF-WORK**

The scope of the lead survey consisted of the following general elements:

- Pre-field project assessment and Health and Safety Plan (HASP) development
- Soil sampling
- Laboratory analysis
- Data evaluation and report development

Each of these is discussed in detail in the following subsections.

#### **1.2.1 Pre-Field Activities**

Site plans provided by Caltrans were reviewed and compared to actual field conditions during a drive-by site reconnaissance. From this preliminary site evaluation, potential sample locations were designated on the plans for use by field personnel. In addition, a HASP was developed in accordance with California Occupational Safety and Health Administration (Cal OSHA) requirements to guide field activities.

#### **1.2.2 Field Sampling Activities**

Field sampling activities included the following general tasks:

- Sixteen (16) shallow hand-auger borings were advanced at the bridge location within two feet of the columns and abutments to a maximum depth of three feet below ground surface (bgs);

- Soil samples (48 total) were collected from each boring at depths of 0.5-1.0, 1.0-1.5, and 2.5-3.0 feet bgs for lead, Title 22 metals, and volatile organic compound (VOC) analysis; and
- One (1) field equipment blank sample was collected for analysis of Title 22 metals and VOCs.

### **1.2.3 Laboratory Analyses**

Soil samples were submitted under chain-of-custody to Pat-Chem Laboratories (Pat-Chem). Pat-Chem is certified by the California Environmental Laboratory Accreditation Program (ELAP) to perform the laboratory tests required in this task order. Selected samples were analyzed for the following analytes:

- Total lead by EPA test method 6010B
- Soluble lead by the California Waste Extraction Test (Cal WET – Citric and Cal WET – DI; EPA method 3010/6010B)
- Toxicity Characteristic Leaching Procedure (TCLP) by EPA extraction method 1311
- pH by EPA test method 9045C
- Title 22 metals by EPA test method 6010B/7471A
- VOCs by EPA test method 8260B

Field equipment blanks were analyzed for the following analytes:

- Title 22 metals by EPA test method 6010B/7471A
- Volatile organic compounds by EPA test method 8260B

### **1.2.4 Report Preparation**

This report presents the methodology, findings, and recommendations of the lead survey and investigation. Also included with this are laboratory test results, statistical data evaluations, and recommendations for lead-contaminated soil management during construction. This report was prepared in accordance with the work plan and proposal dated June 1, 2009.

## **1.3 PREVIOUS SITE INVESTIGATIONS**

Additional information was not provided relative to previous environmental studies within the study area.

## 2.0 LEAD SURVEY METHODOLOGY

The field methods used during this sampling and site investigation project were consistent with the work plan submitted to Caltrans dated June 1, 2009. The proposed borings were located at the Afton Road over-crossing bridge along I-15 in San Bernardino County, California. All of the proposed sampling locations were accessible and no weather related restrictions were encountered. Soil sampling activities were conducted on June 9 and 12, 2009.

### 2.1 FIELD INVESTIGATIONS

Sixteen (16) hand-auger borings for lead, Title 22 metals, and VOC analysis were advanced along accessible portions at the Afton Road over-crossing bridge (48 total samples). Two borings were advanced at opposite sides, within two lateral feet, of each column and abutment. Soil samples were collected at depths ranging from 0.5 to 3.0 feet bgs. The sample depths represent the top depth of a six-inch thick sample collected using a hand-auger. Three soil samples were collected from 16 borings totaling 48 soil samples. Soil samples were discharged directly from the hand-auger bailer into a plastic zipper lock bag and manually homogenized in the field to minimize sample heterogeneity. Soil samples submitted for VOC analysis were collected at a depth of one foot bgs using Encore samplers to obtain an undisturbed soil sample. Each sample was labeled with a specific sample I.D., boring I.D., project I.D., sample date, and sample time. Samples were also recorded on chain-of-custody forms and delivered to an environmental laboratory for analysis in accordance with the methods described in Section 1.2.3.

Prior to sampling at each sample interval, sample equipment was decontaminated in non-phosphate detergent solution and double rinsed with distilled water. Excess soil cuttings were replaced in the borehole.

Accessible areas are defined as those areas that allow work vehicles and personnel to work safely at distances no closer than six feet from paved portions of the roadway. No samples were collected from areas that would have required workers to work within six feet of paved shoulders. None of the proposed sample locations fell within inaccessible areas of the proposed construction zones. All sample locations were plotted on a field map with a unique boring identification (I.D.) number to represent each borehole. The sample locations are indicated on Figure 2.

### 2.2 LABORATORY ANALYSIS

Soil samples were submitted under chain-of-custody to Pat-Chem. Each of the samples was initially analyzed by EPA test method 6010B for total lead. One soil sample at each column and abutment, collected at a depth of one foot bgs, was selected for VOC and Title 22 metals analysis. The lab was directed to perform the following additional analyses based on the detected total lead concentrations:

- Cal WET-Citric soluble lead analysis on all samples exhibiting total lead concentrations greater than 25 milligrams per kilogram (mg/kg). Cal WET-Citric is used to assess

soluble lead concentrations with respect to California Soluble Threshold Limit Concentrations (STLC).

- TCLP soluble lead analysis on all Cal WET-Citric samples exhibiting soluble lead concentrations greater than 5.0 milligrams per liter (mg/L).
- pH on all TCLP analyzed samples.
- Cal WET-DI analysis in the following order of preference:
  - TCLP samples where the 95 percent upper confidence level of the mean of the TCLP data is greater than 0.5 mg/L; or
  - Ten percent of the sample population biasing the Cal WET-DI analyses to samples that required Cal WET-Citric analysis; or
  - Ten percent of the sample population biasing the Cal WET-DI analyses to samples that exhibited the highest concentrations of total lead.
- VOCs and Title 22 metals on soil samples collected at a depth of one foot at each column and abutment.

These analyses were performed for statistical evaluation of data against state and federal hazardous waste limits and with the conditions of Caltrans' variance.

## **3.0 INVESTIGATIVE RESULTS**

### **3.1 SUBSURFACE CONDITIONS**

The soils encountered during sampling ranged from fine to coarse, light brown sands with fine to coarse gravels. The soils were relatively dry from the top of the soil column to the bottom of the borings at two feet bgs. Groundwater was not encountered in any of the boreholes and not expected to be present in the upper 10 feet.

### **3.2 ANALYTICAL RESULTS**

A summary of the analytical results are presented in Tables 1a and 1b. Copies of the laboratory reports and chain-of-custody forms are included in Appendix A and B, respectively.

#### **3.2.1 Title 22 Metals and VOCs**

One soil sample at each column and abutment, collected at a depth of one foot bgs, was selected for analysis of VOCs by EPA test method 8260B and Title 22 metals analysis by EPA test method 6010B/7471A. Analytical data obtained from eight (8) selected soil samples submitted for analysis indicated VOC concentrations less than the laboratory reporting limit.

Table 1a compares project sample statistical data with the background statistical data from studies performed for the California Department of Toxic Substances Control (DTSC) in 1991 (Marret et al, April 1991) and 1996 (Bradford et al, March 1996). Based on this comparison it appears that the reported metals concentrations, other than lead, are consistent with expected background concentrations for soils in Southern California.

Table 1a also compares metals concentrations with the United States Environmental Protection Agency Region 9 (EPA) Preliminary Remediation Goals (PRG); screening levels for industrial soil (April 2009). With the exception of arsenic, mean metals concentrations are below the industrial PRG. Mean arsenic concentrations in California commonly exceed the industrial PRG with mean background in pristine desert samples ranging from 3.2 to 18.1 mg/kg. Arsenic concentrations were reported in the range of 8.9 to 12 mg/kg (mean = 11 mg/kg), which are six to eight times the industrial PRG. However, these concentrations are consistent with expected background levels and do not require special disposition as a hazardous waste or contaminated waste. Health and safety precautions would be prudent to limit inhalation and ingestion of project soils by workers and surrounding public.

#### **3.2.2 Total Lead**

Forty-eight (48) soil samples were analyzed for total lead by EPA test method 6010B. Total lead concentrations ranged from less than 1.0 mg/kg (laboratory reporting limit) to 86 mg/kg with a mean concentration of 17 mg/kg (see Table 1b).

Total lead concentrations did not exceed the TTLC of 1,000 mg/kg in any of the samples.

### **3.2.3 Soluble Lead (Cal WET- Citric)**

Soil samples with total lead concentrations in excess of 25 mg/Kg were analyzed for soluble lead using the Cal WET soluble lead analysis. Soluble lead concentrations exceeded the STLC of 5 mg/L in two (2) of the 14 soil samples submitted for soluble lead analysis. Soluble lead concentrations ranged from 1.7 to 5.1 mg/L with a mean concentration of 2.8 mg/L (see Table 1b).

### **3.2.4 Toxicity Characteristic Leaching Procedure (TCLP)**

Soil samples with STLC lead concentrations in excess of 5 mg/L were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) analysis for lead. TCLP concentrations for lead ranged from 0.13 to 0.21 mg/L (see Table 1b).

TCLP lead concentrations did not exceed 5 mg/L in either of the two (2) soil samples submitted for analysis.

### **3.2.5 Soluble Lead (Cal WET- DI)**

The Caltrans variance for Aerially Deposited Lead (ADL) allows for reuse of materials exceeding the STLC and TCLP for lead if the soluble concentrations do not exceed 0.5 mg/L using a less rigorous extraction test that incorporates distilled water as the solvent rather than the Cal WET-citric acid or TCLP acetic acid extractant. This method is often identified as the DHS modified Cal WET-DI test.

Four (4) soil samples were selected for soluble lead analysis by the Cal WET – DI. Soluble lead concentrations were less than 0.02 mg/L (the laboratory reporting limit) in all samples (see Table 1b).

### **3.2.6 pH Results**

Selected soil samples with total lead concentrations in excess of 25 mg/Kg were analyzed for pH using EPA test method 9045C. Analytical data obtained from 14 selected soil samples submitted for analysis indicated pH levels ranging from 8.4 to 10.4.

## **3.3 DATA VALIDATION**

Prior to submitting soil samples to the laboratory, the chain-of-custody documentation was reviewed for accuracy and completeness. The laboratory reports were crosschecked with the chain-of-custody forms to confirm accurate transposing of sample information. Laboratory quality assurance and quality control (QA/QC) data (method blanks, laboratory control samples and duplicates, matrix spike samples and duplicates) were also reviewed for compliance with QA/QC objectives. In addition, an equipment blank was collected and analyzed for VOCs and Title 22 metals. Based on this validation process and analytical data indicating no detections in the equipment blank, the data contained herein are adequate for the purposes of this study. Copies of the laboratory reports and chain-of-custody forms are included as Appendix A and B, respectively.

## 4.0 STATISTICAL DATA EVALUATION

### 4.1 CORRELATION BETWEEN TOTAL LEAD AND SOLUBLE LEAD

The correlation coefficient between total lead and Cal WET-Citric soluble lead was calculated in accordance with the methodology presented in Section B 3.2.2.15.2 of Caltrans Contract 08A1542 (see Table 3). The data initially showed poor correlation with a correlation coefficient of 0.34. Caltrans generally considers a correlation coefficient of 0.8 or greater as showing good correlation.

### 4.2 Linear Regression Analysis

As described above, the soluble and total lead data appear to initially show insufficient correlation to allow comparison using linear regression algorithms. However, upon review of Figure 3, it was determined that three outliers were skewing the linear regression results (AB-4-1, AB-13-2.5, and AB-14-0.5); likely due to heterogeneity of soil particle size in relation to the size of the laboratory sample aliquot, and lead concentrations in the soil samples that could not be resolved with mechanical homogenization in the laboratory. Upon removal of the two outliers from the sample population, the correlation coefficient increased to 0.85 as shown on Table 3 and Figure 3; sufficient correlation to allow comparison using linear regression algorithms.

The relationship between total lead and Cal WET-Citric soluble lead was evaluated in accordance with Caltrans Contract 08A1542 Section B 3.2.2.15.2. Total lead and soluble lead are bivariate data exhibiting a linear relationship. Table 3 and Figure 3 show the relationship between total and Cal WET-Citric soluble lead results for this project. Linear regression was used to develop a best-fit line and mathematical formula for the relationship between total lead (TL) and Cal WET-Citric soluble lead (SL) concentrations:

$$TL [mg/kg] = 11.7 (SL [mg/L]) + 12.9, \text{ or}$$

Solving for soluble lead (Cal WET) yields the following:

$$SL [mg/L] = (TL [mg/kg] - 12.9) / 11.7$$

This formula will be used in subsequent statistical evaluations to determine the Cal WET-Citric soluble lead concentration from statistically derived total lead upper confidence limits (UCLs) for various soil layers considered in Section 4.3.

### 4.3 Statistical Data Evaluation

The analytical results were evaluated statistically following the methods described in Section B 3.2.15 of Exhibit A, Caltrans Contract Document Number 08A1542.

Statistical tests were performed on each data set to evaluate whether the total lead data are normally or lognormally distributed. If lognormally distributed, the data were transformed prior to performing any other statistical evaluations. Statistical parameters, such as the mean, standard deviation, and upper confidence level of the mean were calculated for various layers and scenarios. The total lead 80 percent UCL ( $UCL_{80}$ ) and the 95 percent UCL ( $UCL_{95}$ ) of the mean were calculated to support decision making with respect to off site disposal and on site

re-use as described in Section B 3.2.4.4 of Caltrans Contract 08A1542.

- **UCL<sub>80</sub>:** The UCL<sub>80</sub> was calculated in accordance with requirements promulgated in U.S. Environmental Protection Agency (U.S. EPA) Guidance document SW-846 to characterize the soil for 1) potential off site disposal as nonhazardous, California hazardous or Resource Conservation and Recovery Act (RCRA) hazardous waste, and 2) to assess whether the conditions of the Caltrans Variance should be invoked for on-site reuse.
- **UCL<sub>95</sub>:** The UCL<sub>95</sub> is calculated to support decision making with respect to release of surplus soil material to the possession of the Contractor.

Statistical evaluations were performed using the U.S. EPA statistical program, ProUCL, version 4.00.01. One-half the reporting limit was used for all sample results reported below the reporting limit (nondetect). If the data exhibited normal distribution, Student's-t method was used to determine the UCL. The standard Bootstrap Method was used to evaluate the UCL as required in Caltrans Contract 088A0981 Section B 3.2.2.15.1 for all nonparametric populations.

The histograms for the raw data and the transformed data for all samples are shown on Figures 4a, 4b, 5a, and 5b. From these histograms and based on statistical tests, the total lead and Cal WET-Citric soluble lead data are nonparametric and lognormally distributed, respectively

To assist in future soil handling and disposition decision-making, statistical evaluations were performed on the below data populations. In each case, the total-lead UCLs were statistically derived from each sample population. The soluble lead (Cal WET-Citric) UCLs were then calculated using the linear regression formulas presented in Section 4.2.

- *Entire Data Set*—includes all of the total lead data (48 samples) from the surface to approximately three feet bgs. Statistical data for the entire data set are tabulated in Table 4 and shown on the block diagrams of Figure 6. The mean total lead concentration for the data set is 17 mg/kg with a standard deviation of 23 mg/kg. The calculated UCL<sub>80</sub> and UCL<sub>95</sub> are 20 and 22 mg/kg, respectively. The corresponding UCL<sub>80</sub> and UCL<sub>95</sub> Cal WET-Citric soluble lead concentrations using linear regression analysis are 0.61 and 0.78 mg/L, respectively
- *Depth Specific Layer*—data for each depth interval were evaluated as three separate and distinct populations. Under these scenarios, all data were included in the population of each depth interval. The results are presented in Table 5 and shown on the block diagrams of Figure 6.
  - 1 foot—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 28 and 33 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of 1.3 and 1.7 mg/L, respectively.
  - 2 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 23 and 27 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of 0.86 mg/L and 1.2 mg/L, respectively.

- 3 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 14 and 19 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of 0.094 and 0.52 mg/L, respectively.
- *Depth Combinations*—three layers were combined into two distinct populations. The two combinations evaluated are indicated below and shown on Table 5 and the block diagrams of Figure 6.
  - 1 and 2 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 24 and 27 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of 0.95 mg/L and 1.2 mg/L, respectively.
  - 2 and 3 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 17 and 20 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of 0.35 and 0.61 mg/L, respectively.

## 5.0 CONCLUSIONS

Statistical evaluations were performed to evaluate appropriate handling and disposition of lead in accordance with the following federal and state statutory limits:

TCLP Lead: 5 mg/L (RCRA hazardous waste),  
STLC Lead: 5 mg/L (California hazardous waste),  
TTLC Lead: 1,000 mg/kg (California hazardous waste), and

Although the purpose of the study was to evaluate lead in soil resulting from paint sandblasting of the bridges, the contribution of lead from ADL cannot be ignored. The reported concentrations are consistent with those typically reported in surficial soils along highways as a result of ADL. Accordingly, the reported lead concentrations are compared to the Caltrans Lead variance.

In accordance with the conditions of Caltrans Variance (No. 00-H-VAR-04), Modification 2 (September 12, 2003) as stated below:

Section 9.a.1: Lead contaminated soil containing 0.5 mg/L or less soluble lead when extracted by Cal WET-DI and 1,411 mg/kg or less total lead may be placed in the same Caltrans corridor provided that it is buried a minimum of 5 feet (1.5 meters) above the maximum water table elevation and covered with one foot (0.3 meters) of nonhazardous soil. These materials may be used on-site as Type Y-1 Caltrans fill material.

Section 9.a.2: Lead contaminated soil containing less than 50 mg/L soluble lead when extracted by Cal WET-DI and 3,397 mg/kg or less total lead may be placed in the same Caltrans corridor provided that it is buried a minimum of 5 feet above the maximum water table elevation and covered with pavement structure. These materials may be used on-site as Type Y-2 fill material.

In consideration of the data and statistical evaluations presented in previous sections, the following conclusions are developed.

- Lead is present in near surface soils within the proposed construction zone and may be the result of several sources including natural sources, paint sandblasting, and ADL.
- As shown on Figures 4a, 4b, 5a, and 5b, the histograms for total lead and Cal WET-Citric soluble lead demonstrate that the data are nonparametric and lognormally distributed, respectively.
- Total lead concentrations are well below statutory threshold levels for hazardous waste (TTLC).
- Cal WET-Citric soluble lead UCL<sub>95</sub> does not appear to exceed the California STLC.
- TCLP soluble lead levels did not exceed federal hazardous waste levels based on toxicity characteristics.

- Soluble lead was not detected at concentrations above the 0.5 mg/L Caltrans variance criteria when extracted using the DHS Modified Cal WET-DI method.
- Considering the entire data set as a whole (all 48 data points), the UCL<sub>80</sub> and UCL<sub>95</sub> for total lead does not exceed regulatory thresholds.
- Considering the entire data set in depth discrete layers, the UCL<sub>80</sub> and UCL<sub>95</sub> for total and soluble lead do not exceed regulatory thresholds.

## **6.0 RECOMMENDATIONS**

Lead is present at the site. Based on the findings and conclusions presented herein, the following is recommended:

1. A site-specific lead compliance plan should be developed to address health and safety of construction workers.
2. In consideration of total lead concentrations, soil may be managed as non-hazardous or reused onsite.
3. Surplus soil within the study zone may be released to the Contractor for disposition to a landfill.

## 7.0 LIST OF PREPARERS

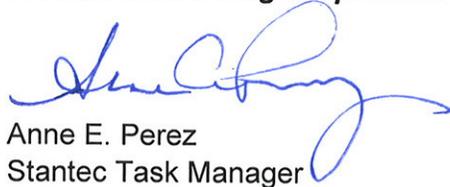
This lead survey report has been prepared under the direction of the following environmental professionals.

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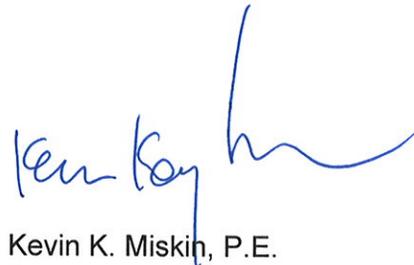
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## TABLES

**Table 1a**  
**Summary of Soil Analytical Test Results - Detected Title 22 Metals and VOCs**  
**Interstate-15, Afion Road Bridge, San Bernardino County, California**

Sample ID	Arsenic	Barium	Cobalt	Chromium	Copper	Molybdenum	Nickel	Lead	Vanadium	Zinc	All VOCs
AB-1-1	11	55	4.3	8.3	7.9	2.2	5.5	3.5	42	19	ND
AB-4-1	11	27	2.6	4.7	4.8	1.5	3.7	27	17	130	ND
AB-6-1	12	51	3.5	6.2	6.5	1.7	4.8	9.6	28	17	ND
AB-7-1	9.8	77	4.7	7.2	8.6	1.5	5.7	3.2	30	19	ND
AB-9-1	11	67	3.8	6.2	7.9	1.0	5.5	7.6	28	17	ND
AB-12-0.5	8.9	46	4.2	9.2	8.7	1.1	6.7	43	38	38	ND
AB-14-1	11	30	2.8	4.7	4.1	ND<1.0	3.5	3.4	18	12	ND
AB-16-1	10	84	7.1	15	21	2.2	10	5.8	54	39	ND
Min.	8.9	27	2.6	4.7	4.1	1.0	3.5	3.2	17	12	NA
Max.	12	84	7.1	15	21	2.2	10	43	54	130	NA
Mean	11	55	4.1	7.7	8.7	1.6	5.7	13	32	36	NA
St. Dev.	0.96	21	1.4	3.4	5.3	0.5	2.0	14	12	39	NA
<b>EPA PRGs</b>	<b>1.6</b>	<b>190,000</b>	<b>300</b>	<b>1,400</b>	<b>41,000</b>	<b>5,100</b>	<b>20,000</b>	<b>800</b>	<b>1,000</b>	<b>100,000</b>	<b>NA</b>
<b>Background Statistics</b>											
<b>Min. Value</b>	2.0	151	0.0	4	6.3	0.1	5.4	7.2	40	0	NA
<b>Max. Value</b>	31.2	911	16.9	113	258.0	2.4	35.4	54.5	188	109	NA
<b>Mean</b>	3.2 - 18.1	442 - 766	4.0 - 8.7	8 - 18	8 - 19	0.9	7 - 14	9.4 - 21.8	56 - 90	9 - 43	NA
<b>St. Dev.</b>	0.6 - 7.2	73 - 215	1.1 - 4.8	2 - 20	2 - 7	0.6	1 - 4	1.3 - 10.9	9 - 52	4 - 15	NA

**Notes:**

- Results reported in milligrams per kilogram (mg/kg).
- VOCs = volatile organic compounds
- St. Dev. = standard deviation
- USEPA PRG = United States Environmental Protection Agency Region 9 Preliminary Remediation Goals for Industrial Soil, April 2009
- Title 22 Metals analyzed by EPA test method 6010B.
- VOCs analyzed by EPA test method 8260B.
- ND<1.0 = not detected; less than the laboratory reporting limit
- 1. Silver, beryllium, cadmium, antimony, selenium, thallium, and mercury were not detected above their respective laboratory reporting limit.
- 2. Background statistics for arsenic, barium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc from Marrett, D.J., A.L. Page, G.R. Bradford, D. Bakhtar, R.C. Graham, A.C. Chang, *Background Levels of Soil Trace Elements in Southern California Soils*, April 1991, using results from pristine desert soils.
- 3. Background statistics for molybdenum and selenium from G. R. Bradford, A. C. Chang, A. L. Page, D. Bakhtar, J. A. Frampton, and H. Wright, *Background Concentrations of Trace and Major Elements in California Soils*, March 1996, using only Southern California results (samples 1, 7, 12, 18, 19, 20, 28, 35, 36, 37, and 50).
- 4. One-half the reporting limit (0.5 mg/kg) was used for statistical analysis where a result is shown as ND<1.0.

**Table 1b**  
**Summary of Soil Analytical Test Results**  
**Interstate-15, Afton Road Bridge, San Bernardino County, California**

Sample ID	Total Lead (mg/kg)	Soluble Lead Cal WET-Citric (mg/L)	Soluble Lead Cal WET-DI (mg/L)	Soluble Lead TCLP (mg/L)	pH (pH Units)
AB-1-0.5	1.5	--	--	--	--
AB-1-1	3.5	--	--	--	--
AB-1-2.5	1.2	--	--	--	--
AB-2-0.5	9.6	--	--	--	--
AB-2-1	5.1	--	--	--	--
AB-2-2.5	2.3	--	--	--	--
AB-3-0.5	71	5.1	ND<0.20	0.13	9.8
AB-3-1	12	--	--	--	--
AB-3-2.5	3.8	--	--	--	--
AB-4-0.5	60	3.8	--	--	9.9
AB-4-1	27	3.0	--	--	8.4
AB-4-2.5	1.2	--	--	--	--
AB-5-0.5	42	3.3	--	--	10.1
AB-5-1	70	4.2	ND<0.20	--	9.8
AB-5-2.5	4.1	--	--	--	--
AB-6-0.5	13	--	--	--	--
AB-6-1	9.6	--	--	--	--
AB-6-2.5	ND<1.0	--	--	--	--
AB-7-0.5	3.6	--	--	--	--
AB-7-1	3.2	--	--	--	--
AB-7-2.5	2.8	--	--	--	--
AB-8-0.5	ND<1.0	--	--	--	--
AB-8-1	1.0	--	--	--	--
AB-8-2.5	1.3	--	--	--	--
AB-9-0.5	1.8	--	--	--	--
AB-9-1	7.6	--	--	--	--
AB-9-2.5	ND<1.0	--	--	--	--
AB-10-0.5	1.2	--	--	--	--
AB-10-1	1.1	--	--	--	--
AB-10-2.5	ND<1.0	--	--	--	--
AB-11-0.5	25	2.1	--	--	9.8
AB-11-1	44	2.0	--	--	8.8
AB-11-2.5	39	2.2	--	--	10.0
AB-12-0.5	43	3.0	--	--	8.9
AB-12-1	42	2.3	--	--	8.9
AB-12-2.5	5.2	--	--	--	--
AB-13-0.5	35	2.2	--	--	9.9
AB-13-1	51	2.2	--	--	10.0
AB-13-2.5	86	1.7	ND<0.20	--	9.7
AB-14-0.5	53	5.1	ND<0.20	0.21	10.4
AB-14-1	3.4	--	--	--	--
AB-14-2.5	ND<1.0	--	--	--	--
AB-15-0.5	5.8	--	--	--	--
AB-15-1	3.4	--	--	--	--
AB-15-2.5	3.4	--	--	--	--
AB-16-0.5	3.7	--	--	--	--
AB-16-1	5.8	--	--	--	--
AB-16-2.5	6.4	--	--	--	--

**Notes:**

Lead analyzed by EPA Method 6010B  
 Results reported in milligrams per kilogram (mg/kg)  
 -- = not analyzed  
 ND<1.0 = not detected; less than the laboratory reporting limit

**Table 2**  
**Frequency Distribution Analysis**  
**Interstate-15, Afton Road Bridge, San Bernardino County, California**

<b>Sample ID</b>	<b>Total Lead <sup>(1)</sup> (mg/kg)</b>	<b>Total Lead In(x) Transformed</b>	<b>Soluble Lead <sup>(1)</sup> Cal WET-Citric (mg/L)</b>	<b>Cal WET-Citric In(x) Transformed</b>
AB-1-0.5	1.5	0.4	--	--
AB-1-1	3.5	1.3	--	--
AB-1-2.5	1.2	0.2	--	--
AB-2-0.5	9.6	2.3	--	--
AB-2-1	5.1	1.6	--	--
AB-2-2.5	2.3	0.8	--	--
AB-3-0.5	71	4.3	5.1	1.6
AB-3-1	12	2.5	--	--
AB-3-2.5	3.8	1.3	--	--
AB-4-0.5	60	4.1	3.8	1.3
AB-4-1	27	3.3	3.0	1.1
AB-4-2.5	1.2	0.2	--	--
AB-5-0.5	42	3.7	3.3	1.2
AB-5-1	70	4.2	4.2	1.4
AB-5-2.5	4.1	1.4	--	--
AB-6-0.5	13	2.6	--	--
AB-6-1	9.6	2.3	--	--
AB-6-2.5	0.5	-0.7	--	--
AB-7-0.5	3.6	1.3	--	--
AB-7-1	3.2	1.2	--	--
AB-7-2.5	2.8	1.0	--	--
AB-8-0.5	0.5	-0.7	--	--
AB-8-1	1.0	0.0	--	--
AB-8-2.5	1.3	0.3	--	--
AB-9-0.5	1.8	0.6	--	--
AB-9-1	7.6	2.0	--	--
AB-9-2.5	0.5	-0.7	--	--
AB-10-0.5	1.2	0.2	--	--
AB-10-1	1.1	0.1	--	--
AB-10-2.5	0.5	-0.7	--	--
AB-11-0.5	25	3.2	2.1	0.7
AB-11-1	44	3.8	2.0	0.7
AB-11-2.5	39	3.7	2.2	0.8
AB-12-0.5	43	3.8	3.0	1.1
AB-12-1	42	3.7	2.3	0.8
AB-12-2.5	5.2	1.6	--	--
AB-13-0.5	35	3.6	2.2	0.8
AB-13-1	51	3.9	2.2	0.8
AB-13-2.5	86	4.5	1.7	0.5
AB-14-0.5	53	4.0	5.1	1.6
AB-14-1	3.4	1.2	--	--
AB-14-2.5	0.5	-0.7	--	--
AB-15-0.5	5.8	1.8	--	--
AB-15-1	3.4	1.2	--	--
AB-15-2.5	3.4	1.2	--	--
AB-16-0.5	3.7	1.3	--	--

**Table 2**  
**Frequency Distribution Analysis**  
**Interstate-15, Afton Road Bridge, San Bernardino County, California**

<b>Sample ID</b>	<b>Total Lead <sup>(1)</sup> (mg/kg)</b>	<b>Total Lead In(x) Transformed</b>	<b>Soluble Lead <sup>(1)</sup> Cal WET-Citric (mg/L)</b>	<b>Cal WET-Citric In(x) Transformed</b>
AB-16-1	5.8	1.8	--	--
AB-16-2.5	6.4	1.9	--	--
<b>Min. Value</b>	0.5	-0.7	1.7	0.5
<b>Max. Value</b>	86	4.5	5.1	1.6
<b>Mean</b>	17	1.8	3.0	1.0
<b>Median</b>	4.6	1.5	2.7	0.97
<b>St. Dev.</b>	23	1.6	1.1	0.36
<b>Variance</b>	530	2.5	1.3	0.13

**Notes:**

For statistical analysis, laboratory analytical results less than the reporting limit are represented as one-half the reporting limit as shown in blue font.

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

STLC = Soluble Threshold Limit Concentration

**Table 3**  
**Linear Regression Analysis**  
**Interstate-15, Afton Road Bridge, San Bernardino County, California**

Sample ID	Total Lead (mg/kg) (Y)	Soluble Lead STLC/WET- Citric (mg/L) (X)	Product of Total Lead and Soluble Lead (X) x (Y)
AB-3-0.5	71	5.1	362
AB-4-0.5	60	3.8	228
AB-5-0.5	42	3.3	139
AB-5-1	70	4.2	294
AB-11-0.5	25	2.1	53
AB-11-1	44	2.0	88
AB-11-2.5	39	2.2	86
AB-12-0.5	43	3.0	129
AB-12-1	42	2.3	97
AB-13-0.5	35	2.2	77
AB-13-1	51	2.2	112
<b>Mean</b>	<b>47</b>	<b>2.9</b>	<b>151</b>
<b>Standard Deviation</b>	<b>14.3</b>	<b>1.0</b>	<b>--</b>

**Number of Samples**                      11

**Calculated r Value <sup>(1)</sup>**                      0.85  
 $r^2$     0.72

**Slope (m) <sup>(2)</sup>**                                      11.7  
**Intercept (b) <sup>(3)</sup>**                                12.9  
 $y=mx+b$      $y=11.7x+ 12.9$   
 $x=(y-12.9)/11.7$

**Notes:**

(1)  $r = \frac{\{[(\text{average of the product of Total Lead and Soluble Lead}) - ((\text{Soluble Lead average}) \times (\text{Total Lead average}))]\}}{\{[(\text{standard deviation of Soluble Lead}) \times (\text{standard deviation of Total Lead})]\} \times (\text{number of samples} / (\text{number of samples} - 1))}$

(2) Slope (m) = (r value) x (standard deviation of total lead) / (standard deviation of soluble lead)

(3) Intercept (b) = (average total lead concentration) - (slope (a)) x (average soluble lead level)

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

STLC = Soluble Threshold Limit Concentration

Sample IDs AB-4-1, AB-13-2.5, and AB-14-0.5 were removed from the sample population as outliers.

**Table 4**  
**Summary of Statistical Analysis Results**  
**Total Lead and Soluble Lead by EPA Test Method 6010B**  
**Interstate-15, Afion Road Bridge, San Bernardino County, California**

<b>Parameter</b>	<b>Total Lead</b>	<b>Total Lead Corresponding to Soluble Lead (Cal WET-Citric) Data <sup>(1)</sup></b>	<b>Soluble Lead Data (Cal WET-Citric)</b>
Number of Data Points	48	11	14
Minimum Value	0.5 (mg/kg)	25 (mg/kg)	1.7 (mg/L)
Maximum Detected Value	86 (mg/kg)	71 (mg/kg)	5.1 (mg/L)
Mean	17 (mg/kg)	47 (mg/kg)	2.8 (mg/L)
Median	4.6 (mg/kg)	43 (mg/kg)	2.6 (mg/L)
Standard Deviation	23 (mg/kg)	14 (mg/kg)	1.4 (mg/L)
80% UCL	20 (mg/kg) (2)	51 (mg/kg) (2)	3.0 (mg/L) (2)
80% UCL Method <sup>(3)</sup>	Standard Bootstrap (2)	Standard Bootstrap (2)	Student's-t (2)
95% UCL	22 (mg/kg) (2)	54 (mg/kg) (2)	3.3 (mg/L) (2)
95% UCL Method <sup>(3)</sup>	Standard Bootstrap (2)	Standard Bootstrap (2)	Student's-t (2)
Are Data Normal?	No (2)	No (2)	No (2)
Are Data Lognormal?	No (2)	Yes (2)	Yes (2)

**Notes:**

- (1) A soluble lead test (STLC) was not performed on every sample. As such, a subset of the total data set was created which only includes total lead samples that have both a total lead and soluble lead results.
- (2) Taken from the Environmental Protection Agency's statistical program, ProUCL, Version 3.00.02. Student's-t UCL was used if the data were normal. The standard bootstrap UCL was used if the data were non-parametric.
- (3) If lognormal, the data were transformed using the natural log function (ln|x|) and the mean and UCLs determined using Student's-t. The mean and UCLs were then transformed using the inverse natural log function (e<sup>x</sup>).

mg/kg = milligrams per kilogram  
 mg/L = milligrams per liter  
 STLC = Soluble Threshold Limit Concentration  
 TCLP = Toxicity Characteristic Leaching Procedure

**Table 5**  
**Statistical Analysis by Depth**  
**Interstate-15, Afton Road Bridge, San Bernardino County, California**

<b>Parameter</b>	<b>Total Lead <sup>(1)</sup></b>	<b>Soluble Lead Cal WET-Citric <sup>(2)</sup></b>
<b>0.15 Meter Depth</b>		
Number of Samples	16	
Minimum Result	0.50	
Maximum Result	71	
Mean	23	0.87
Standard Deviation	24	
Variance	580	
80% UCL	28	1.3
95% UCL	33	1.7
Distribution	non-parametric	
<b>0.30 Meter Depth</b>		
Number of Samples	16	
Minimum Result	1.0	
Maximum Result	70	
Mean	18	0.44
Standard Deviation	22	
Variance	470	
80% UCL	23	0.86
95% UCL	27	1.2
Distribution	non-parametric	
<b>0.75 Meter Depths</b>		
Number of Samples	16	
Minimum Result	0.50	
Maximum Result	86	
Mean	9.9	<0.085
Standard Deviation	22	
Variance	500	
80% UCL	14	0.094
95% UCL	19	0.52
Distribution	non-parametric	
<b>0.15 + 0.30 Meter Depths</b>		
Number of Samples	32	
Minimum Result	0.50	
Maximum Result	71	
Mean	21	0.66
Standard Deviation	23	
Variance	520	
80% UCL	24	0.95
95% UCL	27	1.2
Distribution	non-parametric	

**Table 5**  
**Statistical Analysis by Depth**  
**Interstate-15, Afton Road Bridge, San Bernardino County, California**

Parameter	Total Lead <sup>(1)</sup>	Soluble Lead Cal WET-Citric <sup>(2)</sup>
<b>All Depths</b>		
Number of Samples	48	
Minimum Result	0.50	
Maximum Result	86	
Mean	4.6	<0.085
Standard Deviation	23	
Variance	530	
80% UCL	20	0.61
95% UCL	22	0.78
Distribution	non-parametric	
<b>0.30 + 0.75 Meter Depths</b>		
Number of Samples	32	
Minimum Result	0.50	
Maximum Result	86	
Mean	14.0	0.10
Standard Deviation	22.1	
Variance	490	
80% UCL	17	0.35
95% UCL	20	0.61
Distribution	non-parametric	

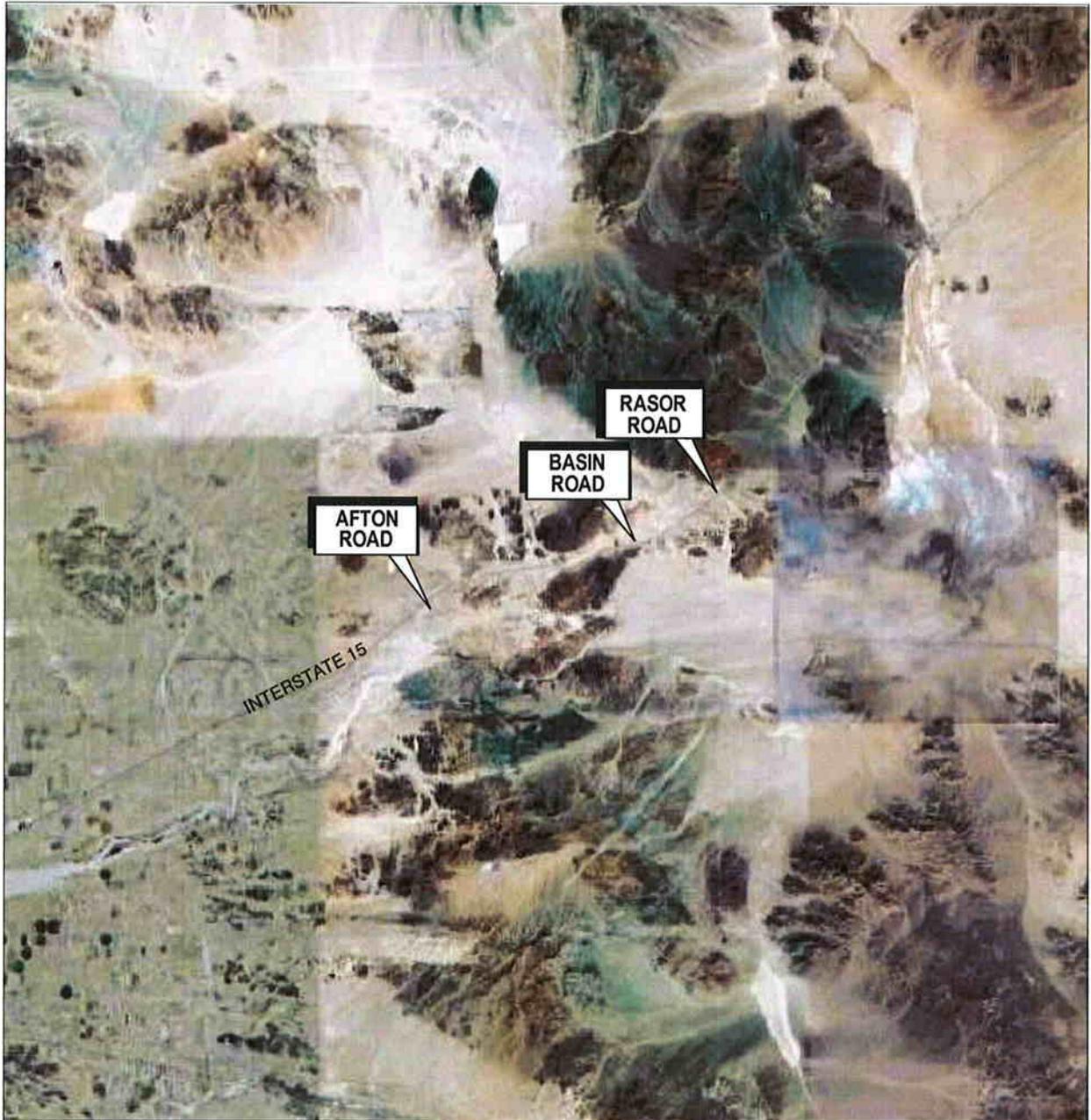
**Notes:**

- (1) Results for total lead are in milligrams per kilogram (mg/kg).
- (2) Soluble Lead Threshold Concentration (STLC) results are in milligrams per liter (mg/L) and were calculated using linear regression analysis (Table 3).

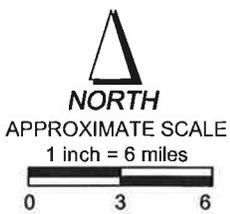
Statistical results were obtained from the Environmental Protection Agency's statistical program, ProUCL, Version 3.00.02. Student's-t UCL was used if the data were normal. The standard bootstrap UCL was used if the data were non-parametric.

If lognormal, the data were transformed using the natural log function (ln[x]) and the mean and UCLs determined using Student's-t. The mean and UCLs were then transformed using the inverse natural log function (e<sup>x</sup>).

## FIGURES



Reference: Google Earth 2009



PHOTOGRAPH LOCATION



25864-F BUSINESS CENTER DRIVE  
REDLANDS, CALIFORNIA  
PH (909) 335-6116 FAX (909) 335-6120

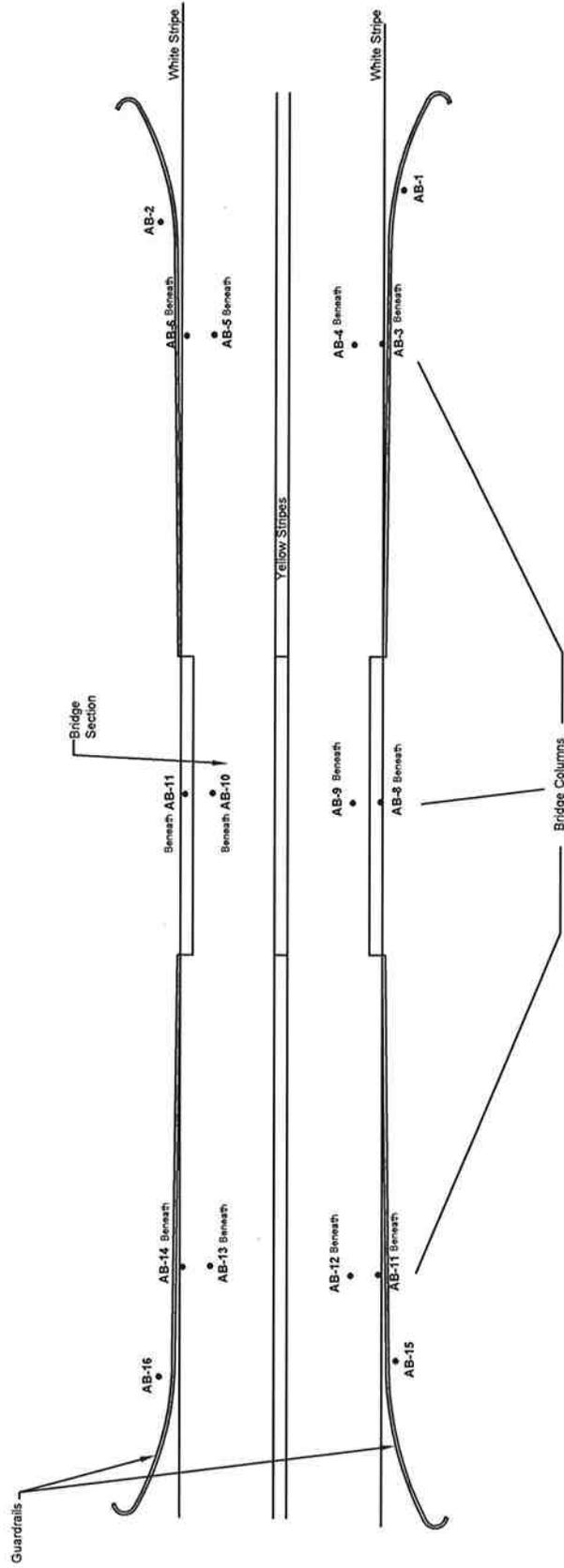
FOR:  
CALTRANS TASK ORDER NO. 26  
THREE BRIDGES ON INTERSTATE 15  
AFTON, BASIN AND RASOR ROADS  
IN SAN BERNARDINO COUNTY

**SITE LOCATION MAP**

FIGURE:

**1**

JOB NUMBER: 185802055	DRAWN BY: KD	CHECKED BY: KD	APPROVED BY: AP	DATE: 11/17/09
--------------------------	-----------------	-------------------	--------------------	-------------------



**LEGEND:**

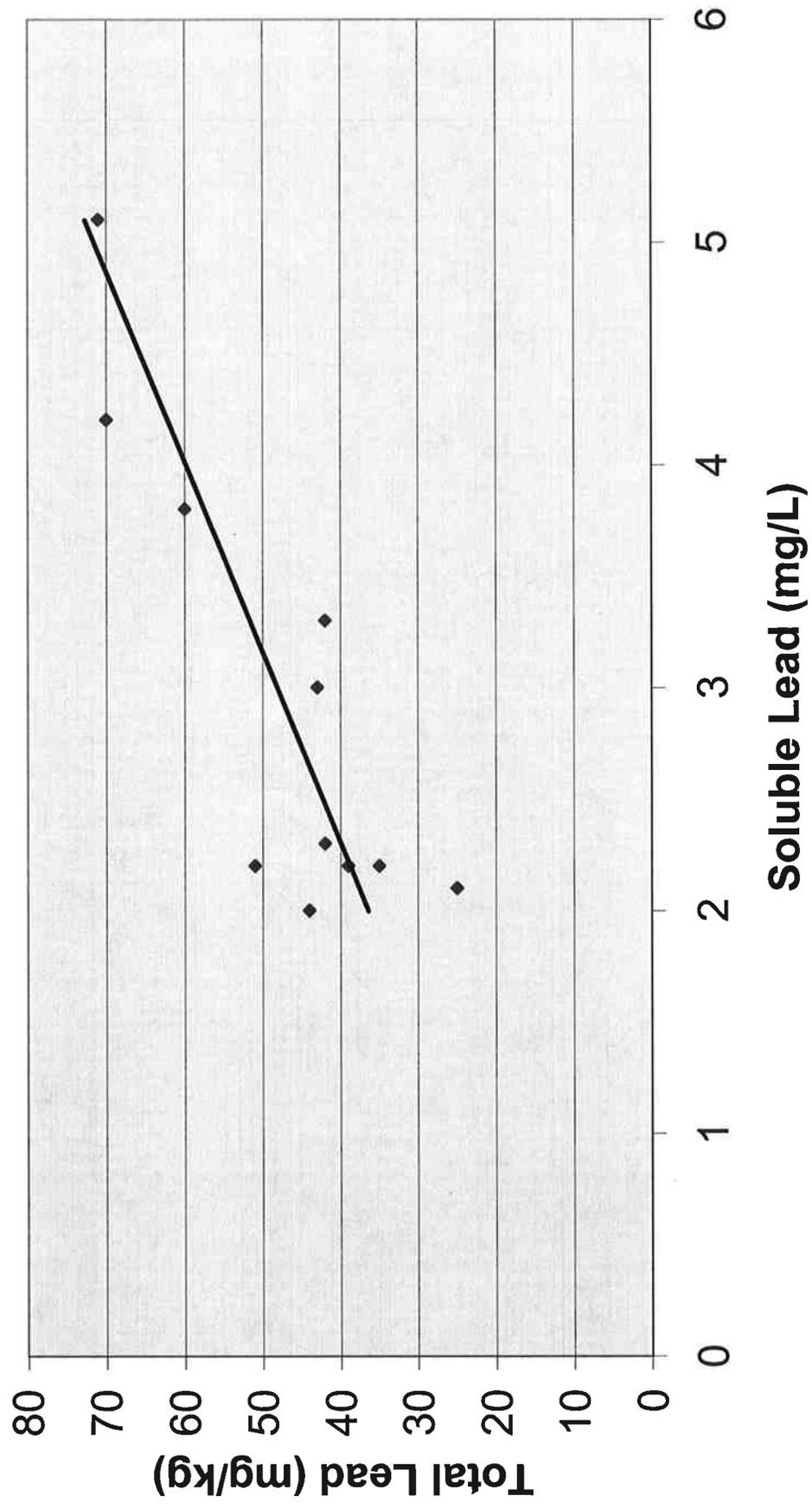
- APPROXIMATE SOIL SAMPLE LOCATION



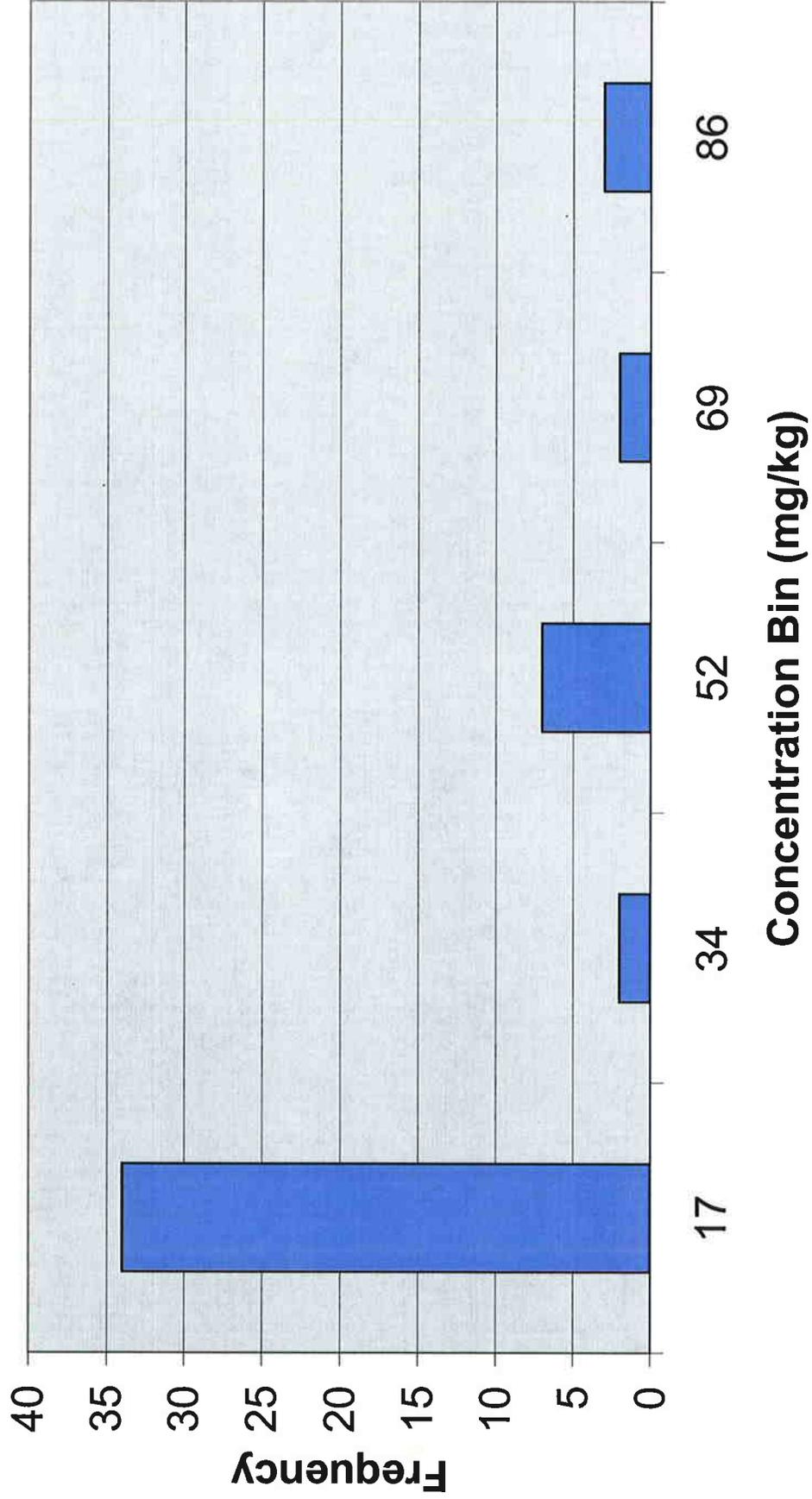
CALTRANS TASK ORDER NO. 26 THREE BRIDGES ON INTERSTATE 15 AFTON ROAD OVERCROSSING IN SAN BERNARDINO COUNTY		SAMPLE LOCATION MAP		FIGURE: <b>2</b>
JOB NUMBER: 185802056	DRAWN BY: KD	CHECKED BY: AP	APPROVED BY:	DATE: 07/10/09

**Figure 3**  
**Linear Regression Analysis**

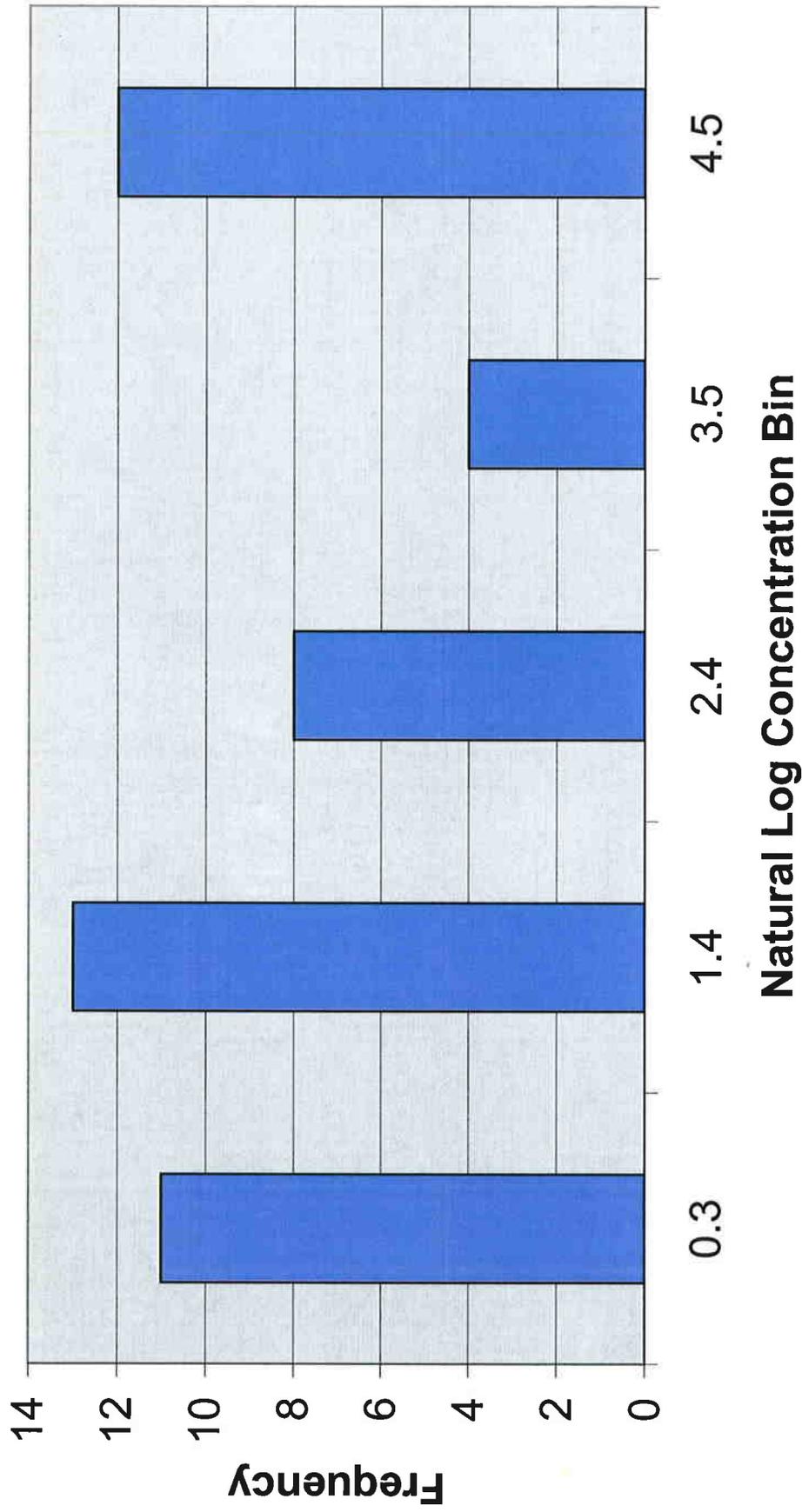
$$y = 11.7x + 12.9$$
$$R^2 = 0.72$$



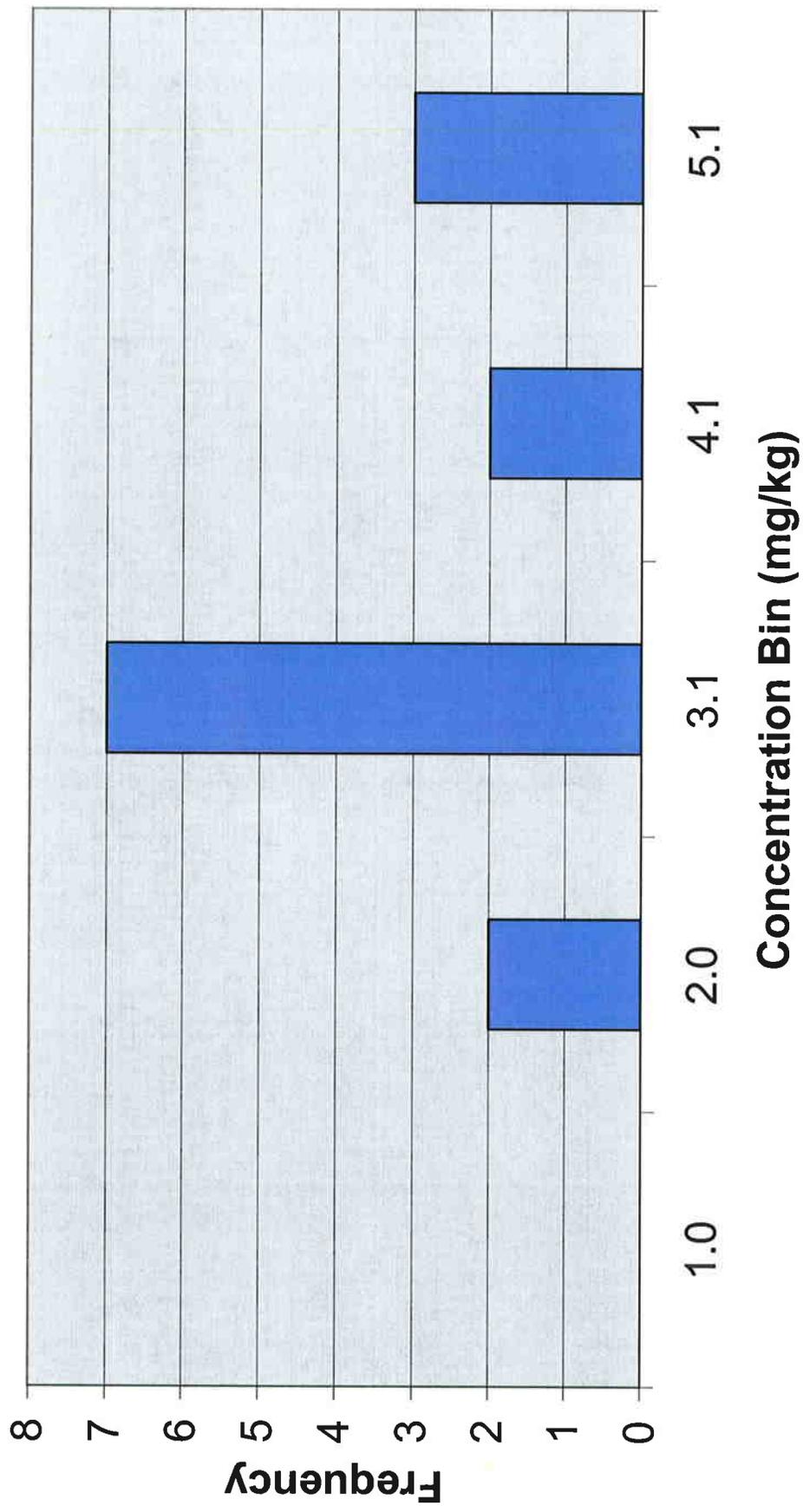
**Figure 4a**  
**Histogram - Total Lead (All Samples)**



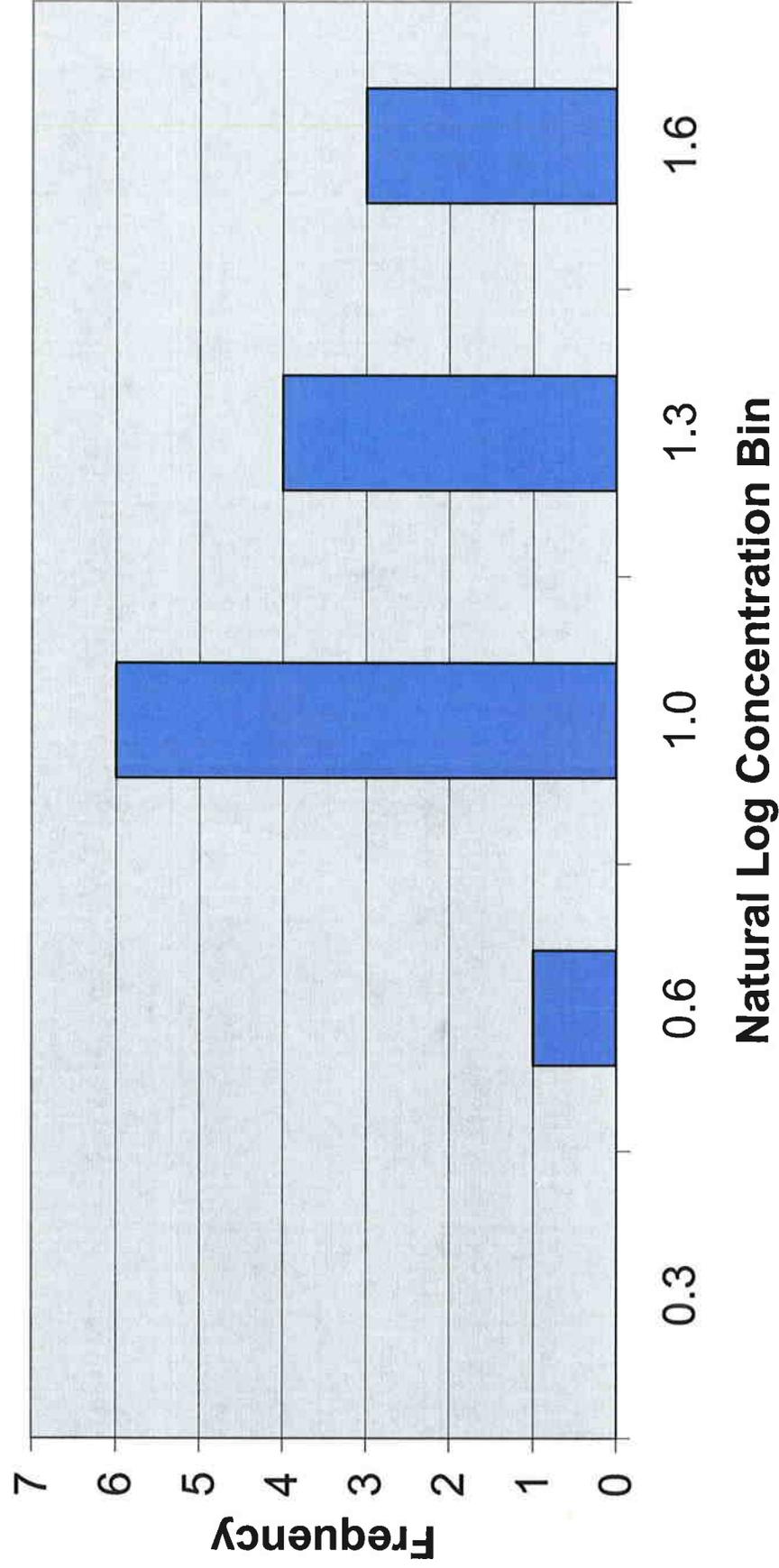
**Figure 4b**  
**Histogram - Total Lead (ln(x) Transformed)**



**Figure 5a**  
**Histogram - Soluble Lead (Cal WET-Citric)**



**Figure 5b**  
**Histogram - Soluble Lead**  
**(Cal WET-Citric  $\ln(x)$  Transformed)**



**FIGURE 22**  
**BLOCK DIAGRAMS**  
**95% and 80% UCLs for**  
**All Areas**

Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 28 UCL <sub>95</sub> = 33	UCL <sub>80</sub> = 1.3 UCL <sub>95</sub> = 1.7
2	UCL <sub>80</sub> = 23 UCL <sub>95</sub> = 27	UCL <sub>80</sub> = 0.86 UCL <sub>95</sub> = 1.2
3	UCL <sub>80</sub> = 14 UCL <sub>95</sub> = 19	UCL <sub>80</sub> = 0.094 UCL <sub>95</sub> = 0.52

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where each layer (0 to 1, 1 to 2, and 2 to 3 feet) is treated independently.

Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 28 UCL <sub>95</sub> = 33	UCL <sub>80</sub> = 1.3 UCL <sub>95</sub> = 1.7
2	UCL <sub>80</sub> = 17 UCL <sub>95</sub> = 20	UCL <sub>80</sub> = 0.35 UCL <sub>95</sub> = 0.61
3		

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where the upper 1 foot is treated independently of an underlying layer ranging from 1 to 3 feet.

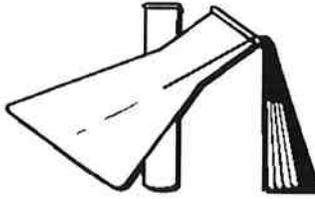
Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 24 UCL <sub>95</sub> = 27	UCL <sub>80</sub> = 0.95 UCL <sub>95</sub> = 1.2
2	UCL <sub>80</sub> = 14 UCL <sub>95</sub> = 19	UCL <sub>80</sub> = 0.094 UCL <sub>95</sub> = 0.52
3		

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where the upper 2 feet is treated independently of an underlying layer ranging from 2 to 3 feet.

Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 20 UCL <sub>95</sub> = 22	UCL <sub>80</sub> = 0.61 UCL <sub>95</sub> = 0.78
2		
3		

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where the entire zone of investigation is treated as a single layer from 0 to 3 feet.

**APPENDIX A**  
**ANALYTICAL LABORATORY REPORTS**



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 1 of 65

Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

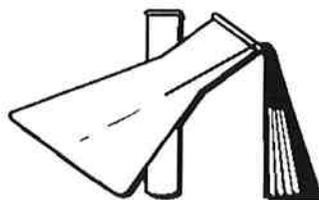
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-1-0.5 (Sample I.D.# : 0906083-01) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	1.5 mg/kg	
<b>AB-1-1 (Sample I.D.# : 0906083-02) Collected: 04-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	< 1.0 mg/kg	
Arsenic	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	11 mg/kg	
Barium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	55 mg/kg	
Beryllium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	< 1.0 mg/kg	
Cadmium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	< 1.0 mg/kg	
Cobalt	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	4.3 mg/kg	
Chromium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	8.3 mg/kg	
Copper	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	7.9 mg/kg	
Molybdenum	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	2.2 mg/kg	
Nickel	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	5.5 mg/kg	
Lead	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	3.5 mg/kg	
Antimony	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	< 5.0 mg/kg	
Selenium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	< 5.0 mg/kg	
Thallium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	< 5.0 mg/kg	
Vanadium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	42 mg/kg	
Zinc	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	19 mg/kg	
Mercury	EPA 7471A	AF90904	0.050	09-Jun-09 (AF)	< 0.050 mg/kg	
<b>AB-1-2.5 (Sample I.D.# : 0906083-03) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	1.2 mg/kg	
<b>AB-2-0.5 (Sample I.D.# : 0906083-04) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	9.6 mg/kg	
<b>AB-2-1 (Sample I.D.# : 0906083-05) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	5.1 mg/kg	
<b>AB-2-2.5 (Sample I.D.# : 0906083-06) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	2.3 mg/kg	
<b>AB-3-0.5 (Sample I.D.# : 0906083-07) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	71 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

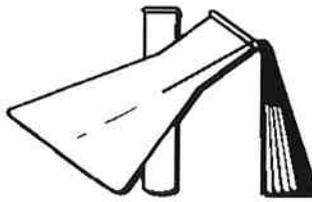
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-3-0.5 (Sample I.D.# : 0906083-07) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B(TCLP)	AF92304	0.02	23-Jun-09 (AF)	0.13 mg/l	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	5.1 mg/l	
pH	EPA 9045B	AF91303	0.1	13-Jun-09 (EA)	9.8 pH Units	
<b>AB-3-1 (Sample I.D.# : 0906083-08) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	12 mg/kg	
<b>AB-3-2.5 (Sample I.D.# : 0906083-09) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	3.8 mg/kg	
<b>AB-4-0.5 (Sample I.D.# : 0906083-10) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	60 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	3.8 mg/l	
pH	EPA 9045B	AF91303	0.1	13-Jun-09 (EA)	9.9 pH Units	
<b>AB-4-1 (Sample I.D.# : 0906083-11) Collected: 04-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	< 1.0 mg/kg	
Arsenic	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	11 mg/kg	
Barium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	27 mg/kg	
Beryllium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	< 1.0 mg/kg	
Cadmium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	< 1.0 mg/kg	
Cobalt	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	2.6 mg/kg	
Chromium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	4.7 mg/kg	
Copper	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	4.8 mg/kg	
Molybdenum	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	1.5 mg/kg	
Nickel	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	3.7 mg/kg	
Lead	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	27 mg/kg	
Antimony	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	< 5.0 mg/kg	
Selenium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	< 5.0 mg/kg	
Thallium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	< 5.0 mg/kg	
Vanadium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	17 mg/kg	
Zinc	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	130 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

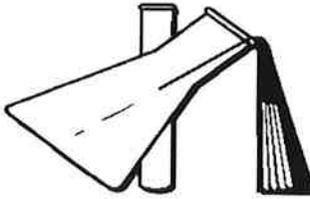
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)		RESULT	NOTE
<b>AB-4-1 (Sample I.D.# : 0906083-11) Collected: 04-Jun-09 By Stantec</b>							
Mercury	EPA 7471A	AF90904	0.050	09-Jun-09 (AF)	<	0.050 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	29-Jun-09 (AF)		3.0 mg/l	
pH	EPA 9045B	AF92906	0.1	29-Jun-09 (MG)		8.4 pH Units	
<b>AB-4-2.5 (Sample I.D.# : 0906083-12) Collected: 04-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		1.2 mg/kg	
<b>AB-5-0.5 (Sample I.D.# : 0906083-13) Collected: 04-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		42 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		3.3 mg/l	
pH	EPA 9045B	AF91303	0.1	13-Jun-09 (EA)		10.1 pH Units	
<b>AB-5-1 (Sample I.D.# : 0906083-14) Collected: 04-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		70 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		4.2 mg/l	
pH	EPA 9045B	AF91303	0.1	13-Jun-09 (EA)		9.8 pH Units	
<b>AB-5-2.5 (Sample I.D.# : 0906083-15) Collected: 04-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		4.1 mg/kg	
<b>AB-6-0.5 (Sample I.D.# : 0906083-16) Collected: 04-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		13 mg/kg	
<b>AB-6-1 (Sample I.D.# : 0906083-17) Collected: 04-Jun-09 By Stantec</b>							
Silver	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg	
Arsenic	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)		12 mg/kg	
Barium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		51 mg/kg	
Beryllium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg	
Cadmium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg	
Cobalt	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		3.5 mg/kg	
Chromium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		6.2 mg/kg	
Copper	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		6.5 mg/kg	
Molybdenum	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		1.7 mg/kg	
Nickel	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		4.8 mg/kg	
Lead	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		9.6 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

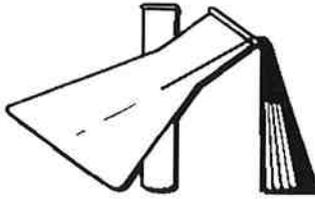
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-6-1 (Sample I.D.# : 0906083-17) Collected: 04-Jun-09 By Stantec</b>						
Antimony	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Selenium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Thallium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Vanadium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		28 mg/kg
Zinc	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		17 mg/kg
Mercury	EPA 7471A	AF90904	0.050	09-Jun-09 (AF)	<	0.050 mg/kg
<b>AB-6-2.5 (Sample I.D.# : 0906083-18) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	<	1.0 mg/kg
<b>AB-7-0.5 (Sample I.D.# : 0906083-19) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	11-Jun-09 (AF)		3.6 mg/kg
<b>AB-7-1 (Sample I.D.# : 0906083-20) Collected: 04-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)		9.8 mg/kg
Barium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		77 mg/kg
Beryllium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		4.7 mg/kg
Chromium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		7.2 mg/kg
Copper	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		8.6 mg/kg
Molybdenum	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		1.5 mg/kg
Nickel	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		5.7 mg/kg
Lead	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		3.2 mg/kg
Antimony	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Selenium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Thallium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Vanadium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		30 mg/kg
Zinc	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		19 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
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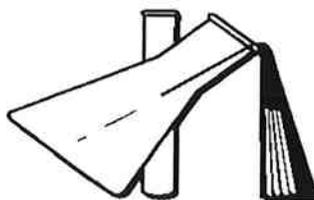
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-7-1 (Sample I.D.# : 0906083-20) Collected: 04-Jun-09 By Stantec</b>						
Mercury	EPA 7471A	AF90904	0.050	09-Jun-09 (AF)	<	0.050 mg/kg
<b>AB-7-2.5 (Sample I.D.# : 0906083-21) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	11-Jun-09 (AF)		2.8 mg/kg
<b>AB-8-0.5 (Sample I.D.# : 0906083-22) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	<	1.0 mg/kg
<b>AB-8-1 (Sample I.D.# : 0906083-23) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		1.0 mg/kg
<b>AB-8-2.5 (Sample I.D.# : 0906083-24) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		1.3 mg/kg
<b>AB-9-0.5 (Sample I.D.# : 0906083-25) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		1.8 mg/kg
<b>AB-9-1 (Sample I.D.# : 0906083-26) Collected: 04-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)		11 mg/kg
Barium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		67 mg/kg
Beryllium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		3.8 mg/kg
Chromium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		6.2 mg/kg
Copper	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		7.9 mg/kg
Molybdenum	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		1.0 mg/kg
Nickel	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		5.5 mg/kg
Lead	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		7.6 mg/kg
Antimony	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Selenium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Thallium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Vanadium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		28 mg/kg
Zinc	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		17 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
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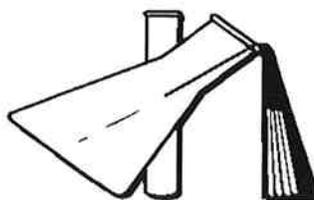
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-9-1 (Sample I.D.# : 0906083-26) Collected: 04-Jun-09 By Stantec</b>						
Mercury	EPA 7471A	AF90904	0.050	09-Jun-09 (AF)	<	0.050 mg/kg
<b>AB-9-2.5 (Sample I.D.# : 0906083-27) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	<	1.0 mg/kg
<b>AB-10-0.5 (Sample I.D.# : 0906083-28) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		1.2 mg/kg
<b>AB-10-1 (Sample I.D.# : 0906083-29) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		1.1 mg/kg
<b>AB-10-2.5 (Sample I.D.# : 0906083-30) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)	<	1.0 mg/kg
<b>AB-11-0.5 (Sample I.D.# : 0906083-31) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		25 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		2.1 mg/l
pH	EPA 9045B	AF91303	0.1	13-Jun-09 (EA)		9.8 pH Units
<b>AB-11-1 (Sample I.D.# : 0906083-32) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		44 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		2.0 mg/l
pH	EPA 9045B	AF92906	0.1	29-Jun-09 (MG)		8.8 pH Units
<b>AB-11-2.5 (Sample I.D.# : 0906083-33) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91018	1.0	12-Jun-09 (AF)		39 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		2.2 mg/l

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
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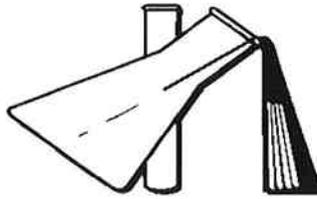
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-11-2.5 (Sample I.D.# : 0906083-33) Collected: 04-Jun-09 By Stantec</b>						
pH	EPA 9045B	AF91303	0.1	13-Jun-09 (EA)	10.0	pH Units
<b>AB-12-0.5 (Sample I.D.# : 0906083-34) Collected: 04-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)		8.9 mg/kg
Barium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		46 mg/kg
Beryllium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		4.2 mg/kg
Chromium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		9.2 mg/kg
Copper	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		8.7 mg/kg
Molybdenum	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		1.1 mg/kg
Nickel	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		6.7 mg/kg
Lead	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		43 mg/kg
Antimony	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Selenium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Thallium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Vanadium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		38 mg/kg
Zinc	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		38 mg/kg
Mercury	EPA 7471A	AF90904	0.050	09-Jun-09 (AF)	<	0.050 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	29-Jun-09 (AF)		3.0 mg/l
pH	EPA 9045B	AF92906	0.1	29-Jun-09 (MG)		8.9 pH Units
<b>AB-12-1 (Sample I.D.# : 0906083-35) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		42 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		2.3 mg/l
pH	EPA 9045B	AF92906	0.1	29-Jun-09 (MG)		8.9 pH Units
<b>AB-12-2.5 (Sample I.D.# : 0906083-36) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		5.2 mg/kg
<b>AB-13-0.5 (Sample I.D.# : 0906083-37) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		35 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

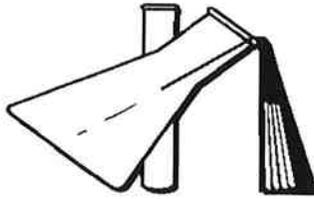
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-13-0.5 (Sample I.D.# : 0906083-37) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	2.2 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)	9.9 pH Units	
<b>AB-13-1 (Sample I.D.# : 0906083-38) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	51 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	2.2 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)	10.0 pH Units	
<b>AB-13-2.5 (Sample I.D.# : 0906083-39) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	86 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	1.7 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)	9.7 pH Units	
<b>AB-14-0.5 (Sample I.D.# : 0906083-40) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	53 mg/kg	
Lead	EPA 6010B(TCLP)	AF92304	0.02	23-Jun-09 (AF)	0.21 mg/l	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	5.1 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)	10.4 pH Units	
<b>AB-14-1 (Sample I.D.# : 0906083-41) Collected: 04-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)		11 mg/kg
Barium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		30 mg/kg
Beryllium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		2.8 mg/kg
Chromium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		4.7 mg/kg
Copper	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		4.1 mg/kg
Molybdenum	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	<	1.0 mg/kg
Nickel	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		3.5 mg/kg
Lead	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)		3.4 mg/kg
Antimony	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Selenium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg
Thallium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	<	5.0 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
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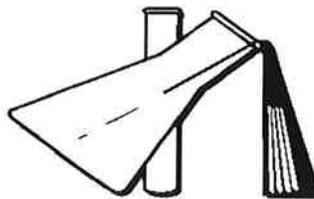
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-14-1 (Sample I.D.# : 0906083-41) Collected: 04-Jun-09 By Stantec</b>						
Vanadium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	18 mg/kg	
Zinc	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	12 mg/kg	
Mercury	EPA 7471A	AF90904	0.050	09-Jun-09 (AF)	< 0.050 mg/kg	
<b>AB-14-2.5 (Sample I.D.# : 0906083-42) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	< 1.0 mg/kg	
<b>AB-15-0.5 (Sample I.D.# : 0906083-43) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	5.8 mg/kg	
<b>AB-15-1 (Sample I.D.# : 0906083-44) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	3.4 mg/kg	
<b>AB-15-2.5 (Sample I.D.# : 0906083-45) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	3.4 mg/kg	
<b>AB-16-0.5 (Sample I.D.# : 0906083-46) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	3.7 mg/kg	
<b>AB-16-1 (Sample I.D.# : 0906083-47) Collected: 04-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	< 1.0 mg/kg	
Arsenic	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	10 mg/kg	
Barium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	84 mg/kg	
Beryllium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	< 1.0 mg/kg	
Cadmium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	< 1.0 mg/kg	
Cobalt	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	7.1 mg/kg	
Chromium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	15 mg/kg	
Copper	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	21 mg/kg	
Molybdenum	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	2.2 mg/kg	
Nickel	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	10 mg/kg	
Lead	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	5.8 mg/kg	
Antimony	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	< 5.0 mg/kg	
Selenium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	< 5.0 mg/kg	
Thallium	EPA 6010B	AF90810	5.0	08-Jun-09 (AF)	< 5.0 mg/kg	
Vanadium	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	54 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
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Subject: Soil Samples

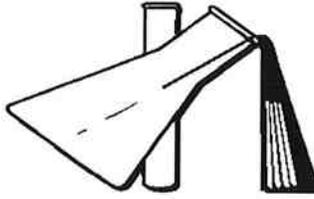
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-16-1 (Sample I.D.# : 0906083-47) Collected: 04-Jun-09 By Stantec</b>						
Zinc	EPA 6010B	AF90810	1.0	08-Jun-09 (AF)	39 mg/kg	
Mercury	EPA 7471A	AF90904	0.050	09-Jun-09 (AF)	< 0.050 mg/kg	
<b>AB-16-2.5 (Sample I.D.# : 0906083-48) Collected: 04-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	6.4 mg/kg	
<b>AB Blank (Sample I.D.# : 0906083-49) Collected: 04-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Arsenic	EPA 6010B	AF90910	0.10	10-Jun-09 (AF)	< 0.10 mg/l	
Barium	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Beryllium	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Cadmium	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Cobalt	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Chromium	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Copper	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Molybdenum	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Nickel	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Lead	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Antimony	EPA 6010B	AF90910	0.10	10-Jun-09 (AF)	< 0.10 mg/l	
Selenium	EPA 6010B	AF90910	0.10	10-Jun-09 (AF)	< 0.10 mg/l	
Thallium	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Vanadium	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Zinc	EPA 6010B	AF90910	0.02	10-Jun-09 (AF)	< 0.02 mg/l	
Mercury	EPA 7470A	AF90905	0.20	10-Jun-09 (AF)	< 0.20 ug/l	
Dichlorodifluoromethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	< 0.5 ug/l	
Chloromethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	< 0.5 ug/l	
Vinyl chloride	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	< 0.5 ug/l	
Bromomethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	< 0.5 ug/l	
Chloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	< 0.5 ug/l	
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	< 0.5 ug/l	
1,1-Dichloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	< 0.5 ug/l	
Acetone	EPA 8260B	AF91015	5.0	10-Jun-09 (PJL)	< 5.0 ug/l	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
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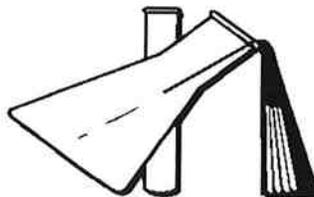
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB Blank (Sample I.D.# : 0906083-49) Collected: 04-Jun-09 By Stantec</b>						
Methylene chloride	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
t-1,2-Dichloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1-Dichloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
2,2-Dichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
c-1,2-Dichloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Chloroform	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1,1-Trichloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
2-Butanone (MEK)	EPA 8260B	AF91015	5.0	10-Jun-09 (PJL)	<	5.0 ug/l
Carbon tetrachloride	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1-Dichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Benzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dichloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Trichloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Dibromomethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Bromodichloromethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
c-1,3-Dichloropropene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Toluene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
t-1,3-Dichloropropene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1,2-Trichloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Methyl isobutyl ketone	EPA 8260B	AF91015	5.0	10-Jun-09 (PJL)	<	5.0 ug/l
Tetrachloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,3-Dichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Dibromochloromethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dibromoethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
2-Hexanone	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Chlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Ethylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
m,p-Xylene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
o-Xylene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
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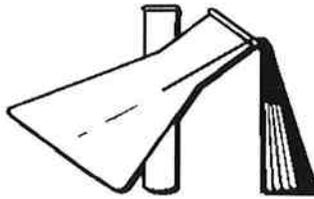
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB Blank (Sample I.D.# : 0906083-49) Collected: 04-Jun-09 By Stantec</b>						
Styrene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Bromoform	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Isopropylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Bromobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2,3-Trichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
n-Propylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
2-Chlorotoluene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,3,5-Trimethylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
4-Chlorotoluene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
tert-Butylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2,4-Trimethylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
sec-Butylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,3-Dichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
p-Isopropyltoluene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,4-Dichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
n-Butylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2,4-Trichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Hexachlorobutadiene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Methyl tert-butyl ether	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Naphthalene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2,3-Trichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Isopropyl alcohol	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
2-Chloroethylvinyl ether	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
Acrolein	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
Acrylonitrile	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
Acetonitrile	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
Surrogate: Dibromofluoromethane	EPA 8260B	AF91015		10-Jun-09 (PJL)		100 % (85-115)
Surrogate: Toluene-d8	EPA 8260B	AF91015		10-Jun-09 (PJL)		100 % (85-115)

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
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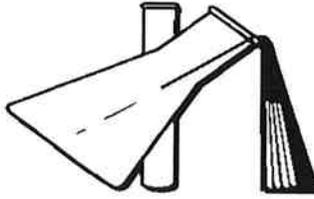
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB Blank (Sample I.D.# : 0906083-49) Collected: 04-Jun-09 By Stantec</b>						
<i>Surrogate: Bromofluorobenzene</i>	<i>EPA 8260B</i>	<i>AF91015</i>		<i>10-Jun-09 (PJL)</i>	<i>97.2 % (85-115)</i>	
<b>AB-1 (Sample I.D.# : 0906083-50) Collected: 04-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

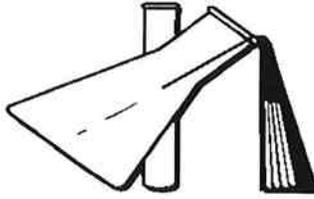
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-1 (Sample I.D.# : 0906083-50) Collected: 04-Jun-09 By Stantec</b>						
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

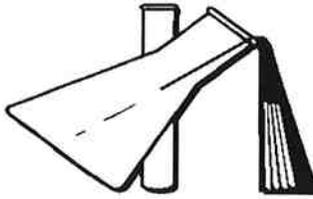
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-1 (Sample I.D.# : 0906083-50) Collected: 04-Jun-09 By Stantec</b>						
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		97.7 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		88.7 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		110 % (85-115)
<b>AB-4 (Sample I.D.# : 0906083-52) Collected: 04-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

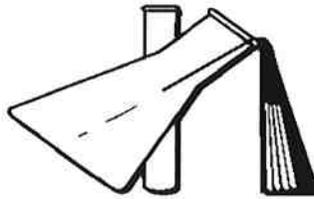
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-4 (Sample I.D.# : 0906083-52) Collected: 04-Jun-09 By Stantec</b>						
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

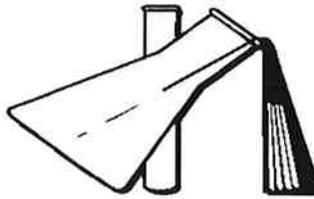
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-4 (Sample I.D.# : 0906083-52) Collected: 04-Jun-09 By Stantec</b>						
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

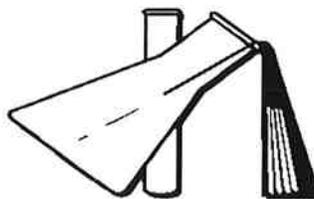
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-4 (Sample I.D.# : 0906083-52) Collected: 04-Jun-09 By Stantec</b>						
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		98.9 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		89.7 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		111 % (85-115)
<b>AB-6 (Sample I.D.# : 0906083-53) Collected: 04-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

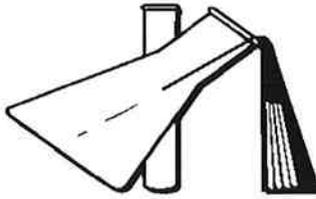
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-6 (Sample I.D.# : 0906083-53) Collected: 04-Jun-09 By Stantec</b>						
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

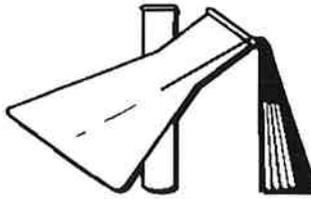
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-6 (Sample I.D.# : 0906083-53) Collected: 04-Jun-09 By Stantec</b>						
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		99.9 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		88.8 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		115 % (85-115)
<b>AB-7 (Sample I.D.# : 0906083-54) Collected: 04-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

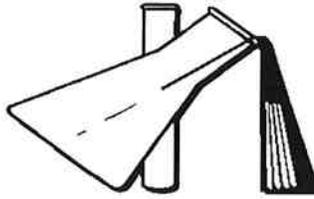
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-7 (Sample I.D.# : 0906083-54) Collected: 04-Jun-09 By Stantec</b>						
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

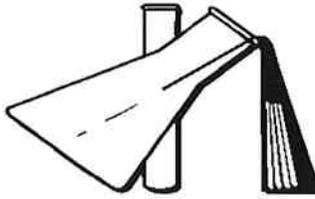
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-7 (Sample I.D.# : 0906083-54) Collected: 04-Jun-09 By Stantec</b>						
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 23 of 65

Attention: **Anne Perez**  
Report Date: **30-Jun-09 21:48**  
Subject: **Soil Samples**

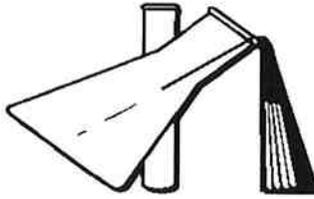
Project/P.O.#: **185802056**

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-7 (Sample I.D.# : 0906083-54) Collected: 04-Jun-09 By Stantec</b>						
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		100 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		89.9 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		109 % (85-115)
<b>AB-9 (Sample I.D.# : 0906083-55) Collected: 04-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

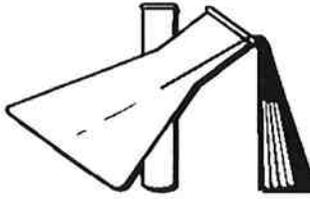
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-9 (Sample I.D.# : 0906083-55) Collected: 04-Jun-09 By Stantec</b>						
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: **Anne Perez**  
Report Date: **30-Jun-09 21:48**  
Subject: **Soil Samples**

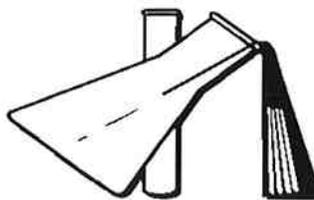
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-9 (Sample I.D.# : 0906083-55) Collected: 04-Jun-09 By Stantec</b>						
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

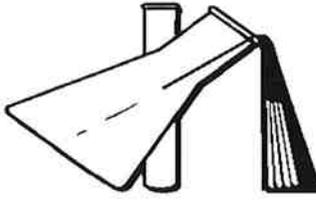
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-9 (Sample I.D.# : 0906083-55) Collected: 04-Jun-09 By Stantec</b>						
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)	100 % (85-115)	
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)	90.3 % (85-115)	
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)	111 % (85-115)	
<b>AB-12 (Sample I.D.# : 0906083-56) Collected: 04-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

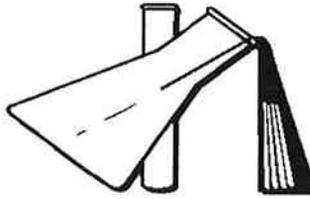
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-12 (Sample I.D.# : 0906083-56) Collected: 04-Jun-09 By Stantec</b>						
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

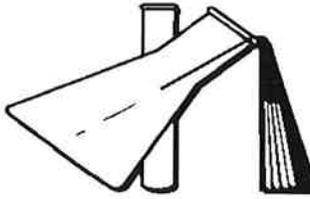
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-12 (Sample I.D.# : 0906083-56) Collected: 04-Jun-09 By Stantec</b>						
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		96.8 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		98.2 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		108 % (85-115)
<b>AB-14 (Sample I.D.# : 0906083-57) Collected: 04-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

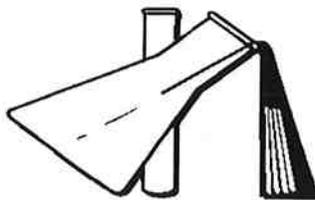
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-14 (Sample I.D.# : 0906083-57) Collected: 04-Jun-09 By Stantec</b>						
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

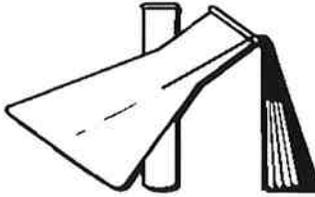
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-14 (Sample I.D.# : 0906083-57) Collected: 04-Jun-09 By Stantec</b>						
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

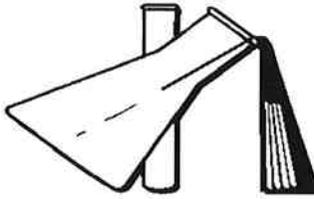
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-14 (Sample I.D.# : 0906083-57) Collected: 04-Jun-09 By Stantec</b>						
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		99.2 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		87.8 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		111 % (85-115)
<b>AB-16 (Sample I.D.# : 0906083-59) Collected: 04-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

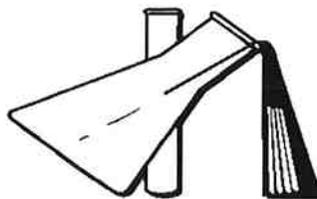
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-16 (Sample I.D.# : 0906083-59) Collected: 04-Jun-09 By Stantec</b>						
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

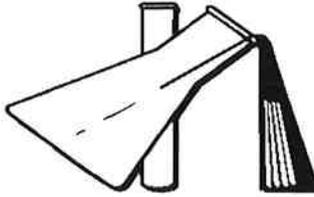
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>AB-16 (Sample I.D.# : 0906083-59) Collected: 04-Jun-09 By Stantec</b>						
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		97.8 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		90.4 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		113 % (85-115)

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 34 of 65

Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90810 - EPA 3050B

#### Blank (AF90810-BLK1)

Prepared & Analyzed: 08-Jun-09

Nickel	ND	1.0	mg/kg							
Arsenic	ND	5.0	"							
Cobalt	ND	1.0	"							
Barium	ND	1.0	"							
Silver	ND	1.0	"							
Copper	ND	1.0	"							
Beryllium	ND	1.0	"							
Antimony	ND	5.0	"							
Selenium	ND	5.0	"							
Molybdenum	ND	1.0	"							
Lead	ND	1.0	"							
Thallium	ND	5.0	"							
Chromium	ND	1.0	"							
Vanadium	ND	1.0	"							
Zinc	ND	1.0	"							
Cadmium	ND	1.0	"							

#### LCS (AF90810-BS1)

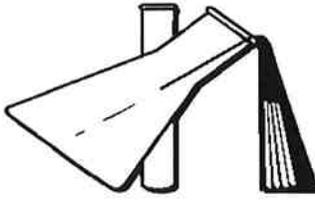
Prepared & Analyzed: 08-Jun-09

Antimony	23.9	5.0	mg/kg	25.0		95.5	80-120			
Arsenic	26.2	5.0	"	25.0		105	80-120			
Nickel	26.7	1.0	"	25.0		107	80-120			
Beryllium	26.2	1.0	"	25.0		105	80-120			
Chromium	26.5	1.0	"	25.0		106	80-120			
Silver	13.5	1.0	"	12.5		108	80-120			
Barium	26.6	1.0	"	25.0		106	80-120			
Cadmium	25.5	1.0	"	25.0		102	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90810 - EPA 3050B

#### LCS (AF90810-BS1)

Prepared & Analyzed: 08-Jun-09

Cobalt	26.7	1.0	"	25.0		107	80-120			
Copper	27.9	1.0	"	25.0		111	80-120			
Lead	26.8	1.0	"	25.0		107	80-120			
Selenium	24.2	5.0	"	25.0		97.0	80-120			
Vanadium	25.8	1.0	"	25.0		103	80-120			
Thallium	26.7	5.0	"	25.0		107	80-120			
Zinc	25.2	1.0	"	25.0		101	80-120			
Molybdenum	25.8	1.0	"	25.0		103	80-120			

#### LCS Dup (AF90810-BSD1)

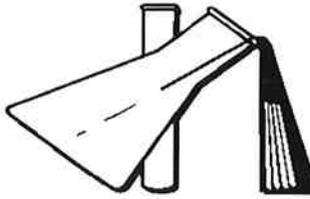
Prepared & Analyzed: 08-Jun-09

Copper	27.2	1.0	mg/kg	25.0		109	80-120	2.37	20	
Arsenic	24.9	5.0	"	25.0		99.5	80-120	5.31	20	
Barium	25.4	1.0	"	25.0		102	80-120	4.48	20	
Zinc	24.4	1.0	"	25.0		97.6	80-120	3.34	20	
Selenium	23.4	5.0	"	25.0		93.6	80-120	3.55	20	
Vanadium	25.0	1.0	"	25.0		99.9	80-120	3.13	20	
Antimony	23.4	5.0	"	25.0		93.4	80-120	2.24	20	
Molybdenum	25.2	1.0	"	25.0		101	80-120	2.51	20	
Silver	12.8	1.0	"	12.5		102	80-120	5.10	20	
Lead	25.9	1.0	"	25.0		104	80-120	3.38	20	
Beryllium	25.5	1.0	"	25.0		102	80-120	2.90	20	
Cobalt	25.4	1.0	"	25.0		102	80-120	4.82	20	
Nickel	25.5	1.0	"	25.0		102	80-120	4.55	20	
Chromium	25.5	1.0	"	25.0		102	80-120	4.13	20	
Thallium	25.7	5.0	"	25.0		103	80-120	3.83	20	
Cadmium	24.5	1.0	"	25.0		98.0	80-120	4.20	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
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Project/P.O.#: 185802056

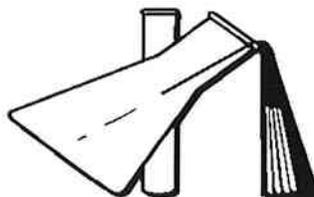
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF90810 - EPA 3050B</b>										
<b>Duplicate (AF90810-DUP1)</b>		<b>Source: 0906083-11</b>			<b>Prepared &amp; Analyzed: 08-Jun-09</b>					
Cadmium	ND	1.0	mg/kg		ND				20	
Nickel	3.58	1.0	"		3.68			2.74	20	
Cobalt	2.61	1.0	"		2.57			1.65	20	
Chromium	4.93	1.0	"		4.74			3.99	20	
Molybdenum	1.34	1.0	"		1.49			10.6	20	
Copper	4.87	1.0	"		4.83			0.935	20	
Barium	28.2	1.0	"		27.2			3.49	20	
Silver	ND	1.0	"		ND				20	
Arsenic	11.8	5.0	"		11.0			7.34	20	
Lead	27.8	1.0	"		26.7			3.97	20	
Beryllium	ND	1.0	"		ND				20	
Zinc	140	1.0	"		135			3.97	20	
Antimony	ND	5.0	"		ND				20	
Vanadium	17.3	1.0	"		17.1			1.34	20	
Selenium	ND	5.0	"		ND				20	
Thallium	ND	5.0	"		ND				20	
<b>Matrix Spike (AF90810-MS1)</b>										
<b>Source: 0906083-11</b>		<b>Prepared &amp; Analyzed: 08-Jun-09</b>								
Beryllium	117	1.0	mg/kg	125	ND	93.3	75-125			
Arsenic	112	5.0	"	125	11.0	80.5	75-125			
Barium	141	1.0	"	125	27.2	90.6	75-125			
Chromium	117	1.0	"	125	4.74	89.8	75-125			
Silver	54.3	1.0	"	62.5	ND	86.9	75-125			
Cadmium	109	1.0	"	125	ND	87.0	75-125			
Cobalt	111	1.0	"	125	2.57	86.9	75-125			
Copper	121	1.0	"	125	4.83	92.9	75-125			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

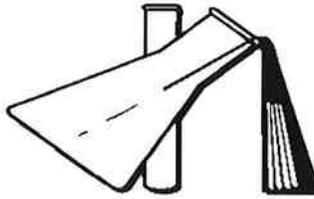
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF90810 - EPA 3050B</b>										
<b>Matrix Spike (AF90810-MS1)</b>			<b>Source: 0906083-11</b>			<b>Prepared &amp; Analyzed: 08-Jun-09</b>				
Selenium	105	5.0	"	125	ND	84.3	75-125			
Thallium	115	1.0	"	125	ND	91.8	75-125			
Lead	138	1.0	"	125	26.7	89.0	75-125			
Vanadium	131	1.0	"	125	17.1	90.8	75-125			
Nickel	114	1.0	"	125	3.68	88.2	75-125			
Zinc	242	1.0	"	125	135	85.7	75-125			
Antimony	100	5.0	"	125	ND	80.4	75-125			
Molybdenum	108	1.0	"	125	1.49	85.1	75-125			
<b>Matrix Spike Dup (AF90810-MSD1)</b>			<b>Source: 0906083-11</b>			<b>Prepared &amp; Analyzed: 08-Jun-09</b>				
Cadmium	112	1.0	mg/kg	125	ND	89.7	75-125	3.02	20	
Barium	145	1.0	"	125	27.2	94.1	75-125	3.04	20	
Selenium	110	5.0	"	125	ND	88.3	75-125	4.65	20	
Zinc	256	1.0	"	125	135	96.6	75-125	5.47	20	
Silver	56.0	1.0	"	62.5	ND	89.6	75-125	2.99	20	
Arsenic	114	5.0	"	125	11.0	82.2	75-125	1.91	20	
Lead	155	1.0	"	125	26.7	103	75-125	11.6	20	
Copper	125	1.0	"	125	4.83	96.0	75-125	3.21	20	
Beryllium	120	1.0	"	125	ND	96.3	75-125	3.18	20	
Vanadium	134	1.0	"	125	17.1	93.1	75-125	2.18	20	
Thallium	105	5.0	"	125	ND	84.3	75-125	8.43	20	
Nickel	117	1.0	"	125	3.68	90.3	75-125	2.20	20	
Chromium	120	1.0	"	125	4.74	91.9	75-125	2.24	20	
Cobalt	114	1.0	"	125	2.57	89.1	75-125	2.44	20	
Molybdenum	112	1.0	"	125	1.49	88.7	75-125	4.10	20	
Antimony	104	5.0	"	125	ND	82.9	75-125	3.06	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
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Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90910 - EPA 200 Series

#### Blank (AF90910-BLK1)

Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Zinc	ND	0.02	mg/l							
Beryllium	ND	0.02	"							
Nickel	ND	0.02	"							
Arsenic	ND	0.10	"							
Barium	ND	0.02	"							
Lead	ND	0.02	"							
Copper	ND	0.02	"							
Silver	ND	0.02	"							
Thallium	ND	0.02	"							
Chromium	ND	0.02	"							
Selenium	ND	0.10	"							
Cobalt	ND	0.02	"							
Molybdenum	ND	0.02	"							
Vanadium	ND	0.02	"							
Antimony	ND	0.10	"							
Cadmium	ND	0.02	"							

#### Blank (AF90910-BLK2)

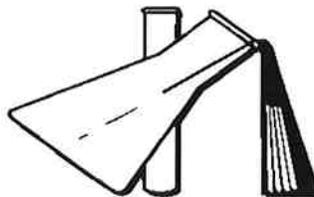
Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Silver	ND	0.02	mg/l							
Arsenic	ND	0.10	"							
Zinc	ND	0.02	"							
Nickel	ND	0.02	"							
Vanadium	ND	0.02	"							
Cobalt	ND	0.02	"							
Thallium	ND	0.02	"							
Selenium	ND	0.10	"							

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Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90910 - EPA 200 Series

#### Blank (AF90910-BLK2)

Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Cadmium	ND	0.02	"							
Molybdenum	ND	0.02	"							
Antimony	ND	0.10	"							
Barium	ND	0.02	"							
Lead	ND	0.02	"							
Chromium	ND	0.02	"							
Beryllium	ND	0.02	"							
Copper	ND	0.02	"							

#### LCS (AF90910-BS1)

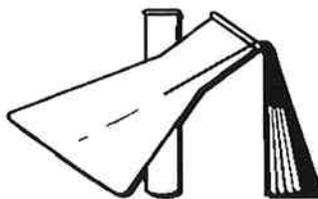
Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Copper	0.519	0.02	mg/l	0.500		104	80-120			
Cobalt	0.519	0.02	"	0.500		104	80-120			
Nickel	0.524	0.02	"	0.500		105	80-120			
Vanadium	0.494	0.02	"	0.500		98.7	80-120			
Molybdenum	0.486	0.02	"	0.500		97.1	80-120			
Thallium	0.518	0.02	"	0.500		104	80-120			
Barium	0.497	0.02	"	0.500		99.4	80-120			
Antimony	0.480	0.10	"	0.500		96.0	80-120			
Selenium	0.496	0.10	"	0.500		99.3	80-120			
Silver	0.222	0.02	"	0.250		88.6	80-120			
Cadmium	0.498	0.02	"	0.500		99.6	80-120			
Beryllium	0.507	0.02	"	0.500		101	80-120			
Chromium	0.511	0.02	"	0.500		102	80-120			
Lead	0.525	0.02	"	0.500		105	80-120			
Arsenic	0.510	0.10	"	0.500		102	80-120			
Zinc	0.496	0.02	"	0.500		99.1	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90910 - EPA 200 Series

#### LCS (AF90910-BS2)

Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Nickel	0.514	0.02	mg/l	0.500		103	80-120			
Lead	0.515	0.02	"	0.500		103	80-120			
Chromium	0.502	0.02	"	0.500		100	80-120			
Copper	0.509	0.02	"	0.500		102	80-120			
Cadmium	0.489	0.02	"	0.500		97.8	80-120			
Molybdenum	0.479	0.02	"	0.500		95.7	80-120			
Silver	0.220	0.02	"	0.250		88.2	80-120			
Thallium	0.510	0.02	"	0.500		102	80-120			
Barium	0.494	0.02	"	0.500		98.9	80-120			
Beryllium	0.498	0.02	"	0.500		99.6	80-120			
Arsenic	0.508	0.10	"	0.500		102	80-120			
Cobalt	0.511	0.02	"	0.500		102	80-120			
Antimony	0.468	0.10	"	0.500		93.6	80-120			
Selenium	0.490	0.10	"	0.500		98.0	80-120			
Zinc	0.487	0.02	"	0.500		97.5	80-120			
Vanadium	0.484	0.02	"	0.500		96.8	80-120			

#### LCS Dup (AF90910-BSD1)

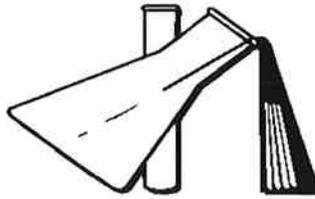
Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Beryllium	0.508	0.02	mg/l	0.500		102	80-120	0.278	20	
Selenium	0.485	0.10	"	0.500		97.1	80-120	2.25	20	
Cadmium	0.488	0.02	"	0.500		97.5	80-120	2.13	20	
Molybdenum	0.477	0.02	"	0.500		95.5	80-120	1.69	20	
Nickel	0.507	0.02	"	0.500		101	80-120	3.32	20	
Antimony	0.462	0.10	"	0.500		92.5	80-120	3.69	20	
Copper	0.514	0.02	"	0.500		103	80-120	0.825	20	
Cobalt	0.497	0.02	"	0.500		99.5	80-120	4.16	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90910 - EPA 200 Series

#### LCS Dup (AF90910-BSD1)

Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Chromium	0.496	0.02	"	0.500		99.1	80-120	3.04	20	
Zinc	0.485	0.02	"	0.500		97.1	80-120	2.09	20	
Lead	0.511	0.02	"	0.500		102	80-120	2.80	20	
Silver	0.216	0.02	"	0.250		86.4	80-120	2.48	20	
Thallium	0.500	0.02	"	0.500		100	80-120	3.54	20	
Barium	0.496	0.02	"	0.500		99.2	80-120	0.172	20	
Arsenic	0.503	0.10	"	0.500		101	80-120	1.22	20	
Vanadium	0.488	0.02	"	0.500		97.5	80-120	1.23	20	

#### LCS Dup (AF90910-BSD2)

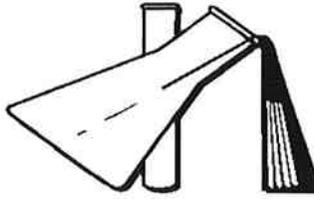
Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Antimony	0.473	0.10	mg/l	0.500		94.6	80-120	1.09	20	
Thallium	0.511	0.02	"	0.500		102	80-120	0.237	20	
Molybdenum	0.488	0.02	"	0.500		97.6	80-120	1.90	20	
Nickel	0.515	0.02	"	0.500		103	80-120	0.217	20	
Zinc	0.493	0.02	"	0.500		98.6	80-120	1.20	20	
Selenium	0.499	0.10	"	0.500		99.7	80-120	1.75	20	
Beryllium	0.507	0.02	"	0.500		101	80-120	1.74	20	
Arsenic	0.513	0.10	"	0.500		103	80-120	1.09	20	
Barium	0.496	0.02	"	0.500		99.1	80-120	0.242	20	
Silver	0.219	0.02	"	0.250		87.7	80-120	0.548	20	
Chromium	0.502	0.02	"	0.500		100	80-120	0.112	20	
Copper	0.517	0.02	"	0.500		103	80-120	1.59	20	
Vanadium	0.490	0.02	"	0.500		98.1	80-120	1.31	20	
Cadmium	0.490	0.02	"	0.500		98.0	80-120	0.277	20	
Cobalt	0.513	0.02	"	0.500		103	80-120	0.357	20	
Lead	0.521	0.02	"	0.500		104	80-120	1.15	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90910 - EPA 200 Series

#### Duplicate (AF90910-DUP1)

Source: 0906083-49

Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Selenium	ND	0.10	mg/l		ND				20	
Molybdenum	ND	0.02	"		ND				20	
Antimony	ND	0.10	"		ND				20	
Nickel	ND	0.02	"		ND				20	
Copper	ND	0.02	"		ND				20	
Vanadium	ND	0.02	"		ND				20	
Barium	ND	0.02	"		ND				20	
Zinc	ND	0.02	"		ND				20	
Silver	ND	0.02	"		ND				20	
Chromium	ND	0.02	"		ND				20	
Arsenic	0.0428	0.10	"		0.0484			12.3	20	
Cadmium	ND	0.02	"		ND				20	
Beryllium	ND	0.02	"		ND				20	
Cobalt	ND	0.02	"		ND				20	
Lead	ND	0.02	"		ND				20	
Thallium	ND	0.02	"		ND				20	

#### Duplicate (AF90910-DUP2)

Source: 0906111-01

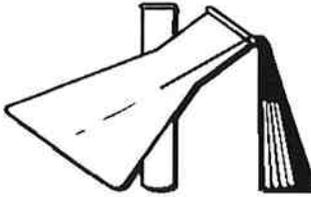
Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Antimony	ND	0.10	mg/l		ND				20	
Molybdenum	2.94	0.02	"		2.90			1.14	20	
Nickel	0.700	0.02	"		0.685			2.18	20	
Cadmium	0.0135	0.02	"		0.0141			4.39	20	
Barium	0.103	0.02	"		0.103			0.247	20	
Chromium	0.350	0.02	"		0.343			2.16	20	
Lead	ND	0.02	"		ND				20	
Thallium	ND	0.02	"		ND				20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90910 - EPA 200 Series

#### Duplicate (AF90910-DUP2)

Source: 0906111-01

Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Selenium	ND	0.10	"		ND				20	
Zinc	0.0895	0.02	"		0.0892			0.315	20	
Vanadium	0.460	0.02	"		0.459			0.336	20	
Cobalt	0.0353	0.02	"		0.0357			1.13	20	
Beryllium	ND	0.02	"		ND				20	
Copper	0.243	0.02	"		0.244			0.270	20	
Arsenic	0.0262	0.10	"		0.0287			9.06	20	
Silver	ND	0.02	"		ND				20	

#### Matrix Spike (AF90910-MS1)

Source: 0906083-49

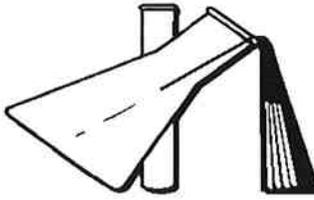
Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Barium	1.00	0.02	mg/l	1.00	ND	100	80-120			
Silver	0.462	0.02	"	0.500	ND	92.4	80-120			
Arsenic	0.988	0.10	"	1.00	0.0484	94.0	80-120			
Cobalt	1.01	0.02	"	1.00	ND	101	80-120			
Copper	1.04	0.02	"	1.00	ND	104	80-120			
Nickel	1.02	0.02	"	1.00	ND	102	80-120			
Antimony	0.956	0.10	"	1.00	ND	95.6	80-120			
Vanadium	0.995	0.02	"	1.00	ND	99.5	75-125			
Beryllium	1.02	0.02	"	1.00	ND	102	80-120			
Selenium	0.988	0.10	"	1.00	ND	98.8	80-120			
Chromium	1.00	0.02	"	1.00	ND	100	80-120			
Cadmium	0.987	0.02	"	1.00	ND	98.7	80-120			
Molybdenum	0.978	0.02	"	1.00	ND	97.8	80-120			
Thallium	1.01	0.02	"	1.00	ND	101	80-120			
Zinc	0.997	0.02	"	1.00	ND	99.7	80-120			
Lead	1.03	0.02	"	1.00	ND	103	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90910 - EPA 200 Series

#### Matrix Spike (AF90910-MS2)

Source: 0906111-01

Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Cobalt	0.985	0.02	mg/l	1.00	0.0357	95.0	80-120			
Zinc	1.07	0.02	"	1.00	0.0892	98.1	80-120			
Vanadium	1.46	0.02	"	1.00	0.459	101	75-125			
Thallium	0.867	0.02	"	1.00	ND	86.7	80-120			
Selenium	0.991	0.10	"	1.00	ND	99.1	80-120			
Beryllium	0.994	0.02	"	1.00	ND	99.4	80-120			
Arsenic	0.986	0.10	"	1.00	0.0287	95.7	80-120			
Nickel	1.66	0.02	"	1.00	0.685	97.1	80-120			
Barium	1.06	0.02	"	1.00	0.103	95.8	80-120			
Chromium	1.31	0.02	"	1.00	0.343	97.2	80-120			
Copper	1.29	0.02	"	1.00	0.244	105	80-120			
Cadmium	0.982	0.02	"	1.00	0.0141	96.8	80-120			
Lead	0.984	0.02	"	1.00	ND	98.4	80-120			
Molybdenum	3.96	0.02	"	1.00	2.90	106	80-120			
Silver	0.448	0.02	"	0.500	ND	89.6	80-120			
Antimony	0.942	0.10	"	1.00	ND	94.2	80-120			

#### Matrix Spike Dup (AF90910-MSD1)

Source: 0906083-49

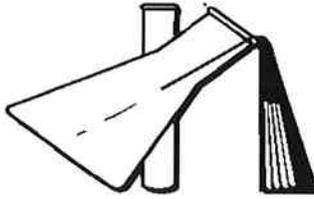
Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Molybdenum	0.965	0.02	mg/l	1.00	ND	96.5	80-120	1.31	20	
Zinc	0.970	0.02	"	1.00	ND	97.0	80-120	2.69	20	
Selenium	0.973	0.10	"	1.00	ND	97.3	80-120	1.53	20	
Lead	1.00	0.02	"	1.00	ND	100	80-120	2.33	20	
Vanadium	0.970	0.02	"	1.00	ND	97.0	75-125	2.52	20	
Cobalt	0.977	0.02	"	1.00	ND	97.7	80-120	2.88	20	
Cadmium	0.960	0.02	"	1.00	ND	96.0	80-120	2.71	20	
Arsenic	0.966	0.10	"	1.00	0.0484	91.7	80-120	2.33	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF90910 - EPA 200 Series

#### Matrix Spike Dup (AF90910-MSD1)

Source: 0906083-49

Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Copper	1.01	0.02	"	1.00	ND	101	80-120	2.56	20	
Chromium	0.973	0.02	"	1.00	ND	97.3	80-120	2.79	20	
Barium	0.973	0.02	"	1.00	ND	97.3	80-120	2.80	20	
Silver	0.477	0.02	"	0.500	ND	95.3	80-120	3.07	20	
Antimony	0.982	0.10	"	1.00	ND	98.2	80-120	2.64	20	
Thallium	0.984	0.02	"	1.00	ND	98.4	80-120	2.46	20	
Nickel	0.994	0.02	"	1.00	ND	99.4	80-120	2.48	20	
Beryllium	0.978	0.02	"	1.00	ND	97.8	80-120	4.19	20	

#### Matrix Spike Dup (AF90910-MSD2)

Source: 0906111-01

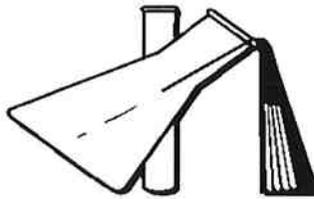
Prepared: 09-Jun-09 Analyzed: 10-Jun-09

Vanadium	1.53	0.02	mg/l	1.00	0.459	107	75-125	4.29	20	
Antimony	0.969	0.10	"	1.00	ND	96.9	80-120	2.86	20	
Arsenic	1.04	0.10	"	1.00	0.0287	101	80-120	5.63	20	
Nickel	1.72	0.02	"	1.00	0.685	103	80-120	3.71	20	
Silver	0.469	0.02	"	0.500	ND	93.9	80-120	4.69	20	
Thallium	0.912	0.02	"	1.00	ND	91.2	80-120	5.06	20	
Lead	1.02	0.02	"	1.00	ND	102	80-120	4.02	20	
Beryllium	1.04	0.02	"	1.00	ND	104	80-120	4.57	20	
Cobalt	1.03	0.02	"	1.00	0.0357	99.7	80-120	4.66	20	
Copper	1.35	0.02	"	1.00	0.244	111	80-120	4.30	20	
Selenium	1.04	0.10	"	1.00	ND	104	80-120	4.33	20	
Molybdenum	4.05	0.02	"	1.00	2.90	114	80-120	2.14	20	
Cadmium	1.02	0.02	"	1.00	0.0141	101	80-120	4.09	20	
Zinc	1.12	0.02	"	1.00	0.0892	103	80-120	4.20	20	
Chromium	1.37	0.02	"	1.00	0.343	103	80-120	3.98	20	
Barium	1.11	0.02	"	1.00	0.103	100	80-120	4.28	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

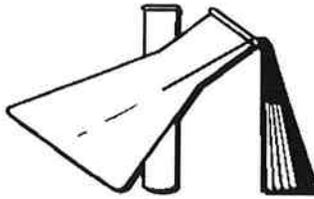
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AF91018 - EPA 3050B</b>										
<b>Blank (AF91018-BLK1)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	ND	1.0	mg/kg							
<b>Blank (AF91018-BLK2)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	ND	1.0	mg/kg							
<b>Blank (AF91018-BLK3)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	ND	1.0	mg/kg							
<b>LCS (AF91018-BS1)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	28.1	1.0	mg/kg	25.0		112	80-120			
<b>LCS (AF91018-BS2)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	27.9	1.0	mg/kg	25.0		112	80-120			
<b>LCS (AF91018-BS3)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	28.3	1.0	mg/kg	25.0		113	80-120			
<b>LCS Dup (AF91018-BSD1)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	28.0	1.0	mg/kg	25.0		112	80-120	0.473	20	
<b>LCS Dup (AF91018-BSD2)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	28.6	1.0	mg/kg	25.0		114	80-120	2.55	20	
<b>LCS Dup (AF91018-BSD3)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	28.5	1.0	mg/kg	25.0		114	80-120	0.572	20	
<b>Duplicate (AF91018-DUP1)</b>				Source: 0906078-90 Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Lead	4.21	1.0	mg/kg		4.10			2.68	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
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Project/P.O.#: 185802056

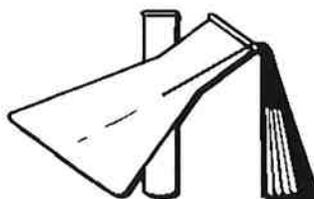
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91018 - EPA 3050B</b>										
<b>Duplicate (AF91018-DUP2)</b> <b>Source: 0906083-19</b> Prepared: 10-Jun-09 Analyzed: 11-Jun-09										
Lead	3.55	1.0	mg/kg		3.60			1.39	20	
<b>Duplicate (AF91018-DUP3)</b> <b>Source: 0906083-21</b> Prepared: 10-Jun-09 Analyzed: 11-Jun-09										
Lead	2.57	1.0	mg/kg		2.78			7.96	20	
<b>Matrix Spike (AF91018-MS1)</b> <b>Source: 0906078-90</b> Prepared: 10-Jun-09 Analyzed: 11-Jun-09										
Lead	126	1.0	mg/kg	125	4.10	97.4	75-125			
<b>Matrix Spike (AF91018-MS2)</b> <b>Source: 0906083-19</b> Prepared: 10-Jun-09 Analyzed: 11-Jun-09										
Lead	127	1.0	mg/kg	125	3.60	98.5	75-125			
<b>Matrix Spike (AF91018-MS3)</b> <b>Source: 0906083-21</b> Prepared: 10-Jun-09 Analyzed: 11-Jun-09										
Lead	107	1.0	mg/kg	125	2.78	83.1	75-125			
<b>Matrix Spike Dup (AF91018-MSD1)</b> <b>Source: 0906078-90</b> Prepared: 10-Jun-09 Analyzed: 11-Jun-09										
Lead	132	1.0	mg/kg	125	4.10	102	75-125	4.59	20	
<b>Matrix Spike Dup (AF91018-MSD2)</b> <b>Source: 0906083-19</b> Prepared: 10-Jun-09 Analyzed: 11-Jun-09										
Lead	126	1.0	mg/kg	125	3.60	97.9	75-125	0.514	20	
<b>Matrix Spike Dup (AF91018-MSD3)</b> <b>Source: 0906083-21</b> Prepared: 10-Jun-09 Analyzed: 11-Jun-09										
Lead	109	1.0	mg/kg	125	2.78	85.3	75-125	2.57	20	
<b>Batch AF91106 - EPA 3050B</b>										
<b>Blank (AF91106-BLK1)</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	ND	1.0	mg/kg							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

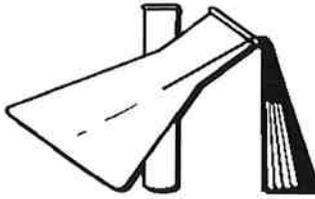
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AF91106 - EPA 3050B</b>										
<b>Blank (AF91106-BLK2)</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	ND	1.0	mg/kg							
<b>Blank (AF91106-BLK3)</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	ND	1.0	mg/kg							
<b>LCS (AF91106-BS1)</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	24.6	1.0	mg/kg	25.0		98.6	80-120			
<b>LCS (AF91106-BS2)</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	24.4	1.0	mg/kg	25.0		97.5	80-120			
<b>LCS (AF91106-BS3)</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	24.2	1.0	mg/kg	25.0		96.8	80-120			
<b>LCS Dup (AF91106-BSD1)</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	24.6	1.0	mg/kg	25.0		98.3	80-120	0.302	20	
<b>LCS Dup (AF91106-BSD2)</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	24.9	1.0	mg/kg	25.0		99.7	80-120	2.26	20	
<b>LCS Dup (AF91106-BSD3)</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	24.7	1.0	mg/kg	25.0		99.0	80-120	2.18	20	
<b>Duplicate (AF91106-DUP1)</b> Source: 0906083-35 Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	42.0	1.0	mg/kg		42.5			1.17	20	
<b>Duplicate (AF91106-DUP2)</b> Source: 0906118-01 Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	5.64	1.0	mg/kg		5.96			5.50	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

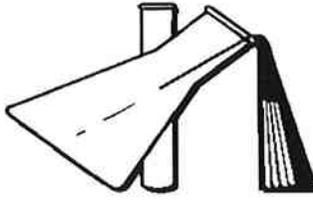
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91106 - EPA 3050B</b>										
<b>Duplicate (AF91106-DUP3)</b> <b>Source: 0906118-02</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	6.46	1.0	mg/kg		5.68			13.0	20	
<b>Matrix Spike (AF91106-MS1)</b> <b>Source: 0906083-35</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	145	1.0	mg/kg	125	42.5	82.3	75-125			
<b>Matrix Spike (AF91106-MS2)</b> <b>Source: 0906118-01</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	117	1.0	mg/kg	125	5.96	88.9	75-125			
<b>Matrix Spike (AF91106-MS3)</b> <b>Source: 0906118-02</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	126	1.0	mg/kg	125	5.68	96.0	75-125			
<b>Matrix Spike Dup (AF91106-MSD1)</b> <b>Source: 0906083-35</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	154	1.0	mg/kg	125	42.5	89.1	75-125	5.65	20	
<b>Matrix Spike Dup (AF91106-MSD2)</b> <b>Source: 0906118-01</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	115	1.0	mg/kg	125	5.96	87.4	75-125	1.60	20	
<b>Matrix Spike Dup (AF91106-MSD3)</b> <b>Source: 0906118-02</b> Prepared: 11-Jun-09 Analyzed: 12-Jun-09										
Lead	131	1.0	mg/kg	125	5.68	99.9	75-125	3.81	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

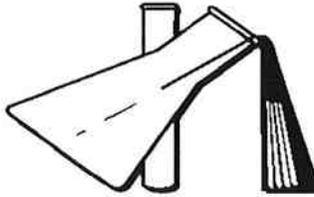
## RCRA Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AF90904 - EPA 3050B</b>										
<b>Blank (AF90904-BLK1)</b>				Prepared & Analyzed: 09-Jun-09						
Mercury	ND	0.050	mg/kg							
<b>LCS (AF90904-BS1)</b>				Prepared & Analyzed: 09-Jun-09						
Mercury	0.980	0.050	mg/kg	1.00		98.0	85-115			
<b>LCS Dup (AF90904-BSD1)</b>				Prepared & Analyzed: 09-Jun-09						
Mercury	1.01	0.050	mg/kg	1.00		101	85-115	2.75	15	
<b>Duplicate (AF90904-DUP1)</b>				Source: 0906083-11 Prepared & Analyzed: 09-Jun-09						
Mercury	0.00947	0.050	mg/kg		0.00904			4.64	20	
<b>Matrix Spike (AF90904-MS1)</b>				Source: 0906083-11 Prepared & Analyzed: 09-Jun-09						
Mercury	0.989	0.050	mg/kg	1.00	0.00904	98.0	70-120			
<b>Matrix Spike Dup (AF90904-MSD1)</b>				Source: 0906083-11 Prepared & Analyzed: 09-Jun-09						
Mercury	1.01	0.050	mg/kg	1.00	0.00904	100	70-120	1.95	20	
<b>Batch AF90905 - EPA 7470A</b>										
<b>Blank (AF90905-BLK1)</b>				Prepared: 09-Jun-09 Analyzed: 10-Jun-09						
Mercury	ND	0.20	ug/l							
<b>LCS (AF90905-BS1)</b>				Prepared: 09-Jun-09 Analyzed: 10-Jun-09						
Mercury	5.40	0.20	ug/l	5.00		108	85-115			
<b>LCS Dup (AF90905-BSD1)</b>				Prepared: 09-Jun-09 Analyzed: 10-Jun-09						
Mercury	5.37	0.20	ug/l	5.00		107	85-115	0.439	15	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

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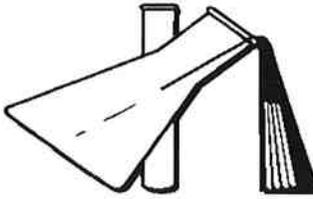
## RCRA Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF90905 - EPA 7470A</b>										
<b>Duplicate (AF90905-DUP1)</b> <b>Source: 0906045-01</b> Prepared: 09-Jun-09 Analyzed: 10-Jun-09										
Mercury	ND	0.20	ug/l		ND				20	
<b>Matrix Spike (AF90905-MS1)</b> <b>Source: 0906045-01</b> Prepared: 09-Jun-09 Analyzed: 10-Jun-09										
Mercury	5.34	0.20	ug/l	5.00	ND	107	75-125			
<b>Matrix Spike Dup (AF90905-MSD1)</b> <b>Source: 0906045-01</b> Prepared: 09-Jun-09 Analyzed: 10-Jun-09										
Mercury	5.39	0.20	ug/l	5.00	ND	108	75-125	1.04	20	

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Attention: Anne Perez  
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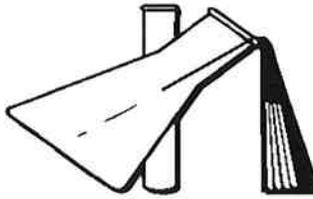
## TCLP Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF92304 - Title 22-STLC</b>										
<b>Blank (AF92304-BLK1)</b>				Prepared & Analyzed: 23-Jun-09						
Lead	ND	0.02	mg/l							
<b>LCS (AF92304-BS1)</b>				Prepared & Analyzed: 23-Jun-09						
Lead	0.522	0.02	mg/l	0.500		104	80-120			
<b>LCS Dup (AF92304-BSD1)</b>				Prepared & Analyzed: 23-Jun-09						
Lead	0.548	0.02	mg/l	0.500		110	80-120	4.89	20	
<b>Duplicate (AF92304-DUP1)</b>				Source: 0906083-40 Prepared & Analyzed: 23-Jun-09						
Lead	0.209	0.02	mg/l		0.210			0.612	20	
<b>Matrix Spike (AF92304-MS1)</b>				Source: 0906083-40 Prepared & Analyzed: 23-Jun-09						
Lead	1.18	0.02	mg/l	1.00	0.210	97.0	75-125			
<b>Matrix Spike Dup (AF92304-MSD1)</b>				Source: 0906083-40 Prepared & Analyzed: 23-Jun-09						
Lead	1.21	0.02	mg/l	1.00	0.210	99.8	75-125	2.32	20	

Respectfully Submitted,

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Attention: Anne Perez  
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Project/P.O.#: 185802056

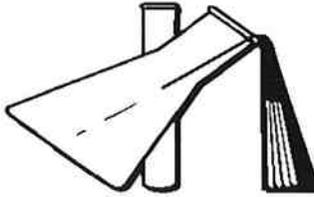
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AF91713 - Title 22-STLC</b>										
<b>Blank (AF91713-BLK1)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	ND	0.20	mg/l							
<b>Blank (AF91713-BLK2)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	ND	0.20	mg/l							
<b>LCS (AF91713-BS1)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	5.57	0.20	mg/l	5.00	111	80-120				
<b>LCS (AF91713-BS2)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	5.30	0.20	mg/l	5.00	106	80-120				
<b>LCS Dup (AF91713-BSD1)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	5.34	0.20	mg/l	5.00	107	80-120	4.14	20		
<b>LCS Dup (AF91713-BSD2)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	5.37	0.20	mg/l	5.00	107	80-120	1.18	20		
<b>Duplicate (AF91713-DUP1)</b>				Source: 0906078-07 Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	3.99	0.20	mg/l		3.99		0.234	20		
<b>Duplicate (AF91713-DUP2)</b>				Source: 0906083-10 Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	3.78	0.20	mg/l		3.81		0.754	20		
<b>Matrix Spike (AF91713-MS1)</b>				Source: 0906078-07 Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	13.4	0.20	mg/l	10.0	3.99	94.5	80-120			
<b>Matrix Spike (AF91713-MS2)</b>				Source: 0906083-10 Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	12.9	0.20	mg/l	10.0	3.81	90.8	80-120			

Respectfully Submitted,

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Laboratory Director

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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

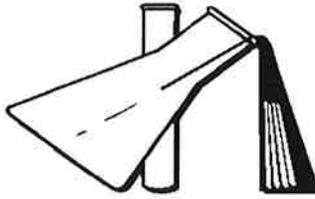
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91713 - Title 22-STLC</b>										
<b>Matrix Spike Dup (AF91713-MSD1)</b> <b>Source: 0906078-07</b> Prepared: 17-Jun-09 Analyzed: 18-Jun-09										
Lead	13.3	0.20	mg/l	10.0	3.99	93.5	80-120	0.762	20	
<b>Matrix Spike Dup (AF91713-MSD2)</b> <b>Source: 0906083-10</b> Prepared: 17-Jun-09 Analyzed: 18-Jun-09										
Lead	13.3	0.20	mg/l	10.0	3.81	94.6	80-120	2.93	20	

Respectfully Submitted,

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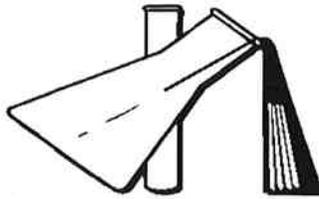
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91010 - Volatiles</b>										
<b>Blank (AF91010-BLK1)</b>										
Prepared & Analyzed: 10-Jun-09										
Surrogate: Toluene-d8	49.3		ug/kg	50.0		98.6	85-115			
Surrogate: Bromofluorobenzene	42.8		"	50.0		85.6	85-115			
Surrogate: Dibromofluoromethane	55.2		"	50.0		110	85-115			
Bromochloromethane	ND	0.1	"							
Dichlorodifluoromethane	ND	0.1	"							
Chloromethane	ND	0.1	"							
Vinyl chloride	ND	0.1	"							
Bromomethane	ND	0.1	"							
Chloroethane	ND	0.1	"							
Trichlorofluoromethane (Freon 11)	ND	0.1	"							
1,1-Dichloroethene	ND	0.1	"							
Acetone	ND	1.0	"							
Methylene chloride	ND	0.1	"							
t-1,2-Dichloroethene	ND	0.1	"							
1,1-Dichloroethane	ND	0.1	"							
2,2-Dichloropropane	ND	0.1	"							
c-1,2-Dichloroethene	ND	0.1	"							
Chloroform	ND	0.1	"							
1,1,1-Trichloroethane	ND	0.1	"							
2-Butanone (MEK)	ND	1.0	"							
Carbon tetrachloride	ND	0.1	"							
1,1-Dichloropropane	ND	0.1	"							
Benzene	ND	0.1	"							
1,2-Dichloroethane	ND	0.1	"							
Trichloroethene	ND	0.1	"							

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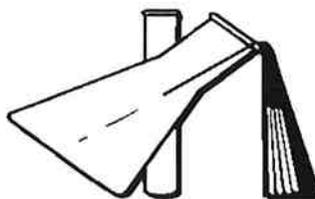
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91010 - Volatiles</b>										
<b>Blank (AF91010-BLK1)</b>				Prepared & Analyzed: 10-Jun-09						
1,2-Dichloropropane	ND	0.1	"							
Dibromomethane	ND	0.1	"							
Bromodichloromethane	ND	0.1	"							
c-1,3-Dichloropropene	ND	0.1	"							
Toluene	ND	0.1	"							
t-1,3-Dichloropropene	ND	0.1	"							
Methyl isobutyl ketone	ND	1.0	"							
1,1,2-Trichloroethane	ND	0.1	"							
1,2-Dibromoethane (EDB)	ND	0.1	"							
Tetrachloroethene	ND	0.1	"							
1,3-Dichloropropane	ND	0.1	"							
Dibromochloromethane	ND	0.1	"							
1,2-Dibromoethane	ND	0.1	"							
2-Hexanone	ND	0.1	"							
Chlorobenzene	ND	0.1	"							
1,1,1,2-Tetrachloroethane	ND	0.1	"							
Ethylbenzene	ND	0.1	"							
m,p-Xylene	ND	0.1	"							
o-Xylene	ND	0.1	"							
Styrene	ND	0.1	"							
Bromoform	ND	0.1	"							
Isopropylbenzene	ND	0.1	"							
Bromobenzene	ND	0.1	"							
1,1,1,2,2-Tetrachloroethane	ND	0.1	"							
1,2,3-Trichloropropane	ND	0.1	"							
n-Propylbenzene	ND	0.1	"							

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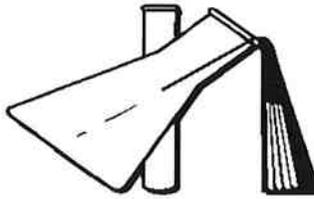
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91010 - Volatiles</b>										
<b>Blank (AF91010-BLK1)</b>				Prepared & Analyzed: 10-Jun-09						
2-Chlorotoluene	ND	0.1	"							
1,3,5-Trimethylbenzene	ND	0.1	"							
1,1-Dichloropropene	ND	0.1	"							
4-Chlorotoluene	ND	0.1	"							
tert-Butylbenzene	ND	0.1	"							
1,2,4-Trimethylbenzene	ND	0.1	"							
sec-Butylbenzene	ND	0.1	"							
1,3-Dichlorobenzene	ND	0.1	"							
p-Isopropyltoluene	ND	0.1	"							
1,4-Dichlorobenzene	ND	0.1	"							
n-Butylbenzene	ND	0.1	"							
1,2-Dichlorobenzene	ND	0.1	"							
1,2-Dibromo-3-chloropropane	ND	0.1	"							
Trichlorotrifluoroethane (Freon 113)	ND	0.1	"							
1,2-Dichloropropylene	ND	0.1	"							
1,2,4-Trichlorobenzene	ND	0.1	"							
Hexachlorobutadiene	ND	0.1	"							
Naphthalene	ND	0.1	"							
1,2,3-Trichlorobenzene	ND	0.1	"							
Isopropyl alcohol	ND	2.0	"							
Acrolein	ND	2.0	"							
2-Chloroethylvinyl ether	ND	2.0	"							
Acrylonitrile	ND	2.0	"							
Methyl tert-butyl ether	ND	0.1	"							
Vinyl acetate	ND	2.0	"							
Tert-butyl alcohol	ND	0.4	"							

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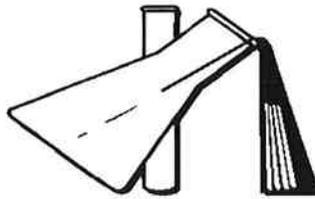
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AF91010 - Volatiles</b>										
<b>Blank (AF91010-BLK1)</b>										
Prepared & Analyzed: 10-Jun-09										
Ethyl tert-butyl ether	ND	0.1	"							
Tert-amyl methyl ether	ND	0.1	"							
Di-isopropyl ether	ND	0.1	"							
<b>LCS (AF91010-BS1)</b>										
Prepared & Analyzed: 10-Jun-09										
Surrogate: Toluene-d8	49.1		ug/kg	50.0		98.2	85-115			
Surrogate: Bromofluorobenzene	43.5		"	50.0		87.0	85-115			
Surrogate: Dibromofluoromethane	53.3		"	50.0		107	85-115			
1,1-Dichloroethene	23.6	0.1	"	25.0		94.2	80-120			
Benzene	26.2	0.1	"	25.0		105	80-120			
Trichloroethene	22.8	0.1	"	25.0		91.3	80-120			
Toluene	26.0	0.1	"	25.0		104	80-120			
Chlorobenzene	22.5	0.1	"	25.0		90.0	80-120			
<b>LCS Dup (AF91010-BSD1)</b>										
Prepared & Analyzed: 10-Jun-09										
Surrogate: Toluene-d8	47.0		ug/kg	50.0		94.0	85-115			
Surrogate: Bromofluorobenzene	44.0		"	50.0		88.0	85-115			
Surrogate: Dibromofluoromethane	49.0		"	50.0		98.0	85-115			
1,1-Dichloroethene	22.6	0.1	"	25.0		90.2	80-120	4.34	20	
Benzene	24.0	0.1	"	25.0		96.1	80-120	8.83	20	
Trichloroethene	23.0	0.1	"	25.0		92.0	80-120	0.785	20	
Toluene	24.3	0.1	"	25.0		97.2	80-120	6.68	20	
Chlorobenzene	23.1	0.1	"	25.0		92.4	80-120	2.63	20	
<b>Matrix Spike (AF91010-MS1)</b>										
Source: 0906118-50 Prepared & Analyzed: 10-Jun-09										
Surrogate: Toluene-d8	49.0		ug/kg	50.0		97.9	85-115			

Respectfully Submitted,

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Laboratory Director

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Attention: Anne Perez  
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Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91010 - Volatiles

#### Matrix Spike (AF91010-MS1)

Source: 0906118-50

Prepared & Analyzed: 10-Jun-09

Surrogate: Bromofluorobenzene	42.8		"	50.0		85.7	85-115			
Surrogate: Dibromofluoromethane	52.6		"	50.0		105	85-115			
1,1-Dichloroethene	25.5	0.1	"	25.0	ND	102	80-120			
Benzene	25.6	0.1	"	25.0	ND	102	80-120			
Trichloroethene	22.6	0.1	"	25.0	ND	90.2	80-120			
Toluene	26.0	0.1	"	25.0	ND	104	80-120			
Chlorobenzene	23.4	0.1	"	25.0	ND	93.5	80-120			

#### Matrix Spike Dup (AF91010-MSD1)

Source: 0906118-50

Prepared & Analyzed: 10-Jun-09

Surrogate: Toluene-d8	50.1		ug/kg	50.0		100	85-115			
Surrogate: Bromofluorobenzene	42.7		"	50.0		85.4	85-115			
Surrogate: Dibromofluoromethane	53.7		"	50.0		107	85-115			
1,1-Dichloroethene	26.0	0.1	"	25.0	ND	104	80-120	1.83	20	
Benzene	27.7	0.1	"	25.0	ND	111	80-120	7.89	20	
Trichloroethene	24.2	0.1	"	25.0	ND	96.7	80-120	6.89	20	
Toluene	27.0	0.1	"	25.0	ND	108	80-120	3.85	20	
Chlorobenzene	23.7	0.1	"	25.0	ND	94.6	80-120	1.19	20	

### Batch AF91015 - Volatiles

#### Blank (AF91015-BLK1)

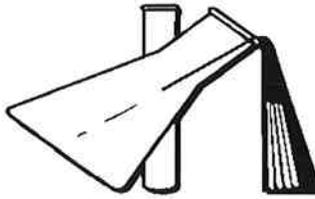
Prepared & Analyzed: 10-Jun-09

Surrogate: Dibromofluoromethane	50.2		ug/l	50.0		100	85-115			
Surrogate: Toluene-d8	50.0		"	50.0		99.9	85-115			
Surrogate: Bromofluorobenzene	48.4		"	50.0		96.8	85-115			
Dichlorodifluoromethane	ND	0.5	"							
Chloromethane	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 60 of 65

Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

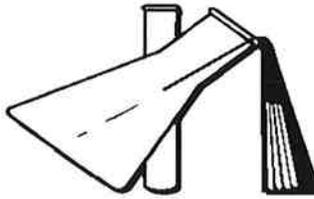
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91015 - Volatiles</b>										
<b>Blank (AF91015-BLK1)</b>				Prepared & Analyzed: 10-Jun-09						
Vinyl chloride	ND	0.5	"							
Bromomethane	ND	0.5	"							
Chloroethane	ND	0.5	"							
Trichlorofluoromethane (Freon 11)	ND	0.5	"							
1,1-Dichloroethene	ND	0.5	"							
Acetone	ND	5.0	"							
Methylene chloride	ND	0.5	"							
t-1,2-Dichloroethene	ND	0.5	"							
1,1-Dichloroethane	ND	0.5	"							
2,2-Dichloropropane	ND	0.5	"							
c-1,2-Dichloroethene	ND	0.5	"							
Chloroform	ND	0.5	"							
1,1,1-Trichloroethane	ND	0.5	"							
2-Butanone (MEK)	ND	5.0	"							
Carbon tetrachloride	ND	0.5	"							
1,1-Dichloropropane	ND	0.5	"							
Benzene	ND	0.5	"							
1,2-Dichloroethane	ND	0.5	"							
Trichloroethene	ND	0.5	"							
1,2-Dichloropropane	ND	0.5	"							
Dibromomethane	ND	0.5	"							
Bromodichloromethane	ND	0.5	"							
c-1,3-Dichloropropene	ND	0.5	"							
Toluene	ND	0.5	"							
t-1,3-Dichloropropene	ND	0.5	"							
1,1,2-Trichloroethane	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

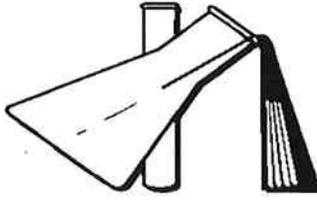
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91015 - Volatiles</b>										
<b>Blank (AF91015-BLK1)</b>				Prepared & Analyzed: 10-Jun-09						
Methyl isobutyl ketone	ND	5.0	"							
Tetrachloroethene	ND	0.5	"							
1,3-Dichloropropane	ND	0.5	"							
Dibromochloromethane	ND	0.5	"							
1,2-Dibromoethane	ND	0.5	"							
2-Hexanone	ND	0.5	"							
Chlorobenzene	ND	0.5	"							
1,1,1,2-Tetrachloroethane	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	0.5	"							
o-Xylene	ND	0.5	"							
Styrene	ND	0.5	"							
Bromoform	ND	0.5	"							
Isopropylbenzene	ND	0.5	"							
Bromobenzene	ND	0.5	"							
1,1,1,2,2-Tetrachloroethane	ND	0.5	"							
1,2,3-Trichloropropane	ND	0.5	"							
n-Propylbenzene	ND	0.5	"							
2-Chlorotoluene	ND	0.5	"							
1,3,5-Trimethylbenzene	ND	0.5	"							
4-Chlorotoluene	ND	0.5	"							
tert-Butylbenzene	ND	0.5	"							
1,2,4-Trimethylbenzene	ND	0.5	"							
sec-Butylbenzene	ND	0.5	"							
1,3-Dichlorobenzene	ND	0.5	"							
p-Isopropyltoluene	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91015 - Volatiles

#### Blank (AF91015-BLK1)

Prepared & Analyzed: 10-Jun-09

1,4-Dichlorobenzene	ND	0.5	"							
n-Butylbenzene	ND	0.5	"							
1,2-Dichlorobenzene	ND	0.5	"							
1,2-Dibromo-3-chloropropane	ND	0.5	"							
1,2,4-Trichlorobenzene	ND	0.5	"							
Hexachlorobutadiene	ND	0.5	"							
Naphthalene	ND	0.5	"							
Methyl tert-butyl ether	ND	0.5	"							
Isopropyl alcohol	ND	10.0	"							
1,2,3-Trichlorobenzene	ND	0.5	"							
2-Chloroethylvinyl ether	ND	10.0	"							
Acrolein	ND	10.0	"							
Acrylonitrile	ND	10.0	"							
Acetonitrile	ND	10.0	"							

#### LCS (AF91015-BS1)

Prepared & Analyzed: 10-Jun-09

Surrogate: Dibromofluoromethane	50.2		ug/l	50.0		100	85-115			
Surrogate: Toluene-d8	50.2		"	50.0		100	85-115			
Surrogate: Bromofluorobenzene	47.9		"	50.0		95.8	85-115			
1,1-Dichloroethene	26.7	0.5	"	25.0		107	80-120			
Benzene	27.0	0.5	"	25.0		108	80-120			
Trichloroethene	24.2	0.5	"	25.0		96.9	80-120			
Toluene	25.8	0.5	"	25.0		103	80-120			
Chlorobenzene	23.9	0.5	"	25.0		95.7	80-120			

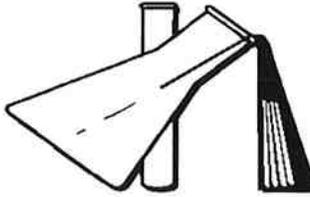
#### LCS Dup (AF91015-BSD1)

Prepared & Analyzed: 10-Jun-09

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: **Anne Perez**  
Report Date: **30-Jun-09 21:48**  
Subject: **Soil Samples**

Project/P.O.#: 185802056

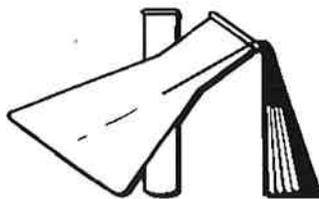
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91015 - Volatiles</b>										
<b>LCS Dup (AF91015-BSD1)</b>				Prepared & Analyzed: 10-Jun-09						
Surrogate: Dibromofluoromethane	47.8		ug/l	50.0		95.5	85-115			
Surrogate: Toluene-d8	48.7		"	50.0		97.4	85-115			
Surrogate: Bromofluorobenzene	45.8		"	50.0		91.7	85-115			
1,1-Dichloroethene	25.2	0.5	"	25.0		101	80-120	5.90	20	
Benzene	27.4	0.5	"	25.0		109	80-120	1.51	20	
Trichloroethene	23.4	0.5	"	25.0		93.7	80-120	3.36	20	
Toluene	25.5	0.5	"	25.0		102	80-120	1.13	20	
Chlorobenzene	26.0	0.5	"	25.0		104	80-120	8.26	20	
<b>Matrix Spike (AF91015-MS1)</b>				Source: 0906083-49		Prepared & Analyzed: 10-Jun-09				
Surrogate: Dibromofluoromethane	49.6		ug/l	50.0		99.2	85-115			
Surrogate: Toluene-d8	50.3		"	50.0		101	85-115			
Surrogate: Bromofluorobenzene	46.9		"	50.0		93.9	85-115			
1,1-Dichloroethene	27.4	0.5	"	25.0	ND	110	80-120			
Benzene	27.3	0.5	"	25.0	ND	109	80-120			
Trichloroethene	24.3	0.5	"	25.0	ND	97.0	80-120			
Toluene	26.5	0.5	"	25.0	ND	106	80-120			
Chlorobenzene	24.1	0.5	"	25.0	ND	96.5	80-120			
<b>Matrix Spike Dup (AF91015-MSD1)</b>				Source: 0906083-49		Prepared & Analyzed: 10-Jun-09				
Surrogate: Dibromofluoromethane	50.5		ug/l	50.0		101	85-115			
Surrogate: Toluene-d8	51.2		"	50.0		102	85-115			
Surrogate: Bromofluorobenzene	48.0		"	50.0		95.9	85-115			
1,1-Dichloroethene	26.6	0.5	"	25.0	ND	106	80-120	3.22	20	
Benzene	27.8	0.5	"	25.0	ND	111	80-120	1.63	20	
Trichloroethene	24.3	0.5	"	25.0	ND	97.3	80-120	0.288	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91015 - Volatiles

**Matrix Spike Dup (AF91015-MSD1)**

**Source: 0906083-49**

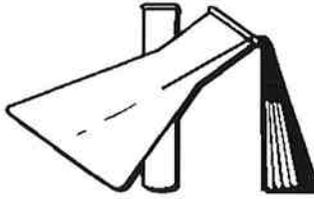
**Prepared & Analyzed: 10-Jun-09**

Toluene	26.6	0.5	"	25.0	ND	106	80-120	0.528	20	
Chlorobenzene	24.6	0.5	"	25.0	ND	98.4	80-120	1.97	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:48  
Subject: Soil Samples

Project/P.O.#: 185802056

## General Inorganic Nonmetallic Chemistry by Standard Methods/EPA Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AF91303 - General Preparation</b>										
<b>Duplicate (AF91303-DUP1)</b> Source: <b>0906078-05</b> Prepared & Analyzed: 13-Jun-09										
pH	7.37	0.1	pH Units		7.37			0.00	15	
<b>Duplicate (AF91303-DUP2)</b> Source: <b>0906078-01</b> Prepared & Analyzed: 13-Jun-09										
pH	8.68	0.1	pH Units		8.68			0.00	15	
<b>Batch AF91511 - General Preparation</b>										
<b>Duplicate (AF91511-DUP1)</b> Source: <b>0906083-37</b> Prepared & Analyzed: 15-Jun-09										
pH	9.94	0.1	pH Units		9.94			0.00	15	
<b>Duplicate (AF91511-DUP2)</b> Source: <b>0906083-38</b> Prepared & Analyzed: 15-Jun-09										
pH	9.96	0.1	pH Units		9.96			0.00	15	
<b>Batch AF92906 - General Preparation</b>										
<b>Duplicate (AF92906-DUP1)</b> Source: <b>0906083-11</b> Prepared & Analyzed: 29-Jun-09										
pH	8.42	0.1	pH Units		8.35			0.835	15	

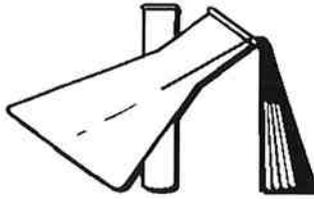
### Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 1 of 4

Attention: Anne Perez  
Report Date: 13-Jul-09 15:00  
Subject: Soil Samples

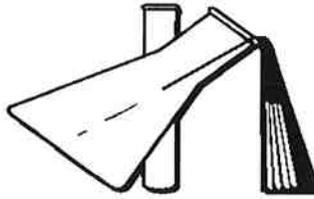
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)		RESULT	NOTE
<b>AB-3-0.5 (0906083-07) (Sample I.D.# : 0907077-01) Collected: 04-Jun-09 By Stantec</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>AB-5-1 (0906083-14) (Sample I.D.# : 0907077-02) Collected: 04-Jun-09 By Stantec</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>AB-13-2.5 (0906083-39) (Sample I.D.# : 0907077-03) Collected: 04-Jun-09 By Stantec</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>AB-14-0.5 (0906083-40) (Sample I.D.# : 0907077-04) Collected: 04-Jun-09 By Stantec</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)		0.21 mg/l	A-01

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
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Page 2 of 4

Attention: Anne Perez  
Report Date: 13-Jul-09 15:00  
Subject: Soil Samples

Project/P.O.#: 185802056

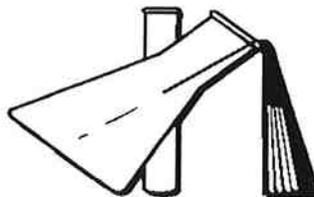
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AG91016 - Title 22-STLC</b>										
<b>Blank (AG91016-BLK1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	ND	0.02	mg/l							
<b>Blank (AG91016-BLK2)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	ND	0.02	mg/l							
<b>Blank (AG91016-BLK3)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	ND	0.02	mg/l							
<b>LCS (AG91016-BS1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.528	0.02	mg/l	0.500		106	80-120			
<b>LCS (AG91016-BS2)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.522	0.02	mg/l	0.500		104	80-120			
<b>LCS (AG91016-BS3)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.527	0.02	mg/l	0.500		105	80-120			
<b>LCS Dup (AG91016-BSD1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.545	0.02	mg/l	0.500		109	80-120	3.20	20	
<b>LCS Dup (AG91016-BSD2)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.545	0.02	mg/l	0.500		109	80-120	4.16	20	
<b>LCS Dup (AG91016-BSD3)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.551	0.02	mg/l	0.500		110	80-120	4.48	20	
<b>Duplicate (AG91016-DUP1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.0401	0.20	mg/l		0.0473			16.3	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009



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Customer: **Stantec**  
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Page 3 of 4

Attention: Anne Perez  
Report Date: 13-Jul-09 15:00  
Subject: Soil Samples

Project/P.O.#: 185802056

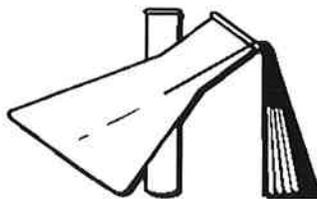
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AG91016 - Title 22-STLC</b>										
<b>Duplicate (AG91016-DUP2)</b> <b>Source: 0907073-02</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	ND	0.20	mg/l		0.0356				20	
<b>Duplicate (AG91016-DUP3)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	ND	0.20	mg/l		0.0473				20	
<b>Matrix Spike (AG91016-MS1)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.2	0.20	mg/l	10.0	0.0473	101	80-120			
<b>Matrix Spike (AG91016-MS2)</b> <b>Source: 0907073-02</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.5	0.20	mg/l	10.0	0.0356	104	80-120			
<b>Matrix Spike (AG91016-MS3)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.6	0.20	mg/l	10.0	0.0473	106	80-120			
<b>Matrix Spike Dup (AG91016-MSD1)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.7	0.20	mg/l	10.0	0.0473	106	80-120	4.71	20	
<b>Matrix Spike Dup (AG91016-MSD2)</b> <b>Source: 0907073-02</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	9.80	0.20	mg/l	10.0	0.0356	97.7	80-120	6.42	20	
<b>Matrix Spike Dup (AG91016-MSD3)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	9.63	0.20	mg/l	10.0	0.0473	95.9	80-120	9.70	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009



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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 4 of 4

Attention: Anne Perez  
Report Date: 13-Jul-09 15:00  
Subject: Soil Samples

Project/P.O.#: 185802056

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## Notes and Definitions

A-01 DI water was used as the STLC extraction fluid.  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis

---

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009

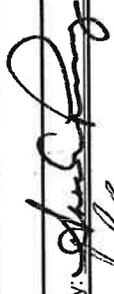
**APPENDIX B**  
**CHAIN-OF-CUSTODY RECORDS**

# 0400085

# STANTEC CHAIN-OF-CUSTODY RECORD

COC # 1 OF 6 Pages		REMARKS/ PRECAUTIONS	
FIELD OFFICE INFORMATION		ANALYSES / METHOD REQUEST	
OFFICE: 004      Project No.: 185802056      Task: 0001  Send Report to: Anne Perez      Project Name: Task Order No. 26 25864 F Business Center Dr. Redlands CA      Highway 15 LBP in soils and bridge paint Telephone: (909) 335-6116      Project Manager: Anne Perez Fax/E-Mail: (909) 335-6120 /      Laboratory: PatChem anne.perez@stantec.com		6010 Total Pb      x 3010 Soluble Pb      x TCLP      x VOCs      x PH      x 8081 Pesticides      x 6010B/7000 Title 22 Metals      x	
PROJECT INFORMATION		REPORT REQUIREMENTS	
SAMPLE		TAT	
Sample No. / Identification	Date	Matrix *	Container & Size **
AB-1-0.5	6/4/2009	soil	grab
AB-1-1	6/4/2009	soil	grab
AB-1-2.5	6/4/2009	soil	grab
AB-2-0.5	6/4/2009	soil	grab
AB-2-1	6/4/2009	soil	grab
AB-2-2.5	6/4/2009	soil	grab
AB-3-0.5	6/4/2009	soil	grab
AB-3-1	6/4/2009	soil	grab
AB-3-2.5	6/4/2009	soil	grab
AB-4-0.5	6/4/2009	soil	grab
AB-4-1	6/4/2009	soil	grab
Possible Hazard Identification		Sample Disposal	
Non-Hazardous: ___ Flammable: ___ Skin Irritant: ___ Poison B: ___ Unknown: ___		Disposal By Lab: X      Archive For: ___ Months      Return to Client: ___	
1. Run STLC for samples exceeding 25 mg/kg of TTLC 2. STLC samples exceeding 5mg/L run pH and TCLP analysis RUSH total lead analysis (72 hour) RUSH title 22 metals analysis (72 hour) RUSH voc analysis (72 hour)		MB & SURGS Dup/MS/MSD CLP R, pt EDD Other	

Sampled By: RC      Shipping Method: Courier      Airbill Number: \_\_\_\_\_

Signature: 	Print Name: Anne Perez	Company Name: Stantec	Date: 06-05-09	Time: 0925
Relinquished by: 			6/5/09	0925
Received by: 			6/5/09	1405
Relinquished by: 			6/5/09	1405

0406085

**STANTEC CHAIN-OF-CUSTODY RECORD**

COC # \_\_\_\_\_  
2 OF 6 Pages

FIELD OFFICE INFORMATION		PROJECT INFORMATION		ANALYSES / METHOD REQUEST						REMARKS / PRECAUTIONS			
OFFICE: 004		Project No.: 185802056		Task: 0001									
Send Report to: Anne Perez		Project Name: Task Order No. 26								REPORT			
25864 F Business Center Dr. Redlands CA		Highway 15 LBP in soils and bridge paint								TAT			
Telephone: (909) 335-6116		Project Manager: Anne Perez								Normal			
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com		Laboratory: PatChem								Rush			
										Other:			
										MB & SURGS			
										Dup/MS/MSD			
										CLP R pt			
										EDD			
										Other			

Sample No. / Identification	Date	SAMPLE Time	Matrix *	Container & Size **	Preservative	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	PH	8081 Pesticides	6010B/7000 Title 22 Metals
AB-4-2.5	6/4/2009	1105	soil	grab		x						
AB-5-0.5	6/4/2009	1115	soil	grab		x						
AB-5-1	6/4/2009	1115	soil	grab		x						
AB-5-2.5	6/4/2009	1115	soil	grab		x						
AB-6-0.5	6/4/2009	1120	soil	grab	nitric/HCL	x						
AB-6-1	6/4/2009	1120	soil	grab		x						
AB-6-2.5	6/4/2009	1120	soil	grab		x						
AB-7-0.5	6/4/2009	1130	soil	grab		x						
AB-7-1	6/4/2009	1130	soil	grab		x						
AB-7-2.5	6/4/2009	1130	soil	grab		x						
AB-8-0.5	6/4/2009	1150	soil	grab		x						

Disposal By Lab: X\_ Archive For: \_\_\_ Months Return to Client: \_\_\_

Sampled By: \_\_\_\_\_ Shipping Method: Courier Airbill Number: \_\_\_\_\_

Signature: _____	Print Name: _____	Company Name: _____	Date: _____	Time: _____
Relinquished by: _____	Ann Perez	Stantec	6-5-09	0925
Received by: _____	_____	_____	6/5/09	0925
Relinquished by: _____	_____	_____	6/5/09	1405
Received by: _____	_____	_____	6/5/09	1405



0400085

COC #  
4 OF 6 Pages

# STANTEC CHAIN-OF-CUSTODY RECORD

FIELD OFFICE INFORMATION		PROJECT INFORMATION		ANALYSES / METHOD REQUEST						REMARKS / PRECAUTIONS		
OFFICE: 004	Project No.: 185802056	Task: 0001	Task Order No. 26	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	pH	8081 Pesticides	6010B/7000 Title 22 Metals	TAT	REPORT REQUIREMENTS
Send Report to:	Anne Perez	Project Name:	Highway 15 LBP in soils and bridge paint	x	x	x	x	x	x	x	Normal	MB & SURGS
25864 F Business Center Dr. Redlands CA	Telephone: (909) 335-6116	Project Manager:	Anne Perez	x	x	x	x	x	x	x	Rush	Dup/MS/MSD
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com	Laboratory:	PatChem		x	x	x	x	x	x	x	Other:	CLP R pt
												EDD
												Other
Sample No. / Identification	Date	SAMPLE Time	Matrix *	Container & Size **	Preservative							
AB-12-0.5	6/4/2009	1332	soil	grab								
AB-12-1	6/4/2009	1332	soil	grab								
AB-12-2.5	6/4/2009	1332	soil	grab								
AB-13-0.5	6/4/2009	1335	soil	grab								
AB-13-1	6/4/2009	1335	soil	grab								
AB-13-2.5	6/4/2009	1335	soil	grab								
AB-14-0.5	6/4/2009	1345	soil	grab								
AB-14-1	6/4/2009	1345	soil	grab								
AB-14-2.5	6/4/2009	1345	soil	grab								
AB-15-0.5	6/4/2009	1310	soil	grab								
AB-15-1	6/4/2009	0:00	soil	grab								
Possible Hazard Identification Non-Hazardous: ___ Flammable: ___ Skin Irritant: ___ Poison B: ___ Unknown: ___												
Disposal By Lab: <input checked="" type="checkbox"/> Archive For: ___ Months Return to Client: ___ Sample Disposal:												

Sampled By: \_\_\_\_\_ Shipping Method: Courier  
 Airbill Number: \_\_\_\_\_

Signature:		Print Name:	Anne Perez	Company Name:	Stantec	Date:	6-5-09	Time:	0925
Relinquished by:							6/5/09		0925
Received by:							6/5/09		1405
Relinquished by:							6/5/09		1405
Received by:									



04000000

STANTEC CHAIN-OF-CUSTODY RECORD												
FIELD OFFICE INFORMATION			PROJECT INFORMATION			ANALYSES / METHOD REQUEST				REMARKS / PRECAUTIONS		
OFFICE: 004		Project No.: 185802056		Task: 0001								
Send Report to: Anne Perez			Project Name: Task Order No. 26							TAT		
25864 F Business Center Dr. Redlands CA			Highway 15 LBP in soils and bridge paint							Normal		
Telephone: (909) 335-6116			Project Manager: Anne Perez							Rush		
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com			Laboratory: PatChem							Other:		
Sample No. / Identification	Date	SAMPLE Time	Matrix *	Container & Size **	Preservative	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	PH	8081 Pesticides	6010B/7000 Title 22 Metals
AB-12	6/4/2009	1332	soil	encore				x				
AB-14	6/4/2009	1345	soil	encore				x				
AB-15	6/4/2009	1310	soil	encore				HOLD				
AB-16	6/4/2009	1315	soil	encore				x				
Possible Hazard Identification						Sample Disposal						
Non-Hazardous: _____						Disposal By Lab: X						
Flammable: _____						Archive For: _____ Months						
Skin Irritant: _____						Return to Client: _____						
Poison B: _____												
Unknown: _____												
1. Run STLC for samples exceeding 25 mg/kg of TTLC 2. STLC samples exceeding 5mg/L run pH and TCLP analysis  RUSH total lead analysis (72 hour)  RUSH title 22 metals analysis (72 hour)  RUSH voc analysis (72 hour)												

Sampled By: \_\_\_\_\_ Shipping Method: Courier

Airbill Number: \_\_\_\_\_

Signature:	Print Name:	Company Name:	Date:	Time:
	Anne Perez	Stantec	6-5-09	0925
	Pat		6/5/09	0925
	Anne		6/5/09	1405
	Pat		6/5/09	1405

**LEAD-BASED PAINT IN SOILS  
INVESTIGATION REPORT  
Interstate-15  
Basin Road Over-Crossing Bridge #54-0383  
San Bernardino County, California**

**Prepared for:  
California Department of Transportation, District 8  
Task Order No. 26  
Contract No. 08A1542  
EA OG4800**

**February 2, 2010**

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## **1.0 INTRODUCTION**

### **1.1 PROJECT DESCRIPTION AND OBJECTIVES**

At the request of the California Department of Transportation (Caltrans) District 8, an investigation of lead-based paint (LBP) in soils was conducted to support seismic retrofitting of the Basin Road over-crossing bridge along Interstate-15 (approximately 40 miles north of the I-15/I-40 split) in San Bernardino County, California (Figure 1). The project proposes to retrofit the existing columns and abutments of the bridge. All survey work was limited to the existing right-of-way along the unpaved shoulders and medians of I-15.

The overall objective of this investigation was to evaluate lead concentrations in the subsurface soil profile adjacent to the existing columns and abutments and to make recommendations for any special handling or disposal of lead impacted soil. Historical sandblasting of paint on these bridges is speculated to have resulted in lead contamination in soil from LBP. The bridge is supported on six columns with abutments on each end. Stantec understands that proposed improvements will require excavation to six feet in depth and extend approximately two feet laterally from each side of the column or abutment.

### **1.2 SCOPE-OF-WORK**

The scope of the lead survey consisted of the following general elements:

- Pre-field project assessment and Health and Safety Plan (HASP) development
- Soil sampling
- Laboratory analysis
- Data evaluation and report development

Each of these is discussed in detail in the following subsections.

#### **1.2.1 Pre-Field Activities**

Site plans provided by Caltrans were reviewed and compared to actual field conditions during a drive-by site reconnaissance. From this preliminary site evaluation, potential sample locations were designated on the plans for use by field personnel. In addition, a HASP was developed in accordance with California Occupational Safety and Health Administration (Cal OSHA) requirements to guide field activities.

#### **1.2.2 Field Sampling Activities**

Field sampling activities included the following general tasks:

- Sixteen (16) shallow hand-auger borings were advanced at the bridge location within two feet of the columns and abutments to a maximum depth of three feet below ground surface (bgs);

- Soil samples (48 total) were collected from each boring at depths of 0.5-1.0, 1.0-1.5, and 2.5-3.0 feet bgs for lead, Title 22 metals, and volatile organic compound (VOC) analysis; and
- One (1) field equipment blank sample was collected for analysis of Title 22 metals and VOCs.

### **1.2.3 Laboratory Analyses**

Soil samples were submitted under chain-of-custody to Pat-Chem Laboratories (Pat-Chem). Pat-Chem is certified by the California Environmental Laboratory Accreditation Program (ELAP) to perform the laboratory tests required in this task order. Selected samples were analyzed for the following analytes:

- Total lead by EPA test method 6010B
- Soluble lead by the California Waste Extraction Test (Cal WET – Citric and Cal WET – DI; EPA method 3010/6010B)
- Toxicity Characteristic Leaching Procedure (TCLP) by EPA extraction method 1311
- pH by EPA test method 9045C
- Title 22 metals by EPA test method 6010B/7471A
- VOCs by EPA test method 8260B

Field equipment blanks were analyzed for the following analytes:

- Title 22 metals by EPA test method 6010B/7471A
- Volatile organic compounds by EPA test method 8260B

### **1.2.4 Report Preparation**

This report presents the methodology, findings, and recommendations of the lead survey and investigation. Also included with this are laboratory test results, statistical data evaluations, and recommendations for lead-contaminated soil management during construction. This report was prepared in accordance with the work plan and proposal dated June 1, 2009.

## **1.3 PREVIOUS SITE INVESTIGATIONS**

Additional information was not provided relative to previous environmental studies within the study area.

## 2.0 LEAD SURVEY METHODOLOGY

The field methods used during this sampling and site investigation project were consistent with the work plan submitted to Caltrans dated June 1, 2009. The proposed borings were located at the Basin Road over-crossing bridge along I-15 in San Bernardino County, California. All of the proposed sampling locations were accessible and no weather related restrictions were encountered. Soil sampling activities were conducted on June 9 and 12, 2009.

### 2.1 FIELD INVESTIGATIONS

Sixteen (16) hand-auger borings for lead, Title 22 metals, and VOC analysis were advanced along accessible portions at the Basin Road over-crossing bridge (48 total samples). Two borings were advanced at opposite sides, within two lateral feet, of each column and abutment. Soil samples were collected at depths ranging from 0.5 to 3.0 feet bgs. The sample depths represent the top depth of a six-inch thick sample collected using a hand-auger. Three soil samples were collected from 16 borings totaling 48 soil samples. Soil samples were discharged directly from the hand-auger bailer into a plastic zipper lock bag and manually homogenized in the field to minimize sample heterogeneity. Soil samples submitted for VOC analysis were collected at a depth of one foot bgs using Encore samplers to obtain an undisturbed soil sample. Each sample was labeled with a specific sample I.D., boring I.D., project I.D., sample date, and sample time. Samples were also recorded on chain-of-custody forms and delivered to an environmental laboratory for analysis in accordance with the methods described in Section 1.2.3.

Prior to sampling at each sample interval, sample equipment was decontaminated in non-phosphate detergent solution and double rinsed with distilled water. Excess soil cuttings were replaced in the borehole.

Accessible areas are defined as those areas that allow work vehicles and personnel to work safely at distances no closer than six feet from paved portions of the roadway. No samples were collected from areas that would have required workers to work within six feet of paved shoulders. None of the proposed sample locations fell within inaccessible areas of the proposed construction zones. All sample locations were plotted on a field map with a unique boring identification (I.D.) number to represent each borehole. The sample locations are indicated on Figure 2.

### 2.2 LABORATORY ANALYSIS

Soil samples were submitted under chain-of-custody to Pat-Chem. Each of the samples was initially analyzed by EPA test method 6010B for total lead. One soil sample at each column and abutment, collected at a depth of one foot bgs, was selected for VOC and Title 22 metals analysis. The lab was directed to perform the following additional analyses based on the detected total lead concentrations:

- Cal WET-Citric soluble lead analysis on all samples exhibiting total lead concentrations greater than 25 milligrams per kilogram (mg/kg). Cal WET-Citric is used to assess

soluble lead concentrations with respect to California Soluble Threshold Limit Concentrations (STLC).

- TCLP soluble lead analysis on all Cal WET-Citric samples exhibiting soluble lead concentrations greater than 5.0 milligrams per liter (mg/L).
- pH on all TCLP analyzed samples.
- Cal WET-DI analysis in the following order of preference:
  - TCLP samples where the 95 percent upper confidence level of the mean of the TCLP data is greater than 0.5 mg/L; or
  - Ten percent of the sample population biasing the Cal WET-DI analyses to samples that required Cal WET-Citric analysis; or
  - Ten percent of the sample population biasing the Cal WET-DI analyses to samples that exhibited the highest concentrations of total lead.
- VOCs and Title 22 metals on soil samples collected at a depth of one foot at each column and abutment.

These analyses were performed for statistical evaluation of data against state and federal hazardous waste limits and with the conditions of Caltrans' variance.

## 3.0 INVESTIGATIVE RESULTS

### 3.1 SUBSURFACE CONDITIONS

The soils encountered during sampling ranged from fine to coarse, light brown sands with fine to coarse gravels. The soils were relatively dry from the top of the soil column to the bottom of the borings at two feet bgs. Groundwater was not encountered in any of the boreholes and not expected to be present in the upper 10 feet.

### 3.2 ANALYTICAL RESULTS

A summary of the analytical results are presented in Tables 1a and 1b. Copies of the laboratory reports and chain-of-custody forms are included in Appendix A and B, respectively.

#### 3.2.1 Title 22 Metals and VOCs

One soil sample at each column and abutment, collected at a depth of one foot bgs, was selected for analysis of VOCs by EPA test method 8260B and Title 22 metals analysis by EPA test method 6010B/7471A. Analytical data obtained from eight (8) selected soil samples submitted for analysis indicated VOC concentrations less than the laboratory reporting limit.

Table 1a compares project sample statistical data with the background statistical data from studies performed for the California Department of Toxic Substances Control (DTSC) in 1991 (Marret et al, April 1991) and 1996 (Bradford et al, March 1996). Based on this comparison it appears that the reported metals concentrations, other than lead, are consistent with expected background concentrations for soils in Southern California.

Table 1a also compares metals concentrations with the United States Environmental Protection Agency Region 9 (EPA) Preliminary Remediation Goals (PRG); screening levels for industrial soil (April 2009). With the exception of arsenic, mean metals concentrations are below the industrial PRG. Mean arsenic concentrations in California commonly exceed the industrial PRG with mean background in pristine desert samples ranging from 3.2 to 18.1 mg/kg. Arsenic concentrations were reported in the range of 7.7 to 11 mg/kg (mean = 10 mg/kg), which are five to seven times the industrial PRG. However, these concentrations are consistent with expected background levels and do not require special disposition as a hazardous waste or contaminated waste. Health and safety precautions would be prudent to limit inhalation and ingestion of project soils by workers and surrounding public.

#### 3.2.2 Total Lead

Forty-eight (48) soil samples were analyzed for total lead by EPA test method 6010B. Total lead concentrations ranged from less than 1.0 mg/kg (laboratory reporting limit) to 90 mg/kg with a mean concentration of 21 mg/kg (see Table 1b).

Total lead concentrations did not exceed the TTLC of 1,000 mg/kg in any of the samples.

### **3.2.3 Soluble Lead (Cal WET- Citric)**

Soil samples with total lead concentrations in excess of 25 mg/Kg were analyzed for soluble lead using the Cal WET soluble lead analysis. Soluble lead concentrations exceeded the STLC of 5 mg/L in two (2) of the 19 soil samples submitted for soluble lead analysis. Soluble lead concentrations ranged from 1.2 to 9.4 mg/L with a mean concentration of 3.1 mg/L (see Tables 1b).

### **3.2.4 Toxicity Characteristic Leaching Procedure (TCLP)**

Soil samples with STLC lead concentrations in excess of 5 mg/L were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) analysis for lead. TCLP concentrations for lead ranged from 0.23 to 0.25 mg/L (see Table 1b).

TCLP lead concentrations did not exceed 5 mg/L in either of the two (2) soil samples submitted for analysis.

### **3.2.5 Soluble Lead (Cal WET- DI)**

The Caltrans variance for Aerially Deposited Lead (ADL) allows for reuse of materials exceeding the STLC and TCLP for lead if the soluble concentrations do not exceed 0.5 mg/L using a less rigorous extraction test that incorporates distilled water as the solvent rather than the Cal WET-citric acid or TCLP acetic acid extractant. This method is often identified as the DHS modified Cal WET-DI test.

Five (5) soil samples were selected for soluble lead analysis by the Cal WET – DI. Soluble lead concentrations were less than 0.02 mg/L (the laboratory reporting limit) in all samples (see Table 1b).

### **3.2.6 pH Results**

Selected soil samples with total lead concentrations in excess of 25 mg/Kg were analyzed for pH using EPA test method 9045C. Analytical data obtained from 19 selected soil samples submitted for analysis indicated pH levels ranging from 8.6 to 9.9.

## **3.3 DATA VALIDATION**

Prior to submitting soil samples to the laboratory, the chain-of-custody documentation was reviewed for accuracy and completeness. The laboratory reports were crosschecked with the chain-of-custody forms to confirm accurate transposing of sample information. Laboratory quality assurance and quality control (QA/QC) data (method blanks, laboratory control samples and duplicates, matrix spike samples and duplicates) were also reviewed for compliance with QA/QC objectives. In addition, an equipment blank was collected and analyzed for VOCs and Title 22 metals. Based on this validation process and analytical data indicating no detections in the equipment blank, the data contained herein are adequate for the purposes of this study. Copies of the laboratory reports and chain-of-custody forms are included as Appendix A and B, respectively.

## 4.0 STATISTICAL DATA EVALUATION

### 4.1 CORRELATION BETWEEN TOTAL LEAD AND SOLUBLE LEAD

The correlation coefficient between total lead and Cal WET-Citric soluble lead was calculated in accordance with the methodology presented in Section B 3.2.2.15.2 of Caltrans Contract 08A1542 (see Table 3). The data initially showed poor correlation with a correlation coefficient of 0.45. Caltrans generally considers a correlation coefficient of 0.8 or greater as showing good correlation.

### 4.2 Linear Regression Analysis

As described above, the soluble and total lead data appear to initially show insufficient correlation to allow comparison using linear regression algorithms. However, upon review of Figure 3, it was determined that eight outliers were skewing the linear regression results (BB-3-0.5, BB-4-0.5, BB-5-2.0, BB-6-0.5, BB-6-1, BB-6-2.0, BB-11-1, and BB-13-1); likely due to heterogeneity of soil particle size in relation to the size of the laboratory sample aliquot, and lead concentrations in the soil samples that could not be resolved with mechanical homogenization in the laboratory. Therefore, the analytical laboratory was instructed to re-homogenize and re-analyze the samples for total lead which produced the following results:

Sample ID	Initial Total Lead Result (mg/kg)	Retest Total Lead Result (mg/kg)
BB-3-0.5	190	21
BB-4-0.5	100	54
BB-5-2.0	27	58
BB-6-0.5	34	48
BB-6-1	25	36
BB-6-2.0	33	45
BB-11-1	45	36
BB-13-1	33	28

The retest results raised the correlation coefficient from 0.45 to 0.66; still insufficient for linear regression analysis. Review of Figure 3 indicated that there were still two statistical outliers (BB-3-0.5 and BB-5-1) that could not be resolved with mechanical homogenization in the laboratory. Upon removal of the two outliers from the sample population, the correlation coefficient increased to 0.85 as shown on Table 3 and Figure 3; sufficient correlation to allow comparison using linear regression algorithms.

The relationship between total lead and Cal WET-Citric soluble lead was evaluated in accordance with Caltrans Contract 08A1542 Section B 3.2.2.15.2. Total lead and soluble lead are bivariate data exhibiting a linear relationship. Table 3 and Figure 3 show the relationship between total and Cal WET-Citric soluble lead results for this project. Linear regression was used to develop a best-fit line and mathematical formula for the relationship between total lead (TL) and Cal WET-Citric soluble lead (SL) concentrations:

$$TL \text{ [mg/kg]} = 6.53 (SL \text{ [mg/L]}) + 21.2, \text{ or}$$

Solving for soluble lead (Cal WET) yields the following:

$$SL \text{ [mg/L]} = (TL \text{ [mg/kg]} - 21.2) / 6.53$$

This formula will be used in subsequent statistical evaluations to determine the Cal WET-Citric soluble lead concentration from statistically derived total lead upper confidence limits (UCLs) for various soil layers considered in Section 4.3.

### 4.3 Statistical Data Evaluation

The analytical results were evaluated statistically following the methods described in Section B 3.2.15 of Exhibit A, Caltrans Contract Document Number 08A1542.

Statistical tests were performed on each data set to evaluate whether the total lead data are normally or lognormally distributed. If lognormally distributed, the data were transformed prior to performing any other statistical evaluations. Statistical parameters, such as the mean, standard deviation, and upper confidence level of the mean were calculated for various layers and scenarios. The total lead 80 percent UCL ( $UCL_{80}$ ) and the 95 percent UCL ( $UCL_{95}$ ) of the mean were calculated to support decision making with respect to off site disposal and on site re-use as described in Section B 3.2.4.4 of Caltrans Contract 08A1542.

- $UCL_{80}$ : The  $UCL_{80}$  was calculated in accordance with requirements promulgated in U.S. Environmental Protection Agency (U.S. EPA) Guidance document SW-846 to characterize the soil for 1) potential off site disposal as nonhazardous, California hazardous or Resource Conservation and Recovery Act (RCRA) hazardous waste, and 2) to assess whether the conditions of the Caltrans Variance should be invoked for on-site reuse.
- $UCL_{95}$ : The  $UCL_{95}$  is calculated to support decision making with respect to release of surplus soil material to the possession of the Contractor.

Statistical evaluations were performed using the U.S. EPA statistical program, ProUCL, version 4.00.01. One-half the reporting limit was used for all sample results reported below the reporting limit (nondetect). If the data exhibited normal distribution, Student's-t method was used to determine the UCL. The standard Bootstrap Method was used to evaluate the UCL as required in Caltrans Contract 088A0981 Section B 3.2.2.15.1 for all nonparametric populations.

The histograms for the raw data and the transformed data for all samples are shown on Figures 4a, 4b, 5a, and 5b. From these histograms and based on statistical tests, the total lead and Cal WET-Citric soluble lead data are nonparametric and lognormally distributed, respectively

To assist in future soil handling and disposition decision-making, statistical evaluations were performed on the below data populations. In each case, the total-lead UCLs were statistically derived from each sample population. The soluble lead (Cal WET-Citric) UCLs were then calculated using the linear regression formulas presented in Section 4.2.

- *Entire Data Set*—includes all of the total lead data (48 samples) from the surface to approximately three feet bgs. Statistical data for the entire data set are tabulated in Table 4 and shown on the block diagrams of Figure 6. The mean total lead concentration for the data set is 21 mg/kg with a standard deviation of 22 mg/kg. The calculated  $UCL_{80}$  and  $UCL_{95}$  are 24 and 26 mg/kg, respectively. The corresponding

UCL<sub>80</sub> and UCL<sub>95</sub> Cal WET-Citric soluble lead concentrations using linear regression analysis are 0.43 and 0.74 mg/L, respectively

- *Depth Specific Layer*—data for each depth interval were evaluated as three separate and distinct populations. Under these scenarios, all data were included in the population of each depth interval. The results are presented in Table 5 and shown on the block diagrams of Figure 6.
  - 1 foot—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 32 and 37 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of 1.7 and 2.4 mg/L, respectively.
  - 2 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 23 and 27 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of 0.28 mg/L and 0.89 mg/L, respectively.
  - 3 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 21 and 25 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of less than 0.15 and 0.58 mg/L, respectively.
- *Depth Combinations*—three layers were combined into two distinct populations. The two combinations evaluated are indicated below and shown on Table 5 and the block diagrams of Figure 6.
  - 1 and 2 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 26 and 29 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of 0.74 mg/L and 1.2 mg/L, respectively.
  - 2 and 3 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 21 and 24 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of less than 0.15 and 0.43 mg/L, respectively.

## 5.0 CONCLUSIONS

Statistical evaluations were performed to evaluate appropriate handling and disposition of lead in accordance with the following federal and state statutory limits:

- TCLP Lead: 5 mg/L (RCRA hazardous waste),
- STLC Lead: 5 mg/L (California hazardous waste),
- TTLIC Lead: 1,000 mg/kg (California hazardous waste), and

Although the purpose of the study was to evaluate lead in soil resulting from paint sandblasting of the bridges, the contribution of lead from ADL cannot be ignored. The reported concentrations are consistent with those typically reported in surficial soils along highways as a result of ADL. Accordingly, the reported lead concentrations are compared to the Caltrans Lead variance.

In accordance with the conditions of Caltrans Variance (No. 00-H-VAR-04), Modification 2 (September 12, 2003) as stated below:

Section 9.a.1: Lead contaminated soil containing 0.5 mg/L or less soluble lead when extracted by Cal WET-DI and 1,411 mg/kg or less total lead may be placed in the same Caltrans corridor provided that it is buried a minimum of 5 feet (1.5 meters) above the maximum water table elevation and covered with one foot (0.3 meters) of nonhazardous soil. These materials may be used on-site as Type Y-1 Caltrans fill material.

Section 9.a.2: Lead contaminated soil containing less than 50 mg/L soluble lead when extracted by Cal WET-DI and 3,397 mg/kg or less total lead may be placed in the same Caltrans corridor provided that it is buried a minimum of 5 feet above the maximum water table elevation and covered with pavement structure. These materials may be used on-site as Type Y-2 fill material.

In consideration of the data and statistical evaluations presented in previous sections, the following conclusions are developed.

- Lead is present in near surface soils within the proposed construction zone and may be the result of several sources including natural sources, paint sandblasting, and ADL.
- As shown on Figures 4a, 4b, 5a, and 5b, the histograms for total lead and Cal WET-Citric soluble lead demonstrate that the data are nonparametric and lognormally distributed, respectively.
- Total lead concentrations are well below statutory threshold levels for hazardous waste (TTLIC).
- Cal WET-Citric soluble lead UCL<sub>95</sub> does not appear to exceed the California STLC.
- TCLP soluble lead levels did not exceed federal hazardous waste levels based on toxicity characteristics.

- Soluble lead was not detected at concentrations above the 0.5 mg/L Caltrans variance criteria when extracted using the DHS Modified Cal WET-DI method.
- Considering the entire data set as a whole (all 48 data points), the UCL<sub>80</sub> and UCL<sub>95</sub> for total lead does not exceed regulatory thresholds.
- Considering the entire data set in depth discrete layers, the UCL<sub>80</sub> and UCL<sub>95</sub> for total and soluble lead do not exceed regulatory thresholds.

## 6.0 RECOMMENDATIONS

Lead is present at the site. Based on the findings and conclusions presented herein, the following is recommended:

1. A site-specific lead compliance plan should be developed to address health and safety of construction workers.
2. In consideration of total lead concentrations, soil may be managed as non-hazardous or reused onsite.
3. Surplus soil within the study zone may be released to the Contractor for disposition to a landfill.

## 7.0 LIST OF PREPARERS

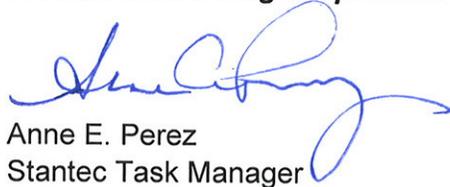
This lead survey report has been prepared under the direction of the following environmental professionals.

**Preparers:**

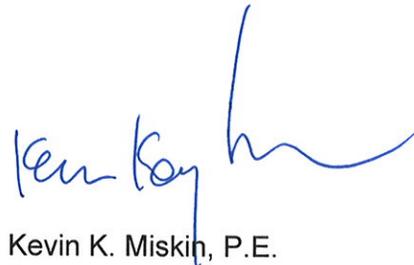
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## **TABLES**

**Table 1a**  
**Summary of Soil Analytical Test Results - Detected Title 22 Metals and VOCs**  
**Interstate-15, Basin Road Bridge, San Bernardino County, California**

Sample ID	Arsenic	Barium	Cobalt	Chromium	Copper	Molybdenum	Nickel	Lead	Antimony	Vanadium	Zinc	All VOCs
BB-2-1	9.4	130	3.0	5.2	4.8	ND<1.0	3.9	12	ND<5.0	23	13	ND
BB-3-1	9.5	170	3.5	6.6	5.5	1.0	5.2	41	ND<5.0	25	36	ND
BB-5-1	7.7	160	3.9	6.1	6.6	ND<1.0	5.5	71	ND<5.0	24	43	ND
BB-8-1	11	24	2.3	4.1	2.7	ND<1.0	3.9	1.6	2.1	13	9.9	ND
BB-10-1	11	98	2.7	5.0	3.9	ND<1.0	4.4	2.5	1.1	18	12	ND
BB-11-1	11	38	3.2	5.4	5.2	ND<1.0	4.6	45	1.4	18	30	ND
BB-13-1	9.7	33	2.9	6.0	19	ND<1.0	4.8	33	ND<1.0	18	34	ND
BB-15-1	9.9	24	2.5	5.4	2.7	ND<1.0	4.4	1.4	ND<1.0	16	10	ND
Min.	7.7	24	2.3	4.1	2.7	<1.0	3.9	1.4	<1.0	13	9.9	NA
Max.	11	170	3.9	6.6	19	1.0	5.5	71	2.1	25	43	NA
Mean	10	85	3.0	5.5	6.3	0.56	4.6	26	1.6	19	23	NA
St. Dev.	1.1	63	0.53	0.77	5.3	0.18	0.57	26	0.88	4.2	14	NA
EPA PRGs	1.6	190,000	300	1,400	41,000	5,100	20,000	800	410	1,000	100,000	NA
<b>Background Statistics</b>												
Min. Value	2.0	151	0.0	4	6.3	0.1	5.4	7.2	0.16	40	0	NA
Max. Value	31.2	911	16.9	113	258.0	2.4	35.4	54.5	1.95	188	109	NA
Mean	3.2 - 18.1	442 - 766	4.0 - 8.7	8 - 18	8 - 19	0.9	7 - 14	9.4 - 21.8	0.57	56 - 90	9 - 43	NA
St. Dev.	0.6 - 7.2	73 - 215	1.1 - 4.8	2 - 20	2 - 7	0.6	1 - 4	1.3 - 10.9	0.50	9 - 52	4 - 15	NA

**Notes:**

Results reported in milligrams per kilogram (mg/kg).

VOCs = volatile organic compounds

St. Dev. = standard deviation

USEPA PRG = United States Environmental Protection Agency Region 9 Preliminary Remediation Goals for Industrial Soil, April 2009

Title 22 Metals analyzed by EPA test method 6010B.

VOCs analyzed by EPA test method 8260B.

ND<1.0 = not detected; less than the laboratory reporting limit

1. Silver, beryllium, cadmium, selenium, thallium, and mercury were not detected above their respective laboratory reporting limit.
2. Background statistics for arsenic, barium, chromium, copper, nickel, lead, vanadium, and zinc from Marrett, D.J., A.L. Page, G.R. Bradford, D. Bakhtiar, R.C. Graham, A.C. Chang, *Background Levels of Soil Trace Elements in Southern California Soils*, April 1991, using results from pristine desert soils.
3. Background statistics for molybdenum and antimony from G. R. Bradford, A. C. Chang, A. L. Page, D. Bakhtiar, J. A. Frampton, and H. Wright, *Background Concentrations of Trace and Major Elements in California Soils*, March 1996, using only Southern California results (samples 1, 7, 12, 18, 19, 20, 28, 35, 36, 37, and 50).
4. One-half the reporting limit (0.5 mg/kg) was used for statistical analysis where a result is shown as ND<1.0.

**Table 1b**  
**Summary of Soil Analytical Test Results**  
**Interstate-15, Basin Road Bridge, San Bernardino County, California**

<b>Sample ID</b>	<b>Total Lead <sup>(1)</sup> (mg/kg)</b>	<b>Soluble Lead <sup>(1)</sup> Cal WET-Citric (mg/L)</b>	<b>Soluble Lead <sup>(1)</sup> Cal WET-DI (mg/L)</b>	<b>Soluble Lead <sup>(1)</sup> TCLP (mg/L)</b>	<b>pH <sup>(2)</sup> (pH Units)</b>
BB-1-0.5	6.0	--	--	--	--
BB-1-1	5.7	--	--	--	--
BB-1-2.5	5.2	--	--	--	--
BB-2-0.5	17	--	--	--	--
BB-2-1	12	--	--	--	--
BB-2-2.5	3.6	--	--	--	--
BB-3-0.5*	21	4.9	ND<0.20	--	9.3
BB-3-1	41	2.8	--	--	8.8
BB-3-2.5	37	2.2	--	--	8.6
BB-4-0.5*	54	4.5	ND<0.20	--	9.4
BB-4-1	34	2.8	--	--	9.9
BB-4-2.5	24	--	--	--	--
BB-5-0.5	90	9.4	ND<0.20	0.25	9.3
BB-5-1	71	3.5	ND<0.20	--	8.9
BB-5-2.0*	58	4.5	--	--	9.7
BB-6-0.5*	48	4.0	--	--	9.6
BB-6-1*	36	2.7	--	--	9.5
BB-6-2.0*	45	3.8	--	--	9.9
BB-7-0.5	30	1.9	--	--	9.1
BB-7-1	2.9	--	--	--	--
BB-7-2.5	ND<1.0	--	--	--	--
BB-8-0.5	6.3	--	--	--	--
BB-8-1	1.6	--	--	--	--
BB-8-2.5	ND<1.0	--	--	--	--
BB-9-0.5	2.1	--	--	--	--
BB-9-1	1.0	--	--	--	--
BB-9-2.5	ND<1.0	--	--	--	--
BB-10-0.5	2.6	--	--	--	--
BB-10-1	2.5	--	--	--	--
BB-10-2.5	ND<1.0	--	--	--	--
BB-11-0.5	16	--	--	--	--
BB-11-1*	36	1.2	--	--	9.2
BB-11-2.5	3.4	--	--	--	--
BB-12-0.5	48	3.1	--	--	9.4
BB-12-1	19	--	--	--	--
BB-12-2.5	48	1.8	--	--	9.9
BB-13-0.5	48	5.5	ND<0.20	0.23	9.6
BB-13-1*	28	4.2	--	--	9.4
BB-13-2.5	25	1.3	--	--	9.5
BB-14-0.5	34	2.4	--	--	9.6
BB-14-1	13	--	--	--	--
BB-14-2.5	3.4	--	--	--	--
BB-15-0.5	2.1	--	--	--	--
BB-15-1	1.4	--	--	--	--
BB-15-2.5	ND<1.0	--	--	--	--
BB-16-0.5	3.5	--	--	--	--

**Table 1b**  
**Summary of Soil Analytical Test Results**  
**Interstate-15, Basin Road Bridge, San Bernardino County, California**

Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Soluble Lead <sup>(1)</sup> Cal WET-Citric (mg/L)	Soluble Lead <sup>(1)</sup> Cal WET-DI (mg/L)	Soluble Lead <sup>(1)</sup> TCLP (mg/L)	pH <sup>(2)</sup> (pH Units)
BB-16-1	2.5	--	--	--	--
BB-16-2.5	20	--	--	--	--

**Notes:**

Lead analyzed by EPA Method 6010B

Results reported in milligrams per kilogram (mg/kg)

-- = not analyzed

ND<1.0 = not detected; less than the laboratory reporting limit

\*Samples retested for total lead due to statistical outliers from the linear regression analysis. Retest data used.

**Table 2**  
**Frequency Distribution Analysis**  
**Interstate-15, Basin Road Bridge, San Bernardino County, California**

Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Total Lead In(x) Transformed	Soluble Lead <sup>(1)</sup> Cal WET-Citric (mg/L)	Cal WET-Citric In(x) Transformed
BB-1-0.5	6.0	1.8	--	--
BB-1-1	5.7	1.7	--	--
BB-1-2.5	5.2	1.6	--	--
BB-2-0.5	17	2.8	--	--
BB-2-1	12	2.5	--	--
BB-2-2.5	3.6	1.3	--	--
BB-3-0.5*	21	3.0	4.9	1.6
BB-3-1	41	3.7	2.8	1.0
BB-3-2.5	37	3.6	2.2	0.79
BB-4-0.5*	54	4.0	4.5	1.5
BB-4-1	34	3.5	2.8	1.0
BB-4-2.5	24	3.2	--	--
BB-5-0.5	90	4.5	9.4	2.2
BB-5-1	71	4.3	3.5	1.3
BB-5-2.0*	58	4.1	4.5	1.5
BB-6-0.5*	48	3.9	4.0	1.4
BB-6-1*	36	3.6	2.7	0.99
BB-6-2.0*	45	3.8	3.8	1.3
BB-7-0.5	30	3.4	1.9	0.64
BB-7-1	2.9	1.1	--	--
BB-7-2.5	0.5	-0.69	--	--
BB-8-0.5	6.3	1.8	--	--
BB-8-1	1.6	0.47	--	--
BB-8-2.5	0.5	-0.69	--	--
BB-9-0.5	2.1	0.74	--	--
BB-9-1	1.0	0.0	--	--
BB-9-2.5	0.5	-0.69	--	--
BB-10-0.5	2.6	0.96	--	--
BB-10-1	2.5	0.92	--	--
BB-10-2.5	0.5	-0.69	--	--
BB-11-0.5	16	2.8	--	--
BB-11-1*	36	3.6	1.2	0.18
BB-11-2.5	3.4	1.2	--	--
BB-12-0.5	48	3.9	3.1	1.1
BB-12-1	19	2.9	--	--
BB-12-2.5	48	3.9	1.8	0.59
BB-13-0.5	48	3.9	5.5	1.7
BB-13-1*	28	3.3	4.2	1.4
BB-13-2.5	25	3.2	1.3	0.26
BB-14-0.5	34	3.5	2.4	0.88
BB-14-1	13	2.6	--	--
BB-14-2.5	3.4	1.2	--	--
BB-15-0.5	2.1	0.74	--	--
BB-15-1	1.4	0.34	--	--
BB-15-2.5	0.5	-0.69	--	--
BB-16-0.5	3.5	1.3	--	--
BB-16-1	2.5	0.92	--	--

**Table 2**  
**Frequency Distribution Analysis**  
**Interstate-15, Basin Road Bridge, San Bernardino County, California**

<b>Sample ID</b>	<b>Total Lead <sup>(1)</sup> (mg/kg)</b>	<b>Total Lead ln(x) Transformed</b>	<b>Soluble Lead <sup>(1)</sup> Cal WET-Citric (mg/L)</b>	<b>Cal WET-Citric ln(x) Transformed</b>
BB-16-2.5	20	3.0	--	--
<b>Min. Value</b>	0.5	-0.69	1.2	0.18
<b>Max. Value</b>	90	4.5	9.4	2.2
<b>Mean</b>	21	2.2	3.5	1.1
<b>Median</b>	15	2.7	3.1	1.1
<b>St. Dev.</b>	22	1.6	1.9	0.51
<b>Variance</b>	500	2.5	3.5	0.26

**Notes:**

For statistical analysis, laboratory analytical results less than the reporting limit are represented as one-half the reporting limit as shown in blue font.

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

STLC = Soluble Threshold Limit Concentration

\*Samples retested for total lead due to statistical outliers from the linear regression analysis. Retest data used.

**Table 3**  
**Linear Regression Analysis**  
**Interstate-15, Basin Road Bridge, San Bernardino County, California**

Sample ID	Total Lead (mg/kg) (Y)	Soluble Lead STLC/WET- Citric (mg/L) (X)	Product of Total Lead and Soluble Lead (X) x (Y)
BB-3-1	41	2.8	115
BB-3-2.5	37	2.2	81
BB-4-0.5*	54	4.5	243
BB-4-1	34	2.8	95
BB-5-0.5	90	9.4	846
BB-5-2.0*	58	4.5	261
BB-6-0.5*	48	4.0	192
BB-6-1*	36	2.7	97
BB-6-2.0*	45	3.8	171
BB-7-0.5	30	1.9	57
BB-11-1*	36	1.2	43
BB-12-0.5	48	3.1	149
BB-12-2.5	48	1.8	86
BB-13-0.5	48	5.5	264
BB-13-1	28	4.2	118
BB-13-2.5	25	1.3	33
BB-14-0.5	34	2.4	82
<b>Mean</b>	<b>44</b>	<b>3.4</b>	<b>173</b>
<b>Standard Deviation</b>	<b>15.1</b>	<b>2.0</b>	<b>--</b>

<b>Number of Samples</b>	17
<b>Calculated r Value <sup>(1)</sup></b>	0.85
<b>r<sup>2</sup></b>	0.72
<b>Slope (m) <sup>(2)</sup></b>	6.53
<b>Intercept (b) <sup>(3)</sup></b>	21.2
<b>y=mx+b</b>	y=6.53x+ 21.2
	x=(y-21.2)/6.53

**Notes:**

(1)  $r = \frac{\{(average\ of\ the\ product\ of\ Total\ Lead\ and\ Soluble\ Lead) - ((Soluble\ Lead\ average) \times (Total\ Lead\ average))\}}{\{[standard\ deviation\ of\ Soluble\ Lead] \times [standard\ deviation\ of\ Total\ Lead]\}} \times \sqrt{\frac{number\ of\ samples}{number\ of\ samples - 1}}$

(2) Slope (m) = (r value) x (standard deviation of total lead) / (standard deviation of soluble lead)

(3) Intercept (b) = (average total lead concentration) - (slope (a)) x (average soluble lead level)

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

STLC = Soluble Threshold Limit Concentration

\*Samples retested for total lead due to statistical outliers from the linear regression analysis. Retest data used.

Sample IDs BB-3-0.5 and BB-5-1 were removed from the sample population as outliers.

**Table 4**  
**Summary of Statistical Analysis Results**  
**Total Lead and Soluble Lead by EPA Test Method 6010B**  
**Interstate-15, Basin Road Bridge, San Bernardino County, California**

Parameter	Total Lead	Total Lead Corresponding to Soluble Lead (Cal WET-Citric) Data <sup>(1)</sup>	Soluble Lead Data (Cal WET-Citric)
Number of Data Points	48	17	19
Minimum Value	0.50 (mg/kg)	25 (mg/kg)	1.2 (mg/L)
Maximum Detected Value	90 (mg/kg)	90 (mg/kg)	9.4 (mg/L)
Mean	21 (mg/kg)	44 (mg/kg)	3.1 (mg/L)
Median	15 (mg/kg)	41 (mg/kg)	3.1 (mg/L)
Standard Deviation	22 (mg/kg)	15 (mg/kg)	1.7 (mg/L)
80% UCL	24 (mg/kg) (2)	46 (mg/kg) (2)	3.4 (mg/L) (2)
80% UCL Method <sup>(3)</sup>	Standard Bootstrap (2)	Standard Bootstrap (2)	Student's-t (2)
95% UCL	26 (mg/kg) (2)	49 (mg/kg) (2)	3.8 (mg/L) (2)
95% UCL Method <sup>(3)</sup>	Standard Bootstrap (2)	Standard Bootstrap (2)	Student's-t (2)
Are Data Normal?	No (2)	No (2)	No (2)
Are Data Lognormal?	No (2)	No (2)	Yes (2)

**Notes:**

- (1) A soluble lead test (STLC) was not performed on every sample. As such, a subset of the total data set was created which only includes total lead samples that have both a total lead and soluble lead results.
- (2) Taken from the Environmental Protection Agency's statistical program, ProUCL, Version 3.00.02. Student's-t UCL was used if the data were normal. The standard bootstrap UCL was used if the data were non-parametric.
- (3) If lognormal, the data were transformed using the natural log function (ln|x|) and the mean and UCLs determined using Student's-t. The mean and UCLs were then transformed using the inverse natural log function ( $e^x$ ).

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

STLC = Soluble Threshold Limit Concentration

TCLP = Toxicity Characteristic Leaching Procedure

**Table 5**  
**Statistical Analysis by Depth**  
**City of Riverside, Riverside County, California**

Parameter	Total Lead <sup>(1)</sup>	Soluble Lead Cal WET-Citric <sup>(2)</sup>
<b>0.15 Meter Depth</b>		
Number of Samples	16	
Minimum Result	2.1	
Maximum Result	90	
Mean	27	0.86
Standard Deviation	25	
Variance	640	
80% UCL	32	1.7
95% UCL	37	2.4
Distribution	non-parametric	
<b>0.30 Meter Depth</b>		
Number of Samples	16	
Minimum Result	1.0	
Maximum Result	71	
Mean	19	<0.15
Standard Deviation	20	
Variance	400	
80% UCL	23	0.28
95% UCL	27	0.89
Distribution	non-parametric	
<b>0.60 + 0.75 Meter Depths</b>		
Number of Samples	16	
Minimum Result	0.50	
Maximum Result	58	
Mean	17	<0.15
Standard Deviation	20	
Variance	400	
80% UCL	21	<0.15
95% UCL	25	0.58
Distribution	non-parametric	
<b>0.15 + 0.30 Meter Depths</b>		
Number of Samples	32	
Minimum Result	1.0	
Maximum Result	90	
Mean	23	0.28
Standard Deviation	23	
Variance	520	
80% UCL	26	0.74
95% UCL	29	1.2
Distribution	non-parametric	

**Table 5  
Statistical Analysis by Depth  
City of Riverside, Riverside County, California**

<b>Parameter</b>	<b>Total Lead <sup>(1)</sup></b>	<b>Soluble Lead Cal WET-Citric <sup>(2)</sup></b>
<b>All Depths</b>		
Number of Samples	48	
Minimum Result	0.50	
Maximum Result	90	
Mean	21	<0.15
Standard Deviation	22	
Variance	480	
80% UCL	24	0.43
95% UCL	26	0.74
Distribution	non-parametric	
<b>0.30 + 0.60 + 0.75 Meter Depths</b>		
Number of Samples	32	
Minimum Result	0.50	
Maximum Result	71	
Mean	18	<0.15
Standard Deviation	20	
Variance	390	
80% UCL	21	<0.15
95% UCL	24	0.43
Distribution	non-parametric	

**Notes:**

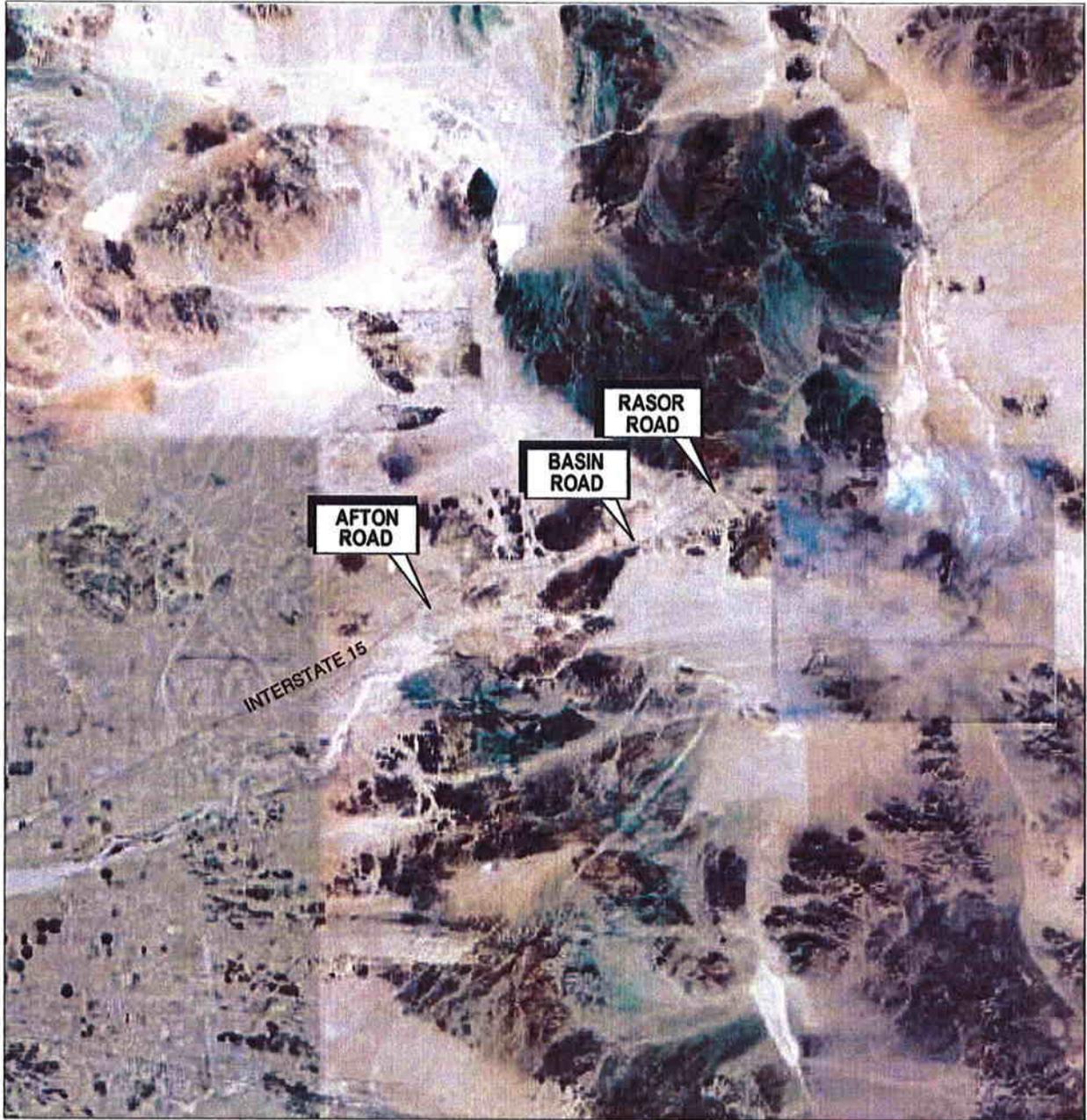
(1) Results for total lead are in milligrams per kilogram (mg/kg).

(2) Soluble Lead Threshold Concentration (STLC) results are in milligrams per liter (mg/L) and were calculated using linear regression analysis (Table 3).

Statistical results were obtained from the Environmental Protection Agency's statistical program, ProUCL, Version 3.00.02. Student's-t UCL was used if the data were normal. The standard bootstrap UCL was used if the data were non-parametric.

If lognormal, the data were transformed using the natural log function (ln[x]) and the mean and UCLs determined using Student's-t. The mean and UCLs were then transformed using the inverse natural log function (e<sup>x</sup>).

## FIGURES

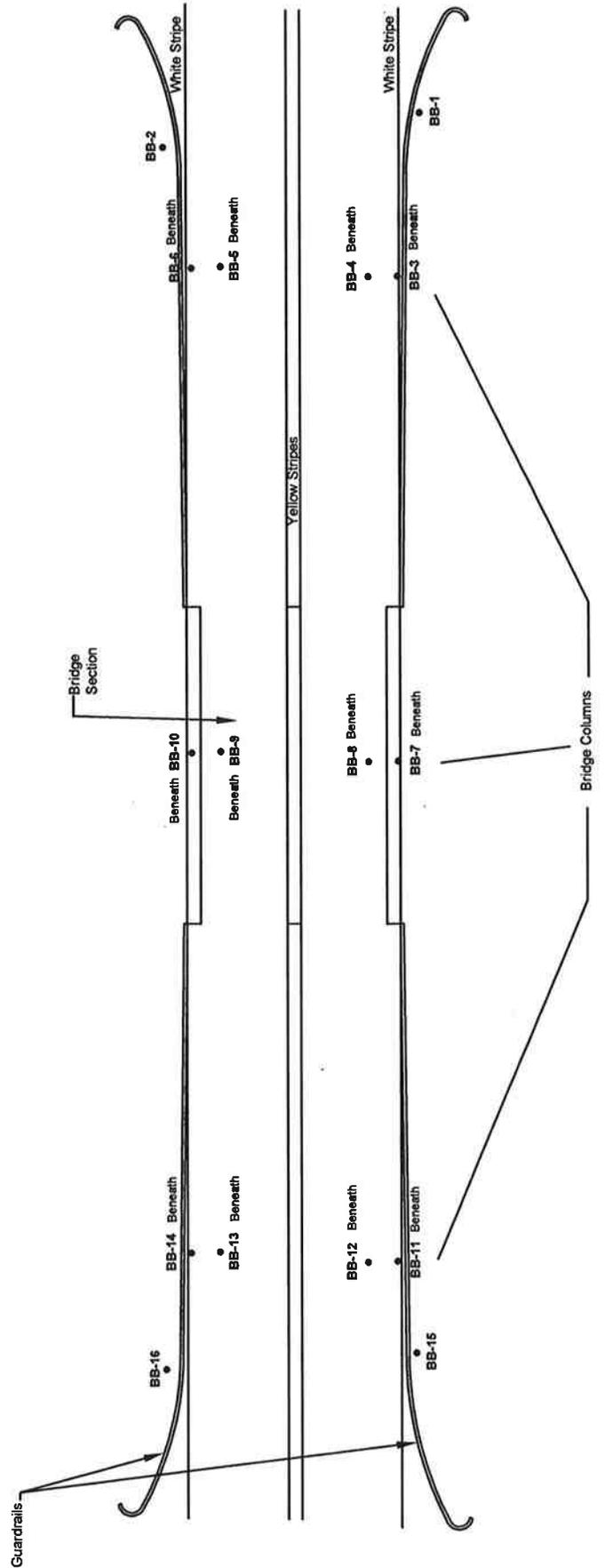


Reference: Google Earth 2009



PHOTOGRAPH LOCATION

 <b>Stantec</b> 25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA PH (909) 335-6116 FAX (909) 335-6120	FOR: <b>CALTRANS TASK ORDER NO. 26          THREE BRIDGES ON INTERSTATE 15          AFTON, BASIN AND RASOR ROADS          IN SAN BERNARDINO COUNTY</b>	<b>SITE LOCATION MAP</b>		FIGURE: <h1 style="text-align: center;">1</h1>
	JOB NUMBER: 185802055	DRAWN BY: KD	CHECKED BY: KD	APPROVED BY: AP

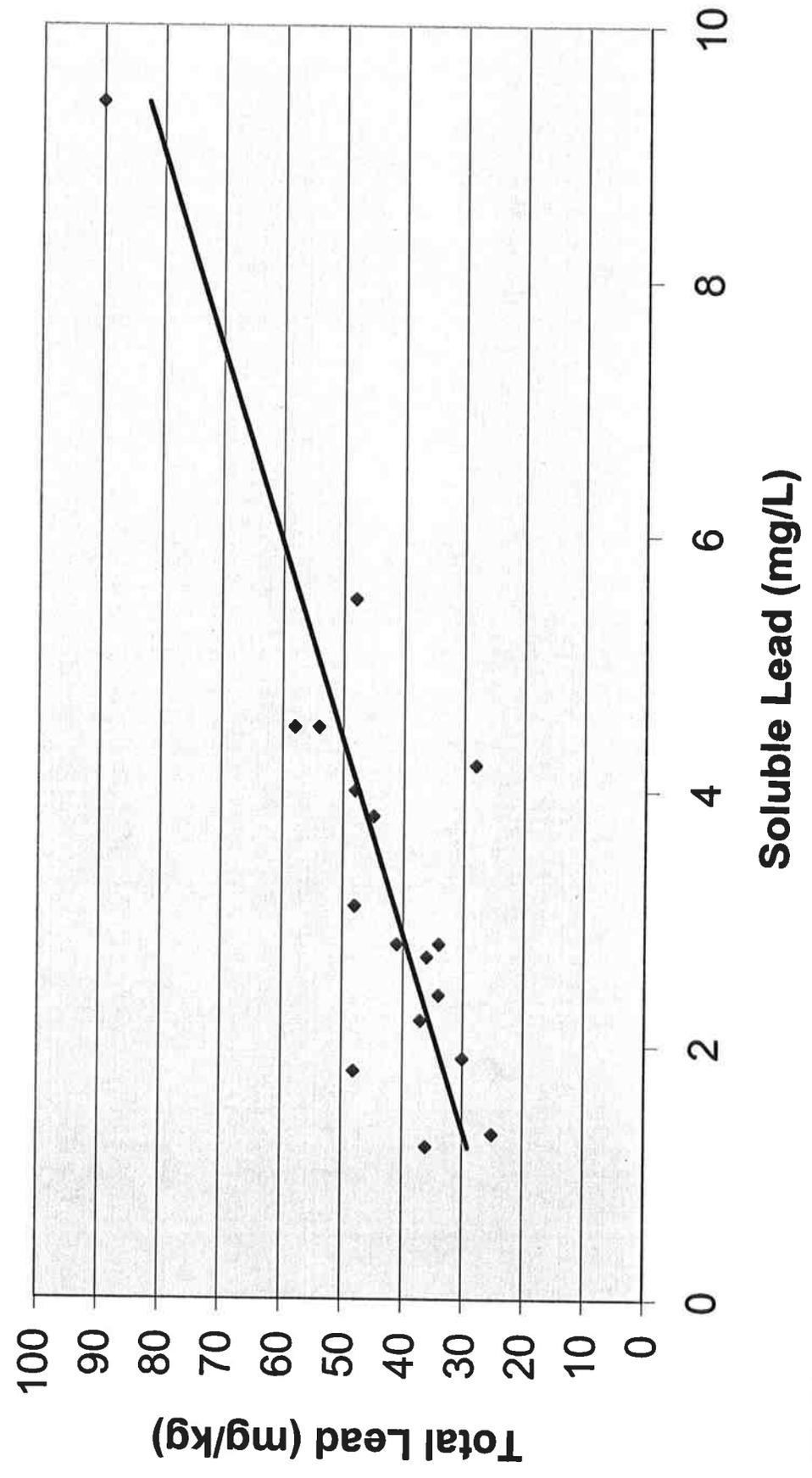


**LEGEND:**  
 • APPROXIMATE SOIL SAMPLE LOCATION

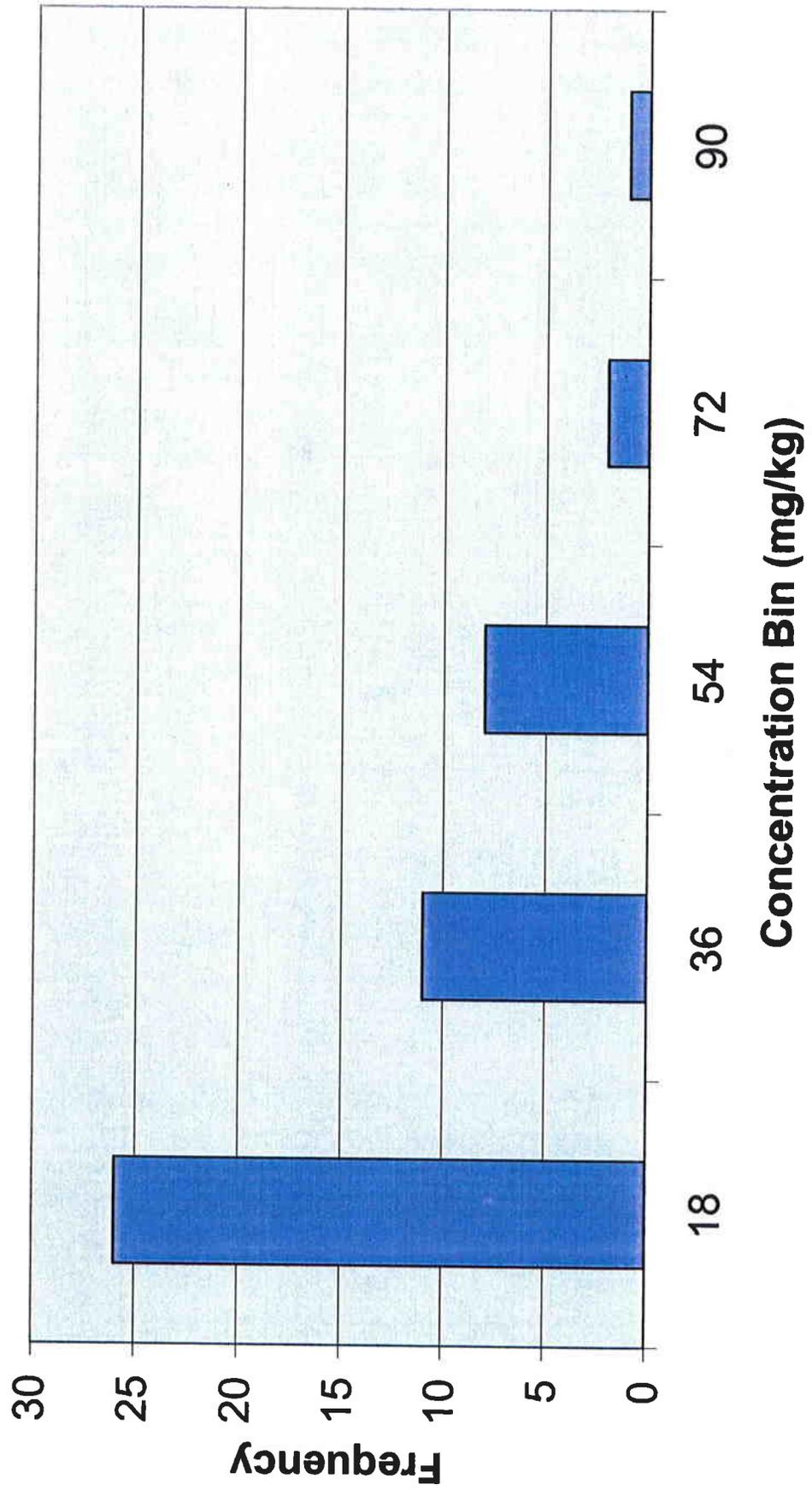
CALTRANS TASK ORDER NO. 26 THREE BRIDGES ON INTERSTATE 15 BASIN ROAD OVERCROSSING IN SAN BERNARDINO COUNTY		FIGURE: <b>2</b>	
JOB NUMBER: 185802056	DRAWN BY: KD	CHECKED BY: AP	APPROVED BY:
		DATE: 07/10/09	

**Figure 3**  
**Linear Regression Analysis**

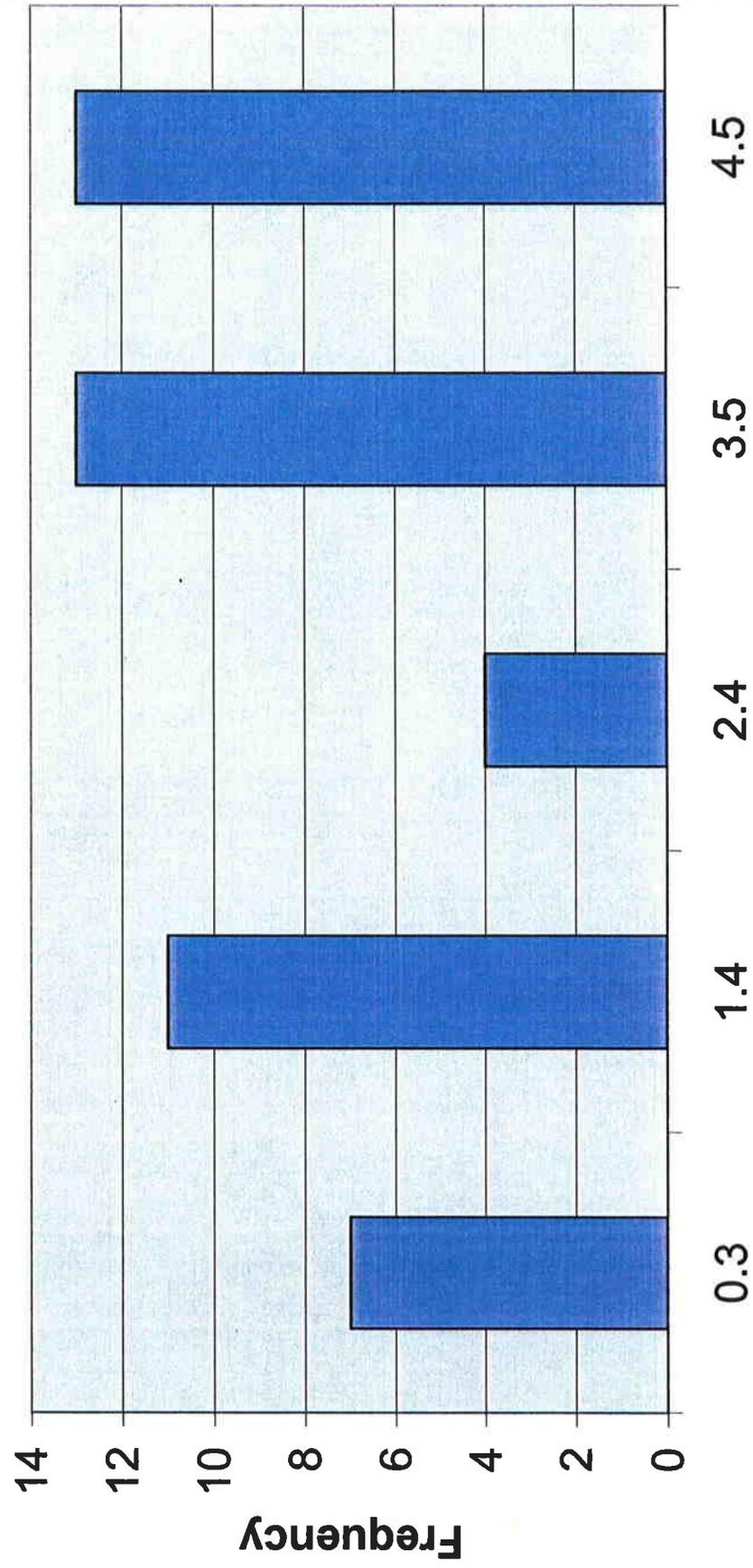
$$y = 6.53x + 21.2$$
$$R^2 = 0.72$$



**Figure 4a**  
**Histogram - Total Lead (All Samples)**

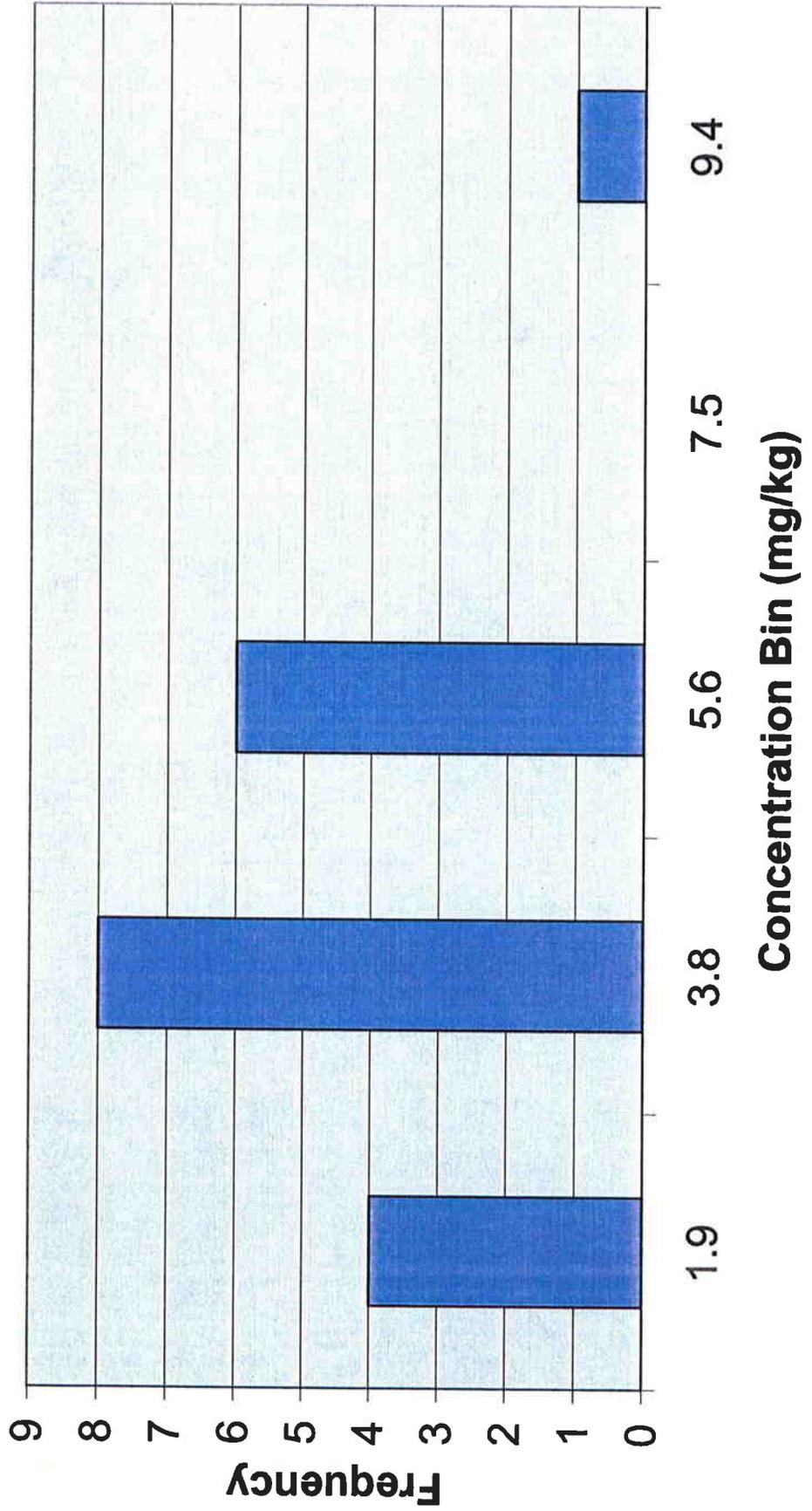


**Figure 4b**  
**Histogram - Total Lead (ln(x) Transformed)**

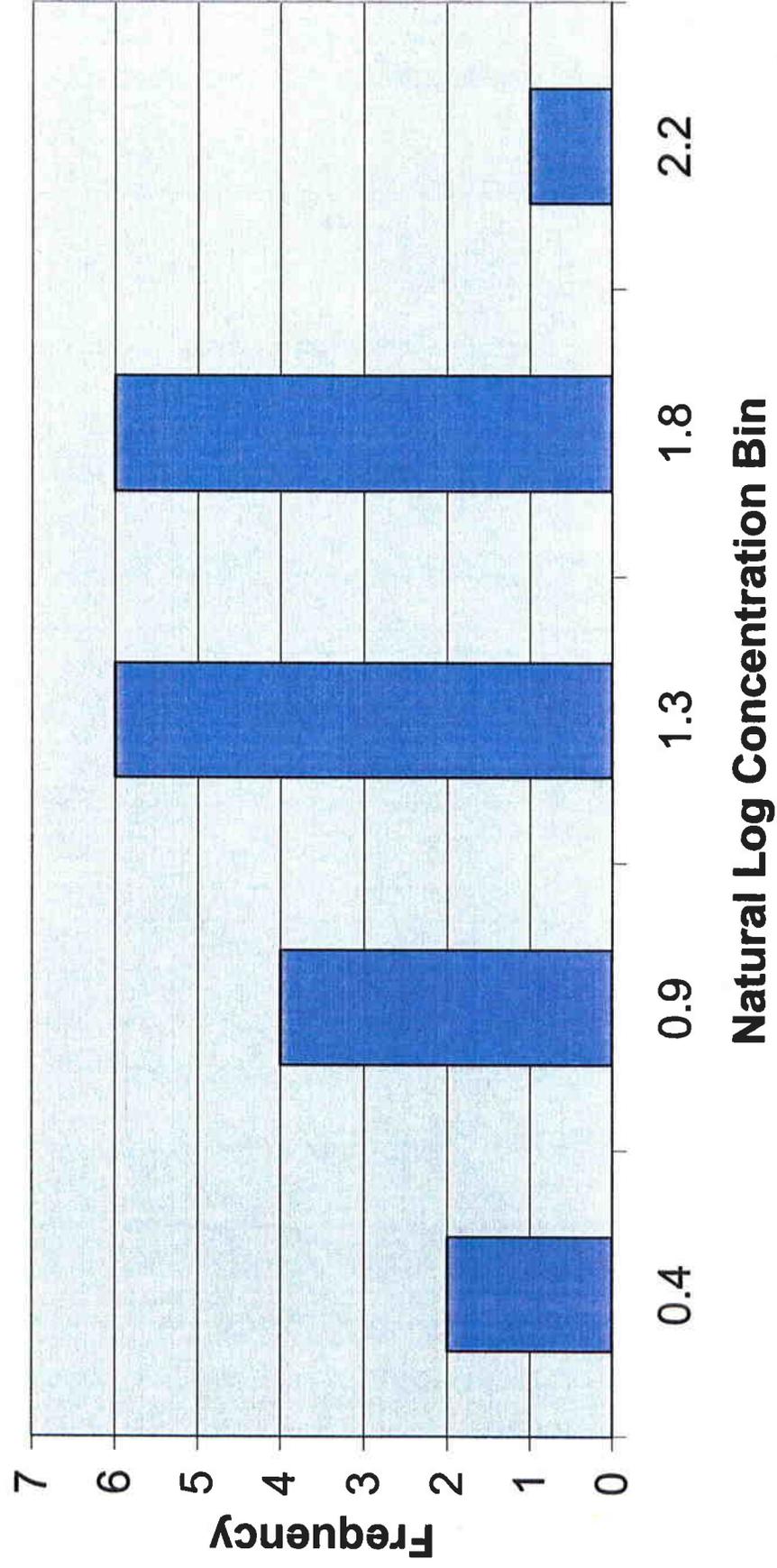


**Natural Log Concentration Bin**

**Figure 5a**  
**Histogram - Soluble Lead (Cal WET-Citric)**



**Figure 5b**  
**Histogram - Soluble Lead**  
**(Cal WET-Citric ln(x) Transformed)**



**FIGURE 6  
BLOCK DIAGRAMS  
95% and 80% UCLs for  
All Areas**

Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 32 UCL <sub>95</sub> = 37	UCL <sub>80</sub> = 1.7 UCL <sub>95</sub> = 2.4
2	UCL <sub>80</sub> = 23 UCL <sub>95</sub> = 27	UCL <sub>80</sub> = 0.28 UCL <sub>95</sub> = 0.89
3	UCL <sub>80</sub> = 21 UCL <sub>95</sub> = 25	UCL <sub>80</sub> = < 0.15 UCL <sub>95</sub> = 0.58

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where each layer (0 to 1, 1 to 2, and 2 to 3 feet) is treated independently.

Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 26 UCL <sub>95</sub> = 29	UCL <sub>80</sub> = 0.74 UCL <sub>95</sub> = 1.2
2	UCL <sub>80</sub> = 21 UCL <sub>95</sub> = 25	UCL <sub>80</sub> = < 0.15 UCL <sub>95</sub> = 0.58
3		

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where the upper 2 feet is treated independently of an underlying layer ranging from 2 to 3 feet.

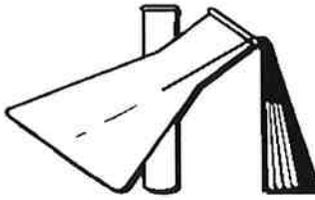
Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 32 UCL <sub>95</sub> = 37	UCL <sub>80</sub> = 1.7 UCL <sub>95</sub> = 2.4
2	UCL <sub>80</sub> = 21 UCL <sub>95</sub> = 24	UCL <sub>80</sub> = < 0.15 UCL <sub>95</sub> = 0.43
3		

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where the upper 1 foot is treated independently of an underlying layer ranging from 1 to 3 feet.

Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 24 UCL <sub>95</sub> = 26	UCL <sub>80</sub> = 0.43 UCL <sub>95</sub> = 0.74
2		
3		

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where the entire zone of investigation is treated as a single layer from 0 to 3 feet.

**APPENDIX A**  
**ANALYTICAL LABORATORY REPORTS**



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 1 of 60

Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

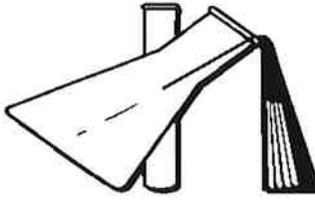
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-1-0.5 (Sample I.D.# : 0906118-01) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	6.0 mg/kg	
<b>BB-1-1 (Sample I.D.# : 0906118-02) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	5.7 mg/kg	
<b>BB-1-2.5 (Sample I.D.# : 0906118-03) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	5.2 mg/kg	
<b>BB-2-0.5 (Sample I.D.# : 0906118-04) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	17 mg/kg	
<b>BB-2-1 (Sample I.D.# : 0906118-05) Collected: 05-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Arsenic	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	9.4 mg/kg	
Barium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	130 mg/kg	
Beryllium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Cadmium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Cobalt	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	3.0 mg/kg	
Chromium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	5.2 mg/kg	
Copper	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	4.8 mg/kg	
Molybdenum	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Nickel	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	3.9 mg/kg	
Lead	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	12 mg/kg	
Antimony	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	< 5.0 mg/kg	
Selenium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	< 5.0 mg/kg	
Thallium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	< 5.0 mg/kg	
Vanadium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	23 mg/kg	
Zinc	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	13 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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25864 F Business Center Drive  
Redlands CA, 92374

Page 2 of 60

Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

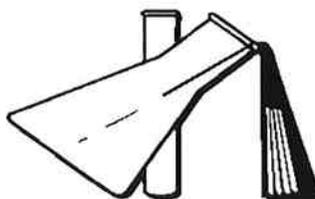
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-2-1 (Sample I.D.# : 0906118-05) Collected: 05-Jun-09 By Stantec</b>						
Mercury	EPA 7471A	AF91603	0.050	16-Jun-09 (AF)	<	0.050 mg/kg
<b>BB-2-2.5 (Sample I.D.# : 0906118-06) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		3.6 mg/kg
<b>BB-3-0.5 (Sample I.D.# : 0906118-07) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		190 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		4.9 mg/l
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		9.3 pH Units
<b>BB-3-1 (Sample I.D.# : 0906118-08) Collected: 05-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)		9.5 mg/kg
Barium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		170 mg/kg
Beryllium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		3.5 mg/kg
Chromium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		6.6 mg/kg
Copper	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		5.5 mg/kg
Molybdenum	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		1.0 mg/kg
Nickel	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		5.2 mg/kg
Lead	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		41 mg/kg
Antimony	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg
Selenium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg
Thallium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg
Vanadium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		25 mg/kg
Zinc	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		36 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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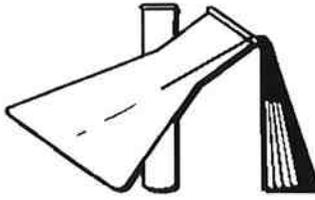
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-3-1 (Sample I.D.# : 0906118-08) Collected: 05-Jun-09 By Stantec</b>						
Mercury	EPA 7471A	AF91603	0.050	16-Jun-09 (AF)	<	0.050 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		2.8 mg/l
pH	EPA 9040	AF91911	0.1	20-Jun-09 (EA)		8.8 pH Units
<b>BB-3-2.5 (Sample I.D.# : 0906118-09) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		37 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		2.2 mg/l
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		8.6 pH Units
<b>BB-4-0.5 (Sample I.D.# : 0906118-10) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		100 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		4.5 mg/l
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		9.4 pH Units
<b>BB-4-1 (Sample I.D.# : 0906118-11) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		34 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		2.8 mg/l
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		9.9 pH Units
<b>BB-4-2.5 (Sample I.D.# : 0906118-12) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		24 mg/kg
<b>BB-5-0.5 (Sample I.D.# : 0906118-13) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		90 mg/kg
Lead	EPA 6010B(TCLP)	AF92304	0.02	23-Jun-09 (AF)		0.25 mg/l
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		9.4 mg/l
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		9.3 pH Units
<b>BB-5-1 (Sample I.D.# : 0906118-14) Collected: 05-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)		7.7 mg/kg
Barium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		160 mg/kg
Beryllium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		3.9 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Page 4 of 60

Attention: Anne Perez  
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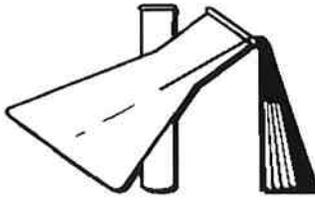
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-5-1 (Sample I.D.# : 0906118-14) Collected: 05-Jun-09 By Stantec</b>						
Chromium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	6.1 mg/kg	
Copper	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	6.6 mg/kg	
Molybdenum	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Nickel	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	5.5 mg/kg	
Lead	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	71 mg/kg	
Antimony	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	< 5.0 mg/kg	
Selenium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	< 5.0 mg/kg	
Thallium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	< 5.0 mg/kg	
Vanadium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	24 mg/kg	
Zinc	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	43 mg/kg	
Mercury	EPA 7471A	AF91603	0.050	16-Jun-09 (AF)	< 0.050 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	3.5 mg/l	
pH	EPA 9040	AF91911	0.1	20-May-09 (EA)	8.9 pH Units	
<b>BB-5-2.0 (Sample I.D.# : 0906118-15) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	27 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	4.5 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)	9.7 pH Units	
<b>BB-6-0.5 (Sample I.D.# : 0906118-16) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	34 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	4.0 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)	9.6 pH Units	
<b>BB-6-1 (Sample I.D.# : 0906118-17) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	25 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	2.7 mg/l	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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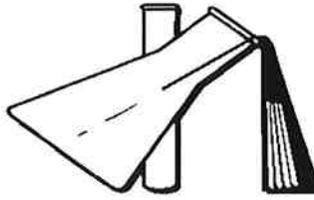
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-6-1 (Sample I.D.# : 0906118-17) Collected: 05-Jun-09 By Stantec</b>						
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)	9.5 pH Units	
<b>BB-6-2.0 (Sample I.D.# : 0906118-18) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	33 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	3.8 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)	9.9 pH Units	
<b>BB-7-0.5 (Sample I.D.# : 0906118-19) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	30 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)	1.9 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)	9.1 pH Units	
<b>BB-7-1 (Sample I.D.# : 0906118-20) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	2.9 mg/kg	
<b>BB-7-2.5 (Sample I.D.# : 0906118-21) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	< 1.0 mg/kg	
<b>BB-8-0.5 (Sample I.D.# : 0906118-22) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	6.3 mg/kg	
<b>BB-8-1 (Sample I.D.# : 0906118-23) Collected: 05-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	< 1.0 mg/kg	
Arsenic	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	11 mg/kg	
Barium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	24 mg/kg	
Beryllium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Cadmium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Cobalt	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	2.3 mg/kg	
Chromium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	4.1 mg/kg	
Copper	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	2.7 mg/kg	
Molybdenum	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Nickel	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	3.9 mg/kg	
Lead	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	1.6 mg/kg	
Antimony	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	2.1 mg/kg	
Selenium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	< 5.0 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

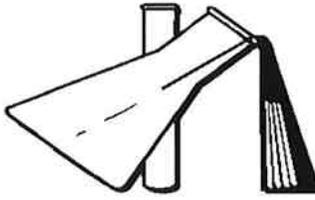
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-8-1 (Sample I.D.# : 0906118-23) Collected: 05-Jun-09 By Stantec</b>						
Thallium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg
Vanadium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		13 mg/kg
Zinc	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		9.9 mg/kg
Mercury	EPA 7471A	AF91603	0.050	16-Jun-09 (AF)	<	0.050 mg/kg
<b>BB-8-2.5 (Sample I.D.# : 0906118-24) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	<	1.0 mg/kg
<b>BB-9-0.5 (Sample I.D.# : 0906118-25) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		2.1 mg/kg
<b>BB-9-1 (Sample I.D.# : 0906118-26) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		1.0 mg/kg
<b>BB-9-2.5 (Sample I.D.# : 0906118-27) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	<	1.0 mg/kg
<b>BB-10-0.5 (Sample I.D.# : 0906118-28) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		2.6 mg/kg
<b>BB-10-1 (Sample I.D.# : 0906118-29) Collected: 05-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)		11 mg/kg
Barium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		98 mg/kg
Beryllium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		2.7 mg/kg
Chromium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		5.0 mg/kg
Copper	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		3.9 mg/kg
Molybdenum	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Nickel	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		4.4 mg/kg
Lead	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		2.5 mg/kg
Antimony	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)		1.1 mg/kg
Selenium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg
Thallium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

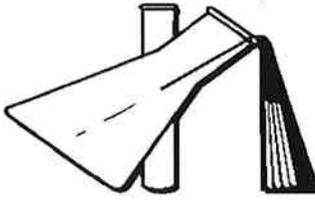
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-10-1 (Sample I.D.# : 0906118-29) Collected: 05-Jun-09 By Stantec</b>						
Vanadium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	18 mg/kg	
Zinc	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	12 mg/kg	
Mercury	EPA 7471A	AF91603	0.050	16-Jun-09 (AF)	< 0.050 mg/kg	
<b>BB-10-2.5 (Sample I.D.# : 0906118-30) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	< 1.0 mg/kg	
<b>BB-11-0.5 (Sample I.D.# : 0906118-31) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	16 mg/kg	
<b>BB-11-1 (Sample I.D.# : 0906118-32) Collected: 05-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	< 1.0 mg/kg	
Arsenic	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	11 mg/kg	
Barium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	38 mg/kg	
Beryllium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Cadmium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Cobalt	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	3.2 mg/kg	
Chromium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	5.4 mg/kg	
Copper	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	5.2 mg/kg	
Molybdenum	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	< 1.0 mg/kg	
Nickel	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	4.6 mg/kg	
Lead	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	45 mg/kg	
Antimony	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	1.4 mg/kg	
Selenium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	< 5.0 mg/kg	
Thallium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	< 5.0 mg/kg	
Vanadium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	18 mg/kg	
Zinc	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	30 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

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Attention: Anne Perez  
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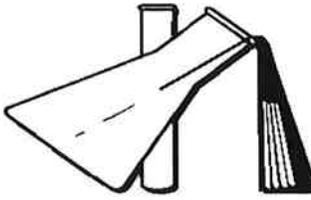
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)		RESULT	NOTE
<b>BB-11-1 (Sample I.D.# : 0906118-32) Collected: 05-Jun-09 By Stantec</b>							
Mercury	EPA 7471A	AF91603	0.050	16-Jun-09 (AF)	<	0.050 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		1.2 mg/l	
pH	EPA 9040	AF91911	0.1	20-Jun-09 (EA)		9.2 pH Units	
<b>BB-11-2.5 (Sample I.D.# : 0906118-33) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		3.4 mg/kg	
<b>BB-12-0.5 (Sample I.D.# : 0906118-34) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		48 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		3.1 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		9.4 pH Units	
<b>BB-12-1 (Sample I.D.# : 0906118-35) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		19 mg/kg	
<b>BB-12-2.5 (Sample I.D.# : 0906118-36) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		48 mg/kg	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		1.8 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		9.9 pH Units	
<b>BB-13-0.5 (Sample I.D.# : 0906118-37) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		48 mg/kg	
Lead	EPA 6010B(TCLP)	AF92304	0.02	23-Jun-09 (AF)		0.23 mg/l	
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		5.5 mg/l	
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		9.6 pH Units	
<b>BB-13-1 (Sample I.D.# : 0906118-38) Collected: 05-Jun-09 By Stantec</b>							
Silver	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	<	1.0 mg/kg	
Arsenic	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)		9.7 mg/kg	
Barium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		33 mg/kg	
Beryllium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg	
Cadmium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg	
Cobalt	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		2.9 mg/kg	
Chromium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		6.0 mg/kg	
Copper	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		19 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

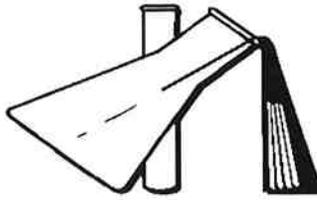
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-13-1 (Sample I.D.# : 0906118-38) Collected: 05-Jun-09 By Stantec</b>						
Molybdenum	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Nickel	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		4.8 mg/kg
Lead	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		33 mg/kg
Antimony	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	<	1.0 mg/kg
Selenium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg
Thallium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg
Vanadium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		18 mg/kg
Zinc	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		34 mg/kg
Mercury	EPA 7471A	AF91603	0.050	16-Jun-09 (AF)	<	0.050 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		4.2 mg/l
pH	EPA 9040	AF91911	0.1	20-Jun-09 (EA)		9.4 pH Units
<b>BB-13-2.5 (Sample I.D.# : 0906118-39) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		25 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		1.3 mg/l
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		9.5 pH Units
<b>BB-14-0.5 (Sample I.D.# : 0906118-40) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		34 mg/kg
Lead	EPA 6010B(STLC)	AF91713	0.20	18-Jun-09 (AF)		2.4 mg/l
pH	EPA 9045B	AF91511	0.1	15-Jun-09 (EA)		9.6 pH Units
<b>BB-14-1 (Sample I.D.# : 0906118-41) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		13 mg/kg
<b>BB-14-2.5 (Sample I.D.# : 0906118-42) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		3.4 mg/kg
<b>BB-15-0.5 (Sample I.D.# : 0906118-43) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		2.1 mg/kg
<b>BB-15-1 (Sample I.D.# : 0906118-44) Collected: 05-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)		9.9 mg/kg
Barium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		24 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Attention: Anne Perez  
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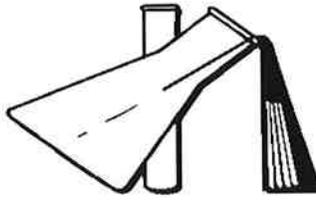
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-15-1 (Sample I.D.# : 0906118-44) Collected: 05-Jun-09 By Stantec</b>						
Beryllium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		2.5 mg/kg
Chromium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		5.4 mg/kg
Copper	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		2.7 mg/kg
Molybdenum	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)	<	1.0 mg/kg
Nickel	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		4.4 mg/kg
Lead	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		1.4 mg/kg
Antimony	EPA 6010B	AF91019	1.0	15-Jun-09 (AF)	<	1.0 mg/kg
Selenium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg
Thallium	EPA 6010B	AF91019	5.0	11-Jun-09 (AF)	<	5.0 mg/kg
Vanadium	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		16 mg/kg
Zinc	EPA 6010B	AF91019	1.0	11-Jun-09 (AF)		10 mg/kg
Mercury	EPA 7471A	AF91603	0.050	16-Jun-09 (AF)	<	0.050 mg/kg
<b>BB-15-2.5 (Sample I.D.# : 0906118-45) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)	<	1.0 mg/kg
<b>BB-16-0.5 (Sample I.D.# : 0906118-46) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		3.5 mg/kg
<b>BB-16-1 (Sample I.D.# : 0906118-47) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		2.5 mg/kg
<b>BB-16-2.5 (Sample I.D.# : 0906118-48) Collected: 05-Jun-09 By Stantec</b>						
Lead	EPA 6010B	AF91106	1.0	12-Jun-09 (AF)		20 mg/kg
<b>BB Blank (Sample I.D.# : 0906118-49) Collected: 05-Jun-09 By Stantec</b>						
Silver	EPA 6010B	AF91205	0.02	19-Jun-09 (AF)	<	0.02 mg/l
Arsenic	EPA 6010B	AF91205	0.10	19-Jun-09 (AF)	<	0.10 mg/l
Barium	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Beryllium	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Cadmium	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Cobalt	EPA 6010B	AF91205	0.02	19-Jun-09 (AF)	<	0.02 mg/l
Chromium	EPA 6010B	AF91205	0.02	19-Jun-09 (AF)		0.03 mg/l

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Attention: Anne Perez  
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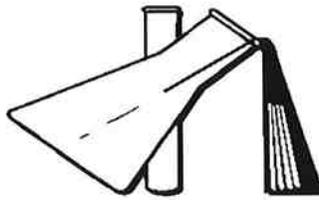
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB Blank (Sample I.D.# : 0906118-49) Collected: 05-Jun-09 By Stantec</b>						
Copper	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Molybdenum	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Nickel	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Lead	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Antimony	EPA 6010B	AF91205	0.10	15-Jun-09 (AF)	<	0.10 mg/l
Selenium	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Thallium	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Vanadium	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Zinc	EPA 6010B	AF91205	0.02	15-Jun-09 (AF)	<	0.02 mg/l
Mercury	EPA 7470A	AF91604	0.20	16-Jun-09 (AF)	<	0.20 ug/l
Dichlorodifluoromethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Chloromethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Vinyl chloride	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Bromomethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Chloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1-Dichloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Acetone	EPA 8260B	AF91015	5.0	10-Jun-09 (PJL)	<	5.0 ug/l
Methylene chloride	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
t-1,2-Dichloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1-Dichloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
2,2-Dichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
c-1,2-Dichloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Chloroform	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1,1-Trichloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
2-Butanone (MEK)	EPA 8260B	AF91015	5.0	10-Jun-09 (PJL)	<	5.0 ug/l
Carbon tetrachloride	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1-Dichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Benzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dichloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Trichloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

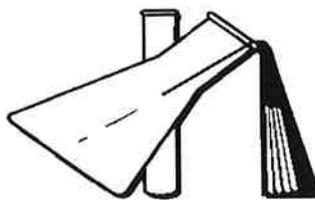
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB Blank (Sample I.D.# : 0906118-49) Collected: 05-Jun-09 By Stantec</b>						
1,2-Dichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Dibromomethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Bromodichloromethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
c-1,3-Dichloropropene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Toluene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
t-1,3-Dichloropropene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1,2-Trichloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Methyl isobutyl ketone	EPA 8260B	AF91015	5.0	10-Jun-09 (PJL)	<	5.0 ug/l
Tetrachloroethene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,3-Dichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Dibromochloromethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dibromoethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
2-Hexanone	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Chlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Ethylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
m,p-Xylene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
o-Xylene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Styrene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Bromoform	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Isopropylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Bromobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2,3-Trichloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
n-Propylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
2-Chlorotoluene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,3,5-Trimethylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
4-Chlorotoluene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
tert-Butylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2,4-Trimethylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
sec-Butylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

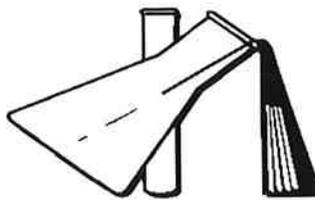
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB Blank (Sample I.D.# : 0906118-49) Collected: 05-Jun-09 By Stantec</b>						
1,3-Dichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
p-Isopropyltoluene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,4-Dichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
n-Butylbenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2,4-Trichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Hexachlorobutadiene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Methyl tert-butyl ether	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Naphthalene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
1,2,3-Trichlorobenzene	EPA 8260B	AF91015	0.5	10-Jun-09 (PJL)	<	0.5 ug/l
Isopropyl alcohol	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
2-Chloroethylvinyl ether	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
Acrolein	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
Acrylonitrile	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
Acetonitrile	EPA 8260B	AF91015	10.0	10-Jun-09 (PJL)	<	10.0 ug/l
<i>Surrogate: Dibromofluoromethane</i>	<i>EPA 8260B</i>	<i>AF91015</i>		<i>10-Jun-09 (PJL)</i>		<i>98.5 % (85-115)</i>
<i>Surrogate: Toluene-d8</i>	<i>EPA 8260B</i>	<i>AF91015</i>		<i>10-Jun-09 (PJL)</i>		<i>100 % (85-115)</i>
<i>Surrogate: Bromofluorobenzene</i>	<i>EPA 8260B</i>	<i>AF91015</i>		<i>10-Jun-09 (PJL)</i>		<i>96.1 % (85-115)</i>
<b>BB-2-1 (Sample I.D.# : 0906118-50) Collected: 05-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

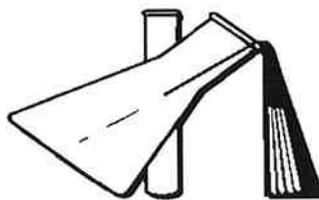
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-2-1 (Sample I.D.# : 0906118-50) Collected: 05-Jun-09 By Stantec</b>						
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

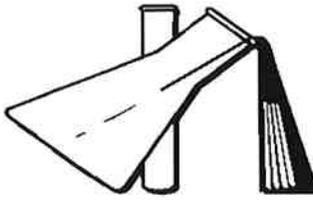
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-2-1 (Sample I.D.# : 0906118-50) Collected: 05-Jun-09 By Stantec</b>						
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 16 of 60

Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

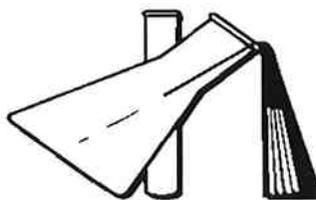
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-2-1 (Sample I.D.# : 0906118-50) Collected: 05-Jun-09 By Stantec</b>						
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		102 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		89.0 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		112 % (85-115)
<b>BB-3-1 (Sample I.D.# : 0906118-51) Collected: 05-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

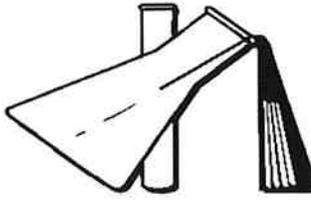
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-3-1 (Sample I.D.# : 0906118-51) Collected: 05-Jun-09 By Stantec</b>						
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

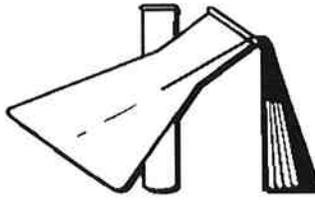
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-3-1 (Sample I.D.# : 0906118-51) Collected: 05-Jun-09 By Stantec</b>						
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		90.4 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		88.0 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		110 % (85-115)
<b>BB-5-1 (Sample I.D.# : 0906118-52) Collected: 05-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

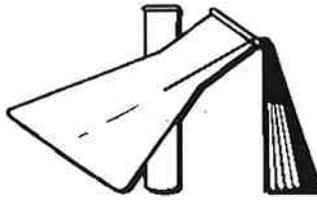
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-5-1 (Sample I.D.# : 0906118-52) Collected: 05-Jun-09 By Stantec</b>						
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

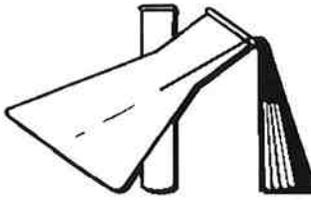
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-5-1 (Sample I.D.# : 0906118-52) Collected: 05-Jun-09 By Stantec</b>						
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

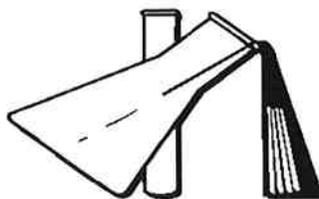
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-5-1 (Sample I.D.# : 0906118-52) Collected: 05-Jun-09 By Stantec</b>						
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		102 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		89.7 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		113 % (85-115)
<b>BB-8-1 (Sample I.D.# : 0906118-53) Collected: 05-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

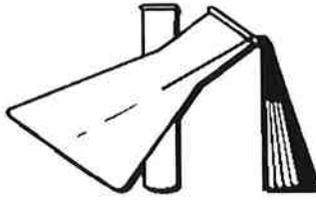
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-8-1 (Sample I.D.# : 0906118-53) Collected: 05-Jun-09 By Stantec</b>						
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

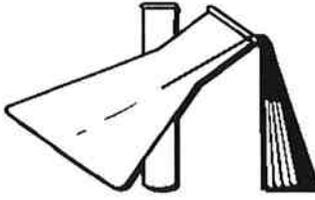
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-8-1 (Sample I.D.# : 0906118-53) Collected: 05-Jun-09 By Stantec</b>						
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		100 % (85-115)

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

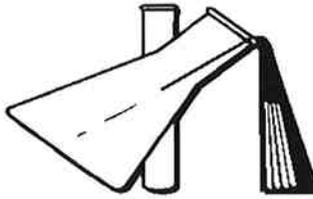
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-8-1 (Sample I.D.# : 0906118-53) Collected: 05-Jun-09 By Stantec</b>						
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)	88.5 % (85-115)	
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)	113 % (85-115)	
<b>BB-10-1 (Sample I.D.# : 0906118-54) Collected: 05-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

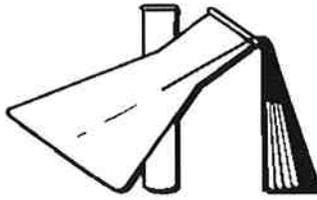
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-10-1 (Sample I.D.# : 0906118-54) Collected: 05-Jun-09 By Stantec</b>						
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 26 of 60

Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

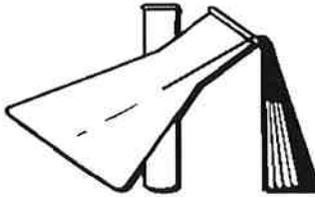
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-10-1 (Sample I.D.# : 0906118-54) Collected: 05-Jun-09 By Stantec</b>						
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		103 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		85.8 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		112 % (85-115)
<b>BB-11-1 (Sample I.D.# : 0906118-55) Collected: 05-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

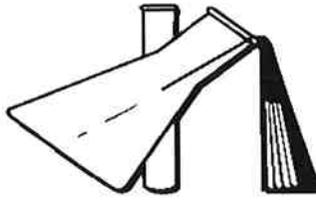
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-11-1 (Sample I.D.# : 0906118-55) Collected: 05-Jun-09 By Stantec</b>						
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

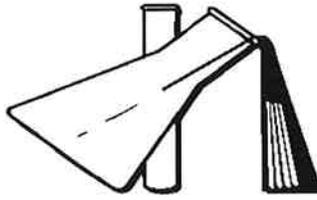
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-11-1 (Sample I.D.# : 0906118-55) Collected: 05-Jun-09 By Stantec</b>						
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

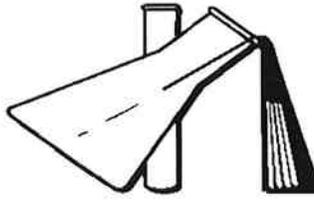
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-11-1 (Sample I.D.# : 0906118-55) Collected: 05-Jun-09 By Stantec</b>						
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		100 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		87.7 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		112 % (85-115)
<b>BB-13-1 (Sample I.D.# : 0906118-56) Collected: 05-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

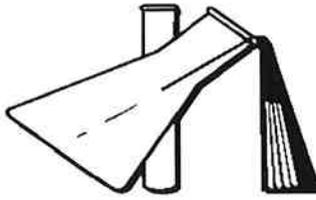
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-13-1 (Sample I.D.# : 0906118-56) Collected: 05-Jun-09 By Stantec</b>						
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: **Anne Perez**  
Report Date: **24-Jun-09 16:38**  
Subject: **Soil Samples**

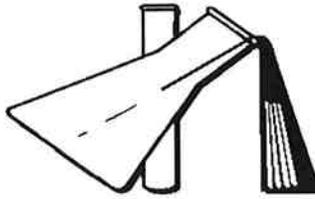
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-13-1 (Sample I.D.# : 0906118-56) Collected: 05-Jun-09 By Stantec</b>						
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		102 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		89.0 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		108 % (85-115)
<b>BB-15-1 (Sample I.D.# : 0906118-57) Collected: 05-Jun-09 By Stantec</b>						
Bromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 32 of 60

Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

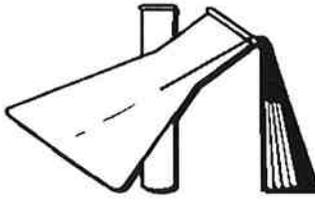
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-15-1 (Sample I.D.# : 0906118-57) Collected: 05-Jun-09 By Stantec</b>						
Chloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Acetone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Methylene chloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chloroform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Benzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Dibromomethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromodichloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Toluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91010	1.0	10-Jun-09 (PL)	<	1.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

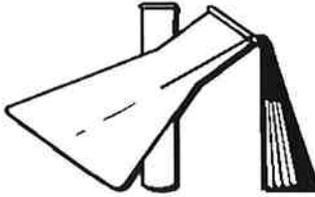
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-15-1 (Sample I.D.# : 0906118-57) Collected: 05-Jun-09 By Stantec</b>						
Dibromochloromethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Hexanone	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Chlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Ethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
m,p-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
o-Xylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Styrene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromoform	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Bromobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Propylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
2-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
4-Chlorotoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
tert-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
sec-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
n-Butylbenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

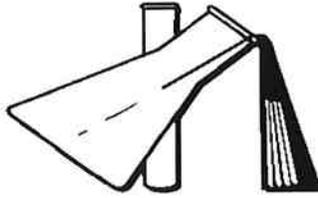
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>BB-15-1 (Sample I.D.# : 0906118-57) Collected: 05-Jun-09 By Stantec</b>						
Hexachlorobutadiene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Naphthalene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Isopropyl alcohol	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrolein	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Acrylonitrile	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Vinyl acetate	EPA 8260B	AF91010	2.0	10-Jun-09 (PL)	<	2.0 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91010	0.4	10-Jun-09 (PL)	<	0.4 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Di-isopropyl ether	EPA 8260B	AF91010	0.1	10-Jun-09 (PL)	<	0.1 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91010		10-Jun-09 (PL)		99.0 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91010		10-Jun-09 (PL)		88.0 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91010		10-Jun-09 (PL)		113 % (85-115)

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91019 - EPA 3050B

#### Blank (AF91019-BLK1)

Prepared: 10-Jun-09 Analyzed: 11-Jun-09

Silver	ND	1.0	mg/kg							
Arsenic	ND	5.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	1.0	"							
Molybdenum	ND	1.0	"							
Lead	ND	1.0	"							
Thallium	ND	5.0	"							
Chromium	ND	1.0	"							
Selenium	ND	5.0	"							
Zinc	ND	1.0	"							
Barium	ND	1.0	"							
Antimony	ND	5.0	"							
Cobalt	ND	1.0	"							
Copper	ND	1.0	"							
Nickel	ND	1.0	"							
Vanadium	ND	1.0	"							

#### LCS (AF91019-BS1)

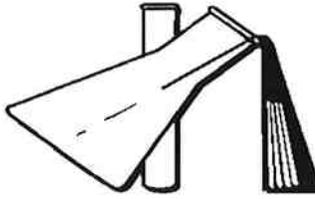
Prepared: 10-Jun-09 Analyzed: 11-Jun-09

Zinc	24.8	1.0	mg/kg	25.0		99.2	80-120			
Cobalt	25.7	1.0	"	25.0		103	80-120			
Thallium	25.9	5.0	"	25.0		104	80-120			
Copper	25.7	1.0	"	25.0		103	80-120			
Lead	25.9	1.0	"	25.0		104	80-120			
Cadmium	24.9	1.0	"	25.0		99.8	80-120			
Barium	24.9	1.0	"	25.0		99.5	80-120			
Selenium	24.6	5.0	"	25.0		98.2	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91019 - EPA 3050B</b>										
<b>LCS (AF91019-BS1)</b>				Prepared: 10-Jun-09 Analyzed: 11-Jun-09						
Vanadium	24.0	1.0	"	25.0		95.9	80-120			
Arsenic	24.6	5.0	"	25.0		98.5	80-120			
Molybdenum	24.1	1.0	"	25.0		96.2	80-120			
Nickel	25.8	1.0	"	25.0		103	80-120			
Chromium	25.3	1.0	"	25.0		101	80-120			
Antimony	24.3	5.0	"	25.0		97.2	80-120			
Beryllium	25.3	1.0	"	25.0		101	80-120			
Silver	12.4	1.0	"	12.5		99.0	80-120			

### LCS Dup (AF91019-BSD1)

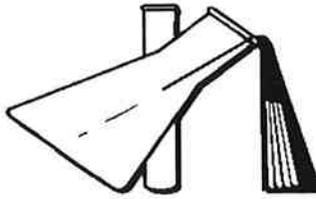
Prepared: 10-Jun-09 Analyzed: 11-Jun-09

Arsenic	24.4	5.0	mg/kg	25.0		97.5	80-120	1.04	20	
Beryllium	24.6	1.0	"	25.0		98.5	80-120	2.74	20	
Cadmium	24.5	1.0	"	25.0		98.0	80-120	1.77	20	
Copper	25.4	1.0	"	25.0		102	80-120	1.05	20	
Silver	12.1	1.0	"	12.5		97.0	80-120	2.05	20	
Nickel	25.2	1.0	"	25.0		101	80-120	2.67	20	
Cobalt	25.2	1.0	"	25.0		101	80-120	2.05	20	
Zinc	24.3	1.0	"	25.0		97.1	80-120	2.13	20	
Barium	24.6	1.0	"	25.0		98.3	80-120	1.21	20	
Antimony	23.4	5.0	"	25.0		93.6	80-120	3.79	20	
Chromium	24.7	1.0	"	25.0		98.9	80-120	2.23	20	
Molybdenum	23.7	1.0	"	25.0		94.8	80-120	1.49	20	
Lead	25.3	1.0	"	25.0		101	80-120	2.14	20	
Selenium	24.4	5.0	"	25.0		97.6	80-120	0.612	20	
Thallium	25.5	5.0	"	25.0		102	80-120	1.85	20	
Vanadium	23.7	1.0	"	25.0		94.8	80-120	1.15	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 37 of 60

Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91019 - EPA 3050B

#### Duplicate (AF91019-DUP1)

Source: 0906118-05

Prepared: 10-Jun-09 Analyzed: 11-Jun-09

Chromium	5.27	1.0	mg/kg		5.22			1.04	20	
Copper	4.66	1.0	"		4.81			3.34	20	
Antimony	ND	5.0	"		0.593				20	
Nickel	3.80	1.0	"		3.91			3.04	20	
Selenium	ND	5.0	"		ND				20	
Lead	11.6	1.0	"		12.0			3.21	20	
Silver	ND	1.0	"		ND				20	
Arsenic	10.2	5.0	"		9.43			7.59	20	
Thallium	ND	5.0	"		ND				20	
Beryllium	ND	1.0	"		ND				20	
Molybdenum	ND	1.0	"		0.116				20	
Vanadium	23.3	1.0	"		23.4			0.112	20	
Cobalt	2.90	1.0	"		2.98			2.66	20	
Zinc	12.6	1.0	"		13.1			3.50	20	
Cadmium	ND	1.0	"		ND				20	
Barium	128	1.0	"		128			0.217	20	

#### Matrix Spike (AF91019-MS1)

Source: 0906118-05

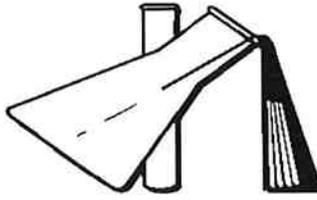
Prepared: 10-Jun-09 Analyzed: 11-Jun-09

Copper	119	1.0	mg/kg	125	4.81	91.4	75-125			
Zinc	124	1.0	"	125	13.1	88.7	75-125			
Lead	127	1.0	"	125	12.0	91.9	75-125			
Barium	224	1.0	"	125	128	77.1	75-125			
Antimony	104	5.0	"	125	0.593	82.7	75-125			
Arsenic	118	5.0	"	125	9.43	86.6	75-125			
Nickel	120	1.0	"	125	3.91	93.0	75-125			
Thallium	116	5.0	"	125	ND	92.5	75-125			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 38 of 60

Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91019 - EPA 3050B

#### Matrix Spike (AF91019-MS1)

Source: 0906118-05

Prepared: 10-Jun-09 Analyzed: 11-Jun-09

Chromium	120	1.0	"	125	5.22	91.8	75-125			
Beryllium	117	1.0	"	125	ND	93.8	75-125			
Vanadium	133	1.0	"	125	23.4	87.4	75-125			
Cobalt	119	1.0	"	125	2.98	92.7	75-125			
Silver	54.8	1.0	"	62.5	ND	87.7	75-125			
Cadmium	113	1.0	"	125	ND	90.4	75-125			
Molybdenum	104	1.0	"	125	0.116	83.0	75-125			
Selenium	114	5.0	"	125	ND	91.1	75-125			

#### Matrix Spike Dup (AF91019-MSD1)

Source: 0906118-05

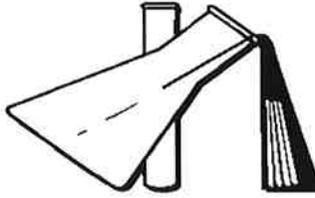
Prepared: 10-Jun-09 Analyzed: 11-Jun-09

Selenium	116	5.0	mg/kg	125	ND	92.6	75-125	1.57	20	
Chromium	121	1.0	"	125	5.22	92.6	75-125	0.835	20	
Cobalt	120	1.0	"	125	2.98	93.8	75-125	1.09	20	
Arsenic	118	5.0	"	125	9.43	86.6	75-125	0.0433	20	
Cadmium	114	1.0	"	125	ND	91.6	75-125	1.25	20	
Molybdenum	106	1.0	"	125	0.116	84.7	75-125	1.99	20	
Barium	237	1.0	"	125	128	87.1	75-125	5.43	20	
Nickel	121	1.0	"	125	3.91	93.6	75-125	0.606	20	
Antimony	106	5.0	"	125	0.593	84.0	75-125	1.57	20	
Copper	122	1.0	"	125	4.81	94.1	75-125	2.71	20	
Silver	55.0	1.0	"	62.5	ND	88.1	75-125	0.387	20	
Vanadium	139	1.0	"	125	23.4	92.5	75-125	4.67	20	
Lead	136	1.0	"	125	12.0	99.5	75-125	7.22	20	
Beryllium	119	1.0	"	125	ND	94.9	75-125	1.25	20	
Thallium	116	5.0	"	125	ND	93.0	75-125	0.577	20	
Zinc	127	1.0	"	125	13.1	90.8	75-125	2.08	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

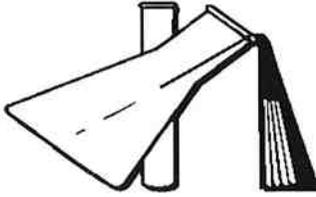
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91106 - EPA 3050B</b>										
<b>Blank (AF91106-BLK1)</b>				Prepared: 11-Jun-09 Analyzed: 12-Jun-09						
Lead	ND	1.0	mg/kg							
<b>Blank (AF91106-BLK2)</b>				Prepared: 11-Jun-09 Analyzed: 12-Jun-09						
Lead	ND	1.0	mg/kg							
<b>Blank (AF91106-BLK3)</b>				Prepared: 11-Jun-09 Analyzed: 12-Jun-09						
Lead	ND	1.0	mg/kg							
<b>LCS (AF91106-BS1)</b>				Prepared: 11-Jun-09 Analyzed: 12-Jun-09						
Lead	24.6	1.0	mg/kg	25.0		98.6	80-120			
<b>LCS (AF91106-BS2)</b>				Prepared: 11-Jun-09 Analyzed: 12-Jun-09						
Lead	24.4	1.0	mg/kg	25.0		97.5	80-120			
<b>LCS (AF91106-BS3)</b>				Prepared: 11-Jun-09 Analyzed: 12-Jun-09						
Lead	24.2	1.0	mg/kg	25.0		96.8	80-120			
<b>LCS Dup (AF91106-BSD1)</b>				Prepared: 11-Jun-09 Analyzed: 12-Jun-09						
Lead	24.6	1.0	mg/kg	25.0		98.3	80-120	0.302	20	
<b>LCS Dup (AF91106-BSD2)</b>				Prepared: 11-Jun-09 Analyzed: 12-Jun-09						
Lead	24.9	1.0	mg/kg	25.0		99.7	80-120	2.26	20	
<b>LCS Dup (AF91106-BSD3)</b>				Prepared: 11-Jun-09 Analyzed: 12-Jun-09						
Lead	24.7	1.0	mg/kg	25.0		99.0	80-120	2.18	20	
<b>Duplicate (AF91106-DUP1)</b>		<b>Source: 0906083-35</b>			Prepared: 11-Jun-09 Analyzed: 12-Jun-09					
Lead	42.0	1.0	mg/kg		42.5			1.17	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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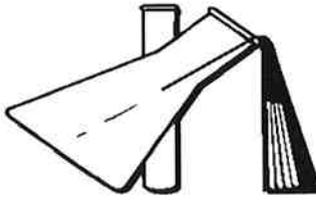
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91106 - EPA 3050B</b>										
<b>Duplicate (AF91106-DUP2)</b>				<b>Source: 0906118-01</b>		Prepared: 11-Jun-09 Analyzed: 12-Jun-09				
Lead	5.64	1.0	mg/kg		5.96			5.50	20	
<b>Duplicate (AF91106-DUP3)</b>				<b>Source: 0906118-02</b>		Prepared: 11-Jun-09 Analyzed: 12-Jun-09				
Lead	6.46	1.0	mg/kg		5.68			13.0	20	
<b>Matrix Spike (AF91106-MS1)</b>				<b>Source: 0906083-35</b>		Prepared: 11-Jun-09 Analyzed: 12-Jun-09				
Lead	145	1.0	mg/kg	125	42.5	82.3	75-125			
<b>Matrix Spike (AF91106-MS2)</b>				<b>Source: 0906118-01</b>		Prepared: 11-Jun-09 Analyzed: 12-Jun-09				
Lead	117	1.0	mg/kg	125	5.96	88.9	75-125			
<b>Matrix Spike (AF91106-MS3)</b>				<b>Source: 0906118-02</b>		Prepared: 11-Jun-09 Analyzed: 12-Jun-09				
Lead	126	1.0	mg/kg	125	5.68	96.0	75-125			
<b>Matrix Spike Dup (AF91106-MSD1)</b>				<b>Source: 0906083-35</b>		Prepared: 11-Jun-09 Analyzed: 12-Jun-09				
Lead	154	1.0	mg/kg	125	42.5	89.1	75-125	5.65	20	
<b>Matrix Spike Dup (AF91106-MSD2)</b>				<b>Source: 0906118-01</b>		Prepared: 11-Jun-09 Analyzed: 12-Jun-09				
Lead	115	1.0	mg/kg	125	5.96	87.4	75-125	1.60	20	
<b>Matrix Spike Dup (AF91106-MSD3)</b>				<b>Source: 0906118-02</b>		Prepared: 11-Jun-09 Analyzed: 12-Jun-09				
Lead	131	1.0	mg/kg	125	5.68	99.9	75-125	3.81	20	
<b>Batch AF91205 - EPA 200 Series</b>										
<b>Blank (AF91205-BLK1)</b>				Prepared: 12-Jun-09 Analyzed: 15-Jun-09						
Zinc	ND	0.02	mg/l							
Thallium	ND	0.02	"							
Cadmium	ND	0.02	"							
Chromium	ND	0.02	"							
Nickel	ND	0.02	"							
Vanadium	ND	0.02	"							
Antimony	ND	0.10	"							

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
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Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91205 - EPA 200 Series

#### Blank (AF91205-BLK1)

Prepared: 12-Jun-09 Analyzed: 15-Jun-09

Selenium	ND	0.02	"							
Copper	ND	0.02	"							
Lead	ND	0.02	"							
Beryllium	ND	0.02	"							
Molybdenum	ND	0.02	"							
Silver	ND	0.02	"							
Cobalt	ND	0.02	"							
Arsenic	ND	0.10	"							
Barium	ND	0.02	"							

#### LCS (AF91205-BS1)

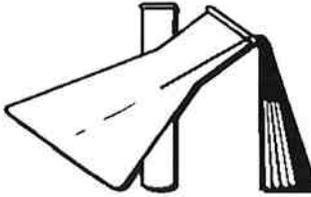
Prepared: 12-Jun-09 Analyzed: 15-Jun-09

Thallium	0.521	0.02	mg/l	0.500	104	80-120				
Selenium	0.496	0.02	"	0.500	99.1	80-120				
Copper	0.528	0.02	"	0.500	106	80-120				
Cobalt	0.521	0.02	"	0.500	104	80-120				
Lead	0.531	0.02	"	0.500	106	80-120				
Zinc	0.512	0.02	"	0.500	102	80-120				
Silver	0.249	0.02	"	0.250	99.5	80-120				
Cadmium	0.511	0.02	"	0.500	102	80-120				
Vanadium	0.505	0.02	"	0.500	101	80-120				
Nickel	0.523	0.02	"	0.500	105	80-120				
Arsenic	0.504	0.10	"	0.500	101	80-120				
Chromium	0.513	0.02	"	0.500	103	80-120				
Barium	0.521	0.02	"	0.500	104	80-120				
Molybdenum	0.500	0.02	"	0.500	100	80-120				
Beryllium	0.528	0.02	"	0.500	106	80-120				

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Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91205 - EPA 200 Series

#### LCS (AF91205-BS1)

Prepared: 12-Jun-09 Analyzed: 15-Jun-09

Antimony	0.494	0.10	"	0.500	98.8	80-120				
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#### LCS Dup (AF91205-BSD1)

Prepared: 12-Jun-09 Analyzed: 15-Jun-09

Molybdenum	0.519	0.02	mg/l	0.500	104	80-120	3.72	20		
Vanadium	0.516	0.02	"	0.500	103	80-120	2.15	20		
Barium	0.526	0.02	"	0.500	105	80-120	1.09	20		
Cobalt	0.547	0.02	"	0.500	109	80-120	4.86	20		
Copper	0.535	0.02	"	0.500	107	80-120	1.44	20		
Antimony	0.514	0.10	"	0.500	103	80-120	4.04	20		
Beryllium	0.542	0.02	"	0.500	108	80-120	2.66	20		
Silver	0.255	0.02	"	0.250	102	80-120	2.56	20		
Thallium	0.536	0.02	"	0.500	107	80-120	2.95	20		
Lead	0.548	0.02	"	0.500	110	80-120	3.31	20		
Zinc	0.524	0.02	"	0.500	105	80-120	2.33	20		
Cadmium	0.524	0.02	"	0.500	105	80-120	2.38	20		
Chromium	0.533	0.02	"	0.500	107	80-120	3.71	20		
Nickel	0.544	0.02	"	0.500	109	80-120	3.94	20		
Arsenic	0.529	0.10	"	0.500	106	80-120	4.79	20		
Selenium	0.506	0.02	"	0.500	101	80-120	2.12	20		

#### Duplicate (AF91205-DUP1)

Source: 0906118-49

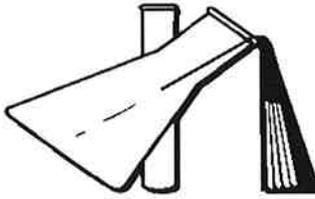
Prepared: 12-Jun-09 Analyzed: 15-Jun-09

Molybdenum	ND	0.02	mg/l		ND			20		
Cadmium	ND	0.02	"		ND			20		
Lead	ND	0.02	"		ND			20		
Silver	ND	0.02	"		ND			20		
Cobalt	ND	0.02	"		ND			20		
Nickel	ND	0.02	"		ND			20		

Respectfully Submitted,

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Laboratory Director

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Project/P.O.#: 185802056

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91205 - EPA 200 Series

#### Duplicate (AF91205-DUP1)

Source: 0906118-49

Prepared: 12-Jun-09 Analyzed: 15-Jun-09

Vanadium	ND	0.02	"		ND				20	
Beryllium	ND	0.02	"		ND				20	
Antimony	0.0164	0.10	"		0.0168			2.11	20	
Copper	ND	0.02	"		ND				20	
Selenium	ND	0.02	"		ND				20	
Zinc	ND	0.02	"		ND				20	
Chromium	ND	0.02	"		0.0250				20	
Thallium	ND	0.02	"		ND				20	
Arsenic	0.0356	0.10	"		0.0364			2.21	20	
Barium	ND	0.02	"		ND				20	

#### Matrix Spike (AF91205-MS1)

Source: 0906118-49

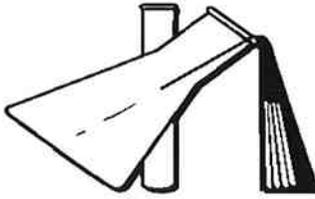
Prepared: 12-Jun-09 Analyzed: 15-Jun-09

Thallium	0.970	0.02	mg/l	1.00	ND	97.0	80-120			
Molybdenum	0.979	0.02	"	1.00	ND	97.9	80-120			
Silver	0.518	0.02	"	0.500	ND	104	80-120			
Copper	1.04	0.02	"	1.00	ND	104	80-120			
Zinc	1.00	0.02	"	1.00	ND	100	80-120			
Vanadium	0.989	0.02	"	1.00	ND	98.9	75-125			
Arsenic	1.02	0.10	"	1.00	0.0364	98.3	80-120			
Antimony	0.952	0.10	"	1.00	0.0168	93.6	80-120			
Barium	1.03	0.02	"	1.00	ND	103	80-120			
Lead	1.02	0.02	"	1.00	ND	102	80-120			
Beryllium	1.05	0.02	"	1.00	ND	105	80-120			
Cadmium	0.973	0.02	"	1.00	ND	97.3	80-120			
Nickel	0.958	0.02	"	1.00	ND	95.8	80-120			
Chromium	1.05	0.02	"	1.00	0.0250	102	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91205 - EPA 200 Series

#### Matrix Spike (AF91205-MS1)

Source: 0906118-49

Prepared: 12-Jun-09 Analyzed: 15-Jun-09

Selenium	0.955	0.02	"	1.00	ND	95.5	80-120			
Cobalt	1.07	0.02	"	1.00	ND	107	80-120			

#### Matrix Spike Dup (AF91205-MSD1)

Source: 0906118-49

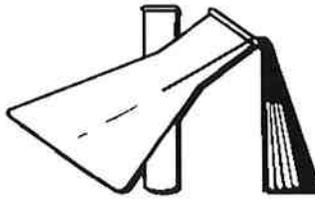
Prepared: 12-Jun-09 Analyzed: 15-Jun-09

Barium	1.03	0.02	mg/l	1.00	ND	103	80-120	0.142	20	
Thallium	0.946	0.02	"	1.00	ND	94.6	80-120	2.44	20	
Molybdenum	0.965	0.02	"	1.00	ND	96.5	80-120	1.45	20	
Beryllium	1.04	0.02	"	1.00	ND	104	80-120	1.29	20	
Antimony	0.927	0.10	"	1.00	0.0168	91.0	80-120	2.70	20	
Chromium	1.04	0.02	"	1.00	0.0250	101	80-120	1.13	20	
Arsenic	1.03	0.10	"	1.00	0.0364	99.1	80-120	0.840	20	
Silver	0.514	0.02	"	0.500	ND	103	80-120	0.874	20	
Copper	1.03	0.02	"	1.00	ND	103	80-120	0.801	20	
Zinc	0.987	0.02	"	1.00	ND	98.7	80-120	1.40	20	
Lead	1.00	0.02	"	1.00	ND	100	80-120	1.80	20	
Nickel	0.935	0.02	"	1.00	ND	93.5	80-120	2.35	20	
Cobalt	1.05	0.02	"	1.00	ND	105	80-120	1.64	20	
Selenium	0.928	0.02	"	1.00	ND	92.8	80-120	2.86	20	
Vanadium	0.975	0.02	"	1.00	ND	97.5	75-125	1.41	20	
Cadmium	0.956	0.02	"	1.00	ND	95.6	80-120	1.80	20	

Respectfully Submitted,

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Laboratory Director

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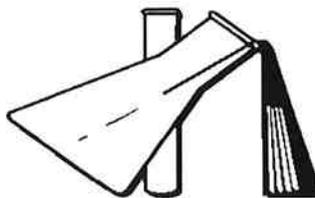
## RCRA Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91603 - EPA 3050B</b>										
<b>Blank (AF91603-BLK1)</b>				Prepared & Analyzed: 16-Jun-09						
Mercury	ND	0.050	mg/kg							
<b>LCS (AF91603-BS1)</b>				Prepared & Analyzed: 16-Jun-09						
Mercury	0.979	0.050	mg/kg	1.00		97.9	85-115			
<b>LCS Dup (AF91603-BSD1)</b>				Prepared & Analyzed: 16-Jun-09						
Mercury	0.954	0.050	mg/kg	1.00		95.4	85-115	2.58	15	
<b>Duplicate (AF91603-DUP1)</b>				Source: 0906118-05 Prepared & Analyzed: 16-Jun-09						
Mercury	0.00855	0.050	mg/kg		0.00940			9.40	20	
<b>Matrix Spike (AF91603-MS1)</b>				Source: 0906118-05 Prepared & Analyzed: 16-Jun-09						
Mercury	1.04	0.050	mg/kg	1.00	0.00940	103	70-120			
<b>Matrix Spike Dup (AF91603-MSD1)</b>				Source: 0906118-05 Prepared & Analyzed: 16-Jun-09						
Mercury	1.06	0.050	mg/kg	1.00	0.00940	105	70-120	1.65	20	
<b>Batch AF91604 - EPA 7470A</b>										
<b>Blank (AF91604-BLK1)</b>				Prepared & Analyzed: 16-Jun-09						
Mercury	ND	0.20	ug/l							
<b>LCS (AF91604-BS1)</b>				Prepared & Analyzed: 16-Jun-09						
Mercury	5.00	0.20	ug/l	5.00		100	85-115			
<b>LCS Dup (AF91604-BSD1)</b>				Prepared & Analyzed: 16-Jun-09						
Mercury	5.02	0.20	ug/l	5.00		100	85-115	0.256	15	

Respectfully Submitted,

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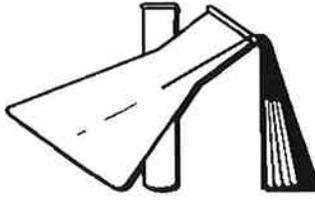
## RCRA Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91604 - EPA 7470A</b>										
<b>Duplicate (AF91604-DUP1)</b> <b>Source: 0906118-49</b> Prepared & Analyzed: 16-Jun-09										
Mercury	ND	0.20	ug/l		ND				20	
<b>Matrix Spike (AF91604-MS1)</b> <b>Source: 0906118-49</b> Prepared & Analyzed: 16-Jun-09										
Mercury	5.02	0.20	ug/l	5.00	ND	100	75-125			
<b>Matrix Spike Dup (AF91604-MSD1)</b> <b>Source: 0906118-49</b> Prepared & Analyzed: 16-Jun-09										
Mercury	5.03	0.20	ug/l	5.00	ND	101	75-125	0.173	20	

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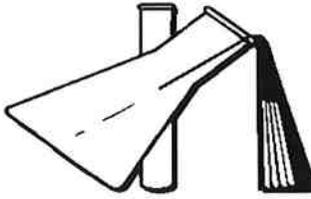
## TCLP Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF92304 - Title 22-STLC</b>										
<b>Blank (AF92304-BLK1)</b>				Prepared & Analyzed: 23-Jun-09						
Lead	ND	0.02	mg/l							
<b>LCS (AF92304-BS1)</b>				Prepared & Analyzed: 23-Jun-09						
Lead	0.522	0.02	mg/l	0.500		104	80-120			
<b>LCS Dup (AF92304-BSD1)</b>				Prepared & Analyzed: 23-Jun-09						
Lead	0.548	0.02	mg/l	0.500		110	80-120	4.89	20	
<b>Duplicate (AF92304-DUP1)</b>				Source: 0906083-40 Prepared & Analyzed: 23-Jun-09						
Lead	0.209	0.02	mg/l		0.210			0.612	20	
<b>Matrix Spike (AF92304-MS1)</b>				Source: 0906083-40 Prepared & Analyzed: 23-Jun-09						
Lead	1.18	0.02	mg/l	1.00	0.210	97.0	75-125			
<b>Matrix Spike Dup (AF92304-MSD1)</b>				Source: 0906083-40 Prepared & Analyzed: 23-Jun-09						
Lead	1.21	0.02	mg/l	1.00	0.210	99.8	75-125	2.32	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

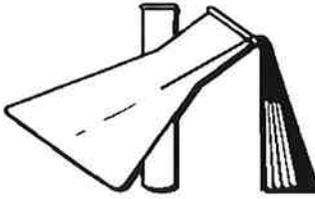
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91713 - Title 22-STLC</b>										
<b>Blank (AF91713-BLK1)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	ND	0.20	mg/l							
<b>Blank (AF91713-BLK2)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	ND	0.20	mg/l							
<b>LCS (AF91713-BS1)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	5.57	0.20	mg/l	5.00		111	80-120			
<b>LCS (AF91713-BS2)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	5.30	0.20	mg/l	5.00		106	80-120			
<b>LCS Dup (AF91713-BSD1)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	5.34	0.20	mg/l	5.00		107	80-120	4.14	20	
<b>LCS Dup (AF91713-BSD2)</b>				Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	5.37	0.20	mg/l	5.00		107	80-120	1.18	20	
<b>Duplicate (AF91713-DUP1)</b>				Source: 0906078-07 Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	3.99	0.20	mg/l		3.99			0.234	20	
<b>Duplicate (AF91713-DUP2)</b>				Source: 0906083-10 Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	3.78	0.20	mg/l		3.81			0.754	20	
<b>Matrix Spike (AF91713-MS1)</b>				Source: 0906078-07 Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	13.4	0.20	mg/l	10.0	3.99	94.5	80-120			
<b>Matrix Spike (AF91713-MS2)</b>				Source: 0906083-10 Prepared: 17-Jun-09 Analyzed: 18-Jun-09						
Lead	12.9	0.20	mg/l	10.0	3.81	90.8	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

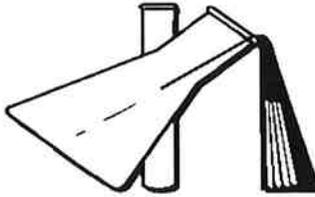
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91713 - Title 22-STLC</b>										
<b>Matrix Spike Dup (AF91713-MSD1)</b>										
	<b>Source: 0906078-07</b>			<b>Prepared: 17-Jun-09 Analyzed: 18-Jun-09</b>						
Lead	13.3	0.20	mg/l	10.0	3.99	93.5	80-120	0.762	20	
<b>Matrix Spike Dup (AF91713-MSD2)</b>										
	<b>Source: 0906083-10</b>			<b>Prepared: 17-Jun-09 Analyzed: 18-Jun-09</b>						
Lead	13.3	0.20	mg/l	10.0	3.81	94.6	80-120	2.93	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91010 - Volatiles

#### Blank (AF91010-BLK1)

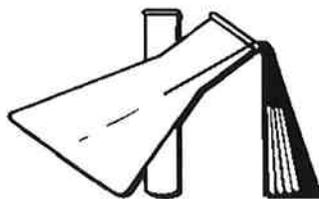
Prepared & Analyzed: 10-Jun-09

Surrogate: Toluene-d8	49.3		ug/kg	50.0		98.6	85-115			
Surrogate: Bromofluorobenzene	42.8		"	50.0		85.6	85-115			
Surrogate: Dibromofluoromethane	55.2		"	50.0		110	85-115			
Bromochloromethane	ND	0.1	"							
Dichlorodifluoromethane	ND	0.1	"							
Chloromethane	ND	0.1	"							
Vinyl chloride	ND	0.1	"							
Bromomethane	ND	0.1	"							
Chloroethane	ND	0.1	"							
Trichlorofluoromethane (Freon 11)	ND	0.1	"							
1,1-Dichloroethene	ND	0.1	"							
Acetone	ND	1.0	"							
Methylene chloride	ND	0.1	"							
t-1,2-Dichloroethene	ND	0.1	"							
1,1-Dichloroethane	ND	0.1	"							
2,2-Dichloropropane	ND	0.1	"							
c-1,2-Dichloroethene	ND	0.1	"							
Chloroform	ND	0.1	"							
1,1,1-Trichloroethane	ND	0.1	"							
2-Butanone (MEK)	ND	1.0	"							
Carbon tetrachloride	ND	0.1	"							
1,1-Dichloropropane	ND	0.1	"							
Benzene	ND	0.1	"							
1,2-Dichloroethane	ND	0.1	"							
Trichloroethene	ND	0.1	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91010 - Volatiles

#### Blank (AF91010-BLK1)

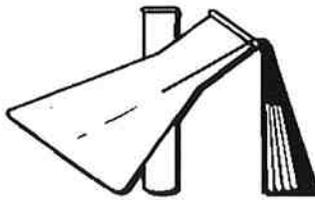
Prepared & Analyzed: 10-Jun-09

1,2-Dichloropropane	ND	0.1	"							
Dibromomethane	ND	0.1	"							
Bromodichloromethane	ND	0.1	"							
c-1,3-Dichloropropene	ND	0.1	"							
Toluene	ND	0.1	"							
t-1,3-Dichloropropene	ND	0.1	"							
Methyl isobutyl ketone	ND	1.0	"							
1,2-Dibromoethane (EDB)	ND	0.1	"							
1,1,2-Trichloroethane	ND	0.1	"							
Tetrachloroethene	ND	0.1	"							
1,3-Dichloropropane	ND	0.1	"							
Dibromochloromethane	ND	0.1	"							
1,2-Dibromoethane	ND	0.1	"							
Chlorobenzene	ND	0.1	"							
2-Hexanone	ND	0.1	"							
1,1,1,2-Tetrachloroethane	ND	0.1	"							
Ethylbenzene	ND	0.1	"							
m,p-Xylene	ND	0.1	"							
o-Xylene	ND	0.1	"							
Styrene	ND	0.1	"							
Bromoform	ND	0.1	"							
Isopropylbenzene	ND	0.1	"							
Bromobenzene	ND	0.1	"							
1,1,2,2-Tetrachloroethane	ND	0.1	"							
1,2,3-Trichloropropane	ND	0.1	"							
n-Propylbenzene	ND	0.1	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
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Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91010 - Volatiles

#### Blank (AF91010-BLK1)

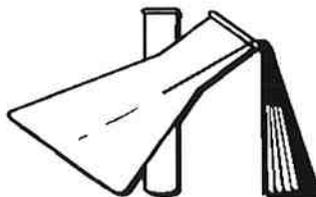
Prepared & Analyzed: 10-Jun-09

2-Chlorotoluene	ND	0.1	"
1,3,5-Trimethylbenzene	ND	0.1	"
1,1-Dichloropropene	ND	0.1	"
4-Chlorotoluene	ND	0.1	"
tert-Butylbenzene	ND	0.1	"
1,2,4-Trimethylbenzene	ND	0.1	"
sec-Butylbenzene	ND	0.1	"
1,3-Dichlorobenzene	ND	0.1	"
p-Isopropyltoluene	ND	0.1	"
1,4-Dichlorobenzene	ND	0.1	"
n-Butylbenzene	ND	0.1	"
1,2-Dichlorobenzene	ND	0.1	"
1,2-Dibromo-3-chloropropane	ND	0.1	"
Trichlorotrifluoroethane (Freon 113)	ND	0.1	"
1,2-Dichloropropylene	ND	0.1	"
1,2,4-Trichlorobenzene	ND	0.1	"
Hexachlorobutadiene	ND	0.1	"
Naphthalene	ND	0.1	"
Isopropyl alcohol	ND	2.0	"
1,2,3-Trichlorobenzene	ND	0.1	"
Acrolein	ND	2.0	"
2-Chloroethylvinyl ether	ND	2.0	"
Acrylonitrile	ND	2.0	"
Methyl tert-butyl ether	ND	0.1	"
Vinyl acetate	ND	2.0	"
Tert-butyl alcohol	ND	0.4	"

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91010 - Volatiles

#### Blank (AF91010-BLK1)

Prepared & Analyzed: 10-Jun-09

Ethyl tert-butyl ether	ND	0.1	"							
Tert-amyl methyl ether	ND	0.1	"							
Di-isopropyl ether	ND	0.1	"							

#### LCS (AF91010-BS1)

Prepared & Analyzed: 10-Jun-09

Surrogate: Toluene-d8	49.1		ug/kg	50.0		98.2	85-115			
Surrogate: Bromofluorobenzene	43.5		"	50.0		87.0	85-115			
Surrogate: Dibromofluoromethane	53.3		"	50.0		107	85-115			
1,1-Dichloroethene	23.6	0.1	"	25.0		94.2	80-120			
Benzene	26.2	0.1	"	25.0		105	80-120			
Trichloroethene	22.8	0.1	"	25.0		91.3	80-120			
Toluene	26.0	0.1	"	25.0		104	80-120			
Chlorobenzene	22.5	0.1	"	25.0		90.0	80-120			

#### LCS Dup (AF91010-BSD1)

Prepared & Analyzed: 10-Jun-09

Surrogate: Toluene-d8	47.0		ug/kg	50.0		94.0	85-115			
Surrogate: Bromofluorobenzene	44.0		"	50.0		88.0	85-115			
Surrogate: Dibromofluoromethane	49.0		"	50.0		98.0	85-115			
1,1-Dichloroethene	22.6	0.1	"	25.0		90.2	80-120	4.34	20	
Benzene	24.0	0.1	"	25.0		96.1	80-120	8.83	20	
Trichloroethene	23.0	0.1	"	25.0		92.0	80-120	0.785	20	
Toluene	24.3	0.1	"	25.0		97.2	80-120	6.68	20	
Chlorobenzene	23.1	0.1	"	25.0		92.4	80-120	2.63	20	

#### Matrix Spike (AF91010-MS1)

Source: 0906118-50

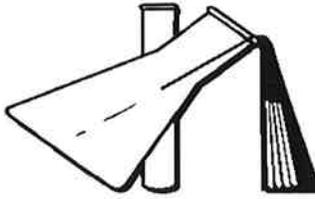
Prepared & Analyzed: 10-Jun-09

Surrogate: Toluene-d8	49.0		ug/kg	50.0		97.9	85-115			
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Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91010 - Volatiles

#### Matrix Spike (AF91010-MS1)

Source: 0906118-50

Prepared & Analyzed: 10-Jun-09

Surrogate: Bromofluorobenzene	42.8		"	50.0		85.7	85-115			
Surrogate: Dibromofluoromethane	52.6		"	50.0		105	85-115			
1,1-Dichloroethene	25.5	0.1	"	25.0	ND	102	80-120			
Benzene	25.6	0.1	"	25.0	ND	102	80-120			
Trichloroethene	22.6	0.1	"	25.0	ND	90.2	80-120			
Toluene	26.0	0.1	"	25.0	ND	104	80-120			
Chlorobenzene	23.4	0.1	"	25.0	ND	93.5	80-120			

#### Matrix Spike Dup (AF91010-MSD1)

Source: 0906118-50

Prepared & Analyzed: 10-Jun-09

Surrogate: Toluene-d8	50.1		ug/kg	50.0		100	85-115			
Surrogate: Bromofluorobenzene	42.7		"	50.0		85.4	85-115			
Surrogate: Dibromofluoromethane	53.7		"	50.0		107	85-115			
1,1-Dichloroethene	26.0	0.1	"	25.0	ND	104	80-120	1.83	20	
Benzene	27.7	0.1	"	25.0	ND	111	80-120	7.89	20	
Trichloroethene	24.2	0.1	"	25.0	ND	96.7	80-120	6.89	20	
Toluene	27.0	0.1	"	25.0	ND	108	80-120	3.85	20	
Chlorobenzene	23.7	0.1	"	25.0	ND	94.6	80-120	1.19	20	

### Batch AF91015 - Volatiles

#### Blank (AF91015-BLK1)

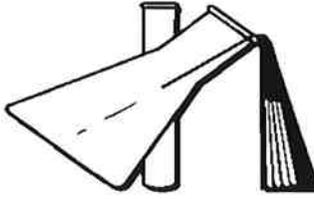
Prepared & Analyzed: 10-Jun-09

Surrogate: Dibromofluoromethane	50.2		ug/l	50.0		100	85-115			
Surrogate: Toluene-d8	50.0		"	50.0		99.9	85-115			
Surrogate: Bromofluorobenzene	48.4		"	50.0		96.8	85-115			
Dichlorodifluoromethane	ND	0.5	"							
Chloromethane	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91015 - Volatiles

#### Blank (AF91015-BLK1)

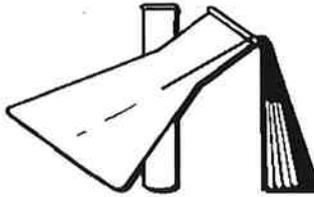
Prepared & Analyzed: 10-Jun-09

Vinyl chloride	ND	0.5	"
Bromomethane	ND	0.5	"
Chloroethane	ND	0.5	"
Trichlorofluoromethane (Freon 11)	ND	0.5	"
1,1-Dichloroethene	ND	0.5	"
Acetone	ND	5.0	"
Methylene chloride	ND	0.5	"
t-1,2-Dichloroethene	ND	0.5	"
1,1-Dichloroethane	ND	0.5	"
2,2-Dichloropropane	ND	0.5	"
c-1,2-Dichloroethene	ND	0.5	"
Chloroform	ND	0.5	"
1,1,1-Trichloroethane	ND	0.5	"
Carbon tetrachloride	ND	0.5	"
2-Butanone (MEK)	ND	5.0	"
1,1-Dichloropropane	ND	0.5	"
Benzene	ND	0.5	"
1,2-Dichloroethane	ND	0.5	"
Trichloroethene	ND	0.5	"
1,2-Dichloropropane	ND	0.5	"
Dibromomethane	ND	0.5	"
Bromodichloromethane	ND	0.5	"
c-1,3-Dichloropropene	ND	0.5	"
Toluene	ND	0.5	"
t-1,3-Dichloropropene	ND	0.5	"
Methyl isobutyl ketone	ND	5.0	"

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
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Project/P.O.#: 185802056

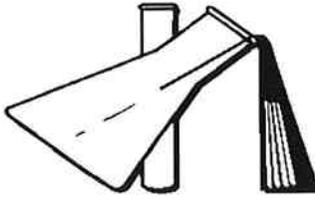
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91015 - Volatiles</b>										
<b>Blank (AF91015-BLK1)</b>				Prepared & Analyzed: 10-Jun-09						
1,1,2-Trichloroethane	ND	0.5	"							
Tetrachloroethene	ND	0.5	"							
1,3-Dichloropropane	ND	0.5	"							
Dibromochloromethane	ND	0.5	"							
1,2-Dibromoethane	ND	0.5	"							
Chlorobenzene	ND	0.5	"							
2-Hexanone	ND	0.5	"							
1,1,1,2-Tetrachloroethane	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	0.5	"							
o-Xylene	ND	0.5	"							
Styrene	ND	0.5	"							
Bromoform	ND	0.5	"							
Isopropylbenzene	ND	0.5	"							
Bromobenzene	ND	0.5	"							
1,1,2,2-Tetrachloroethane	ND	0.5	"							
1,2,3-Trichloropropane	ND	0.5	"							
n-Propylbenzene	ND	0.5	"							
2-Chlorotoluene	ND	0.5	"							
1,3,5-Trimethylbenzene	ND	0.5	"							
4-Chlorotoluene	ND	0.5	"							
tert-Butylbenzene	ND	0.5	"							
1,2,4-Trimethylbenzene	ND	0.5	"							
sec-Butylbenzene	ND	0.5	"							
1,3-Dichlorobenzene	ND	0.5	"							
p-Isopropyltoluene	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91015 - Volatiles

#### Blank (AF91015-BLK1)

Prepared & Analyzed: 10-Jun-09

1,4-Dichlorobenzene	ND	0.5	"							
n-Butylbenzene	ND	0.5	"							
1,2-Dichlorobenzene	ND	0.5	"							
1,2-Dibromo-3-chloropropane	ND	0.5	"							
1,2,4-Trichlorobenzene	ND	0.5	"							
Hexachlorobutadiene	ND	0.5	"							
Naphthalene	ND	0.5	"							
Methyl tert-butyl ether	ND	0.5	"							
1,2,3-Trichlorobenzene	ND	0.5	"							
Isopropyl alcohol	ND	10.0	"							
2-Chloroethylvinyl ether	ND	10.0	"							
Acrolein	ND	10.0	"							
Acrylonitrile	ND	10.0	"							
Acetonitrile	ND	10.0	"							

#### LCS (AF91015-BS1)

Prepared & Analyzed: 10-Jun-09

Surrogate: Dibromofluoromethane	50.2		ug/l	50.0		100	85-115			
Surrogate: Toluene-d8	50.2		"	50.0		100	85-115			
Surrogate: Bromofluorobenzene	47.9		"	50.0		95.8	85-115			
1,1-Dichloroethene	26.7	0.5	"	25.0		107	80-120			
Benzene	27.0	0.5	"	25.0		108	80-120			
Trichloroethene	24.2	0.5	"	25.0		96.9	80-120			
Toluene	25.8	0.5	"	25.0		103	80-120			
Chlorobenzene	23.9	0.5	"	25.0		95.7	80-120			

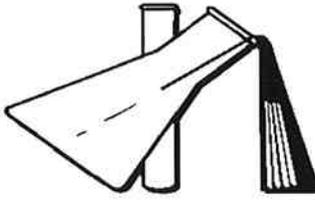
#### LCS Dup (AF91015-BSD1)

Prepared & Analyzed: 10-Jun-09

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

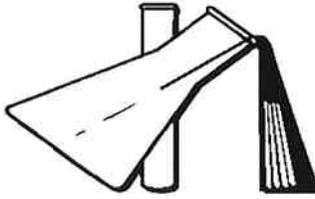
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91015 - Volatiles</b>										
<b>LCS Dup (AF91015-BSD1)</b>				Prepared & Analyzed: 10-Jun-09						
Surrogate: Dibromofluoromethane	47.8		ug/l	50.0		95.5	85-115			
Surrogate: Toluene-d8	48.7		"	50.0		97.4	85-115			
Surrogate: Bromofluorobenzene	45.8		"	50.0		91.7	85-115			
1,1-Dichloroethene	25.2	0.5	"	25.0		101	80-120	5.90	20	
Benzene	27.4	0.5	"	25.0		109	80-120	1.51	20	
Trichloroethene	23.4	0.5	"	25.0		93.7	80-120	3.36	20	
Toluene	25.5	0.5	"	25.0		102	80-120	1.13	20	
Chlorobenzene	26.0	0.5	"	25.0		104	80-120	8.26	20	
<b>Matrix Spike (AF91015-MS1)</b>				Source: 0906083-49		Prepared & Analyzed: 10-Jun-09				
Surrogate: Dibromofluoromethane	49.6		ug/l	50.0		99.2	85-115			
Surrogate: Toluene-d8	50.3		"	50.0		101	85-115			
Surrogate: Bromofluorobenzene	46.9		"	50.0		93.9	85-115			
1,1-Dichloroethene	27.4	0.5	"	25.0	ND	110	80-120			
Benzene	27.3	0.5	"	25.0	ND	109	80-120			
Trichloroethene	24.3	0.5	"	25.0	ND	97.0	80-120			
Toluene	26.5	0.5	"	25.0	ND	106	80-120			
Chlorobenzene	24.1	0.5	"	25.0	ND	96.5	80-120			
<b>Matrix Spike Dup (AF91015-MSD1)</b>				Source: 0906083-49		Prepared & Analyzed: 10-Jun-09				
Surrogate: Dibromofluoromethane	50.5		ug/l	50.0		101	85-115			
Surrogate: Toluene-d8	51.2		"	50.0		102	85-115			
Surrogate: Bromofluorobenzene	48.0		"	50.0		95.9	85-115			
1,1-Dichloroethene	26.6	0.5	"	25.0	ND	106	80-120	3.22	20	
Benzene	27.8	0.5	"	25.0	ND	111	80-120	1.63	20	
Trichloroethene	24.3	0.5	"	25.0	ND	97.3	80-120	0.288	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91015 - Volatiles

Matrix Spike Dup (AF91015-MSD1)

Source: 0906083-49

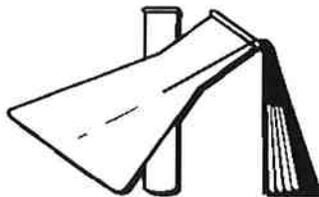
Prepared & Analyzed: 10-Jun-09

Toluene	26.6	0.5	"	25.0	ND	106	80-120	0.528	20	
Chlorobenzene	24.6	0.5	"	25.0	ND	98.4	80-120	1.97	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



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Customer: **Stantec**  
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Attention: Anne Perez  
Report Date: 24-Jun-09 16:38  
Subject: Soil Samples

Project/P.O.#: 185802056

## General Inorganic Nonmetallic Chemistry by Standard Methods/EPA Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91511 - General Preparation</b>										
<b>Duplicate (AF91511-DUP1)</b> <b>Source: 0906083-37</b> Prepared & Analyzed: 15-Jun-09										
pH	9.94	0.1	pH Units		9.94			0.00	15	
<b>Duplicate (AF91511-DUP2)</b> <b>Source: 0906083-38</b> Prepared & Analyzed: 15-Jun-09										
pH	9.96	0.1	pH Units		9.96			0.00	15	
<b>Batch AF91911 - General Preparation</b>										
<b>Duplicate (AF91911-DUP1)</b> <b>Source: 0906118-08</b> Prepared: 19-Jun-09 Analyzed: 20-Jun-09										
pH	8.75	0.1	pH Units		8.75			0.00	15	

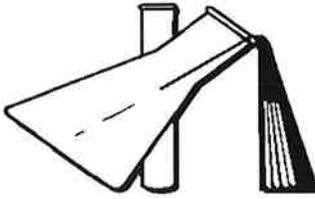
### Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/24/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 1 of 4

Attention: Anne Perez  
Report Date: 13-Jul-09 15:01  
Subject: Soil Samples

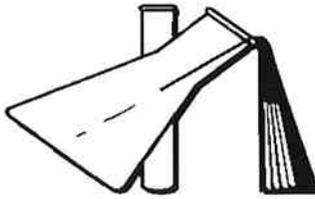
Project/P.O.#: 185802056

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)		RESULT	NOTE
<b>BB-3-0.5 (0906118-07) (Sample I.D.# : 0907078-01) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>BB-4-0.5 (0906118-10) (Sample I.D.# : 0907078-02) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>BB-5-0.5 (0906118-13) (Sample I.D.# : 0907078-03) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>BB-5-1 (0906118-14) (Sample I.D.# : 0907078-04) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>BB-13-0.5 (0906118-37) (Sample I.D.# : 0907078-05) Collected: 05-Jun-09 By Stantec</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009



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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 13-Jul-09 15:01  
Subject: Soil Samples

Project/P.O.#: 185802056

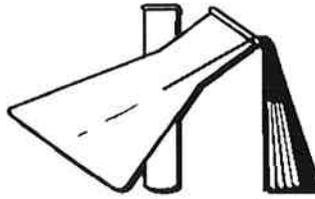
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AG91016 - Title 22-STLC</b>										
<b>Blank (AG91016-BLK1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	ND	0.02	mg/l							
<b>Blank (AG91016-BLK2)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	ND	0.02	mg/l							
<b>Blank (AG91016-BLK3)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	ND	0.02	mg/l							
<b>LCS (AG91016-BS1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.528	0.02	mg/l	0.500		106	80-120			
<b>LCS (AG91016-BS2)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.522	0.02	mg/l	0.500		104	80-120			
<b>LCS (AG91016-BS3)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.527	0.02	mg/l	0.500		105	80-120			
<b>LCS Dup (AG91016-BSD1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.545	0.02	mg/l	0.500		109	80-120	3.20	20	
<b>LCS Dup (AG91016-BSD2)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.545	0.02	mg/l	0.500		109	80-120	4.16	20	
<b>LCS Dup (AG91016-BSD3)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.551	0.02	mg/l	0.500		110	80-120	4.48	20	
<b>Duplicate (AG91016-DUP1)</b>		<b>Source: 0907073-01</b>		Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.0401	0.20	mg/l		0.0473			16.3	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009



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11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 13-Jul-09 15:01  
Subject: Soil Samples

Project/P.O.#: 185802056

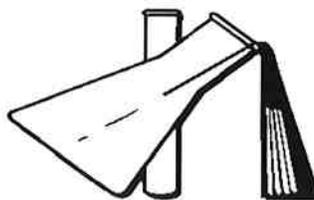
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AG91016 - Title 22-STLC</b>										
<b>Duplicate (AG91016-DUP2)</b> <b>Source: 0907073-02</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	ND	0.20	mg/l		0.0356				20	
<b>Duplicate (AG91016-DUP3)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	ND	0.20	mg/l		0.0473				20	
<b>Matrix Spike (AG91016-MS1)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.2	0.20	mg/l	10.0	0.0473	101	80-120			
<b>Matrix Spike (AG91016-MS2)</b> <b>Source: 0907073-02</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.5	0.20	mg/l	10.0	0.0356	104	80-120			
<b>Matrix Spike (AG91016-MS3)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.6	0.20	mg/l	10.0	0.0473	106	80-120			
<b>Matrix Spike Dup (AG91016-MSD1)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.7	0.20	mg/l	10.0	0.0473	106	80-120	4.71	20	
<b>Matrix Spike Dup (AG91016-MSD2)</b> <b>Source: 0907073-02</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	9.80	0.20	mg/l	10.0	0.0356	97.7	80-120	6.42	20	
<b>Matrix Spike Dup (AG91016-MSD3)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	9.63	0.20	mg/l	10.0	0.0473	95.9	80-120	9.70	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 4 of 4

Attention: Anne Perez  
Report Date: 13-Jul-09 15:01  
Subject: Soil Samples

Project/P.O.#: 185802056

---

## Notes and Definitions

A-01 DI water was used as the STLC extraction fluid.  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis

---

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009

**APPENDIX B**  
**CHAIN-OF-CUSTODY RECORDS**

0906118

# STANTEC CHAIN-OF-CUSTODY RECORD

## FIELD OFFICE INFORMATION

OFFICE: 004 Project No.: 185802056 Task: 0001  
 Send Report to: Anne Perez Project Name: Task Order No. 26  
 25864 F Business Center Dr. Redlands CA Highway 15 LBP in soils and bridge paint  
 Telephone: (909) 335-6116 Project Manager: Anne Perez  
 Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com  
 Laboratory: PatChem

## PROJECT INFORMATION

Task: 0001

## ANALYSES / METHOD REQUEST

6010 Total Pb	x								
3010 Soluble Pb									
TCLP									
VOCs									
pH									
8081 Pesticides									
6010B/7000 Title 22 Metals									

## REMARKS/ PRECAUTIONS

TAT	Normal	REPORT REQUIREMENTS MB & SURGS Dup/MS/MSD CLP R pt EDD Other
	Rush	
	Other:	

Sample No. / Identification	SAMPLE			Container & Size **	Preservative
	Date	Time	Matrix *		
01	6/5/2009	1045	soil	grab	
02	6/5/2009	1045	soil	grab	
03	6/5/2009	1045	soil	grab	
04	6/5/2009	1055	soil	grab	
05	6/5/2009	1055	soil	grab	
06	6/5/2009	1055	soil	grab	
07	6/5/2009	1105	soil	grab	
08	6/5/2009	1105	soil	grab	
09	6/5/2009	1105	soil	grab	
10	6/5/2009	1115	soil	grab	
11	6/5/2009	1115	soil	grab	

Non-Hazardous: \_\_\_ Flammable: \_\_\_ Skin Irritant: \_\_\_ Poison B: Unknown: \_\_\_  
 Disposal By Lab: X Archive For: \_\_\_ Months Return to Client: \_\_\_  
 Sample Disposal

Sampled By: RC Shipping Method: Courier Airbill Number: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Print Name: Anne Perez  
 Relinquished by: \_\_\_\_\_ Company Name: Stantec  
 Received by: \_\_\_\_\_ Date: 6/9/09 Time: 1020  
 Relinquished by: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date: 6/9/09 Time: 1300  
 Relinquished by: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date: 6/9/09 Time: 1300

0906118

**STANTEC CHAIN-OF-CUSTODY RECORD**

COC # 2 OF 6 Pages

FIELD OFFICE INFORMATION		PROJECT INFORMATION		ANALYSES / METHOD REQUEST				REMARKS / PRECAUTIONS					
OFFICE: 004	Project No.: 185802056	Task: 0001	Task Order No. 26	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	PH	8081 Pesticides	6010B/7000 Title 22 Metals	TAT	REPORT	
Send Report to: Anne Perez		Project Name: Highway 15 LBP in soils and bridge paint						Normal		MB & SURGS			
25864 F Business Center Dr. Redlands CA		Project Manager: Anne Perez						Rush		Dup/MS/MSD			
Telephone: (909) 335-6116		Laboratory: PatChem						Other:		CLP R pt			
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com										EDD			
Sample No. / Identification	Date	SAMPLE Time	Matrix *	Container & Size **	Preservative								
12 BB-4-2.5	6/5/2009	1115	soil	grab									
13 BB-5-0.5	6/5/2009	1120	soil	grab									
14 BB-5-1	6/5/2009	1120	soil	grab									
15 BB-5-2.0	6/5/2009	1120	soil	grab									
16 BB-6-0.5	6/5/2009	1125	soil	grab									
17 BB-6-1	6/5/2009	1125	soil	grab									
18 BB-6-2.0	6/5/2009	1125	soil	grab									
19 BB-7-0.5	6/5/2009	1130	soil	grab									
20 BB-7-1	6/5/2009	1130	soil	grab									
21 BB-7-2.5	6/5/2009	1130	soil	grab									
22 BB-8-0.5	6/5/2009	1135	soil	grab									
Sample Disposal													
Non-Hazardous: _____				Possible Hazard Identification				Disposal By Lab: X				Archive For: _____ Months	
Flammable: _____				Skin Irritant: _____				Return to Client: _____					
Poison B: Unknown: _____													

Sampled By: \_\_\_\_\_ Shipping Method: Courier

Airbill Number: \_\_\_\_\_

Signature:	Print Name:	Company Name:	Date:	Time:
	Anne Perez	Stantec	6/9/09	1020
	R. Raso	Stantec	6/9/09	1020
	R. Raso	Stantec	6/9/09	1300
	R. Raso	Stantec	6/9/09	1300

0906118

STANTEC CHAIN-OF-CUSTODY RECORD												
FIELD OFFICE INFORMATION			PROJECT INFORMATION			ANALYSES / METHOD REQUEST				REMARKS / PRECAUTIONS		
OFFICE: 004		Project No.: 185802056		Task: 0001						COC # 3 OF 6 Pages		
Send Report to: Anne Perez			Project Name: Task Order No. 26							REPORT		
25864 F Business Center Dr. Redlands CA			Highway 15 LBP in soils and bridge paint							Normal		
Telephone: (909) 335-6116			Project Manager: Anne Perez							Rush		
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com			Laboratory: PatChem							Other:		
Sample No. / Identification	Date	Time	Matrix *	Container & Size **	Preservative	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	pH	8081 Pesticides	6010B/7000 Title 22 Metals
23 BB-8-1	6/5/2009	1135	soil	grab		x						
24 BB-8-2.5	6/5/2009	1135	soil	grab		x						
25 BB-9-0.5	6/5/2009	1140	soil	grab		x						
26 BB-9-1	6/5/2009	1140	soil	grab		x						
27 BB-9-2.5	6/5/2009	1140	soil	grab		x						
28 BB-10-0.5	6/5/2009	1145	soil	grab		x						
29 BB-10-1	6/5/2009	1145	soil	grab		x						
30 BB-10-2.5	6/5/2009	1145	soil	grab		x						
31 BB-11-0.5	6/5/2009	1150	soil	grab		x						
32 BB-11-1	6/5/2009	1150	soil	grab		x						
33 BB-11-2.5	6/5/2009	1150	soil	grab		x						
Non-Hazardous: _____ Flammable: _____ Skin Irritant: _____ Poison B: _____ Unknown: _____						Sample Disposal						
						Disposal By Lab: X		Archive For: _____ Months		Return to Client: _____		

Sampled By: \_\_\_\_\_ Shipping Method: Courier

Airbill Number: \_\_\_\_\_

Signature: 	Print Name: Anne Perez	Company Name: Stantec	Date: 6/9/09	Time: 1020
Relinquished by: 	Relinquished by: Anne Perez	Relinquished by: 	Date: 6/9/09	Time: 1020
Received by: 	Received by: Anne Perez	Received by: 	Date: 6/9/09	Time: 1300
Relinquished by: 	Relinquished by: Anne Perez	Relinquished by: 	Date: 6/9/09	Time: 1300

0906118

# STANTEC CHAIN-OF-CUSTODY RECORD

FIELD OFFICE INFORMATION		PROJECT INFORMATION		ANALYSES / METHOD REQUEST						REMARKS / PRECAUTIONS		
OFFICE: 004	Project No.: 185802056	Task: 0001	Task Order No. 26	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	PH	8081 Pesticides	6010B/7000 Title 22 Metals	TAT	REPORT REQUIREMENTS
Send Report to:	Anne Perez	Project Name:	Task Order No. 26								Normal	MB & SURGS Dup/MS/MSD CLP R pt EDD Other
25864 F Business Center Dr. Redlands CA			Highway 15 LBP in soils and bridge paint								Rush	
Telephone:	(909) 335-6116	Project Manager:	Anne Perez								Other:	
Fax/E-Mail:	(909) 335-6120 / anne.perez@stantec.com	Laboratory:	PatChem									
Sample No. / Identification	Date	SAMPLE Time	Matrix *	Container & Size **	Preservative	1. Run STLC for samples exceeding 25 mg/kg of TTLC	2. STLC samples exceeding 5mg/L run pH and TCLP analysis	RUSH total lead analysis (72 hour)	RUSH title 22 metals analysis (72 hour)	RUSH voc analysis (72 hour)		
34	6/5/2009	1155	soil	grab		x						
35	6/5/2009	1155	soil	grab		x						
36	6/5/2009	1155	soil	grab		x						
37	6/5/2009	1200	soil	grab		x						
38	6/5/2009	1200	soil	grab		x						
39	6/5/2009	1200	soil	grab		x						
40	6/5/2009	1210	soil	grab		x						
41	6/5/2009	1210	soil	grab		x						
42	6/5/2009	1210	soil	grab		x						
43	6/5/2009	1220	soil	grab		x						
44	6/5/2009	0:00	soil	grab		x						
Non-Hazardous: ___ Flammable: ___ Skin Irritant: ___ Poison B: ___ Unknown: ___ Disposal By Lab: X Archive For: ___ Months Return to Client: ___ Sample Disposal												

Sampled By: \_\_\_\_\_ Shipping Method: Courier

Airbill Number: \_\_\_\_\_

Signature:	Print Name:	Company Name:	Date:	Time:
	Anne Perez	Stantec	6/9/09	1020
	P. Grato	Stantec	6/9/09	1020
	J. Grato	Stantec	6/9/09	1200
	J. Grato	Stantec	6/9/09	1300





**LEAD-BASED PAINT IN SOILS  
INVESTIGATION REPORT  
Interstate-15  
Razor Road Over-Crossing Bridge #54-0391  
San Bernardino County, California**

**Prepared for:  
California Department of Transportation, District 8  
Task Order No. 26  
Contract No. 08A1542  
EA OG4800**

**February 2, 2010**

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## 1.0 INTRODUCTION

### 1.1 PROJECT DESCRIPTION AND OBJECTIVES

At the request of the California Department of Transportation (Caltrans) District 8, an investigation of lead-based paint (LBP) in soils was conducted to support seismic retrofitting of the Razor Road over-crossing bridge along Interstate-15 (approximately 40 miles north of the I-15/I-40 split) in San Bernardino County, California (Figure 1). The project proposes to retrofit the existing columns and abutments of the bridge. All survey work was limited to the existing right-of-way along the unpaved shoulders and medians of I-15.

The overall objective of this investigation was to evaluate lead concentrations in the subsurface soil profile adjacent to the existing columns and abutments and to make recommendations for any special handling or disposal of lead impacted soil. Historical sandblasting of paint on these bridges is speculated to have resulted in lead contamination in soil from LBP. The bridge is supported on six columns with abutments on each end. Stantec understands that proposed improvements will require excavation to six feet in depth and extend approximately two feet laterally from each side of the column or abutment.

### 1.2 SCOPE-OF-WORK

The scope of the lead survey consisted of the following general elements:

- Pre-field project assessment and Health and Safety Plan (HASP) development
- Soil sampling
- Laboratory analysis
- Data evaluation and report development

Each of these is discussed in detail in the following subsections.

#### 1.2.1 Pre-Field Activities

Site plans provided by Caltrans were reviewed and compared to actual field conditions during a drive-by site reconnaissance. From this preliminary site evaluation, potential sample locations were designated on the plans for use by field personnel. In addition, a HASP was developed in accordance with California Occupational Safety and Health Administration (Cal OSHA) requirements to guide field activities.

#### 1.2.2 Field Sampling Activities

Field sampling activities included the following general tasks:

- Sixteen (16) shallow hand-auger borings were advanced at the bridge location within two feet of the columns and abutments to a maximum depth of three feet below ground surface (bgs);

- Soil samples (48 total) were collected from each boring at depths of 0.5-1.0, 1.0-1.5, and 2.5-3.0 feet bgs for lead, Title 22 metals, and volatile organic compound (VOC) analysis; and
- One (1) field equipment blank sample was collected for analysis of Title 22 metals and VOCs.

### **1.2.3 Laboratory Analyses**

Soil samples were submitted under chain-of-custody to Pat-Chem Laboratories (Pat-Chem). Pat-Chem is certified by the California Environmental Laboratory Accreditation Program (ELAP) to perform the laboratory tests required in this task order. Selected samples were analyzed for the following analytes:

- Total lead by EPA test method 6010B
- Soluble lead by the California Waste Extraction Test (Cal WET – Citric and Cal WET – DI; EPA method 3010/6010B)
- Toxicity Characteristic Leaching Procedure (TCLP) by EPA extraction method 1311
- pH by EPA test method 9045C
- Title 22 metals by EPA test method 6010B/7471A
- VOCs by EPA test method 8260B

Field equipment blanks were analyzed for the following analytes:

- Title 22 metals by EPA test method 6010B/7471A
- Volatile organic compounds by EPA test method 8260B

### **1.2.4 Report Preparation**

This report presents the methodology, findings, and recommendations of the lead survey and investigation. Also included with this are laboratory test results, statistical data evaluations, and recommendations for lead-contaminated soil management during construction. This report was prepared in accordance with the work plan and proposal dated June 1, 2009.

## **1.3 PREVIOUS SITE INVESTIGATIONS**

Additional information was not provided relative to previous environmental studies within the study area.

## 2.0 LEAD SURVEY METHODOLOGY

The field methods used during this sampling and site investigation project were consistent with the work plan submitted to Caltrans dated June 1, 2009. The proposed borings were located at the Razor Road over-crossing bridge along I-15 in San Bernardino County, California. All of the proposed sampling locations were accessible and no weather related restrictions were encountered. Soil sampling activities were conducted on June 9 and 12, 2009.

### 2.1 FIELD INVESTIGATIONS

Sixteen (16) hand-auger borings for lead, Title 22 metals, and VOC analysis were advanced along accessible portions at the Razor Road over-crossing bridge (48 total samples). Two borings were advanced at opposite sides, within two lateral feet, of each column and abutment. Soil samples were collected at depths ranging from 0.5 to 3.0 feet bgs. The sample depths represent the top depth of a six-inch thick sample collected using a hand-auger. Three soil samples were collected from 16 borings totaling 48 soil samples. Soil samples were discharged directly from the hand-auger bailer into a plastic zipper lock bag and manually homogenized in the field to minimize sample heterogeneity. Soil samples submitted for VOC analysis were collected at a depth of one foot bgs using Encore samplers to obtain an undisturbed soil sample. Each sample was labeled with a specific sample I.D., boring I.D., project I.D., sample date, and sample time. Samples were also recorded on chain-of-custody forms and delivered to an environmental laboratory for analysis in accordance with the methods described in Section 1.2.3.

Prior to sampling at each sample interval, sample equipment was decontaminated in non-phosphate detergent solution and double rinsed with distilled water. Excess soil cuttings were replaced in the borehole.

Accessible areas are defined as those areas that allow work vehicles and personnel to work safely at distances no closer than six feet from paved portions of the roadway. No samples were collected from areas that would have required workers to work within six feet of paved shoulders. None of the proposed sample locations fell within inaccessible areas of the proposed construction zones. All sample locations were plotted on a field map with a unique boring identification (I.D.) number to represent each borehole. The sample locations are indicated on Figure 2.

### 2.2 LABORATORY ANALYSIS

Soil samples were submitted under chain-of-custody to Pat-Chem. Each of the samples was initially analyzed by EPA test method 6010B for total lead. One soil sample at each column and abutment, collected at a depth of one foot bgs, was selected for VOC and Title 22 metals analysis. The lab was directed to perform the following additional analyses based on the detected total lead concentrations:

- Cal WET-Citric soluble lead analysis on all samples exhibiting total lead concentrations greater than 25 milligrams per kilogram (mg/kg). Cal WET-Citric is used to assess

soluble lead concentrations with respect to California Soluble Threshold Limit Concentrations (STLC).

- TCLP soluble lead analysis on all Cal WET-Citric samples exhibiting soluble lead concentrations greater than 5.0 milligrams per liter (mg/L).
- pH on all TCLP analyzed samples.
- Cal WET-DI analysis in the following order of preference:
  - TCLP samples where the 95 percent upper confidence level of the mean of the TCLP data is greater than 0.5 mg/L; or
  - Ten percent of the sample population biasing the Cal WET-DI analyses to samples that required Cal WET-Citric analysis; or
  - Ten percent of the sample population biasing the Cal WET-DI analyses to samples that exhibited the highest concentrations of total lead.
- VOCs and Title 22 metals on soil samples collected at a depth of one foot at each column and abutment.

These analyses were performed for statistical evaluation of data against state and federal hazardous waste limits and with the conditions of Caltrans' variance.

## 3.0 INVESTIGATIVE RESULTS

### 3.1 SUBSURFACE CONDITIONS

The soils encountered during sampling ranged from fine to coarse, light brown sands with fine to coarse gravels. The soils were relatively dry from the top of the soil column to the bottom of the borings at two feet bgs. Groundwater was not encountered in any of the boreholes and not expected to be present in the upper 10 feet.

### 3.2 ANALYTICAL RESULTS

A summary of the analytical results are presented in Tables 1a and 1b. Copies of the laboratory reports and chain-of-custody forms are included in Appendix A and B, respectively.

#### 3.2.1 Title 22 Metals and VOCs

One soil sample at each column and abutment, collected at a depth of one foot bgs, was selected for analysis of VOCs by EPA test method 8260B and Title 22 metals analysis by EPA test method 6010B/7471A. Analytical data obtained from eight (8) selected soil samples submitted for analysis indicated VOC concentrations less than the laboratory reporting limit.

Table 1a compares project sample statistical data with the background statistical data from studies performed for the California Department of Toxic Substances Control (DTSC) in 1991 (Marret et al, April 1991) and 1996 (Bradford et al, March 1996). Based on this comparison it appears that the reported metals concentrations, other than lead, are consistent with expected background concentrations for soils in Southern California.

Table 1a also compares metals concentrations with the United States Environmental Protection Agency Region 9 (EPA) Preliminary Remediation Goals (PRG); screening levels for industrial soil (April 2009). With the exception of arsenic, mean metals concentrations are below the industrial PRG. Mean arsenic concentrations in California commonly exceed the industrial PRG with mean background in pristine desert samples ranging from 3.2 to 18.1 mg/kg. Arsenic concentrations were reported in the range of 6.0 to 11 mg/kg (mean = 8.6 mg/kg), which are four to seven times the industrial PRG. However, these concentrations are consistent with expected background levels and do not require special disposition as a hazardous waste or contaminated waste. Health and safety precautions would be prudent to limit inhalation and ingestion of project soils by workers and surrounding public.

#### 3.2.2 Total Lead

Forty-eight (48) soil samples were analyzed for total lead by EPA test method 6010B. Total lead concentrations ranged from 1.1 to 370 mg/kg with a mean concentration of 11 mg/kg (see Table 1b).

Total lead concentrations did not exceed the TTLC of 1,000 mg/kg in any of the samples.

### **3.2.3 Soluble Lead (Cal WET- Citric)**

Soil samples with total lead concentrations in excess of 25 mg/Kg were analyzed for soluble lead using the Cal WET soluble lead analysis. Soluble lead concentrations exceeded the STLC of 5 mg/L in five (5) of the 14 soil samples submitted for soluble lead analysis. Soluble lead concentrations ranged from 1.9 to 7.9 mg/L with a mean concentration of 3.8 mg/L (see Table 1b).

### **3.2.4 Toxicity Characteristic Leaching Procedure (TCLP)**

Soil samples with STLC lead concentrations in excess of 5 mg/L were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) analysis for lead. TCLP concentrations for lead ranged from less than 0.02 (the laboratory reporting limit) to 0.09 mg/L with a mean concentration of 0.03 mg/L (see Table 1b).

TCLP lead concentrations did not exceed 5 mg/L in any of the five (5) soil samples submitted for analysis.

### **3.2.5 Soluble Lead (Cal WET- DI)**

The Caltrans variance for Aerially Deposited Lead (ADL) allows for reuse of materials exceeding the STLC and TCLP for lead if the soluble concentrations do not exceed 0.5 mg/L using a less rigorous extraction test that incorporates distilled water as the solvent rather than the Cal WET-citric acid or TCLP acetic acid extractant. This method is often identified as the DHS modified Cal WET-DI test.

Five (5) soil samples were selected for soluble lead analysis by the Cal WET – DI. Soluble lead concentrations were less than 0.02 mg/L (the laboratory reporting limit) in all samples (see Table 1b).

### **3.2.6 pH Results**

Selected soil samples with total lead concentrations in excess of 25 mg/Kg were analyzed for pH using EPA test method 9045C. Analytical data obtained from 14 selected soil samples submitted for analysis indicated pH levels ranging from 9.2 to 9.6.

## **3.3 DATA VALIDATION**

Prior to submitting soil samples to the laboratory, the chain-of-custody documentation was reviewed for accuracy and completeness. The laboratory reports were crosschecked with the chain-of-custody forms to confirm accurate transposing of sample information. Laboratory quality assurance and quality control (QA/QC) data (method blanks, laboratory control samples and duplicates, matrix spike samples and duplicates) were also reviewed for compliance with QA/QC objectives. In addition, an equipment blank was collected and analyzed for VOCs and Title 22 metals. Based on this validation process and analytical data indicating no detections in the equipment blank, the data contained herein are adequate for the purposes of this study. Copies of the laboratory reports and chain-of-custody forms are included as Appendix A and B, respectively.

## 4.0 STATISTICAL DATA EVALUATION

### 4.1 CORRELATION BETWEEN TOTAL LEAD AND SOLUBLE LEAD

The correlation coefficient between total lead and Cal WET-Citric soluble lead was calculated in accordance with the methodology presented in Section B 3.2.2.15.2 of Caltrans Contract 08A1542 (see Table 3). The data initially showed poor correlation with a correlation coefficient of 0.34. Caltrans generally considers a correlation coefficient of 0.8 or greater as showing good correlation.

### 4.2 Linear Regression Analysis

As described above, the soluble and total lead data appear to initially show insufficient correlation to allow comparison using linear regression algorithms. However, upon review of Figure 3, it was determined that two extreme outliers were skewing the linear regression results (RB-5-2.0 and RB-13-2.5); likely due to heterogeneity of soil particle size in relation to the size of the laboratory sample aliquot, and lead concentrations in the soil samples that could not be resolved with mechanical homogenization in the laboratory. Upon removal of the two outliers from the sample population, the correlation coefficient increased to 0.94 as shown on Table 3 and Figure 3; sufficient correlation to allow comparison using linear regression algorithms.

The relationship between total lead and Cal WET-Citric soluble lead was evaluated in accordance with Caltrans Contract 08A1542 Section B 3.2.2.15.2. Total lead and soluble lead are bivariate data exhibiting a linear relationship. Table 3 and Figure 3 show the relationship between total and Cal WET-Citric soluble lead results for this project. Linear regression was used to develop a best-fit line and mathematical formula for the relationship between total lead (TL) and Cal WET-Citric soluble lead (SL) concentrations:

$$TL \text{ [mg/kg]} = 7.9 (SL \text{ [mg/L]}) + 17.3, \text{ or}$$

Solving for soluble lead (Cal WET) yields the following:

$$SL \text{ [mg/L]} = (TL \text{ [mg/kg]} - 17.3) / 7.9$$

This formula will be used in subsequent statistical evaluations to determine the Cal WET-Citric soluble lead concentration from statistically derived total lead upper confidence limits (UCLs) for various soil layers considered in Section 4.3.

### 4.3 Statistical Data Evaluation

The analytical results were evaluated statistically following the methods described in Section B 3.2.15 of Exhibit A, Caltrans Contract Document Number 08A1542.

Statistical tests were performed on each data set to evaluate whether the total lead data are normally or lognormally distributed. If lognormally distributed, the data were transformed prior to performing any other statistical evaluations. Statistical parameters, such as the mean, standard deviation, and upper confidence level of the mean were calculated for various layers and scenarios. The total lead 80 percent UCL ( $UCL_{80}$ ) and the 95 percent UCL ( $UCL_{95}$ ) of the mean were calculated to support decision making with respect to off site disposal and on site re-use as described in Section B 3.2.4.4 of Caltrans Contract 08A1542.

- UCL<sub>80</sub>: The UCL<sub>80</sub> was calculated in accordance with requirements promulgated in U.S. Environmental Protection Agency (U.S. EPA) Guidance document SW-846 to characterize the soil for 1) potential off site disposal as nonhazardous, California hazardous or Resource Conservation and Recovery Act (RCRA) hazardous waste, and 2) to assess whether the conditions of the Caltrans Variance should be invoked for on-site reuse.
- UCL<sub>95</sub>: The UCL<sub>95</sub> is calculated to support decision making with respect to release of surplus soil material to the possession of the Contractor.

Statistical evaluations were performed using the U.S. EPA statistical program, ProUCL, version 4.00.01. One-half the reporting limit was used for all sample results reported below the reporting limit (nondetect). If the data exhibited normal distribution, Student's-t method was used to determine the UCL. The standard Bootstrap Method was used to evaluate the UCL as required in Caltrans Contract 088A0981 Section B 3.2.2.15.1 for all nonparametric populations.

The histograms for the raw data and the transformed data for all samples are shown on Figures 4a, 4b, 5a, and 5b. From these histograms and based on statistical tests, the total lead and Cal WET-Citric soluble lead data are lognormally and normally distributed, respectively.

To assist in future soil handling and disposition decision-making, statistical evaluations were performed on the below data populations. In each case, the total-lead UCLs were statistically derived from each sample population. The soluble lead (Cal WET-Citric) UCLs were then calculated using the linear regression formulas presented in Section 4.2.

- *Entire Data Set*—includes all of the total lead data (48 samples) from the surface to approximately three feet bgs. Statistical data for the entire data set are tabulated in Table 4 and shown on the block diagrams of Figure 6. The mean total lead concentration for the data set is 11 mg/kg with a standard deviation of 3.3 mg/kg. The calculated UCL<sub>80</sub> and UCL<sub>95</sub> are 13 and 15 mg/kg, respectively. The corresponding UCL<sub>80</sub> and UCL<sub>95</sub> Cal WET-Citric soluble lead concentrations using linear regression analysis are less than 0.13 mg/L for both values.
- *Depth Specific Layer*—data for each depth interval were evaluated as three separate and distinct populations. Under these scenarios, all data were included in the population of each depth interval. The results are presented in Table 5 and shown on the block diagrams of Figure 6.
  - 1 foot—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 20 and 25 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of 0.34 and 0.97 mg/L, respectively.
  - 2 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 15 and 19 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of less than 0.13 mg/L and 0.22 mg/L, respectively.
  - 3 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 11 and 15 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of less than 0.13 mg/L for both values.

- *Depth Combinations*—three layers were combined into two distinct populations. The two combinations evaluated are indicated below and shown on Table 5 and the block diagrams of Figure 33.
  - 1 and 2 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 16 and 19 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of less than 0.13 mg/L and 0.22 mg/L, respectively.
  - 2 and 3 feet—total lead UCL<sub>80</sub> and UCL<sub>95</sub> were calculated at 12 and 14 mg/kg, respectively; with a corresponding Cal WET-Citric soluble lead UCL<sub>80</sub> and UCL<sub>95</sub> of less than 0.13 mg/L for both values.

## 5.0 CONCLUSIONS

Statistical evaluations were performed to evaluate appropriate handling and disposition of lead in accordance with the following federal and state statutory limits:

- TCLP Lead: 5 mg/L (RCRA hazardous waste),
- STLC Lead: 5 mg/L (California hazardous waste),
- TTLIC Lead: 1,000 mg/kg (California hazardous waste), and

Although the purpose of the study was to evaluate lead in soil resulting from paint sandblasting of the bridges, the contribution of lead from ADL cannot be ignored. The reported concentrations are consistent with those typically reported in surficial soils along highways as a result of ADL. Accordingly, the reported lead concentrations are compared to the Caltrans Lead variance.

In accordance with the conditions of Caltrans Variance (No. 00-H-VAR-04), Modification 2 (September 12, 2003) as stated below:

Section 9.a.1: Lead contaminated soil containing 0.5 mg/L or less soluble lead when extracted by Cal WET-DI and 1,411 mg/kg or less total lead may be placed in the same Caltrans corridor provided that it is buried a minimum of 5 feet (1.5 meters) above the maximum water table elevation and covered with one foot (0.3 meters) of nonhazardous soil. These materials may be used on-site as Type Y-1 Caltrans fill material.

Section 9.a.2: Lead contaminated soil containing less than 50 mg/L soluble lead when extracted by Cal WET-DI and 3,397 mg/kg or less total lead may be placed in the same Caltrans corridor provided that it is buried a minimum of 5 feet above the maximum water table elevation and covered with pavement structure. These materials may be used on-site as Type Y-2 fill material.

In consideration of the data and statistical evaluations presented in previous sections, the following conclusions are developed.

- Lead is present in near surface soils within the proposed construction zone and may be the result of several sources including natural sources, paint sandblasting, and ADL.
- As shown on Figures 4a, 4b, 5a, and 5b, the histograms for total lead and Cal WET-Citric soluble lead demonstrate that the data are lognormally and normally distributed, respectively.
- Total lead concentrations are well below statutory threshold levels for hazardous waste (TTLIC).
- Cal WET-Citric soluble lead UCL<sub>95</sub> does not appear to exceed the California STLC.
- TCLP soluble lead levels did not exceed federal hazardous waste levels based on toxicity characteristics.

- Soluble lead was not detected at concentrations above the 0.5 mg/L Caltrans variance criteria when extracted using the DHS Modified Cal WET-DI method.
- Considering the entire data set as a whole (all 48 data points), the UCL<sub>80</sub> and UCL<sub>95</sub> for total lead does not exceed regulatory thresholds.
- Considering the entire data set in depth discrete layers, the UCL<sub>80</sub> and UCL<sub>95</sub> for total and soluble lead do not exceed regulatory thresholds.

## 6.0 RECOMMENDATIONS

Lead is present at the site. Based on the findings and conclusions presented herein, the following is recommended:

1. A site-specific lead compliance plan should be developed to address health and safety of construction workers.
2. In consideration of total lead concentrations, soil may be managed as non-hazardous or reused onsite.
3. Surplus soil within the study zone may be released to the Contractor for disposition to a landfill.

## 7.0 LIST OF PREPARERS

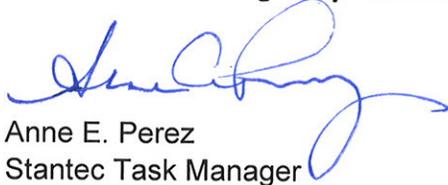
This lead survey report has been prepared under the direction of the following environmental professionals.

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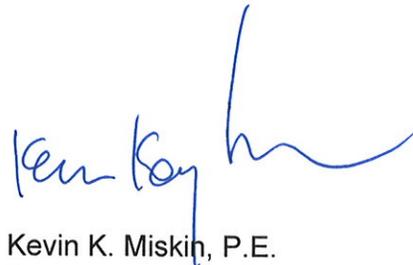
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## TABLES

**Table 1a**  
**Summary of Soil Analytical Test Results - Detected Title 22 Metals and VOCs**  
**Interstate-15, Rasor Road Bridge, San Bernardino County, California**

Sample ID	Arsenic	Barium	Cobalt	Chromium	Copper	Molybdenum	Nickel	Lead	Antimony	Selenium	Vanadium	Zinc	All VOCs
RB-2-1	9.6	76	4.7	4.7	8.6	1.2	7.8	2.1	1.3	ND<1.0	28	24	ND
RB-3-1	10	83	4.8	7.6	8.7	ND<1.0	8.9	67	ND<1.0	ND<1.0	29	34	ND
RB-5-1	11	69	5.4	4.2	9.8	ND<1.0	7.1	51	ND<1.0	ND<1.0	28	36	ND
RB-8-1	8.2	51	3.3	1.7	5.0	ND<1.0	6.1	7.5	ND<1.0	1.1	22	18	ND
RB-10-1	8.4	75	4.8	2.9	6.1	ND<1.0	5.3	6.6	ND<1.0	ND<1.0	26	18	ND
RB-11-1	6.0	71	4.9	3.9	6.5	ND<1.0	6.2	10	ND<1.0	ND<1.0	30	27	ND
RB-13-1	6.4	63	4.3	3.2	5.9	ND<1.0	5.3	21	ND<1.0	ND<1.0	31	20	ND
RB-15-1	9.2	74	6.2	5.4	9.3	1.3	7.3	4.8	1.7	ND<1.0	31	30	ND
Min.	6.0	51	3.3	1.7	5.0	<1.0	5.3	2.1	<1.0	<1.0	22	18	NA
Max.	11	83	6.2	7.6	9.8	1.3	8.9	67	1.7	1.1	31	36	NA
Mean	8.6	70	4.8	4.2	7.5	0.69	6.8	21	0.75	0.58	28	26	NA
St. Dev.	1.7	9.7	0.83	1.8	1.8	0.35	1.3	24	0.48	0.21	3.0	7.1	NA
EPA PRGs	1.6	190,000	300	1,400	41,000	5,100	20,000	800	410	5,100	1,000	100,000	NA
<b>Background Statistics</b>													
Min. Value	2.0	151	0.0	4	6.3	0.1	5.4	7.2	0.16	0.015	40	0	NA
Max. Value	31.2	911	16.9	113	258.0	2.4	35.4	54.5	1.95	0.220	188	109	NA
Mean	3.2 - 18.1	442 - 766	4.0 - 8.7	8 - 18	8 - 19	0.9	7 - 14	9.4 - 21.8	0.57	0.077	56 - 90	9 - 43	NA
St. Dev.	0.6 - 7.2	73 - 215	1.1 - 4.8	2 - 20	2 - 7	0.6	1 - 4	1.3 - 10.9	0.50	0.087	9 - 52	4 - 15	NA

**Notes:**

Results reported in milligrams per kilogram (mg/kg).

VOCs = volatile organic compounds

St. Dev. = standard deviation

USEPA PRG = United States Environmental Protection Agency Region 9 Preliminary Remediation Goals for Industrial Soil, April 2009

Title 22 Metals analyzed by EPA test method 6010B

VOCs analyzed by EPA test method 8260B

ND<1.0 = not detected; less than the laboratory reporting limit

1. Silver, beryllium, cadmium, thallium, and mercury were not detected above their respective laboratory reporting limit.
2. Background statistics for arsenic, barium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc from Marrett, D.J., A.L. Page, G.R. Bradford, D. Bakhtiar, R.C. Graham, A.C. Chang, *Background Levels of Soil Trace Elements in Southern California Soils*, April 1991, using results from pristine desert soils.
3. Background statistics for molybdenum, antimony, and selenium from G. R. Bradford, A. C. Chang, A. L. Page, D. Bakhtiar, J. A. Frampton, and H. Wright, *Background Concentrations of Trace and Major Elements in California Soils*, March 1996, using only Southern California results (samples 1, 7, 12, 18, 19, 20, 28, 35, 36, 37, and 50).
4. One-half the reporting limit (0.5 mg/kg) was used for statistical analysis where a result is shown as ND<1.0.

**Table 1b**  
**Summary of Soil Analytical Test Results - Total Lead, Soluble Lead, and pH**  
**I-15, Razor Road Bridge, San Bernardino County, California**

<b>Sample ID</b>	<b>Total Lead <sup>(1)</sup> (mg/kg)</b>	<b>Soluble Lead <sup>(1)</sup> Cal WET-Citric (mg/L)</b>	<b>Soluble Lead <sup>(1)</sup> Cal WET-DI (mg/L)</b>	<b>Soluble Lead <sup>(1)</sup> TCLP (mg/L)</b>	<b>pH <sup>(2)</sup> (pH Units)</b>
RB-1-0.5	2.7	--	--	--	--
RB-1-1	2.8	--	--	--	--
RB-1-2.5	1.1	--	--	--	--
RB-2-0.5	6.9	--	--	--	--
RB-2-1	2.1	--	--	--	--
RB-2-2.5	2.3	--	--	--	--
RB-3-0.5	<b>75</b>	<b>7.9</b>	ND<0.20	ND<0.02	9.4
RB-3-1	<b>67</b>	<b>6.0</b>	ND<0.20	ND<0.02	9.4
RB-3-2.5	17	--	--	--	--
RB-4-0.5	<b>42</b>	2.6	--	--	9.0
RB-4-1	<b>44</b>	3.6	--	--	8.9
RB-4-2.5	4.1	--	--	--	--
RB-5-0.5	<b>28</b>	2.2	--	--	9.6
RB-5-1	<b>51</b>	2.9	--	--	9.4
RB-5-2.0	<b>65</b>	1.9	--	--	9.3
RB-6-0.5	<b>38</b>	2.7	--	--	9.5
RB-6-1	<b>27</b>	2.1	--	--	9.4
RB-6-2.0	6.9	--	--	--	--
RB-7-0.5	7.9	--	--	--	--
RB-7-1	5.6	--	--	--	--
RB-7-2.5	8.2	--	--	--	--
RB-8-0.5	11	--	--	--	--
RB-8-1	7.5	--	--	--	--
RB-8-2.5	6.7	--	--	--	--
RB-9-0.5	9.2	--	--	--	--
RB-9-1	14	--	--	--	--
RB-9-2.5	7.4	--	--	--	--
RB-10-0.5	6.1	--	--	--	--
RB-10-1	6.6	--	--	--	--
RB-10-2.5	7.3	--	--	--	--
RB-11-0.5	8.5	--	--	--	--
RB-11-1	10	--	--	--	--
RB-11-2.5	6.9	--	--	--	--
RB-12-0.5	<b>46</b>	3.6	--	--	9.4
RB-12-1	14	--	--	--	--
RB-12-2	24	--	--	--	--
RB-13-0.5	<b>69</b>	<b>5.6</b>	ND<0.20	0.09	9.2
RB-13-1	21	--	--	--	--
RB-13-2.5	<b>370</b>	<b>5.2</b>	ND<0.20	ND<0.02	9.6
RB-14-0.5	<b>53</b>	<b>5.1</b>	ND<0.20	ND<0.02	9.4
RB-14-1	<b>33</b>	1.9	--	--	9.6
RB-14-2.5	6.3	--	--	--	--
RB-15-0.5	5.7	--	--	--	--
RB-15-1	4.8	--	--	--	--
RB-15-2	2.6	--	--	--	--
RB-16-0.5	5.1	--	--	--	--

**Table 1b**  
**Summary of Soil Analytical Test Results - Total Lead, Soluble Lead, and pH**  
**I-15, Razor Road Bridge, San Bernardino County, California**

<b>Sample ID</b>	<b>Total Lead <sup>(1)</sup> (mg/kg)</b>	<b>Soluble Lead <sup>(1)</sup> Cal WET-Citric (mg/L)</b>	<b>Soluble Lead <sup>(1)</sup> Cal WET-DI (mg/L)</b>	<b>Soluble Lead <sup>(1)</sup> TCLP (mg/L)</b>	<b>pH <sup>(2)</sup> (pH Units)</b>
RB-16-1	3.0	--	--	--	--
RB-16-2	2.1	--	--	--	--

**Notes:**

Lead analyzed by EPA Method 6010B

Results reported in milligrams per kilogram (mg/kg)

-- = not analyzed

ND<0.02 = not detected; less than the laboratory reporting limit

**Table 2**  
**Frequency Distribution Analysis**  
**I-15, Rasor Road Bridge, San Bernardino County, California**

Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Total Lead In(x) Transformed	Soluble Lead Cal WET-Citric (mg/L)	Cal WET-Citric In(x) Transformed	Soluble Lead TCLP (mg/L)	TCLP In(x) Transformed
RB-1-0.5	2.7	0.99	--	--	--	--
RB-1-1	2.8	1.0	--	--	--	--
RB-1-2.5	1.1	0.10	--	--	--	--
RB-2-0.5	6.9	1.9	--	--	--	--
RB-2-1	2.1	0.74	--	--	--	--
RB-2-2.5	2.3	0.83	--	--	--	--
RB-3-0.5	75	4.3	7.9	2.1	0.01	-4.6
RB-3-1	67	4.2	6.0	1.8	0.01	-4.6
RB-3-2.5	17	2.8	--	--	--	--
RB-4-0.5	42	3.7	2.6	0.96	--	--
RB-4-1	44	3.8	3.6	1.3	--	--
RB-4-2.5	4.1	1.4	--	--	--	--
RB-5-0.5	28	3.3	2.2	0.79	--	--
RB-5-1	51	3.9	2.9	1.1	--	--
RB-5-2.0	65	4.2	1.9	0.64	--	--
RB-6-0.5	38	3.6	2.7	0.99	--	--
RB-6-1	27	3.3	2.1	0.74	--	--
RB-6-2.0	6.9	1.9	--	--	--	--
RB-7-0.5	7.9	2.1	--	--	--	--
RB-7-1	5.6	1.7	--	--	--	--
RB-7-2.5	8.2	2.1	--	--	--	--
RB-8-0.5	11	2.4	--	--	--	--
RB-8-1	7.5	2.0	--	--	--	--
RB-8-2.5	6.7	1.9	--	--	--	--
RB-9-0.5	9.2	2.2	--	--	--	--
RB-9-1	14	2.6	--	--	--	--
RB-9-2.5	7.4	2.0	--	--	--	--
RB-10-0.5	6.1	1.8	--	--	--	--
RB-10-1	6.6	1.9	--	--	--	--
RB-10-2.5	7.3	2.0	--	--	--	--
RB-11-0.5	8.5	2.1	--	--	--	--
RB-11-1	10	2.3	--	--	--	--
RB-11-2.5	6.9	1.9	--	--	--	--
RB-12-0.5	46	3.8	3.6	1.3	--	--
RB-12-1	14	2.6	--	--	--	--
RB-12-2	24	3.2	--	--	--	--
RB-13-0.5	69	4.2	5.6	1.7	0.09	-2.4
RB-13-1	21	3.0	--	--	--	--
RB-13-2.5	370	5.9	5.2	1.6	0.01	-4.6

**Table 2**  
**Frequency Distribution Analysis**  
**I-15, Rasor Road Bridge, San Bernardino County, California**

Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Total Lead In(x) Transformed	Soluble Lead <sup>(1)</sup> Cal WET-Citric (mg/L)	Cal WET-Citric In(x) Transformed	Soluble Lead TCLP (mg/L)	TCLP In(x) Transformed
RB-14-0.5	53	4.0	5.1	1.6	0.01	-4.6
RB-14-1	33	3.5	1.9	0.64	--	--
RB-14-2.5	6.3	1.8	--	--	--	--
RB-15-0.5	5.7	1.7	--	--	--	--
RB-15-1	4.8	1.6	--	--	--	--
RB-15-2	2.6	0.96	--	--	--	--
RB-16-0.5	5.1	1.6	--	--	--	--
RB-16-1	3.0	1.1	--	--	--	--
RB-16-2	2.1	0.74	--	--	--	--
<b>Min. Value</b>	1.1	0.10	1.9	0.64	0.01	-4.6
<b>Max. Value</b>	370	5.9	7.9	2.1	0.09	-2.4
<b>Mean</b>	26	2.4	3.8	1.2	0.03	-4.2
<b>Median</b>	8.1	2.1	3.3	1.2	0.01	-4.6
<b>St. Dev.</b>	55	1.2	1.9	0.47	0.04	0.98
<b>Variance</b>	3,000	1.5	3.4	0.22	0.00	0.97

**Notes:**

For statistical analysis, laboratory analytical results less than the reporting limit are represented as one-half the reporting limit as shown in blue font.

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

STLC = Soluble Threshold Limit Concentration

**Table 3**  
**Linear Regression Analysis**  
**I-15, Razor Road Bridge, San Bernardino County, California**

Sample ID	Total Lead (mg/kg) (Y)	Soluble Lead STLC/WET-Citric (mg/L) (X)	Product of Total Lead and Soluble Lead (X) x (Y)
RB-3-0.5	75	7.9	593
RB-3-1	67	6.0	402
RB-4-0.5	42	2.6	109
RB-4-1	44	3.6	158
RB-5-0.5	28	2.2	62
RB-5-1	51	2.9	148
RB-6-0.5	38	2.7	103
RB-6-1	27	2.1	57
RB-12-0.5	46	3.6	166
RB-13-0.5	69	5.6	386
RB-14-0.5	53	5.1	270
RB-14-1	33	1.9	63
<b>Mean</b>	<b>48</b>	<b>3.9</b>	<b>210</b>
<b>Standard Deviation</b>	<b>15.9</b>	<b>1.9</b>	<b>--</b>

<b>Number of Samples</b>	12
<b>Calculated r Value <sup>(1)</sup></b>	0.94
<b>r<sup>2</sup></b>	0.88
<b>Slope (m) <sup>(2)</sup></b>	7.9
<b>Intercept (b) <sup>(3)</sup></b>	17.3
<b>y=mx+b</b>	y=7.9x+ 17.3
	x=(y-17.3)/7.9

**Notes:**

(1)  $r = \frac{\{[(\text{average of the product of Total Lead and Soluble Lead}) - ((\text{Soluble Lead average}) \times (\text{Total Lead average}))]\}}{\{[(\text{standard deviation of Soluble Lead}) \times (\text{standard deviation of Total Lead})]\} \times (\text{number of samples} / (\text{number of samples} - 1))}$

(2) Slope (m) = (r value) x (standard deviation of total lead) / (standard deviation of soluble lead)

(3) Intercept (b) = (average total lead concentration) - (slope (a)) x (average soluble lead level)

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

STLC = Soluble Threshold Limit Concentration

Sample IDs RB-5-2.0 and RB-13-2.5 were removed from the sample population as extreme outliers.

**Table 4**  
**Summary of Statistical Analysis Results**  
**Total Lead and Soluble Lead by EPA Test Method 6010B**  
**I-15, Rasor Road Bridge, San Bernardino County, California**

Parameter	Total Lead	Total Lead Corresponding to Soluble Lead (Cal WET-Citric) Data <sup>(1)</sup>	Soluble Lead Data (Cal WET-Citric)	Soluble Lead Data (TCLP)
Number of Data Points	48	14	14	5
Minimum Value	1.1 (mg/kg)	27 (mg/kg)	1.9 (mg/L)	0.01 (mg/L)
Maximum Detected Value	370 (mg/kg)	370 (mg/kg)	7.9 (mg/L)	0.09 (mg/L)
Mean	11 (mg/kg)	54 (mg/kg)	3.8 (mg/L)	0.03 (mg/L)
Median	8.0 (mg/kg)	48 (mg/kg)	3.3 (mg/L)	0.01 (mg/L)
Standard Deviation	3.3 (mg/kg)	1.9 (mg/kg)	1.9 (mg/L)	0.04 (mg/L)
80% UCL	13 (mg/kg)	63 (mg/kg)	4.2 (mg/L)	NA (mg/L)
80% UCL Method <sup>(3)</sup>	Student's-t	Student's-t	Student's-t	NA
95% UCL	15 (mg/kg)	73 (mg/kg)	4.7 (mg/L)	NA (mg/L)
95% UCL Method <sup>(3)</sup>	Student's-t	Student's-t	Student's-t	NA
Are Data Normal?	No	No	Yes	No
Are Data Lognormal?	Yes	Yes	Yes	No

**Notes:**

- (1) A soluble lead test (STLC) was not performed on every sample. As such, a subset of the total data set was created which only includes total lead samples that have both a total lead and soluble lead results.
- (2) Taken from the Environmental Protection Agency's statistical program, ProUCL, Version 3.00.02. Student's-t UCL was used if the data were normal. The standard bootstrap UCL was used if the data were non-parametric.
- (3) If lognormal, the data were transformed using the natural log function (ln(x)) and the mean and UCLs determined using Student's-t. The mean and UCLs were then transformed using the inverse natural log function (e<sup>x</sup>).

mg/kg = milligrams per kilogram  
mg/L = milligrams per liter  
STLC = Soluble Threshold Limit Concentration  
TCLP = Toxicity Characteristic Leaching Procedure  
NA = not applicable; not enough data points

**Table 5**  
**Statistical Analysis by Depth**  
**I-15, Razor Road Bridge, San Bernardino County, California**

<b>Parameter</b>	<b>Total Lead <sup>(1)</sup></b>	<b>Soluble Lead Cal WET-Citric <sup>(2)</sup></b>
<b>0.15 Meter Depth</b>		
Number of Samples	16	
Minimum Result	2.7	
Maximum Result	75	
Mean	16	<0.13
Standard Deviation	3.0	
Variance	3.2	
80% UCL	20	0.34
95% UCL	25	0.97
Distribution	lognormal	
<b>0.30 Meter Depth</b>		
Number of Samples	16	
Minimum Result	2.1	
Maximum Result	67	
Mean	12	<0.13
Standard Deviation	3.0	
Variance	3.3	
80% UCL	15	<0.13
95% UCL	19	0.22
Distribution	lognormal	
<b>0.60 + 0.75 Meter Depths</b>		
Number of Samples	16	
Minimum Result	1.1	
Maximum Result	370	
Mean	8.3	<0.13
Standard Deviation	4.1	
Variance	7.4	
80% UCL	11	<0.13
95% UCL	15	<0.13
Distribution	lognormal	
<b>0.15 + 0.30 Meter Depths</b>		
Number of Samples	32	
Minimum Result	2.1	
Maximum Result	75	
Mean	14	<0.13
Standard Deviation	2.9	
Variance	3.2	
80% UCL	16	<0.13
95% UCL	19	0.22
Distribution	lognormal	

**Table 5**  
**Statistical Analysis by Depth**  
**I-15, Razor Road Bridge, San Bernardino County, California**

Parameter	Total Lead <sup>(1)</sup>	Soluble Lead Cal WET-Citric <sup>(2)</sup>
<b>All Depths</b>		
Number of Samples	48	
Minimum Result	1.1	
Maximum Result	370	
Mean	8.0	<0.13
Standard Deviation	3.3	
Variance	4.3	
80% UCL	13	<0.13
95% UCL	15	<0.13
Distribution	lognormal	
<b>0.30 + 0.60 + 0.75 Meter Depths</b>		
Number of Samples	32	
Minimum Result	1.10	
Maximum Result	370	
Mean	9.9	<0.13
Standard Deviation	3.5	
Variance	4.8	
80% UCL	12	<0.13
95% UCL	14	<0.13
Distribution	lognormal	

**Notes:**

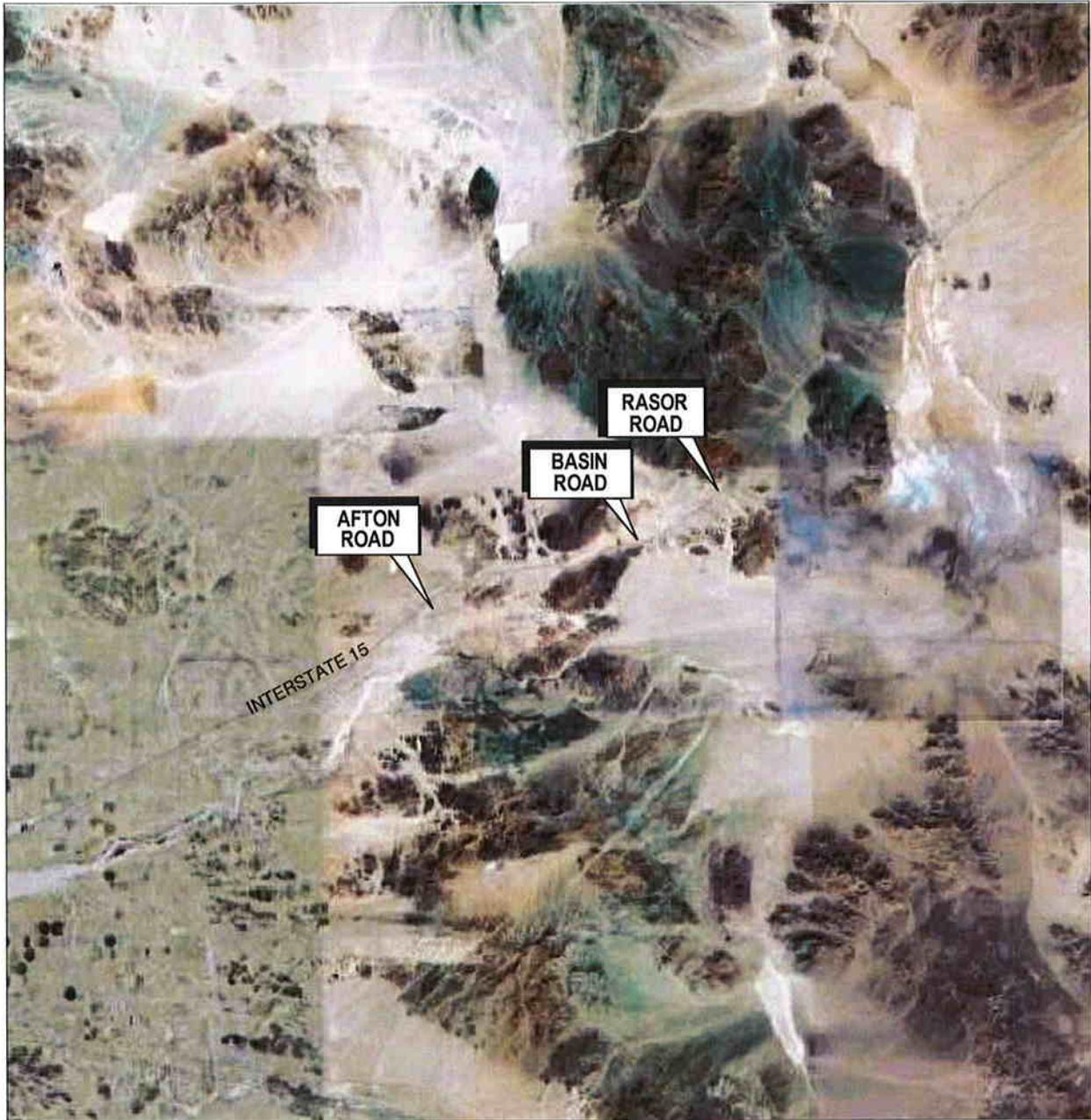
(1) Results for total lead are in milligrams per kilogram (mg/kg).

(2) Soluble Lead Threshold Concentration (STLC) results are in milligrams per liter (mg/L) and were calculated using linear regression analysis (Table 3).

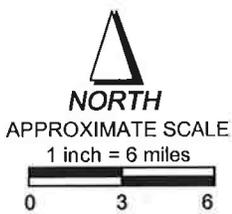
Statistical results were obtained from the Environmental Protection Agency's statistical program, ProUCL, Version 3.00.02. Student's-t UCL was used if the data were normal. The standard bootstrap UCL was used if the data were non-parametric.

If lognormal, the data were transformed using the natural log function (ln[x]) and the mean and UCLs determined using Student's-t. The mean and UCLs were then transformed using the inverse natural log function (e<sup>x</sup>).

## FIGURES

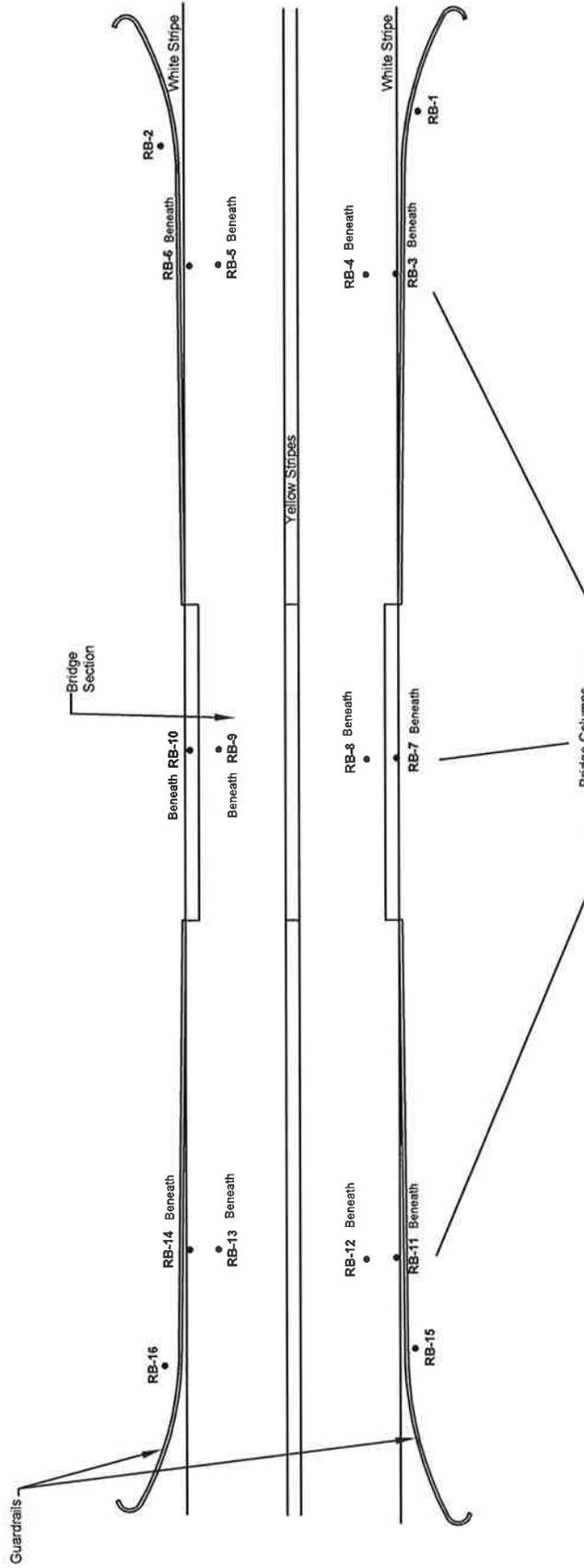


Reference: Google Earth 2009



PHOTOGRAPH LOCATION

 <b>Stantec</b> 25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA PH (909) 335-6116 FAX (909) 335-6120	FOR: CALTRANS TASK ORDER NO. 26 THREE BRIDGES ON INTERSTATE 15 AFTON, BASIN AND RASOR ROADS IN SAN BERNARDINO COUNTY			<b>SITE LOCATION MAP</b>		FIGURE: <b>1</b>
	JOB NUMBER: 185802055	DRAWN BY: KD	CHECKED BY: KD	APPROVED BY: AP	DATE: 11/17/09	



**LEGEND:**

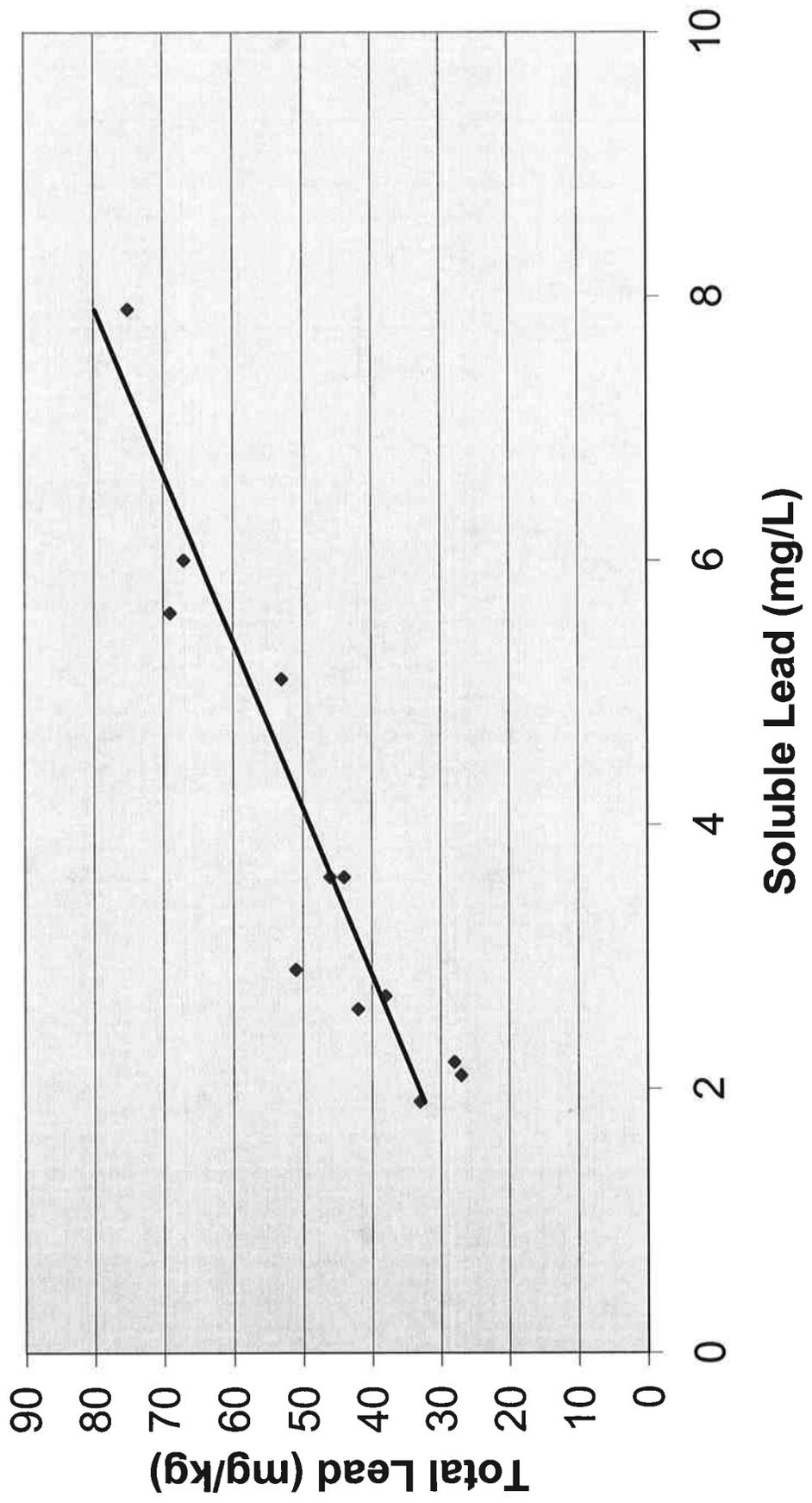
- APPROXIMATE SOIL SAMPLE LOCATION



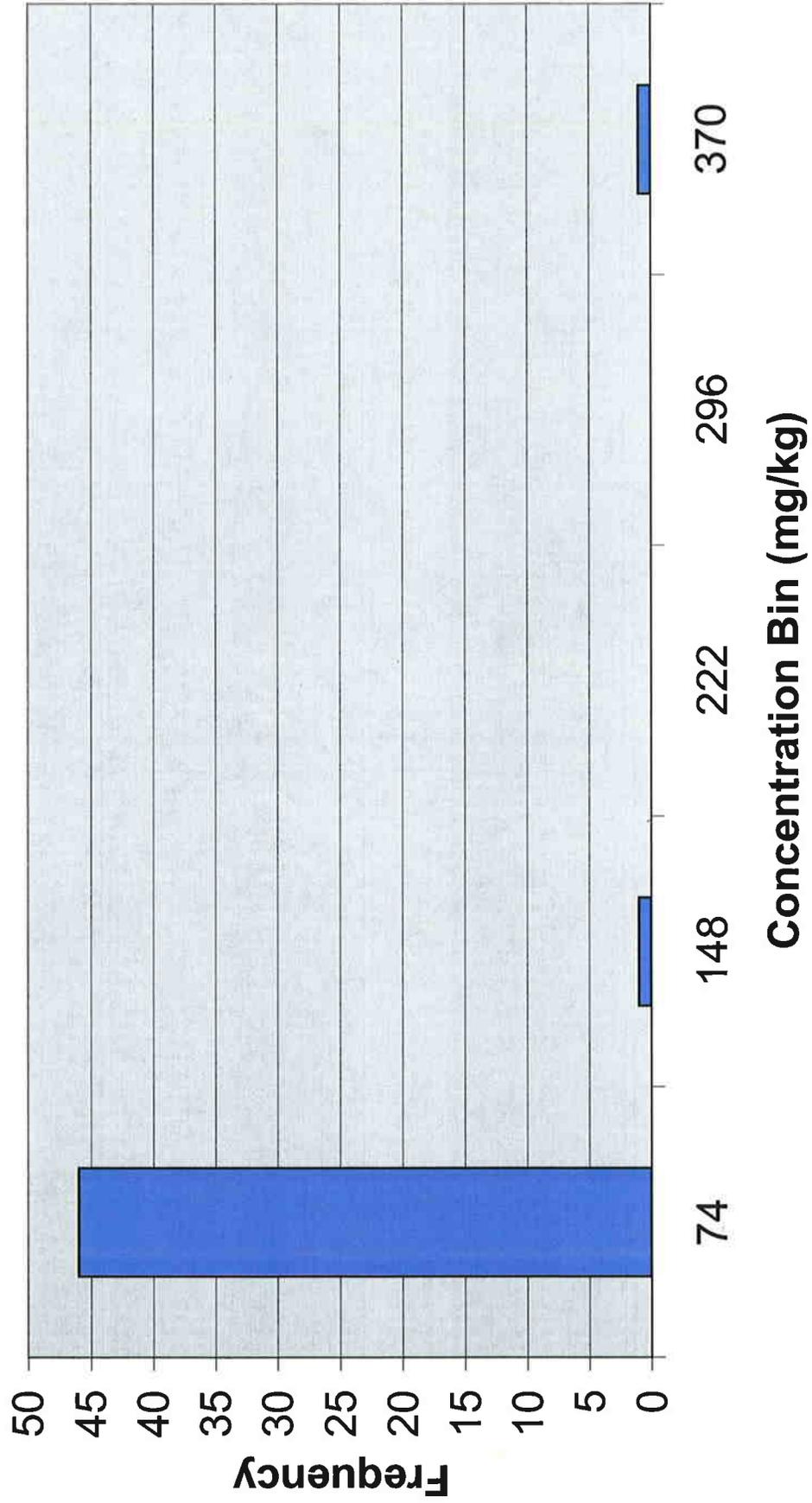
CALTRANS TASK ORDER NO. 26 THREE BRIDGES ON INTERSTATE 15 RASOR ROAD OVERCROSSING IN SAN BERNARDINO COUNTY		SAMPLE LOCATION MAP		FIGURE: <b>2</b>
JOB NUMBER: 185602056	DRAWN BY: KD	CHECKED BY: AP	APPROVED BY:	DATE: 07/10/09

$y = 7.9x + 17.3$   
 $R^2 = 0.88$

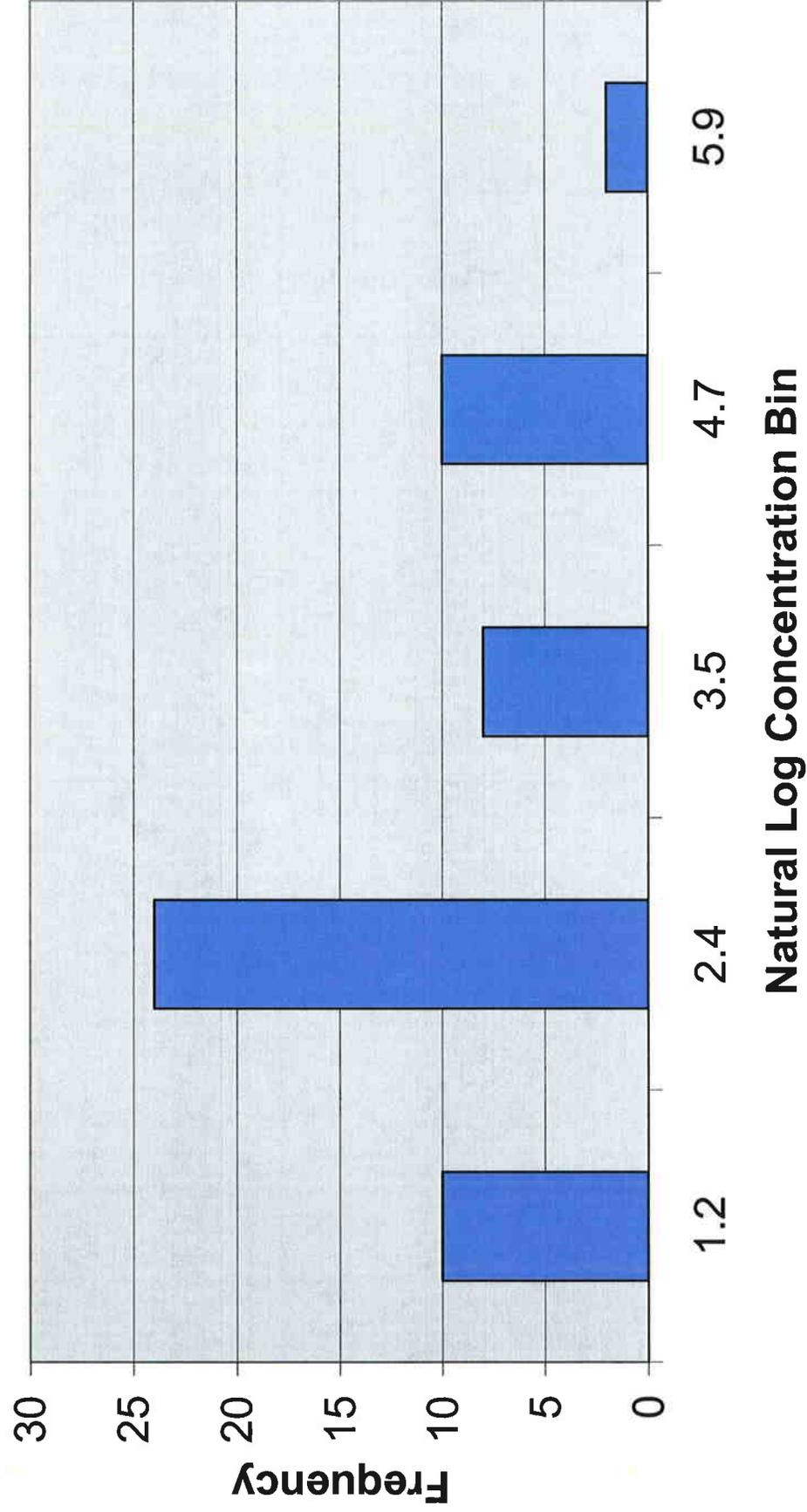
**Figure 3**  
**Linear Regression Analysis**



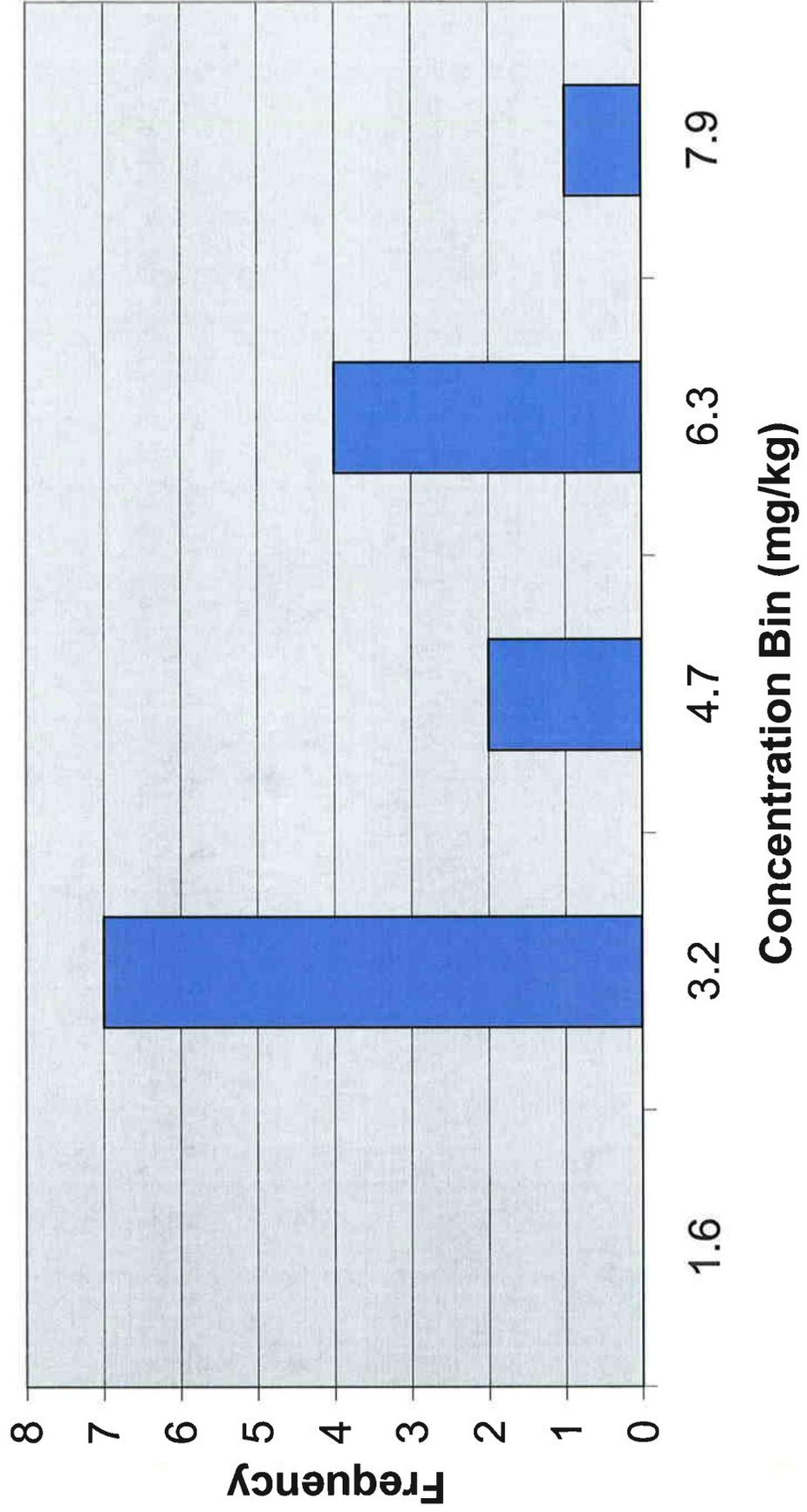
**Figure 4a**  
**Histogram - Total Lead (All Samples)**



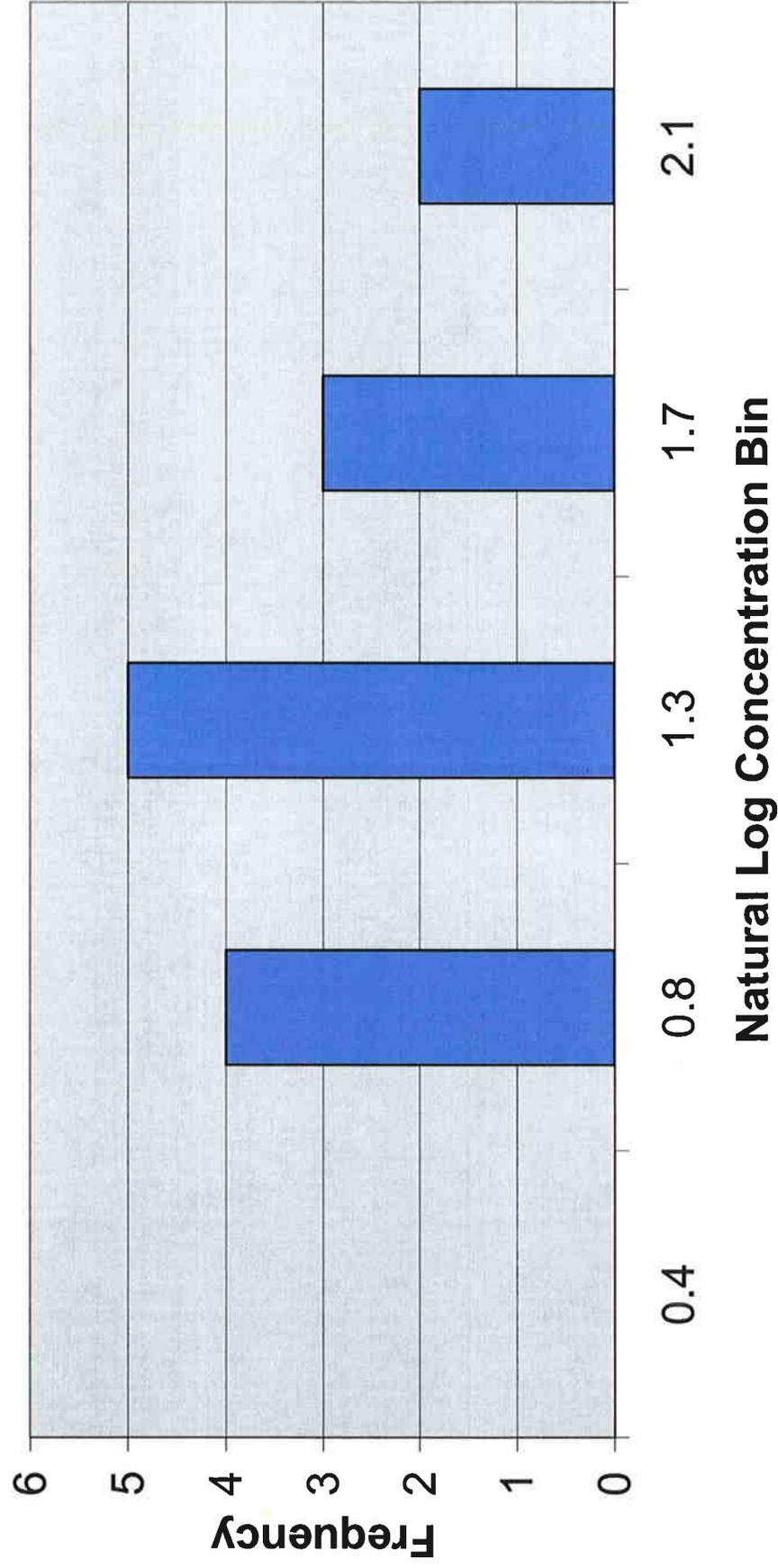
**Figure 4b**  
**Histogram - Total Lead (ln(x) Transformed)**



**Figure 5a**  
**Histogram - Soluble Lead (Cal WET-Citric)**



**Figure 5b**  
**Histogram - Soluble Lead**  
**(Cal WET-Citric In(x) Transformed)**



**FIGURE 6**  
**BLOCK DIAGRAMS**  
**95% and 80% UCLs for**  
**All Areas**

Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 20 UCL <sub>95</sub> = 25	UCL <sub>80</sub> = 0.34 UCL <sub>95</sub> = 0.97
2	UCL <sub>80</sub> = 12 UCL <sub>95</sub> = 14	UCL <sub>80</sub> = < 0.13 UCL <sub>95</sub> = < 0.13
3		

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where the upper 1 foot is treated independently of an underlying layer ranging from 1 to 2 feet.

Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 13 UCL <sub>95</sub> = 15	UCL <sub>80</sub> = < 0.13 UCL <sub>95</sub> = < 0.13
2		
3		

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where the entire zone of investigation is treated as a single layer from 0 to 3 feet.

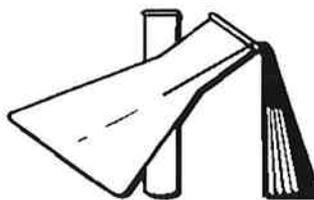
Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 20 UCL <sub>95</sub> = 25	UCL <sub>80</sub> = 0.34 UCL <sub>95</sub> = 0.97
2	UCL <sub>80</sub> = 15 UCL <sub>95</sub> = 19	UCL <sub>80</sub> = < 0.13 UCL <sub>95</sub> = 0.22
3	UCL <sub>80</sub> = 11 UCL <sub>95</sub> = 15	UCL <sub>80</sub> = < 0.13 UCL <sub>95</sub> = < 0.13

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where each layer (0 to 1, 1 to 2, and 2 to 3 feet) is treated independently.

Surface Feet	Total Lead	CAL WET-Citric Soluble Lead
1	UCL <sub>80</sub> = 16 UCL <sub>95</sub> = 19	UCL <sub>80</sub> = < 0.13 UCL <sub>95</sub> = 0.22
2	UCL <sub>80</sub> = 11 UCL <sub>95</sub> = 15	UCL <sub>80</sub> = < 0.13 UCL <sub>95</sub> = < 0.13
3		

The above diagram shows the total (mg/kg) and predicted Cal WET soluble lead (mg/L) concentrations where the upper 2 feet is treated independently of an underlying layer ranging from 2 to 3 feet.

**APPENDIX A  
ANALYTICAL LABORATORY REPORTS**



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

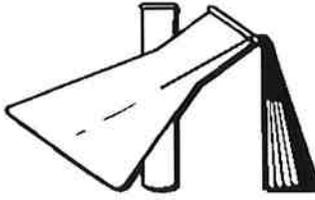
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)		RESULT	NOTE
<b>RB-1-0.5 (Sample I.D.# : 0906212-01) Collected: 09-Jun-09 By Customer</b>							
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		2.7 mg/kg	
<b>RB-1-1 (Sample I.D.# : 0906212-02) Collected: 09-Jun-09 By Customer</b>							
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		2.8 mg/kg	
<b>RB-1-2.5 (Sample I.D.# : 0906212-03) Collected: 09-Jun-09 By Customer</b>							
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		1.1 mg/kg	
<b>RB-2-0.5 (Sample I.D.# : 0906212-04) Collected: 09-Jun-09 By Customer</b>							
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		6.9 mg/kg	
<b>RB-2-1 (Sample I.D.# : 0906212-05) Collected: 09-Jun-09 By Customer</b>							
Silver	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg	
Arsenic	EPA 6010B	AF91716	5.0	19-Jun-09 (AF)		9.6 mg/kg	
Barium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		76 mg/kg	
Beryllium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg	
Cadmium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg	
Cobalt	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		4.7 mg/kg	
Chromium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		4.7 mg/kg	
Copper	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		8.6 mg/kg	
Molybdenum	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		1.2 mg/kg	
Nickel	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		7.8 mg/kg	
Lead	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		2.1 mg/kg	
Antimony	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		1.3 mg/kg	
Selenium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg	
Thallium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg	
Vanadium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		28 mg/kg	
Zinc	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		24 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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25864 F Business Center Drive  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

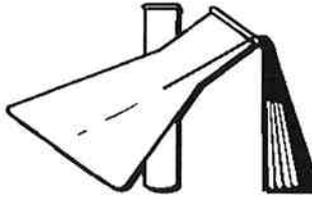
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-2-1 (Sample I.D.# : 0906212-05) Collected: 09-Jun-09 By Customer</b>						
Mercury	EPA 7471A	AF91805	0.050	18-Jun-09 (AF)	<	0.050 mg/kg
<b>RB-2-2.5 (Sample I.D.# : 0906212-06) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		2.3 mg/kg
<b>RB-3-0.5 (Sample I.D.# : 0906212-07) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		75 mg/kg
Lead	EPA 6010B(TCLP)	AF92905	0.02	30-Jun-09 (AF)	<	0.02 mg/l
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)		7.9 mg/l
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)		9.4 pH Units
<b>RB-3-1 (Sample I.D.# : 0906212-08) Collected: 09-Jun-09 By Customer</b>						
Silver	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF91716	5.0	19-Jun-09 (AF)		10 mg/kg
Barium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		83 mg/kg
Beryllium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		4.8 mg/kg
Chromium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		7.6 mg/kg
Copper	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		8.7 mg/kg
Molybdenum	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Nickel	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		8.9 mg/kg
Lead	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		67 mg/kg
Antimony	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Selenium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Thallium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Vanadium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		29 mg/kg
Zinc	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		34 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

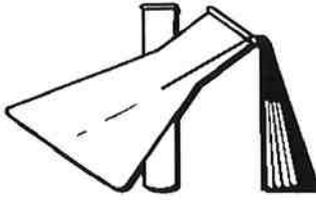
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-3-1 (Sample I.D.# : 0906212-08) Collected: 09-Jun-09 By Customer</b>						
Mercury	EPA 7471A	AF91805	0.050	18-Jun-09 (AF)	<	0.050 mg/kg
Lead	EPA 6010B(TCLP)	AF92905	0.02	30-Jun-09 (AF)	<	0.02 mg/l
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)		6.0 mg/l
pH	EPA 9040	AF92205	0.1	22-Jun-09 (EA)		9.4 pH Units
<b>RB-3-2.5 (Sample I.D.# : 0906212-09) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		17 mg/kg
<b>RB-4-0.5 (Sample I.D.# : 0906212-10) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		42 mg/kg
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)		2.6 mg/l
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)		9.0 pH Units
<b>RB-4-1 (Sample I.D.# : 0906212-11) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		44 mg/kg
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)		3.6 mg/l
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)		8.9 pH Units
<b>RB-4-2.5 (Sample I.D.# : 0906212-12) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		4.1 mg/kg
<b>RB-5-0.5 (Sample I.D.# : 0906212-13) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		28 mg/kg
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)		2.2 mg/l
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)		9.6 pH Units
<b>RB-5-1 (Sample I.D.# : 0906212-14) Collected: 09-Jun-09 By Customer</b>						
Silver	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF91716	5.0	19-Jun-09 (AF)		11 mg/kg
Barium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		69 mg/kg
Beryllium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		5.4 mg/kg
Chromium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		4.2 mg/kg
Copper	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		9.8 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

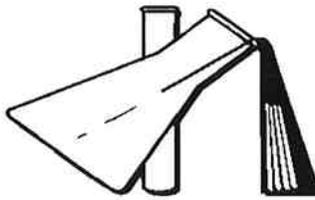
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-5-1 (Sample I.D.# : 0906212-14) Collected: 09-Jun-09 By Customer</b>						
Molybdenum	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Nickel	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		7.1 mg/kg
Lead	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		51 mg/kg
Antimony	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Selenium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Thallium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Vanadium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		28 mg/kg
Zinc	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		36 mg/kg
Mercury	EPA 7471A	AF91805	0.050	18-Jun-09 (AF)	<	0.050 mg/kg
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)		2.9 mg/l
pH	EPA 9040	AF92205	0.1	22-Jun-09 (EA)		9.4 pH Units
<b>RB-5-2.0 (Sample I.D.# : 0906212-15) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		65 mg/kg
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)		1.9 mg/l
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)		9.3 pH Units
<b>RB-6-0.5 (Sample I.D.# : 0906212-16) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		38 mg/kg
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)		2.7 mg/l
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)		9.5 pH Units
<b>RB-6-1 (Sample I.D.# : 0906212-17) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		27 mg/kg
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)		2.1 mg/l
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)		9.4 pH Units
<b>RB-6-2.5 (Sample I.D.# : 0906212-18) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		6.9 mg/kg
<b>RB-7-0.5 (Sample I.D.# : 0906212-19) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		7.9 mg/kg
<b>RB-7-1 (Sample I.D.# : 0906212-20) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)		5.6 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

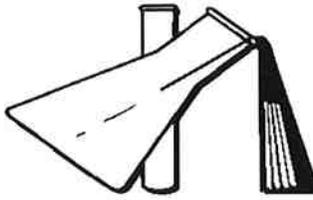
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-7-2.5 (Sample I.D.# : 0906212-21) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	8.2 mg/kg	
<b>RB-8-0.5 (Sample I.D.# : 0906212-22) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	11 mg/kg	
<b>RB-8-1 (Sample I.D.# : 0906212-23) Collected: 09-Jun-09 By Customer</b>						
Silver	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Arsenic	EPA 6010B	AF91716	5.0	19-Jun-09 (AF)	8.2 mg/kg	
Barium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	51 mg/kg	
Beryllium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Cadmium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Cobalt	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	3.3 mg/kg	
Chromium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	1.7 mg/kg	
Copper	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	5.0 mg/kg	
Molybdenum	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Nickel	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	6.1 mg/kg	
Lead	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	7.5 mg/kg	
Antimony	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Selenium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	1.1 mg/kg	
Thallium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Vanadium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	22 mg/kg	
Zinc	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	18 mg/kg	
Mercury	EPA 7471A	AF91805	0.050	18-Jun-09 (AF)	< 0.050 mg/kg	
<b>RB-8-2.5 (Sample I.D.# : 0906212-24) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	6.7 mg/kg	
<b>RB-9-0.5 (Sample I.D.# : 0906212-25) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	9.2 mg/kg	
<b>RB-9-1 (Sample I.D.# : 0906212-26) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	14 mg/kg	
<b>RB-9-2.5 (Sample I.D.# : 0906212-27) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	7.4 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
25864 F Business Center Drive  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

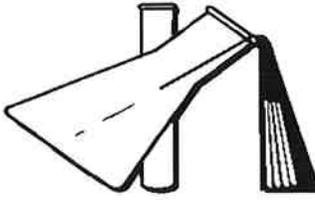
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-10-0.5 (Sample I.D.# : 0906212-28) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	6.1 mg/kg	
<b>RB-10-1 (Sample I.D.# : 0906212-29) Collected: 09-Jun-09 By Customer</b>						
Silver	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF91716	5.0	19-Jun-09 (AF)		8.4 mg/kg
Barium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		75 mg/kg
Beryllium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		4.8 mg/kg
Chromium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		2.9 mg/kg
Copper	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		6.1 mg/kg
Molybdenum	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Nickel	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		5.3 mg/kg
Lead	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		6.6 mg/kg
Antimony	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Selenium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Thallium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Vanadium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		26 mg/kg
Zinc	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		18 mg/kg
Mercury	EPA 7471A	AF91805	0.050	18-Jun-09 (AF)	<	0.050 mg/kg
<b>RB-10-2.5 (Sample I.D.# : 0906212-30) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	7.3 mg/kg	
<b>RB-11-0.5 (Sample I.D.# : 0906212-31) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	8.5 mg/kg	
<b>RB-11-1 (Sample I.D.# : 0906212-32) Collected: 09-Jun-09 By Customer</b>						
Silver	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF91716	5.0	19-Jun-09 (AF)		6.0 mg/kg
Barium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		71 mg/kg
Beryllium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)		4.9 mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

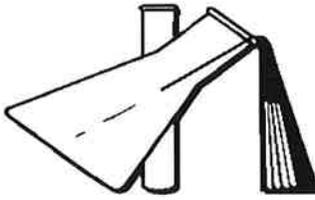
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-11-1 (Sample I.D.# : 0906212-32) Collected: 09-Jun-09 By Customer</b>						
Chromium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	3.9 mg/kg	
Copper	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	6.5 mg/kg	
Molybdenum	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Nickel	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	6.2 mg/kg	
Lead	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	10 mg/kg	
Antimony	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Selenium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Thallium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Vanadium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	30 mg/kg	
Zinc	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	27 mg/kg	
Mercury	EPA 7471A	AF91805	0.050	18-Jun-09 (AF)	< 0.050 mg/kg	
<b>RB-11-2.5 (Sample I.D.# : 0906212-33) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	6.9 mg/kg	
<b>RB-12-0.5 (Sample I.D.# : 0906212-34) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	46 mg/kg	
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)	3.6 mg/l	
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)	9.4 pH Units	
<b>RB-12-1 (Sample I.D.# : 0906212-35) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	14 mg/kg	
<b>RB-12-2 (Sample I.D.# : 0906212-36) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	24 mg/kg	
<b>RB-13-0.5 (Sample I.D.# : 0906212-37) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	69 mg/kg	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

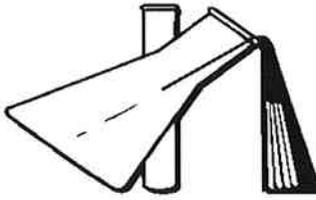
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-13-0.5 (Sample I.D.# : 0906212-37) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B(TCLP)	AF92905	0.02	30-Jun-09 (AF)	0.09 mg/l	
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)	5.6 mg/l	
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)	9.2 pH Units	
<b>RB-13-1 (Sample I.D.# : 0906212-38) Collected: 09-Jun-09 By Customer</b>						
Silver	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Arsenic	EPA 6010B	AF91716	5.0	19-Jun-09 (AF)	6.4 mg/kg	
Barium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	63 mg/kg	
Beryllium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Cadmium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Cobalt	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	4.3 mg/kg	
Chromium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	3.2 mg/kg	
Copper	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	5.9 mg/kg	
Molybdenum	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Nickel	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	5.3 mg/kg	
Lead	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	21 mg/kg	
Antimony	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Selenium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Thallium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	< 1.0 mg/kg	
Vanadium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	31 mg/kg	
Zinc	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	20 mg/kg	
Mercury	EPA 7471A	AF91805	0.050	18-Jun-09 (AF)	< 0.050 mg/kg	
<b>RB-13-2.5 (Sample I.D.# : 0906212-39) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	370 mg/kg	
Lead	EPA 6010B(TCLP)	AF92905	0.02	30-Jun-09 (AF)	< 0.02 mg/l	
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)	5.2 mg/l	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

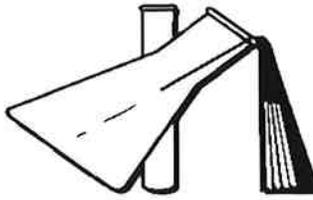
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-13-2.5 (Sample I.D.# : 0906212-39) Collected: 09-Jun-09 By Customer</b>						
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)	9.6	pH Units
<b>RB-14-0.5 (Sample I.D.# : 0906212-40) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	53	mg/kg
Lead	EPA 6010B(TCLP)	AF92905	0.02	30-Jun-09 (AF)	<	0.02 mg/l
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)	5.1	mg/l
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)	9.4	pH Units
<b>RB-14-1 (Sample I.D.# : 0906212-41) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	33	mg/kg
Lead	EPA 6010B(STLC)	AF92606	0.20	26-Jun-09 (AF)	1.9	mg/l
pH	EPA 9045B	AF92311	0.1	23-Jun-09 (EA)	9.6	pH Units
<b>RB-14-2.5 (Sample I.D.# : 0906212-42) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	6.3	mg/kg
<b>RB-15-0.5 (Sample I.D.# : 0906212-43) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	5.7	mg/kg
<b>RB-15-1 (Sample I.D.# : 0906212-44) Collected: 09-Jun-09 By Customer</b>						
Silver	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Arsenic	EPA 6010B	AF91716	5.0	19-Jun-09 (AF)	9.2	mg/kg
Barium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	74	mg/kg
Beryllium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cadmium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Cobalt	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	6.2	mg/kg
Chromium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	5.4	mg/kg
Copper	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	9.3	mg/kg
Molybdenum	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	1.3	mg/kg
Nickel	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	7.3	mg/kg
Lead	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	4.8	mg/kg
Antimony	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	1.7	mg/kg
Selenium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Thallium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	<	1.0 mg/kg
Vanadium	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	31	mg/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

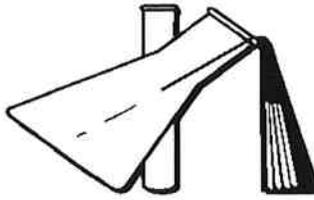
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-15-1 (Sample I.D.# : 0906212-44) Collected: 09-Jun-09 By Customer</b>						
Zinc	EPA 6010B	AF91716	1.0	19-Jun-09 (AF)	30 mg/kg	
Mercury	EPA 7471A	AF91805	0.050	18-Jun-09 (AF)	< 0.050 mg/kg	
<b>RB-15-2 (Sample I.D.# : 0906212-45) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	2.6 mg/kg	
<b>RB-16-0.5 (Sample I.D.# : 0906212-46) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	5.1 mg/kg	
<b>RB-16-1 (Sample I.D.# : 0906212-47) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	3.0 mg/kg	
<b>RB-16-2 (Sample I.D.# : 0906212-48) Collected: 09-Jun-09 By Customer</b>						
Lead	EPA 6010B	AF91803	1.0	22-Jun-09 (AF)	2.1 mg/kg	
<b>RB Blank (Sample I.D.# : 0906212-49) Collected: 09-Jun-09 By Customer</b>						
Silver	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Arsenic	EPA 6010B	AF91801	0.10	22-Jun-09 (AF)	< 0.10 mg/l	
Barium	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Beryllium	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Cadmium	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Cobalt	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Chromium	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Copper	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Molybdenum	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Nickel	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Lead	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Antimony	EPA 6010B	AF91801	0.10	22-Jun-09 (AF)	< 0.10 mg/l	
Selenium	EPA 6010B	AF91801	0.10	22-Jun-09 (AF)	< 0.10 mg/l	
Thallium	EPA 6010B	AF91801	0.10	22-Jun-09 (AF)	< 0.10 mg/l	
Vanadium	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	
Zinc	EPA 6010B	AF91801	0.02	22-Jun-09 (AF)	< 0.02 mg/l	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
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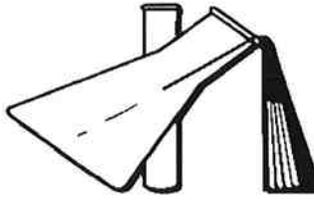
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB Blank (Sample I.D.# : 0906212-49) Collected: 09-Jun-09 By Customer</b>						
Mercury	EPA 7470A	AF91806	0.20	18-Jun-09 (AF)	<	0.20 ug/l
Dichlorodifluoromethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Chloromethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Vinyl chloride	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Bromomethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Chloroethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,1-Dichloroethene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Acetone	EPA 8260B	AF91708	5.0	22-Jun-09 (PJL)	<	5.0 ug/l
Methylene chloride	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
t-1,2-Dichloroethene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,1-Dichloroethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
2,2-Dichloropropane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
c-1,2-Dichloroethene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Chloroform	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,1,1-Trichloroethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
2-Butanone (MEK)	EPA 8260B	AF91708	5.0	22-Jun-09 (PJL)	<	5.0 ug/l
Carbon tetrachloride	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,1-Dichloropropane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Benzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dichloroethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Trichloroethene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dichloropropane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Dibromomethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Bromodichloromethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
c-1,3-Dichloropropene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Toluene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
t-1,3-Dichloropropene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,1,2-Trichloroethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Methyl isobutyl ketone	EPA 8260B	AF91708	5.0	22-Jun-09 (PJL)	<	5.0 ug/l
Tetrachloroethene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

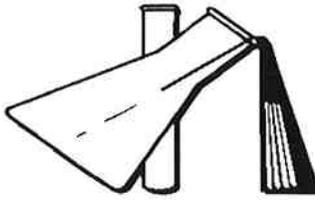
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB Blank (Sample I.D.# : 0906212-49) Collected: 09-Jun-09 By Customer</b>						
1,3-Dichloropropane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Dibromochloromethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dibromoethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
2-Hexanone	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Chlorobenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Ethylbenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
m,p-Xylene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
o-Xylene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Styrene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Bromoform	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Isopropylbenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Bromobenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,2,3-Trichloropropane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
n-Propylbenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
2-Chlorotoluene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,3,5-Trimethylbenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
4-Chlorotoluene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
tert-Butylbenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,2,4-Trimethylbenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
sec-Butylbenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,3-Dichlorobenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
p-Isopropyltoluene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,4-Dichlorobenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
n-Butylbenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dichlorobenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,2,4-Trichlorobenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Hexachlorobutadiene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Methyl tert-butyl ether	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

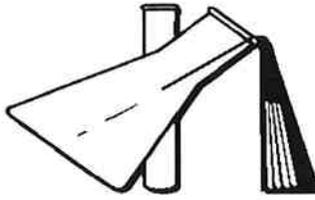
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTING G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB Blank (Sample I.D.# : 0906212-49) Collected: 09-Jun-09 By Customer</b>						
Naphthalene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
1,2,3-Trichlorobenzene	EPA 8260B	AF91708	0.5	22-Jun-09 (PJL)	<	0.5 ug/l
Isopropyl alcohol	EPA 8260B	AF91708	10.0	22-Jun-09 (PJL)	<	10.0 ug/l
2-Chloroethylvinyl ether	EPA 8260B	AF91708	10.0	22-Jun-09 (PJL)	<	10.0 ug/l
Acrolein	EPA 8260B	AF91708	10.0	22-Jun-09 (PJL)	<	10.0 ug/l
Acrylonitrile	EPA 8260B	AF91708	10.0	22-Jun-09 (PJL)	<	10.0 ug/l
Acetonitrile	EPA 8260B	AF91708	10.0	22-Jun-09 (PJL)	<	10.0 ug/l
Surrogate: Dibromofluoromethane	EPA 8260B	AF91708		22-Jun-09 (PJL)		89.6 % (85-115)
Surrogate: Toluene-d8	EPA 8260B	AF91708		22-Jun-09 (PJL)		102 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91708		22-Jun-09 (PJL)		104 % (85-115)
<b>RB-1-1 (Sample I.D.# : 0906212-50) Collected: 09-Jun-09 By Customer</b>						
Bromochloromethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Chloromethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Vinyl chloride	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Bromomethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Chloroethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Acetone	EPA 8260B	AF91915	5.0	23-Jun-09 (PL)	<	5.0 ug/kg
Methylene chloride	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Chloroform	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91915	5.0	23-Jun-09 (PL)	<	5.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Benzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

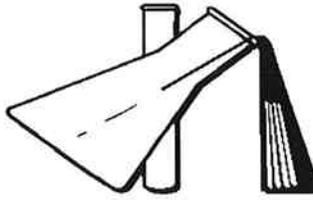
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-1-1 (Sample I.D.# : 0906212-50) Collected: 09-Jun-09 By Customer</b>						
1,2-Dichloroethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Trichloroethene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Dibromomethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Bromodichloromethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Toluene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91915	5.0	23-Jun-09 (PL)	<	5.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Dibromochloromethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
2-Hexanone	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Chlorobenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Ethylbenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
m,p-Xylene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
o-Xylene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Styrene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Bromoform	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Isopropylbenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Bromobenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
n-Propylbenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
2-Chlorotoluene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

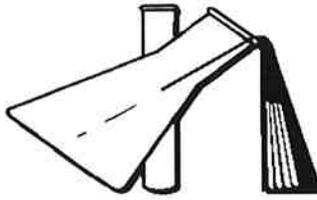
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-1-1 (Sample I.D.# : 0906212-50) Collected: 09-Jun-09 By Customer</b>						
4-Chlorotoluene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
tert-Butylbenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
sec-Butylbenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
n-Butylbenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Naphthalene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Isopropyl alcohol	EPA 8260B	AF91915	10	23-Jun-09 (PL)	<	10 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91915	10	23-Jun-09 (PL)	<	10 ug/kg
Acrolein	EPA 8260B	AF91915	10	23-Jun-09 (PL)	<	10 ug/kg
Acrylonitrile	EPA 8260B	AF91915	10	23-Jun-09 (PL)	<	10 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Vinyl acetate	EPA 8260B	AF91915	10	23-Jun-09 (PL)	<	10 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91915	2.0	23-Jun-09 (PL)	<	2.0 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Di-isopropyl ether	EPA 8260B	AF91915	0.5	23-Jun-09 (PL)	<	0.5 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91915		23-Jun-09 (PL)		98.6 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91915		23-Jun-09 (PL)		86.3 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91915		23-Jun-09 (PL)		115 % (85-115)
<b>RB-3-1 (Sample I.D.# : 0906212-51) Collected: 09-Jun-09 By Customer</b>						
Bromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

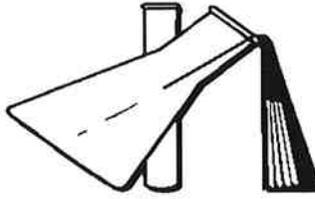
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-3-1 (Sample I.D.# : 0906212-51) Collected: 09-Jun-09 By Customer</b>						
Dichlorodifluoromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Acetone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Methylene chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Benzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromodichloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Toluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 17 of 69

Attention: **Anne Perez**  
Report Date: **30-Jun-09 21:54**  
Subject: **Soil Samples**

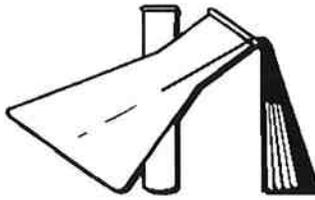
Project/P.O.#: **185802056, TO 26 - HWY 15**

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-3-1 (Sample I.D.# : 0906212-51) Collected: 09-Jun-09 By Customer</b>						
1,3-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Hexanone	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Ethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
m,p-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
o-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Styrene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromoform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Propylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
4-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
tert-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
sec-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

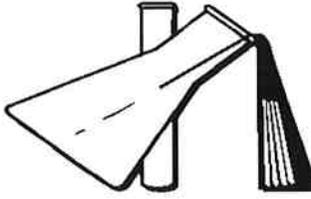
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-3-1 (Sample I.D.# : 0906212-51) Collected: 09-Jun-09 By Customer</b>						
1,2-Dichloropropylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Naphthalene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropyl alcohol	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrolein	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrylonitrile	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl acetate	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91915	2.0	22-Jun-09 (PJL)	<	2.0 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Di-isopropyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91915		22-Jun-09 (PJL)		111 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91915		22-Jun-09 (PJL)		102 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91915		22-Jun-09 (PJL)		102 % (85-115)
<b>RB-5-1 (Sample I.D.# : 0906212-52) Collected: 09-Jun-09 By Customer</b>						
Bromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Acetone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Methylene chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

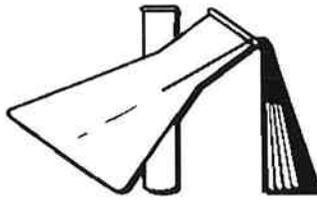
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-5-1 (Sample I.D.# : 0906212-52) Collected: 09-Jun-09 By Customer</b>						
c-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Benzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromodichloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Toluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Hexanone	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Ethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
m,p-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
o-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Styrene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromoform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

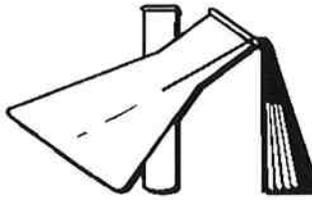
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-5-1 (Sample I.D.# : 0906212-52) Collected: 09-Jun-09 By Customer</b>						
Bromobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Propylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
4-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
tert-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
sec-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Naphthalene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropyl alcohol	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrolein	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrylonitrile	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl acetate	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91915	2.0	22-Jun-09 (PJL)	<	2.0 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 21 of 69

Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

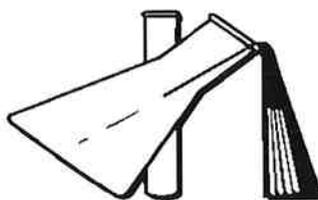
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-5-1 (Sample I.D.# : 0906212-52) Collected: 09-Jun-09 By Customer</b>						
Tert-amyl methyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Di-isopropyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91915		22-Jun-09 (PJL)		109 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91915		22-Jun-09 (PJL)		100 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91915		22-Jun-09 (PJL)		101 % (85-115)
<b>RB-8-1 (Sample I.D.# : 0906212-53) Collected: 09-Jun-09 By Customer</b>						
Bromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Acetone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Methylene chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Benzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromodichloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

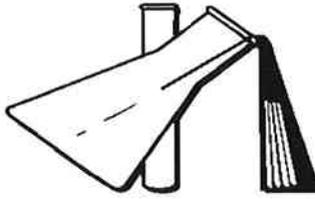
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-8-1 (Sample I.D.# : 0906212-53) Collected: 09-Jun-09 By Customer</b>						
c-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Toluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Hexanone	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Ethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
m,p-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
o-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Styrene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromoform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Propylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
4-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
tert-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
sec-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

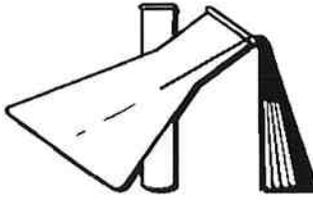
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-8-1 (Sample I.D.# : 0906212-53) Collected: 09-Jun-09 By Customer</b>						
p-Isopropyltoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Naphthalene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropyl alcohol	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrolein	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrylonitrile	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl acetate	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91915	2.0	22-Jun-09 (PJL)	<	2.0 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Di-isopropyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91915		22-Jun-09 (PJL)		109 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91915		22-Jun-09 (PJL)		102 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91915		22-Jun-09 (PJL)		99.6 % (85-115)
<b>RB-10-1 (Sample I.D.# : 0906212-54) Collected: 09-Jun-09 By Customer</b>						
Bromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

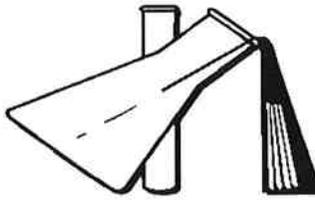
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-10-1 (Sample I.D.# : 0906212-54) Collected: 09-Jun-09 By Customer</b>						
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Acetone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Methylene chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Benzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromodichloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Toluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Hexanone	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

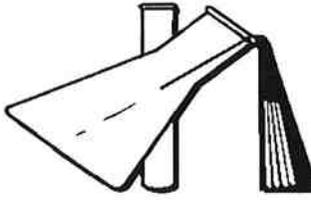
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-10-1 (Sample I.D.# : 0906212-54) Collected: 09-Jun-09 By Customer</b>						
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Ethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
m,p-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
o-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Styrene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromoform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Propylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
4-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
tert-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
sec-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Naphthalene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropyl alcohol	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

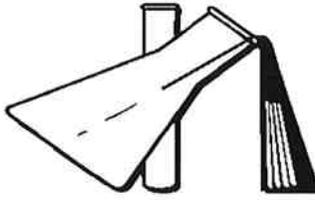
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-10-1 (Sample I.D.# : 0906212-54) Collected: 09-Jun-09 By Customer</b>						
2-Chloroethylvinyl ether	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrolein	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrylonitrile	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl acetate	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91915	2.0	22-Jun-09 (PJL)	<	2.0 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Di-isopropyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91915		22-Jun-09 (PJL)		109 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91915		22-Jun-09 (PJL)		106 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91915		22-Jun-09 (PJL)		99.4 % (85-115)
<b>RB-11-1 (Sample I.D.# : 0906212-55) Collected: 09-Jun-09 By Customer</b>						
Bromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Acetone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Methylene chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 27 of 69

Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

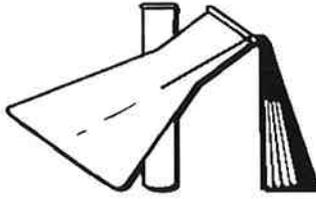
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-11-1 (Sample I.D.# : 0906212-55) Collected: 09-Jun-09 By Customer</b>						
1,1-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Benzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromodichloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Toluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Hexanone	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Ethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
m,p-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
o-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Styrene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromoform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Propylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

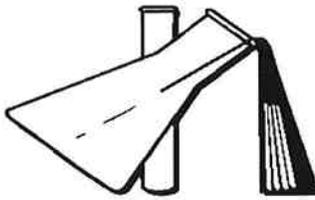
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-11-1 (Sample I.D.# : 0906212-55) Collected: 09-Jun-09 By Customer</b>						
1,3,5-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
4-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
tert-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
sec-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Naphthalene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropyl alcohol	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrolein	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrylonitrile	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl acetate	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91915	2.0	22-Jun-09 (PJL)	<	2.0 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Di-isopropyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91915		22-Jun-09 (PJL)		110 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91915		22-Jun-09 (PJL)		103 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91915		22-Jun-09 (PJL)		99.8 % (85-115)

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

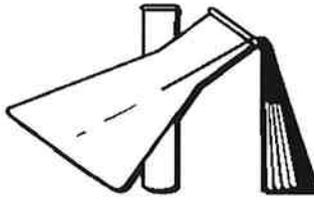
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-13-1 (Sample I.D.# : 0906212-56) Collected: 09-Jun-09 By Customer</b>						
Bromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Acetone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Methylene chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Benzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromodichloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Toluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: **Anne Perez**  
Report Date: **30-Jun-09 21:54**  
Subject: **Soil Samples**

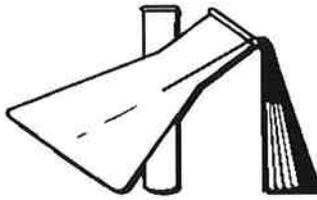
Project/P.O.#: **185802056, TO 26 - HWY 15**

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-13-1 (Sample I.D.# : 0906212-56) Collected: 09-Jun-09 By Customer</b>						
Tetrachloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Hexanone	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Ethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
m,p-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
o-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Styrene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromoform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Propylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
4-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
tert-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
sec-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

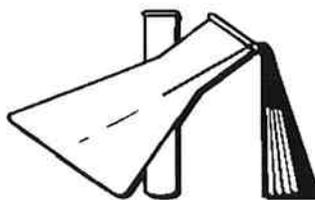
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-13-1 (Sample I.D.# : 0906212-56) Collected: 09-Jun-09 By Customer</b>						
1,2,4-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Naphthalene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropyl alcohol	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrolein	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrylonitrile	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl acetate	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91915	2.0	22-Jun-09 (PJL)	<	2.0 ug/kg
Ethyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Di-isopropyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91915		22-Jun-09 (PJL)		106 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91915		22-Jun-09 (PJL)		99.7 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91915		22-Jun-09 (PJL)		94.1 % (85-115)
<b>RB-16-1 (Sample I.D.# : 0906212-57) Collected: 09-Jun-09 By Customer</b>						
Bromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dichlorodifluoromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorofluoromethane (Freon 11)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Acetone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Methylene chloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

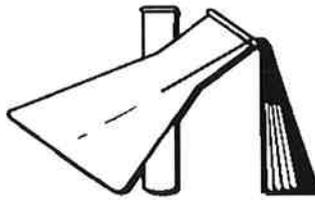
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-16-1 (Sample I.D.# : 0906212-57) Collected: 09-Jun-09 By Customer</b>						
2,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,2-Dichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chloroform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Butanone (MEK)	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Carbon tetrachloride	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Benzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromomethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromodichloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
c-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Toluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
t-1,3-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2-Trichloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane (EDB)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Methyl isobutyl ketone	EPA 8260B	AF91915	5.0	22-Jun-09 (PJL)	<	5.0 ug/kg
Tetrachloroethene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Dibromochloromethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromoethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Hexanone	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Chlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,1,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Ethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
m,p-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
o-Xylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Styrene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromoform	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

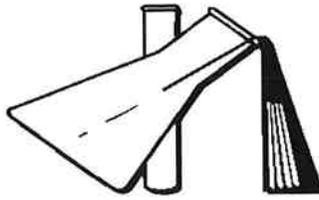
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-16-1 (Sample I.D.# : 0906212-57) Collected: 09-Jun-09 By Customer</b>						
Isopropylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Bromobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1,2,2-Tetrachloroethane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Propylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
2-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3,5-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,1-Dichloropropene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
4-Chlorotoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
tert-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trimethylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
sec-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,3-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
p-Isopropyltoluene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,4-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
n-Butylbenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dibromo-3-chloropropane	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Trichlorotrifluoroethane (Freon 113)	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,4-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2-Dichloropropylene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Hexachlorobutadiene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Naphthalene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
1,2,3-Trichlorobenzene	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Isopropyl alcohol	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
2-Chloroethylvinyl ether	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrolein	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Acrylonitrile	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Methyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Vinyl acetate	EPA 8260B	AF91915	10	22-Jun-09 (PJL)	<	10 ug/kg
Tert-butyl alcohol	EPA 8260B	AF91915	2.0	22-Jun-09 (PJL)	<	2.0 ug/kg

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

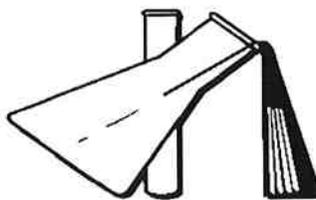
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
<b>RB-16-1 (Sample I.D.# : 0906212-57) Collected: 09-Jun-09 By Customer</b>						
Ethyl tert-butyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Tert-amyl methyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Di-isopropyl ether	EPA 8260B	AF91915	0.5	22-Jun-09 (PJL)	<	0.5 ug/kg
Surrogate: Toluene-d8	EPA 8260B	AF91915		22-Jun-09 (PJL)		99.5 % (85-115)
Surrogate: Bromofluorobenzene	EPA 8260B	AF91915		22-Jun-09 (PJL)		88.8 % (85-115)
Surrogate: Dibromofluoromethane	EPA 8260B	AF91915		22-Jun-09 (PJL)		90.2 % (85-115)

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91716 - EPA 3050B

#### Blank (AF91716-BLK1)

Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Selenium	ND	1.0	mg/kg							
Lead	ND	1.0	"							
Silver	ND	1.0	"							
Arsenic	ND	5.0	"							
Chromium	ND	1.0	"							
Vanadium	ND	1.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	1.0	"							
Thallium	ND	1.0	"							
Copper	ND	1.0	"							
Zinc	ND	1.0	"							
Molybdenum	ND	1.0	"							
Nickel	ND	1.0	"							
Antimony	ND	1.0	"							
Cobalt	ND	1.0	"							

#### Blank (AF91716-BLK2)

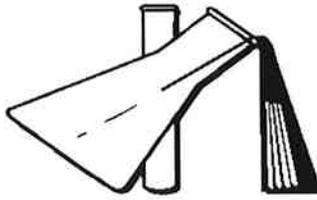
Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Chromium	ND	1.0	mg/kg							
Arsenic	ND	5.0	"							
Molybdenum	ND	1.0	"							
Barium	ND	1.0	"							
Nickel	ND	1.0	"							
Silver	ND	1.0	"							
Lead	ND	1.0	"							
Copper	ND	1.0	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 36 of 69

Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91716 - EPA 3050B

#### Blank (AF91716-BLK2)

Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Cobalt	ND	1.0	"							
Cadmium	ND	1.0	"							
Thallium	ND	1.0	"							
Beryllium	ND	1.0	"							
Zinc	ND	1.0	"							
Antimony	ND	1.0	"							
Selenium	ND	1.0	"							
Vanadium	ND	1.0	"							

#### LCS (AF91716-BS1)

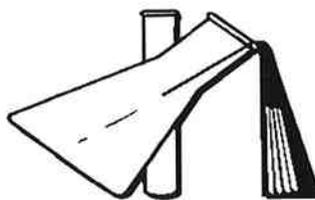
Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Cadmium	24.8	1.0	mg/kg	25.0		99.4	80-120			
Vanadium	24.4	1.0	"	25.0		97.8	80-120			
Cobalt	25.2	1.0	"	25.0		101	80-120			
Arsenic	24.6	5.0	"	25.0		98.4	80-120			
Antimony	24.3	1.0	"	25.0		97.3	80-120			
Silver	12.5	1.0	"	12.5		100	80-120			
Lead	25.8	1.0	"	25.0		103	80-120			
Chromium	24.3	1.0	"	25.0		97.3	80-120			
Thallium	24.6	1.0	"	25.0		98.5	80-120			
Nickel	25.8	1.0	"	25.0		103	80-120			
Zinc	24.6	1.0	"	25.0		98.5	80-120			
Beryllium	25.3	1.0	"	25.0		101	80-120			
Molybdenum	23.6	1.0	"	25.0		94.4	80-120			
Barium	24.9	1.0	"	25.0		99.4	80-120			
Copper	26.0	1.0	"	25.0		104	80-120			
Selenium	25.0	1.0	"	25.0		100	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91716 - EPA 3050B

#### LCS (AF91716-BS2)

Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Vanadium	24.9	1.0	mg/kg	25.0		99.5	80-120			
Zinc	25.4	1.0	"	25.0		102	80-120			
Antimony	25.1	1.0	"	25.0		100	80-120			
Chromium	24.7	1.0	"	25.0		98.8	80-120			
Cobalt	25.9	1.0	"	25.0		103	80-120			
Nickel	26.2	1.0	"	25.0		105	80-120			
Cadmium	25.4	1.0	"	25.0		102	80-120			
Barium	25.5	1.0	"	25.0		102	80-120			
Molybdenum	25.0	1.0	"	25.0		100	80-120			
Beryllium	25.7	1.0	"	25.0		103	80-120			
Copper	26.9	1.0	"	25.0		107	80-120			
Arsenic	25.6	5.0	"	25.0		102	80-120			
Selenium	25.5	1.0	"	25.0		102	80-120			
Silver	13.1	1.0	"	12.5		104	80-120			
Lead	26.4	1.0	"	25.0		106	80-120			
Thallium	25.4	1.0	"	25.0		102	80-120			

#### LCS Dup (AF91716-BSD1)

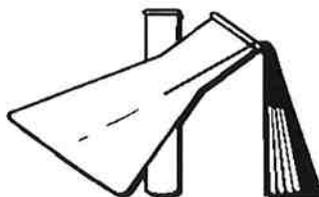
Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Antimony	24.8	1.0	mg/kg	25.0		99.2	80-120	1.97	20	
Selenium	25.1	1.0	"	25.0		100	80-120	0.381	20	
Thallium	25.8	1.0	"	25.0		103	80-120	4.82	20	
Cadmium	25.1	1.0	"	25.0		101	80-120	1.15	20	
Copper	26.6	1.0	"	25.0		106	80-120	2.10	20	
Lead	26.1	1.0	"	25.0		104	80-120	0.879	20	
Vanadium	24.8	1.0	"	25.0		99.2	80-120	1.45	20	
Silver	13.0	1.0	"	12.5		104	80-120	3.60	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91716 - EPA 3050B

#### LCS Dup (AF91716-BSD1)

Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Arsenic	25.1	5.0	"	25.0	100	80-120	1.90	20	
Beryllium	24.8	1.0	"	25.0	99.1	80-120	2.29	20	
Barium	25.4	1.0	"	25.0	101	80-120	2.05	20	
Chromium	24.7	1.0	"	25.0	98.7	80-120	1.38	20	
Molybdenum	24.9	1.0	"	25.0	99.5	80-120	5.31	20	
Nickel	26.1	1.0	"	25.0	104	80-120	0.977	20	
Cobalt	25.3	1.0	"	25.0	101	80-120	0.672	20	
Zinc	25.0	1.0	"	25.0	99.8	80-120	1.31	20	

#### LCS Dup (AF91716-BSD2)

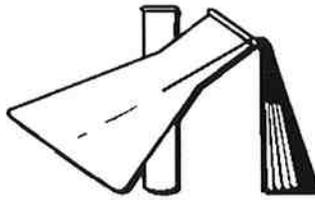
Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Arsenic	25.3	5.0	mg/kg	25.0	101	80-120	0.971	20	
Vanadium	24.9	1.0	"	25.0	99.5	80-120	0.0554	20	
Zinc	25.1	1.0	"	25.0	100	80-120	1.10	20	
Thallium	25.9	1.0	"	25.0	104	80-120	2.06	20	
Lead	26.4	1.0	"	25.0	105	80-120	0.327	20	
Copper	26.6	1.0	"	25.0	107	80-120	0.828	20	
Molybdenum	25.0	1.0	"	25.0	100	80-120	0.00592	20	
Silver	12.9	1.0	"	12.5	104	80-120	0.824	20	
Barium	25.4	1.0	"	25.0	102	80-120	0.353	20	
Beryllium	25.6	1.0	"	25.0	102	80-120	0.419	20	
Antimony	24.9	1.0	"	25.0	99.4	80-120	0.985	20	
Chromium	24.8	1.0	"	25.0	99.3	80-120	0.463	20	
Cobalt	25.9	1.0	"	25.0	103	80-120	0.0445	20	
Selenium	25.6	1.0	"	25.0	102	80-120	0.441	20	
Cadmium	25.3	1.0	"	25.0	101	80-120	0.551	20	
Nickel	26.3	1.0	"	25.0	105	80-120	0.269	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

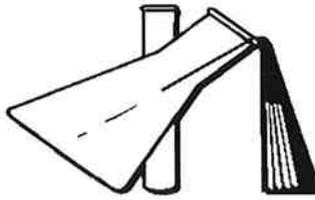
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AF91716 - EPA 3050B</b>										
<b>Duplicate (AF91716-DUP1)</b> <b>Source: 0906212-05</b> <b>Prepared: 17-Jun-09 Analyzed: 19-Jun-09</b>										
Zinc	23.6	1.0	mg/kg		24.0			1.43	20	
Thallium	ND	1.0	"		ND				20	
Vanadium	27.6	1.0	"		27.7			0.402	20	
Nickel	7.66	1.0	"		7.84			2.31	20	
Antimony	ND	1.0	"		1.30				20	
Selenium	ND	1.0	"		ND				20	
Molybdenum	1.18	1.0	"		1.20			1.62	20	
Chromium	4.58	1.0	"		4.67			2.00	20	
Lead	2.12	1.0	"		2.07			2.52	20	
Cobalt	4.63	1.0	"		4.66			0.729	20	
Cadmium	ND	1.0	"		ND				20	
Beryllium	ND	1.0	"		ND				20	
Barium	75.2	1.0	"		75.6			0.517	20	
Arsenic	8.85	5.0	"		9.61			8.24	20	
Silver	ND	1.0	"		ND				20	
Copper	8.49	1.0	"		8.55			0.664	20	
<b>Duplicate (AF91716-DUP2)</b> <b>Source: 0906213-23</b> <b>Prepared: 17-Jun-09 Analyzed: 19-Jun-09</b>										
Thallium	ND	1.0	mg/kg		ND				20	
Zinc	61.4	1.0	"		61.0			0.554	20	
Beryllium	ND	1.0	"		ND				20	
Vanadium	26.3	1.0	"		26.1			1.02	20	
Cadmium	ND	1.0	"		ND				20	
Arsenic	5.70	5.0	"		5.63			1.22	20	
Nickel	12.5	1.0	"		12.4			0.821	20	
Antimony	ND	1.0	"		ND				20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91716 - EPA 3050B

#### Duplicate (AF91716-DUP2)

Source: 0906213-23

Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Chromium	13.0	1.0	"		12.9			0.782	20	
Lead	10.4	1.0	"		10.2			1.59	20	
Copper	13.9	1.0	"		13.7			1.58	20	
Silver	ND	1.0	"		ND				20	
Molybdenum	1.29	1.0	"		1.42			9.64	20	
Cobalt	10.8	1.0	"		10.7			0.721	20	
Barium	159	1.0	"		157			1.16	20	
Selenium	ND	1.0	"		ND				20	

#### Matrix Spike (AF91716-MS1)

Source: 0906212-05

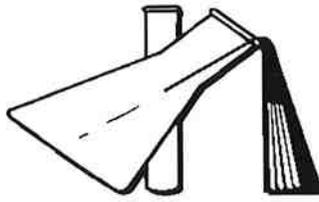
Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Zinc	139	1.0	mg/kg	125	24.0	92.1	75-125			
Chromium	122	1.0	"	125	4.67	93.7	75-125			
Vanadium	150	1.0	"	125	27.7	97.6	75-125			
Nickel	121	1.0	"	125	7.84	90.9	75-125			
Cadmium	111	1.0	"	125	ND	89.1	75-125			
Molybdenum	105	1.0	"	125	1.20	82.9	75-125			
Arsenic	117	5.0	"	125	9.61	86.0	75-125			
Barium	204	1.0	"	125	75.6	103	75-125			
Lead	117	1.0	"	125	2.07	92.3	75-125			
Silver	55.9	1.0	"	62.5	ND	89.4	75-125			
Copper	131	1.0	"	125	8.55	97.8	75-125			
Antimony	96.7	1.0	"	125	1.30	76.4	75-125			
Selenium	117	1.0	"	125	ND	93.7	75-125			
Thallium	109	1.0	"	125	ND	87.1	75-125			
Cobalt	118	1.0	"	125	4.66	90.5	75-125			
Beryllium	126	1.0	"	125	ND	101	75-125			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

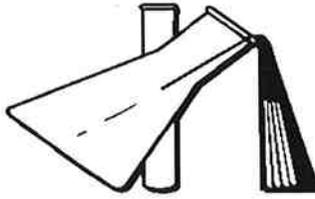
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91716 - EPA 3050B</b>										
<b>Matrix Spike (AF91716-MS2) Source: 0906213-23 Prepared: 17-Jun-09 Analyzed: 19-Jun-09</b>										
Lead	118	1.0	mg/kg	125	10.2	86.2	75-125			
Vanadium	135	1.0	"	125	26.1	87.2	75-125			
Chromium	122	1.0	"	125	12.9	87.1	75-125			
Cadmium	105	1.0	"	125	ND	84.0	75-125			
Antimony	97.0	1.0	"	125	ND	77.6	75-125			
Molybdenum	104	1.0	"	125	1.42	81.7	75-125			
Zinc	163	1.0	"	125	61.0	81.6	75-125			
Thallium	104	1.0	"	125	ND	83.0	75-125			
Nickel	119	1.0	"	125	12.4	85.0	75-125			
Cobalt	117	1.0	"	125	10.7	85.3	75-125			
Beryllium	122	1.0	"	125	ND	97.2	75-125			
Barium	268	1.0	"	125	157	88.6	75-125			
Arsenic	106	5.0	"	125	5.63	80.3	75-125			
Copper	130	1.0	"	125	13.7	93.3	75-125			
Selenium	111	1.0	"	125	ND	88.7	75-125			
Silver	52.7	1.0	"	62.5	ND	84.4	75-125			
<b>Matrix Spike Dup (AF91716-MSD1) Source: 0906212-05 Prepared: 17-Jun-09 Analyzed: 19-Jun-09</b>										
Lead	122	1.0	mg/kg	125	2.07	96.0	75-125	3.91	20	
Beryllium	132	1.0	"	125	ND	106	75-125	4.93	20	
Selenium	119	1.0	"	125	ND	95.5	75-125	1.91	20	
Cadmium	115	1.0	"	125	ND	92.1	75-125	3.33	20	
Antimony	95.8	1.0	"	125	1.30	75.6	75-125	0.996	20	
Cobalt	123	1.0	"	125	4.66	94.3	75-125	3.96	20	
Chromium	127	1.0	"	125	4.67	98.0	75-125	4.30	20	
Thallium	113	1.0	"	125	ND	90.3	75-125	3.54	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91716 - EPA 3050B

#### Matrix Spike Dup (AF91716-MSD1)

Source: 0906212-05

Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Barium	212	1.0	"	125	75.6	109	75-125	3.94	20	
Zinc	143	1.0	"	125	24.0	95.4	75-125	2.88	20	
Arsenic	120	5.0	"	125	9.61	88.2	75-125	2.27	20	
Silver	54.1	1.0	"	62.5	ND	86.5	75-125	3.31	20	
Molybdenum	110	1.0	"	125	1.20	87.2	75-125	4.93	20	
Vanadium	156	1.0	"	125	27.7	103	75-125	4.17	20	
Nickel	125	1.0	"	125	7.84	93.4	75-125	2.53	20	
Copper	139	1.0	"	125	8.55	104	75-125	5.72	20	

#### Matrix Spike Dup (AF91716-MSD2)

Source: 0906213-23

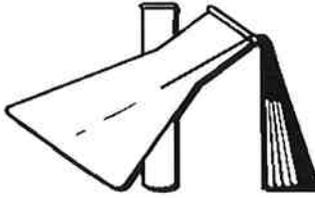
Prepared: 17-Jun-09 Analyzed: 19-Jun-09

Chromium	132	1.0	mg/kg	125	12.9	95.6	75-125	8.43	20	
Vanadium	146	1.0	"	125	26.1	96.1	75-125	7.90	20	
Zinc	178	1.0	"	125	61.0	93.9	75-125	9.06	20	
Selenium	120	1.0	"	125	ND	96.0	75-125	7.98	20	
Barium	284	1.0	"	125	157	101	75-125	5.84	20	
Nickel	131	1.0	"	125	12.4	94.5	75-125	9.54	20	
Molybdenum	114	1.0	"	125	1.42	90.0	75-125	9.56	20	
Cadmium	116	1.0	"	125	ND	92.5	75-125	9.71	20	
Lead	130	1.0	"	125	10.2	96.2	75-125	10.1	20	
Silver	54.3	1.0	"	62.5	ND	86.9	75-125	2.96	20	
Antimony	106	1.0	"	125	ND	84.9	75-125	8.94	20	
Arsenic	116	5.0	"	125	5.63	88.7	75-125	9.46	20	
Copper	142	1.0	"	125	13.7	102	75-125	8.37	20	
Cobalt	129	1.0	"	125	10.7	94.5	75-125	9.31	20	
Thallium	114	1.0	"	125	ND	91.1	75-125	9.36	20	
Beryllium	134	1.0	"	125	ND	107	75-125	9.41	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91801 - EPA 200 Series

#### Blank (AF91801-BLK1)

Prepared: 18-Jun-09 Analyzed: 22-Jun-09

Thallium	ND	0.10	mg/l							
Cadmium	ND	0.02	"							
Copper	ND	0.02	"							
Silver	ND	0.02	"							
Molybdenum	ND	0.02	"							
Cobalt	ND	0.02	"							
Lead	ND	0.02	"							
Vanadium	ND	0.02	"							
Nickel	ND	0.02	"							
Antimony	ND	0.10	"							
Selenium	ND	0.10	"							
Beryllium	ND	0.02	"							
Arsenic	ND	0.10	"							
Zinc	ND	0.02	"							
Chromium	ND	0.02	"							
Barium	ND	0.02	"							

#### LCS (AF91801-BS1)

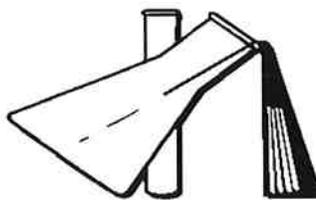
Prepared: 18-Jun-09 Analyzed: 22-Jun-09

Chromium	0.535	0.02	mg/l	0.500		107	80-120			
Arsenic	0.519	0.10	"	0.500		104	80-120			
Selenium	0.531	0.10	"	0.500		106	80-120			
Vanadium	0.525	0.02	"	0.500		105	80-120			
Zinc	0.510	0.02	"	0.500		102	80-120			
Lead	0.539	0.02	"	0.500		108	80-120			
Antimony	0.524	0.10	"	0.500		105	80-120			
Silver	0.259	0.02	"	0.250		104	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91801 - EPA 200 Series

#### LCS (AF91801-BS1)

Prepared: 18-Jun-09 Analyzed: 22-Jun-09

Barium	0.522	0.02	"	0.500	104	80-120				
Beryllium	0.530	0.02	"	0.500	106	80-120				
Nickel	0.530	0.02	"	0.500	106	80-120				
Copper	0.537	0.02	"	0.500	107	80-120				
Thallium	0.537	0.10	"	0.500	107	80-120				
Molybdenum	0.529	0.02	"	0.500	106	80-120				
Cobalt	0.530	0.02	"	0.500	106	80-120				
Cadmium	0.522	0.02	"	0.500	104	80-120				

#### LCS Dup (AF91801-BSD1)

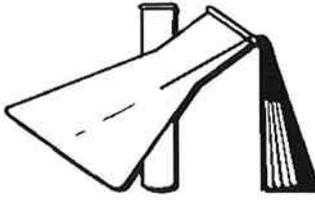
Prepared: 18-Jun-09 Analyzed: 22-Jun-09

Nickel	0.531	0.02	mg/l	0.500	106	80-120	0.284	20		
Antimony	0.527	0.10	"	0.500	105	80-120	0.590	20		
Lead	0.547	0.02	"	0.500	109	80-120	1.35	20		
Molybdenum	0.537	0.02	"	0.500	107	80-120	1.40	20		
Thallium	0.547	0.10	"	0.500	109	80-120	1.82	20		
Copper	0.542	0.02	"	0.500	108	80-120	0.872	20		
Vanadium	0.529	0.02	"	0.500	106	80-120	0.796	20		
Beryllium	0.537	0.02	"	0.500	107	80-120	1.29	20		
Arsenic	0.528	0.10	"	0.500	106	80-120	1.72	20		
Chromium	0.537	0.02	"	0.500	107	80-120	0.462	20		
Barium	0.528	0.02	"	0.500	106	80-120	1.09	20		
Cadmium	0.521	0.02	"	0.500	104	80-120	0.107	20		
Silver	0.260	0.02	"	0.250	104	80-120	0.502	20		
Zinc	0.514	0.02	"	0.500	103	80-120	0.628	20		
Selenium	0.534	0.10	"	0.500	107	80-120	0.672	20		
Cobalt	0.535	0.02	"	0.500	107	80-120	0.977	20		

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
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Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91801 - EPA 200 Series

#### Duplicate (AF91801-DUP1)

Source: 0906212-49

Prepared: 18-Jun-09 Analyzed: 22-Jun-09

Antimony	0.0116	0.10	mg/l		ND				20	
Thallium	ND	0.10	"		ND				20	
Beryllium	ND	0.02	"		ND				20	
Lead	ND	0.02	"		ND				20	
Silver	ND	0.02	"		ND				20	
Copper	ND	0.02	"		ND				20	
Barium	ND	0.02	"		ND				20	
Zinc	ND	0.02	"		ND				20	
Arsenic	0.0214	0.10	"		0.0258			18.4	20	
Chromium	ND	0.02	"		ND				20	
Molybdenum	ND	0.02	"		ND				20	
Nickel	ND	0.02	"		ND				20	
Cadmium	ND	0.02	"		ND				20	
Cobalt	ND	0.02	"		ND				20	
Selenium	ND	0.10	"		ND				20	
Vanadium	ND	0.02	"		ND				20	

#### Matrix Spike (AF91801-MS1)

Source: 0906212-49

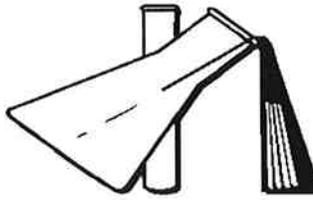
Prepared: 18-Jun-09 Analyzed: 22-Jun-09

Selenium	1.06	0.10	mg/l	1.00	ND	106	80-120			
Nickel	1.04	0.02	"	1.00	ND	104	80-120			
Vanadium	1.06	0.02	"	1.00	ND	106	75-125			
Copper	1.06	0.02	"	1.00	ND	106	80-120			
Beryllium	1.06	0.02	"	1.00	ND	106	80-120			
Chromium	1.06	0.02	"	1.00	ND	106	80-120			
Thallium	1.06	0.10	"	1.00	ND	106	80-120			
Cadmium	1.04	0.02	"	1.00	ND	104	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

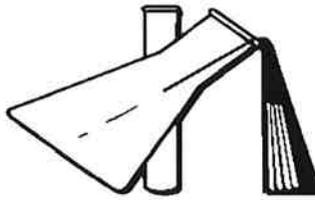
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91801 - EPA 200 Series</b>										
<b>Matrix Spike (AF91801-MS1)</b>		<b>Source: 0906212-49</b>			<b>Prepared: 18-Jun-09 Analyzed: 22-Jun-09</b>					
Arsenic	1.04	0.10	"	1.00	0.0258	102	80-120			
Antimony	1.03	0.10	"	1.00	ND	103	80-120			
Lead	1.06	0.02	"	1.00	ND	106	80-120			
Silver	0.506	0.02	"	0.500	ND	101	80-120			
Cobalt	1.04	0.02	"	1.00	ND	104	80-120			
Molybdenum	1.06	0.02	"	1.00	ND	106	80-120			
Zinc	1.02	0.02	"	1.00	ND	102	80-120			
Barium	1.05	0.02	"	1.00	ND	105	80-120			
<b>Matrix Spike Dup (AF91801-MSD1)</b>		<b>Source: 0906212-49</b>			<b>Prepared: 18-Jun-09 Analyzed: 22-Jun-09</b>					
Molybdenum	1.07	0.02	mg/l	1.00	ND	107	80-120	0.921	20	
Beryllium	1.08	0.02	"	1.00	ND	108	80-120	2.33	20	
Zinc	1.03	0.02	"	1.00	ND	103	80-120	1.02	20	
Thallium	1.06	0.10	"	1.00	ND	106	80-120	0.263	20	
Cadmium	1.04	0.02	"	1.00	ND	104	80-120	0.685	20	
Silver	0.508	0.02	"	0.500	ND	102	80-120	0.361	20	
Copper	1.06	0.02	"	1.00	ND	106	80-120	0.270	20	
Lead	1.07	0.02	"	1.00	ND	107	80-120	0.668	20	
Vanadium	1.06	0.02	"	1.00	ND	106	75-125	0.407	20	
Antimony	1.03	0.10	"	1.00	ND	103	80-120	0.0190	20	
Selenium	1.06	0.10	"	1.00	ND	106	80-120	0.212	20	
Chromium	1.06	0.02	"	1.00	ND	106	80-120	0.455	20	
Cobalt	1.04	0.02	"	1.00	ND	104	80-120	0.387	20	
Arsenic	1.04	0.10	"	1.00	0.0258	102	80-120	0.246	20	
Barium	1.05	0.02	"	1.00	ND	105	80-120	0.781	20	
Nickel	1.05	0.02	"	1.00	ND	105	80-120	0.634	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

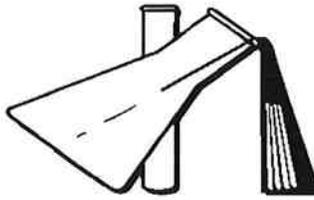
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Note
<b>Batch AF91803 - EPA 3050B</b>										
<b>Blank (AF91803-BLK1)</b>				Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	ND	1.0	mg/kg							
<b>Blank (AF91803-BLK2)</b>				Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	ND	1.0	mg/kg							
<b>LCS (AF91803-BS1)</b>				Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	27.1	1.0	mg/kg	25.0		109	80-120			
<b>LCS (AF91803-BS2)</b>				Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	26.0	1.0	mg/kg	25.0		104	80-120			
<b>LCS Dup (AF91803-BSD1)</b>				Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	26.3	1.0	mg/kg	25.0		105	80-120	3.09	20	
<b>LCS Dup (AF91803-BSD2)</b>				Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	25.9	1.0	mg/kg	25.0		104	80-120	0.188	20	
<b>Duplicate (AF91803-DUP1)</b>				Source: 0906212-04 Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	5.73	1.0	mg/kg		6.87			18.0	20	
<b>Duplicate (AF91803-DUP2)</b>				Source: 0906212-21 Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	8.68	1.0	mg/kg		8.22			5.47	20	
<b>Matrix Spike (AF91803-MS1)</b>				Source: 0906212-04 Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	118	1.0	mg/kg	125	6.87	88.9	75-125			
<b>Matrix Spike (AF91803-MS2)</b>				Source: 0906212-21 Prepared: 18-Jun-09 Analyzed: 22-Jun-09						
Lead	128	1.0	mg/kg	125	8.22	95.7	75-125			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Attention: Anne Perez  
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Project/P.O.#: 185802056, TO 26 - HWY 15

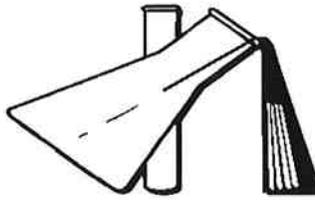
## Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91803 - EPA 3050B</b>										
<b>Matrix Spike Dup (AF91803-MSD1)</b>										
					Source: 0906212-04		Prepared: 18-Jun-09 Analyzed: 22-Jun-09			
Lead	114	1.0	mg/kg	125	6.87	86.0	75-125	3.03	20	
<b>Matrix Spike Dup (AF91803-MSD2)</b>										
					Source: 0906212-21		Prepared: 18-Jun-09 Analyzed: 22-Jun-09			
Lead	123	1.0	mg/kg	125	8.22	91.7	75-125	3.94	20	

Respectfully Submitted,

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Attention: Anne Perez  
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Project/P.O.#: 185802056, TO 26 - HWY 15

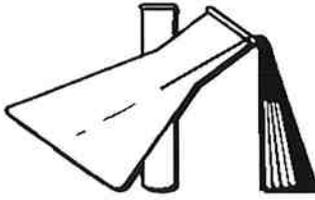
## RCRA Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91805 - EPA 3050B</b>										
<b>Blank (AF91805-BLK1)</b>				Prepared & Analyzed: 18-Jun-09						
Mercury	ND	0.050	mg/kg							
<b>Blank (AF91805-BLK2)</b>				Prepared & Analyzed: 18-Jun-09						
Mercury	ND	0.050	mg/kg							
<b>LCS (AF91805-BS1)</b>				Prepared & Analyzed: 18-Jun-09						
Mercury	1.03	0.050	mg/kg	1.00		103	85-115			
<b>LCS (AF91805-BS2)</b>				Prepared & Analyzed: 18-Jun-09						
Mercury	1.02	0.050	mg/kg	1.00		102	85-115			
<b>LCS Dup (AF91805-BSD1)</b>				Prepared & Analyzed: 18-Jun-09						
Mercury	1.04	0.050	mg/kg	1.00		104	85-115	1.15	15	
<b>LCS Dup (AF91805-BSD2)</b>				Prepared & Analyzed: 18-Jun-09						
Mercury	1.06	0.050	mg/kg	1.00		106	85-115	3.36	15	
<b>Duplicate (AF91805-DUP1)</b>				Source: 0906212-05 Prepared & Analyzed: 18-Jun-09						
Mercury	0.0111	0.050	mg/kg		0.0106			4.77	20	
<b>Duplicate (AF91805-DUP2)</b>				Source: 0906213-23 Prepared & Analyzed: 18-Jun-09						
Mercury	0.0298	0.050	mg/kg		0.0299			0.432	20	
<b>Matrix Spike (AF91805-MS1)</b>				Source: 0906212-05 Prepared & Analyzed: 18-Jun-09						
Mercury	1.16	0.050	mg/kg	1.00	0.0106	115	70-120			
<b>Matrix Spike (AF91805-MS2)</b>				Source: 0906213-23 Prepared & Analyzed: 18-Jun-09						
Mercury	1.21	0.050	mg/kg	1.00	0.0299	118	70-120			

Respectfully Submitted,

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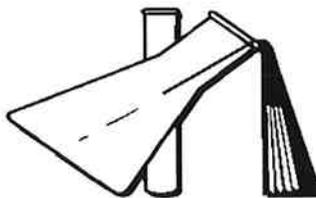
## RCRA Metals by EPA 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91805 - EPA 3050B</b>										
<b>Matrix Spike Dup (AF91805-MSD1)</b> Source: 0906212-05 Prepared & Analyzed: 18-Jun-09										
Mercury	1.21	0.050	mg/kg	1.00	0.0106	120	70-120	4.25	20	
<b>Matrix Spike Dup (AF91805-MSD2)</b> Source: 0906213-23 Prepared & Analyzed: 18-Jun-09										
Mercury	1.16	0.050	mg/kg	1.00	0.0299	113	70-120	4.36	20	
<b>Batch AF91806 - EPA 7470A</b>										
<b>Blank (AF91806-BLK1)</b> Prepared & Analyzed: 18-Jun-09										
Mercury	ND	0.20	ug/l							
<b>LCS (AF91806-BS1)</b> Prepared & Analyzed: 18-Jun-09										
Mercury	5.08	0.20	ug/l	5.00		102	85-115			
<b>LCS Dup (AF91806-BSD1)</b> Prepared & Analyzed: 18-Jun-09										
Mercury	5.23	0.20	ug/l	5.00		105	85-115	2.87	15	
<b>Duplicate (AF91806-DUP1)</b> Source: 0906212-49 Prepared & Analyzed: 18-Jun-09										
Mercury	ND	0.20	ug/l		ND				20	
<b>Matrix Spike (AF91806-MS1)</b> Source: 0906212-49 Prepared & Analyzed: 18-Jun-09										
Mercury	5.55	0.20	ug/l	5.00	ND	111	75-125			
<b>Matrix Spike Dup (AF91806-MSD1)</b> Source: 0906212-49 Prepared & Analyzed: 18-Jun-09										
Mercury	5.55	0.20	ug/l	5.00	ND	111	75-125	0.00143	20	

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Attention: Anne Perez  
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Project/P.O.#: 185802056, TO 26 - HWY 15

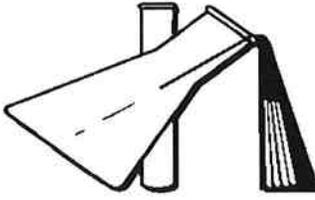
## TCLP Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF92905 - Title 22-STLC</b>										
<b>Blank (AF92905-BLK1)</b>				Prepared: 29-Jun-09 Analyzed: 30-Jun-09						
Lead	ND	0.02	mg/l							
<b>LCS (AF92905-BS1)</b>				Prepared: 29-Jun-09 Analyzed: 30-Jun-09						
Lead	0.529	0.02	mg/l	0.500		106	80-120			
<b>LCS Dup (AF92905-BSD1)</b>				Prepared: 29-Jun-09 Analyzed: 30-Jun-09						
Lead	0.542	0.02	mg/l	0.500		108	80-120	2.45	20	
<b>Duplicate (AF92905-DUP1)</b>				Source: 0906212-07 Prepared: 29-Jun-09 Analyzed: 30-Jun-09						
Lead	0.0128	0.02	mg/l		0.0122			4.58	20	
<b>Matrix Spike (AF92905-MS1)</b>				Source: 0906212-07 Prepared: 29-Jun-09 Analyzed: 30-Jun-09						
Lead	1.01	0.02	mg/l	1.00	0.0122	99.9	75-125			
<b>Matrix Spike Dup (AF92905-MSD1)</b>				Source: 0906212-07 Prepared: 29-Jun-09 Analyzed: 30-Jun-09						
Lead	0.999	0.02	mg/l	1.00	0.0122	98.7	75-125	1.18	20	

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Project/P.O.#: 185802056, TO 26 - HWY 15

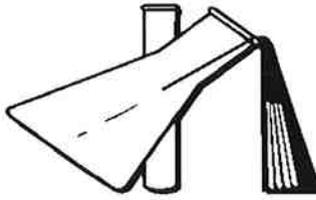
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	RPD	RPD Limit	Note
<b>Batch AF92606 - Title 22-STLC</b>									
<b>Blank (AF92606-BLK1)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	ND	0.02	mg/l						
<b>Blank (AF92606-BLK2)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	ND	0.02	mg/l						
<b>Blank (AF92606-BLK3)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	ND	0.02	mg/l						
<b>LCS (AF92606-BS1)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	0.536	0.02	mg/l	0.500		107		80-120	
<b>LCS (AF92606-BS2)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	0.529	0.02	mg/l	0.500		106		80-120	
<b>LCS (AF92606-BS3)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	0.539	0.02	mg/l	0.500		108		80-120	
<b>LCS Dup (AF92606-BSD1)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	0.516	0.02	mg/l	0.500		103	3.87	80-120	20
<b>LCS Dup (AF92606-BSD2)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	0.543	0.02	mg/l	0.500		109	2.61	80-120	20
<b>LCS Dup (AF92606-BSD3)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	0.564	0.02	mg/l	0.500		113	4.51	80-120	20
<b>Duplicate (AF92606-DUP1)</b>				Prepared & Analyzed: 26-Jun-09					
Lead	2.53	0.20	mg/l		2.56		1.17		20

Respectfully Submitted,

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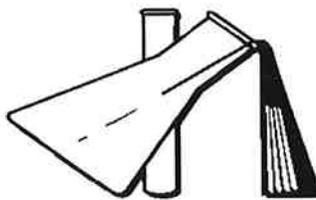
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Note
<b>Batch AF92606 - Title 22-STLC</b>										
<b>Duplicate (AF92606-DUP2)</b> <b>Source: 0906213-09</b> Prepared & Analyzed: 26-Jun-09										
Lead	2.17	0.20	mg/l		2.20			1.34	20	
<b>Duplicate (AF92606-DUP3)</b> <b>Source: 0906213-77</b> Prepared & Analyzed: 26-Jun-09										
Lead	3.38	0.20	mg/l		3.40			0.708	20	
<b>Matrix Spike (AF92606-MS1)</b> <b>Source: 0906212-10</b> Prepared & Analyzed: 26-Jun-09										
Lead	12.0	0.20	mg/l	10.0	2.56	94.1	80-120			
<b>Matrix Spike (AF92606-MS2)</b> <b>Source: 0906213-09</b> Prepared & Analyzed: 26-Jun-09										
Lead	11.4	0.20	mg/l	10.0	2.20	91.5	80-120			
<b>Matrix Spike (AF92606-MS3)</b> <b>Source: 0906213-77</b> Prepared & Analyzed: 26-Jun-09										
Lead	12.2	0.20	mg/l	10.0	3.40	88.4	80-120			
<b>Matrix Spike Dup (AF92606-MSD1)</b> <b>Source: 0906212-10</b> Prepared & Analyzed: 26-Jun-09										
Lead	11.6	0.20	mg/l	10.0	2.56	90.3	80-120	3.17	20	
<b>Matrix Spike Dup (AF92606-MSD2)</b> <b>Source: 0906213-09</b> Prepared & Analyzed: 26-Jun-09										
Lead	11.2	0.20	mg/l	10.0	2.20	89.9	80-120	1.45	20	
<b>Matrix Spike Dup (AF92606-MSD3)</b> <b>Source: 0906213-77</b> Prepared & Analyzed: 26-Jun-09										
Lead	12.0	0.20	mg/l	10.0	3.40	85.9	80-120	2.09	20	

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Laboratory Director

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91708 - Volatiles

#### Blank (AF91708-BLK1)

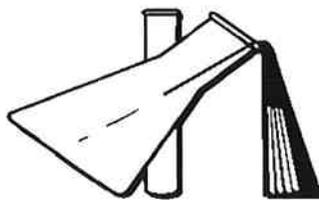
Prepared & Analyzed: 17-Jun-09

Surrogate: Dibromofluoromethane	49.7		ug/l	50.0		99.4	85-115			
Surrogate: Toluene-d8	50.0		"	50.0		100	85-115			
Surrogate: Bromofluorobenzene	49.2		"	50.0		98.3	85-115			
Dichlorodifluoromethane	ND	0.5	"							
Chloromethane	ND	0.5	"							
Vinyl chloride	ND	0.5	"							
Bromomethane	ND	0.5	"							
Chloroethane	ND	0.5	"							
Trichlorofluoromethane (Freon 11)	ND	0.5	"							
1,1-Dichloroethene	ND	0.5	"							
Acetone	ND	5.0	"							
Methylene chloride	ND	0.5	"							
t-1,2-Dichloroethene	ND	0.5	"							
1,1-Dichloroethane	ND	0.5	"							
2,2-Dichloropropane	ND	0.5	"							
c-1,2-Dichloroethene	ND	0.5	"							
Chloroform	ND	0.5	"							
1,1,1-Trichloroethane	ND	0.5	"							
2-Butanone (MEK)	ND	5.0	"							
Carbon tetrachloride	ND	0.5	"							
1,1-Dichloropropane	ND	0.5	"							
Benzene	ND	0.5	"							
1,2-Dichloroethane	ND	0.5	"							
Trichloroethene	ND	0.5	"							
1,2-Dichloropropane	ND	0.5	"							

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## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91708 - Volatiles

#### Blank (AF91708-BLK1)

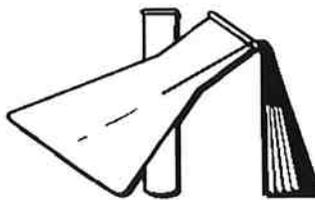
Prepared & Analyzed: 17-Jun-09

Dibromomethane	ND	0.5	"
Bromodichloromethane	ND	0.5	"
c-1,3-Dichloropropene	ND	0.5	"
Toluene	ND	0.5	"
t-1,3-Dichloropropene	ND	0.5	"
1,1,2-Trichloroethane	ND	0.5	"
Methyl isobutyl ketone	ND	5.0	"
Tetrachloroethene	ND	0.5	"
1,3-Dichloropropane	ND	0.5	"
Dibromochloromethane	ND	0.5	"
1,2-Dibromoethane	ND	0.5	"
2-Hexanone	ND	0.5	"
Chlorobenzene	ND	0.5	"
1,1,1,2-Tetrachloroethane	ND	0.5	"
Ethylbenzene	ND	0.5	"
m,p-Xylene	ND	0.5	"
o-Xylene	ND	0.5	"
Styrene	ND	0.5	"
Bromoform	ND	0.5	"
Isopropylbenzene	ND	0.5	"
Bromobenzene	ND	0.5	"
1,1,1,2,2-Tetrachloroethane	ND	0.5	"
1,2,3-Trichloropropane	ND	0.5	"
n-Propylbenzene	ND	0.5	"
2-Chlorotoluene	ND	0.5	"
1,3,5-Trimethylbenzene	ND	0.5	"

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## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91708 - Volatiles

#### Blank (AF91708-BLK1)

Prepared & Analyzed: 17-Jun-09

4-Chlorotoluene	ND	0.5	"							
tert-Butylbenzene	ND	0.5	"							
1,2,4-Trimethylbenzene	ND	0.5	"							
sec-Butylbenzene	ND	0.5	"							
1,3-Dichlorobenzene	ND	0.5	"							
p-Isopropyltoluene	ND	0.5	"							
1,4-Dichlorobenzene	ND	0.5	"							
n-Butylbenzene	ND	0.5	"							
1,2-Dichlorobenzene	ND	0.5	"							
1,2-Dibromo-3-chloropropane	ND	0.5	"							
1,2,4-Trichlorobenzene	ND	0.5	"							
Hexachlorobutadiene	ND	0.5	"							
Methyl tert-butyl ether	ND	0.5	"							
Naphthalene	ND	0.5	"							
Isopropyl alcohol	ND	10.0	"							
1,2,3-Trichlorobenzene	ND	0.5	"							
2-Chloroethylvinyl ether	ND	10.0	"							
Acrolein	ND	10.0	"							
Acrylonitrile	ND	10.0	"							
Acetonitrile	ND	10.0	"							

#### LCS (AF91708-BS1)

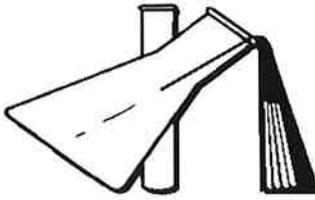
Prepared & Analyzed: 17-Jun-09

Surrogate: Dibromofluoromethane	50.0		ug/l	50.0	100	85-115
Surrogate: Toluene-d8	50.8		"	50.0	102	85-115
Surrogate: Bromofluorobenzene	46.1		"	50.0	92.2	85-115
1,1-Dichloroethene	26.8	0.5	"	25.0	107	80-120

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

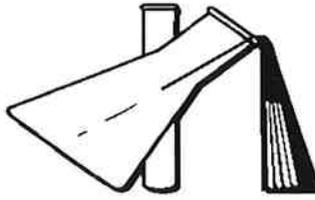
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91708 - Volatiles</b>										
<b>LCS (AF91708-BS1)</b>				Prepared & Analyzed: 17-Jun-09						
Benzene	27.9	0.5	"	25.0		112	80-120			
Trichloroethene	25.0	0.5	"	25.0		100	80-120			
Toluene	26.8	0.5	"	25.0		107	80-120			
Chlorobenzene	25.1	0.5	"	25.0		100	80-120			
<b>LCS Dup (AF91708-BS1)</b>				Prepared & Analyzed: 17-Jun-09						
Surrogate: Dibromofluoromethane	49.0		ug/l	50.0		98.0	85-115			
Surrogate: Toluene-d8	48.3		"	50.0		96.6	85-115			
Surrogate: Bromofluorobenzene	47.6		"	50.0		95.3	85-115			
1,1-Dichloroethene	28.0	0.5	"	25.0		112	80-120	4.12	20	
Benzene	28.8	0.5	"	25.0		115	80-120	3.31	20	
Trichloroethene	24.6	0.5	"	25.0		98.5	80-120	1.57	20	
Toluene	26.4	0.5	"	25.0		106	80-120	1.73	20	
Chlorobenzene	27.8	0.5	"	25.0		111	80-120	10.2	20	
<b>Matrix Spike (AF91708-MS1)</b>				Source: 0906173-02 Prepared & Analyzed: 17-Jun-09						
Surrogate: Dibromofluoromethane	56.1		ug/l	50.0		112	85-115			
Surrogate: Toluene-d8	50.5		"	50.0		101	85-115			
Surrogate: Bromofluorobenzene	48.0		"	50.0		95.9	85-115			
1,1-Dichloroethene	26.3	0.5	"	25.0	ND	105	80-120			
Benzene	28.0	0.5	"	25.0	ND	112	80-120			
Trichloroethene	21.0	0.5	"	25.0	ND	83.9	80-120			
Toluene	27.0	0.5	"	25.0	ND	108	80-120			
Chlorobenzene	21.7	0.5	"	25.0	ND	87.0	80-120			
<b>Matrix Spike Dup (AF91708-MS1)</b>				Source: 0906173-02 Prepared & Analyzed: 17-Jun-09						

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91708 - Volatiles</b>										
<b>Matrix Spike Dup (AF91708-MSD1) Source: 0906173-02 Prepared &amp; Analyzed: 17-Jun-09</b>										
Surrogate: Dibromofluoromethane	49.2		ug/l	50.0		98.4	85-115			
Surrogate: Toluene-d8	50.2		"	50.0		100	85-115			
Surrogate: Bromofluorobenzene	46.9		"	50.0		93.7	85-115			
1,1-Dichloroethene	26.4	0.5	"	25.0	ND	106	80-120	0.569	20	
Benzene	28.6	0.5	"	25.0	ND	114	80-120	2.05	20	
Trichloroethene	25.5	0.5	"	25.0	ND	102	80-120	19.6	20	
Toluene	27.0	0.5	"	25.0	ND	108	80-120	0.111	20	
Chlorobenzene	24.7	0.5	"	25.0	ND	98.7	80-120	12.6	20	

## Batch AF91915 - Volatiles

### Blank (AF91915-BLK1)

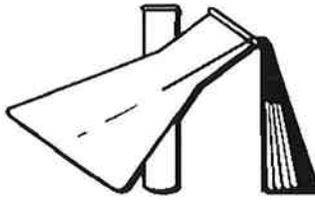
Prepared: 19-Jun-09 Analyzed: 22-Jun-09

Surrogate: Toluene-d8	47.8		ug/kg	50.0		95.7	85-115			
Surrogate: Bromofluorobenzene	45.8		"	50.0		91.6	85-115			
Surrogate: Dibromofluoromethane	53.8		"	50.0		108	85-115			
Bromochloromethane	ND	0.5	"							
Dichlorodifluoromethane	ND	0.5	"							
Chloromethane	ND	0.5	"							
Vinyl chloride	ND	0.5	"							
Bromomethane	ND	0.5	"							
Chloroethane	ND	0.5	"							
Trichlorofluoromethane (Freon 11)	ND	0.5	"							
1,1-Dichloroethene	ND	0.5	"							
Acetone	ND	5.0	"							
Methylene chloride	ND	0.5	"							
t-1,2-Dichloroethene	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

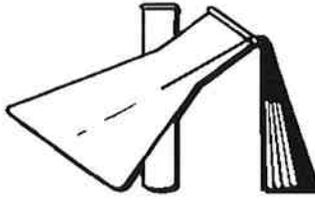
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AF91915 - Volatiles</b>										
<b>Blank (AF91915-BLK1)</b>										
Prepared: 19-Jun-09 Analyzed: 22-Jun-09										
1,1-Dichloroethane	ND	0.5	"							
2,2-Dichloropropane	ND	0.5	"							
c-1,2-Dichloroethene	ND	0.5	"							
Chloroform	ND	0.5	"							
1,1,1-Trichloroethane	ND	0.5	"							
2-Butanone (MEK)	ND	5.0	"							
Carbon tetrachloride	ND	0.5	"							
1,1-Dichloropropane	ND	0.5	"							
Benzene	ND	0.5	"							
1,2-Dichloroethane	ND	0.5	"							
Trichloroethene	ND	0.5	"							
1,2-Dichloropropane	ND	0.5	"							
Dibromomethane	ND	0.5	"							
Bromodichloromethane	ND	0.5	"							
c-1,3-Dichloropropene	ND	0.5	"							
Toluene	ND	0.5	"							
t-1,3-Dichloropropene	ND	0.5	"							
1,1,2-Trichloroethane	ND	0.5	"							
Methyl isobutyl ketone	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	0.5	"							
Tetrachloroethene	ND	0.5	"							
1,3-Dichloropropane	ND	0.5	"							
Dibromochloromethane	ND	0.5	"							
1,2-Dibromoethane	ND	0.5	"							
Chlorobenzene	ND	0.5	"							
2-Hexanone	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

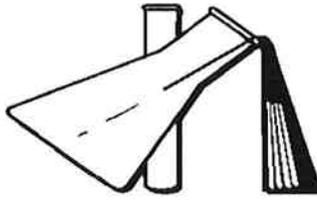
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91915 - Volatiles</b>										
<b>Blank (AF91915-BLK1)</b>										
Prepared: 19-Jun-09 Analyzed: 22-Jun-09										
1,1,1,2-Tetrachloroethane	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	0.5	"							
o-Xylene	ND	0.5	"							
Styrene	ND	0.5	"							
Bromoform	ND	0.5	"							
Isopropylbenzene	ND	0.5	"							
Bromobenzene	ND	0.5	"							
1,1,2,2-Tetrachloroethane	ND	0.5	"							
1,2,3-Trichloropropane	ND	0.5	"							
n-Propylbenzene	ND	0.5	"							
2-Chlorotoluene	ND	0.5	"							
1,3,5-Trimethylbenzene	ND	0.5	"							
4-Chlorotoluene	ND	0.5	"							
1,1-Dichloropropene	ND	0.5	"							
tert-Butylbenzene	ND	0.5	"							
1,2,4-Trimethylbenzene	ND	0.5	"							
sec-Butylbenzene	ND	0.5	"							
1,3-Dichlorobenzene	ND	0.5	"							
p-Isopropyltoluene	ND	0.5	"							
1,4-Dichlorobenzene	ND	0.5	"							
n-Butylbenzene	ND	0.5	"							
1,2-Dichlorobenzene	ND	0.5	"							
Trichlorotrifluoroethane (Freon 113)	ND	0.5	"							
1,2-Dibromo-3-chloropropane	ND	0.5	"							
1,2-Dichloropropylene	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91915 - Volatiles

#### Blank (AF91915-BLK1)

Prepared: 19-Jun-09 Analyzed: 22-Jun-09

1,2,4-Trichlorobenzene	ND	0.5	"							
Hexachlorobutadiene	ND	0.5	"							
Naphthalene	ND	0.5	"							
Isopropyl alcohol	ND	10	"							
1,2,3-Trichlorobenzene	ND	0.5	"							
2-Chloroethylvinyl ether	ND	10	"							
Acrolein	ND	10	"							
Acrylonitrile	ND	10	"							
Methyl tert-butyl ether	ND	0.5	"							
Vinyl acetate	ND	10	"							
Tert-butyl alcohol	ND	2.0	"							
Ethyl tert-butyl ether	ND	0.5	"							
Tert-amyl methyl ether	ND	0.5	"							
Di-isopropyl ether	ND	0.5	"							

#### Blank (AF91915-BLK2)

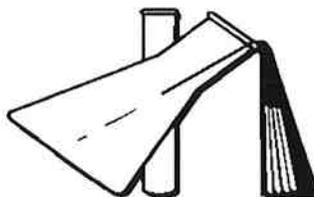
Prepared: 19-Jun-09 Analyzed: 22-Jun-09

Surrogate: Toluene-d8	51.2		ug/kg	50.0		102	85-115			
Surrogate: Bromofluorobenzene	45.8		"	50.0		91.6	85-115			
Surrogate: Dibromofluoromethane	56.5		"	50.0		113	85-115			
Bromochloromethane	ND	0.5	"							
Dichlorodifluoromethane	ND	0.5	"							
Chloromethane	ND	0.5	"							
Vinyl chloride	ND	0.5	"							
Bromomethane	ND	0.5	"							
Chloroethane	ND	0.5	"							
Trichlorofluoromethane (Freon 11)	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
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Project/P.O.#: 185802056, TO 26 - HWY 15

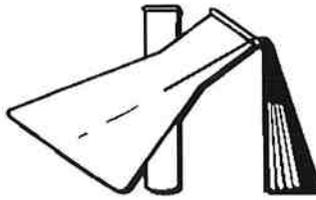
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91915 - Volatiles</b>										
<b>Blank (AF91915-BLK2)</b>										
Prepared: 19-Jun-09 Analyzed: 22-Jun-09										
1,1-Dichloroethene	ND	0.5	"							
Methylene chloride	ND	0.5	"							
Acetone	ND	5.0	"							
t-1,2-Dichloroethene	ND	0.5	"							
1,1-Dichloroethane	ND	0.5	"							
2,2-Dichloropropane	ND	0.5	"							
c-1,2-Dichloroethene	ND	0.5	"							
Chloroform	ND	0.5	"							
1,1,1-Trichloroethane	ND	0.5	"							
Carbon tetrachloride	ND	0.5	"							
2-Butanone (MEK)	ND	5.0	"							
1,1-Dichloropropane	ND	0.5	"							
Benzene	ND	0.5	"							
1,2-Dichloroethane	ND	0.5	"							
Trichloroethene	ND	0.5	"							
1,2-Dichloropropane	ND	0.5	"							
Dibromomethane	ND	0.5	"							
Bromodichloromethane	ND	0.5	"							
c-1,3-Dichloropropene	ND	0.5	"							
Toluene	ND	0.5	"							
t-1,3-Dichloropropene	ND	0.5	"							
1,2-Dibromoethane (EDB)	ND	0.5	"							
1,1,2-Trichloroethane	ND	0.5	"							
Methyl isobutyl ketone	ND	5.0	"							
Tetrachloroethene	ND	0.5	"							
1,3-Dichloropropane	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91915 - Volatiles

Prepared: 19-Jun-09 Analyzed: 22-Jun-09

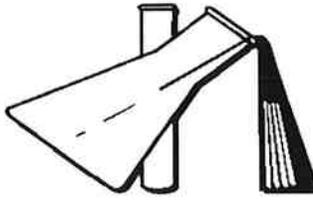
#### Blank (AF91915-BLK2)

Dibromochloromethane	ND	0.5	"							
1,2-Dibromoethane	ND	0.5	"							
Chlorobenzene	ND	0.5	"							
2-Hexanone	ND	0.5	"							
1,1,1,2-Tetrachloroethane	ND	0.5	"							
Ethylbenzene	ND	0.5	"							
m,p-Xylene	ND	0.5	"							
o-Xylene	ND	0.5	"							
Styrene	ND	0.5	"							
Bromofom	ND	0.5	"							
Isopropylbenzene	ND	0.5	"							
Bromobenzene	ND	0.5	"							
1,1,2,2-Tetrachloroethane	ND	0.5	"							
1,2,3-Trichloropropane	ND	0.5	"							
n-Propylbenzene	ND	0.5	"							
2-Chlorotoluene	ND	0.5	"							
1,3,5-Trimethylbenzene	ND	0.5	"							
4-Chlorotoluene	ND	0.5	"							
1,1-Dichloropropene	ND	0.5	"							
tert-Butylbenzene	ND	0.5	"							
1,2,4-Trimethylbenzene	ND	0.5	"							
sec-Butylbenzene	ND	0.5	"							
1,3-Dichlorobenzene	ND	0.5	"							
p-Isopropyltoluene	ND	0.5	"							
1,4-Dichlorobenzene	ND	0.5	"							
n-Butylbenzene	ND	0.5	"							

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
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Attention: **Anne Perez**  
Report Date: **30-Jun-09 21:54**  
Subject: **Soil Samples**

Project/P.O.#: 185802056, TO 26 - HWY 15

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91915 - Volatiles

#### Blank (AF91915-BLK2)

Prepared: 19-Jun-09 Analyzed: 22-Jun-09

1,2-Dichlorobenzene	ND	0.5	"							
Trichlorotrifluoroethane (Freon 113)	ND	0.5	"							
1,2-Dibromo-3-chloropropane	ND	0.5	"							
1,2-Dichloropropylene	ND	0.5	"							
1,2,4-Trichlorobenzene	ND	0.5	"							
Hexachlorobutadiene	ND	0.5	"							
Naphthalene	ND	0.5	"							
1,2,3-Trichlorobenzene	ND	0.5	"							
Isopropyl alcohol	ND	10	"							
Acrolein	ND	10	"							
2-Chloroethylvinyl ether	ND	10	"							
Acrylonitrile	ND	10	"							
Methyl tert-butyl ether	ND	0.5	"							
Vinyl acetate	ND	10	"							
Tert-butyl alcohol	ND	2.0	"							
Ethyl tert-butyl ether	ND	0.5	"							
Tert-amyl methyl ether	ND	0.5	"							
Di-isopropyl ether	ND	0.5	"							

#### LCS (AF91915-BS1)

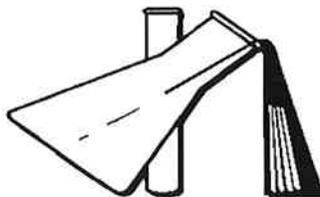
Prepared: 19-Jun-09 Analyzed: 22-Jun-09

Surrogate: Toluene-d8	51.1		ug/kg	50.0		102	85-115			
Surrogate: Bromofluorobenzene	45.0		"	50.0		89.9	85-115			
Surrogate: Dibromofluoromethane	43.2		"	50.0		86.4	85-115			
1,1-Dichloroethene	24.2	0.5	"	25.0		97.0	80-120			
Benzene	21.8	0.5	"	25.0		87.3	80-120			
Trichloroethene	25.1	0.5	"	25.0		101	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
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### Batch AF91915 - Volatiles

#### LCS (AF91915-BS1)

Prepared: 19-Jun-09 Analyzed: 22-Jun-09

Toluene	27.4	0.5	"	25.0	110	80-120				
Chlorobenzene	22.7	0.5	"	25.0	91.0	80-120				

#### LCS (AF91915-BS2)

Prepared: 19-Jun-09 Analyzed: 23-Jun-09

Surrogate: Toluene-d8	51.1		ug/kg	50.0	102	85-115				
Surrogate: Bromofluorobenzene	45.0		"	50.0	89.9	85-115				
Surrogate: Dibromofluoromethane	43.2		"	50.0	86.4	85-115				
1,1-Dichloroethene	24.8	0.5	"	25.0	99.0	80-120				
Benzene	25.4	0.5	"	25.0	102	80-120				
Trichloroethene	25.1	0.5	"	25.0	101	80-120				
Toluene	27.4	0.5	"	25.0	110	80-120				
Chlorobenzene	24.7	0.5	"	25.0	98.7	80-120				

#### LCS Dup (AF91915-BSD1)

Prepared: 19-Jun-09 Analyzed: 22-Jun-09

Surrogate: Toluene-d8	50.2		ug/kg	50.0	100	85-115				
Surrogate: Bromofluorobenzene	45.1		"	50.0	90.1	85-115				
Surrogate: Dibromofluoromethane	50.5		"	50.0	101	85-115				
1,1-Dichloroethene	23.0	0.5	"	25.0	92.2	80-120	5.07	20		
Benzene	26.6	0.5	"	25.0	106	80-120	19.8	20		
Trichloroethene	24.1	0.5	"	25.0	96.4	80-120	4.27	20		
Toluene	26.8	0.5	"	25.0	107	80-120	2.55	20		
Chlorobenzene	23.7	0.5	"	25.0	94.7	80-120	4.05	20		

#### LCS Dup (AF91915-BSD2)

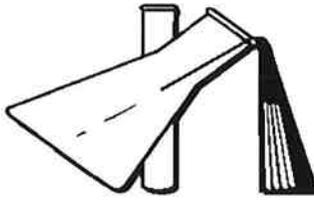
Prepared: 19-Jun-09 Analyzed: 23-Jun-09

Surrogate: Toluene-d8	52.8		ug/kg	50.0	106	85-115				
Surrogate: Bromofluorobenzene	56.8		"	50.0	114	85-115				

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 66 of 69

Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

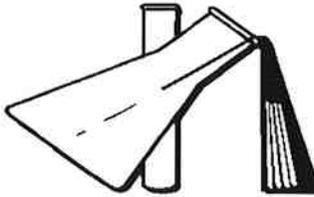
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91915 - Volatiles</b>										
<b>LCS Dup (AF91915-BSD2)</b>				Prepared: 19-Jun-09 Analyzed: 23-Jun-09						
Surrogate: Dibromofluoromethane	56.7		"	50.0		113	85-115			
1,1-Dichloroethene	24.0	0.5	"	25.0		96.0	80-120	3.04	20	
Benzene	26.6	0.5	"	25.0		106	80-120	4.66	20	
Trichloroethene	26.1	0.5	"	25.0		104	80-120	3.82	20	
Toluene	27.0	0.5	"	25.0		108	80-120	1.80	20	
Chlorobenzene	24.0	0.5	"	25.0		96.0	80-120	2.79	20	
<b>Matrix Spike (AF91915-MS1)</b>				Source: 0906211-09 Prepared: 19-Jun-09 Analyzed: 22-Jun-09						
Surrogate: Toluene-d8	45.7		ug/kg	50.0		91.4	85-115			
Surrogate: Bromofluorobenzene	55.7		"	50.0		111	85-115			
Surrogate: Dibromofluoromethane	51.3		"	50.0		103	85-115			
1,1-Dichloroethene	25.8	0.5	"	25.0	ND	103	80-120			
Benzene	27.0	0.5	"	25.0	ND	108	80-120			
Trichloroethene	23.3	0.5	"	25.0	ND	93.1	80-120			
Toluene	20.4	0.5	"	25.0	ND	81.7	80-120			
Chlorobenzene	20.8	0.5	"	25.0	ND	83.0	80-120			
<b>Matrix Spike (AF91915-MS2)</b>				Source: 0906211-19 Prepared: 19-Jun-09 Analyzed: 22-Jun-09						
Surrogate: Toluene-d8	49.0		ug/kg	50.0		98.0	85-115			
Surrogate: Bromofluorobenzene	52.0		"	50.0		104	85-115			
Surrogate: Dibromofluoromethane	49.3		"	50.0		98.6	85-115			
1,1-Dichloroethene	26.4	0.5	"	25.0	ND	105	80-120			
Benzene	24.4	0.5	"	25.0	ND	97.4	80-120			
Trichloroethene	25.8	0.5	"	25.0	ND	103	80-120			
Toluene	24.6	0.5	"	25.0	ND	98.6	80-120			
Chlorobenzene	21.1	0.5	"	25.0	ND	84.4	80-120			

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 30-Jun-09 21:54  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

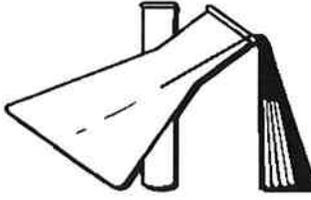
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91915 - Volatiles</b>										
<b>Matrix Spike (AF91915-MS3) Source: 0906211-27 Prepared: 19-Jun-09 Analyzed: 23-Jun-09</b>										
Surrogate: Toluene-d8	49.6		ug/kg	50.0		99.2	85-115			
Surrogate: Bromofluorobenzene	43.0		"	50.0		86.0	85-115			
Surrogate: Dibromofluoromethane	55.9		"	50.0		112	85-115			
1,1-Dichloroethene	25.9	0.5	"	25.0	ND	103	80-120			
Benzene	28.4	0.5	"	25.0	ND	114	80-120			
Trichloroethene	24.0	0.5	"	25.0	ND	96.2	80-120			
Toluene	27.0	0.5	"	25.0	ND	108	80-120			
Chlorobenzene	24.0	0.5	"	25.0	ND	95.8	80-120			
<b>Matrix Spike Dup (AF91915-MSD1) Source: 0906211-09 Prepared: 19-Jun-09 Analyzed: 22-Jun-09</b>										
Surrogate: Toluene-d8	49.8		ug/kg	50.0		99.6	85-115			
Surrogate: Bromofluorobenzene	46.0		"	50.0		92.0	85-115			
Surrogate: Dibromofluoromethane	51.3		"	50.0		103	85-115			
1,1-Dichloroethene	24.5	0.5	"	25.0	ND	98.1	80-120	5.13	20	
Benzene	26.0	0.5	"	25.0	ND	104	80-120	4.00	20	
Trichloroethene	24.3	0.5	"	25.0	ND	97.2	80-120	4.37	20	
Toluene	24.6	0.5	"	25.0	ND	98.2	80-120	18.4	20	
Chlorobenzene	22.4	0.5	"	25.0	ND	89.8	80-120	7.82	20	
<b>Matrix Spike Dup (AF91915-MSD2) Source: 0906211-19 Prepared: 19-Jun-09 Analyzed: 22-Jun-09</b>										
Surrogate: Toluene-d8	49.5		ug/kg	50.0		98.9	85-115			
Surrogate: Bromofluorobenzene	48.1		"	50.0		96.1	85-115			
Surrogate: Dibromofluoromethane	56.9		"	50.0		114	85-115			
1,1-Dichloroethene	26.5	0.5	"	25.0	ND	106	80-120	0.643	20	
Benzene	25.7	0.5	"	25.0	ND	103	80-120	5.28	20	
Trichloroethene	24.1	0.5	"	25.0	ND	96.3	80-120	6.74	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009



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25864 F Business Center Drive  
Redlands CA, 92374

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Attention: **Anne Perez**  
Report Date: **30-Jun-09 21:54**  
Subject: **Soil Samples**

Project/P.O.#: **185802056, TO 26 - HWY 15**

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

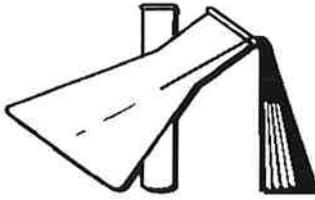
Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AF91915 - Volatiles</b>										
<b>Matrix Spike Dup (AF91915-MSD2) Source: 0906211-19 Prepared: 19-Jun-09 Analyzed: 22-Jun-09</b>										
Toluene	24.6	0.5	"	25.0	ND	98.3	80-120	0.325	20	
Chlorobenzene	23.8	0.5	"	25.0	ND	95.0	80-120	11.8	20	
<b>Matrix Spike Dup (AF91915-MSD3) Source: 0906211-27 Prepared: 19-Jun-09 Analyzed: 23-Jun-09</b>										
Surrogate: Toluene-d8	47.3		ug/kg	50.0		94.6	85-115			
Surrogate: Bromofluorobenzene	56.6		"	50.0		113	85-115			
Surrogate: Dibromofluoromethane	51.0		"	50.0		102	85-115			
1,1-Dichloroethene	23.8	0.5	"	25.0	ND	95.4	80-120	8.09	20	
Benzene	24.5	0.5	"	25.0	ND	98.1	80-120	14.7	20	
Trichloroethene	24.3	0.5	"	25.0	ND	97.0	80-120	0.911	20	
Toluene	24.1	0.5	"	25.0	ND	96.3	80-120	11.4	20	
Chlorobenzene	21.5	0.5	"	25.0	ND	85.8	80-120	11.0	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

6/30/2009





# PAT-CHEM LABORATORIES

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Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

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Attention: Anne Perez  
Report Date: 13-Jul-09 15:02  
Subject: Soil Samples

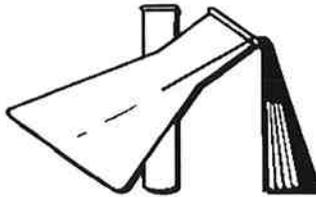
Project/P.O.#: 185802056, TO 26 - HWY 15

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)		RESULT	NOTE
<b>RB-3-0.5 (0906212-07) (Sample I.D.# : 0907079-01) Collected: 09-Jun-09 By Customer</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>RB-3-1 (0906212-08) (Sample I.D.# : 0907079-02) Collected: 09-Jun-09 By Customer</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>RB-13-0.5 (0906212-37) (Sample I.D.# : 0907079-03) Collected: 09-Jun-09 By Customer</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>RB-13-2.5 (0906212-39) (Sample I.D.# : 0907079-04) Collected: 09-Jun-09 By Customer</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01
<b>RB-14-0.5 (0906212-40) (Sample I.D.# : 0907079-05) Collected: 09-Jun-09 By Customer</b>							
Lead	EPA 6010B(STLC)	AG91016	0.20	13-Jul-09 (AF)	<	0.20 mg/l	A-01

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009



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Customer: **Stantec**  
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Attention: Anne Perez  
Report Date: 13-Jul-09 15:02  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

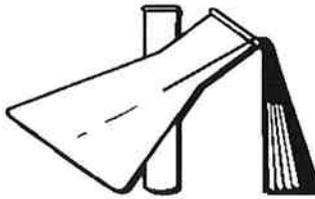
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Note
<b>Batch AG91016 - Title 22-STLC</b>										
<b>Blank (AG91016-BLK1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	ND	0.02	mg/l							
<b>Blank (AG91016-BLK2)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	ND	0.02	mg/l							
<b>Blank (AG91016-BLK3)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	ND	0.02	mg/l							
<b>LCS (AG91016-BS1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.528	0.02	mg/l	0.500		106	80-120			
<b>LCS (AG91016-BS2)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.522	0.02	mg/l	0.500		104	80-120			
<b>LCS (AG91016-BS3)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.527	0.02	mg/l	0.500		105	80-120			
<b>LCS Dup (AG91016-BSD1)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.545	0.02	mg/l	0.500		109	80-120	3.20	20	
<b>LCS Dup (AG91016-BSD2)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.545	0.02	mg/l	0.500		109	80-120	4.16	20	
<b>LCS Dup (AG91016-BSD3)</b>				Prepared: 10-Jul-09 Analyzed: 13-Jul-09						
Lead	0.551	0.02	mg/l	0.500		110	80-120	4.48	20	
<b>Duplicate (AG91016-DUP1)</b>		<b>Source: 0907073-01</b>			Prepared: 10-Jul-09 Analyzed: 13-Jul-09					
Lead	0.0401	0.20	mg/l		0.0473			16.3	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 3 of 4

Attention: Anne Perez  
Report Date: 13-Jul-09 15:02  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

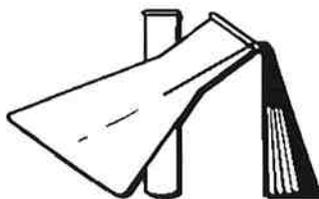
## STLC Metals by 6000/7000 Series Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
<b>Batch AG91016 - Title 22-STLC</b>										
<b>Duplicate (AG91016-DUP2)</b> <b>Source: 0907073-02</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	ND	0.20	mg/l		0.0356				20	
<b>Duplicate (AG91016-DUP3)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	ND	0.20	mg/l		0.0473				20	
<b>Matrix Spike (AG91016-MS1)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.2	0.20	mg/l	10.0	0.0473	101	80-120			
<b>Matrix Spike (AG91016-MS2)</b> <b>Source: 0907073-02</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.5	0.20	mg/l	10.0	0.0356	104	80-120			
<b>Matrix Spike (AG91016-MS3)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.6	0.20	mg/l	10.0	0.0473	106	80-120			
<b>Matrix Spike Dup (AG91016-MSD1)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	10.7	0.20	mg/l	10.0	0.0473	106	80-120	4.71	20	
<b>Matrix Spike Dup (AG91016-MSD2)</b> <b>Source: 0907073-02</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	9.80	0.20	mg/l	10.0	0.0356	97.7	80-120	6.42	20	
<b>Matrix Spike Dup (AG91016-MSD3)</b> <b>Source: 0907073-01</b> Prepared: 10-Jul-09 Analyzed: 13-Jul-09										
Lead	9.63	0.20	mg/l	10.0	0.0473	95.9	80-120	9.70	20	

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009



# PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Stantec**  
25864 F Business Center Drive  
Redlands CA, 92374

Page 4 of 4

Attention: Anne Perez  
Report Date: 13-Jul-09 15:02  
Subject: Soil Samples

Project/P.O.#: 185802056, TO 26 - HWY 15

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## Notes and Definitions

A-01 DI water was used as the STLC extraction fluid.  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis

---

Respectfully Submitted,

Pat Brueckner  
Laboratory Director

7/13/2009

**APPENDIX B  
CHAIN-OF-CUSTODY RECORDS**

09106212

**STANTEC CHAIN-OF-CUSTODY RECORD**

COC # \_\_\_\_\_ 1 OF 6 Pages

FIELD OFFICE INFORMATION		PROJECT INFORMATION		ANALYSES / METHOD REQUEST						REMARKS / PRECAUTIONS				
OFFICE: 004	Project No.: 185802056	Task: 0001	Task Order No. 26	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	PH	8081 Pesticides	6010B/7000 Title 22 Metals	TAT	REPORT REQUIREMENTS		
Send Report to: Anne Perez		Project Name: Highway 15 LBP in soils and bridge paint		6010 Total Pb		3010 Soluble Pb		TCLP		VOCs		PH		
25864 F Business Center Dr. Redlands CA		Project Manager: Anne Perez		6010 Total Pb		3010 Soluble Pb		TCLP		VOCs		PH		
Telephone: (909) 335-6116		Laboratory: PatChem		6010 Total Pb		3010 Soluble Pb		TCLP		VOCs		PH		
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com				6010 Total Pb		3010 Soluble Pb		TCLP		VOCs		PH		
Sample No. / Identification	Date	SAMPLE Time	Matrix*	Container & Size**	Preservative	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	PH	8081 Pesticides	6010B/7000 Title 22 Metals	TAT	REPORT REQUIREMENTS
01 RB-1-0.5	6/9/2009	1040	soil	grab		x							Normal	1. Run STLC for samples exceeding 25 mg/kg of TTLC
02 RB-1-1	6/9/2009	1040	soil	grab		x							Rush	2. STLC samples exceeding 5mg/L run pH and TCLP analysis
03 RB-1-2.5	6/9/2009	1040	soil	grab		x							Other:	
04 RB-2-0.5	6/9/2009	1045	soil	grab		x								MB & SURGS Dup/MS/MSD CLP R pt EDD Other
05 RB-2-1	6/9/2009	1045	soil	grab		x								
06 RB-2-2.5	6/9/2009	1045	soil	grab		x								
07 RB-3-0.5	6/9/2009	1050	soil	grab		x								
08 RB-3-1	6/9/2009	1050	soil	grab		x								
09 RB-3-2.5	6/9/2009	1050	soil	grab		x								
10 RB-4-0.5	6/9/2009	1055	soil	grab		x								
11 RB-4-1	6/9/2009	1055	soil	grab		x								
Non-Hazardous: _____				Possible Hazard Identification: _____				Sample Disposal: _____				Return to Client: _____		
Flammable: _____				Skin Irritant: _____				Disposal By: Lab. X _____				Archive For: _____ Months		
Poison B. Unknown: _____														

Sampled By: RC      Shipping Method: Courier      Airbill Number: \_\_\_\_\_

Signature: _____	Print Name: _____	Company Name: _____	Date: _____	Time: _____
Relinquished by: <u>K. Dady</u>	<u>K. Dady</u>	<u>stantec</u>	<u>6/15/09</u>	<u>150</u>
Received by: <u>Pat</u>	<u>Pat</u>	<u>pu</u>	<u>6/15/09</u>	<u>150</u>
Relinquished by: _____	_____	_____	_____	_____
Received by: <u>Pat</u>	<u>Pat</u>	<u>pu</u>	<u>6/15/09</u>	<u>400</u>

0406212

STANTEC CHAIN-OF-CUSTODY RECORD													
FIELD OFFICE INFORMATION			PROJECT INFORMATION			ANALYSES / METHOD REQUEST				REMARKS / PRECAUTIONS			
OFFICE: 004	Project No.: 185802056	Task: 0001	Project Name:	Task Order No. 26	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	pH	8081 Pesticides	6010B/7000 Title 22 Metals	TAT	REPORT
Send Report to:	Anne Perez	Project Name:	Highway 15 LBP in soils and bridge paint	Task Order No. 26	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	pH	8081 Pesticides	6010B/7000 Title 22 Metals	Normal	REQUIREMENTS
25864 F Business Center Dr. Redlands CA	Telephone: (909) 335-6116	Project Manager:	Anne Perez	PatChem	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	pH	8081 Pesticides	6010B/7000 Title 22 Metals	Rush	MB & SURGS
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com	Laboratory:	Matrix *	Container & Size **	Preservative	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	pH	8081 Pesticides	6010B/7000 Title 22 Metals	Other:	Dup/MS/MSD
Sample No. / Identification	Date	Time	Matrix *	Container & Size **	Preservative	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	pH	8081 Pesticides	6010B/7000 Title 22 Metals	CLP R pt
12 RB-4-2.5	6/9/2009	1055	soil	grab		x							EDD
13 RB-5-0.5	6/9/2009	1100	soil	grab		x							Other
14 RB-5-1	6/9/2009	1100	soil	grab		x							
15 RB-5-2.0	6/9/2009	1100	soil	grab		x							
16 RB-6-0.5	6/9/2009	1105	soil	grab		x							
17 RB-6-1	6/9/2009	1105	soil	grab		x							
18 RB-6-2.0	6/9/2009	1105	soil	grab		x							
19 RB-7-0.5	6/9/2009	1110	soil	grab		x							
20 RB-7-1	6/9/2009	1110	soil	grab		x							
21 RB-7-2.5	6/9/2009	1110	soil	grab		x							
22 RB-8-0.5	6/9/2009	1115	soil	grab		x							
Non-Hazardous: _____ Flammable: _____ Skin Irritant: _____ Poison B. Unknown: _____					Sample Disposal					Disposal By Lab: X Archive For: _____ Months Return to Client: _____			

Sampled By: \_\_\_\_\_ Shipping Method: Courier      Airbill Number: \_\_\_\_\_

Signature: \_\_\_\_\_ Print Name: \_\_\_\_\_ Company Name: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: *Bruce Daly*      *k. Daly*      *stantec*      *6/15/09*      *150*

Received by: *Patricia*      *L. Lara*      *Rec*      *6/15/09*      *150*

Relinquished by: \_\_\_\_\_

Received by: \_\_\_\_\_      *[Signature]*      *[Signature]*      *6/15/09*      *400*

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STANTEC CHAIN-OF-CUSTODY RECORD												
FIELD OFFICE INFORMATION			PROJECT INFORMATION			ANALYSES / METHOD REQUEST				REMARKS / PRECAUTIONS		
OFFICE: 004		Project No.: 185802056		Task: 0001						COC # 3 OF 6 Pages		
Send Report to: Anne Perez		Project Name: Task Order No. 26		25864 F Business Center Dr. Redlands CA		Highway 15 LBP in soils and bridge paint				REPORT REQUIREMENTS		
Telephone: (909) 335-6116		Project Manager: Anne Perez		Laboratory: PatChem						TAT Normal Rush Other:		
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com										MB & SURGS Dup/MS/MSD CLP R pt EDD Other		
Sample No. / Identification	Date	SAMPLE Time	Matrix *	Container & Size **	Preservative	6010 Total Pb	3010 Soluble Pb	TCLP	VOCs	pH	8081 Pesticides	6010B/7000 Title 22 Metals
23 RB-8-1	6/9/2009	1115	soil	grab		x						x
24 RB-8-2.5	6/9/2009	1115	soil	grab		x						x
25 RB-9-0.5	6/9/2009	1120	soil	grab		x						x
26 RB-9-1	6/9/2009	1120	soil	grab		x						x
27 RB-9-2.5	6/9/2009	1120	soil	grab		x						x
28 RB-10-0.5	6/9/2009	1125	soil	grab		x						x
29 RB-10-1	6/9/2009	1125	soil	grab		x						x
30 RB-10-2.5	6/9/2009	1125	soil	grab		x						x
31 RB-11-0.5	6/9/2009	1130	soil	grab		x						x
32 RB-11-1	6/9/2009	1130	soil	grab		x						x
33 RB-11-2.5	6/9/2009	1130	soil	grab		x						x
Possible Hazard Identification Non-Hazardous: ___ Flammable: ___ Skin Irritant: ___ Poison B: Unknown: ___						Sample Disposal						
Disposal By Lab: X						Archive For: ___ Months		Return to Client: ___				

Sampled By: \_\_\_\_\_ Shipping Method: Courier      Airbill Number: \_\_\_\_\_

Signature: <i>Tristen Daly</i>	Print Name: K. Daly	Company Name: Stantec	Date: 6/15/09	Time: 150
Relinquished by: <i>Tristen Daly</i>				
Received by: <i>Patricia</i>	Print Name: L. Lara	Company Name: Stantec	Date: 6/15/09	Time: 150
Relinquished by: _____				
Received by: <i>K</i>	Print Name: _____	Company Name: _____	Date: 6/15/09	Time: 400

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# STANTEC CHAIN-OF-CUSTODY RECORD

<b>FIELD OFFICE INFORMATION</b> Project No.: 185802056 Task: 0001 Office: 004 Send Report to: Anne Perez Project Name: Task Order No. 26 25864 F Business Center Dr. Redlands CA Highway 15 LBP in soils and bridge paint Telephone: (909) 335-6116 Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com Project Manager: Anne Perez Laboratory: PatChem		<b>PROJECT INFORMATION</b> Task: 0001 Task Order No. 26 Project Name: Task Order No. 26 Highway 15 LBP in soils and bridge paint Project Manager: Anne Perez Laboratory: PatChem		<b>ANALYSES / METHOD REQUEST</b> 6010 Total Pb 3010 Soluble Pb TCLP VOCs pH 8081 Pesticides 6010B/7000 Title 22 Metals						<b>REMARKS / PRECAUTIONS</b> TAT Normal Rush Other: MB & SURGS Dup/MS/MSD CLP R pt EDD Other		COC # 4 OF 6 Pages										
Sample No. / Identification	Date	SAMPLE		Container & Size **	Preservative	Sample Disposal																
		Time	Matrix *			Disposal By Lab: X	Archive For	Months	Return to Client:													
34 RB-12-0.5	6/9/2009	1135	soil	grab		X																
35 RB-12-1	6/9/2009	1135	soil	grab		X																
36 RB-12-2	6/9/2009	1135	soil	grab		X																
37 RB-13-0.5	6/9/2009	1140	soil	grab		X																
38 RB-13-1	6/9/2009	1140	soil	grab		X																
39 RB-13-2.5	6/9/2009	1140	soil	grab		X																
40 RB-14-0.5	6/9/2009	1145	soil	grab		X																
41 RB-14-1	6/9/2009	1145	soil	grab		X																
42 RB-14-2.5	6/9/2009	1145	soil	grab		X																
43 RB-15-0.5	6/9/2009	1215	soil	grab		X																
44 RB-15-1	6/9/2009	1215	soil	grab		X																

Sampled By: \_\_\_\_\_ Shipping Method: Courier Airbill Number: \_\_\_\_\_

Signature: \_\_\_\_\_ Print Name: \_\_\_\_\_ Company Name: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: *Kristin Daly* *K. Daly* *stantec* *6/15/09 150*

Received by: *A. V. V. A* *L. V. V. A* *PRC* *6/15/09 150*

Relinquished by: \_\_\_\_\_

Received by: \_\_\_\_\_ *PR* *6/15/09 400*

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STANTEC CHAIN-OF-CUSTODY RECORD												
FIELD OFFICE INFORMATION			PROJECT INFORMATION			ANALYSES / METHOD REQUEST				REMARKS / PRECAUTIONS		
OFFICE: 004		Project No.: 185802056		Task: 0001								
Send Report to: Anne Perez			Project Name: Task Order No. 26									
25864 F Business Center Dr. Redlands CA			Highway 15 LBP in soils and bridge paint									
Telephone: (909) 335-6116			Project Manager: Anne Perez									
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com			Laboratory: PatChem									
Sample No. / Identification	Date	SAMPLE Time	Matrix *	Container & Size **	Preservative	6010 Total Pb	3010 Soluble Pb	TCLP	VOCS	pH	8081 Pesticides	6010B/7000 Title 22 Metals
45 RB-15-2	6/9/2009	1215	soil	grab		x						
46 RB-16-0.5	6/9/2009	1230	soil	grab		x						
47 RB-16-1	6/9/2009	1230	soil	grab		x						
48 RB-16-2	6/12/2009	930	soil	grab		x						
49 RB BLANK	6/9/2009	1030	water	p/poly/3voa	nitric/hcl	x		x				
50 RB-1-1	6/9/2009	1040	soil	encore				x				
51 RB-3-1	6/9/2009	1050	soil	encore				x				
52 RB-5-1	6/9/2009	1100	soil	encore				x				
53 RB-8-1	6/9/2009	1115	soil	encore				x				
54 RB-10-1	6/9/2009	1125	soil	encore				x				
55 RB-11-1	6/9/2009	1130	soil	encore				x				
Possible Hazard Identification						Sample Disposal						
Non-Hazardous: _____						Disposal By Lab: X						
Flammable: _____						Archive For: _____ Months						
Skin Irritant: _____						Return to Client: _____						
Poison B: _____												
Unknown: _____												

Sampled By:	Shipping Method: Courier	Airbill Number:
Signature: <i>Trisha Daly</i>	Print Name: <i>K. Daly</i>	Company Name: <i>stantec</i>
Relinquished by: <i>Trisha Daly</i>		Date: <i>6/15/09</i>
Received by: <i>Trisha</i>	<i>L. L. L. L.</i>	Time: <i>150</i>
Relinquished by: _____		Date: <i>6/15/09</i>
Received by: _____	<i>pu</i>	Time: <i>400</i>

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**STANTEC CHAIN-OF-CUSTODY RECORD**

COC # 6 OF 6 Pages

FIELD OFFICE INFORMATION		PROJECT INFORMATION		ANALYSES / METHOD REQUEST		REMARKS / PRECAUTIONS	
OFFICE: 004		Project No.: 185802056 Task: 0001		6010 Total Pb		TAT	
Send Report to: Anne Perez		Project Name: Task Order No. 26		3010 Soluble Pb		Normal	
25864 F Business Center Dr. Redlands CA		Highway 15 LBP in soils and bridge paint		VOCs		Rush	
Telephone: (909) 335-6116		Project Manager: Anne Perez		TCLP		Other:	
Fax/E-Mail: (909) 335-6120 / anne.perez@stantec.com		Laboratory: PatChem		8081 Pesticides		MB & SURGS	
				pH		Dup/MS/MSD	
				8010B/7000 Title 22 Metals		CLP R pt	
						EDD	
						Other	
						1. Run STLC for samples exceeding 25 mg/kg of TTLC	
						2. STLC samples exceeding 5mg/L run pH and TCLP analysis	
						RUSH total lead analysis (72 hour)	
						RUSH title 22 metals analysis (72 hour)	
						RUSH voc analysis (72 hour)	
						Sample Disposal	
						Disposal By Lab: X Archive For: _____ Months Return to Client: _____	
						Non-Hazardous: _____ Flammable: _____ Skin Irritant: _____ Poison B. Unknown: _____	

Shipping Method: Courier      Airbill Number: \_\_\_\_\_

Sampled By: \_\_\_\_\_      Company Name: Stantec      Date: 6/15/09      Time: 150

Signature: [Signature]      Print Name: K. Daly

Relinquished by: [Signature]      L. Laska

Received by: [Signature]      [Signature]      Date: 6/15/09      Time: 150

Relinquished by: \_\_\_\_\_      \_\_\_\_\_

Received by: \_\_\_\_\_      \_\_\_\_\_      Date: 6/15/09      Time: 400

**LEAD-BASED PAINT SURVEY REPORT**  
**Three Bridges along Interstate-15**  
**San Bernardino County, California**  
**08-SBd-15-PM 111.59, 120.43, 124.24**

**Prepared for:**  
**California Department of Transportation, District 8**  
**Task Order No. 26**  
**Contract No. 08A1542**  
**EA No.: OG4800**

**Prepared by:**  
**Stantec Consulting Corporation**  
**Redlands, California**  
**Ms. Tammy Lapp**  
**Stantec Task Order Manager**  
**Certified Asbestos Consultant/Cal-DOSH**

**February 2, 2010**

## PREPARERS

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If you have any questions or comments regarding the information enclosed herein, please contact the undersigned at your convenience.

Respectfully submitted,  
**Stantec Consulting Corporation**



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Appendix B – Analytical Laboratory Reports and Chain-of-Custody Records

Appendix C – Lead Hazard Evaluation Form

### LIST OF ACRONYMS

Cal-DHS –	California Department of Health Services
Cal-OSHA –	California Division of Occupational Safety and Health Administration
Caltrans –	California Department of Transportation, District 8
CCR –	California Code of Regulations
CFR –	Code of Federal Regulations
DTSC –	Department of Toxic Substances Control
ELAP –	Environmental Laboratory Accreditation Program
EMC –	Environmental Management Consultant
HUD –	Department of Housing and Urban Development
LBP –	Lead-Based Paint
MDAQMD –	Mojave Desert Air Quality Management District
Mg/kg –	Milligrams per Kilogram
Mg/L –	Milligrams per Liter
ND –	None Detected
NESHAP –	National Emission Standard for Hazardous Air Pollutants
NVLAP –	National Voluntary Laboratory Accreditation Program
PEL –	Permissible Exposure Limit
PLM –	Polarized Light Microcopy
ppm –	parts per million
QA/QC –	Quality Assurance/Quality Control
RACM –	Regulated Asbestos-Containing Material
RCRA –	Resource Conservation and Recovery Act
SOP –	Standard of Procedure

## TABLE OF CONTENTS (Continued)

TCLP –	Toxicity Leaching Characteristic Procedure
TSI –	Thermal System Insulation
US EPA –	United States Environmental Protection Agency

## 1.0 EXECUTIVE SUMMARY

This document describes the results of a lead-based paint (LBP) survey performed at the request of the California Department of Transportation, District 8 (Caltrans), for three bridges located along Interstate-15, in the county of San Bernardino, state of California. The LBP surveys were performed to support Caltrans proposed seismic retrofitting of the existing Afton Road, Basin Road, and Razor Road Over-crossing bridges along Interstate-15.

As part of the lead-based paint survey, samples were analyzed by Environmental Management Consultant's Standard of Procedure (EMC SOP) Method #L01/1, after US EPA SW-846 Method 7420. The US EPA defines Lead-Based Paint as: paint, varnish, shellac, or other coating on surfaces that contains 0.5 percent or more lead by weight.

Representative paint chip samples were collected for laboratory testing. Out of the total thirty (30) paint chip samples collected along the three over-crossing bridges located on Interstate-15, all of the silver I-beam and silver cross-beam paint was found to contain lead greater than 5,000 ppm or 0.5% lead by weight. None of the sprayed-on graffiti cover (tan, white and gray colored paint) was above the action level of 5,000 ppm or 0.5% by weight.

The results of the representative paint chip samples that exceed HUD/Cal-OSHA action levels of 0.5 percent lead by weight, or 5,000 ppm are described below.

- **Afton Road Over-crossing Bridge (No. 54-0364)**
  - I-Beams and Cross-Beams silver paint:
    - Condition: mostly intact, minimal flaking/peeling, and
    - Estimated quantity: ~ 17,416 square feet.
- **Basin Over-crossing Bridge (No. 54-0383)**
  - I-Beams and Cross-Beams silver paint:
    - Condition: mostly intact, minimal flaking/peeling, and
    - Estimated quantity: ~ 14,681 square feet.
- **Razor Over-crossing Bridge (No. 54-0391)**
  - I-Beams and Cross-Beams silver paint:
    - Condition: mostly intact, minimal flaking/peeling, and
    - Estimated quantity: ~ 17,640 square feet.

In addition to the above, the following may also qualify as hazardous waste based on California TTLC (Pb >1000 mg/kg), STLC (Pb >5 mg/L), or Federal TCLP (>5 mg/L) if stripped and disposed separately from the painted structural components.

- **Afton Road Over-crossing Bridge (No. 54-0364)**
  - Gray graffiti on concrete abutment
  - Tan graffiti on concrete abutment
- **Basin Over-crossing Bridge (No. 54-0383)**
  - White graffiti on concrete abutment

- **Rasor Over-crossing Bridge (No. 54-0391)**
  - White graffiti on concrete abutment

In general, total lead concentrations in excess of 50 mg/kg are suspected to exhibit soluble concentrations in excess of the California STLC when extracted using the California Waste Extraction Test. Similarly, total concentrations in excess of 100 mg/kg are suspected to exhibit soluble concentrations in excess of the federal toxicity characteristic level when analyzed by the toxicity characteristic leaching potential (TCLP) method.

Table 2 and the attached figures identify the areas where lead-based paint samples were collected. Paint chips were removed to the substrate. EMC Analytical Laboratories of Phoenix, Arizona, analyzed the samples. All samples were analyzed by EMC SOP Method #L01/1, after US EPA SW-846 Method 7420.

Removal of the I-Beam and Cross Beam LBP should be performed in accordance with OSHA Standards (29CFR 1926.62 App. A) for workers exposed to lead through inhalation, and conducted by an abatement company certified by the State of California Department of Health Services.

## 2.0 SITE DESCRIPTION AND FORMER REPORT REVIEW

### 2.1 SITE DESCRIPTION

At the time of the inspection, the three Over-crossing bridges were functioning structures along Interstate-15, approximately 40 miles north of the I-15/I-40 split, and southwest of the City of Baker, California.

According to the task order request, the Department of Transportation is proposing to seismically retrofit the bridge structures.

The Department of Transportation provided Stantec with bridge identification numbers and general locations. The following is a brief description of each bridge.

**Afton Road Over-crossing Bridge (No. 54-0364):** This structure is located 40 miles north of the I-15/I-40 split along Interstate-15. The Afton Over-crossing Bridge is constructed of steel reinforced concrete with asphalt-covered roadways. The bridge measures approximate 284 feet from abutment to abutment and has steel safety guardrails that extend along both sides of the bridge. Four structural I-beams extend along the underside/deck of the bridge. Concrete column posts provide structural support. Painted surfaces observed include white and tan graffiti paint and silver I-beam paint.

**Basin Over-crossing Bridge (No. 54-0383):** This structure is located 9 miles north of Afton Road Bridge along Interstate-15. The Basin Over-crossing Bridge is constructed of steel reinforced concrete with asphalt-covered roadways. The bridge measures approximate 235 feet from abutment to abutment and has steel safety guardrails that extend along both sides of the bridge. Four structural I-beams extend along the underside/deck of the bridge. Concrete column posts provide structural support. Painted surfaces observed include white graffiti paint and silver I-beam paint.

**Razor Over-crossing Bridge (No. 54-0391):** This structure is located 4 miles north of Basin Road Bridge along Interstate-15. The Razor Over-crossing Bridge is constructed of steel reinforced concrete with asphalt-covered roadways. The bridge measures approximate 288 feet from abutment to abutment and has steel safety guardrails that extend along both sides of the bridge. Four structural I-beams extend along the underside/deck of the bridge. Concrete column posts provide structural support. Painted surfaces observed include white and gray graffiti paint and silver I-beam paint.

A site specific Health and Safety Plan was prepared and implemented during field sampling activities. Sampling activities occurred on the shoulders of the north and southbound lanes, and no lane closure was required. Delineators and a two-man traffic watch team were utilized for traffic control along the road shoulder of the bridges during field sampling activities.

A photographic log of building components and current Site conditions is provided as Section 6.0.

## **2.2 FORMER REPORT REVIEW**

No former reports were provided for review nor was there any indication of former lead-based paint related documents pertaining to this three bridge project.

### 3.0 INTRODUCTION

This document describes the results of the LBP survey performed at the request of the Caltrans, for three over-crossing bridges located along I-15, in the county of San Bernardino, state of California. The LBP survey was performed to support Caltrans proposed seismic retrofitting of the structures.

The objectives of the surveys were to identify, estimate quantities of, and assess the condition of lead on painted surfaces of the Site improvements. These objectives were met by completing the following tasks:

- Perform a visual inspection of the structures for painted surfaces.
- Collect paint chip samples of painted surfaces.
- Submit bulk samples to a certified laboratory for analysis.
- Compile the findings into a report.
- Ensure the technical quality of all work by using AHERA-accredited Inspectors and Management Planners, Certified Consultants, and a proven Quality Assurance/Quality Control (QA/QC) Program.

The LBP survey field activities were performed on three over-crossing bridges along I-15, and consisted of a visual inspection and sampling of painted surfaces to identify potential LBP.

Bulk samples of suspect LBP were collected using destructive techniques in selected representative locations. The visual inspection, bulk sampling, and survey documentation was performed by Ms. Tammy Lapp. Ms. Lapp is accredited by the California Department of Health Services (Cal-DHS) as a Lead Inspector/Assessor and Project Monitor No. 12810. Qualifications are presented in Appendix A.

Attempts were made to access all areas of the structures, however, during demolition activities if any suspect LBP painted areas are uncovered that were not previously sampled, representative samples should be collected and analyzed prior to disturbance.

## 4.0 LEAD-BASED PAINT SURVEY

### 4.1 BACKGROUND

Lead is a pliable, soft metal that is used in the construction of pipes, rods, and containers. Before 1978, lead was a common ingredient in paint because it added strength, shine and extended the life of the paint. Lead-based paint is recognized as a potential health risk due to the known toxic effects of lead exposure (primarily through ingestion) on the central nervous system, kidneys, and blood stream. Concern for lead-based paint is primarily related to residential structures, which in addition, may apply to commercial structures. The risk of lead toxicity of lead-based paint varies based upon the condition of the paint and the year of its application. HUD has identified the following risk factors, based on the age of the structure:

- The maximum risk is from paint applied before 1950.
- There is severe risk from paint applied before 1960.
- There is moderate risk from deteriorated paint applied before 1970.
- There is a slight risk from paint that is intact but applied before 1977.
- Paint applied in 1977 or later is not expected to contain lead at elevated levels.

### 4.2 CURRENT REGULATIONS

The following is a summary of current state and federal regulations which contain requirements regarding lead-based paint. These summaries are not intended to be all inclusive and do not contain every aspect of the regulations discussed. Regulations pertaining to the removal and disposal of lead-based paint are not included.

#### 4.2.1 Department of Housing and Urban Development (HUD)

The *Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing*, HUD, 1995 (revised September 1997) *Lead Requirements for Lead-based Paint Activities in Target Housing and Child-Occupied Facilities: Final Rule*, (40 CFR Part 745), US EPA, 29 August 1996, define Lead-Based Paint as: paint, varnish, shellac, or other coating on surfaces that contain 1.0 mg/cm<sup>2</sup>, 5,000 ppm, or more of lead or 0.5 percent or more lead by weight.

#### 4.2.2 California Occupational Safety and Health Administration (Cal-OSHA)

Cal-OSHA governs all construction work where an employee may be occupationally exposed to lead (Construction Lead Standard, CCR Title 8, Section 1432.1). The Cal-OSHA Construction Lead Standard was effective as of November 4, 1993.

The Lead Standard states that work which involves the disturbance of materials containing more than 0.50 percent lead by weight must be conducted in accordance with the standard. In addition, Cal-OSHA regulations (Standards – 29CFR 1926.62 App A) would apply to workers exposed to lead through inhalation. The permissible exposure limit (PEL) set by the standard is 50 micrograms of lead per cubic meter of air, averaged over an 8-hour workday.

As outlined in the Cal-OSHA Construction Lead Standard, construction work (of lead-containing material) includes, but is not limited to the following:

- Demolition or salvage of structures

- Removal or encapsulation
- New construction, alteration, repair or renovation
- Installation of products
- Lead contamination/emergency cleanup
- Transportation, disposal, storage or containment
- Maintenance operations.

Painted surfaces which are in good condition do not require any action. However, if the painted surfaces are disturbed so as the paint delaminates or becomes flaking or peeling, the above Standard applies.

#### **4.2.3 State of California Department of Health Services (DHS)**

California regulation; Title 17, CCR, Division 1, Chapter 8, requires notification to the California Department of Health Services when a lead hazard evaluation survey is conducted at a Site. A copy of the Lead Hazard Evaluation Report for the Site is included in Appendix C.

#### **4.2.4 Hazardous Waste Regulations**

Waste materials containing lead may be subject to regulations controlling the transportation and disposal of such materials. In California, the Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage and disposal of lead containing wastes that qualify as hazardous waste. Lead containing wastes may be classified as a hazardous waste based on toxicity characteristic by any one of the following Federal (RCRA) or State thresholds (California Code of Regulations, Title 22, Section 66261.24),

- Federal:
  - Toxicity Threshold = 5 mg/L (Toxicity Leaching Characteristic Procedure [TCLP])
- California:
  - Total Threshold Limit Concentration = 1,000 mg/kg
  - Soluble Threshold Limit Concentration = 5 mg/L (California Waste Extraction Test)

In general, bulk demolition wastes do not exhibit sufficient lead concentration to be classified as a hazardous waste based on the above criteria as result of the bulk weight of the waste in comparison to the weight of lead in the painted surface. However, if the paint is stripped, the paint and stripping media may be classified as a hazardous waste and regulations controlling the generation, storage, treatment, transportation and disposal of lead containing hazardous waste will need to be implemented and observed. Additional health and safety requirements and protocols may also be required to prevent exposure and spreading of the waste material.

Where possible, materials containing lead over 50 mg/kg should be disposed of as a bulk waste to avoid the generation of hazardous waste.

### **4.3 LEAD PAINT REMOVAL REQUIREMENTS**

The Cal-OSHA Lead Standard states that work which involves the disturbance of materials containing more than 0.5 percent lead by weight, or if the permissible exposure limit of airborne lead particulate of 50 micrograms per cubic meter of air is exceeded, then the work must be conducted in accordance with the standard. HUD and Cal-OSHA have defined lead-based paint as any paint which contains more than 0.5 percent lead by weight.

LBP noted to be in a good, non-flaky condition that would be removed with the paint intact, would require no special handling of the painted surface prior to renovations or demolition. However, it would be recommended that identified LBP in good condition be encapsulated by a paint film stabilizer prior to renovations or demolition. If the LBP paint would be disturbed and rendered in a flaky condition during renovations or demolition, removal of the paint prior to demolition would be required.

#### **4.4 LBP SURVEY METHODOLOGY**

##### **4.4.1 Visual Inspection**

Building materials were visually inspected for evidence of blistered or peeling paint. Painted surfaces exhibiting evidence of peeling or blistering were documented in the field notes along with a description of the structural member and approximate area observed to be peeling or blistered.

##### **4.4.2 Bulk Sampling for LBP**

Representative bulk samples of paint were collected from the various types of paint and painted surfaces. Where possible, a sample approximately one-half square inch in size was collected from each painted surface. The sample was collected by removing the paint using a chisel or other sharp instrument to cut a representative piece away. No attempt was made to replace or repair these materials. However, the removal of small pieces of building materials does not typically compromise structural integrity.

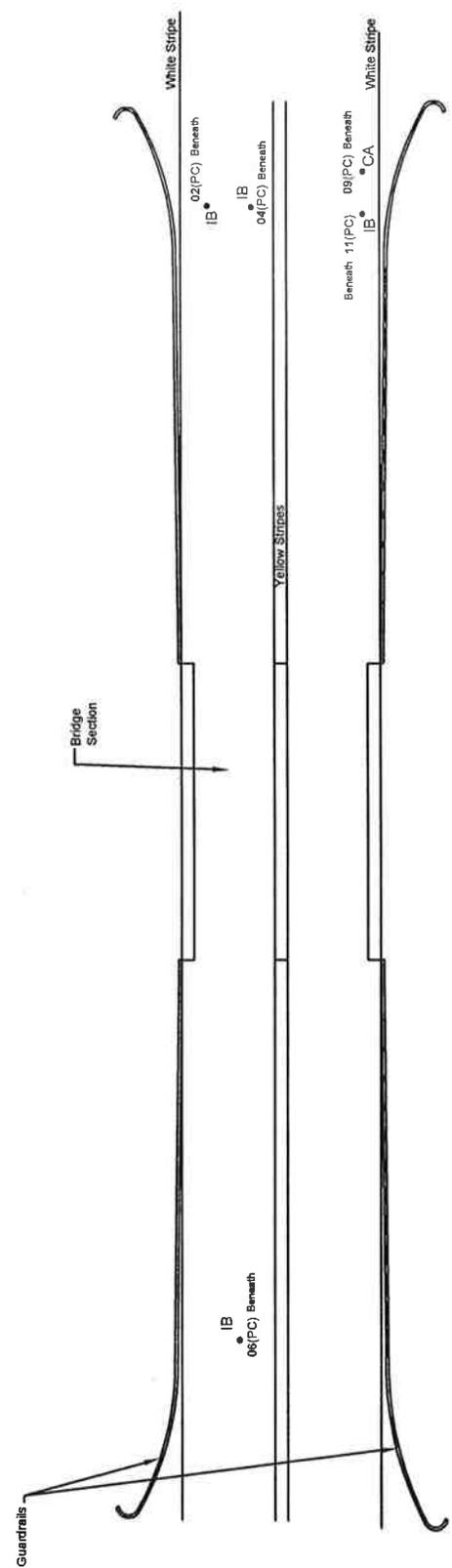
Each sample was placed in a Ziploc® plastic resealable bag and labeled (sample date, unique identifying number, sampler name, and job site), recorded on a chain of custody sheet and securely packaged for delivery to the laboratory. The sample number, location, material type, etc. were also recorded on field logs.

##### **4.4.3 LBP Laboratory Testing**

EMC Analytical Laboratories of Phoenix, Arizona, analyzed select samples. EMC is accredited under the National Institute of Standards and Technology's NVLAP, and the State of Arizona and California Department of Health Services ELAP for the analysis of LBP.

Samples were analyzed by EMC SOP Method #L01/1, after US EPA SW-846 Method 7420. US EPA, defines Lead-Based Paint as: paint, varnish, shellac, or other coating on surfaces that contains 0.5 percent or more lead by weight.

## 5.0 FIGURES

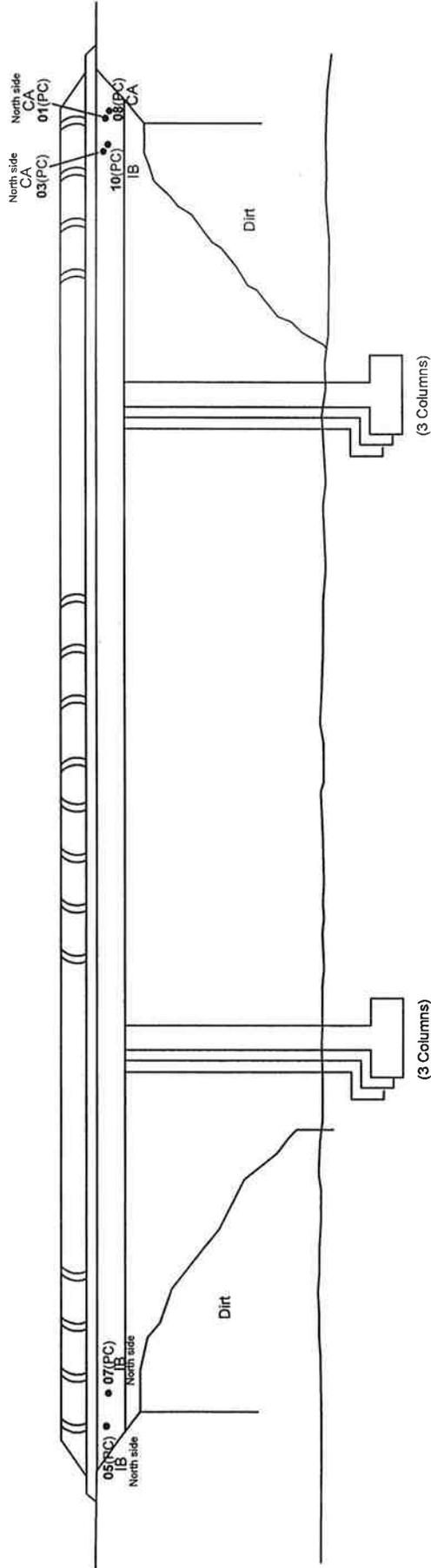


**LEGEND:**

- APPROXIMATE SAMPLE LOCATION
- 01(PC) LEAD-BASED PAINT CHIP SAMPLE
- CA CONCRETE ABUTMENT SAMPLES
- IB I-BEAM SAMPLES



CALTRANS TASK ORDER NO. 26 THREE BRIDGES ON INTERSTATE 15 AFTON ROAD OVERCROSSING IN SAN BERNARDINO COUNTY		SAMPLE LOCATION MAP		FIGURE: <b>2a</b>
JOB NUMBER: 185802056	DRAWN BY: KD	CHECKED BY: AP	APPROVED BY:	DATE: 07/10/09



**LEGEND:**

(( )) GUARDRAIL POSTS

01(PC) LEAD-BASED PAINT CHIP SAMPLE

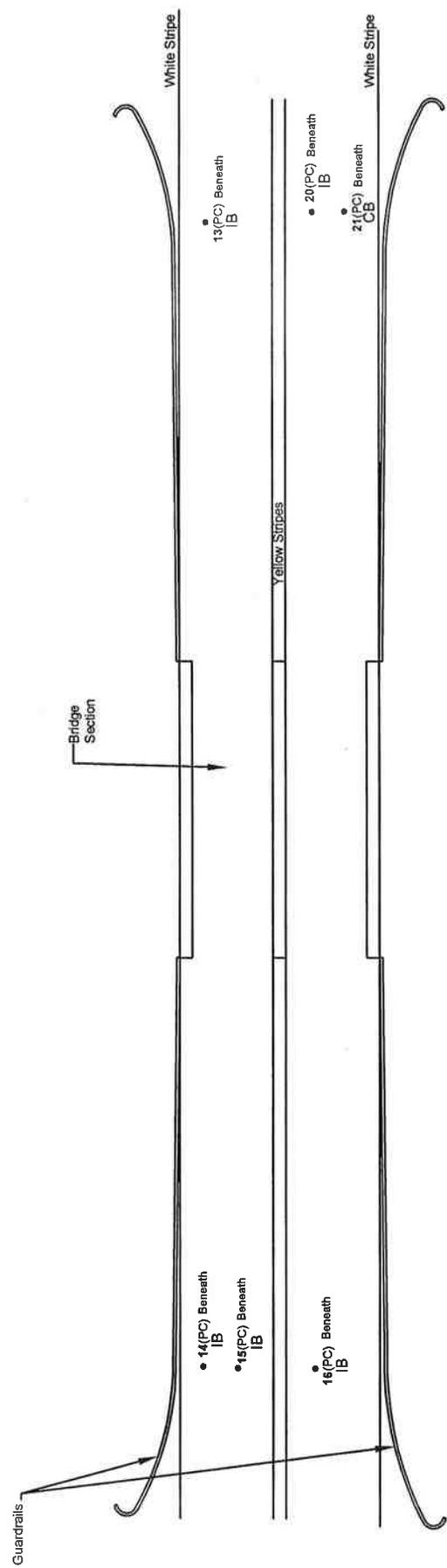
• APPROXIMATE SAMPLE LOCATION

CA CONCRETE ABUTMENT SAMPLES

IB I-BEAM SAMPLES

NOT TO SCALE

CALTRANS TASK ORDER NO. 26 THREE BRIDGES ON INTERSTATE 15 AFTON ROAD OVERCROSSING IN SAN BERNARDINO COUNTY		FIGURE: <h1 style="font-size: 2em;">2b</h1>	
JOB NUMBER: 185802056	DRAWN BY: KD	CHECKED BY: AP	APPROVED BY:  
		DATE: 07/10/09	

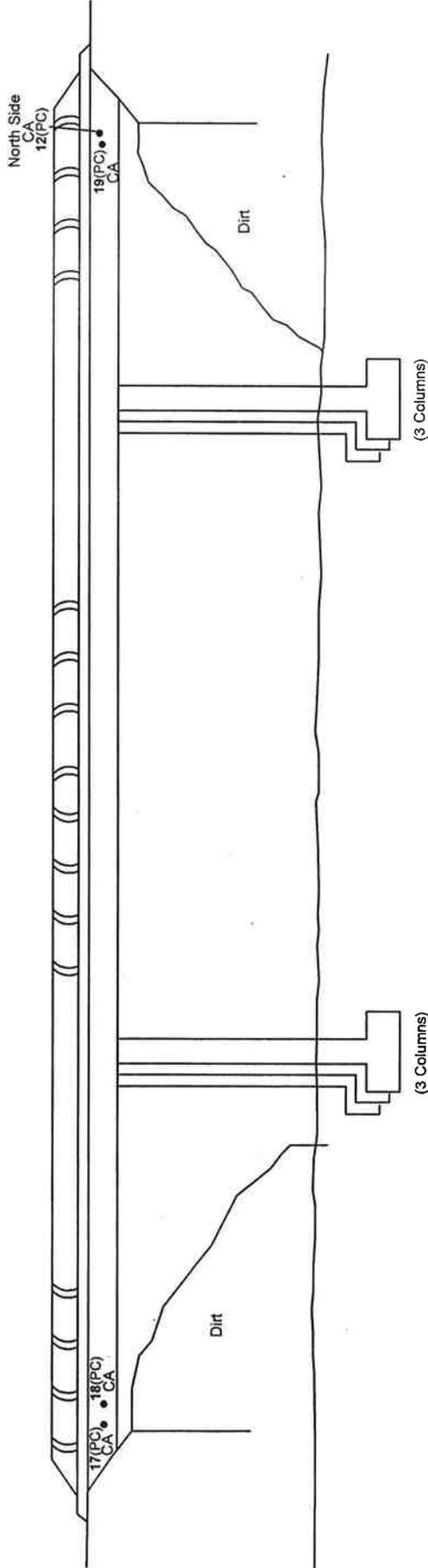


**LEGEND:**

- APPROXIMATE SAMPLE LOCATION
- 01(PC) LEAD-BASED PAINT CHIP SAMPLE
- IB I-BEAM SAMPLES
- CB CROSS BEAM



CALTRANS TASK ORDER NO. 26 THREE BRIDGES ON INTERSTATE 15 BASIN ROAD OVERCROSSING IN SAN BERNARDINO COUNTY		SAMPLE LOCATION MAP		FIGURE: <h1 style="font-size: 2em;">3a</h1>
JOB NUMBER: T85802056	DRAWN BY: KD	CHECKED BY: AP	APPROVED BY:	DATE: 07/10/09



**LEGEND:**

- (( )) GUARDRAIL POSTS
- Ø1(PC) LEAD-BASED PAINT CHIP SAMPLE
- APPROXIMATE SAMPLE LOCATION
- CA CONCRETE ABUTMENT SAMPLES
- IB I-BEAM SAMPLES

NOT TO SCALE

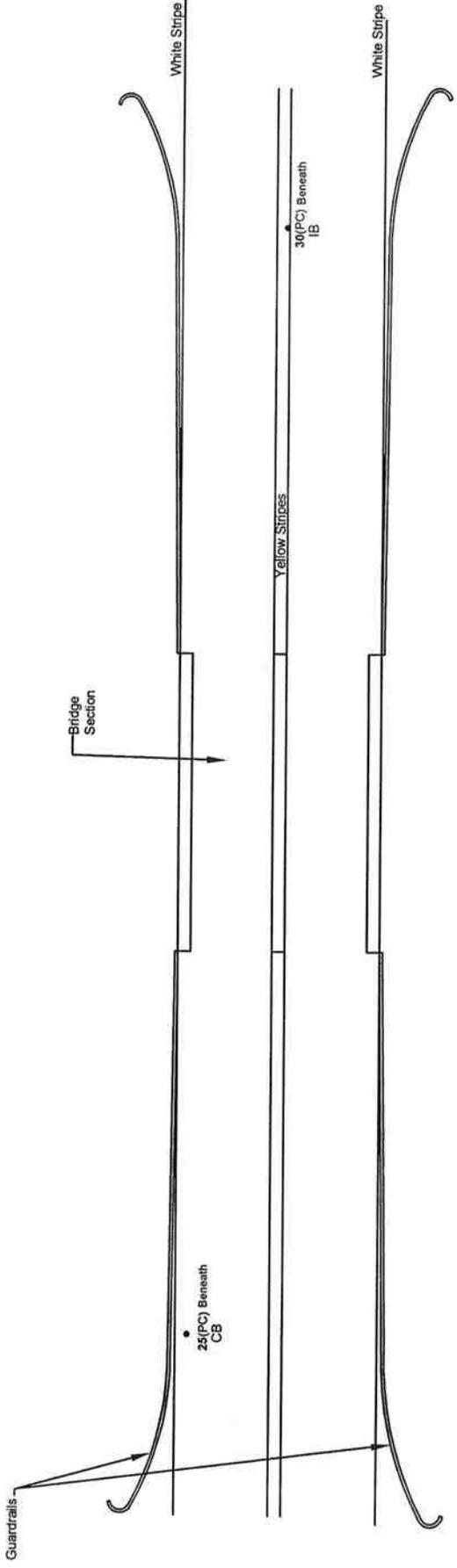
FIGURE:

**3b**

**SAMPLE LOCATION MAP - SECTION VIEW**

CALTRANS TASK ORDER NO. 26  
THREE BRIDGES ON INTERSTATE 15  
BASIN ROAD OVERCROSSING  
IN SAN BERNARDINO COUNTY

JOB NUMBER: 185802056	DRAWN BY: KD	CHECKED BY: AP	APPROVED BY:	DATE: 07/10/09
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**LEGEND:**

- APPROXIMATE SAMPLE LOCATION
- 01(PC) LEAD-BASED PAINT CHIP SAMPLE
- CB CROSS BEAM SAMPLES
- IB I-BEAM SAMPLES

CALTRANS TASK ORDER NO. 26 THREE BRIDGES ON INTERSTATE 15 RASOR ROAD OVERCROSSING IN SAN BERNARDINO COUNTY		SAMPLE LOCATION MAP		FIGURE: <b>4a</b>
JOB NUMBER: 185802056	DRAWN BY: KD	CHECKED BY: AP	APPROVED BY:	DATE: 07/10/09

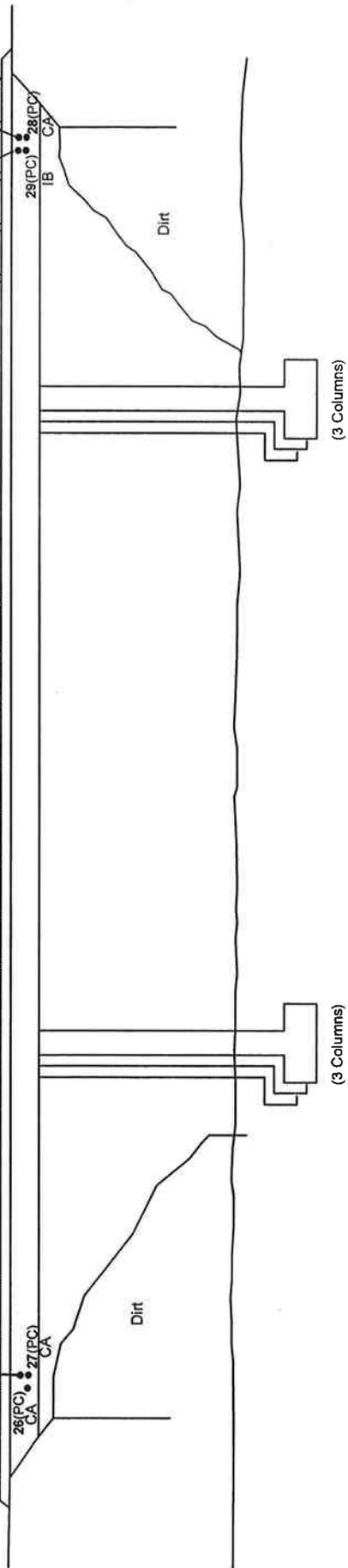


North Side  
IB  
24(PC)

North Side  
IB  
23(PC)

26(PC)  
CA  
27(PC)  
CA

28(PC)  
IB  
29(PC)  
CA



LEGEND:

(( )) GUARDRAIL POSTS

01(PC) LEAD-BASED PAINT CHIP SAMPLE

• APPROXIMATE SAMPLE LOCATION

CA CONCRETE ABUTMENT SAMPLES

IB I-BEAM SAMPLES

NOT TO SCALE

FIGURE:

SAMPLE LOCATION MAP - SECTION VIEW

4b

CALTRANS TASK ORDER NO. 26  
THREE BRIDGES ON INTERSTATE 15  
RASOR ROAD OVERCROSSING  
IN SAN BERNARDINO COUNTY

JOB NUMBER:  
185802056

DRAWN BY:  
KD

CHECKED BY:  
AP

APPROVED BY:

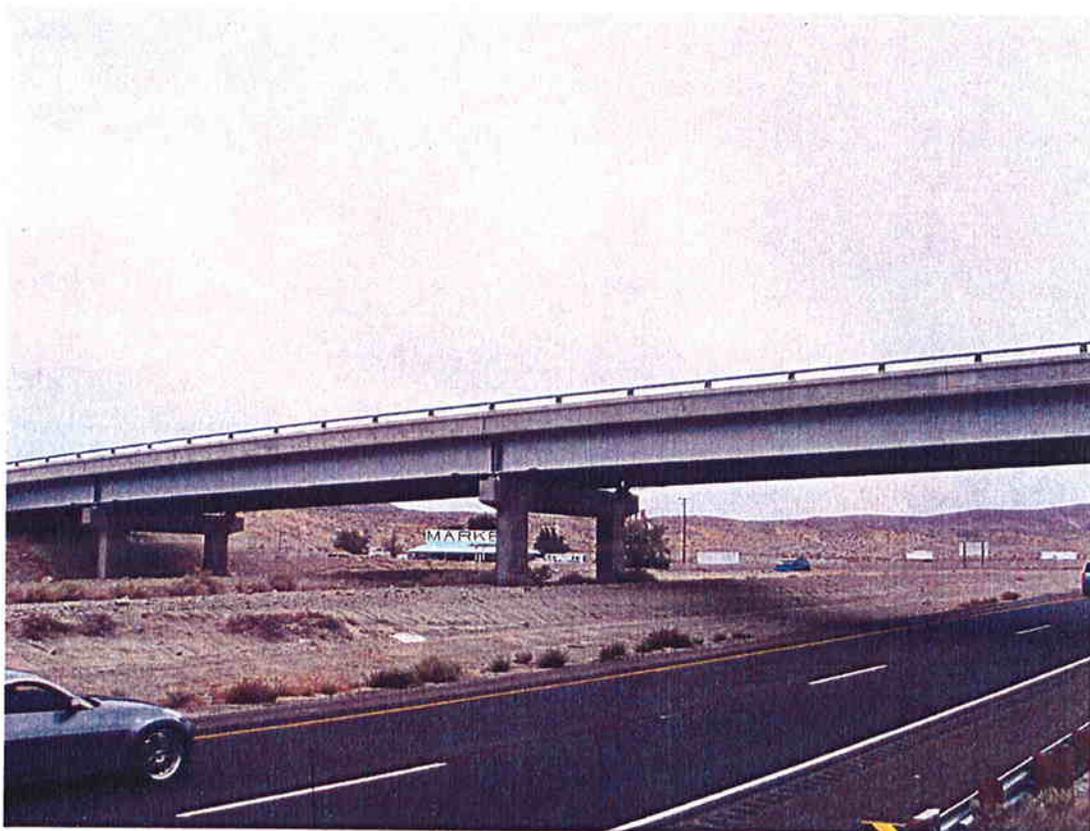
DATE:  
07/10/09

## 6.0 PHOTOGRAPHIC LOG

**PHOTOGRAPHIC LOG FOR:  
Three Over-Crossing Bridge Project along Interstate-15, Task Order No. 26**



**Photograph No. 1**  
CalTrans signage on Afton Over-Crossing Bridge.



**Photograph No. 2**  
View of Afton Over-Crossing Bridge, facing north, silver I-Beam paint sampled.

**PHOTOGRAPHIC LOG FOR:  
Three Over-Crossing Bridge Project along Interstate-15, Task Order No. 26**

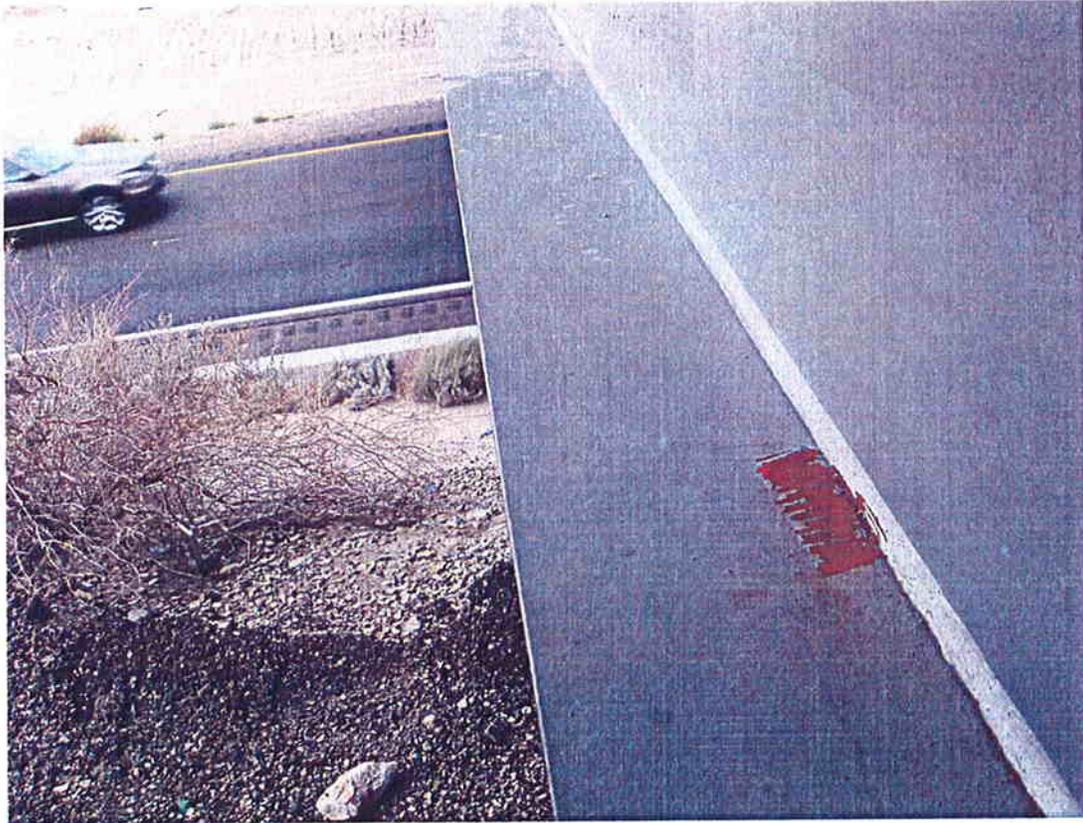


**Photograph No. 3**  
View of top side of Afton Over-crossing Bridge.



**Photograph No. 4**  
View of gray graffiti cover paint sampled on abutment of Afton Over-crossing Bridge.

**PHOTOGRAPHIC LOG FOR:  
Three Over-Crossing Bridge Project along Interstate-15, Task Order No. 26**



**Photograph No. 5**

View of I-Beam silver paint sampled and orange primer on Afton Over-Crossing Bridge.



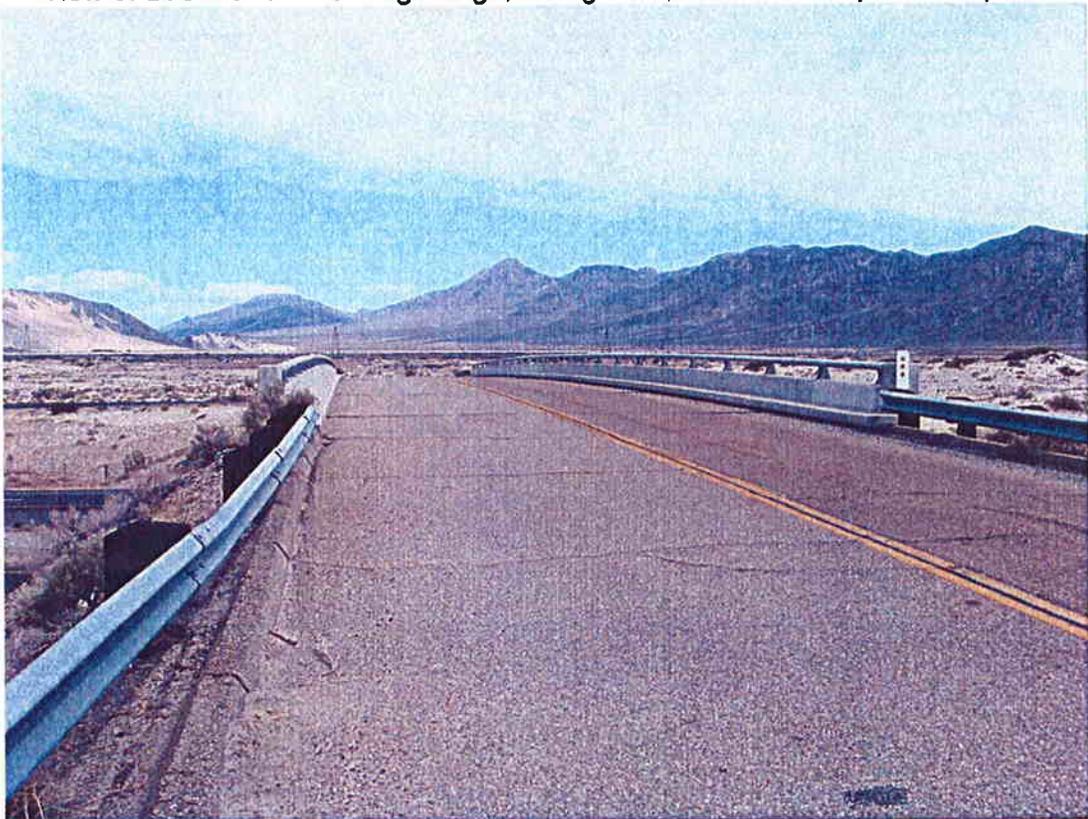
**Photograph No. 6**

CalTrans signage on Basin Over-Crossing Bridge.

**PHOTOGRAPHIC LOG FOR:  
Three Over-Crossing Bridge Project along Interstate-15, Task Order No. 26**



**Photograph No. 7**  
View of Basin Over-Crossing Bridge, facing west, silver I-Beam paint sampled.



**Photograph No. 8**  
View of top side of Basin Over-crossing Bridge, facing west.

**PHOTOGRAPHIC LOG FOR:  
Three Over-Crossing Bridge Project along Interstate-15, Task Order No. 26**



**Photograph No. 9**

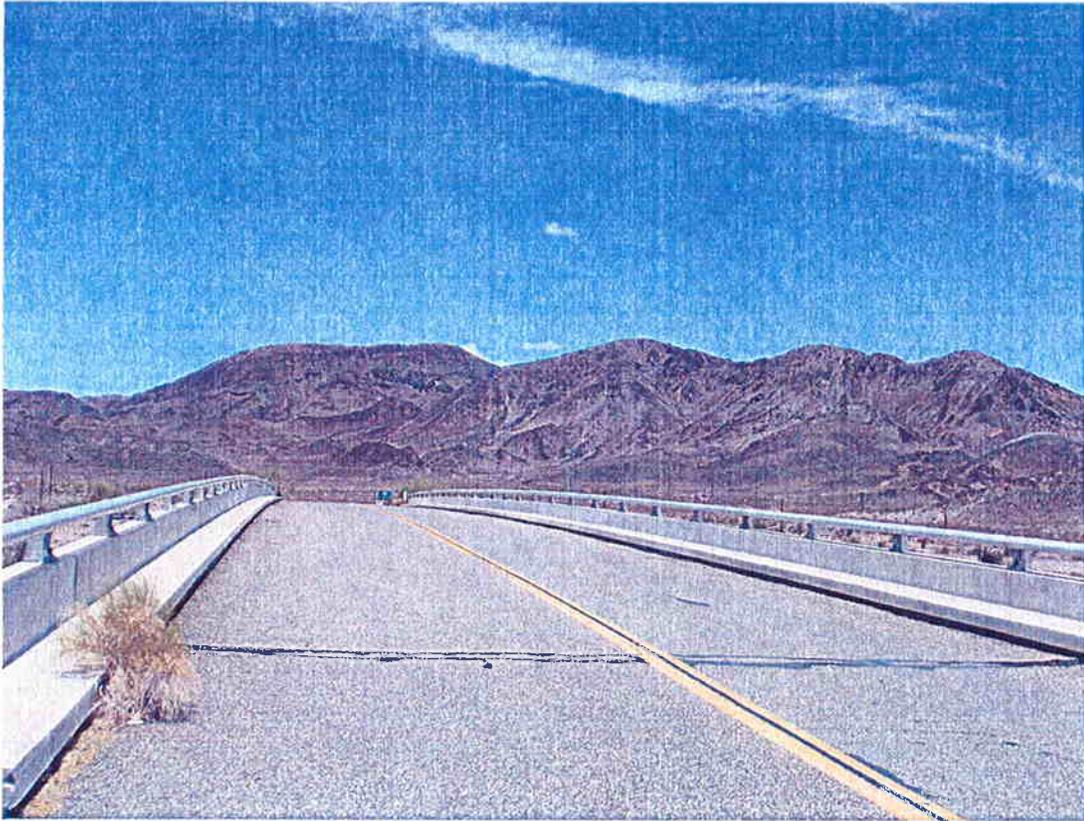
View of white graffiti cover paint sampled on abutment of Basin Over-crossing Bridge.



**Photograph No. 10**

View of silver painted I-Beams and cross-beams (both sampled) on Basin Over-Crossing Bridge.

**PHOTOGRAPHIC LOG FOR:  
Three Over-Crossing Bridge Project along Interstate-15, Task Order No. 26**

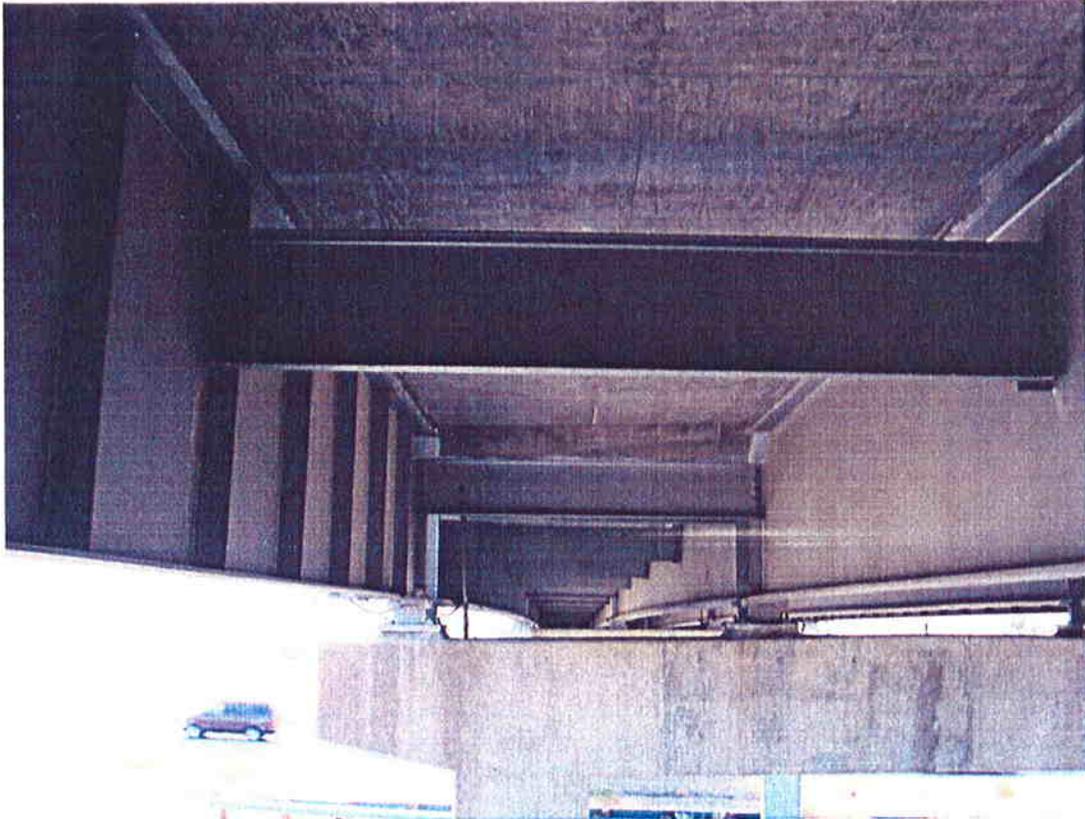


**Photograph No. 11**  
View of top side of Razor Over-crossing Bridge, facing west.



**Photograph No. 12**  
View of white and gray graffiti cover paint sampled on abutment of Razor Over-crossing Bridge.

**PHOTOGRAPHIC LOG FOR:  
Three Over-Crossing Bridge Project along Interstate-15, Task Order No. 26**



**Photograph No. 5**

View of silver painted I-Beam and cross beams (both sampled) on Rasor Over-Crossing Bridge.

## 7.0 ASSESSMENT RESULTS

### 7.1 LEAD-BASED PAINT SURVEY

The Cal-OSHA Lead Standard (the "Standard") states that work which involves the disturbance of materials containing more than 0.5 percent lead by weight, or 5,000 ppm, or if the permissible exposure limit of airborne lead particulate of 50 micrograms per cubic meter of air is exceeded, then the work must be conducted in accordance with the Standard.

An inspection of the bridge components was conducted to evaluate the condition of painted surfaces and random surfaces suitable for lead-based paint sampling. Table 2 and the attached Figures identify the areas where lead-based paint samples were collected.

Below are the results of the representative paint chip samples collected and analyzed:

- ❖ **White, Tan and Gray Graffiti Cover Paint –**
  - Pb reported from below the reporting limit to 1,380 mg/kg (0.138 Pb% by weight)
  - Concentrations below the action levels of 5,000 ppm or 0.5 Pb% by weight.
  
- ❖ **Silver I-Beam and Cross-Beam Paint –**
  - Pb reported between 362,000 and 586,000 mg/kg (36.2 & 58.6 Pb% by weight)
  - Concentrations above the action levels of 5,000 ppm or 0.5 Pb% by weight.

The results of the representative paint chip samples that exceed HUD/Cal-OSHA action levels of 0.5 percent lead by weight, or 5,000 ppm are described below.

- **Afton Road Over-crossing Bridge (No. 54-0364)**
  - I-Beams and Cross-Beams silver paint:
    - Condition: mostly intact, minimal flaking/peeling, and
    - Estimated quantity: ~ 17,416 square feet.
  
- **Basin Over-crossing Bridge (No. 54-0383)**
  - I-Beams and Cross-Beams silver paint:
    - Condition: mostly intact, minimal flaking/peeling, and
    - Estimated quantity: ~ 14,681 square feet.
  
- **Rasor Over-crossing Bridge (No. 54-0391)**
  - I-Beams and Cross-Beams silver paint:
    - Condition: mostly intact, minimal flaking/peeling, and
    - Estimated quantity: ~ 17,640 square feet.

In addition to the above, the following may also qualify as hazardous waste based on California TTLC (Pb >1000 mg/kg), STLC (Pb >5 mg/L), or Federal TCLP (>5 mg/L) if stripped and disposed separately from the painted structural components.

- **Afton Road Over-crossing Bridge (No. 54-0364)**
  - Gray graffiti on concrete abutment
  - Tan graffiti on concrete abutment

- **Basin Over-crossing Bridge (No. 54-0383)**
  - White graffiti on concrete abutment
  
- **Rasor Over-crossing Bridge (No. 54-0391)**
  - White graffiti on concrete abutment

In general, total lead concentrations in excess of 50 mg/kg are suspected to exhibit soluble concentrations in excess of the California STLC when extracted using the California Waste Extraction Test. Similarly, total concentrations in excess of 100 mg/kg are suspected to exhibit soluble concentrations in excess of the federal toxicity characteristic level when analyzed by the toxicity characteristic leaching potential (TCLP) method.

Table 2 and the attached figures identify the areas where lead-based paint samples were collected. Paint chips were removed to the substrate. EMC Analytical Laboratories of Phoenix, Arizona, analyzed the samples. All samples were analyzed by EMC SOP Method #L01/1, after US EPA SW-846 Method 7420.

## **7.2 LEAD-BASED PAINT RECOMMENDATIONS**

The Cal-OSHA Lead Standard states that work which involves the disturbance of materials containing more than 0.5 percent lead by weight (5,000 ppm), or if the permissible exposure limit of airborne lead particulate of 50 micrograms per cubic meter of air is exceeded, then the work must be conducted in accordance with the standard.

Representative paint chip samples were collected for laboratory testing. Out of the total thirty (30) paint chip samples collected along the three over-crossing bridges located on Interstate-15, all of the silver I-beam and silver cross-beam paint was found to contain lead greater than 5,000 ppm or 0.5% lead by weight. Removal of the I-Beam and Cross-Beam LBP should be performed in accordance with OSHA Standards (29CFR 1926.62 App. A) for workers exposed to lead through inhalation, and conducted by an abatement company certified by the State of California Department of Health Services. The stripped paint would be considered a hazardous waste and should be disposed of accordingly.

If the paint is stripped, the paint should be containerized, tested, and profiled for disposition as potential hazardous waste. To minimize additional handling and costs associated with hazardous waste, the non-flaky painted structural components may be disposed as a composite waste. If structural components are disposed with paint coating intact it is unlikely that such wastes will qualify as a hazardous waste. In such cases, it is unlikely that the waste would qualify as a hazardous waste based on the volume of other structural components with respect to the volume of lead-based paint.

## 9.0 CLOSURE

The conclusions and recommendations contained in this report/assessment are based upon professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted engineering standards and practices applicable to this location and are subject to the following inherent limitations:

The data and findings presented in this report are valid as of the dates when the investigations were performed. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.

The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Work outlined in the Work Plan dated June 1, 2009.

Unless otherwise stated in the report, because of the limitations stated above, the findings observations, and conclusions expressed in this report are not, and should not be, considered an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state or local law or regulation.

No warranty or guarantee, whether express or implied, is made with respect to the data or the reported findings, observations, and conclusions, all of which, however, accurately reflect site conditions in existence at the time of investigation.

This report presents professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, state or local governmental agencies. Any use constitutes acceptance of the limits of liability. The report preparer's liability extends only to those parties contracted to complete this project and not to any other parties who may obtain the Report. Issues raised by the report should be reviewed by appropriate legal counsel.

This report is based, in part, on unverified information supplied to the report preparer by third-party sources. While efforts have been made to substantiate this third-party information, the report preparer cannot guarantee its completeness or accuracy.

## TABLES

**TABLE 1**

**Lead-Based Paint Sample Log and Analysis Results  
Three Bridges along Interstate 15**

SAMPLE NUMBER	SAMPLE LOCATION	MG Pb/KG	% Pb/BY WEIGHT
<b>The following Paint Chip Samples were collected from: Afton Road Over-crossing # 54-0364</b>			
01PC	Tan Graffiti Cover Paint NE Side, Concrete Abutment	<140	<0.014
02PC	Silver I-Beam Paint NE Side	435,000	43.5
03PC	Gray Graffiti Cover Paint NE Side, Concrete Abutment	290	0.029
04PC	Silver I-Beam Paint 465, SE Side	465,000	46.5
05PC	White Graffiti Cover Paint NW Side, Concrete Abutment	<150	<0.015
06PC	Silver I Beam Paint SW Side	482,000	48.2
07PC	Silver I-Beam Paint NW Side	362,000	36.2
08PC	Gray Graffiti Cover Paint SE Side, Concrete Abutment	140	0.014
09PC	Tan Graffiti Cover Paint SW Side, Concrete Abutment	360	0.036
10PC	Silver I-Beam Paint SW Side	13	0.013
11PC	Silver I-Beam Paint SW Side	140	0.014
<b>The following Paint Chip Samples were collected from: Basin Road Over-crossing # 54-0383</b>			
12PC	White Graffiti Cover Paint NE Side, Concrete Abutment	920	0.092
13PC	Silver I-Beam Paint NE Side	586,000	58.6
14PC	Silver I-Beam Paint NW Side	477,000	47.7
15PC	Silver I-Beam Paint SW Side	426,000	42.6
16PC	Silver I-Beam Paint NW Side	145,000	14.5
17PC	White Graffiti Cover Paint SW Side, Concrete Abutment	1030	0.103
18PC	White Graffiti Cover Paint SW Side, Concrete Abutment	260	0.026
19PC	White Graffiti Cover Paint SE Side, Concrete Abutment	1380	0.138

**TABLE 1 (Continued)**  
**Asbestos Sample Log and Analysis Results**

SAMPLE NUMBER	SAMPLE LOCATION	MG Pb/KG	% Pb/BY WEIGHT
20PC	Silver I-Beam Paint SE Side	389,000	38.9
21PC	Silver Cross-Beam Paint SE Side	411,000	41.1
<b>The following Paint Chip Samples were collected from: Rasor Road Over-crossing # 54-0391</b>			
22PC	White Graffiti Cover Paint NE Side, Concrete Abutment	430	0.043
23PC	Silver I-Beam Paint NE Side	264,000	26.4
24PC	Silver I-Beam Paint NW Side	456,000	45.6
25PC	Silver Cross-Beam Paint NW Side	492,000	49.2
26PC	White Graffiti Cover Paint SW Side, Concrete Abutment	1,210	0.121
27PC	White Graffiti Cover Paint SW Side, Concrete Abutment	590	0.059
28PC	White Graffiti Cover Paint SE Side, Concrete Abutment	580	0.058
29PC	Silver I-Beam Paint SE Side	508,000	50.8
30PC	Silver I-Beam Paint SE Side	374,000	37.4

Mg/Kg = Milligrams per Kilogram

Pb = Lead

BRL = Below Reportable Limits

Analytical documentation is in Appendix B. Paint Chip sample locations are depicted on the attached Figure.  
 Sample analyses completed by ECM SOP Method #L01/1, US EPA SW-846 Method 7420

**APPENDIX A  
QUALIFICATIONS**

CERTIFICATIONS  
TAMMY H. LAPP

State of California  
California Environmental Protection Agency  
Department of Toxic Substances Control  
**REGISTERED ENVIRONMENTAL ASSESSOR I**

Issued to: Tammy Lapp REA 106825

Annual Expires on: 6/30/2010

Signature:



State of California  
Division of Occupational Safety and Health  
**Certified Asbestos Consultant**

**Tammy Helen Lapp**

Name

Certification No. 01-2969

Expires on 07/20/10



This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

State of California Department of Public Health  
Lead-Related Construction Certificate

Inspector/Assessor **10/12/2010**



**Tammy H. Lapp**



ID #: **12810**

**Certificate of Completion**

**Stantec Consulting Corporation**  
is pleased to present this certificate to

**Tammy Lapp**

Who has successfully completed a course entitled  
**8-Hour Refresher Course, OSHA HAZWOPER Standard, 29 CFR 1910.120**  
held at **Stantec Consulting Corporation**,  
**Redlands, California** on **May 07, 2009**



*Paul*  
Paul A. Packer, EIT  
Director of Industrial Hygiene  
and Health & Safety Services

**Medical Certificate**

**Tammy Lapp**  
Name (Please Print)

Has been examined and found to be qualified in accordance with OSHA regulations to wear respirator protective equipment. A complete examination form for this person is on file at CONCENTRA, 5080 Spectrum Drive, Suite 1200W • Addison • TX • 75001

**10-26-08** **Dr. L. Kamphal**  
Date of examination Name of provider

*L. Kamphal MD*  
Signature of provider

**Heartsaver® First Aid**

**Tammy Lapp**

This card certifies that the above individual has successfully completed the objectives and skills evaluations in accordance with the curriculum of the AHA for Heartsaver First Aid Program.

Module Completed: **A B C D E**

**November 2007**  
Issue Date

**November 2009**  
Recommended Renewal Date

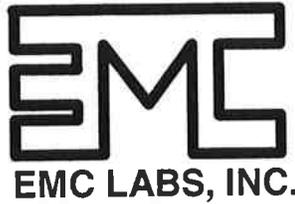


**API WorkSafe**

**Safety Key**

Name Tammy Lapp  
Company SECOR International, Inc.  
Completed 03-Jan-08 06:26  
Expires 23-Jan-09

**APPENDIX B**  
**ANALYTICAL LABORATORY REPORTS AND**  
**CHAIN-OF-CUSTODY RECORDS**



9830 South 51<sup>st</sup> Street, Suite B-109 / PHOENIX, ARIZONA 85044 / 480-940-5294 or 800-362-3373 / FAX 480-893-1726  
emclab@emclabs.com

**LEAD (Pb) IN PAINT CHIP SAMPLES**  
EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420

<b>EMC LAB #:</b> L35864		<b>DATE RECEIVED:</b> 06/09/09					
<b>CLIENT:</b> Stantec		<b>REPORT DATE:</b> 06/12/09					
		<b>DATE OF ANALYSIS:</b> 06/11/09					
<b>CLIENT ADDRESS:</b> 25864-F Business Center Drive Redland, CA 92374		<b>P.O. NO.:</b>					
<b>PROJECT NAME:</b> Afton Bridge CalTrans Task Order 26		<b>PROJECT NO.:</b>					
EMC # L35864-	SAMPLE DATE /09	CLIENT SAMPLE #	DESCRIPTION	REPORTING LIMIT INPPM	Pb IN PPM	REPORTING LIMIT (%Pb by weight)	%Pb BY WEIGHT
1	06/04	01PC	P/C-Tan-NE Concrete	140	BRL	0.014	BRL
2	06/04	02PC	P/C-Silver-NE-I Beam	11000	435000	1.1	43.5^^
3	06/04	03PC	P/C-Gray-NE-Concrete	150	290	0.015	0.029
4	06/04	04PC	P/C-Silver-SE-I Beam	10000	465000	1.0	46.5^^
5	06/04	05PC	P/C-White-NW- Concrete	150	BRL	0.015	BRL

^ = Dilution Factor Changed \* = Excessive Substrate May Bias Sample Results BRL = Below Reportable Limits # = Very Small Amount Of Sample Submitted, May Affect Result

This report applies to the standards or procedures identified and to the samples tested only. The test results are not necessarily indicative or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. Unless otherwise noted, all quality control analyses for the samples noted above were within acceptable limits.

Where it is noted that a sample with excessive substrate was submitted for laboratory analysis, such analysis may be biased. The lead content of such sample may, in actuality, be greater than reported. EMC makes no warranty, express or implied, as to the accuracy of the analysis of samples noted to have been submitted with excessive substrate. Resampling is recommended in such situations to verify original laboratory results.

These reports are for the exclusive use of the addressed client and are rendered upon the condition that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. Samples not destroyed in testing are retained a maximum of sixty (60) days.

**ANALYST:**   
Jason Thompson

**QA COORDINATOR:**   
Kurt Kettler 



9830 South 51<sup>st</sup> Street, Suite B-109 / PHOENIX, ARIZONA 85044 / 480-940-5294 or 800-362-3373 / FAX 480-893-1726  
emclab@emclabs.com

**LEAD (Pb) IN PAINT CHIP SAMPLES**  
EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420

<b>EMC LAB #:</b> L35864		<b>DATE RECEIVED:</b> 06/09/09					
<b>CLIENT:</b> Stantec		<b>REPORT DATE:</b> 06/12/09					
		<b>DATE OF ANALYSIS:</b> 06/11/09					
<b>CLIENT ADDRESS:</b> 25864-F Business Center Drive Redland, CA 92374		<b>P.O. NO.:</b>					
<b>PROJECT NAME:</b> Afton Bridge CalTrans Task Order 26		<b>PROJECT NO.:</b>					
EMC # L35864-	SAMPLE DATE /09	CLIENT SAMPLE #	DESCRIPTION	REPORTING LIMIT IN PPM	Pb IN PPM	REPORTING LIMIT (%Pb by weight)	%Pb BY WEIGHT
6	06/04	06PC	P/C-Silver-SW-I Beam	12000	482000	1.2	48.2^^
7	06/04	07PC	P/C-Silver-NW-I Beam	1800	362000	0.18	3.62^
8	06/04	08PC	P/C-Gray-SE-Concrete	100	140	0.010	0.014
9	06/04	09PC	P/C-Tan-SW-Concrete	160	360	0.016	0.036
10	06/04	10PC	P/C-Gray-SW-Concrete	100	130	0.010	0.013
11	06/04	11PC	P/C-Gray-SW-Concrete	110	140	0.011	0.014

^ = Dilution Factor Changed \* = Excessive Substrate May Bias Sample Results BRL = Below Reportable Limits # = Very Small Amount Of Sample Submitted, May Affect Result

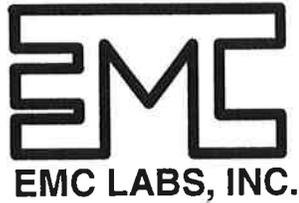
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**ANALYST:** \_\_\_\_\_

Jason Thompson

**QA COORDINATOR:** \_\_\_\_\_

Kurt Kettler



9830 South 51<sup>st</sup> Street, Suite B-109 / PHOENIX, ARIZONA 85044 / 480-940-5294 or 800-362-3373 / FAX 480-893-1726  
emclab@emclabs.com

**LEAD (Pb) IN PAINT CHIP SAMPLES**  
EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420

<b>EMC LAB #:</b> L35865		<b>DATE RECEIVED:</b> 06/09/09					
<b>CLIENT:</b> Stantec		<b>REPORT DATE:</b> 06/12/09					
		<b>DATE OF ANALYSIS:</b> 06/12/09					
<b>CLIENT ADDRESS:</b> 25864-F Business Center Drive Redland, CA 92374		<b>P.O. NO.:</b>					
<b>PROJECT NAME:</b> Basin Bridge/CalTrans Task Order 26		<b>PROJECT NO.:</b>					
EMC # L35865-	SAMPLE DATE /09	CLIENT SAMPLE #	DESCRIPTION	REPORTING LIMIT IN PPM	Pb IN PPM	REPORTING LIMIT (%Pb by weight)	%Pb BY WEIGHT
1	06/05	12PC	Paint Chip-White- Concrete NE	459	920	0.046	0.092
2	06/05	13PC	Paint Chip-Silver-NE-I Beam	10,800	586,000^^	1.1	58.6^^
3	06/05	14PC	Paint Chip-Silver-NW-I Beam	10,000	477,000^^	1.0	47.7^^
4	06/05	15PC	Paint Chip-Silver-NW-I Beam	19,200	426,000^^	1.9	42.6^^
5	06/05	16PC	Paint Chip-Silver-SW-I Beam	2,070	145000^	0.21	14.51^

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EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420

<b>EMC LAB #:</b> L35865		<b>DATE RECEIVED:</b> 06/09/09					
<b>CLIENT:</b> Stantec		<b>REPORT DATE:</b> 06/12/09					
		<b>DATE OF ANALYSIS:</b> 06/12/09					
<b>CLIENT ADDRESS:</b> 25864-F Business Center Drive Redland, CA 92374		<b>P.O. NO.:</b>					
<b>PROJECT NAME:</b> Basin Bridge/CalTrans Task Order 26		<b>PROJECT NO.:</b>					
EMC # L35865-	SAMPLE DATE /09	CLIENT SAMPLE #	DESCRIPTION	REPORTING LIMIT IN PPM	Pb IN PPM	REPORTING LIMIT (%Pb by weight)	%Pb BY WEIGHT
6	06/05	17PC	Paint Chip-White-SW- Concrete	321	1030	0.032	0.103
7	06/05	18PC	Paint Chip-White-SW- Concrete	105	260	0.010	0.026
8	06/05	19PC	Paint Chip-White-SE- Concrete	585	1380	0.058	0.138
9	06/05	20PC	Paint Chip-Silver-SE-I Beam	11,500	389,000^^	1.2	38.9^^
10	06/05	21PC	Paint Chip-Silver-SE- Cross Beam	10,000	411,000^^	1.0	41.1^^

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**ANALYST:**   
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**LEAD (Pb) IN PAINT CHIP SAMPLES**  
EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420

<b>EMC LAB #:</b> L35866				<b>DATE RECEIVED:</b> 06/09/09			
<b>CLIENT:</b> Stantec				<b>REPORT DATE:</b> 06/12/09			
				<b>DATE OF ANALYSIS:</b> 06/12/09			
<b>CLIENT ADDRESS:</b> 25864-F Business Center Drive Redland, CA 92374				<b>P.O. NO.:</b>			
<b>PROJECT NAME:</b> Razor Bridge/CalTrans Task Order 26				<b>PROJECT NO.:</b>			
EMC # L35866-	SAMPLE DATE /09	CLIENT SAMPLE #	DESCRIPTION	REPORTING LIMIT IN PPM	Pb IN PPM	REPORTING LIMIT (%Pb by weight)	%Pb BY WEIGHT
1	06/05	22PC	Paint Chip-White-NE- Concrete	112	430	0.011	0.043
2	06/05	23PC	Paint Chip-Silver-NE-I Beam	10000	264,000^^	1.0	26.4^^
3	06/05	24PC	Paint Chip-Silver-NW-I Beam	4260	456,000^	0.43	45.6^
4	06/05	25PC	Paint Chip-Silver-NW- Cross Beam	10000	492,000^^	1.0	49.2^^
5	06/05	26PC	Paint Chip-White-SW- Concrete	290	1210	0.029	0.121

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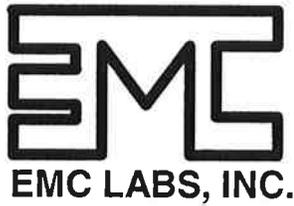
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**LEAD (Pb) IN PAINT CHIP SAMPLES**  
EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420

<b>EMC LAB #:</b> L35866				<b>DATE RECEIVED:</b> 06/09/09			
<b>CLIENT:</b> Stantec				<b>REPORT DATE:</b> 06/12/09			
<b>CLIENT ADDRESS:</b> 25864-F Business Center Drive Redland, CA 92374				<b>DATE OF ANALYSIS:</b> 06/12/09			
<b>PROJECT NAME:</b> Razor Bridge/CalTrans Task Order 26				<b>P.O. NO.:</b>			
<b>PROJECT NO.:</b>							
EMC # L35866-	SAMPLE DATE /09	CLIENT SAMPLE #	DESCRIPTION	REPORTING LIMIT IN PPM	Pb IN PPM	REPORTING LIMIT (%Pb by weight)	%Pb BY WEIGHT
6	06/05	27PC	Paint Chip-White-SW- Concrete	198	590	0.020	0.059
7	06/05	28PC	Paint Chip-White-SE- Concrete	223	580	0.022	0.058
8	06/05	29PC	Paint Chip-Silver-SE-I Beam	19,100	508,000^^	1.9	50.8^^
9	06/05	30PC	Paint-Chip-Silver-SE-I Beam	10,000	374,000^^	1.0	37.4^^

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**ANALYST:**   
Jason Thompson

**QA COORDINATOR:**   
Kurt Kettler

**CHAIN OF CUSTODY**  
 EMC Laboratories  
 9830 S. 51<sup>ST</sup> St., Ste B-109  
 Phoenix, AZ 85044  
 (800) 362-3373 Fax (480) 893-1726

LAB#: 235864  
 TAT: 3 days  
 Rec'd: JUN 09 AM

COMPANY NAME: **STANTEC**  
 25864-F Business Center Drive  
 Redland, CA 92374  
 CONTACT: Tammy Lapp  
 Phone/Fax: (909) 335-6116 x 2249/ (909) 335-6120  
 Email: tammy.lapp@stantec.com

BILL TO: (If Different Location)

FAXED JUN 12 2009

E-MAILED JUN 12 2009

Now Accepting: **VISA - MASTERCARD** Price Quoted: \$ \_\_\_\_\_ / Sample \$ \_\_\_\_\_ / Layers

**COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)**

1. **TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] **X** [3-Day] [5-Day] [6-10 Day]

\*\*\*\*Prior confirmation of turnaround time is required

\*\*\*\*Additional charges for rush analysis (please call marketing department for pricing details)

\*\*\*\*Laboratory analysis may be subject to delay if credit terms are not met

*0% & ppm*

2. **TYPE OF ANALYSIS:** [Bulk-PLM] [Air-PCM] **X** [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. **DISPOSAL INSTRUCTIONS:** **X** [Dispose of samples at EMC] / [Return samples to me at my expense]

*(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)*

4. **Project Name:** Afton Bridge CalTrans Task Order 26

**P.O. Number:** \_\_\_\_\_ **Project Number:** \_\_\_\_\_

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1	01 PC	6-4-09	Paintchip - TAN NE concrete	Y N			
2	02 PC	↓	Silver-NE - I Beam	Y N			
3	03 PC		gray-NE-concrete	Y N			
4	04 PC		Silver-SE - I Beam	Y N			
5	05 PC		White-NW- Concrete	Y N			
6	06 PC		Silver-SW - I Beam	Y N			
7	07 PC		Silver-NW - I Beam	Y N			
8	08 PC		gray-SE-concrete	Y N			
9	09 PC		Tan-SW-concrete	Y N			
10	10 PC		Gray-SW-concrete	Y N			
11	11 PC		Gray-SW-concrete	Y N			
					Y N		
				Y N			
				Y N			
				Y N			

**SPECIAL INSTRUCTIONS:**

Sample Collector: (Print) Tammy Lapp (Signature) [Signature]  
 Relinquished by: T. Lapp Date/Time: 6-8-09 Received by: [Signature] Date/Time: 6/9/09  
 Relinquished by: [Signature] Date/Time: 6/9/09 Received by: [Signature] Date/Time: 6/9/09  
 Relinquished by: [Signature] Date/Time: 6/11/09 10:30 Received by: [Signature] Date/Time: \_\_\_\_\_

\*\* In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

**CHAIN OF CUSTODY**  
 EMC Laboratories  
 9830 S. 51<sup>ST</sup> St., Ste B-109  
 Phoenix, AZ 85044  
 (800) 362-3373 Fax (480) 893-1726

LAB#:	L35865
TAT:	3 days
Rec'd:	JUN 09 AM

COMPANY NAME: STANTEC  
 25864-F Business Center Drive  
 Redland, CA 92374

CONTACT: Tammy Lapp  
 Phone/Fax: (909) 335-6116 x 2249/ (909) 335-6120  
 Email: tammy.lapp@stantec.com

BILL TO: \_\_\_\_\_ (If Different Location)

FAXED JUN 12 2009  
 E-MAILED JUN 12 2009

Now Accepting: **VISA - MASTERCARD** Price Quoted: \$ \_\_\_\_\_ / Sample \$ \_\_\_\_\_ / Layers

**COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)**

1. **TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] **X** [3-Day] [5-Day] [6-10 Day]

\*\*\*\*Prior confirmation of turnaround time is required

\*\*\*\*Additional charges for rush analysis (please call marketing department for pricing details)

\*\*\*\*Laboratory analysis may be subject to delay if credit terms are not met

0% + PPR

2. **TYPE OF ANALYSIS:** [Bulk-PLM] [Air-PCM] **X** [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. **DISPOSAL INSTRUCTIONS:** **X** [Dispose of samples at EMC] / [Return samples to me at my expense]

(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. <b>Project Name:</b> <u>Basin Bridge</u> <u>CalTrans Task Order 26</u>	
<b>P.O. Number:</b> _____	<b>Project Number:</b> _____

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1	12 PC	6-5-09	Paint Chip - white - concrete NE	Y N			
2	13 PC	↓	Silver - NE - I Beam	Y N			
3	14 PC		Silver - NW - I Beam	Y N			
4	15 PC		Silver - NW - I Beam	Y N			
5	16 PC		Silver - SW - I Beam	Y N			
6	17 PC		white - SW - concrete	Y N			
7	18 PC		white - SW - concrete	Y N			
8	19 PC		white SE - concrete	Y N			
9	20 PC		Silver - SE - I Beam	Y N			
10	21 PC		Silver - SE - Cross Beam	Y N			
					Y N		
				Y N			
				Y N			
				Y N			

**SPECIAL INSTRUCTIONS:**

Sample Collector: (Print) Tammy Lapp (Signature)

Relinquished by: T. Lapp Date/Time: 6-8-09 Received by: Diana Federico Date/Time: 6/9/09

Relinquished by: Diana Federico Date/Time: 6/9/09 Received by: [Signature] Date/Time: 6/9/09

Relinquished by: [Signature] Date/Time: 6/12/09 11:35 Received by: [Signature] Date/Time: \_\_\_\_\_

\*\* In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

**CHAIN OF CUSTODY**  
 EMC Laboratories  
 9830 S. 51<sup>ST</sup> St., Ste B-109  
 Phoenix, AZ 85044  
 (800) 362-3373 Fax (480) 893-1726

LAB#:	L35866
TAT:	3 days
Rec'd:	JUN 09 AM

COMPANY NAME: **STANTEC**  
 25864-F Business Center Drive  
 Redland, CA 92374

CONTACT: Tammy Lapp  
 Phone/Fax: (909) 335-6116 x 2249/ (909) 335-6120  
 Email: tammy.lapp@stantec.com

BILL TO: \_\_\_\_\_ (If Different Location)

FAXED JUN 12 2009

E-MAILED JUN 12 2009

Now Accepting: **VISA - MASTERCARD** Price Quoted: \$ \_\_\_\_\_ / Sample \$ \_\_\_\_\_ / Layers

**COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)**

1. **TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] X [3-Day] [5-Day] [6-10 Day]

\*\*\*\*Prior confirmation of turnaround time is required

\*\*\*\*Additional charges for rush analysis (please call marketing department for pricing details)

\*\*\*\*Laboratory analysis may be subject to delay if credit terms are not met

0.6 ppm

2. **TYPE OF ANALYSIS:** [Bulk-PLM] [Air-PCM] X [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. **DISPOSAL INSTRUCTIONS:** X [Dispose of samples at EMC] / [Return samples to me at my expense]

(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. **Project Name:** Razor Bridge CalTrans Task Order 26  
**P.O. Number:** \_\_\_\_\_ **Project Number:** \_\_\_\_\_

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1	22 PC	6-5-09	Paint Chip - White - NE - Concrete	Y N			
2	23 PC		Silver - NE - I Beam	Y N			
3	24 PC		Silver - NW - I Beam	Y N			
4	25 PC		Silver - NW - Cross Beam	Y N			
5	26 PC		White - SW - Concrete	Y N			
6	27 PC		White - SW - Concrete	Y N			
7	28 PC		White - SE - Concrete	Y N			
8	29 PC		Silver - SE - I Beam	Y N			
9	30 PC		Silver - SE - I Beam	Y N			
X					Y N		
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			

SPECIAL INSTRUCTIONS: \_\_\_\_\_

Sample Collector: (Print) Tammy Lapp (Signature) [Signature]

Relinquished by: T. Lapp Date/Time: 6-8-09 Received by: Diana Federico Date/Time: 6/9/09

Relinquished by: Diana Federico Date/Time: 6/9/09 Received by: [Signature] Date/Time: 6/7/9

Relinquished by: [Signature] Date/Time: 6/12/9 11:35 Received by: [Signature] Date/Time: \_\_\_\_\_

\*\* In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

**APPENDIX C**  
**LEAD HAZARD EVALUATION FORM**

**LEAD HAZARD EVALUATION REPORT****Section 1-Date of Lead Hazard Evaluation** June 5, 2009**Section 2-Type of Lead Hazard Evaluation** (Check one box only)

Lead inspection   
 Risk assessment   
 Clearance inspection   
 Other (specify) Pre Construction Testing

**Section 3-Structure Where Lead Hazard Evaluation Was Conducted**

Address [number, street, apartment (if applicable)]		City	County	ZIP code
Three Bridge Structures along I-15		Baker	San Bernardino	
Construction date (year) of structure	Type of structure (check one box only)			
Circa 1960's	<input type="checkbox"/> Single family dwelling <input type="checkbox"/> Multi-unit building <input type="checkbox"/> Child-occupied facility <input checked="" type="checkbox"/> Other (specify) <u>Painted Bridge Structures</u>			

**Section 4-Owner of Structure** (if business/agency, list contact person)

Name		Telephone number		
Dept. of Transportation/CalTrans District 8		( 909 ) 383-6472		
Address [number, street, apartment (if applicable)]		City	State	ZIP code
464 W. Fourth Street, 6th Floor		San Bernardino	CA	92401

**Section 5-Results of Lead Hazard Evaluation** (Check one box only)

**No lead-based paint detected.**

A lead inspection was conducted following the procedures outlined in Title 17, California Code of Regulations, Division 1 Chapter 8. No lead-based paint was detected during this lead inspection. This structure is found to be lead-based paint free.

**No lead hazards detected**

Lead hazard evaluation was conducted following the procedures outlined in Title 17, California Code of Regulations Division 1, Chapter 8. No lead hazards were detected.

**Lead-based paint and/or lead hazards detected.**

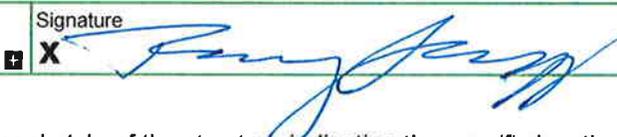
Lead hazard evaluation was conducted following the procedures outlined in Title 17, California Code of Regulations Division 1, Chapter 8. Lead-based paint and/or lead hazards were detected.

**Section 6-Individual Conducting Lead Hazard Evaluation**

Name		Telephone Number		
Ms. Tammy Lapp for Stantec Consulting, Inc.		( 909 ) 335-6116		
Address [number, street, apartment (if applicable)]		City	State	ZIP code
25864-F Business Center Drive		Redlands	CA	92374

Brand name and serial number of any portable x-ray fluorescence (XRF) instrument used (if applicable)

N/A Paint Chip Sampling

DHS certification number	Signature	Date
01-12810		June 26, 2009

**Section 7-Attachments**

- A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;
- Each testing method, device, and sampling procedure used;
- All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

Childhood Lead Poisoning Prevention Branch  
Reports  
850 Marina Bay Parkway, Building P, Third Floor  
Richmond, CA 94804-6403  
Fax: (510) 620-5656