# PHASE II ENVIRONMENTAL SITE ASSESSMENT

SEPTEMBER 2010

5859 FOOTHILL BOULEVARD OAKLAND, CALIFORNIA

Prepared for:

City of Oakland, Public Works Agency Environmental Services Division Oakland, California

Y8359-06.01540

#### ENVIRONMENTAL CONSULTING

17 September 2010 Y8359-06.01540

Mr. Mark Arniola, P.G. City of Oakland, Public Works Agency 250 Frank H. Ogawa Plaza, Suite 5301 Oakland, CA 94612

Subject: Phase II Environmental Site Assessment, 5859 Foothill Boulevard, Oakland, California

Dear Mr. Arniola:

Please find enclosed our report documenting the activities and findings of a Phase II Environmental Site Assessment ("ESA") performed at a property located at 5859 Foothill Boulevard in Oakland, California. The property is one of 12 properties that make up the Foothill Boulevard/Seminary Avenue Redevelopment Area. The Phase II ESA was performed under a Community-Wide Brownfield Assessment grant from the U.S. Environmental Protection Agency in accordance with the Sampling and Analysis Plan for 5859 Foothill Boulevard Oakland, California dated March 2010.

If you have any questions or comments, please contact us at your convenience.

EOF CALIFO

Sincerely,

Yane Nordhav

Principal

Professional Geologist No. 4009

Kegmald Raming Reginald Ramirez

Project Engineer

Professional Engineer C 72258

YN:RR:km

cc:

Wallace Woo, U.S. EPA

Eugenia E. McNaughton, Ph.D., U.S. EPA

Enclosure

## Phase II Environmental Site Assessment

SEPTEMBER 2010

## 5859 FOOTHILL BOULEVARD OAKLAND, CALIFORNIA

#### Prepared for:

City of Oakland, Public Works Agency Environmental Services Division Oakland, California

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**BASELINE Environmental Consulting** 5900 Hollis Street, Suite D, Emeryville, California 94608 (510) 420-8686

#### APPROVAL PAGE

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#### TABLE OF CONTENTS

		<u>Page</u>
ACR	ONYMS AND ABBREVIATIONS	
1.0	INTRODUCTION	1
2.0	BACKGROUND	2
3.0	FIELD ACTIVITIES	3
4.0	FIELD DOCUMENTATION	4
5.0	SAMPLE CONTAINERS, PACKAGING, AND SHIPPING	5
6.0	ANALYTICAL METHODS	6
7.0	ANALYTICAL RESULTS	6
8.0	DATA QUALITY EVALUATION	7
9.0	EVALUATION OF RESULTS AND CONCLUSIONS	8
10.0	DISPOSAL OF RESIDUAL MATERIALS	9
11.0	FIELD VARIANCES	10
12.0	HEALTH AND SAFETY PROCEDURES	10
13.0	LIMITATION	10
14.0	REFERENCES	11
	APPENDICES	
A: B: C: D: E: F:	Logs for Borings B-01 and B-02 Alameda County Public Works Agency Boring Permit Field Log, Photograph Log, and Photographs Laboratory Report Non-Hazardous Waste Manifest Site-Specific Health and Safety Plan	
	FIGURES	
1: 2: 3:	Vicinity Map Foothill Boulevard/Seminary Avenue Redevelopment Area Project Site Map	
	TABLES	
1: 2:	Soil Analytical Results – Total Petroleum Hydrocarbons Soil Analytical Results – Volatile Organic Compounds	

#### ACRONYMS AND ABBREVIATIONS

ACPWA Alameda County Public Works Agency BASELINE BASELINE Environmental Consulting

bgs below ground surface City City of Oakland

EPA U.S. Environmental Protection Agency

ESA Environmental Site Assessment

ESLs Regional Water Board Environmental Screening Levels

Fugro Fugro West, Inc.

HSP Health and Safety Plan mg/kg milligram per kilogram PID Photoionization Detector

ppm parts per million

Regional Water Board San Francisco Bay Regional Water Quality Control Board

RSL EPA Regional Screening Level SAP Sampling and Analysis Plan TPH Total Petroleum Hydrocarbon TPH-g TPH in the gasoline range TPH-d TPH in the diesel range TPH-mo TPH in the motor oil range VOC Volatile Organic Compound

#### PHASE II ENVIRONMENTAL SITE ASSESSMENT 5859 Foothill Boulevard Oakland, California

#### 1.0 INTRODUCTION

This report documents the activities and findings of a Phase II Environmental Site Assessment ("ESA") performed by BASELINE Environmental Consulting ("BASELINE"), on behalf of the City of Oakland, Public Works Agency ("City"), at a property located at 5859 Foothill Boulevard in Oakland, California ("Project Site") (Figures 1 and 2). The Project Site is one of 12 properties that make up the Foothill Boulevard/Seminary Avenue Redevelopment Area (Figure 2) which the City is proposing to redevelop into a mixed-use retail center. The Phase II ESA was performed under a Community-Wide Brownfield Assessment grant from the U.S. Environmental Protection Agency ("EPA") in accordance with the Sampling and Analysis Plan for 5859 Foothill Boulevard Oakland, California ("SAP"), prepared by BASELINE, dated March 2010. The draft SAP was approved by the EPA Region IX in a memorandum dated 18 February 2010. Deviations from the SAP are discussed in Section 11, Field Variance, of this report.

The purpose of the Phase II ESA was to assess potential soil or groundwater impacts at the Project Site based on previous land uses in the vicinity that were associated with hazardous materials, including dry cleaner facilities, an auto repair garage, and a gasoline service station (Fugro, 2008). The Phase II ESA was performed to provide information on the potential presence of contaminants in soil or groundwater underlying the Project Site that could pose a significant health risk to future users based on the proposed land use. Specifically, the Phase II ESA was performed to evaluate the following questions:

- Does the soil at the Project Site contain total petroleum hydrocarbons ("TPH") or volatile organic compounds ("VOCs") at concentrations that would pose a threat to future construction workers?
- Does the soil at the Project Site contain TPH or VOCs at concentrations that would indicate a potential vapor intrusion concern in future buildings on the Project Site?
- Does the groundwater at the Project Site contain TPH or VOCs at concentrations that would indicate a potential vapor intrusion concern in future buildings on the Project Site?

To obtain the information needed, the *SAP* proposed to: 1) collect soil and groundwater samples from the Project Site and analyze for TPH and VOCs; and 2) screen analytical results against screening values developed by the California Regional Water Quality Control Board, San Francisco Bay Region ("Regional Water Board") or the EPA. Based on the findings of the

-1-

<sup>&</sup>lt;sup>1</sup> The Phase II ESA assumed that the proposed redevelopment project would require excavations and that a building would be constructed on the Project Site. At the time the Phase II ESA was performed, the proposed redevelopment project was in the planning stage and engineering designs had not been prepared.

Phase II ESA, conclusions regarding the potential risk to construction workers and future users of the Project Site were developed.

#### 1.1 Project Site

The City is planning to redevelop the Foothill Boulevard/Seminary Avenue Redevelopment Area into a mixed-use area that will include housing and retail space. The Foothill Boulevard/Seminary Avenue Redevelopment Area is bounded by Foothill Boulevard to the north, Seminary Avenue to the east, Bancroft Avenue to the south, and private properties to the west (Figure 2). The two-acre Foothill Boulevard/Seminary Avenue Redevelopment Area is made up of 12 properties that have been used for various commercial activities, including a dry cleaner and an auto repair garage (Fugro, 2008) (Figure 2). These land uses likely involved storage, use, and/or disposal of hazardous materials such as solvents, degreasers, fuels, and other petroleum-based products.

The Project Site occupies a surface area of approximately 2,827 square feet (Figure 2). The Project Site is identified by the Alameda County Assessor's Office as Parcel No. 038-3182-001. The Project Site is bounded by Foothill Boulevard to the northeast, Seminary Avenue to the southeast, and properties now owned by the City to the southwest and northwest (Figure 2). The Project Site previously contained a two-story wood frame building (Fugro, 2008); this building was demolished by the City prior to initiation of field activities described in this document.

#### 1.2 Project Proponent and Consultant

The City is the agency responsible for managing the Community-Wide Brownfield Assessment grant and environmental assessments performed under the grant. The EPA provides technical review and advice to the City and ensures that assessments performed under the Community-Wide Brownfield Assessment grant meet EPA requirements.

The City retained BASELINE to perform an environmental assessment in accordance with the requirements of the EPA Brownfields program. BASELINE is a multi-disciplinary environmental consulting firm established in 1985; its professional staff consists of engineers, geologists, and hydrogeologists. BASELINE retained RSI Drilling, a California-licensed driller, to advance proposed borings; Curtis & Tompkins, Ltd, a California-certified analytical laboratory, to perform analyses on samples collected from the Project Site; and Clearwater Environmental Management, Inc. ("Clearwater") to dispose of soil and water wastes derived during the field investigation.

#### 2.0 BACKGROUND

#### 2.1 Operational History and Previous Investigations

The following information on the site history is based on a Phase I ESA performed by Fugro West, Inc. ("Fugro") for the Project Site in 2008 (Fugro, 2008).

Sanborn Fire Insurance Maps indicated that the former building on the Project Site was constructed between 1912 and 1925. A review of historical business directories indicated that the Project Site was occupied by May Drug Company from 1933 to 1975, William M Molitor

Drugs in 1943, Candy's in 1980, and M&M Enterprises in 1992. The owner of the Project Site at the time the Phase I ESA was performed was Community Fund, LLC.

The ground floor of the building was used in the past as a drug store, commercial offices, and church. At the time the Phase I ESA was conducted, the lower floor was vacant and the upper floor contained two residential apartments. Based on the information provided in the Phase I ESA, hazardous materials were not used or stored at the Project Site.

The Phase I ESA identified 18 dry cleaner facilities and one former gasoline service station within 1/8 mile of the Project Site. Based on the findings of the Phase I ESA, further assessment of the Project Site was recommended to determine whether the subsurface of the Project Site had been impacted by petroleum hydrocarbons or VOCs. No other environmental investigations have been performed at the Project Site.

#### 2.2 Geological Information

Based on soil stratigraphy information gathered during this field investigation, the Project Site is underlain by stiff fine-grained materials consisting predominantly of clay to 36 feet below ground surface ("bgs"), the maximum depth explored. Groundwater was not encountered in borings advanced during field investigation. The boring logs from the borings indicate that at 11.5 feet bgs, the clays were "wet" and at greater depths "moist." This may suggest a seasonal shallow groundwater table. Based on the topography in the vicinity of the Project Site, groundwater (which may be present at a shallower depth during the rainy season) would be expected to flow to the southwest toward a creek. Logs for borings advanced during field investigation are included in Appendix A.

#### 2.3 Impact on Human Health and/or the Environment

The Phase I ESA performed by Fugro (2008) identified multiple potential sources of contaminants within 1/8 mile of the Project Site. Contaminants in soil at the Project Site, if present, could result in adverse health effects for construction workers during redevelopment through direct exposure to the soil. Once the Project Site is redeveloped, future commercial or residential users would not likely have exposure to the soil. However, vapors from VOCs, if present in the soil or groundwater, could migrate into future buildings at concentrations that could adversely affect human health.

#### 3.0 FIELD ACTIVITIES

#### 3.1 Preparation for Field Activities

Prior to field activities, BASELINE obtained a boring permit from the Alameda County Public Works Agency ("ACPWA") and contacted Underground Service Alert to mark underground utilities at the Project Site. A copy of the boring permit is included in Appendix B.

#### 3.2 Field Screening

Prior to sampling, BASELINE calibrated a photoionization detector ("PID") to 100 parts per million ("ppm") isobutylene in accordance with manufacturer's specifications. No calibration problems were observed. The PID was used to screen soil samples for the presence of VOCs.

#### 3.3 Soil Sampling and Field Screening

On 8 July 2010, RSI Drilling advanced two borings (B-01 and B-02 on Figure 3) on the Project Site using a direct-push drill rig. The locations of the borings were spaced approximately at equal distances across the Project Site to provide maximum coverage while minimizing cost. Boring advancement was performed under the direct supervision of a BASELINE Professional Geologist. Soil samples were collected from both borings using new four-foot long 1.25-inch clear dual-tube plastic liners. The four-foot long liners were advanced into the ground at four-foot intervals. Once the target depth was reached, the plastic liner was retrieved and the stratigraphy of the soil in the liner was logged by the BASELINE Professional Geologist in accordance with the Unified Soil Classification System (see Section 5.0 Sample Containers, Packaging, and Shipping, for a discussion of samples retained for chemical analysis).

Borings B-01 and B-02 were advanced to depths of 36 and 12 feet bgs, respectively (Figure 3). Logs for borings B-01 and B-02 are included in Appendix A.

The PID did not detect any VOCs in soil samples from borings B-01 and B-02 above 0 ppm (see Figure 3 for boring locations). The results of field screening are documented on boring logs included in Appendix A.

#### 3.4 Groundwater Sampling

Groundwater was not encountered in borings B-01 and B-02 (Figure 3). The borings were intended to extend 5 feet below the first encountered groundwater. Wet clays were observed in boring B-01 around 11.5 feet bgs, however at 16.5 feet bgs, no groundwater had accumulated in the boring. Boring B-01 was extended until refusal at 36 feet bgs. The core casing was removed and a temporary well casing was placed in the boring but groundwater still did not accumulate. Since the wet zone at 11.5 feet may represent the seasonal groundwater table, a soil sample was collected at 11.0 feet bgs to determine if the soil contained residual contaminants. The second boring, B-02, was extended to below the wet zone to a depth of 12 feet bgs and also did not accumulate groundwater. A soil sample was also collected from this boring at 11.0 feet bgs. Due to the lack of accumulated groundwater available in the upper 36 feet, BASELINE was unable to collect groundwater samples during this field investigation.

#### 3.5 Decontamination Procedures

Sampling equipment that came in contact with soil (the outer barrel of the dual-tube sampler and extension rods) was decontaminated in between boring advancement using a steam cleaner. The decontamination rinsate water was collected in a retractable trough attached to the support truck. The decontamination rinsate water was transferred to a 55-gallon drum after sampling.

#### 4.0 FIELD DOCUMENTATION

#### 4.1 Field Log

BASELINE documented field activities and observations in a field log included in Appendix C. The field log was reviewed by the BASELINE Project Manager to confirm that correct sampling

procedures were adhered to and that field data were coherent. The field log contains the following information:

- Sample location and field-measured distances from fixed reference points;
- Temporary location of drums containing investigation-derived wastes;
- A sketch of the sampling area;
- Calibration information for air monitoring equipment;
- Time of arrival at the Project Site and time of departure from the Project Site;
- Other personnel on the Project Site (e.g., driller and ACPWA inspector);
- Level of safety protection; and
- Weather conditions.

#### 4.2 Photograph Log

BASELINE prepared a photograph log containing a brief description of subjects photographed during field activities. The photographs and a copy of the photograph log are included in Appendix C.

#### 5.0 SAMPLE CONTAINERS, PACKAGING, AND SHIPPING

Soil samples at depth intervals of 1.0 to 1.5, 5.0 to 5.5, and 11.0 to 11.5 feet bgs in both borings were cut from the respective liners and retained for chemical analyses. Soil samples for TPH in the gasoline range ("TPH-g") analysis and VOCs were collected from the retained six-inch liners by manually pushing Core N' One Capsules<sup>TM</sup> into the ends of the retained soil liner. Each soil sample for volatile analysis was collected in triplicate (i.e., six Core N' One Capsules were pushed into each soil liner, three Core N' One Capsules for TPH-g analysis and three Core N' One Capsules for VOC analysis). Each Core N' One Capsule was hermetically sealed with its own cap.

After the soil samples for volatile analysis had been collected, the ends of each six-inch soil liner were sealed with Teflon sheets, plastic end caps, and silicone tape (except for the soil sample collected from boring B-02 at depth interval of 11.0 to 11.5 feet bgs). Each soil sample was also labeled with the sampler's initials, date and time of collection, and unique sample identification then placed in a cooler containing ice.

A duplicate sample was collected from boring B-02 at depth interval of 11.0 to 11.5 feet bgs. This depth interval is considered a possible seasonal capillary zone based on field observations (see boring log in Appendix A). Therefore, contaminants would be expected to be present in this zone if groundwater were present. This soil sample was homogenized in a ziplock bag then transferred into two new wide-mouth glass jars. The duplicate sample was submitted "blind" to the laboratory (sample identified as B-03;11-11.5).

Following decontamination of the sampling equipment, BASELINE collected an equipment blank sample (sample identified as B-03) by pouring laboratory-provided deionized water through the tip of the sampler after it had been decontaminated. The equipment blank sample for TPH-g and VOC analyses was collected in six 40-milliliter ("ml") VOA bottles with hydrochloric acid (three bottles for each analysis). The equipment blank sample for TPH in the diesel ("TPH-d") and motor oil ("TPH-mo") range analysis was collected in two one-liter amber glass bottles with no preservative (see Section 8, Data Quality Evaluation, for a discussion on the analytical results for the equipment blank sample).

BASELINE collected a sample of the rinsate water (sample identified as DRUM) in one 250-ml poly bottle with no preservative. The rinsate water sample was preserved with nitric acid by the analytical laboratory (see Section 10, Disposal of Residual Materials, for a discussion on waste management).

BASELINE transported all soil and water samples to Curtis & Tompkins, Ltd. under chain-of-custody procedures on 8 July 2010.

#### 6.0 ANALYTICAL METHODS

All soil samples including the duplicate sample and the equipment blank sample were analyzed for:

- TPH-g in accordance with EPA Method 8015B;
- TPH-d and TPH-mo in accordance with EPA Method 8015B with silica gel clean up; and
- VOCs in accordance with EPA Method 8260B.

The decontamination rinsate sample was analyzed for Title 22 metals in accordance with EPA Methods 6010B and 7470A.

#### 7.0 ANALYTICAL RESULTS

The soil analytical results for TPH-g, TPH-d, TPH-mo, and VOCs are summarized in Tables 1 and 2, respectively. The results from the equipment blank sample and the rinsate water sample are discussed in Section 8, Data Quality Evaluation, and Section 10, Disposal of Residual Materials, respectively. Sampling locations are shown on Figure 3. The laboratory report for samples collected for the Phase II ESA is included in Appendix D.

#### 7.1 Petroleum Hydrocarbons

The seven soil samples, including the duplicate sample, did not contain TPH-g at or above laboratory reporting limits (Table 1). Out of the seven soil samples, four contained TPH-d (up to 1.9 milligrams per kilogram ["mg/kg"]) and one contained TPH-mo (7.4 mg/kg) above laboratory reporting limits (Table 1). The laboratory report indicated that the chromatographic pattern of the four soil samples containing TPH-d did not resemble the diesel standard (Table 1).

#### **7.2** Volatile Organic Compounds

The seven soil samples, including the duplicate sample, did not contain VOCs at or above laboratory reporting limits or method detection limits, where applicable (Table 2).

#### 8.0 DATA QUALITY EVALUATION

This section presents an evaluation of data quality indicators (i.e., precision, accuracy, representativeness, completeness, and comparability) for field and laboratory measurements to determine the viability and usability of the data.

#### 8.1 Precision

Precision is a measure of the reproducibility of data when multiple samples are collected and analyzed under the same set of conditions. In accordance with the *SAP* for the Project Site, BASELINE collected a field duplicate sample from boring B-02 at depth interval of 11.0 to 11.5 feet bgs to assess field sampling precision and possible sample heterogeneity. The soil sample was homogenized in the field prior to placing the soil sample into two sampling containers. One sample was identified as the standard sample (B-02;11-11.5) and the other sample was provided with a fictitious identification (B-03;11-11.5). The standard and field duplicate samples were collected following the same sampling technique and analyzed by one analytical laboratory for the same analytical suite.

The standard sample and the field duplicate sample did not contain any target compounds at or above the laboratory reporting limits or method detection limits, where applicable. Therefore, the measurements performed on the standard and field duplicate samples were reproducible and the sampling technique employed in collecting soil samples did not affect the reproducibility of the data.

Laboratory precision is measured using laboratory quality control samples (e.g., blank spike, blank spike duplicate, matrix spike, and matrix spike duplicate). BASELINE reviewed the laboratory report for completeness and accuracy. The review indicated that the recoveries in laboratory quality control samples were within limits and the relative percent differences between the spikes and spike duplicates were within limits. The review of the laboratory report is documented in the Quality Control Checklist for Review of Laboratory Report included in Appendix D.

#### 8.2 Accuracy

Accuracy is the difference between a measured value and an accepted reference or true value. In accordance with the *SAP* for the Project Site, BASELINE collected an equipment blank sample (B-03) in between boring advancement. The equipment blank sample did not contain any target compounds at or above laboratory reporting limits or method detection limits, where applicable. Therefore, the compounds identified in soil samples are not considered biased and the sampling process did not introduce any contaminants into samples.

The accuracy of laboratory data is evaluated using laboratory quality control samples (e.g., laboratory control spike, blank spike, blank spike duplicate, matrix spike, matrix spike duplicate,

and surrogate spikes) spiked with a known amount of compound. As mentioned above, the review of the laboratory report indicated that the recoveries in laboratory control samples were within limits. However, high surrogate recovery was observed for 1,8-dichloroethane-d4 in the equipment blank sample (B-03). No target analytes were detected in the sample at or above laboratory reporting limits and the recoveries for the corresponding surrogates dibromofluoromethane, toluene-d8, and bromofluorobenzene were within limits.

#### 8.3 Representativeness

Representativeness is the degree to which data accurately and precisely represent an environmental condition. In accordance with the SAP for the Project Site, BASELINE submitted a laboratory-prepared temperature blank to assess temperature-related sample preservation from the field to the laboratory. The acceptance criteria for the temperature blank is  $4^{\circ}C \pm 2^{\circ}C$ . The laboratory report indicated that the laboratory received the samples with the temperature blank at  $3.4^{\circ}C$ . Therefore, the samples submitted to the laboratory are considered representative of the conditions at the Project Site.

#### 8.4 Completeness

Completeness is a measure of the amount of valid data collected from a location compared to the amount that would be expected to be obtained under normal conditions. Data are considered valid when none of the criteria affecting data quality is exceeded. The Project Site completeness is calculated by dividing the number of usable data by the total number of data planned to be collected for this investigation, expressed in terms of percentage. The acceptance criteria for completeness established for the Project Site is 90 percent. Since no groundwater samples were collected, the Project Site completeness is 67 percent. However, the fact that groundwater was not encountered within the upper 36 feet means it is unlikely that there is a potential for vapor from groundwater to migrate into future buildings. Although the Project Site completeness did not meet the acceptance criteria, all soil data are considered valid and can be used to provide information to answer two out of the three questions listed in Section 1.0, Introduction.

#### 8.5 Comparability

Comparability is a measure of the confidence with which one data set can be compared to another. The comparability of data can be affected by variations in sampling techniques, analytical methods, and environmental conditions (e.g., weather/seasonal variation). Data comparability for the Phase II ESA was ensured by using the same sampling techniques, analytical method, and analytical laboratory for all samples collected from the Project Site. Weather/seasonal variation is not expected to affect data comparability since collection of all samples was completed in one day.

#### 9.0 EVALUATION OF RESULTS AND CONCLUSIONS

This section presents an evaluation of soil analytical results to determine whether contaminants identified in soil samples would pose a significant health and safety risk to construction workers and future users of the Project Site.

To assess the potential impact of contaminants in soil on construction workers and future users of the Project Site, the soil analytical results were screened against Environmental Screening

Levels ("ESLs") developed by the Regional Water Board (2008) for residential land use where groundwater is a current or potential drinking water source. Regional Screening Levels ("RSLs") for residential land use developed by the EPA were used for compounds for which ESLs have not been established (EPA, 2010). The ESLs and RSLs are considered protective of human health and the presence of a compound in soil at concentrations below the corresponding ESL or RSL can be considered not to pose a significant health risk to future users of the Project Site. Since the residential land use ESLs are less than the Regional Water Board's construction worker ESLs for the analytes tested, this screening will also be protective of future construction workers.

None of the soil samples contained petroleum hydrocarbons or VOCs above the respective ESLs or RSLs (Tables 1 and 2). Based on the soil analytical data collected for the Phase II ESA, the following conclusions were drawn:

- Soil samples collected from the Project Site did not contain any VOCs at or above laboratory reporting limits or method detection limits, where applicable; this includes the soil samples collected at the possible seasonal capillary zone (soil samples collected at depth interval of 11 to 11.5 feet bgs). Some of the soil samples collected from the Project Site contained TPH-d and TPH-mo above laboratory reporting limits but below ESLs for residential land use where groundwater is a current or potential drinking water source. Therefore, exposure of future construction workers to Project Site soils would not be expected to pose a significant health risk. In addition, a potential vapor intrusion concern in future buildings on the Project Site would be considered unlikely since VOCs were not identified in any of the soil samples.
- Groundwater was not encountered underneath the Project Site at 36 feet bgs, the maximum depth explored. Therefore, potential human health risk concerns from exposure to contaminants in groundwater would be unlikely.

#### 10.0 DISPOSAL OF RESIDUAL MATERIALS

Borings advanced during field investigation were tremie grouted with neat cement to ground surface in accordance with the requirements of the ACPWA permit. Soil cuttings generated during boring advancement were placed in a 55-gallon drum. The decontamination rinsate water was placed in a separate 55-gallon drum. The soil and water drums were properly labeled and temporarily stored on the Project Site pending receipt of analytical results (see Field Log in Appendix C for temporary storage location of soil and water drums).

The rinsate water sample did not contain Title 22 metals at concentrations that would characterize the waste as hazardous (see laboratory report in Appendix D). To characterize the soil and water wastes, BASELINE forwarded the analytical results for soil and rinsate water samples to Clearwater. On 22 July 2010, Clearwater collected the soil and water drums for disposal and/or recycling as non-hazardous wastes. A copy of the non-hazardous waste manifest is included in Appendix E.

Used personal protective equipment (nitrile gloves) and disposable sampling supplies (plastic liners) were placed in a municipal refuse dumpster. These wastes are not considered hazardous and can therefore be sent to a municipal landfill.

#### 11.0 FIELD VARIANCES

The Phase II ESA was performed in accordance with the SAP, with exception of the following:

- Collection and analysis of groundwater samples was not performed because groundwater was not encountered at 36 feet bgs, the maximum depth explored;
- The soil samples were screened with a PID for the presence of VOCs in soil liners instead of Ziploc bags;
- The soil sample collected from boring B-02 at depth interval 11.0 to 11.5 feet bgs was homogenized in a Ziplock bag instead of a steel bowl; and
- Collection of rinsate water sample instead of a sample from the soil cuttings; the actual soil sample results from the borings were used to represent the quality of the soil cuttings.

These SAP deviations are considered not to affect the conclusions of the Phase II ESA.

#### 12.0 HEALTH AND SAFETY PROCEDURES

Field activities described in this report were performed in accordance with a Project Site-specific health and safety plan ("HSP") prepared by BASELINE. The elements of the HSP were reviewed by BASELINE with field personnel engaged in sampling activities prior to the start of work at the Project Site as part of a tail-gate safety meeting. Attendees of the tail-gate safety meeting are documented on the sign-in sheet included in the HSP. A copy of the HSP is included in Appendix F.

#### 13.0 LIMITATION

The Phase II ESA has been conducted for the City in support of the proposed redevelopment project. BASELINE's interpretations and conclusions regarding this information and presented in this report are based on the expertise and experience of BASELINE in conducting similar assessments and current federal, state, and local regulations and standards.

BASELINE's objective is to perform our work with care, exercising the customary thoroughness and competence of earth science, environmental, and engineering consulting professionals, in accordance with the standard for professional services for a consulting firm at the time these services were provided. It is important to recognize that even the most comprehensive scope of services may fail to detect environmental conditions and potential liability at a particular site. Therefore, BASELINE cannot act as insurers and cannot "certify or underwrite" that a site is free of environmental contamination, and no expressed or implied representation or warranty is included or intended in this report except that the work was performed within the limits prescribed with the customary thoroughness and competence of our profession.

The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration at the Project Site, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in the report.

The findings, observations, and conclusions expressed by BASELINE in this report are limited by the scope of services and should not be considered an opinion concerning the compliance of any past or current owner or operator of the Project Site with any federal, state, or local law or regulation. No warranty or guarantee, whether expressed or implied is made with respect to the data reported or findings, observations, and conclusions expressed in this report.

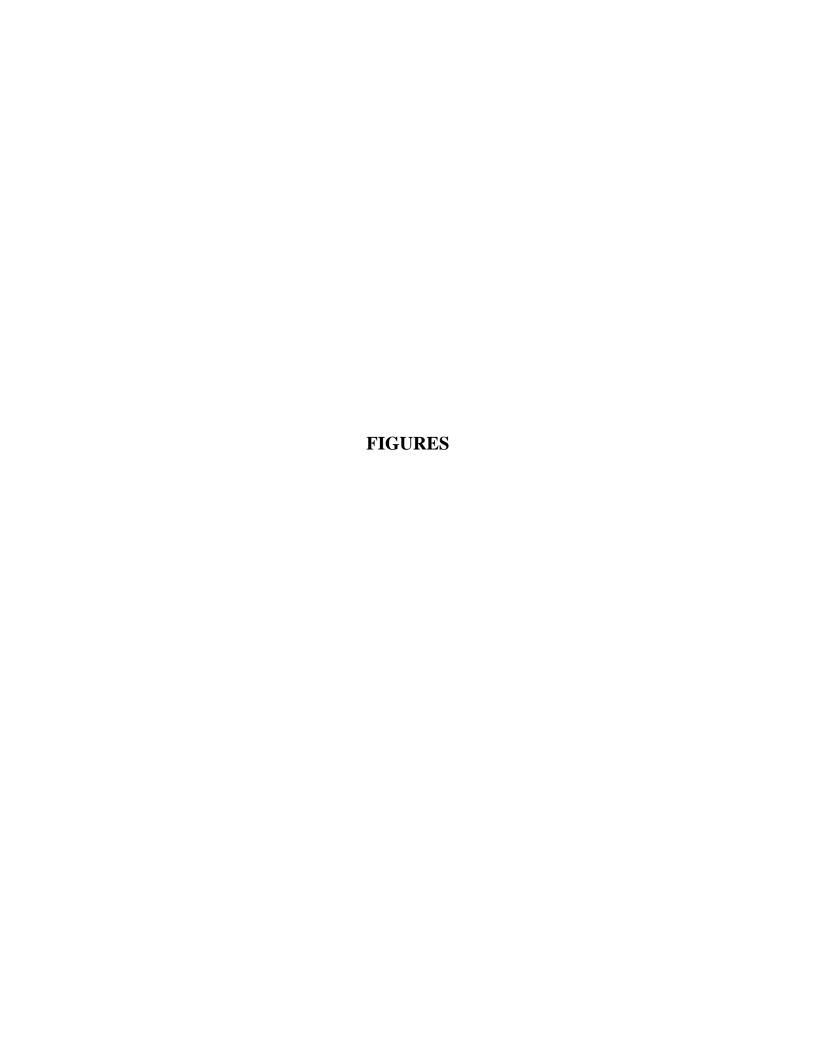
#### 14.0 REFERENCES

BASELINE Environmental Consulting, 2010, Sampling and Analysis Plan for 5859 Foothill Boulevard Oakland, California, March.

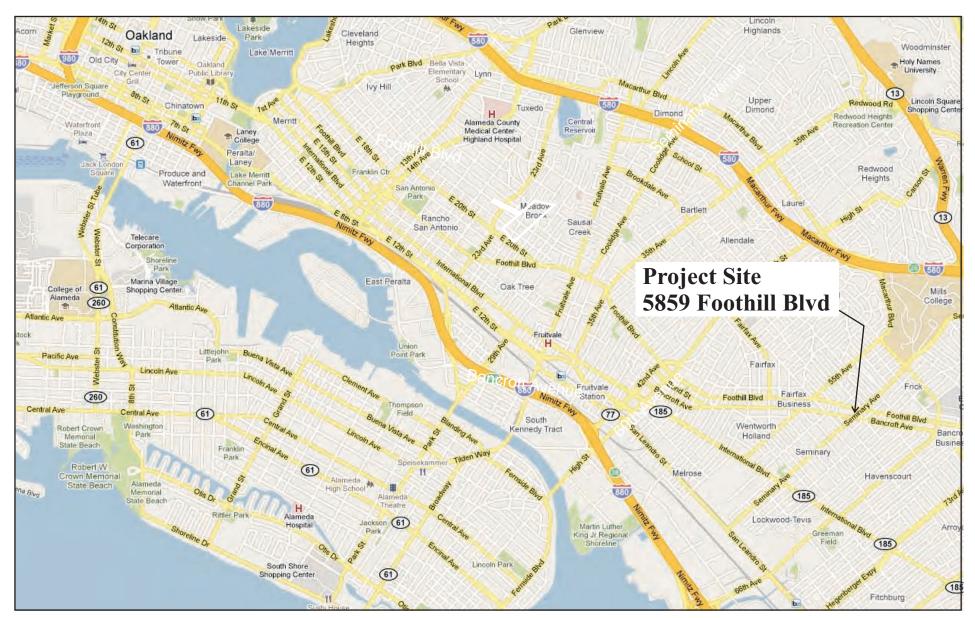
Fugro West, Inc. ("Fugro"), 2008, Phase I Environmental Site Assessment, 5859 Foothill Boulevard, Oakland California, 29 August.

San Francisco Regional Water Quality Control Board ("Regional Water Board"), 2008, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, May.

EPA, 2010, Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites, RSL Table Update, May.



VICINITY MAP Figure 1

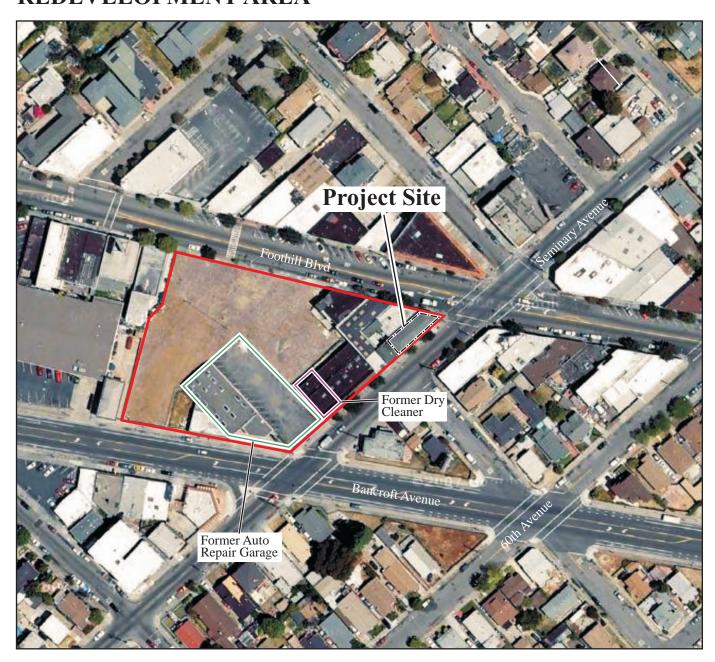


## 5859 Foothill Boulevard Oakland, California



## FOOTHILL BOULEVARD/SEMINARY AVENUE REDEVELOPMENT AREA

Figure 2



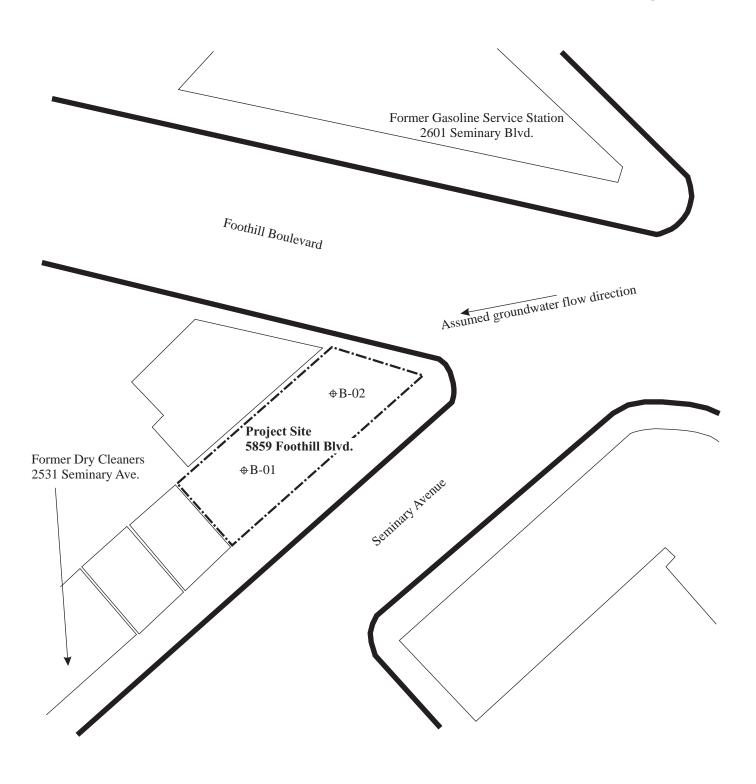
#### Legend

Foothill Boulevard/Seminary Avenue Redevelopment Area

---- Project Site Boundary







#### Legend

B-01 ♦ Approximate Boring Location

Project Site Boundary

## 5859 Foothill Boulevard Oakland, California Y8359-06.01540.v1.cdr Fig3 8/5/10



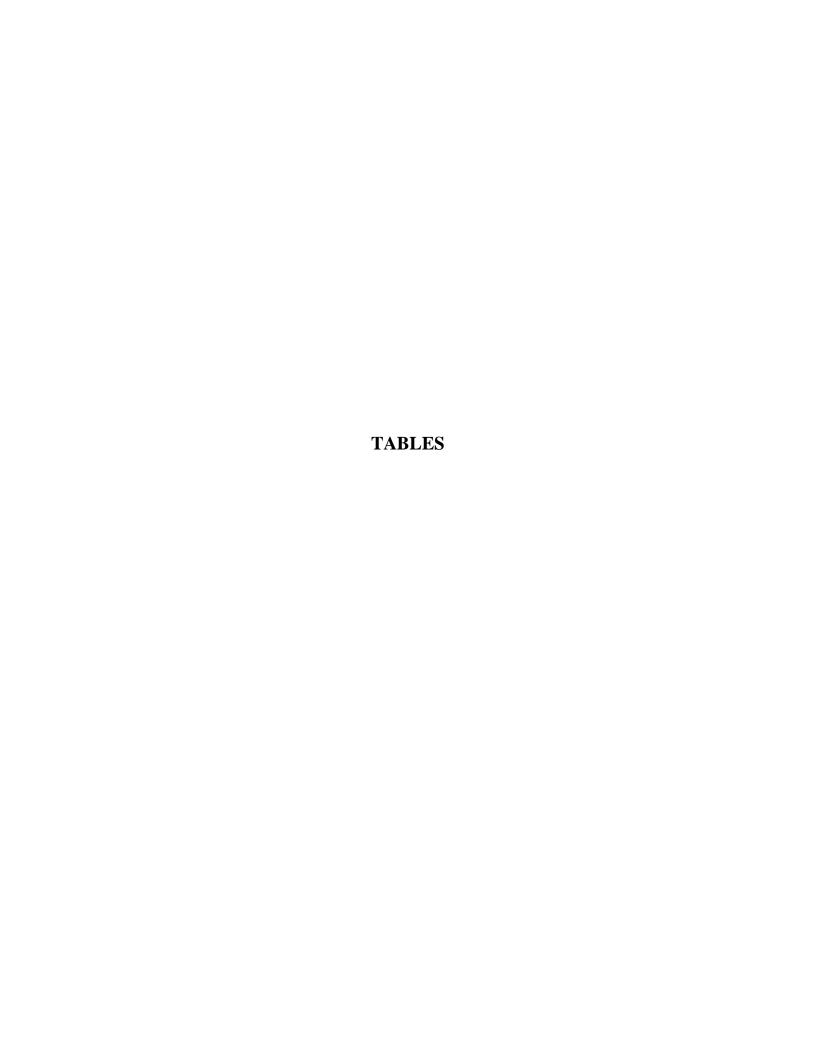


Table 1: Soil Analytical Results - Total Petroleum Hydrocarbons (mg/kg dry weight) 5859 Foothill Boulevard Oakland, California

		Sample Interval					
Sample Location	Sample Date	feet bgs	Sample ID	TPH-g	TPH-d		TPH-mo
B-01	7/8/2010	1.0-1.5	B-01;1.0-1.5	< 0.20	1.7	Y	7.4
		5.0-5.5	B-01;5.0-5.5	< 0.21	<1.1		< 5.7
		11-11.5	B-01;11-11.5	< 0.21	1.4	Y	< 5.9
B-02	7/8/2010	1.0-1.5	B-02;1.0-1.5	< 0.24	1.9	Y	<6.2
		5.0-5.5	B-02;5.0-5.5	< 0.17	1.7	Y	< 5.4
		11-11.5	B-02;11-11.5	< 0.18	<1.2		< 5.9
		11-11.5	B-03;11-11.5	< 0.18	<1.1		<5.7
	Re	83	83		370		

#### Notes:

Sampling locations are shown on Figure 3.

Laboratory report is included in Appendix D.

Total petroleum hydrocarbons ("TPH") in the gasoline range ("TPH-g") analysis by EPA Method 8015B.

TPH in the diesel ("TPH-d") and motor oil ("TPH-mo") range analysis by EPA Method 8015B after silica gel cleanup.

Values shown in bold indicate that the compound was identified above laboratory reporting limits.

<#.# = compound not identified at or above the laboratory reporting limit of #.#.

bgs = below ground surface.

EPA = U.S. Environmental Protection Agency.

mg/kg = milligram per kilogram.

Y = sample exhibits chromatographic pattern that does not resemble the standard.

<sup>&</sup>lt;sup>1</sup> California Regional Water Quality Control Board, San Francisco Bay Region, 2008, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, May (Revised), Table A, Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is Current or Potential Source of Drinking Water, Residential Land Use.

Table 2: Soil Analytical Results - Volatile Organic Compounds (mg/kg dry weight) 5859 Foothill Boulevard Oakland, California

Sample Location		B-01			B-	02		Residential ESLs <sup>2</sup> , unless
Sample Interval (feet bgs)	1.0-1.5	5.0-5.5	11-11.5	1.0-1.5	5.0-5.5	11-11.5	11-11.5	otherwise noted
Sample ID	B-01;1.0-1.5	B-01;5.0-5.5	B-01;11-11.5	B-02;1.0-1.5	B-02;5.0-5.5	B-02;11-11.5	B-03;11-11.5	(mg/kg dry weight)
Sample Date	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	, e e ,
Freon 12	< 0.010	< 0.011	< 0.0098	< 0.011	< 0.0098	< 0.011	< 0.0092	180 <sup>3</sup>
Chloromethane	< 0.010	< 0.011	< 0.0098	< 0.011	< 0.0098	< 0.011	< 0.0092	6.4
Vinyl Chloride	< 0.010	< 0.011	< 0.0098	< 0.011	< 0.0098	< 0.011	< 0.0092	0.022
Bromomethane	< 0.010	< 0.011	< 0.0098	< 0.011	< 0.0098	< 0.011	< 0.0092	0.39
Chloroethane	< 0.010	< 0.011	< 0.0098	< 0.011	< 0.0098	< 0.011	< 0.0092	0.85
Trichlorofluoromethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	790 <sup>3</sup>
Acetone	< 0.021	< 0.022	< 0.020	< 0.022	< 0.020	< 0.022	< 0.018	0.50
Freon 113	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	43,000 <sup>3</sup>
1,1-Dichloroethene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	1.0
Methylene Chloride	< 0.021	< 0.022	< 0.020	< 0.022	< 0.020	< 0.022	< 0.018	0.077
Carbon Disulfide	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	820 <sup>3</sup>
MTBE	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.023
trans-1,2-Dichloroethene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.67
Vinyl Acetate	< 0.052	< 0.056	< 0.049	< 0.055	< 0.049	< 0.055	< 0.046	970 <sup>3</sup>
1,1-Dichloroethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.20
2-Butanone	< 0.010	< 0.011	< 0.0098	< 0.011	< 0.0098	< 0.011	< 0.0092	3.9
cis-1,2-Dichloroethene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.19
2,2-Dichloropropane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	NV
Chloroform	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.68
Bromochloromethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	NV
1,1,1-Trichloroethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	7.8
1,1-Dichloropropene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	NV
Carbon Tetrachloride	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.020
1,2-Dichloroethane <sup>1</sup>	< 0.00098	< 0.00025	< 0.00091	< 0.0010	< 0.00091	< 0.0010	< 0.00086	0.0045
Benzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.044
Trichloroethene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.46
1,2-Dichloropropane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.12

Y8359-06.01540.fnl.xls - 9/17/2010 1 of 3

Table 2: Soil Analytical Results - Volatile Organic Compounds (mg/kg dry weight) 5859 Foothill Boulevard Oakland, California

Sample Location		B-01		B-02				Residential ESLs <sup>2</sup> , unless	
Sample Interval (feet bgs)	1.0-1.5	5.0-5.5	11-11.5	1.0-1.5	5.0-5.5	11-11.5	11-11.5	otherwise noted	
Sample ID	B-01;1.0-1.5	B-01;5.0-5.5	B-01;11-11.5	B-02;1.0-1.5	B-02;5.0-5.5	B-02;11-11.5	B-03;11-11.5	(mg/kg dry weight)	
Sample Date	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	(mg/mg dry (reight)	
Bromodichloromethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.57	
Dibromomethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	25 3	
4-Methyl-2-Pentanone	< 0.010	< 0.011	< 0.0098	< 0.011	< 0.0098	< 0.011	< 0.0092	2.8	
cis-1,3-Dichloropropene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.059	
Toluene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	2.9	
trans-1,3-Dichloropropene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.059	
1,1,2-Trichloroethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.070	
2-Hexanone	< 0.010	< 0.011	< 0.0098	< 0.011	< 0.0098	< 0.011	< 0.0092	210 <sup>3</sup>	
1,3-Dichloropropane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	1,600 <sup>3</sup>	
Tetrachloroethene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.37	
Dibromochloromethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	7.6	
1,2-Dibromoethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.00033	
Chlorobenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	1.5	
1,1,1,2-Tetrachloroethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.024	
Ethylbenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	2.3	
m,p-Xylenes	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	2.3	
o-Xylene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	2.3	
Styrene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	1.5	
Bromoform	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	2.2	
Isopropylbenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	2,100 <sup>3</sup>	
1,1,2,2-Tetrachloroethane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.018	
1,2,3-Trichloropropane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	$0.0050^{-3}$	
Propylbenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	3,400 <sup>3</sup>	
Bromobenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	300 <sup>3</sup>	
1,3,5-Trimethylbenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	780 <sup>3</sup>	
2-Chlorotoluene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	1,600 <sup>3</sup>	
4-Chlorotoluene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	5,500 <sup>3</sup>	

Y8359-06.01540.fnl.xls - 9/17/2010 2 of 3

Table 2: Soil Analytical Results - Volatile Organic Compounds (mg/kg dry weight) 5859 Foothill Boulevard Oakland, California

Sample Location		B-01 B-02					Residential ESLs <sup>2</sup> , unless	
Sample Interval (feet bgs)	1.0-1.5	5.0-5.5	11-11.5	1.0-1.5	5.0-5.5	11-11.5	11-11.5	otherwise noted
Sample ID	B-01;1.0-1.5	B-01;5.0-5.5	B-01;11-11.5	B-02;1.0-1.5	B-02;5.0-5.5	B-02;11-11.5	B-03;11-11.5	(mg/kg dry weight)
Sample Date	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	(inging only worght)
tert-Butylbenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	NV
1,2,4-Trimethylbenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	62 3
sec-Butylbenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	NV
para-Isopropyl Toluene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	NV
1,3-Dichlorobenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	7.4
1,4-Dichlorobenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.59
n-Butylbenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	NV
1,2-Dichlorobenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	1.1
1,2-Dibromo-3-Chloropropane	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	0.0045
1,2,4-Trichlorobenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	1.5
Hexachlorobutadiene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	2.2
Naphthalene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	1.3
1,2,3-Trichlorobenzene	< 0.0052	< 0.0056	< 0.0049	< 0.0055	< 0.0049	< 0.0055	< 0.0046	49 <sup>3</sup>

#### Notes:

Sampling locations are shown on Figure 3.

Laboratory report is included in Appendix D.

Volatile organic compound analysis by EPA Method 8260B.

<#.# = compound not identified at or above the laboratory reporting limit of #.#.

bgs = below ground surface.

EPA = U.S. Environmental Protection Agency.

mg/kg = milligram per kilogram.

NV = no value.

<sup>&</sup>lt;sup>1</sup> Values based on method detection limits.

<sup>&</sup>lt;sup>2</sup> California Regional Water Quality Control Board, San Francisco Bay Region, 2008, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, May (Revised), Table A, Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is Current or Potential Source of Drinking Water, Residential Land Use.

<sup>&</sup>lt;sup>3</sup> U.S. EPA, 2010, Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites, RSL Table Update, May.

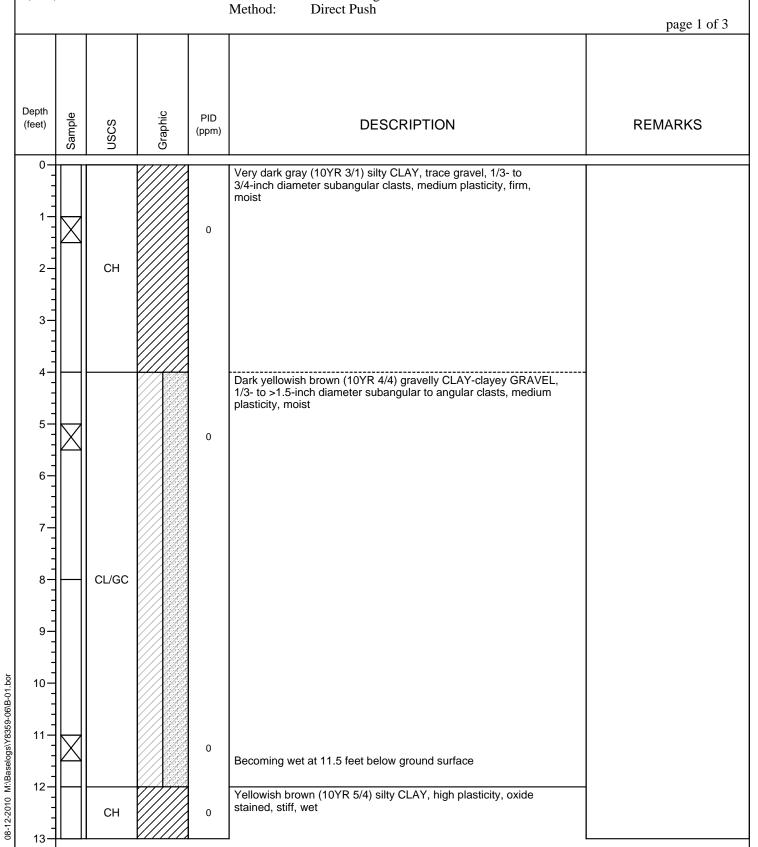
#### APPENDIX A LOGS FOR BORINGS B-01 AND B-02

Boring ID: B-01

5900 Hollis Street, D Emeryville, CA 94608

(510) 420-8686 (510) 420-1707 fax Date: 7/8/10 Project No.: Y8359-06 Driller: RSI Drilling Location: Logger: 5859 Foothill Blvd., Oakland

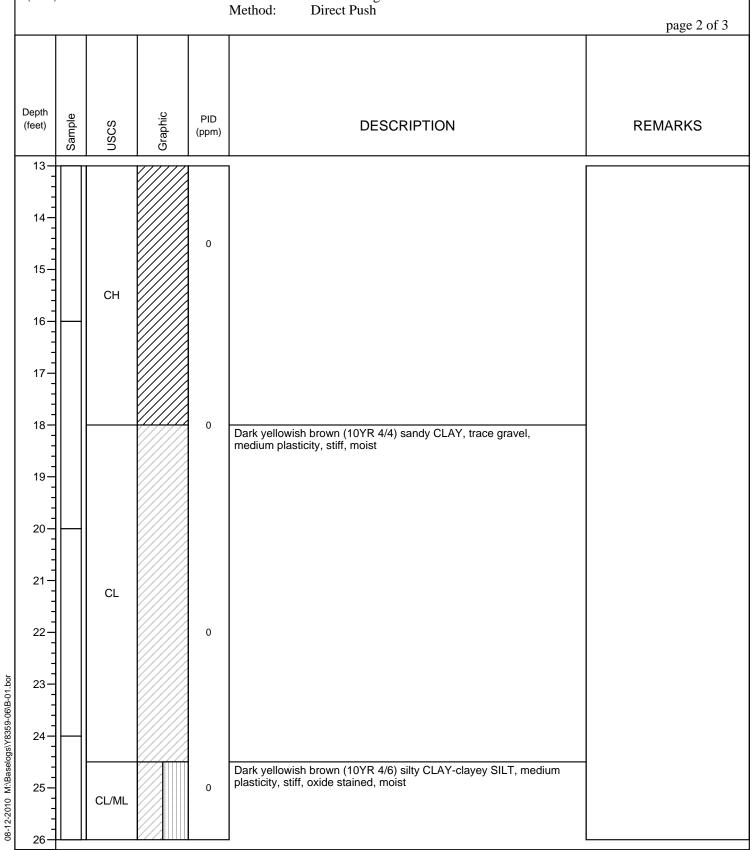
WK Scott, P.G. #6104



Boring ID: B-01

5900 Hollis Street, D Emeryville, CA 94608

(510) 420-8686 (510) 420-1707 fax Date: 7/8/10 Project No.: Y8359-06 Driller: RSI Drilling Location: 5859 Foothill Blvd., Oakland Logger: WK Scott, P.G. #6104

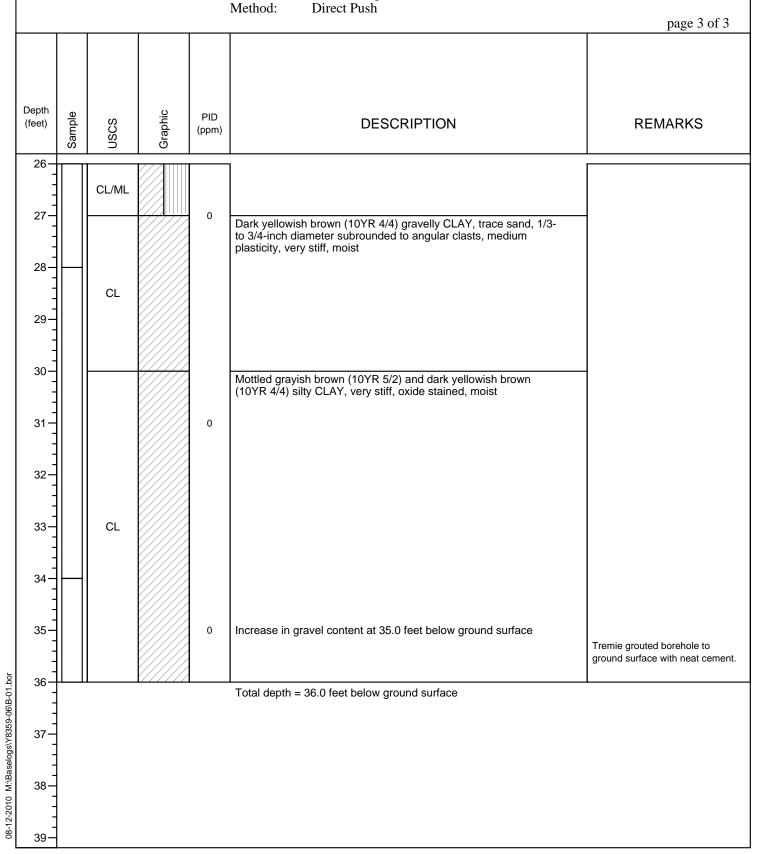


Boring ID: B-01

5900 Hollis Street, D Emeryville, CA 94608

(510) 420-8686 (510) 420-1707 fax Date: 7/8/10 Project No.: Y8359-06 Driller: RSI Drilling Location: Logger: 5859 Foothill Blvd., Oakland

ogger: WK Scott, P.G. #6104



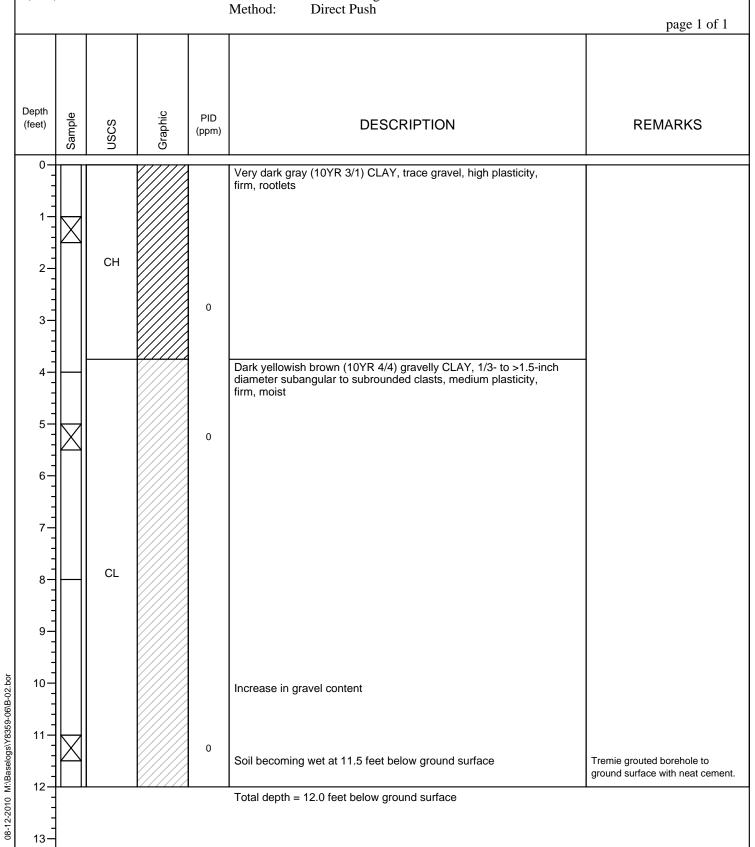
Boring ID: B-02

5900 Hollis Street, D Emeryville, CA 94608

(510) 420-8686 (510) 420-1707 fax

7/8/10 Date: Project No.: Y8359-06 Driller: **RSI** Drilling Location: Logger:

5859 Foothill Blvd., Oakland WK Scott, P.G. #6104



APPENDIX B
ALAMEDA COUNTY PUBLIC WORKS AGENCY BORING PERMIT

#### Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 07/06/2010 By jamesy

Permit Numbers: W2010-0472

Permits Valid from 07/08/2010 to 07/16/2010

Application Id:

1278112528317

Ramirez

City of Project Site:Oakland

Site Location:

5859 Foothill Blvd (intersection of Foothill Blvd. and Seminary Ave.)

Project Start Date:

07/08/2010 Completion Date: 07/16/2010

Assigned Inspector:

Contact John Shouldice at (510) 670-5424 or johns@acpwa.org

Applicant:

BASELINE Environmental Consulting - Reginald

Phone: 510-420-8686

5900 Hollis Street Suite D. Emeryville, CA 94608 City of Oakland c/o Mark Arniola

Phone: --

**Property Owner:** 

250 Frank H. Ogawa Plaza, Oakland, CA 94612

Client:

\*\* same as Property Owner \*\*

Total Due:

\$265.00

Receipt Number: WR2010-0231

**Total Amount Paid:** 

\$265.00

Payer Name: Reginald Ramirez Paid By: MC

PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 2 Boreholes

Driller: RSI Drilling - Lic #: 802334 - Method: DP

Work Total: \$265.00

Specifications

Permit Issued Dt

**Expire Dt** 

**Hole Diam** Max Depth

Number

**Boreholes** 

W2010-

07/06/2010 10/06/2010 2 4.00 in. 25.00 ft

0472

#### Specific Work Permit Conditions

- Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
- 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
- 3. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 4. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
- Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

#### Alameda County Public Works Agency - Water Resources Well Permit

6. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

#### PROGRAMS AND SERVICES

#### Well Standards Program

The Alameda County Public Works Agency, Water Resources is located at: 399 Elmhurst Street Hayward, CA 94544

For Driving Directions or General Info, Please Contact 510-670-5480 or wells@acpwa.org

For Drilling Permit information and process contact James Yoo at

Phone: 510-670-6633 FAX: 510-782-1939 Email: Jamesy@acpwa.org

Alameda County Public Works is the administering agency of General Ordinance Code, Chapter 6.88. The purpose of this chapter is to provide for the regulation of groundwater wells and exploratory holes as required by California Water Code. The provisions of these laws are administered and enforced by Alameda County Public Works Agency through its Well Standards Program.

Drilling Permit Jurisdictions in Alameda County: There are four jurisdictions in Alameda County.

#### Location: Agency with Jurisdiction Contact Number

Berkeley City of Berkeley Ph: 510-981-7460

Fax: 510-540-5672

Fremont, Newark, Union City Alameda County Water District Ph: 510-668-4460

Fax: 510-651-1760

Pleasanton, Dublin, Livermore, Sunol Zone 7 Water Agency Ph: 925-454-5000

Fax: 510-454-5728

The Alameda County Public Works Agency, Water Resources has the responsibility and authority to issue drilling permits and to enforce the County Water Well Ordinance 73-68. This jurisdiction covers the western Alameda County area of Oakland, Alameda, Piedmont, Emeryville, Albany, San Leandro, San Lorenzo, Castro Valley, and Hayward. The purpose of the drilling permits are to ensure that any new well or the destruction of wells, including geotechnical investigations and environmental sampling within the above jurisdiction and within Alameda County will not cause pollution or contamination of ground water or otherwise jeopardize the health, safety or welfare of the people of Alameda County.

**Permits** are required for all work pertaining to wells and exploratory holes at any depth within the jurisdiction of the Well Standards Program. A completed permit application (30 Kb)\*, along with a site map, should be submitted at least ten (10) working days prior to the planned start of work. Submittals should be sent to the address or fax number provided on the application form. When submitting an application via fax, please use a high resolution scan to retain legibility.

#### Fees

Beginning April 11, 2005, the following fees shall apply:

A permit to construct, rehabilitate, or destroy wells, including cathodic protection wells, but excluding dewatering wells (\*Horizontal hillside dewatering and dewatering for construction period only), shall cost \$300.00 per well.

A permit to bore exploratory holes, including temporary test wells, shall cost \$200 per site. A site includes the project parcel as well as any adjoining parcels.

Please make checks payable to: Treasurer, County of Alameda

Permit Fees are exempt to State & Federal Projects

Applicants shall submit a letter from the agency requesting the fee exemption.

Scheduling Work/Inspections:

Alameda County Public Works Agency (ACPWA), Water Resources Section requires scheduling and inspection of permitted work. All drilling activities must be scheduled in advance. Availability of inspections will vary from week to week and will come on a first come, first served bases. To ensure inspection availability on your desired or driller scheduled date, the following procedures are required:

Please contact James Yoo at 510-670-6633 to schedule the inspection date and time (You must have drilling permit approved prior to scheduling).

Schedule the work as far in advance as possible (at least 5 days in advance); and confirm the scheduled drilling date(s) at least 24 hours prior to drilling.

Once the work has been scheduled, an ACPWA Inspector will coordinate the inspection requirements as well as how the Inspector can be reached if they are not at the site when Inspection is required. Expect for special circumstances given, all work will require the inspection to be conducted during the working hours of 8:30am to 2:30pm., Monday to Friday, excluding holidays.

#### Request for Permit Extension:

Permits are only valid from the start date to the completion date as stated on the drilling permit application and Conditions of Approval. To request an extension of a drilling permit application, applicants must request in writing prior to the completion date as set forth in the Conditions of Approval of the drilling permit application. Please send fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. There are no additional fees for permit extensions or for re-scheduling inspection dates. You may not extend your drilling permit dates beyond 90 days from the approval date of the permit application. NO refunds shall be given back after 90 days and the permit shall be deemed voided.

#### Cancel a Drilling Permit:

Applicants may cancel a drilling permit only in writing by mail, fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. If you do not cancel your drilling permit application before the drilling completion date or notify in writing within 90 days, Alameda County Public Works Agency, Water Resources Section may void the permit and No refunds may be given back.

#### Refunds/Service Charge:

A service charge of \$25.00 dollars for the first check returned and \$35.00 dollars for each subsequent check returned.

Applicants who cancel a drilling permit application **before** we issue the approved permit(s), will receive a **FULL** refund (at any amount) and will be mailed back within two weeks.

Applicants who cancel a drilling permit application after a permit has been issued will then be charged a service fee of \$50.00 (fifty Dollars).

To collect the remaining funds will be determined by the amount of the refund to be refunded (see process below).

Board of Supervisors Minute Order, File No. 9763, dated January 9, 1996, gives blanket authority to the Auditor-Controller to process claims, from all County departments for the refund of fees which do not exceed \$500 (Five Hundred Dollars)(with the exception of the County Clerk whose limit is \$1,500).

Refunds over the amounts must be authorized by the Board of Supervisors Minute Order, File No. 9763 require specific approval by the Board of Supervisors. The forms to request for refunds under \$500.00 (Five Hundred Dollars) are available at this office or any County Offices. If the amount is exceeded, a Board letter and Minute Order must accompany the claim. Applicant shall fill out the request form and the County Fiscal department will process the request.

#### Enforcement

Penalty. Any person who does any work for which a permit is required by this chapter and who fails to obtain a permit shall be guilty of a misdemeanor punishable by fine not exceeding Five Hundred Dollars (\$500.00) or by imprisonment not exceeding six months, or by both such fine and imprisonment, and such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any such

violation is committed, continued, or permitted, and shall be subject to the same punishment as for the original offense. (Prior gen. code §3-160.6)

Enforcement actions will be determined by this office on a case-by-case basis

Drilling without a permit shall be the cost of the permit(s) and a fine of \$500.00 (Five Hundred Dollars).

Well Completion Reports (State DWR-188 forms) must be filed with the Well Standards Program within 60 days of completing work. Staff will review the report, assign a state well number, and then forward it to the California Department of Water Resources (DWR). Drillers should not send completed reports to DWR directly. Failure to file a Well Completion Report or deliberate falsification of the information is a misdemeanor; it is also grounds for disciplinary action by the Contractors' State License Board. Also note that filed Well Completion Reports are considered private record protected by state law and can only be released to the well owner or those specifically authorized by government agencies.

See our website (www.acgov.org/pwa/wells/index.shtml) for links to additional forms.

# $\label{eq:appendix} \textbf{APPENDIX} \ \textbf{C}$ $\textbf{FIELD} \ \textbf{LOG}, \textbf{PHOTOGRAPH} \ \textbf{LOG}, \textbf{AND} \ \textbf{PHOTOGRAPHS}$

Project name	e: 5859 Foothill Blud, Project no.: 48359-06
Logger:	
Weather con	ditions: Am overcust
Site personn	el: RSI Drilling Feviewed by: Reginald Harring
Time	Field Activities
6:30	Arrived on site, accessed site Through Gate, measured out borings, RSI on site 7:05
	Calibrated Air monitoring equipment. (PID) with
	Foothille 2- Divis 55-golon
	0 B2 Dr. One Soil; on water
	35 1 Seminary 501
	acinal (a)
	33 4er × 30
	Corb line
7:20	conducted Tailgate safter meating, Level D PPE,
7:30	Set up on boring B-01 background PID Oppm
	Will use miced com which is single barrel system if This
	does not work due to hale calles switch to 2-barrel system
	hole callapsed orthe first our will use DT-22 (dual barrelsystem
	No Groundwater encountered from 0-30" liner stuck at botton 30ft pulled all barrels to retrieve, and get unit struck:
10:30	FOOK W.L. Frading, no water to 301, Refused at 36'. Refused at 36'
10:48	STROM elected sampling equipment
10.55	collected 24wipment Blank Of Sampling barrel Tim by pouring Lab DI
	weller over tip and collecting worker south Is B-03
11:10	STarted boing B-02
11:45	collected duplicage soil Simple of B-02; 11-11.5 named dup
	Scarle 13-03; 11-11.5 0 17:00
12:25	John from ACPWA on SIX TO INSPECT POST Brown
	Departed site 12:30

page \_/\_ of \_/

Project name	: 5859 Foothill Blud	Project no.:
Logger:	Wks	Date: >-%-10
Weather cont		
Site personne		
Time Photo	Field Activities Photo discription	4
1 2 3	Drill Rig setting up on le Drums Post Drilling	boring B-U

FIELDLOG.XLS (1/08)

# PHOTOGRAPHS FROM FIELD INVESTIGATION 8 JULY 2010



Photograph 1: Drill rig setting up at Boring B-01.



Photograph 2: Temporary storage location of soil and water drums from field investigation.

## 5859 Foothill Boulevard Oakland, California

# PHOTOGRAPHS FROM FIELD INVESTIGATION 8 JULY 2010



Photograph 3: Post drilling.

# APPENDIX D LABORATORY REPORT 221160

### QUALITY CONTROL CHECKLIST FOR REVIEW OF LABORATORY REPORT

Job No. Y8359-06 Project: 5859 Foothill Boulevard

Laboratory:Curtis & Tompkins, Ltd.Laboratory Report No.:221160Report Date:15 July 2010BASELINE Reviewer:RR

		Yes	No	NA
(Des	NERAL QUESTIONS scribe "no" responses below in "comments" section. Contact the laboratory, as requ lanation or action on "no" responses; document discussion in comments section.)	ired, fo	r furthe	er
1a.	Does the report include a case narrative? (A case narrative MUST be prepared by the lab for all analytical work requested by BASELINE)	X		
1b.	Is the number of pages for the lab report as indicated on the case narrative/lab transmittal consistent with the number of pages that are included in report?	X		
1c.	Does the case narrative indicate which samples were analyzed by a subcontractor and the subcontractor's name?			X
1d.	Does the case narrative summarize subsequent requests not shown on the chain-of-custody (e.g., additional analyses requested, release of "hold" samples)?			X
1e.	Does the case narrative explain why requested analyses could not be performed by the laboratory (e.g., insufficient sample)?			X
1f.	Does the case narrative explain all problems with the QA/QC data as identified in the checklist (as applicable)?	X		
2a.	Is the laboratory report format consistent and legible throughout the report?	X		
2b.	Are the sample and reported dates shown in the laboratory report correct?	X		
3a.	Does the lab report include a copy of the original chain-of-custody form?	X		
3b.	Were all samples appropriately analyzed as requested on the chain-of-custody form?	X		
4.	Was the lab report signed and dated as being reviewed by the laboratory director, QA manager, or other appropriate personnel? (Some lab reports have signature spaces for each page). (This requirement also applies to any analyses subcontracted out by the laboratory)	X		
5a.	Are preparation methods, cleanup methods (if applicable), and laboratory methods indicated for all analyses?	X		
5b.	If additional analytes were requested as part of the reporting of the data for an analytical method, were these included in the lab report?			X
6.	Are the units in the lab report provided for each analysis consistent throughout the report?	X		

		Yes	No	NA
7.	Are the detection limits (DL) appropriate based on the intended use of the data (e.g., DL below applicable MCLs for water quality issues)? See comments on page 4 of this checklist.		X	
8a.	Are detection limits appropriate based on the analysis performed (i.e., not elevated due to dilution effects)?	X		
8b.	If no, is an explanation provided by the laboratory?			X
9a.	Were the samples analyzed within the appropriate holding time (generally 2 weeks for volatiles, and up to 6 months for total metals)?	X		
9b.	If no, was it flagged in the report?			X
10.	If samples were composited prior to analysis, does the lab report indicate which samples were composited for each analysis?			X
11a.	Do the chromatograms confirm quantitative laboratory results (petroleum hydrocarbons)?	X		
11b.	Is a standard chromatogram(s) included in the laboratory report?	X		
11c.	Do the chromatograms confirm laboratory notes, if present (e.g., sample exhibits lighter hydrocarbon than standard)?	X		
12.	Are the results consistent with previous analytical results from the site? (If no, contact the lab and request review/reanalysis of data, as appropriate.)			X
13a.	REVISED LAB REPORTS ONLY. Is the revised lab report or revised pages to a lab report signed and dated as being reviewed by the laboratory director, QA manager, or other appropriate personnel?			X
13b.	REVISED LAB REPORTS ONLY. Does the case narrative indicate the date of revision and provide an explanation for the revision?			X
13c.	REVISED LAB REPORTS ONLY. Does the revised lab report adequately address the problem(s) that triggered the need for a revision?			X
13d.	REVISED LAB REPORTS ONLY. Are the data included in the revised report the same as the data reported in the original report, except where the report was revised to correct incorrectly reported data?			X
	QC Questions d/Laboratory Quality Control - Groundwater Analyses			
14.	Are field blanks reported as "ND" (groundwater samples)? A field blank is a sample of DI water that is prepared in the field using the same collection and handling procedures as the other samples collected, and used to demonstrate that the sampling procedure has not contaminated the sample.			X
14a.	Are rinsate blanks reported as "ND" (soil samples)? A rinsate blank is a sample of DI water that is prepared in the field by collecting DI rinse water after it has been poured over decontaminated sampling equipment. The rinsate blank is collected to demonstrate that the decontamination procedure has removed all the contaminants from the sampling equipment and that the sampling equipment has not contaminated	X		

		Yes	No	NA
	the sample.			
15.	Are trip blanks reported as "ND" (groundwater samples/volatile analyses)? A trip blank is a sample of contaminant free matrix placed in an appropriate container by the lab and transported with the field samples collected. Provides information regarding positive interference introduced during sample transport, storage, preservation, and analysis. The sample is NOT opened in the field.			X
16.	Are duplicate sample results consistent with the original sample? Field duplicates consist of two independent samples collected at the same sampling location during a single sampling event. Used to evaluate precision of the analytical data and sampling technique. (Differences between the duplicate and sample results may also be attributed to environmental variability.)	X		
(Saı few fran	ch Quality Control mples are batched together by matrix [soil, water] and analyses requested. A batch generater samples of the same matrix type, and is prepared using the same reagents, standards, prince as the samples. QC samples are run with each batch to assess performance of the entire cess.)	ocedure	s, and tii	
17.	Do the sample batch numbers and corresponding laboratory QA/QC batch numbers match?	X		
18a	Are method blanks (MB) for the analytical method(s) below the laboratory reporting limits? <i>Used to assess lab contamination and prevent false positive results</i> .	X		
18b	. If no, is an explanation provided in the case narrative to validate the data?			X
18c	Are analytes that may be considered laboratory contaminants reported below the laboratory reporting limit? <i>Common lab contaminants include acetone, methylene chloride, 2-butanone, diethylhexyl phthalate, and di-n-octyl phthalate.</i>			X
18d	. If no, was the laboratory contacted to determine whether the reported analyte could be a potential laboratory contaminant and was an explanation included in the case narrative?			X
19.	Are laboratory control samples (LCS) and LCS duplicate (LCSD) [a.k.a., Blank Spike (BS) and BS duplicates (BSD)] within laboratory reporting limits? Limits should be provided on the report. LCS is a reagent blank spike with a representative selection of target analyte(s) and prepared in the same manner as the samples analyzed. The LCS should be spiked with the same analytes as the matrix spike (below). The LCS is free from interferences from the sample matrix and demonstrates the ability of the lab instruments to recover the target analytes. Accuracy (recovery information) is generally reported as % spike recovery; precision (reproducibility of results) between the LCS and LCSD is generally reported as the relative percent difference (RPD). LCS/LCSD can be run in addition to or in lieu of matrix QC data.	X		
20a	Are the Matrix QC data (i.e., MS/MSD) within laboratory limits? Limits should be provided on the lab report. The lab selects a sample from the batch and analyzes a spike and a spike duplicate of that sample. Matrix QC data is used to obtain precision and accuracy information and is reported in the same manner as LCS/LCSD. If the MS/MSD fails, the results may still be considered valid if the MB and either the LCS/LCSD or BS/BSD is within the lab's limits (failure is probably due to matrix interference).	X		

### Quality Control Checklist - continued

	Yes	No	NA
20b. If no, is the MB and either LCS/LCSD or BS/BSD within lab limits to validate the data?			X
Sample Quality Control			
21a. Are the surrogate spikes reported within the lab's acceptable recovery limits? A surrogate is a non-target analyte, which is similar in chemical structure to the analyte(s) being analyzed for, and which is not commonly found in environmental samples. A known concentration of the surrogate is spiked into the sample or QA "sample" prior to extraction or sample preparation. Results are usually reported as % recovery of the spike. Failure to meet lab's limits for primary and secondary surrogates results in rebatching and reanalysis of the sample; failure of only the primary or the secondary surrogate may be acceptable under certain circumstances. Failure generally is due to coelution with the sample matrix.		X	
21b. If no, is an explanation given in the case narrative to validate the data?	X		

### **Comments:**

The laboratory reporting limits for 1,2-dibromo-3-chloropropane and 1,2-dibromoethane were above the environmental screening levels for residential land use where groundwater is a current or potential source of drinking water. These compounds are not associated with operation of dry cleaners or gasoline service stations, which were land uses identified in the vicinity of the Project Site. In addition, the laboratory reporting limit for 1,2,3-trichloropropane was above the regional screening level for residential land use for some samples. This compound is used as an industrial solvent, paint and varnish remover, and cleaning and degreasing agent. The presence of this compound is unlikely unless other volatile organic compounds are also identified in the sample. Therefore, no further action is required.

High surrogate recovery was observed for 1,8-dichloroethane-d4 in the water sample B-03. However, no target analytes were detected in the sample at or above laboratory reporting limits. In addition, the recoveries for the corresponding surrogates dibromofluoromethane, toluene-d8, and bromofluorobenzene were within limits. Therefore, no further action is required.





### Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

### Laboratory Job Number 221160 ANALYTICAL REPORT

Baseline Environmental Project : Y8359-06

5900 Hollis Street Location: 5859 Foothill Blvd.

Emeryville, CA 94608 Level : II

<u>Sample ID</u>	<u>Lab ID</u>
B-01;1.0-1.5	221160-001
B-01;5.0-5.5	221160-002
B-01;11-11.5	221160-003
B-02;1.0-1.5	221160-004
B-02;5.0-5.5	221160-005
B-02;11-11.5	221160-006
B-03;11-11.5	221160-007
B-03	221160-008
DRUM	221160-009
TRIP BLANK	221160-010

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Deine 7. Tetrett

Project Manager

Date: <u>07/15/2010</u>

NELAP # 01107CA



### CASE NARRATIVE

Laboratory number: 221160

Client: Baseline Environmental

Project: Y8359-06

Location: 5859 Foothill Blvd.

Request Date: 07/08/10 Samples Received: 07/08/10

This data package contains sample and QC results for seven soil samples and two water samples, requested for the above referenced project on 07/08/10. The samples were received cold and intact.

### TPH-Purgeables and/or BTXE by GC (EPA 8015B) Water:

No analytical problems were encountered.

### TPH-Purgeables and/or BTXE by GC (EPA 8015B) Soil:

No analytical problems were encountered.

### TPH-Extractables by GC (EPA 8015B) Water:

No analytical problems were encountered.

### TPH-Extractables by GC (EPA 8015B) Soil:

Matrix spikes QC551781,QC551782 (batch 164817) were not reported because the concentration of the target analyte in the parent sample was more than four times the amount spiked, rendering the spike recovery not meaningful. No other analytical problems were encountered.

### Volatile Organics by GC/MS (EPA 8260B) Water:

High surrogate recovery was observed for 1,2-dichloroethane-d4 in B-03 (lab # 221160-008); no target analytes were detected in the sample. No other analytical problems were encountered.

### Volatile Organics by GC/MS (EPA 8260B) Soil:

No analytical problems were encountered.

### Metals (EPA 6010B and EPA 7470A):

No analytical problems were encountered.

### Moisture (ASTM D2216/CLP):

No analytical problems were encountered.

091127

# **BASELINE Environemental Consulting**

5900 Hollis Street, Suite D

Emeryville, CA 94608

Tel: (510) 420-8686 Fax: (510) 420-1707

CHAIN OF CUSTODY RECORD

Turn-Around-Time Standard TAT
Laboratory Curtis & Tompkins
BASELINE Contact Person Redgy Ramirez

Dichloroethane in soil and TPH-mo in groundwater Remarks/ Composite based on the method Please estimate 1,2 detection limit. 1401d redgy@baseline-env.com Note: Report soil results in dry weight. iim@baseline-env.com Arrival at Laboratory: \* 4 Email contact: Remarks: Analyses EPA 6010B/747A) Date/Time Date/Time Date/Time EPA 8260B) (EPA 8015M) gel clean up TPH-d, mo w/ silica × ist sest Liter Amber Glass YOV Jm 04 9 9 9 9 Container and Preservative Received by: (Signature) Received by: (Signature) Received by: (Signature) 20 12012) Total Š Media 3 54111 11:30 12,10 55:01 5859 Foothill Blvd. 15:00 Time 01-8-2 9-6-L 2-8-19 1-8-10 X8359-06 61-8-6 2-8-10 7-8-1 7-8-1 9-8-1 Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature) ÿ. Samplers: (Signature) B-01; 11 - 11.5 B-02; [1-11.5 B-03; 11- 11.5 Trip Block B-02;1.0-1.5 Project Number B-01;5.0-5.5 B-02;5.0-5.5 B-01;1.0-1.5 roject Name: Sample ID Station Drum 결물 B 63

6

8-3-3-C

leural or ice ms 7/8/m

Comments:

ON

YES

Received at laboratory with intact:

3 of 56

### **COOLER RECEIPT CHECKLIST**



Login # 22160 Date Received 7/210 Number of coolers 1 Client Borna Project 5859 FOOTHILL BLVP.
Date Opened 7/2/10 By (print) MNILL Source (sign) By (print) By (print) (sign)
1. Did cooler come with a shipping slip (airbill, etc) YES YES Shipping info
2A. Were custody seals present? TYES (circle) on cooler on samples  How many Name Date
2B. Were custody seals intact upon arrival?  3. Were custody papers dry and intact when received?  4. Were custody papers filled out properly (ink, signed, etc)?  5. Is the project identifiable from custody papers? (If so fill out top of form)  6. Indicate the packing in cooler: (if other, describe)
□ Bubble Wrap □ Foam blocks □ Bags □ None   □ Cloth material □ Cardboard □ Styrofoam □ Paper towels   7. Temperature documentation:
Type of ice used: ☐ Wet ☐ Blue/Gel ☐ None Temp(°C)
☐ Samples Received on ice & cold without a temperature blank
☐ Samples received on ice directly from the field. Cooling process had begun
8. Were Method 5035 sampling containers present? NO If YES, what time were they transferred to freezer? ZZ40
9. Did all bottles arrive unbroken/unopened?
10. Are samples in the appropriate containers for indicated tests?  11. Are sample labels present, in good condition and complete?  NO
12. Do the sample labels agree with custody papers?
13. Was sufficient amount of sample sent for tests requested?
14. Are the samples appropriately preserved? YES NO N/A
15. Are bubbles > 6mm absent in VOA samples?
16. Was the client contacted concerning this sample delivery? YES NO If YES, Who was called? By Date:
If YES, Who was called?
If YES, Who was called? By Date:
If YES, Who was called? By Date:
If YES, Who was called? By Date:
If YES, Who was called? By Date:

SOP Volume:

Client Services

Section:

1.1.2

Page:

1 of 1

Rev. 6 Number 1 of 3 Effective: 23 July 2008

Z:\qc\forms\checklists\Cooler Receipt Checklist\_rv6.doc



Total Volatile Hydrocarbons Lab #: 221160 Location: 5859 Foothill Blvd. Client: Baseline Environmental Prep: EPA 5030B Project#: Y8359-06 EPA 8015B Analysis: Field ID: B-03 Batch#: 164804 Matrix: Water Sampled: 07/08/10 Units: Received: ug/L 07/08/10 Diln Fac: 1.000

Type: SAMPLE Analyzed: 07/10/10

Lab ID: 221160-008

Analyte	Result	RL	
Gasoline C7-C12	ND	50	

Limits
70-14

Type: BLANK Analyzed: 07/09/10

Lab ID: QC551726

Analyte	Result	RL	
Gasoline C7-C12	ND	50	

ND= Not Detected RL= Reporting Limit

Page 1 of 1 13.0



Total Volatile Hydrocarbons					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5030B		
Project#:	Y8359-06	Analysis:	EPA 8015B		
Type:	LCS	Diln Fac:	1.000		
Lab ID:	QC551727	Batch#:	164804		
Matrix:	Water	Analyzed:	07/09/10		
Units:	ug/L				

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	929.8	93	73-127

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	92	70-140

Page 1 of 1



Total Volatile Hydrocarbons					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5030B		
Project#:	Y8359-06	Analysis:	EPA 8015B		
Field ID:	ZZZZZZZZZZ	Batch#:	164804		
MSS Lab ID:	221153-017	Sampled:	07/08/10		
Matrix:	Water	Received:	07/08/10		
Units:	ug/L	Analyzed:	07/09/10		
Diln Fac:	1.000				

Type: MS

Lab ID: QC551728

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	29.23	2,000	1,944	96	68-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	70-140

Type: MSD Lab ID: QC551729

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	2,000	1,989	98	68-120	2 20



Gasoline by GC/FID (5035 Prep) Lab #: 221160 5859 Foothill Blvd. Location: EPA 5035 Client: Prep: Baseline Environmental Project#: Y8359-06 Analysis: EPA 8015B 164798 Matrix: Soil Batch#: Sampled: 07/08/10 Units: mg/Kg Received: 07/08/10 Basis: dry 1.000 Diln Fac: Analyzed: 07/09/10

Field ID: B-01;1.0-1.5 Lab ID: 221160-001

Type: SAMPLE Moisture: 17%

Analyte Result RL
Gasoline C7-C12 ND 0.20

Surrogate %REC Limits
Bromofluorobenzene (FID) 98 57-146

Field ID: B-01;5.0-5.5 Lab ID: 221160-002

Type: SAMPLE Moisture: 12%

AnalyteResultRLGasoline C7-C12ND0.21

Surrogate %REC Limits
Bromofluorobenzene (FID) 98 57-146

Field ID: B-01;11-11.5 Lab ID: 221160-003

Type: SAMPLE Moisture: 16%

Analyte Result RL
Gasoline C7-C12 ND 0.21

Surrogate %REC Limits
Bromofluorobenzene (FID) 99 57-146

Field ID: B-02;1.0-1.5 Lab ID: 221160-004

Type: SAMPLE Moisture: 19%

 Analyte
 Result
 RL

 Gasoline C7-C12
 ND
 0.24

Surrogate %REC Limits
Bromofluorobenzene (FID) 99 57-146

Field ID: B-02;5.0-5.5 Lab ID: 221160-005 Type: SAMPLE Moisture: 7%

Analyte Result RL
Gasoline C7-C12 ND 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 104 57-146

ND= Not Detected RL= Reporting Limit

Page 1 of 2



Gasoline by GC/FID (5035 Prep) 221160 5859 Foothill Blvd. Lab #: Location: EPA 5035 Client: Baseline Environmental Prep: EPA 8015B 164798 Project#: Y8359-06 Analysis: Matrix: Soil Batch#: 07/08/10 Units: mg/Kg Sampled: dry 1.000 Basis: Received: 07/08/10 07/09/10 Diln Fac: Analyzed:

Field ID: B-02;11-11.5 Lab ID: 221160-006

Type: SAMPLE Moisture: 15%

Analyte Result RL
Gasoline C7-C12 ND 0.18

Surrogate %REC Limits
Bromofluorobenzene (FID) 99 57-146

Field ID: B-03;11-11.5 Lab ID: 221160-007

Type: SAMPLE Moisture: 12%

Analyte Result RL
Gasoline C7-C12 ND 0.18

Surrogate %REC Limits
Bromofluorobenzene (FID) 96 57-146

Type: BLANK Lab ID: QC551707

Analyte Result RL
Gasoline C7-C12 ND 0.20

Surrogate %REC Limits
Bromofluorobenzene (FID) 85 57-146

ND= Not Detected RL= Reporting Limit

RL= Reporting Limit Page 2 of 2



Gasoline by GC/FID (5035 Prep)					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8015B		
Type:	LCS	Diln Fac:	1.000		
Lab ID:	QC551737	Batch#:	164798		
Matrix:	Soil	Analyzed:	07/09/10		
Units:	mg/Kg				

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	0.9014	90	77-123

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	57-146

Page 1 of 1 7.0



Gasoline by GC/FID (5035 Prep)					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5030B		
Project#:	Y8359-06	Analysis:	EPA 8015B		
Field ID:	ZZZZZZZZZ	Diln Fac:	1.000		
MSS Lab ID:	221165-001	Batch#:	164798		
Matrix:	Soil	Sampled:	07/09/10		
Units:	mg/Kg	Received:	07/09/10		
Basis:	as received	Analyzed:	07/09/10		

Type: MS Lab ID: QC551738

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1881	9.346	6.094	63	38-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	57-146

Type: MSD Lab ID: QC551739

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.174	6.547	69	38-120	9	56



	Total Extrac	table Hydrocar	rbons
Lab #:	221160	Location:	5859 Foothill Blvd.
Client:	Baseline Environmental	Prep:	EPA 3520C
Project#:	Y8359-06	Analysis:	EPA 8015B
Field ID:	B-03	Sampled:	07/08/10
Matrix:	Water	Received:	07/08/10
Units:	ug/L	Prepared:	07/09/10
Diln Fac:	1.000	Analyzed:	07/12/10
Batch#:	164815		

Lab ID: Type: SAMPLE Cleanup Method: EPA 3630C

221160-008

Analyte	Result	RL	MDL
Diesel C10-C24	ND	50	
Motor Oil C24-C36	ND	300	84

Surrogate	%REC	Limits
o-Terphenyl	98	60-129

Type: Cleanup Method: EPA 3630C BLANK

Lab ID: QC551771

Analyte	Result	RL	MDL
Diesel C10-C24	ND	50	
Motor Oil C24-C36	ND	300	84

Surrogate	%REC	Limits
o-Terphenyl	83	60-129

ND= Not Detected RL= Reporting Limit

MDL= Method Detection Limit

Page 1 of 1



	Total Extracta	able Hydrocarbo	ns
Lab #:	221160	Location:	5859 Foothill Blvd.
Client:	Baseline Environmental	Prep:	EPA 3520C
Project#:	Y8359-06	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	164815
Units:	ug/L	Prepared:	07/09/10
Diln Fac:	1.000	Analyzed:	07/12/10

Type: BS Cleanup Method: EPA 3630C

Lab ID: QC551772

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,367	95	54-125

Surrogate	%REC	Limits
o-Terphenyl	103	60-129

Type: BSD Cleanup Method: EPA 3630C

Lab ID: QC551773

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,133	85	54-125	10	53

Surrogate	%REC	Limits	
o-Terphenyl	96	60-129	



Total Extractable Hydrocarbons Lab #: 221160 5859 Foothill Blvd. Location: SHAKER TABLE Client: Prep: Baseline Environmental Project#: Y8359-06 Analysis: EPA 8015B 07/08/10 Matrix: Soil Sampled: 07/08/10 Units: mg/Kg Received: Basis: 07/10/10 dry Prepared: 1.000 Diln Fac: 07/11/10 Analyzed: Batch#: 164817

Field ID: B-01;1.0-1.5 Moisture: 17%

Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 221160-001

Analyte	Result	RL	
Diesel C10-C24	1.7 Y	1.2	
Motor Oil C24-C36	7.4	6.0	

Surrogate	%REC	Limits	
o-Terphenyl	79	45-130	

Field ID: B-01;5.0-5.5 Moisture: 12%

Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 221160-002

Analyte	Result	RL	
Diesel C10-C24	ND	1.1	
Motor Oil C24-C36	ND	5.7	

Surrogate	%REC	Limits
o-Terphenyl	96	45-130

Field ID: B-01;11-11.5 Moisture: 16%

Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 221160-003

Analyte	Result	RL	
Diesel C10-C24	1.4 Y	1.2	
Motor Oil C24-C36	ND	5.9	

Surrogate	%REC	Limits
o-Terphenyl	80	45-130

Field ID: B-02;1.0-1.5 Moisture: 19%

Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 221160-004

Analyte	Result	RL	
Diesel C10-C24	1.9 Y	1.2	
Motor Oil C24-C36	ND	6.2	

Surrogate	%REC	Limits
o-Terphenyl	83	45-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 1 of 2



Total Extractable Hydrocarbons 5859 Foothill Blvd. 221160 Lab #: Location: Baseline Environmental Client: SHAKER TABLE Prep: Analysis: Sampled: Project#: Y8359-06 EPA 8015B 07/08/10 Matrix: Soil Units: mg/Kg Received: 07/08/10 07/10/10 07/11/10 Basis: Prepared: dry 1.000 Diln Fac: Analyzed: Batch#: 164817

Field ID: B-02;5.0-5.5 Moisture:

Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 221160-005

Analyte	Result	RL	
Diesel C10-C24	1.7 Y	1.1	
Motor Oil C24-C36	ND	5.4	

Surrogate	%REC	Limits
o-Terphenyl	87	45-130

Field ID: B-02;11-11.5 Moisture: 15%

Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 221160-006

Analyte	Result	RL	
Diesel C10-C24	ND	1.2	
Motor Oil C24-C36	ND	5.9	

Surrogate %REC Lim
Terphenyl 78 45-

Field ID: B-03;11-11.5 Moisture: 12%

Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 221160-007

Analyte	Result	RL	
Diesel C10-C24	ND	1.1	
Motor Oil C24-C36	ND	5.7	

Surrogate	%REC	Limits
o-Terphenyl	85	45-130

Type: BLANK\_\_\_ Cleanup Method: EPA 3630C

Lab ID: QC551779

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
o-Terphenyl	90	45-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit
Page 2 of 2



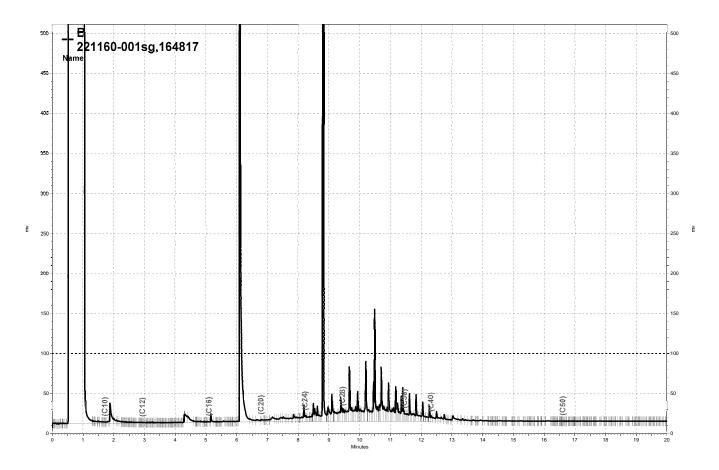
Total Extractable Hydrocarbons				
Lab #:	221160	Location:	5859 Foothill Blvd.	
Client:	Baseline Environmental	Prep:	SHAKER TABLE	
Project#:	Y8359-06	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC551780	Batch#:	164817	
Matrix:	Soil	Prepared:	07/10/10	
Units:	mg/Kg	Analyzed:	07/11/10	

Cleanup Method: EPA 3630C

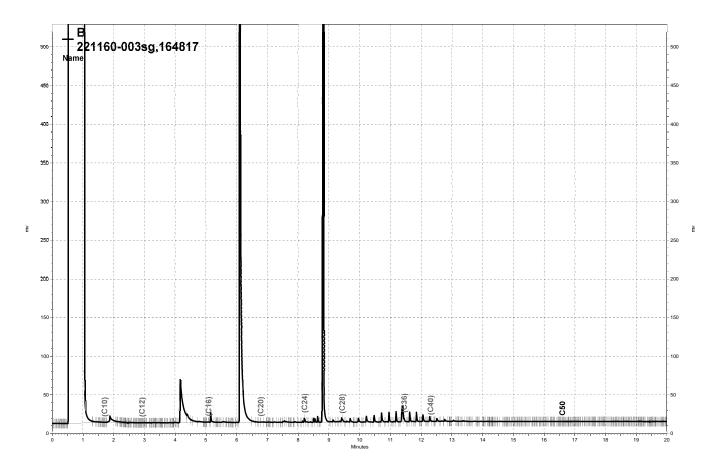
Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.84	42.30	85	45-143

Surrogate	%REC	Limits
o-Terphenyl	86	45-130

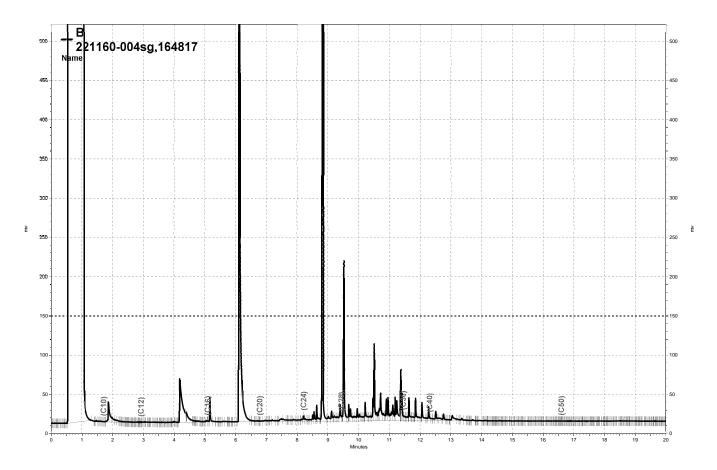
Page 1 of 1



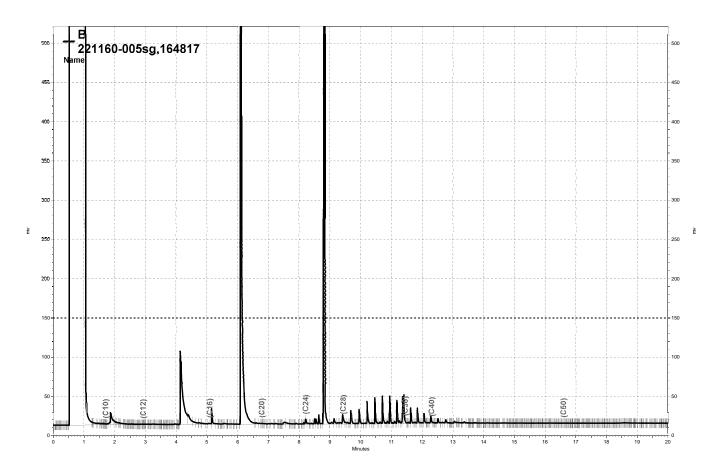
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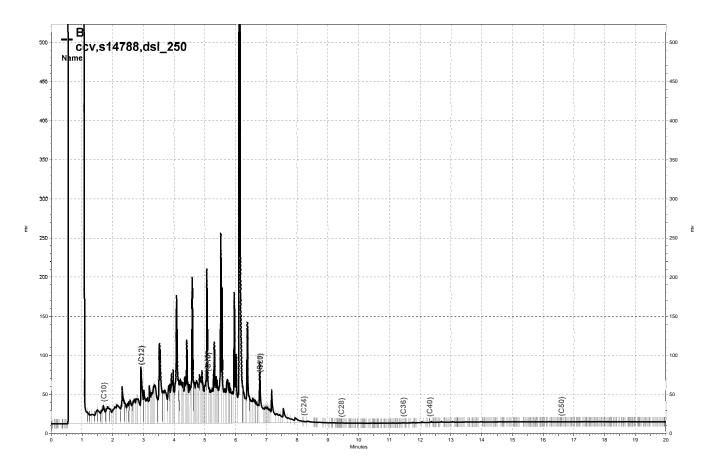
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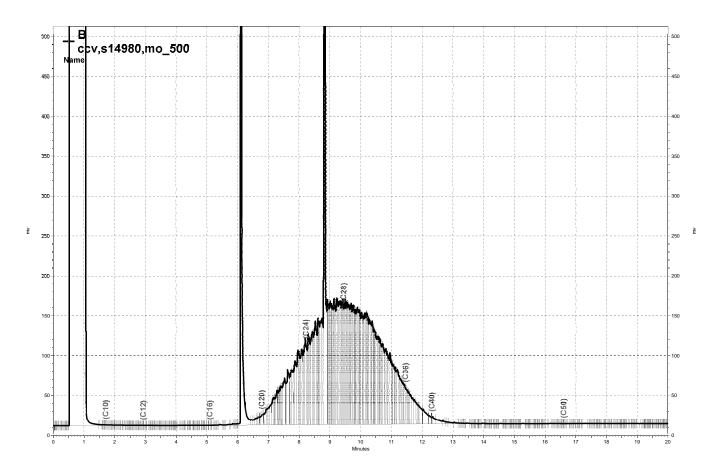
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\Lims\gdrive\ezchrom\Projects\GC15B\Data\192b005, B



Purgeable Organics by GC/MS				
Lab #:	221160	Location:	5859 Foothill Blvd.	
Client:	Baseline Environmental	Prep:	EPA 5030B	
Project#:	Y8359-06	Analysis:	EPA 8260B	
Field ID:	B-03	Batch#:	164830	
Lab ID:	221160-008	Sampled:	07/08/10	
Matrix:	Water	Received:	07/08/10	
Units:	ug/L	Analyzed:	07/12/10	
Diln Fac:	1.000	-		

Analysta	Result	RL	
Analyte Freon 12	ND	1.0	
Chloromethane	ND ND	1.0 0.5	
Vinyl Chloride		1.0	
Bromomethane	ND	= * *	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	2.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND ND	1.0	
Isopropylbenzene	ND ND	0.5	
1,1,2,2-Tetrachloroethane	ND ND	0.5	
	ND ND	0.5	
1,2,3-Trichloropropane		0.5	
Propylbenzene	ND	U.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	

<sup>\*=</sup> Value outside of QC limits; see narrative ND= Not Detected RL= Reporting Limit Page 1 of 2



		rganics by GC/1	
Lab #:	221160	Location:	5859 Foothill Blvd.
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y8359-06	Analysis:	EPA 8260B
Field ID:	B-03	Batch#:	164830
Lab ID:	221160-008	Sampled:	07/08/10
Matrix:	Water	Received:	07/08/10
Units:	ug/L	Analyzed:	07/12/10
Diln Fac:	1.000	-	

Analyte	Result	RL	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	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	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-122
1,2-Dichloroethane-d4	148 *	71-140
Toluene-d8	110	80-120
Bromofluorobenzene	109	80-121

<sup>\*=</sup> Value outside of QC limits; see narrative ND= Not Detected RL= Reporting Limit Page 2 of 2



Purgeable Organics by GC/MS						
Lab #:	221160	Location:	5859 Foothill Blvd.			
Client:	Baseline Environmental	Prep:	EPA 5030B			
Project#:	Y8359-06	Analysis:	EPA 8260B			
Matrix:	Water	Batch#:	164830			
Units:	ug/L	Analyzed:	07/12/10			
Diln Fac:	1.000					

Type: BS Lab ID: QC551819

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.81	99	72-138
Benzene	25.00	26.19	105	80-122
Trichloroethene	25.00	24.07	96	80-122
Toluene	25.00	26.03	104	80-120
Chlorobenzene	25.00	25.54	102	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	101	80-122	
1,2-Dichloroethane-d4	103	71-140	
Toluene-d8	103	80-120	
Bromofluorobenzene	102	80-121	

Type: BSD Lab ID: QC551820

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	23.64	95	72-138	5	20
Benzene	25.00	25.97	104	80-122	1	20
Trichloroethene	25.00	22.68	91	80-122	6	20
Toluene	25.00	25.32	101	80-120	3	20
Chlorobenzene	25.00	25.32	101	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	107	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	101	80-121



Purgeable Organics by GC/MS						
Lab #:	221160	Location:	5859 Foothill Blvd.			
Client:	Baseline Environmental	Prep:	EPA 5030B			
Project#:	Y8359-06	Analysis:	EPA 8260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC551821	Batch#:	164830			
Matrix:	Water	Analyzed:	07/12/10			
Units:	ug/L					

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	2.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	

ND= Not Detected

RL= Reporting Limit

Page 1 of 2



Purgeable Organics by GC/MS						
Lab #:	221160	Location:	5859 Foothill Blvd.			
Client:	Baseline Environmental	Prep:	EPA 5030B			
Project#:	Y8359-06	Analysis:	EPA 8260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC551821	Batch#:	164830			
Matrix:	Water	Analyzed:	07/12/10			
Units:	ug/L					

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	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	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	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	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	100	80-122	
1,2-Dichloroethane-d4	115	71-140	
Toluene-d8	103	80-120	
Bromofluorobenzene	102	80-121	

ND= Not Detected

RL= Reporting Limit

Page 2 of 2



Purgeable Organics by GC/MS						
Lab #:	221160	Location:	5859 Foothill Blvd.			
Client:	Baseline Environmental	Prep:	EPA 5035			
Project#:	Y8359-06	Analysis:	EPA 8260B			
Field ID:	B-01;1.0-1.5	Diln Fac:	0.8711			
Lab ID:	221160-001	Batch#:	164857			
Matrix:	Soil	Sampled:	07/08/10			
Units:	ug/Kg	Received:	07/08/10			
Basis:	dry	Analyzed:	07/13/10			

Moisture: 17%

moiscule: 1/8			
Analyte	Result	RL	MDL
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.2	
Acetone	ND	21	
Freon 113	ND	5.2	
1,1-Dichloroethene	ND	5.2	
Methylene Chloride	ND	21	
Carbon Disulfide	ND	5.2	
MTBE	ND	5.2	
trans-1,2-Dichloroethene	ND	_5.2	
Vinyl Acetate	ND	52	
1,1-Dichloroethane	ND	5.2	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.2	
2,2-Dichloropropane	ND	5.2	
Chloroform	ND	5.2	
Bromochloromethane	ND	5.2	
1,1,1-Trichloroethane	ND	5.2	
1,1-Dichloropropene	ND	5.2	
Carbon Tetrachloride	ND	5.2	
1,2-Dichloroethane	ND	5.2	0.98
Benzene	ND	5.2	
Trichloroethene	ND	5.2	
1,2-Dichloropropane	ND	5.2	
Bromodichloromethane	ND	5.2	
Dibromomethane	ND	5.2	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.2	
Toluene	ND	5.2	
trans-1,3-Dichloropropene	ND	5.2	
1,1,2-Trichloroethane	ND	5.2	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.2	
Tetrachloroethene	ND	5.2	
Dibromochloromethane	ND	5.2	
1,2-Dibromoethane	ND	5.2	
Chlorobenzene	ND	5.2	
1,1,1,2-Tetrachloroethane	ND	5.2	
Ethylbenzene	ND	5.2	
m,p-Xylenes	ND	5.2	
o-Xylene	ND	5.2	
Styrene	ND	5.2	
Bromoform	ND	5.2	
Isopropylbenzene	ND	5.2	
1,1,2,2-Tetrachloroethane	ND	5.2	
1,2,3-Trichloropropane	ND	5.2	
Propylbenzene	ND	5.2	
Bromobenzene	ND	5.2	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-01;1.0-1.5	Diln Fac:	0.8711		
Lab ID:	221160-001	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	ug/Kg	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.2	
2-Chlorotoluene	ND	5.2	
4-Chlorotoluene	ND	5.2	
tert-Butylbenzene	ND	5.2	
1,2,4-Trimethylbenzene	ND	5.2	
sec-Butylbenzene	ND	5.2	
para-Isopropyl Toluene	ND	5.2	
1,3-Dichlorobenzene	ND	5.2	
1,4-Dichlorobenzene	ND	5.2	
n-Butylbenzene	ND	5.2	
1,2-Dichlorobenzene	ND	5.2	
1,2-Dibromo-3-Chloropropane	ND	5.2	
1,2,4-Trichlorobenzene	ND	5.2	
Hexachlorobutadiene	ND	5.2	
Naphthalene	ND	5.2	
1,2,3-Trichlorobenzene	ND	5.2	

Surrogate	%REC	Limits	
Dibromofluoromethane	87	78-122	
1,2-Dichloroethane-d4	103	68-152	
Toluene-d8	101	80-120	
Bromofluorobenzene	113	76-132	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-01;5.0-5.5	Diln Fac:	0.9785		
Lab ID:	221160-002	Batch#:	164796		
Matrix:	Soil	Sampled:	07/08/10		
Units:	ug/Kg	Received:	07/08/10		
Basis:	dry	Analyzed:	07/09/10		

12% Moisture:

Analyte	Result	RL	MDL
Freon 12	ND	11	
Chloromethane	ND	11	
Vinyl Chloride	ND	11	
Bromomethane	ND	11	
Chloroethane	ND	11	
Trichlorofluoromethane	ND ND	5.6	
Acetone	ND ND	22	
Freon 113	ND ND	5.6	
1,1-Dichloroethene	ND ND	5.6	
		22	
Methylene Chloride	ND		
Carbon Disulfide	ND	5.6	
MTBE	ND	5.6	
trans-1,2-Dichloroethene	ND	5.6	
Vinyl Acetate	ND	56	
1,1-Dichloroethane	ND	5.6	
2-Butanone	ND	11	
cis-1,2-Dichloroethene	ND	5.6	
2,2-Dichloropropane	ND	5.6	
Chloroform	ND	5.6	
Bromochloromethane	ND	5.6	
1,1,1-Trichloroethane	ND	5.6	
1,1-Dichloropropene	ND	5.6	
Carbon Tetrachloride	ND	5.6	
1,2-Dichloroethane	ND	5.6	0.25
Benzene	ND	5.6	
Trichloroethene	ND	5.6	
1,2-Dichloropropane	ND	5.6	
Bromodichloromethane	ND	5.6	
Dibromomethane	ND	5.6	
4-Methyl-2-Pentanone	ND	11	
cis-1,3-Dichloropropene	ND	5.6	
Toluene	ND	5.6	
trans-1,3-Dichloropropene	ND	5.6	
1,1,2-Trichloroethane	ND	5.6	
2-Hexanone	ND	11	
1,3-Dichloropropane	ND ND	5.6	
Tetrachloroethene	ND	5.6	
Dibromochloromethane	ND	5.6	
1,2-Dibromoethane	ND ND	5.6	
Chlorobenzene	ND ND	5.6	
		5.6	
1,1,1,2-Tetrachloroethane	ND	5.6	
Ethylbenzene	ND		
m,p-Xylenes	ND	5.6	
o-Xylene	ND	5.6	
Styrene	ND	5.6	
Bromoform	ND	5.6	
Isopropylbenzene	ND	5.6	
1,1,2,2-Tetrachloroethane	ND	5.6	
1,2,3-Trichloropropane	ND	5.6	
Propylbenzene	ND	5.6	
Bromobenzene	ND	5.6	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-01;5.0-5.5	Diln Fac:	0.9785		
Lab ID:	221160-002	Batch#:	164796		
Matrix:	Soil	Sampled:	07/08/10		
Units:	ug/Kg	Received:	07/08/10		
Basis:	dry	Analyzed:	07/09/10		

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.6	
2-Chlorotoluene	ND	5.6	
4-Chlorotoluene	ND	5.6	
tert-Butylbenzene	ND	5.6	
1,2,4-Trimethylbenzene	ND	5.6	
sec-Butylbenzene	ND	5.6	
para-Isopropyl Toluene	ND	5.6	
1,3-Dichlorobenzene	ND	5.6	
1,4-Dichlorobenzene	ND	5.6	
n-Butylbenzene	ND	5.6	
1,2-Dichlorobenzene	ND	5.6	
1,2-Dibromo-3-Chloropropane	ND	5.6	
1,2,4-Trichlorobenzene	ND	5.6	
Hexachlorobutadiene	ND	5.6	
Naphthalene	ND	5.6	
1,2,3-Trichlorobenzene	ND	5.6	

Surrogate	%REC	Limits	
Dibromofluoromethane	109	78-122	
1,2-Dichloroethane-d4	117	68-152	
Toluene-d8	108	80-120	
Bromofluorobenzene	112	76-132	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-01;11-11.5	Diln Fac:	0.8237		
Lab ID:	221160-003	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	ug/Kg	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

Moisture: 16%

Analyte	Result	RL	MDL
Freon 12	ND	9.8	1101
Chloromethane	ND	9.8	
Vinyl Chloride	ND	9.8	
Bromomethane	ND	9.8	
Chloroethane	ND	9.8	
Trichlorofluoromethane	ND	4.9	
Acetone	ND ND	20	
Freon 113	ND ND	4.9	
1,1-Dichloroethene	ND	4.9	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	4.9	
MTBE	ND	4.9	
trans-1,2-Dichloroethene	ND	4.9	
Vinyl Acetate	ND	49	
1,1-Dichloroethane	ND	4.9	
2-Butanone	ND	9.8	
cis-1,2-Dichloroethene	ND	4.9	
2,2-Dichloropropane	ND	4.9	
Chloroform	ND	4.9	
Bromochloromethane	ND	4.9	
1,1,1-Trichloroethane	ND	4.9	
1,1-Dichloropropene	ND	4.9	
Carbon Tetrachloride	ND	4.9	
1,2-Dichloroethane	ND	4.9	0.91
Benzene	ND ND	4.9	0.71
Trichloroethene	ND ND	4.9	
	ND ND	4.9	
1,2-Dichloropropane		4.9	
Bromodichloromethane	ND		
Dibromomethane	ND	4.9	
4-Methyl-2-Pentanone	ND	9.8	
cis-1,3-Dichloropropene	ND	4.9	
Toluene	ND	4.9	
trans-1,3-Dichloropropene	ND	4.9	
1,1,2-Trichloroethane	ND	4.9	
2-Hexanone	ND	9.8	
1,3-Dichloropropane	ND	4.9	
Tetrachloroethene	ND	4.9	
Dibromochloromethane	ND	4.9	
1,2-Dibromoethane	ND	4.9	
Chlorobenzene	ND	4.9	
1,1,1,2-Tetrachloroethane	ND	4.9	
Ethylbenzene	ND	4.9	
m,p-Xylenes	ND	4.9	
o-Xylene	ND	4.9	
Styrene	ND	4.9	
Bromoform	ND	4.9	
Isopropylbenzene	ND ND	4.9	
1,1,2,2-Tetrachloroethane	ND ND	4.9	
		4.9	
1,2,3-Trichloropropane	ND ND	4.9	
Propylbenzene	ND ND		
Bromobenzene	ND	4.9	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-01;11-11.5	Diln Fac:	0.8237		
Lab ID:	221160-003	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	uq/Kq	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.9	
2-Chlorotoluene	ND	4.9	
4-Chlorotoluene	ND	4.9	
tert-Butylbenzene	ND	4.9	
1,2,4-Trimethylbenzene	ND	4.9	
sec-Butylbenzene	ND	4.9	
para-Isopropyl Toluene	ND	4.9	
1,3-Dichlorobenzene	ND	4.9	
1,4-Dichlorobenzene	ND	4.9	
n-Butylbenzene	ND	4.9	
1,2-Dichlorobenzene	ND	4.9	
1,2-Dibromo-3-Chloropropane	ND	4.9	
1,2,4-Trichlorobenzene	ND	4.9	
Hexachlorobutadiene	ND	4.9	
Naphthalene	ND	4.9	
1,2,3-Trichlorobenzene	ND	4.9	

Surrogate	%REC	Limits	
Dibromofluoromethane	80	78-122	
1,2-Dichloroethane-d4	94	68-152	
Toluene-d8	99	80-120	
Bromofluorobenzene	109	76-132	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-02;1.0-1.5	Diln Fac:	0.8881		
Lab ID:	221160-004	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	ug/Kg	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

19% Moisture:

Analyte	Result	RL	MDL
Freon 12	ND	11	<u></u>
Chloromethane	ND	11	
Vinyl Chloride	ND	11	
Bromomethane	ND	11	
Chloroethane	ND	11	
Trichlorofluoromethane	ND	5.5	
Acetone	ND	22	
Freon 113	ND	5.5	
1,1-Dichloroethene	ND	5.5	
Methylene Chloride	ND ND	22	
Carbon Disulfide	ND ND	5.5	
MTBE	ND ND	5.5	
		5.5	
trans-1,2-Dichloroethene	ND		
Vinyl Acetate	ND	55 5.5	
1,1-Dichloroethane	ND		
2-Butanone	ND	11_	
cis-1,2-Dichloroethene	ND	5.5	
2,2-Dichloropropane	ND	5.5	
Chloroform	ND	5.5	
Bromochloromethane	ND	5.5	
1,1,1-Trichloroethane	ND	5.5	
1,1-Dichloropropene	ND	5.5	
Carbon Tetrachloride	ND	5.5	
1,2-Dichloroethane	ND	5.5	1.0
Benzene	ND	5.5	
Trichloroethene	ND	5.5	
1,2-Dichloropropane	ND	5.5	
Bromodichloromethane	ND	5.5	
Dibromomethane	ND	5.5	
4-Methyl-2-Pentanone	ND	11	
cis-1,3-Dichloropropene	ND	5.5	
Toluene	ND	5.5	
trans-1,3-Dichloropropene	ND	5.5	
1,1,2-Trichloroethane	ND	5.5	
2-Hexanone	ND	11	
1,3-Dichloropropane	ND	5.5	
Tetrachloroethene	ND	5.5	
Dibromochloromethane	ND	5.5	
1,2-Dibromoethane	ND	5.5	
Chlorobenzene	ND	5.5	
1,1,1,2-Tetrachloroethane	ND	5.5	
Ethylbenzene	ND	5.5	
m,p-Xylenes	ND	5.5	
o-Xylene	ND	5.5	
Styrene	ND	5.5	
Bromoform	ND	5.5	
Isopropylbenzene	ND	5.5	
1,1,2,2-Tetrachloroethane	ND	5.5	
1,2,3-Trichloropropane	ND	5.5	
Propylbenzene	ND	5.5	
Bromobenzene	ND	5.5	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-02;1.0-1.5	Diln Fac:	0.8881		
Lab ID:	221160-004	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	uq/Kq	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.5	
2-Chlorotoluene	ND	5.5	
4-Chlorotoluene	ND	5.5	
tert-Butylbenzene	ND	5.5	
1,2,4-Trimethylbenzene	ND	5.5	
sec-Butylbenzene	ND	5.5	
para-Isopropyl Toluene	ND	5.5	
1,3-Dichlorobenzene	ND	5.5	
1,4-Dichlorobenzene	ND	5.5	
n-Butylbenzene	ND	5.5	
1,2-Dichlorobenzene	ND	5.5	
1,2-Dibromo-3-Chloropropane	ND	5.5	
1,2,4-Trichlorobenzene	ND	5.5	
Hexachlorobutadiene	ND	5.5	
Naphthalene	ND	5.5	
1,2,3-Trichlorobenzene	ND	5.5	

	Surrogate	%REC	Limits	
Di	bromofluoromethane	82	78-122	
1,	2-Dichloroethane-d4	91	68-152	
To	luene-d8	103	80-120	
Br	romofluorobenzene	116	76-132	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-02;5.0-5.5	Diln Fac:	0.9124		
Lab ID:	221160-005	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	ug/Kg	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

7% Moisture:

Analyte	Result	RL	MDL
Freon 12	ND	9.8	
Chloromethane	ND	9.8	
Vinyl Chloride	ND	9.8	
Bromomethane	ND	9.8	
Chloroethane	ND	9.8	
Trichlorofluoromethane	ND	4.9	
Acetone	ND	20	
Freon 113	ND	4.9	
1,1-Dichloroethene	ND	4.9	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	4.9	
MTBE	ND	4.9	
trans-1,2-Dichloroethene	ND	4.9	
Vinyl Acetate	ND	49	
1,1-Dichloroethane	ND ND	4.9	
2-Butanone	ND ND	9.8	
cis-1,2-Dichloroethene	ND ND	4.9	
	ND ND	4.9	
2,2-Dichloropropane			
Chloroform	ND	4.9 4.9	
Bromochloromethane	ND	4.9	
1,1,1-Trichloroethane	ND	4.9	
1,1-Dichloropropene	ND	4.9 4.9	
Carbon Tetrachloride	ND	4.9	0 01
1,2-Dichloroethane	ND	4.9	0.91
Benzene	ND	4.9	
Trichloroethene	ND	4.9	
1,2-Dichloropropane	ND	4.9	
Bromodichloromethane	ND	4.9	
Dibromomethane	ND	4.9	
4-Methyl-2-Pentanone	ND	9.8	
cis-1,3-Dichloropropene	ND	4.9	
Toluene	ND	4.9	
trans-1,3-Dichloropropene	ND	4.9	
1,1,2-Trichloroethane	ND	4.9	
2-Hexanone	ND	9.8	
1,3-Dichloropropane	ND	4.9	
Tetrachloroethene	ND	4.9	
Dibromochloromethane	ND	4.9	
1,2-Dibromoethane	ND	4.9	
Chlorobenzene	ND	4.9	
1,1,1,2-Tetrachloroethane	ND	4.9	
Ethylbenzene	ND	4.9	
m,p-Xylenes	ND	4.9	
o-Xylene	ND	4.9	
Styrene	ND	4.9	
Bromoform	ND	4.9	
Isopropylbenzene	ND	4.9	
1,1,2,2-Tetrachloroethane	ND	4.9	
1,2,3-Trichloropropane	ND	4.9	
Propylbenzene	ND	4.9	
Bromobenzene	ND	4.9	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-02;5.0-5.5	Diln Fac:	0.9124		
Lab ID:	221160-005	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	uq/Kq	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.9	
2-Chlorotoluene	ND	4.9	
4-Chlorotoluene	ND	4.9	
tert-Butylbenzene	ND	4.9	
1,2,4-Trimethylbenzene	ND	4.9	
sec-Butylbenzene	ND	4.9	
para-Isopropyl Toluene	ND	4.9	
1,3-Dichlorobenzene	ND	4.9	
1,4-Dichlorobenzene	ND	4.9	
n-Butylbenzene	ND	4.9	
1,2-Dichlorobenzene	ND	4.9	
1,2-Dibromo-3-Chloropropane	ND	4.9	
1,2,4-Trichlorobenzene	ND	4.9	
Hexachlorobutadiene	ND	4.9	
Naphthalene	ND	4.9	
1,2,3-Trichlorobenzene	ND	4.9	

Surrogate	%REC	Limits	
Dibromofluoromethane	83	78-122	
1,2-Dichloroethane-d4	103	68-152	
Toluene-d8	98	80-120	
Bromofluorobenzene	109	76-132	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-02;11-11.5	Diln Fac:	0.9328		
Lab ID:	221160-006	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	uq/Kq	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

15% Moisture:

Analyte	Result	RL	MDL
Freon 12	ND	11	HDB
Chloromethane	ND	11	
Vinyl Chloride	ND	11	
Bromomethane	ND	11	
Chloroethane	ND ND	11	
		5.5	
Trichlorofluoromethane	ND		
Acetone	ND	22	
Freon 113	ND	5.5	
1,1-Dichloroethene	ND	5.5	
Methylene Chloride	ND	22 _	
Carbon Disulfide	ND	5.5	
MTBE	ND	5.5	
trans-1,2-Dichloroethene	ND	5.5	
Vinyl Acetate	ND	55	
1,1-Dichloroethane	ND	5.5	
2-Butanone	ND	11	
cis-1,2-Dichloroethene	ND	5.5	
2,2-Dichloropropane	ND	5.5	
Chloroform	ND	5.5	
Bromochloromethane	ND	5.5	
1,1,1-Trichloroethane	ND	5.5	
1,1-Dichloropropene	ND	5.5	
Carbon Tetrachloride	ND	5.5	
1,2-Dichloroethane	ND	5.5	1.0
Benzene	ND ND	5.5	1.0
Trichloroethene	ND ND	5.5	
		5.5	
1,2-Dichloropropane	ND ND		
Bromodichloromethane	ND	5.5	
Dibromomethane	ND	5.5	
4-Methyl-2-Pentanone	ND	11	
cis-1,3-Dichloropropene	ND	5.5	
Toluene	ND	5.5	
trans-1,3-Dichloropropene	ND	5.5	
1,1,2-Trichloroethane	ND	5.5	
2-Hexanone	ND	11	
1,3-Dichloropropane	ND	5.5	
Tetrachloroethene	ND	5.5	
Dibromochloromethane	ND	5.5	
1,2-Dibromoethane	ND	5.5	
Chlorobenzene	ND	5.5	
1,1,1,2-Tetrachloroethane	ND	5.5	
Ethylbenzene	ND	5.5	
m,p-Xylenes	ND	5.5	
o-Xylene	ND	5.5	
Styrene	ND	5.5	
Bromoform	ND	5.5	
Isopropylbenzene	ND	5.5	
1,1,2,2-Tetrachloroethane	ND ND	5.5	
1 2 2 Trighloropeon		5.5	
1,2,3-Trichloropropane	ND ND		
Propylbenzene	ND ND	5.5	
Bromobenzene	ND	5.5	

Page 1 of 2

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-02;11-11.5	Diln Fac:	0.9328		
Lab ID:	221160-006	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	ug/Kg	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	5.5	
2-Chlorotoluene	ND	5.5	
4-Chlorotoluene	ND	5.5	
tert-Butylbenzene	ND	5.5	
1,2,4-Trimethylbenzene	ND	5.5	
sec-Butylbenzene	ND	5.5	
para-Isopropyl Toluene	ND	5.5	
1,3-Dichlorobenzene	ND	5.5	
1,4-Dichlorobenzene	ND	5.5	
n-Butylbenzene	ND	5.5	
1,2-Dichlorobenzene	ND	5.5	
1,2-Dibromo-3-Chloropropane	ND	5.5	
1,2,4-Trichlorobenzene	ND	5.5	
Hexachlorobutadiene	ND	5.5	
Naphthalene	ND	5.5	
1,2,3-Trichlorobenzene	ND	5.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	83	78-122	
1,2-Dichloroethane-d4	102	68-152	
Toluene-d8	101	80-120	
Bromofluorobenzene	108	76-132	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-03;11-11.5	Diln Fac:	0.8130		
Lab ID:	221160-007	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	ug/Kg	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

12% Moisture:

Analyte	Result	RL	MDL
Freon 12	ND ND	9.2	ribu
Chloromethane	ND	9.2	
Vinyl Chloride	ND	9.2	
Bromomethane	ND	9.2	
Chloroethane	ND	9.2	
Trichlorofluoromethane	ND ND	4.6	
Acetone	ND ND	18	
Freon 113	ND ND	4.6	
		4.6	
1,1-Dichloroethene	ND		
Methylene Chloride	ND	18	
Carbon Disulfide	ND	4.6	
MTBE	ND	4.6	
trans-1,2-Dichloroethene	ND	4.6	
Vinyl Acetate	ND	46	
1,1-Dichloroethane	ND	4.6	
2-Butanone	ND	9.2	
cis-1,2-Dichloroethene	ND	4.6	
2,2-Dichloropropane	ND	4.6	
Chloroform	ND	4.6	
Bromochloromethane	ND	4.6	
1,1,1-Trichloroethane	ND	4.6	
1,1-Dichloropropene	ND	4.6	
Carbon Tetrachloride	ND	4.6	
1,2-Dichloroethane	ND	4.6	0.86
Benzene	ND ND	4.6	0.80
Trichloroethene	ND ND	4.6	
	ND ND	4.6	
1,2-Dichloropropane			
Bromodichloromethane	ND	4.6	
Dibromomethane	ND	4.6	
4-Methyl-2-Pentanone	ND	9.2	
cis-1,3-Dichloropropene	ND	4.6	
Toluene	ND	4.6	
trans-1,3-Dichloropropene	ND	4.6	
1,1,2-Trichloroethane	ND	4.6	
2-Hexanone	ND	9.2	
1,3-Dichloropropane	ND	4.6	
Tetrachloroethene	ND	4.6	
Dibromochloromethane	ND	4.6	
1,2-Dibromoethane	ND	4.6	
Chlorobenzene	ND	4.6	
1,1,1,2-Tetrachloroethane	ND	4.6	
Ethylbenzene	ND	4.6	
m,p-Xylenes	ND	4.6	
o-Xylene	ND	4.6	
Styrene	ND ND	4.6	
Bromoform	ND ND	4.6	
Isopropylbenzene	ND	4.6	
1,1,2,2-Tetrachloroethane	ND	4.6	
1,2,3-Trichloropropane	ND	4.6	
Propylbenzene	ND	4.6	
Bromobenzene	ND	4.6	

Page 1 of 2

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



Purgeable Organics by GC/MS					
Lab #:	221160	Location:	5859 Foothill Blvd.		
Client:	Baseline Environmental	Prep:	EPA 5035		
Project#:	Y8359-06	Analysis:	EPA 8260B		
Field ID:	B-03;11-11.5	Diln Fac:	0.8130		
Lab ID:	221160-007	Batch#:	164857		
Matrix:	Soil	Sampled:	07/08/10		
Units:	ug/Kg	Received:	07/08/10		
Basis:	dry	Analyzed:	07/13/10		

Analyte	Result	RL	MDL
1,3,5-Trimethylbenzene	ND	4.6	
2-Chlorotoluene	ND	4.6	
4-Chlorotoluene	ND	4.6	
tert-Butylbenzene	ND	4.6	
1,2,4-Trimethylbenzene	ND	4.6	
sec-Butylbenzene	ND	4.6	
para-Isopropyl Toluene	ND	4.6	
1,3-Dichlorobenzene	ND	4.6	
1,4-Dichlorobenzene	ND	4.6	
n-Butylbenzene	ND	4.6	
1,2-Dichlorobenzene	ND	4.6	
1,2-Dibromo-3-Chloropropane	ND	4.6	
1,2,4-Trichlorobenzene	ND	4.6	
Hexachlorobutadiene	ND	4.6	
Naphthalene	ND	4.6	
1,2,3-Trichlorobenzene	ND	4.6	

Surrogate	%REC	Limits	
Dibromofluoromethane	83	78-122	
1,2-Dichloroethane-d4	111	68-152	
Toluene-d8	99	80-120	
Bromofluorobenzene	110	76-132	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



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Purgeable Organics by GC/MS						
T -1- II •	221160	T. a. a. a. b. d. a. a. a.	FOFO Brothill Plant			
Lab #:	221160	Location:	5859 Foothill Blvd.			
Client:	Baseline Environmental	Prep:	EPA 5035			
Project#:	Y8359-06	Analysis:	EPA 8260B			
Type:	BLANK	Diln Fac:	1.000			
Type: Lab ID:	QC551694	Batch#:	164796			
Matrix:	Soil	Analyzed:	07/09/10			
Units:	ug/Kg					

Analyte	Result	RL	MDL
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.0	
Acetone	ND	20	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	0.22
Benzene	ND	5.0	0.22
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Styrene	ND	5.0	
Bromoform	ND	5.0	
Isopropylbenzene	ND	5.0	
1,1,2,2-Tetrachloroethane	ND	5.0	
1,2,3-Trichloropropane	ND	5.0	
Propylbenzene	ND	5.0	
Bromobenzene	ND	5.0	
1,3,5-Trimethylbenzene	ND	5.0	
2-Chlorotoluene	ND	5.0	
2 311131 0001 40110	IND	5.0	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit

Page 1 of 2



	Purgeable Organics by GC/MS					
Lab #: Client: Project#:	221160 Baseline Environmental Y8359-06	Location: Prep: Analysis:	5859 Foothill Blvd. EPA 5035 EPA 8260B			
Type: Lab ID: Matrix: Units:	BLANK QC551694 Soil ug/Kg	Diln Fac: Batch#: Analyzed:	1.000 164796 07/09/10			

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits
Dibromofluoromethane	103	78-122
1,2-Dichloroethane-d4	110	68-152
Toluene-d8	108	80-120
Bromofluorobenzene	116	76-132

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



	Purgeable (	Organics by GC/	/MS
Lab #:	221160	Location:	5859 Foothill Blvd.
Client:	Baseline Environmental	Prep:	EPA 5035
Project#:	Y8359-06	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	164796
Units:	ug/Kg	Analyzed:	07/09/10
Diln Fac:	1.000		

Type: BS Lab ID: QC551695

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.65	99	72-134
Benzene	25.00	26.79	107	80-125
Trichloroethene	25.00	24.73	99	79-128
Toluene	25.00	27.90	112	80-128
Chlorobenzene	25.00	26.65	107	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	78-122
1,2-Dichloroethane-d4	117	68-152
Toluene-d8	108	80-120
Bromofluorobenzene	103	76-132

Type: BSD Lab ID: QC551696

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.13	97	72-134	2	20
Benzene	25.00	25.60	102	80-125	5	20
Trichloroethene	25.00	23.68	95	79-128	4	20
Toluene	25.00	26.71	107	80-128	4	20
Chlorobenzene	25.00	25.87	103	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-122
1,2-Dichloroethane-d4	113	68-152
Toluene-d8	108	80-120
Bromofluorobenzene	102	76-132



	Purgeable C	organics by GC/	'MS
Lab #:	221160	Location:	5859 Foothill Blvd.
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y8359-06	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9785
MSS Lab ID:	221106-003	Batch#:	164796
Matrix:	Soil	Sampled:	07/07/10
Units:	ug/Kg	Received:	07/07/10
Basis:	dry		

Type: MS Moisture: 27% Lab ID: QC551735 Analyzed: 07/09/10

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<1.085	67.02	70.66	105	69-141
Benzene	<0.8155	67.02	63.74	95	71-125
Trichloroethene	<0.9878	67.02	62.46	93	65-144
Toluene	<0.8417	67.02	63.20	94	64-128
Chlorobenzene	<0.8371	67.02	58.59	87	57-126

Surrogate	%REC	Limits
Dibromofluoromethane	107	78-122
1,2-Dichloroethane-d4	119	68-152
Toluene-d8	103	80-120
Bromofluorobenzene	100	76-132

Type: MSD Moisture: 27%
Lab ID: QC551736 Analyzed: 07/10/10

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	67.02	62.61	93	69-141	12	35
Benzene	67.02	60.43	90	71-125	5	33
Trichloroethene	67.02	60.15	90	65-144	4	31
Toluene	67.02	61.32	91	64-128	3	34
Chlorobenzene	67.02	55.78	83	57-126	5	36

Surrogate %F	REC	Limits
Dibromofluoromethane 105	5	78-122
1,2-Dichloroethane-d4 117	7	68-152
Toluene-d8 105	5	80-120
Bromofluorobenzene 101	1	76-132



Batter ge rep	·		
	Purgeable (	Organics by GC/	'MS
Lab #: Client: Project#:	221160 Baseline Environmental Y8359-06	Location: Prep: Analysis:	5859 Foothill Blvd. EPA 5035 EPA 8260B
Type: Lab ID: Matrix: Units:	BLANK QC551914 Soil ug/Kg	Diln Fac: Batch#: Analyzed:	1.000 164857 07/13/10

Analyte	Result	RL	MDL
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND ND	10	
Trichlorofluoromethane	ND ND	5.0	
		20	
Acetone	ND		
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	_5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	0.93
Benzene	ND	5.0	
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND ND	5.0	
m,p-Xylenes	ND ND	5.0	
o-Xylene	ND ND	5.0	
Styrene	ND ND	5.0	
Bromoform	ND ND	5.0	
Isopropylbenzene	ND ND	5.0	
1 1 2 2 Totrachloroothana	ND ND	5.0	
1,1,2,2-Tetrachloroethane	ND ND	5.0	
1,2,3-Trichloropropane Propylbenzene	ND ND	5.0	
		5.0	
Bromobenzene	ND ND		
1,3,5-Trimethylbenzene		5.0	
2-Chlorotoluene	ND	5.0	

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit

Page 1 of 2



Purgeable Organics by GC/MS							
Lab #: Client: Project#:	221160 Baseline Environmental Y8359-06	Location: Prep: Analysis:	5859 Foothill Blvd. EPA 5035 EPA 8260B				
Type: Lab ID: Matrix: Units:	BLANK QC551914 Soil ug/Kg	Diln Fac: Batch#: Analyzed:	1.000 164857 07/13/10				

Analyte	Result	RL	MDL
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits
Dibromofluoromethane	92	78-122
1,2-Dichloroethane-d4	111	68-152
Toluene-d8	99	80-120
Bromofluorobenzene	105	76-132

ND= Not Detected RL= Reporting Limit MDL= Method Detection Limit



	Purgeable (	Organics by GC/	/MS
Lab #:	221160	Location:	5859 Foothill Blvd.
Client:	Baseline Environmental	Prep:	EPA 5035
Project#:	Y8359-06	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC551915	Batch#:	164857
Matrix:	Soil	Analyzed:	07/13/10
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	22.50	21.54	96	72-134
Benzene	22.50	24.56	109	80-125
Trichloroethene	22.50	24.48	109	79-128
Toluene	22.50	24.23	108	80-128
Chlorobenzene	22.50	25.27	112	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	93	78-122
1,2-Dichloroethane-d4	113	68-152
Toluene-d8	100	80-120
Bromofluorobenzene	97	76-132

Page 1 of 1 31.0



Purgeable Organics by GC/MS						
Lab #:	221160	Location:	5859 Foothill Blvd.			
Client:	Baseline Environmental	Prep:	EPA 5030B			
Project#:	Y8359-06	Analysis:	EPA 8260B			
Field ID:	ZZZZZZZZZZ	Batch#:	164857			
MSS Lab ID:	221165-001	Sampled:	07/09/10			
Matrix:	Soil	Received:	07/09/10			
Units:	ug/Kg	Analyzed:	07/13/10			
Basis:	as received					

Type: MS Diln Fac: 0.9843

Lab ID: QC551916

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5773	49.21	55.83	113	69-141
Benzene	<0.9405	49.21	58.12	118	71-125
Trichloroethene	<1.097	49.21	55.77	113	65-144
Toluene	<1.269	49.21	53.49	109	64-128
Chlorobenzene	<0.2834	49.21	55.81	113	57-126

Cummogratio	%DEC	Timita
Surrogate	%REC	Limits
Dibromofluoromethane	101	78-122
1,2-Dichloroethane-d4	118	68-152
Toluene-d8	96	80-120
Bromofluorobenzene	97	76-132

Type: MSD Diln Fac: 0.9785

Lab ID: QC551917

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	48.92	58.72	120	69-141	6	35
Benzene	48.92	59.70	122	71-125	3	33
Trichloroethene	48.92	58.40	119	65-144	5	31
Toluene	48.92	56.34	115	64-128	6	34
Chlorobenzene	48.92	60.22	123	57-126	8	36

Surrogate	%REC	Limits	
Dibromofluoromethane	96	78-122	
1,2-Dichloroethane-d4	111	68-152	
Toluene-d8	92	80-120	
Bromofluorobenzene	93	76-132	



	California	Title 22 Meta	als
Lab #:	221160	Project#:	Y8359-06
Client:	Baseline Environmental	Location:	5859 Foothill Blvd.
Field ID:	DRUM	Diln Fac:	1.000
Lab ID:	221160-009	Sampled:	07/08/10
Matrix:	Water	Received:	07/08/10
Units:	ug/L	Prepared:	07/12/10

Analyte	Result	RL	Batch# Analyzed Prep Analysis
Antimony	ND	10	164865 07/14/10 EPA 3010A EPA 6010B
Arsenic	ND	5.0	164865 07/14/10 EPA 3010A EPA 6010B
Barium	120	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Beryllium	ND	2.0	164865 07/13/10 EPA 3010A EPA 6010B
Cadmium	ND	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Chromium	23	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Cobalt	ND	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Copper	17	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Lead	ND	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Mercury	ND	0.20	164835 07/12/10 METHOD EPA 7470A
Molybdenum	12	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Nickel	13	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Selenium	ND	10	164865 07/13/10 EPA 3010A EPA 6010B
Silver	ND	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Thallium	ND	10	164865 07/13/10 EPA 3010A EPA 6010B
Vanadium	7.6	5.0	164865 07/13/10 EPA 3010A EPA 6010B
Zinc	1,100	20	164865 07/13/10 EPA 3010A EPA 6010B

ND= Not Detected RL= Reporting Limit

Page 1 of 1



California Title 22 Metals				
Lab #:	221160	Location:	5859 Foothill Blvd.	
Client:	Baseline Environmental	Prep:	METHOD	
Project#:	Y8359-06	Analysis:	EPA 7470A	
Analyte:	Mercury	Diln Fac:	1.000	
Type:	BLANK	Batch#:	164835	
Lab ID:	QC551837	Prepared:	07/12/10	
Matrix:	Filtrate	Analyzed:	07/12/10	
Units:	ug/L			

Result	RL	
ND	0.20	

ND= Not Detected RL= Reporting Limit

Page 1 of 1



	California	Title 22 Meta	als
Lab #:	221160	Location:	5859 Foothill Blvd.
Client:	Baseline Environmental	Prep:	METHOD
Project#:	Y8359-06	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	164835
Matrix:	Filtrate	Prepared:	07/12/10
Units:	ug/L	Analyzed:	07/12/10
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC551838	2.500	2.490	100	80-120		
BSD	QC551839	2.500	2.500	100	80-120	0	20



	California	a Title 22 Meta	als
Lab #:	221160	Location:	5859 Foothill Blvd.
Client:	Baseline Environmental	Prep:	METHOD
Project#:	Y8359-06	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	164835
Field ID:	ZZZZZZZZZ	Sampled:	07/08/10
MSS Lab ID:	221153-012	Received:	07/08/10
Matrix:	Filtrate	Prepared:	07/12/10
Units:	ug/L	Analyzed:	07/12/10
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC551840	0.04200	2.500	2.930	116	76-124		
MSD	QC551841		2.500	2.910	115	76-124	1	21



California Title 22 Metals				
Lab #:	221160	Location:	5859 Foothill Blvd.	
Client:	Baseline Environmental	Prep:	EPA 3010A	
Project#:	Y8359-06	Analysis:	EPA 6010B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC551957	Batch#:	164865	
Matrix:	Water	Prepared:	07/12/10	
Units:	ug/L	Analyzed:	07/13/10	

Analyte	Result	RL	
Antimony	ND	10	
Arsenic	ND	5.0	
Barium	ND	5.0	
Beryllium	ND	2.0	
Cadmium	ND	5.0	
Chromium	ND	5.0	
Cobalt	ND	5.0	
Copper	ND	5.0	
Lead	ND	5.0	
Molybdenum	ND	5.0	
Nickel	ND	5.0	
Selenium	ND	10	
Silver	ND	5.0	
Thallium	ND	10	
Vanadium	ND	5.0	
Zinc	ND	20	

ND= Not Detected RL= Reporting Limit

Page 1 of 1



	California	Title 22 Meta	ls
Lab #: Client: Project#:	221160 Baseline Environmental Y8359-06	Location: Prep: Analysis:	5859 Foothill Blvd. EPA 3010A EPA 6010B
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Prepared:	164865 07/12/10

Type: BS Lab ID: QC551958

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	500.0	486.7	97	78-120	07/14/10
Arsenic	100.0	102.2	102	80-120	07/13/10
Barium	2,000	1,927	96	80-120	07/13/10
Beryllium	50.00	53.43	107	80-120	07/13/10
Cadmium	50.00	51.35	103	80-120	07/13/10
Chromium	200.0	187.3	94	80-120	07/13/10
Cobalt	500.0	466.7	93	80-120	07/13/10
Copper	250.0	229.7	92	79-120	07/13/10
Lead	100.0	87.85	88	79-120	07/13/10
Molybdenum	400.0	379.6	95	80-120	07/13/10
Nickel	500.0	472.6	95	80-120	07/13/10
Selenium	100.0	99.54	100	80-120	07/13/10
Silver	50.00	47.67	95	79-120	07/13/10
Thallium	100.0	97.46	97	80-120	07/13/10
Vanadium	500.0	472.4	94	80-120	07/13/10
Zinc	500.0	473.0	95	80-120	07/13/10

Type: BSD Lab ID: QC551959

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	500.0	485.7	97	78-120	0	20	07/14/10
Arsenic	100.0	101.9	102	80-120	0	20	07/13/10
Barium	2,000	1,890	94	80-120	2	20	07/13/10
Beryllium	50.00	52.64	105	80-120	1	20	07/13/10
Cadmium	50.00	50.59	101	80-120	1	20	07/13/10
Chromium	200.0	184.1	92	80-120	2	20	07/13/10
Cobalt	500.0	458.2	92	80-120	2	20	07/13/10
Copper	250.0	227.1	91	79-120	1	20	07/13/10
Lead	100.0	86.08	86	79-120	2	20	07/13/10
Molybdenum	400.0	374.7	94	80-120	1	20	07/13/10
Nickel	500.0	464.7	93	80-120	2	20	07/13/10
Selenium	100.0	95.93	96	80-120	4	20	07/13/10
Silver	50.00	47.39	95	79-120	1	21	07/13/10
Thallium	100.0	94.29	94	80-120	3	20	07/13/10
Vanadium	500.0	463.7	93	80-120	2	20	07/13/10
Zinc	500.0	463.9	93	80-120	2	20	07/13/10



	California 1	Title 22 Metals	
Lab #:	221160	Location:	5859 Foothill Blvd.
Client:	Baseline Environmental	Prep:	EPA 3010A
Project#:	Y8359-06	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	164865
MSS Lab ID:	221061-001	Sampled:	07/01/10
Matrix:	Water	Received:	07/02/10
Units:	ug/L	Prepared:	07/12/10
Diln Fac:	1.000	-	

Type: MS Lab ID: QC551960

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analyzed
Antimony	<2.930	500.0	491.7	98	70-120	07/14/10
Arsenic	<1.578	100.0	104.9	105	74-126	07/14/10
Barium	22.63	2,000	1,911	94	75-120	07/13/10
Beryllium	<0.4075	50.00	53.06	106	80-120	07/13/10
Cadmium	<1.310	50.00	51.48	103	77-120	07/13/10
Chromium	1.367	200.0	185.1	92	75-120	07/13/10
Cobalt	<1.064	500.0	456.3	91	73-120	07/13/10
Copper	<1.375	250.0	226.6	91	70-120	07/13/10
Lead	<1.000	100.0	85.93	86	66-120	07/13/10
Molybdenum	2.002	400.0	385.2	96	79-120	07/13/10
Nickel	<1.276	500.0	462.0	92	71-120	07/13/10
Selenium	3.209	100.0	100.8	98	71-123	07/13/10
Silver	<1.000	50.00	47.72	95	68-120	07/13/10
Thallium	4.732	100.0	99.79	95	67-120	07/13/10
Vanadium	3.437	500.0	466.6	93	78-120	07/13/10
Zinc	<6.143	500.0	467.1	93	70-121	07/13/10

Type: MSD Lab ID: QC551961

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	500.0	477.9	96	70-120	3	21	07/14/10
Arsenic	100.0	99.92	100	74-126	5	26	07/14/10
Barium	2,000	2,013	100	75-120	5	24	07/13/10
Beryllium	50.00	56.15	112	80-120	6	20	07/13/10
Cadmium	50.00	52.51	105	77-120	2	20	07/13/10
Chromium	200.0	194.9	97	75-120	5	20	07/13/10
Cobalt	500.0	480.6	96	73-120	5	20	07/13/10
Copper	250.0	239.7	96	70-120	6	21	07/13/10
Lead	100.0	88.85	89	66-120	3	25	07/13/10
Molybdenum	400.0	393.4	98	79-120	2	20	07/13/10
Nickel	500.0	487.5	97	71-120	5	20	07/13/10
Selenium	100.0	97.89	95	71-123	3	25	07/13/10
Silver	50.00	51.37	103	68-120	7	22	07/13/10
Thallium	100.0	104.1	99	67-120	4	23	07/13/10
Vanadium	500.0	491.6	98	78-120	5	20	07/13/10
Zinc	500.0	490.1	98	70-121	5	24	07/13/10

# APPENDIX E NON-HAZARDOUS WASTE MANIFEST

	NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	2. Page 1 of		ent Number	
<b>A</b>	4. Generator's Name and Mailing Address		<u>_</u>			
	City o 250 F Oakla	of Oakland Frank H Ogawa Plaza and, CA 138-7371				
	5. Transporter Company Name	6. US EPA ID Number	7. Transpor	ter Phone		-
	CLEARWATER ENVIRONMENTAL	CAR000007013		(510) 476- <sup>-</sup>	1740	
	8. Designated Facility Name and Site Address	9. US EPA ID Number	10. Facility'	s Phone		
	Alviso Independent Oil 5002 Archer Street			,		
	Alviso, CA 95002	CAL 000 161 743		510-476-	-1740	
GENE	11. Waste Shipping Name and Description			Containers	13. Total Quantity	14. Unit Wt/Vol
R A T O	Non-Hazardous waste — L140		0	oldn	\ <i>7</i>	6
R	"NON-HAZERDOUS WA	ste-Socid	00	of da	< <i>j</i>	F
	15. Special Handling Instructions and Additional Info	ormation	Handling Co	des for Waste	s Listed Above	
	Wear PPE		11	la.	11b.	
	Emergency Contact					
	(510) 476-1740 Attn: Charles Seaton		L			
		naterials described above on this manifest are not subject to state or fec	daral regulations	or Moonting pro-	oor disposal of Hayares	lous Wasta
*	Printed/Typed Name	Signature	uerar regulations i	or eporting pro-	per disposar or riazari	IOUS WASIS.
TRANSI	Signed in helpfl  17. Transporter Acknowledgement of Receipt of Ma	of Breaton Will I	1/1/	<u> 1</u>	Month 7	Day Year
P O	Printed/Typed Name /	1 Signature	<del>/ /</del>	/		
R T E R	Willow Clar	-K WILC	Sort		Month (	Day Year
	18. Discrepancy Indication Space			,	-	
FAC-L-FY	19. Eacility Owner or Operator: Certification of recei	ot of waste materials covered by this manifest except as nated	in Item 18			
	Printed/Typed Name	Signature				
	Charles Seaton	MA			Month :	Day Year

# APPENDIX F SITE-SPECIFIC HEALTH AND SAFETY PLAN

#### SITE HEALTH & SAFETY PLAN

PROJECT/CLIEN	IT INFORMATION		
Project No:	Project Manager:	Site Health and Safety Manager:	Field Activities Date:
Y8359-06	James McCarty	William Scott	Spring 2010
Client:	City of Oakland		Site Address: 5859 Foothill Blvd.,
Contact Person:	Mark Arniola: (510) 2	38-7371	Oakland, California 94605

**PROJECT DESCRIPTION**: The site occupies approximately 2,827 square feet in a mixed residential and commercial/retail area. The site is bordered on the northeast by Foothill Boulevard, on the southeast by Seminary Avenue, on the southwest by vacant retail building, and on the northeast by multi-tenant commercial/residential building. Based on groundwater elevation data from a nearby site, groundwater is expected to flow toward the northwest and depth to first groundwater occurs between 10 and 15 feet bgs

The scope of work will consist of two borings advanced to a depth of 15 to 20 feet below ground surface using a direct push type drill rig. Three soil samples and a groundwater sample will be collected from each boring

KEY PERSONNEL AND RESPONSIBILITIES: James McCarty. P.E. is the Project Manager. William Scott, P.G., is the Field Team Leader and Site Health and Safety Manager. James McCarty shall be available by telephone during on-site work and have overall responsibility for preparation, implementation, and modifications to this Plan. The responsibilities of the Site Health and Safety Manager/Project Supervisor include: 1) enforcing this Site Health and Safety Plan; 2) stopping field operations if personnel safety and health may be jeopardized; 3) requesting site evacuation, if necessary; 4) conducting and evaluating or supervising the collection/evaluation of air monitoring data for the purpose of making decisions regarding the safety of on-site personnel; 5) designating other qualified personnel to work under the direction of the Site Health and Safety Manager, for purpose of implementing this Plan.

TRAINING REQUIREMENTS: All on-site workers with potential soil contact (or entering into the warm or hot zone) must be 40-hour trained in accordance with the OSHA HAZWOPER standard (including annual refresher training and 3-days of supervised field experience), must be under medical surveillance, and have received annual respirator training and fit testing in accordance with the requirements of the company's health and safety plan.

A copy of this site-specific health and safety plan will be provided at the site, and will be reviewed by the BASELINE Site Health and Safety Manager or designated personnel prior to the start of work at the site, as part of a tail-gate safety meeting. This site-specific Plan applies to all BASELINE employees engaged in hazardous materials activities on-site. All on-site personnel will be asked to sign a consent form included in this Plan, prior to the first day of fieldwork, indicating that they have read the Plan, meet the training requirements, and agree to all Plan conditions.

This Site Health and Safety Plan is intended to act as an extension of BASELINE's in-house Health and Safety Program, including Medical Surveillance Program, Hazard Communication Program, Hearing Conservation Program, Respiratory Protection Program, Personal Protective Equipment Program, Injury and Illness Prevention Program, Emergency Action Plan, and Fire Prevention Plan. BASELINE employees receive initial and annual training in these programs.

Chemical	Description	Health and Safety Standards	Potential Routes of Exposure	Symptoms of Acute Exposure
Gasoline	Combustible liquid, may contain carcinogenic middle distillates	No PEL	Skin, ingestion	Minor eye/skin irritation
Diesel	Combustible liquid, may contain carcinogenic middle distillates	No PEL	Skin, ingestion	Minor eye/skin irritation
Motor oil	Combustible liquid, may contain carcinogenic middle distillates	No PEL	Skin, ingestion	Minor eye/skin irritation
Volatile Organic Compounds				
Benzene	Carcinogen, aromatic HC	8-hr TLV=10 ppm PEL=1 ppm	Inhalation, dermal	Headache, dizziness, minor skin irritation
Toluene	Aromatic HC	8-hr TLV=100 ppm	Inhalation, dermal	Headache, dizziness, minor skin irritation
Xylenes	Aromatic HC	8-hr TLV=100 ppm	Inhalation, dermal	Headache, dizziness, minor skin irritation
Ethylbenzene	Aromatic HC	8-hr TLV=100 ppm	Inhalation, dermal	Headache, dizziness, minor skin irritation
Vinyl Chloride	Colorless gas with a pleasant odor	CALOSHA PEL: 1 ppm STEL: 5 ppm	Inhalation, direct contact, ingestion.	Lassitude, abdominal pain, GI bleeding, enlarged liver, pallor or cyanosis of extremities.
1,2-Dichloroethene	Colorless liquid with a pleasant, chloroform odor	CALOSHA PEL: 1 ppm STEL: 2 ppm CPEL: 200 ppm NIOSH REL: 1 ppm STEL: 2 ppm IDLH: 50 ppm	Inhalation, direct contact, ingestion.	Eye irritation; corneal opacity; CNS depression; nausea; vomiting; dermatitis; liver, kidney, and CVS damage.
Trichloroethene	Colorless liquid with a chloroform odor	CALOSHA PEL: 25 ppm STEL: 100 ppm CPEL: 300 ppm NIOSH REL: 25 ppm IDLH: 1000 ppm	Inhalation, direct contact, ingestion.	Eye and skin irritation; headache, visual disturbance; lassitude; dizziness; tremor; drowsiness; nausea; vomiting; dermatitis; cardiac arrhythmias; paresthesia; liver injury.
Tetrachloroethene	Colorless liquid with a mild, chloroform odor	CALOSHA PEL: 25 ppm STEL: 100 ppm CPEL: 300 ppm NIOSH IDLH: 150 ppm	Inhalation, direct contact, ingestion.	Eye, skin, nose, respiratory system, and throat irritation; dizziness, poor coordination; headache; nausea; drowsiness; flushed face and neck, skin erythema; liver damage.

Notes: Health and safety standards refer to airborne concentrations to which nearly all workers may be repeatedly exposed daily without harmful effects. The concentrations are time-weighted averages for a normal 8-hour work period.

IDLH = Immediately dangerous to life and health; a condition that would cause permanent damage or death within 30 minutes.

PEL = Permissible exposure limit. Time-weighted average concentrations for a normal 8-hour work period for a 40-hour work week.

REL = Recommended exposure limit. Time-weighted average concentrations for up to a 10-hour day during a 40-hour workweek. RELs are recommended by NIOSH, but are not enforceable by a regulatory agency.

STEL = Short-term exposure limit. A 15-minute time weighted average exposure that is not to be exceeded at any time during a workday even if

#### PHYSICAL HAZARDS:

Potential physical hazards at the site include fire and explosion, heavy equipment, heat/cold stress, over and underground utilities, tripping and falling, and noise. Personnel working most directly with the drilling activities will have the greatest chance of encountering these hazards, however all personnel on site may also encounter them at one time or another. BASELINE employees will follow standard operating procedures for groundwater sampling.

Employees covered under this plan shall observe the following precautions:

- Watch for slippery or uneven ground;
- Wear hard hats, leather steel-toed boots, and safety glasses (and other personal protective equipment, as needed);
- 3) Avoid heat/cold stress by taking regular work breaks, liquids intake, and appropriate attire, as needed;
- Watch for and avoid heavy equipment at all times.

PERSONAL PROTECTIVE EQUIPMENT REQUIRED: Standard Operating Procedures (SOPs) shall be implemented to minimize exposure to hazardous materials and physical hazards potentially occurring at the Site. However, it is anticipated that SOPs cannot completely prevent exposures to all hazardous materials at the site. Potential hazards include inhalation and dermal contact with contaminated materials during remediation activities and sampling events. Ingestion of hazardous materials is assumed to be negligible if personal hygiene measures discussed below are implemented. The following equipment and supplies must be available at all times: hard hats, nitrile gloves, water supply for washing, for decontamination, and for drinking, disposable overalls (non-coated), first-aid kit, noise protection (ear plugs), and fire extinguisher. Rain gear may also be warranted. Field personnel will not be allowed to wear contact lenses during this work. On-site workers must be trained on at least an annual basis, as provided by their employer, in PPE use, care, and proper use. All PPE must be properly maintained and stored to ensure it is in good working condition at the time of use. All PPE must be inspected prior to and following use (BASELINE's PPE Program is included in BASELINE's Health and Safety Program).

The rationale for selection of the PPE above is based on the known and/or suspected hazardous materials and physical hazards at the site, the anticipated amount of contact with potentially contaminated materials as part of site-specific tasks, and PPE performance characteristics. The need for respiratory protection is not anticipated during this scope of work. The need for respiratory protection shall be based on the results of the air monitoring. If deemed necessary by the designated Site Health and Safety Manger, on-site personnel will be asked to leave the area immediately by the Site Health and Safety Manager and the Manager will notify the BASELINE Project Manager to determine future actions. If PPE is deemed to be ineffective by the Site Health and Safety Manager, the Manager or his/her designee shall take immediate action to mitigate the problem(s).

AIR MONITORING STRATEGY: Air monitoring will be performed by measuring the concentration of organic vapors in the worker breathing space using a PID. A sustained measurement of 5 ppm for 5 minutes on the PID will require engineering controls or respirators.

SITE CONTROL MEASURES: Avoid kicking up dust while sampling, and avoid skin and eye contact with soil to the maximum extent possible. Personal hygiene is imperative to prevent prolonged skin contact with site soils and dusts. Dispose of decontamination equipment and personal protective gear in on-site containers.

DECONTAMINATION PROCEDURES (PERSONAL AND EQUIPMENT): All personal and equipment decontamination procedures shall be implemented prior to leaving the site. Decontaminate boots, non-disposable PPE, and sampling equipment on-site using a TSP (or Alcanox) solution; rinse with potable water; and finally rinse with DI water (sampling equipment only).

Dispose of disposable PPE and sampling equipment in labeled containers/bags and leave on-site for disposal as municipal waste. Antiseptic (alcohol) towelettes will be used for cleaning respirators and washing hands and arms. The Site Health and Safety Manager shall monitor decontamination procedures to determine their effectiveness. The Site Health and Safety Manager shall take appropriate action to immediately correct any deficiencies if decontamination procedures are found to be ineffective.

The integrity of all drums and containers shall be inspected prior to moving these containers. Damaged containers shall not be moved under any circumstances, and facility personnel shall be immediately notified of these damaged containers. Unlabeled drums and containers shall be considered to contain hazardous substances and handled accordingly until the contents are positively identified and labeled. Site operations shall be organized to minimize the amount of drum and container handling and movement. If any drums or containers are moved, employees shall notify others in the immediate area of these actions. Standing on drums or containers shall not be permitted at any time.

OTHER: Illumination is not expected to be required, as all work will be performed during daylight hours. The location of the nearest restroom will be identified prior to beginning fieldwork. Drinking water will be provided by BASELINE for use on-site.

If the Site Health and Safety Manager identifies any deficiencies in this Site Health and Safety Plan, they shall be immediately corrected. On-site workers identifying any deficiencies in this Plan shall immediately notify the Site Health and Safety Manager of such deficiencies.

EMERGENCY PROCEDURES: BASELINE personnel maintain a cellular phone. In the event of a major emergency (fire, major spill, medical, explosion), use the cellular phone to contact 911, James McCarty or Yane Nordhav (510) 420-8686, the client (phone number listed above), the contractor's Health and Safety Officer, and other emergency numbers listed below, as applicable. The BASELINE Site Health and Safety Manager shall verbally request evacuation of site personnel (personnel must first go through decon prior to evacuation) to outside the affected area, and direct emergency responders to the emergency. The BASELINE Site Health and Safety Manager shall account for all personnel following evacuation. Any injured personnel shall be brought to the decon area prior to evacuation, and shall be assisted in decontamination, according to the procedures above, unless the transport or decontamination may potentially cause further injury, where transport and decon shall be requested by paramedics. Off-site emergency responders (e.g., paramedics, fire fighters) shall provide rescue and medical duties, as needed; however, trained personnel may administer first aid/CPR prior to the time that off-site emergency responders arrive at the site.

Other emergency notifications may be required, for example, Office of Emergency Services [(800) 852-7550]. Coordinate with DPW/PUC and remediation contractor personnel in contacting the emergency numbers listed above. All notifications shall be documented.

Following the emergency, the Site Health and Safety Manager shall be responsible for preparing a post-incident critique, for the purpose of identifying the cause of the emergency, response initiated, and need for additional training, procedures, or equipment. The BASELINE Site Health and Safety Manager and Project Manager shall take corrective action to prevent reoccurrence of the emergency.

Prepared by: James McCarty Date: 15 April 2009	Date	purald Panning
Read by/Date:		
William & Scott Maller X	uts Basain	1 7-8-10
Felipe Genzuler Felipe	RST	17-8-10
Juan Muñoz Just	RSI	17-8-10
		1

**Hospital Route Map and Directions** 

Highland Hospital	General Information:	(510) 522-3700
1411 East 31 Street, Oakland, CA 94602	Emergency Care Center:	(510) 523-4357

#### **Directions from Site:**

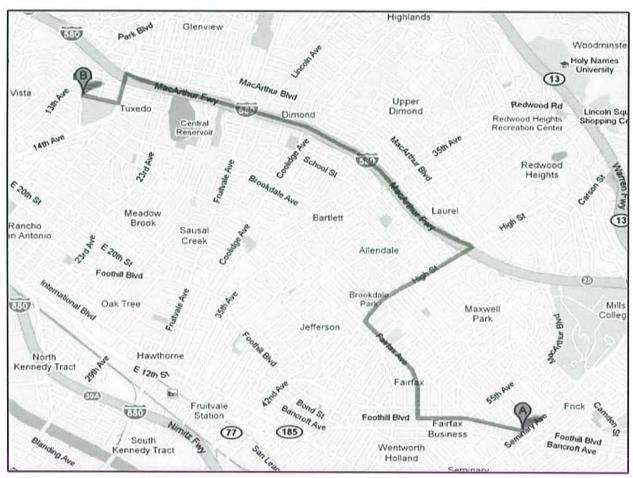
1. Head west on Foothill Blvd toward Mason St

0.6 miles

2. Turn right at Fairfax Ave

0.7 miles

total 1.2 miles



3. Turn right at High St		go 0.7 miles	total 1.9 miles
4. Turn left to merge onto I-580 We	est	go 1.9 miles	total 3.8 miles
5. Take the exit toward 14th Ave/Pa	ırk Blvd	go 0.2 miles	total 4.1 miles
6. Turn left at Beaumont Ave		go 0.2 miles	total 4.2 miles
7. Turn right at E 31st St	Destination w	ill be on the left	total 4.4 miles

**Emergency Contact Phone Numbers** 

Ambulance		
Public	Paramedics	911
Private	West Med Ambulance Service	(510) 614-1420
	1635 Neptune Drive, San Leandro	
Police Statio	n	
455 7th Stree	t, Oakland, CA	911
		(510) 777-3333 (police non emergency)
Fire Station		
Battalion Sta	tion #4	911
3344 High Street, Oakland, CA 94619		(510) 444-3322 (dispatch)