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**PHASE II ENVIRONMENTAL SITE ASSESSMENT**

**SHELL OIL PRODUCTS US, SAP #171445  
3519 CASTRO VALLEY BOULEVARD  
CASTRO VALLEY, CALIFORNIA**

**DELTA PROJECT NO. CASHL-BADW-A-171445**

**Prepared for:**

**Shell Oil Products US  
20945 S. Wilmington Ave.  
Carson, CA 90810**

**Prepared by:**

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**November 21, 2008**

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## **PHASE II ENVIRONMENTAL SITE ASSESSMENT**

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3519 CASTRO VALLEY BOULEVARD  
CASTRO VALLEY, CALIFORNIA  
DELTA PROJECT NO. CASHL-BADW-A-171445**

### **EXECUTIVE SUMMARY**

Delta Consultants (Delta) on behalf of Shell Oil Products US has completed a Phase II Environmental Site Assessment (Phase II ESA) for Due Diligence at the Shell branded service station located at 3519 Castro Valley Boulevard, Castro Valley, Alameda County, California (Site).

- Prepared a site-specific Health & Safety Plan prior to the initiation of field activities.
- Notified USA-North to have public utilities in the area of the Site clearly marked.
- Contracted with a private underground utility locating firm (Cruz Brothers), in addition to the public locates, to clear each soil boring location.
- Cleared each soil boring location to 5-feet below ground surface (bgs) using air-knifing and vacuum truck equipment.
- Advanced five soil borings (B-1 and B-3 through B-6) to maximum depths ranging from 10 to 25 feet bgs using direct push probe drilling methods and equipment on August 28, 2008.
- Collected representative soil samples from continuously cored boreholes for logging and characterization of soil types, field screening, and potential analytical laboratory testing.
- Conducted headspace screening of the soil samples for volatile organic compound (VOC) vapors using a portable photo-ionization detector (PID).
- Collected one soil sample from each soil boring, the location of which was selected by the following ordered criteria:
  - The sample interval exhibiting the highest PID reading, or
  - In the event that impacts are not observed, the sample interval directly above the soil/groundwater interface, or
  - In the event that groundwater is not encountered in the boring, the termination point of the boring.
- Collected a groundwater sample from each boring in which groundwater was encountered.
- Collected a grab groundwater sample from each existing monitoring well at the Site.
- Submitted all samples to CalScience Environmental Laboratories (CalScience) in Garden Grove, California to be analyzed for:
  - Total petroleum hydrocarbons as gasoline (TPH-G) using US Environmental Protection Agency (EPA) Method 8260B.

- Select VOCs by EPA Method 8260B, including benzene, toluene, ethylbenzene, total xylenes (BTEX), 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), methyl tert-butyl ether (MTBE), tertiary butyl alcohol (TBA), diisopropyl ether (DIPE), ethyl tert-butyl ether, (ETBE), tert amyl-butyl ether (TAME), and ethanol.

A summary of findings is as follows: All soil and groundwater analytical laboratory results were reviewed for detections of petroleum hydrocarbon constituents above the laboratory method reporting limits (MRLs) and compared to the California Regional Water Quality Control Board Environmental Screening Levels (ESLs)<sup>1</sup>. For comparison purposes the following assumptions were used in selecting the ESLs:

- Residential land use,
- Shallow Soil (less than 3 meters) or Deep Soil (greater than 3 meters) as appropriate, and;
- Groundwater is a current or potential source of drinking water.

The appropriate ESLs were obtained from Summary Table A and Summary Table C in the document *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*<sup>1</sup>. Comparisons between the ESLs and laboratory results can be found in **Table 1** for soil samples and **Table 2** for groundwater samples.

- None of the soil samples collected and submitted for laboratory analysis during this investigation exhibited concentrations of any constituent in excess of the ESLs with two exceptions. TPH-G were detected in excess of the ESL (83 milligrams per kilogram [mg/kg]) in soil samples B-1 (120 mg/kg) and B-3 (720 mg/kg).
- None of the groundwater samples collected and submitted for laboratory analysis during this investigation exhibited concentrations of any constituent in excess of the ESLs with the following exceptions. TPH-G were detected in excess of the ESL (100 micrograms/liter [µg/L]) in the groundwater sample collected from boring B-6 (900 µg/L). MTBE was detected in excess of the ESL (5 µg/L) in the groundwater samples collected from wells MW-1 (15 µg/L), MW-2 (51 µg/L), and MW-3 (19 µg/L). TBA was detected in excess of the ESL (12 µg/L) in the groundwater sample collected from well MW-1 (38 µg/L).
- Based on Delta's evaluation of the analytical data, Delta notified the Alameda County Environmental Health Department that TPH-G was detected in soil and groundwater samples collected from the Site. Delta also submitted an *Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report*.

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<sup>1</sup> California Regional Water Quality Board, San Francisco Bay Region. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. Interim Final – November 2007, revised May 2008.

- Water wells were not located within 1,000 feet of the Site.

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**SHELL OIL PRODUCTS US, SAP #171445  
3519 CASTRO VALLEY BOULEVARD  
CASTRO VALLEY, CALIFORNIA  
DELTA PROJECT NO. CASHL-BADW-A-171445**

### **1.0 INTRODUCTION**

#### **1.1 General**

At the request of Shell Oil Products US (Shell), Delta Consultants (Delta) has conducted a Phase II Environmental Site Assessment (Phase II ESA) for Due Diligence at the Shell Retail Store located at 3519 Castro Valley Boulevard, Castro Valley, Alameda County, California (Site). This Site is an active Shell service station.

#### **1.2 Purpose and Scope**

In order to establish a baseline of environmental conditions, Delta conducted this Phase II ESA to assess subsurface conditions and potential hydrocarbon impacts through implementation of the following scope of work:

- Prepared a site-specific Health & Safety Plan prior to the initiation of field activities.
- Notified USA-North to have public utilities in the area of the Site clearly marked.
- Contracted with a private underground utility locating firm (Cruz Brothers), in addition to the public locates, to clear each soil boring location.
- Cleared each soil boring location to 5-feet below ground surface (bgs) using air-knifing and vacuum truck equipment.
- Advanced five soil borings (B-1 and B-3 through B-6) to maximum depths ranging from 10 to 25 feet bgs using direct push probe drilling methods and equipment on August 28, 2008. Borings were placed in the vicinity of the underground storage tank (UST) basin and in the vicinity of dispensers. The scope of work, as defined by Shell, limited drilling depth to 40 feet bgs around tank basins and 20 feet bgs near dispensers or to the depth of first encountered groundwater, whichever was encountered first.
- Collected representative soil samples from continuously cored boreholes for logging and characterization of soil types, field screening, and potential laboratory analysis.
- Conducted headspace screening of the soil samples for volatile organic carbon (VOC) vapors using a portable photo-ionization detector PID.
- Collected one soil sample from each soil boring, the location of which was selected by the following ordered criteria:
  - The sample interval exhibiting the highest PID reading, or

- In the event that impacts are not observed, the sample interval directly above the soil/groundwater interface, or
- In the event that groundwater is not encountered in the boring, the termination point of the boring.
- Collected a groundwater sample from each boring in which groundwater was encountered.
- Collected a grab groundwater sample from each existing monitoring well at the Site.
- Submitted all samples to CalScience Environmental Laboratories (CalScience) in Garden Grove, California to be analyzed for:
  - Total petroleum hydrocarbons as gasoline (TPH-G) using US Environmental Protection Agency (EPA) Method 8260B.
  - Select VOCs by EPA Method 8260B, including benzene, toluene, ethylbenzene, total xylenes (BTEX), 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), methyl tert-butyl ether (MTBE), tertiary butyl alcohol (TBA), diisopropyl ether (DIPE), ethyl tert-butyl ether, (ETBE), tert amyl-butyl ether (TAME), and ethanol.
- Evaluated and compiled field observations and laboratory analytical data into this report, documenting boring installations, soil and groundwater sampling, and analytical data.

### **1.3 Deviations**

The following list summarizes deviations from the proposed scope of work and reasons for such deviations:

- Proposed boring location B-2, proposed to investigate the northeastern portion of the UST pit, was not advanced due to the presence of underground utilities. Critical areas could not be avoided and the boring was not relocated.
- Soil boring B-1, proposed to investigate the northwestern corner of the UST pit, was terminated at 20 feet bgs, instead of the proposed 40 feet bgs, after a sampling rod broke in the borehole. The broken section of the sampler was abandoned in the ground and the boring was backfilled according to the standard procedure followed throughout this project.

### **1.4 Background**

The Site is an active retail gasoline station located in Castro Valley, California in Alameda County at 3519 Castro Valley Boulevard (**Figure 1**). Above ground structures include a station building on the Site's southwestern corner and a canopy structure covering two dispenser islands on the eastern side of the Site (**Figure 2**). The Site is primarily covered with asphalt and concrete pavement. The USTs are located within a common excavation to the west of the canopy structure. Local access to the Site is gained from Redwood Road to the west and Castro Valley Blvd to the north.

Water wells were not located within 1,000 feet of the Site. The Environmental Data Resources (EDR) well survey report is included in **Appendix A**.

## **2.0 SOIL AND GROUNDWATER ENVIRONMENTAL ASSESSMENT**

### **2.1 Drilling and Soil Sampling**

Soil borings were advanced using a direct-push hydraulic drive point system to depths ranging from 10 to 25 feet bgs. Soil samples were collected continuously using a 5-foot macrocore sampler with a 1.5-inch inside diameter driven into undisturbed formation materials utilizing a hydraulic piston mechanism. The soils encountered were logged using the Unified Soil Classification System (USCS) and field screened using a PID by a Delta field technician working under the supervision of a California Professional Geologist. Field observations, including soil color, odor, and PID readings, were recorded on the soil boring logs, included as **Appendix B**.

One soil sample from the sample interval exhibiting the highest PID reading, or if no field indications of impacts were noted, the interval located directly above the soil/groundwater interface or at the termination point in each soil boring was submitted for laboratory analysis. Soil samples were either placed in laboratory prepared glass containers or the macrocore sample liner was cut into a 6-inch long section and sealed with Teflon tape and end caps. Soil samples were placed into ice-chilled coolers. Standard chain-of-custody (COC) protocol was followed for transporting soil samples to CalScience in Garden Grove, California. Soil analytical laboratory results are summarized in **Table 1** and shown spatially in **Figure 3**. The soil sample analytical laboratory report and COC records are included in **Appendix C**.

All soil borings were backfilled with bentonite grout and the ground surfaces were repaired to approximate original conditions.

### **2.2 Grab Groundwater Sampling**

Following borehole advancement, groundwater samples were collected utilizing Hydropunch sampling techniques. Hydropunch sampling utilizes a probe rod with a retractable stainless steel screen with a steel drop-off tip. The probe rods are advanced a minimum of two feet into the water table, at which point the tip is released. The drill rods are then retracted to expose the disposable screen. Groundwater was collected from the screened interval using a peristaltic pump and disposable polyethylene tubing.



Grab groundwater samples were collected from existing monitoring wells at the Site using a disposable polyethylene bailer. Well designations were assigned to the wells by Delta personnel; historical well information was not available.

Groundwater samples were decanted directly into laboratory prepared sample containers and placed in an iced cooler for transport to CalScience following standard COC protocols. Groundwater analytical laboratory results are summarized in **Table 2** and shown spatially in **Figure 4**. The analytical laboratory reports and COC records for the groundwater sampling event are included in **Appendix C**.

### **2.3 Investigation Derived Waste**

All investigation derived waste generated during the investigation was stored in US Department of Transportation-approved 55-gallon drums for subsequent disposal following proper waste characterization. Decontamination wash water generated during the investigation was stored in a separate drum for subsequent recycling. Copies of waste disposal records are included as **Appendix E**, if they were available at the time this report was prepared.

### **2.4 Laboratory Analytical Results**

All soil and groundwater analytical laboratory results were reviewed for detections of petroleum hydrocarbon constituents above the laboratory method reporting limits (MRLs) and compared to the California Regional Water Quality Control Board Environmental Screening Levels (ESLs)<sup>1</sup>. For comparison purposes the following assumptions were used in selecting the ESLs:

- Residential land use,
- Shallow soil (less than 3 meters) or Deep Soil (greater than 3 meters) as appropriate, and;
- Groundwater is a current or potential source of drinking water.

The appropriate ESLs were obtained from Summary Table A and Summary Table C in the document *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*<sup>1</sup>. Comparisons between the ESLs and laboratory results can be found in **Table 1** for soil samples and **Table 2** for groundwater samples.

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<sup>1</sup> California Regional Water Quality Board, San Francisco Bay Region. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. Interim Final – November 2007, revised May 2008.

Soil analytical laboratory results are summarized in **Table 1**. Within the table, samples with concentrations that exceed the ESLs are bolded. The soil sample analytical laboratory report and COC records are included in **Appendix C**.

Groundwater analytical laboratory results are summarized in **Table 2**. Within the table, samples with concentrations that exceed the ESLs are bolded. The analytical laboratory reports and COC records for the groundwater event are included in **Appendix C**.

### **2.5 Release Notification**

Based on Delta's evaluation of the analytical data, Delta notified the Alameda County Environmental Health Department that TPH-G was detected in soil and groundwater samples collected at the Site. Delta also submitted an *Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report*. A copy of the release report is included in **Appendix F**.

### **3.0 SUMMARY OF FINDINGS**

Based on the scope of work performed, Delta presents the following summary of findings:

- Five soil exploration borings (B-1 and B-3 through B-6) were advanced on August 28, 2008, to a maximum depth of 25 feet bgs.
- Grab groundwater samples were collected from existing monitoring wells at the Site on October 28, 2008.
- All soil and groundwater laboratory results were reviewed for detections of petroleum constituents above the laboratory MRLs and compared to the California Regional Water Quality Control Board ESLs. Comparisons between the ESLs and laboratory results can be found in **Tables 1 and 2**.
- None of the soil samples collected and submitted for laboratory analysis during this investigation exhibited concentrations of any constituent in excess of the ESLs with two exceptions. TPH-G were detected in excess of the ESL (83 mg/kg) in soil samples B-1 (120 mg/kg) and B-3 (720 mg/kg).
- None of the groundwater samples collected and submitted for laboratory analysis during this investigation exhibited concentrations of any constituent in excess of the ESLs with the following exceptions. TPH-G were detected in excess of the ESL (100 µg/L) in the groundwater sample collected from boring B-6 (900 µg/L). MTBE was detected in excess of the ESL (5 µg/L) in the groundwater samples collected from wells MW-1 (15 µg/L), MW-2 (51 µg/L), and MW-3 (19 µg/L). TBA was detected in excess of the ESL (12 µg/L) in the groundwater sample collected from well MW-1 (38 µg/L).

- Based on Delta's evaluation of the analytical data, Delta notified the Alameda County Environmental Health Department that TPH-G was detected in soil and groundwater samples collected at the Site. Delta also submitted an *Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report*. A copy of the release report is included in **Appendix f**.
- Water wells were not located within 1,000 feet of the Site.

**4.0 REMARKS**

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report.

This report was prepared by **DELTA CONSULTANTS**



Chris Dowd  
Staff Scientist

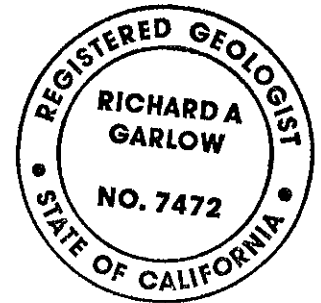
Date: 11/21/2008

Reviewed by:



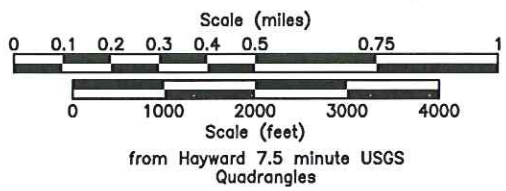
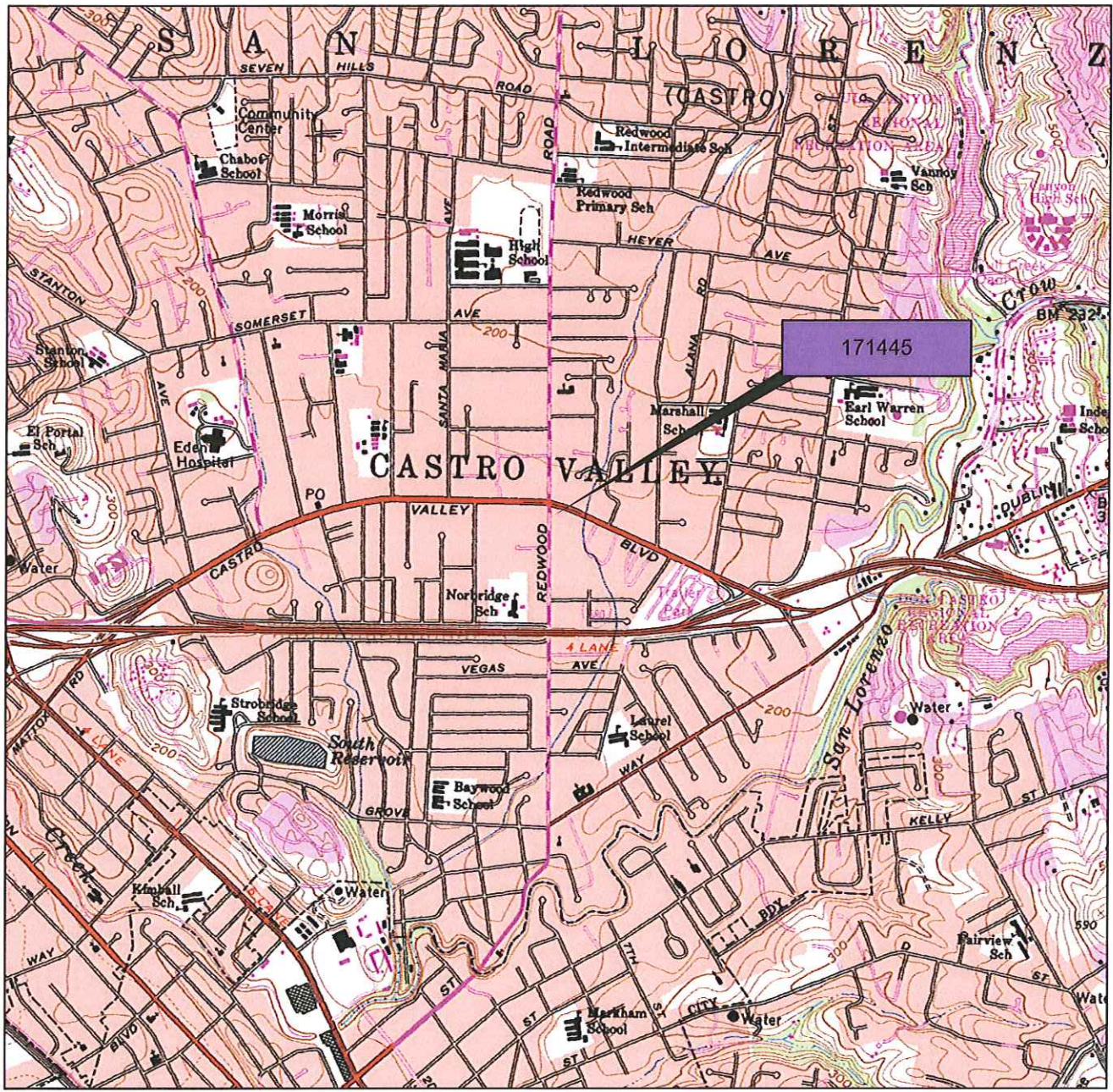
Rich Garlow, P.G.  
California Professional Geologist

Date: 11/21/2008



## FIGURES





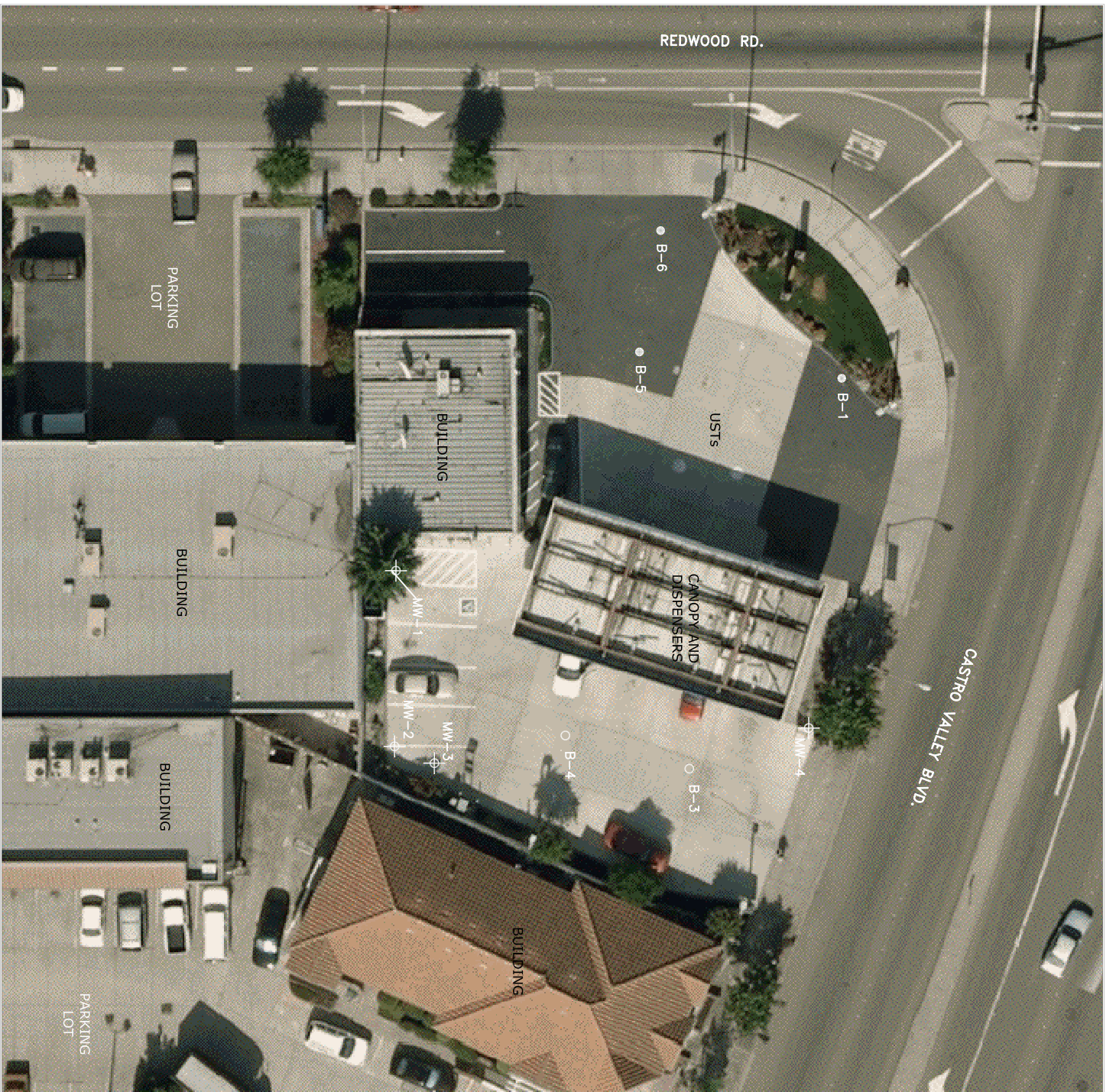
Projection: California State Plane Coordinate System,  
Zone 3, NAD83, U.S. Survey foot

**Figure 1**  
**SITE LOCATION MAP**

Shell SAP 171445  
Castro Valley Boulevard  
Castro Valley, California

Project No. CASHLBADWA	Prepared by LNH	Drawn by LNH	
Date 10/6/08	Reviewed by	Filename 171445-SL	

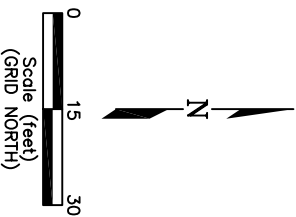




LEGEND

- UNDERGROUND STORAGE TANK (UST) AREA SOIL BORING
- DISPENSER AREA SOIL BORING
- ⊕ MONITORING WELLS

NOTE: WELL DESIGNATIONS ASSIGNED BY DELTA CONSULTANTS AT TIME OF SAMPLING. HISTORICAL WELL INFORMATION NOT AVAILABLE.



Projection: California State Plane Coordinate System, Zone 3, NAD83, U.S. Survey foot

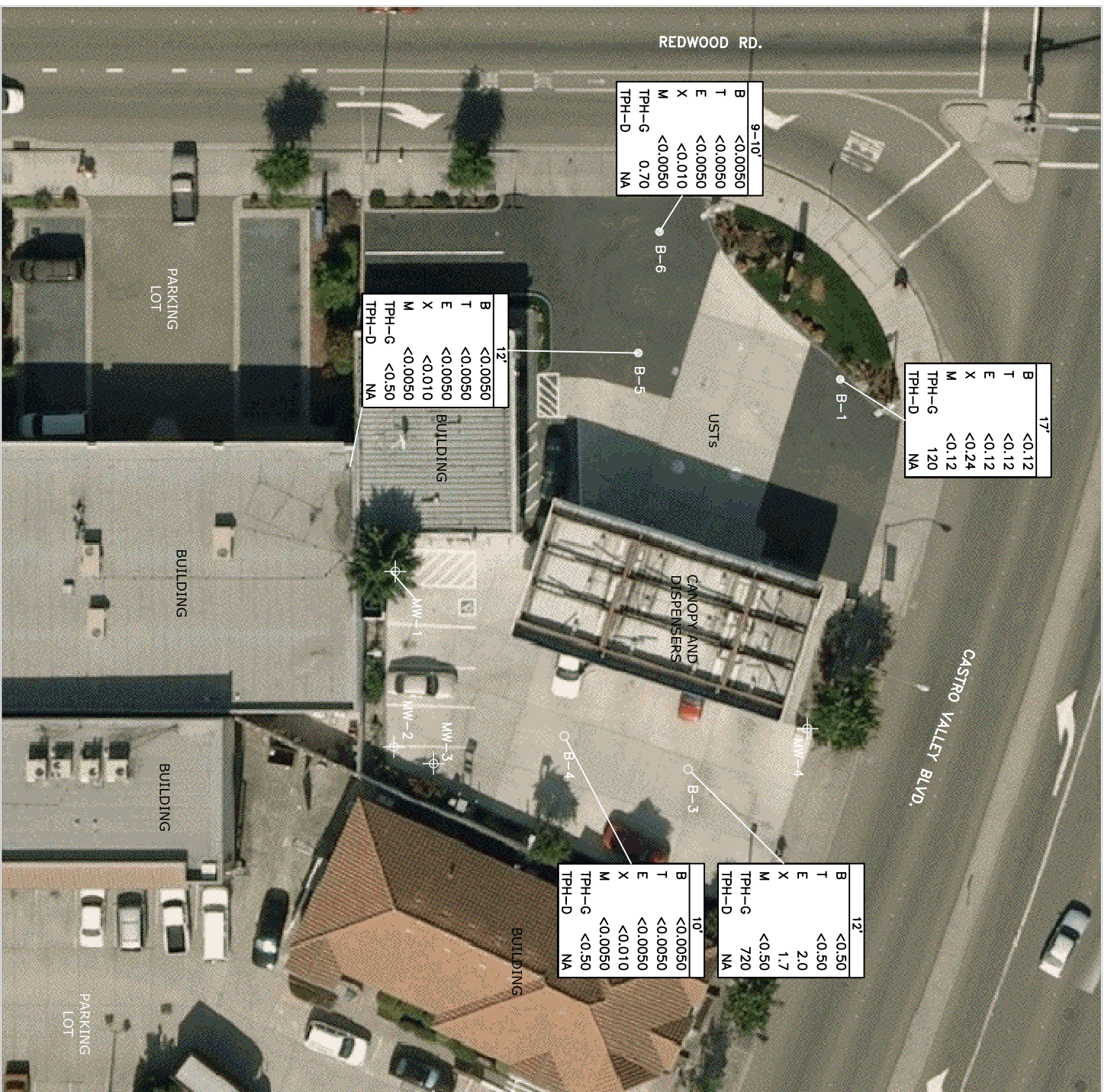
Figure 2  
SITE PLAN

Shell SAP 171445  
3519 Castro Valley Boulevard  
Castro Valley, California

Project No. CASH1BADVA	Prepared by LNH	Drawn by LNH/KH
Date 11/7/08	Reviewed by Flanore	171445



\* BORING LOCATIONS ARE APPROXIMATE



17'	
B	<0.12
T	<0.12
E	<0.12
X	<0.24
M	<0.12
TPH-G	120
TPH-D	NA

9-10'	
B	<0.0050
T	<0.0050
E	<0.0050
X	<0.010
M	<0.0050
TPH-G	0.70
TPH-D	NA

12'	
B	<0.0050
T	<0.0050
E	<0.0050
X	<0.010
M	<0.0050
TPH-G	<0.50
TPH-D	NA

12'	
B	<0.50
T	<0.50
E	2.0
X	1.7
M	<0.50
TPH-G	720
TPH-D	NA

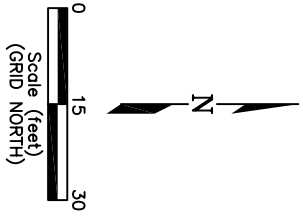
10'	
B	<0.0050
T	<0.0050
E	<0.0050
X	<0.010
M	<0.0050
TPH-G	<0.50
TPH-D	NA

**LEGEND**

- UNDERGROUND STORAGE TANK (UST) AREA SOIL BORING
  - DISPENSER AREA SOIL BORING
  - ⊕ MONITORING WELLS
- NOTE: WELL DESIGNATIONS ASSIGNED BY DELTA CONSULTANTS AT TIME OF SAMPLING. HISTORICAL WELL INFORMATION NOT AVAILABLE.

6"	
B	<0.0050
T	<0.0050
E	<0.0050
X	<0.0050
M	<0.0050
TPH-G	<0.50
TPH-D	NA

NA NOT ANALYZED  
 mg/kg MILLIGRAMS PER KILOGRAM  
 <0.0050 LESS THAN METHOD REPORTING LIMIT (NOT DETECTED)  
 MTBE METHYL TERT-BUTYL ETHER  
 bgs BELOW GROUND SURFACE



Projection: California State Plane Coordinate System, Zone 3, NAD83, U.S. Survey foot

**Figure 3  
 SOIL CONCENTRATION MAP  
 AUGUST 28, 2008**

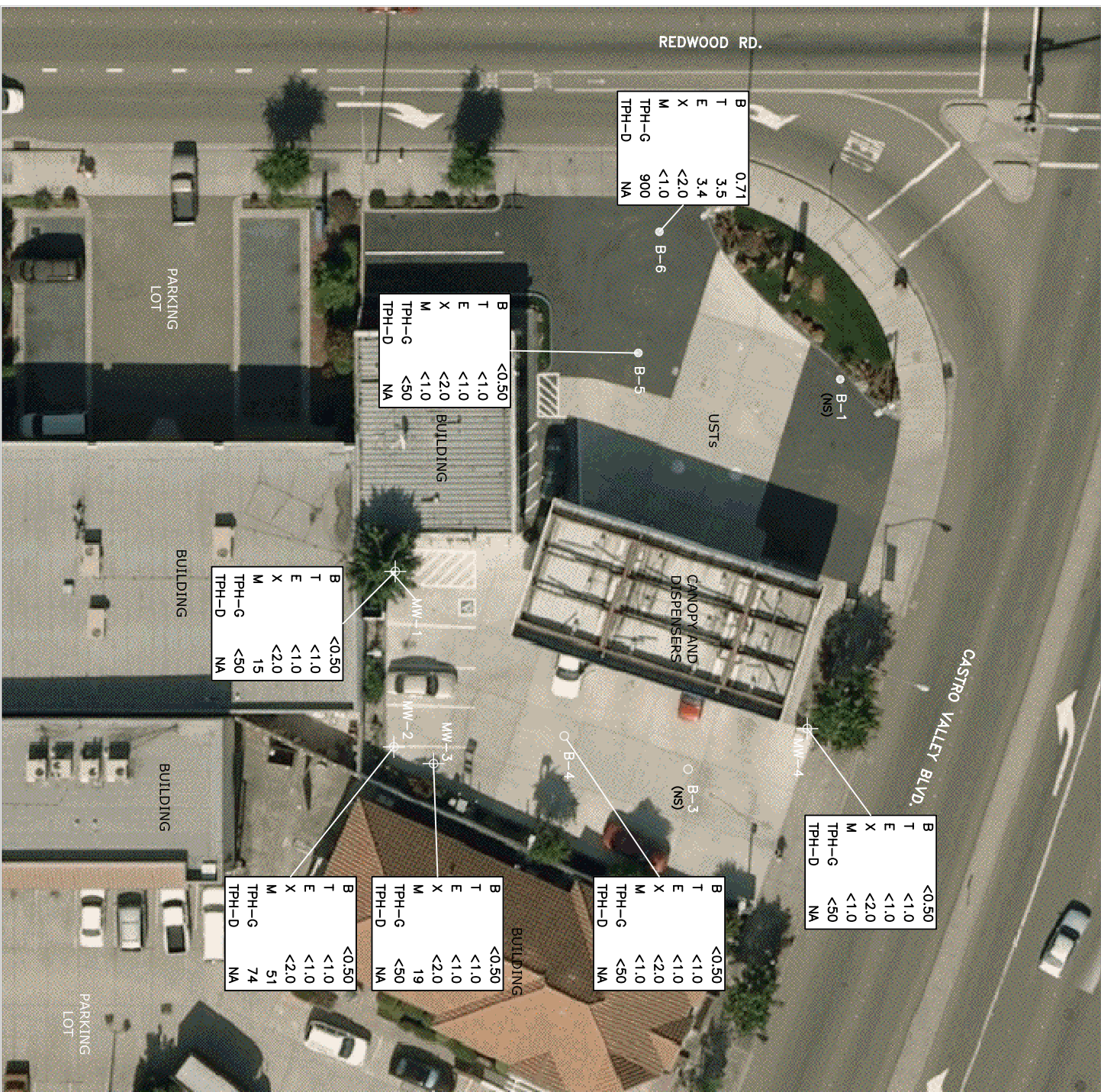
Shell SAP 171445  
 3519 Castro Valley Boulevard  
 Castro Valley, California

Project No.	CASH1BADVA	Prepared by	LNH	Drawn by	LNH/KH
Date	11/7/08	Reviewed by	Flanore	171445	



\* BORING LOCATIONS ARE APPROXIMATE





B	0.71
T	3.5
E	3.4
X	<2.0
M	<1.0
TPH-G	900
TPH-D	NA

B	<0.50
T	<1.0
E	<1.0
X	<2.0
M	<1.0
TPH-G	<50
TPH-D	NA

B	<0.50
T	<1.0
E	<1.0
X	<2.0
M	15
TPH-G	<50
TPH-D	NA

B	<0.50
T	<1.0
E	<1.0
X	<2.0
M	<1.0
TPH-G	<50
TPH-D	NA

B	<0.50
T	<1.0
E	<1.0
X	<2.0
M	<1.0
TPH-G	<50
TPH-D	NA

B	<0.50
T	<1.0
E	<1.0
X	<2.0
M	19
TPH-G	<50
TPH-D	NA

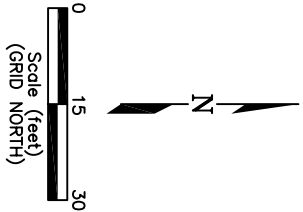
B	<0.50
T	<1.0
E	<1.0
X	<2.0
M	51
TPH-G	74
TPH-D	NA

**LEGEND**

- UNDERGROUND STORAGE TANK (UST) AREA SOIL BORING
  - DISPENSER AREA SOIL BORING
  - ⊕ MONITORING WELLS
- NOTE: WELL DESIGNATIONS ASSIGNED BY DELTA CONSULTANTS AT TIME OF SAMPLING. HISTORICAL WELL INFORMATION NOT AVAILABLE.

B	<0.50	BENZENE (ug/L)
T	<1.0	TOLUENE (ug/L)
E	<1.0	ETHYL-BENZENE (ug/L)
X	<2.0	TOTAL XYLENES (ug/L)
M	5.8	MTBE (ug/L)
TPH-G	200	TOTAL PETROLEUM HYDROCARBONS (SOIL) RANGE ORGANICS (ug/L)
TPH-D	NA	DIESEL RANGE ORGANICS (ug/L)

NA NOT ANALYZED  
 NS NOT SAMPLED (GROUNDWATER NOT ENCOUNTERED)  
 ug/L MICROGRAMS PER LITER  
 <0.50 LESS THAN METHOD REPORTING LIMIT (NOT DETECTED)  
 MTBE METHYL TERT-BUTYL ETHER



Projection: California State Plane Coordinate System, Zone 3, NAD83, U.S. Survey foot

Figure 4

**GROUNDWATER CONCENTRATION MAP**  
 AUGUST 28 & OCTOBER 28, 2008  
 Shell SAP 171445  
 3519 Castro Valley Boulevard  
 Castro Valley, California

Project No.	CASH1BADVA	Prepared by	LNH	Drawn by	LNH/KH
Date	11/7/08	Reviewed by	Fluorine	Fluorine	171445



\* BORING LOCATIONS ARE APPROXIMATE

## TABLES

**Table 1**  
**Summary of Soil Analytical Results - TPH & VOCs**  
SAP No. 171445  
3519 Castro Valley Blvd.  
Castro Valley, California

Sample Identification	Sample Depth (feet)	Sample Date	TPH-G (mg/kg)	TPH-D (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	EDB (mg/kg)	EDC (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	Ethanol (mg/kg)
B-1	17	08/28/08	120	NA	< 0.12	< 0.12	< 0.12	< 0.24	< 0.12	< 0.12	< 0.12	< 1.2	< 0.25	< 0.25	< 0.25	< 12
B-3	12	08/28/08	720	NA	< 0.50	< 0.50	2.0	1.7	< 0.50	< 0.50	< 0.50	< 5.0	< 1.0	< 1.0	< 1.0	< 50
B-4	10	08/28/08	< 0.50	NA	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.010	< 0.010	< 0.010	< 0.50
B-5	12	08/28/08	< 0.50	NA	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.010	< 0.010	< 0.010	< 0.50
B-6	9-10	08/28/08	0.70	NA	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050	< 0.0050	< 0.050	< 0.010	< 0.010	< 0.010	< 0.50
<b>ESL<sup>1</sup>: Shallow Soils (&lt;3m), Residential Land Use, Groundwater is Current or Potential Source of Drinking Water (Table A)</b>			83	83	0.044	2.9	2.3	2.3	0.00033	0.0045	0.023	0.075	NA	NA	NA	NA
<b>ESL<sup>1</sup>: Deep Soils (&gt;3m), Residential Land Use, Groundwater is Current or Potential Source of Drinking Water (Table C)</b>			83	83	0.044	2.9	3.3	2.3	0.00033	0.0045	0.023	0.075	NA	NA	NA	NA

**Notes:**

mg/kg = milligrams per kilogram

< = Not detected at concentration exceeding laboratory method reporting limit (MRL)

VOC = Volatile organic compound

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel

EDB = 1,2-dibromoethane

EDC = 1,2-dichloroethane

MTBE = Methyl tert-Butyl Ether

TBA = Tertiary Butyl Alcohol

DIPE = Diisopropyl Ether

ETBE = Ethyl tert-Butyl Ether

TAME = Tert-Amyl Butyl Ether

NA = Not Analyzed, Not Available

VOC analysis by EPA Method 8260B

Gasoline-range hydrocarbons by EPA Method 8260B

Diesel-range hydrocarbons by EPA Method 8015B

<sup>1</sup> ESL = Environmental Screening Level. Screening criteria referenced are from the *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, San Francisco Bay Region, Interim Final, November 2007, revised May 2008.

**Table 2**  
**Summary of Groundwater Analytical Results - TPH & VOCs**  
SAP No. 171445  
3519 Castro Valley Blvd.  
Castro Valley, California

Sample Identification	Sample Date	Depth to Water (feet)	TPH-G (µg/L)	TPH-D (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	EDB (µg/L)	EDC (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)
B-4	08/28/08	NA	< 50	NA	< 0.50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.50	< 1.0	< 10	< 2.0	< 2.0	< 2.0	< 100
B-5	08/28/08	NA	< 50	NA	< 0.50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.50	< 1.0	< 10	< 2.0	< 2.0	< 2.0	< 100
B-6	08/28/08	NA	<b>900</b>	NA	0.71	3.5	3.4	< 2.0	< 1.0	< 0.50	< 1.0	< 10	< 2.0	< 2.0	< 2.0	< 100
MW-1 <sup>2</sup>	10/28/08	11.76	< 50	NA	< 0.50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.50	<b>15</b>	<b>38</b>	< 2.0	< 2.0	< 2.0	< 100
MW-2 <sup>2</sup>	10/28/08	12.54	74	NA	< 0.50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.50	<b>51</b>	< 10	< 2.0	< 2.0	< 2.0	< 100
MW-3 <sup>2</sup>	10/28/08	12.42	< 50	NA	< 0.50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.50	<b>19</b>	< 10	< 2.0	< 2.0	< 2.0	< 100
MW-4 <sup>2</sup>	10/28/08	11.31	< 50	NA	< 0.50	< 1.0	< 1.0	< 2.0	< 1.0	< 0.50	< 1.0	< 10	< 2.0	< 2.0	< 2.0	< 100
<b>ESL<sup>1</sup>: Shallow Soils (&lt;3m), Residential Land Use, Groundwater is a Current or Potential Source of Drinking Water (Table A)</b>			<b>100</b>	<b>100</b>	<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>0.05</b>	<b>0.5</b>	<b>5</b>	<b>12</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>ESL<sup>1</sup>: Deep Soils (&gt;3m), Residential Land Use, Groundwater is a Current or Potential Source of Drinking Water ESLs (Table C)</b>			<b>100</b>	<b>100</b>	<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>0.05</b>	<b>0.5</b>	<b>5</b>	<b>12</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

**Notes:**

µg/L = micrograms per liter

< = Not detected at concentration exceeding laboratory method reporting limit (MRL)

VOC = Volatile organic compound

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel

EDB = 1,2-dibromoethane

EDC = 1,2-dichloroethane

MTBE = Methyl tert-Butyl Ether

TBA = Tertiary Butyl Alcohol

DIPE = Diisopropyl Ether

ETBE = Ethyl tert-Butyl Ether

TAME = Tert-Amyl Butyl Ether

NA = Not Analyzed, Not Available

VOC analysis by EPA Method 8260B

Gasoline-range hydrocarbons by EPA Method 8260B

Diesel-range hydrocarbons by EPA Method 8015B

<sup>1</sup> ESL = Environmental Screening Level. Screening criteria referenced are from the *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, San Francisco Bay Region, Interim Final, November 2007, revised May 2008.

<sup>2</sup> Monitoring well designations assigned by Delta Consultants at time of sampling. Historically accurate well designations not available.

**APPENDIX A**  
**ENVIRONMENTAL DATA RESOURCES WELL SURVEY REPORT**

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

### Soil Map ID: 1

Soil Component Name: Clear Lake

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:  
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	25 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
2	25 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	0.189
Federal FRDS PWS	0.189
State Database	0.189

## **FEDERAL USGS WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

## **FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

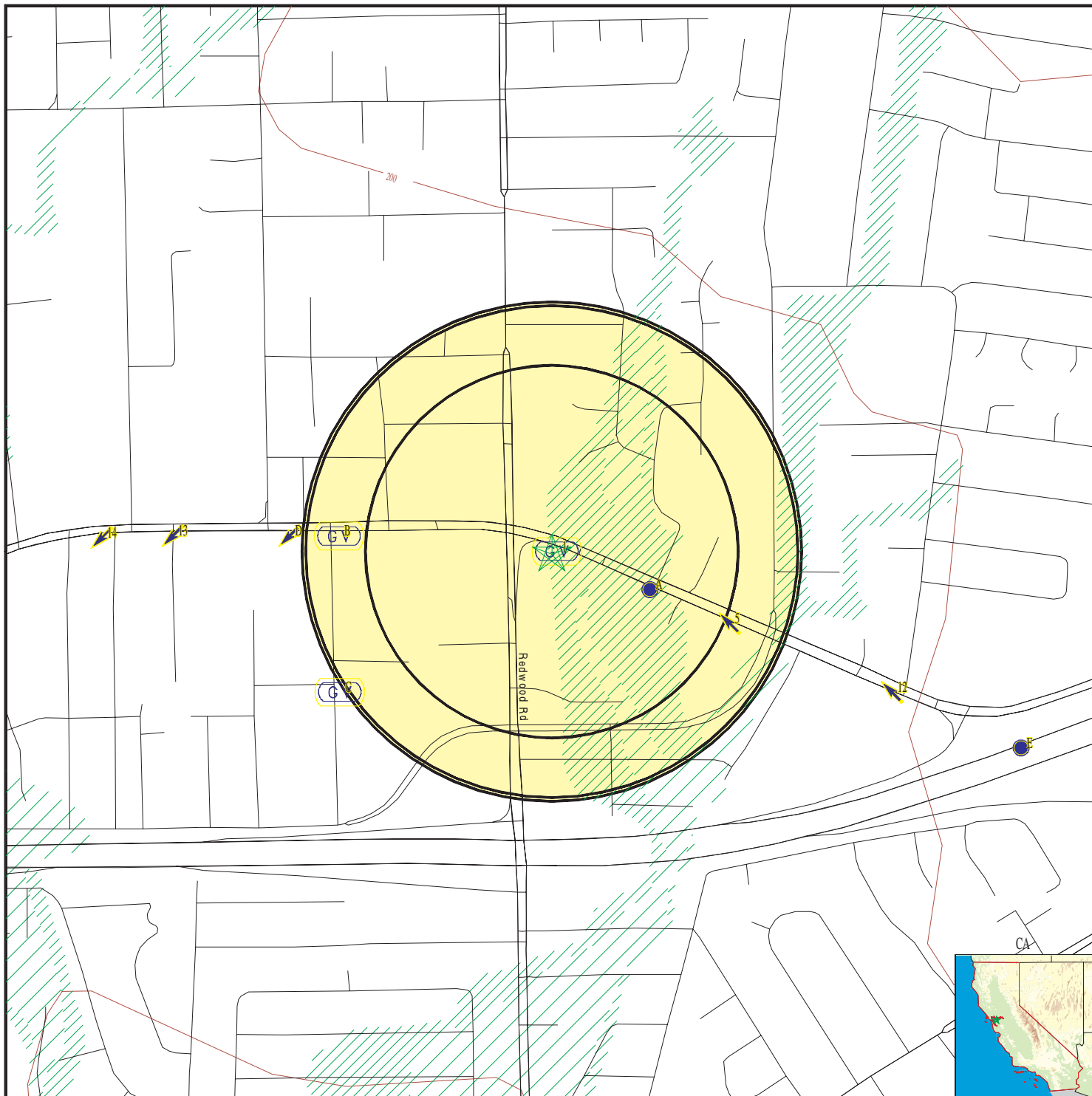
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## **STATE DATABASE WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

# PHYSICAL SETTING SOURCE MAP - 02271121.11r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons



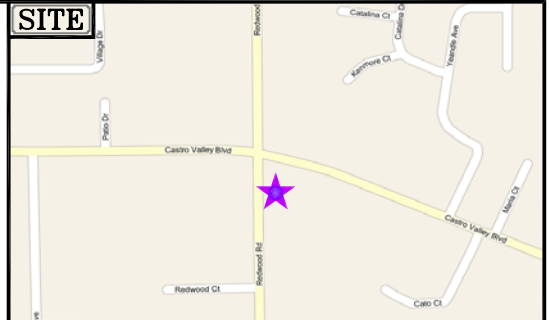
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells
- 100-year flood zone
- 500-year flood zone

<p>SITE NAME: 171445                  ADDRESS: 3519 CASTRO VALLEY BLVD                  CASTRO VALLEY CA 94546                  LAT/LONG: 37.6952 / 122.0731</p>	<p>CLIENT: Delta Consultants                  CONTACT: Gary E. Turgeon                  INQUIRY #: 02271121.11r                  DATE: July 17, 2008 9:39 am</p>
--	--



**APPENDIX B**  
**BORING LOGS**

Drilling Started: 08/28/2008  
 Drilling Completed: 08/28/2008  
 Drilling Method and Diameter: Direct Push; 2" diameter  
 Drilling Company: Cascade Drilling  
 Drilled By:  
 Logged By: Steve Harquail  
 Boring: B-1



Depth (feet)	Samples Recovery (%)	PID (ppm)	LITHOLOGIC DESCRIPTION	USCS	Graphic Log	Depth (feet)
0			No Recovery - Air Knifed to 5 feet below ground surface (bgs)			0
2						2
4						4
5.00'						5.00'
6			Sandy Silt: Dark brown.	ML		6
			Reddish brown, dry, hard.			
8						8
10	100	0.0				10
			Reddish/dark brown, low plasticity, dry, hard.			
12						12
14			Firm			14
16	100	0.0				16
18		3.0	Brown			18
20	90	0.0				20
Boring terminated at 20 feet bgs.						

▼ Initial Water Level (Not Encountered)

█ DIRECT PUSH Sample Collected for Laboratory Analysis



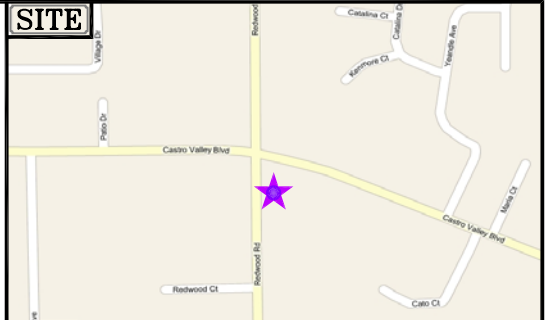
CASHL-BADW-A  
 10-03-2008 10-10-2008  
 CALIFORNIA CRF A.D.  
 SH1445-B1

SHELL FACILITY NO. 171445  
 3519 Castro Valley Blvd.  
 Castro Valley, California

Soil Boring Log  
 B-1

FIGURE

Drilling Started: 08/28/2008  
 Drilling Completed: 08/28/2008  
 Drilling Method and Diameter: Direct Push; 2" diameter  
 Drilling Company: Cascade Drilling  
 Drilled By:  
 Logged By: Steve Harquail  
 Boring: B-3



Depth (feet)	Samples Recovery (%)	PID (ppm)	LITHOLOGIC DESCRIPTION	USCS	Graphic Log	Depth (feet)
2			No Recovery - Air Knifed to 5 feet below ground surface (bgs)			2
4						4
6			Sandy Silt: Dark brown/black mix, hard.	ML		6
8			Clayey Silt: Brown, with 3% sand.	ML		8
10	100	0.0	With 20% greenish color. Greenish-brown, hard, dry.			10
12		83.0				12
14			Medium to low plasticity.			14
16	100	6.3	Sandy Silt: Tan/light tan/reddish, hard, dry.	ML		16
18						18
20	85	0.0	Tan, homogenous, firm, dry.			20
Boring terminated at 20 feet bgs.						

▼ Initial Water Level (Not Encountered)

█ DIRECT PUSH Sample Collected for Laboratory Analysis



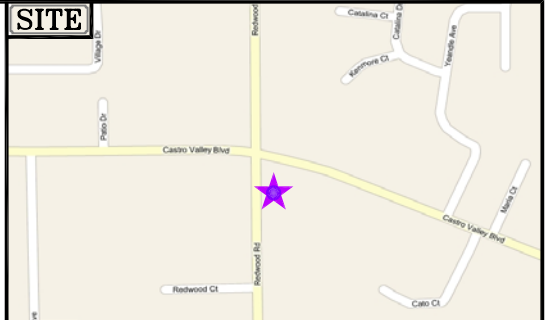
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 10-03-2008 10-10-2008  
 CALIFORNIA CRF A.D.  
 SH1445-B3

SHELL FACILITY NO. 171445  
 3519 Castro Valley Blvd.  
 Castro Valley, California

Soil Boring Log  
 B-3

FIGURE

Drilling Started: 08/28/2008  
 Drilling Completed: 08/28/2008  
 Drilling Method and Diameter: Direct Push; 2" diameter  
 Drilling Company: Cascade Drilling  
 Drilled By:  
 Logged By: Steve Harquail  
 Boring: B-4



Depth (feet)	Samples	Recovery (%)	PID (ppm)	LITHOLOGIC DESCRIPTION	USCS	Graphic Log	Depth (feet)
0 - 5.00'				No Recovery - Air Knifed to 5 feet below ground surface (bgs)			0 - 5.00'
5.00' - 10.00'		95	0.0	Sandy Silt: Blackish, hard.  Gravel 1", cobbles 1.25", light tan/light gray, damp/wet. Boring terminated at 10 feet bgs.	ML		5.00' - 10.00'

▼ Initial Water Level (Not Encountered)

 DIRECT PUSH  
 Sample Collected for  
 Laboratory Analysis



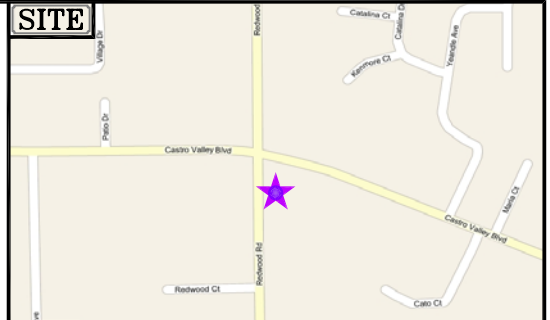
CASHL-BADW-A  
 10-03-2008 10-10-2008  
 CALIFORNIA CRF A.D.  
 SH1445-B4

SHELL FACILITY NO. 171445  
 3519 Castro Valley Blvd.  
 Castro Valley, California

Soil Boring Log  
 B-4

FIGURE


Drilling Started: 08/28/2008  
 Drilling Completed: 08/28/2008  
 Drilling Method and Diameter: Direct Push; 2" diameter  
 Drilling Company: Cascade Drilling  
 Drilled By:  
 Logged By: Steve Harquail  
 Boring: B-5



Depth (feet)	Samples Recovery (%)	PID (ppm)	LITHOLOGIC DESCRIPTION	USCS	Graphic Log	Depth (feet)
2			No Recovery - Air Knifed to 5 feet below ground surface (bgs)			2
4						4
6			Clayey Silt: Dark brown, with 10% sand. Hard, dry. Brown/tan/rust color mix.	ML		6
8						8
10	80	0.0	Dark brown, very hard.			10
12			Brown, dry.			12
14						14
16	80	0.0	Brown, very hard, dry, with 10% sand.			16
18						18
20	70	0.0				20
22			Silty Sand: Brown, damp.	SM		22
			Sand: Brown, homogenous, wet.	SP		
24			Silty Clay: Brown/light tan, soft, dry.	CL		24
	80	0.0				

Boring Terminated at 25 feet bgs.

▼ Initial Water Level (22' bgs)


 DIRECT PUSH  
 Sample Collected for  
 Laboratory Analysis



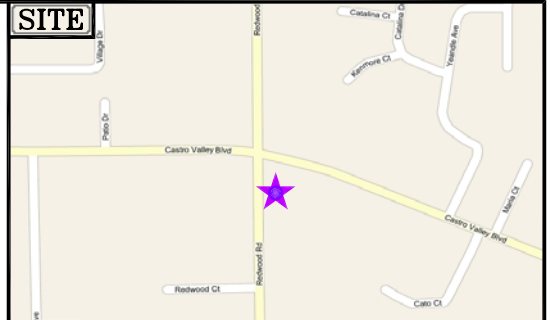
CASHL-BADW-A  
 10-03-2008 10-10-2008  
 CALIFORNIA CRF A.D.  
 SH1445-B5

SHELL FACILITY NO. 171445  
 3519 Castro Valley Blvd.  
 Castro Valley, California

Soil Boring Log  
 B-5

FIGURE

Drilling Started: 08/28/2008  
 Drilling Completed: 08/28/2008  
 Drilling Method and Diameter: Direct Push; 2" diameter  
 Drilling Company: Cascade Drilling  
 Drilled By:  
 Logged By: Steve Harquail  
 Boring: B-6



Depth (feet)	Samples	Recovery (%)	PID (ppm)	LITHOLOGIC DESCRIPTION	USCS	Graphic Log	Depth (feet)
2				No Recovery - Air Knifed to 5 feet below ground surface (bgs)			2
4							4
6				Clayey Silt: Dark brown/black, firm.	ML		6
8				Dark brown, hard, damp, with 5% sand.			8
10	95	86.0		Tan, brown/light tan mix, hard.			10
12				Damp			12
14	40	0.0		With 5-10% sand			14
				Boring Terminated at 15 feet bgs.			15.00'

▼ Initial Water Level (Not Encountered)

 DIRECT PUSH  
 Sample Collected for  
 Laboratory Analysis



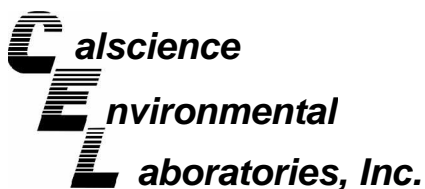
CASHL-BADW-A  
 10-03-2008 10-10-2008  
 CALIFORNIA CRF A.D.  
 SH1445-B6

SHELL FACILITY NO. 171445  
 3519 Castro Valley Blvd.  
 Castro Valley, California

Soil Boring Log  
 B-6

FIGURE

**APPENDIX C  
LABORATORY REPORTS  
AND CHAIN OF CUSTODY FORMS**



September 16, 2008

Kevin McCarthy  
Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Subject: **CalScience Work Order No.: 08-08-2740**  
**Client Reference: 3519 Castra Valley Blvd., CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/30/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jessie Kim', with a large, sweeping flourish at the end.

CalScience Environmental  
Laboratories, Inc.  
Jessie Kim  
Project Manager



## Analytical Report



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: 08/30/08  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B  
Units: ug/L

Project: 3519 Castra Valley Blvd., CA

Page 1 of 2

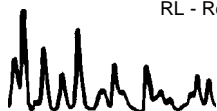
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-6</b>	<b>08-08-2740-2-A</b>	<b>08/28/08 08:20</b>	<b>Aqueous</b>	<b>GC/MS UU</b>	<b>09/08/08</b>	<b>09/08/08 16:38</b>	<b>080908L01</b>

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	0.71	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Ethylbenzene	3.4	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Toluene	3.5	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Ethanol	ND	100	1	
o-Xylene	ND	1.0	1		TPPH	900	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	103	74-140			1,2-Dichloroethane-d4	108	74-146		
Toluene-d8	101	88-112			Toluene-d8-TPPH	102	88-112		
1,4-Bromofluorobenzene	98	74-110							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-5</b>	<b>08-08-2740-4-A</b>	<b>08/28/08 10:10</b>	<b>Aqueous</b>	<b>GC/MS UU</b>	<b>09/08/08</b>	<b>09/08/08 17:03</b>	<b>080908L01</b>

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Ethylbenzene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Toluene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Ethanol	ND	100	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	102	74-140			1,2-Dichloroethane-d4	109	74-146		
Toluene-d8	99	88-112			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	99	74-110							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: 08/30/08  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B  
Units: ug/L

Project: 3519 Castra Valley Blvd., CA

Page 2 of 2

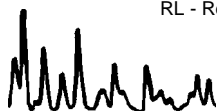
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4	08-08-2740-8-A	08/28/08 17:00	Aqueous	GC/MS UU	09/08/08	09/08/08 17:27	080908L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Ethylbenzene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Toluene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Ethanol	ND	100	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	101	74-140			1,2-Dichloroethane-d4	110	74-146		
Toluene-d8	101	88-112			Toluene-d8-TPPH	101	88-112		
1,4-Bromofluorobenzene	98	74-110							

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
	099-12-767-171	N/A	Aqueous	GC/MS UU	09/08/08	09/08/08 13:22	080908L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Ethylbenzene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Toluene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Ethanol	ND	100	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	100	74-140			1,2-Dichloroethane-d4	106	74-146		
Toluene-d8	100	88-112			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	99	74-110							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: 08/30/08  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B  
Units: mg/kg

Project: 3519 Castra Valley Blvd., CA

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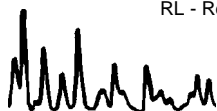
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6	08-08-2740-1-A	08/28/08 08:20	Solid	GC/MS PP	09/08/08	09/08/08 16:48	080908L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1	
1,2-Dibromoethane	ND	0.0050	1		Tert-Butyl Alcohol (TBA)	ND	0.050	1	
1,2-Dichloroethane	ND	0.0050	1		Diisopropyl Ether (DIPE)	ND	0.010	1	
Ethylbenzene	ND	0.0050	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	
Toluene	ND	0.0050	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	
p/m-Xylene	ND	0.0050	1		Ethanol	ND	0.50	1	
o-Xylene	ND	0.0050	1		TPPH	0.70	0.50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	101	73-139			1,2-Dichloroethane-d4	106	73-145		
Toluene-d8	101	90-108			1,4-Bromofluorobenzene	93	71-113		
Toluene-d8-TPPH	105	88-112							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-5	08-08-2740-3-A	08/28/08 10:10	Solid	GC/MS PP	09/08/08	09/08/08 17:13	080908L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1	
1,2-Dibromoethane	ND	0.0050	1		Tert-Butyl Alcohol (TBA)	ND	0.050	1	
1,2-Dichloroethane	ND	0.0050	1		Diisopropyl Ether (DIPE)	ND	0.010	1	
Ethylbenzene	ND	0.0050	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	
Toluene	ND	0.0050	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	
p/m-Xylene	ND	0.0050	1		Ethanol	ND	0.50	1	
o-Xylene	ND	0.0050	1		TPPH	ND	0.50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	100	73-139			1,2-Dichloroethane-d4	100	73-145		
Toluene-d8	98	90-108			1,4-Bromofluorobenzene	89	71-113		
Toluene-d8-TPPH	103	88-112							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



**Analytical Report**



Delta Environmental Consultants  
 4640 SW Macadam Ave; Suite 110  
 Portland, OR 97239-4283

Date Received: 08/30/08  
 Work Order No: 08-08-2740  
 Preparation: EPA 5030B  
 Method: LUFT GC/MS / EPA 8260B  
 Units: mg/kg

Project: 3519 Castra Valley Blvd., CA

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1	08-08-2740-5-A	08/28/08 14:40	Solid	GC/MS PP	09/08/08	09/08/08 17:38	080908L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.12	25		Methyl-t-Butyl Ether (MTBE)	ND	0.12	25	
1,2-Dibromoethane	ND	0.12	25		Tert-Butyl Alcohol (TBA)	ND	1.2	25	
1,2-Dichloroethane	ND	0.12	25		Diisopropyl Ether (DIPE)	ND	0.25	25	
Ethylbenzene	ND	0.12	25		Ethyl-t-Butyl Ether (ETBE)	ND	0.25	25	
Toluene	ND	0.12	25		Tert-Amyl-Methyl Ether (TAME)	ND	0.25	25	
p/m-Xylene	ND	0.12	25		Ethanol	ND	12	25	
o-Xylene	ND	0.12	25		TPPH	120	12	25	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	95	73-139			1,2-Dichloroethane-d4	95	73-145		
Toluene-d8	103	90-108			1,4-Bromofluorobenzene	99	71-113		
Toluene-d8-TPPH	109	88-112							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3	08-08-2740-6-A	08/28/08 15:30	Solid	GC/MS PP	09/08/08	09/08/08 18:04	080908L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	100		Methyl-t-Butyl Ether (MTBE)	ND	0.50	100	
1,2-Dibromoethane	ND	0.50	100		Tert-Butyl Alcohol (TBA)	ND	5.0	100	
1,2-Dichloroethane	ND	0.50	100		Diisopropyl Ether (DIPE)	ND	1.0	100	
Ethylbenzene	2.0	0.50	100		Ethyl-t-Butyl Ether (ETBE)	ND	1.0	100	
Toluene	ND	0.50	100		Tert-Amyl-Methyl Ether (TAME)	ND	1.0	100	
p/m-Xylene	1.7	0.50	100		Ethanol	ND	50	100	
o-Xylene	ND	0.50	100		TPPH	720	50	100	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	88	73-139			1,2-Dichloroethane-d4	91	73-145		
Toluene-d8	99	90-108			1,4-Bromofluorobenzene	91	71-113		
Toluene-d8-TPPH	104	88-112							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

## Analytical Report



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: 08/30/08  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B  
Units: mg/kg

Project: 3519 Castra Valley Blvd., CA

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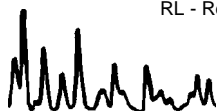
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4	08-08-2740-7-A	08/28/08 17:00	Solid	GC/MS PP	09/08/08	09/08/08 18:29	080908L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1	
1,2-Dibromoethane	ND	0.0050	1		Tert-Butyl Alcohol (TBA)	ND	0.050	1	
1,2-Dichloroethane	ND	0.0050	1		Diisopropyl Ether (DIPE)	ND	0.010	1	
Ethylbenzene	ND	0.0050	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	
Toluene	ND	0.0050	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	
p/m-Xylene	ND	0.0050	1		Ethanol	ND	0.50	1	
o-Xylene	ND	0.0050	1		TPPH	ND	0.50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	98	73-139			1,2-Dichloroethane-d4	99	73-145		
Toluene-d8	98	90-108			1,4-Bromofluorobenzene	90	71-113		
Toluene-d8-TPPH	103	88-112							

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-769-72	N/A	Solid	GC/MS PP	09/08/08	09/08/08 12:59	080908L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.0050	1		Methyl-t-Butyl Ether (MTBE)	ND	0.0050	1	
1,2-Dibromoethane	ND	0.0050	1		Tert-Butyl Alcohol (TBA)	ND	0.050	1	
1,2-Dichloroethane	ND	0.0050	1		Diisopropyl Ether (DIPE)	ND	0.010	1	
Ethylbenzene	ND	0.0050	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.010	1	
Toluene	ND	0.0050	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.010	1	
p/m-Xylene	ND	0.0050	1		Ethanol	ND	0.50	1	
o-Xylene	ND	0.0050	1		TPPH	ND	0.50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	95	73-139			1,2-Dichloroethane-d4	95	73-145		
Toluene-d8	97	90-108			1,4-Bromofluorobenzene	89	71-113		
Toluene-d8-TPPH	101	88-112							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: 08/30/08  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B  
Units: mg/kg

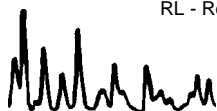
Project: 3519 Castra Valley Blvd., CA

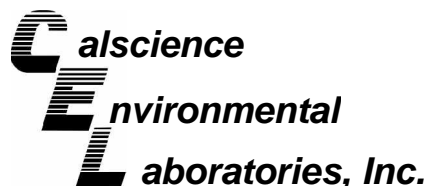
Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-769-73	N/A	Solid	GC/MS PP	09/08/08	09/08/08 13:24	080908L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.12	25		Methyl-t-Butyl Ether (MTBE)	ND	0.12	25	
1,2-Dibromoethane	ND	0.12	25		Tert-Butyl Alcohol (TBA)	ND	1.2	25	
1,2-Dichloroethane	ND	0.12	25		Diisopropyl Ether (DIPE)	ND	0.25	25	
Ethylbenzene	ND	0.12	25		Ethyl-t-Butyl Ether (ETBE)	ND	0.25	25	
Toluene	ND	0.12	25		Tert-Amyl-Methyl Ether (TAME)	ND	0.25	25	
p/m-Xylene	ND	0.12	25		Ethanol	ND	12	25	
o-Xylene	ND	0.12	25		TPPH	ND	12	25	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	96	73-139			1,2-Dichloroethane-d4	96	73-145		
Toluene-d8	98	90-108			1,4-Bromofluorobenzene	91	71-113		
Toluene-d8-TPPH	102	88-112							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





## Quality Control - Spike/Spike Duplicate



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

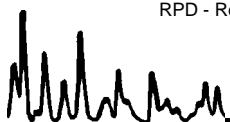
Date Received: 08/30/08  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA  
8260B

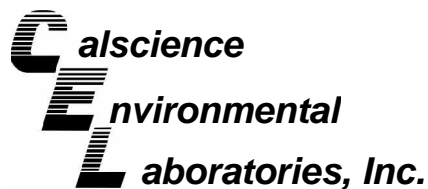
Project 3519 Castra Valley Blvd., CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-08-2719-8	Aqueous	GC/MS UU	09/08/08	09/08/08	080908S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	98	96	88-118	2	0-7	
Carbon Tetrachloride	105	104	67-145	1	0-11	
Chlorobenzene	101	101	88-118	0	0-7	
1,2-Dibromoethane	102	103	70-130	1	0-30	
1,2-Dichlorobenzene	107	105	86-116	2	0-8	
1,1-Dichloroethene	105	103	70-130	2	0-25	
Ethylbenzene	101	102	70-130	1	0-30	
Toluene	104	103	87-123	1	0-8	
Trichloroethene	104	101	79-127	3	0-10	
Vinyl Chloride	99	98	69-129	1	0-13	
Methyl-t-Butyl Ether (MTBE)	109	105	71-131	3	0-13	
Tert-Butyl Alcohol (TBA)	124	119	36-168	4	0-45	
Diisopropyl Ether (DIPE)	108	107	81-123	2	0-9	
Ethyl-t-Butyl Ether (ETBE)	100	100	72-126	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	101	99	72-126	2	0-12	
Ethanol	104	97	53-149	6	0-31	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Spike/Spike Duplicate



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

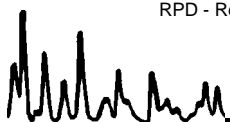
Date Received: 08/30/08  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA  
8260B

Project 3519 Castra Valley Blvd., CA

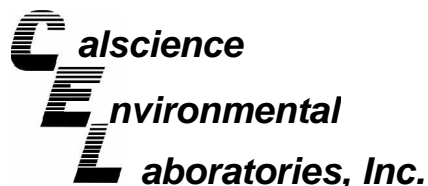
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-08-2726-1	Solid	GC/MS PP	09/08/08	09/08/08	080908S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	91	90	79-115	1	0-13	
Carbon Tetrachloride	88	87	55-139	1	0-15	
Chlorobenzene	99	98	79-115	1	0-17	
1,2-Dibromoethane	100	97	70-130	4	0-30	
1,2-Dichlorobenzene	97	97	63-123	0	0-23	
1,1-Dichloroethene	89	85	69-123	5	0-16	
Ethylbenzene	102	100	70-130	2	0-30	
Toluene	94	91	79-115	3	0-15	
Trichloroethene	91	89	66-144	3	0-14	
Vinyl Chloride	93	91	60-126	3	0-14	
Methyl-t-Butyl Ether (MTBE)	92	91	68-128	2	0-14	
Tert-Butyl Alcohol (TBA)	87	90	44-134	3	0-37	
Diisopropyl Ether (DIPE)	92	90	75-123	2	0-12	
Ethyl-t-Butyl Ether (ETBE)	90	88	75-117	2	0-12	
Tert-Amyl-Methyl Ether (TAME)	94	92	79-115	2	0-12	
Ethanol	99	92	42-138	8	0-28	

RPD - Relative Percent Difference , CL - Control Limit







## Quality Control - LCS/LCS Duplicate



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: N/A  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B

Project: 3519 Castra Valley Blvd., CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-767-171	Aqueous	GC/MS UU	09/08/08	09/08/08	080908L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	93	98	84-120	78-126	5	0-8	
Carbon Tetrachloride	102	107	63-147	49-161	5	0-10	
Chlorobenzene	99	102	89-119	84-124	4	0-7	
1,2-Dibromoethane	100	103	80-120	73-127	3	0-20	
1,2-Dichlorobenzene	105	102	89-119	84-124	2	0-9	
1,1-Dichloroethene	95	104	77-125	69-133	9	0-16	
Ethylbenzene	99	104	80-120	73-127	5	0-20	
Toluene	99	105	83-125	76-132	6	0-9	
Trichloroethene	100	107	89-119	84-124	6	0-8	
Vinyl Chloride	96	101	63-135	51-147	5	0-13	
Methyl-t-Butyl Ether (MTBE)	100	100	82-118	76-124	0	0-13	
Tert-Butyl Alcohol (TBA)	96	95	46-154	28-172	1	0-32	
Diisopropyl Ether (DIPE)	101	105	81-123	74-130	4	0-11	
Ethyl-t-Butyl Ether (ETBE)	96	97	74-122	66-130	1	0-12	
Tert-Amyl-Methyl Ether (TAME)	97	98	76-124	68-132	1	0-10	
Ethanol	98	102	60-138	47-151	5	0-32	
TPPH	110	102	65-135	53-147	8	0-30	

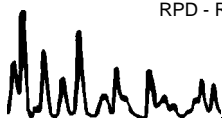
Total number of LCS compounds : 17

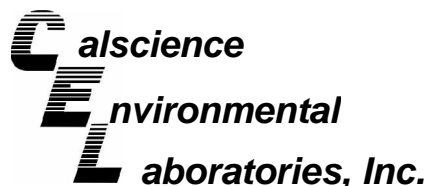
Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: N/A  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B

Project: 3519 Castra Valley Blvd., CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-769-72	Solid	GC/MS PP	09/08/08	09/08/08	080908L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	95	93	84-114	79-119	2	0-7	
Carbon Tetrachloride	94	94	66-132	55-143	0	0-12	
Chlorobenzene	103	102	87-111	83-115	0	0-7	
1,2-Dibromoethane	103	101	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	103	104	79-115	73-121	0	0-8	
1,1-Dichloroethene	94	93	73-121	65-129	2	0-12	
Ethylbenzene	109	106	80-120	73-127	2	0-20	
Toluene	99	94	78-114	72-120	5	0-7	
Trichloroethene	98	97	84-114	79-119	2	0-8	
Vinyl Chloride	98	98	63-129	52-140	0	0-15	
Methyl-t-Butyl Ether (MTBE)	91	91	77-125	69-133	0	0-11	
Tert-Butyl Alcohol (TBA)	94	89	47-137	32-152	5	0-27	
Diisopropyl Ether (DIPE)	93	93	76-130	67-139	0	0-8	
Ethyl-t-Butyl Ether (ETBE)	89	91	76-124	68-132	2	0-12	
Tert-Amyl-Methyl Ether (TAME)	96	94	82-118	76-124	2	0-11	
Ethanol	97	100	59-131	47-143	4	0-21	
TPPH	97	93	65-135	53-147	4	0-30	

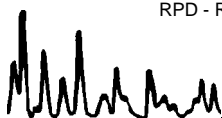
Total number of LCS compounds : 17

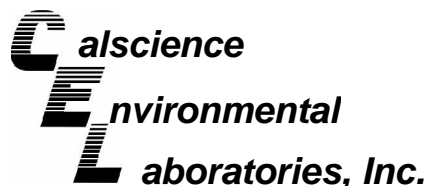
Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: N/A  
Work Order No: 08-08-2740  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B

Project: 3519 Castra Valley Blvd., CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-769-73	Solid	GC/MS PP	09/08/08	09/08/08	080908L02		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	95	93	84-114	79-119	2	0-7	
Carbon Tetrachloride	94	94	66-132	55-143	0	0-12	
Chlorobenzene	103	102	87-111	83-115	0	0-7	
1,2-Dibromoethane	103	101	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	103	104	79-115	73-121	0	0-8	
1,1-Dichloroethene	94	93	73-121	65-129	2	0-12	
Ethylbenzene	109	106	80-120	73-127	2	0-20	
Toluene	99	94	78-114	72-120	5	0-7	
Trichloroethene	98	97	84-114	79-119	2	0-8	
Vinyl Chloride	98	98	63-129	52-140	0	0-15	
Methyl-t-Butyl Ether (MTBE)	91	91	77-125	69-133	0	0-11	
Tert-Butyl Alcohol (TBA)	94	89	47-137	32-152	5	0-27	
Diisopropyl Ether (DIPE)	93	93	76-130	67-139	0	0-8	
Ethyl-t-Butyl Ether (ETBE)	89	91	76-124	68-132	2	0-12	
Tert-Amyl-Methyl Ether (TAME)	96	94	82-118	76-124	2	0-11	
Ethanol	97	100	59-131	47-143	4	0-21	
TPPH	97	93	65-135	53-147	4	0-30	

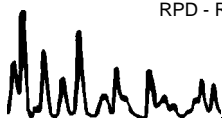
Total number of LCS compounds : 17

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 08-08-2740

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.



**LAB (LOCATION)**

- CALSCIENCE ( \_\_\_\_\_ )
- SPL ( \_\_\_\_\_ )
- XENCO ( \_\_\_\_\_ )
- TEST AMERICA ( \_\_\_\_\_ )
- OTHER ( \_\_\_\_\_ )



**Shell Oil Products Chain Of Custody Record**

**Please Check Appropriate Box:**

<input type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETAIL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SD&CM	<input type="checkbox"/> CONSULTANT	<input type="checkbox"/> LUBES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER _____	

**Print Bill To Contact Name:** Charla Oval **INCIDENT # (ENV SERVICES):** 97767817  CHECK IF NO INCIDENT # APPLIES

**PO #:** 97787 **SAP #:** 171445 **DATE:** \_\_\_\_\_

**PAGE:** 1 of 1

**CONSULTANT COMPANY:** Delta Consultants

**ADDRESS:** 4640 SW Macadam Avenue; Suite 110

**CITY:** Portland, OR 97239

**TELEPHONE:** 1-800-477-7411 **FAX:** 503.639.7619 **E-MAIL:** kmccarthy@deltaenv.com

**SITE ADDRESS: Street and City:** 3519 Castor Valley Blvd **State:** CA **GLOBAL ID NO.:** \_\_\_\_\_

**EDF DELIVERABLE TO (Name, Company, Office Location):** Angela Pico **PHONE NO.:** 408-826-1862 **E-MAIL:** apico@deltaenv.com **CONSULTANT PROJECT NO.:** \_\_\_\_\_

**TURNAROUND TIME (CALENDAR DAYS):**

STANDARD (14 DAY)  5 DAYS  3 DAYS  2 DAYS  24 HOURS  RESULTS NEEDED ON WEEKEND

**SAMPLER NAME(S) (Print):** Staph Hargrave **LAB USE ONLY:** 08-2740

LA - RWQCB REPORT FORMAT  UST AGENCY:

**SPECIAL INSTRUCTIONS OR NOTES :**

Please also email results to: droulette@deltaenv.com jeckart@deltaenv.com

SHELL CONTRACT RATE APPLIES  
 STATE REIMBURSEMENT RATE APPLIES  
 EDD NOT NEEDED  
 RECEIPT VERIFICATION REQUESTED

**REQUESTED ANALYSIS**

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	TPH - Gas, Purgeable (8260B)	TPH - Diesel Range Only (8015M)	BTEX (8260B)	5 Oxygenates (8260B) (MTBE, TBA, DIPE, TAME, ETBE)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	TPH-motor oil (8015M)	TDS (160.1)	Total Iron (8010B)	Total Lead (8010B) (tr >50ppm, run STL)	CAM 17	Total Oil and Grease (1664A)	TEMPERATURE ON RECEIPT °C	Container PID Readings or Laboratory Notes
		DATE	TIME		HCL	HNO3	H2SO4	NONE	OTHER																						
	B-6	8/28/08	820	Soil					X	1	X	X							X	X	X										
	B-6		820	Water	X				X	6	X	X							X	X	X										
	B-5		1010	Soil					X	7	X	X							X	X	X										
	B-5		1010	Water	X				X	X	X	X							X	X	X										
	B-1		1440	Soil					X	1	X	X							X	X	X										
	B-3		1530	Soil					X	1	X	X							X	X	X										
	B-4		1700	Soil					X	7	X	X							X	X	X										
	B-4		1700	Water	X				X	6	X	X							X	X	X										

no CAM 17

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) _____	Date: <u>8/28/08</u>	Time: <u>1345</u>
Relinquished by: (Signature) _____	Received by: (Signature) <u>[Signature]</u>	Date: <u>08-30-08</u>	Time: <u>9:30</u>
Relinquished by: (Signature) _____	Received by: (Signature) _____	Date: _____	Time: _____

TRK #: 105528612

WORK ORDER #: **08** -   -

Cooler 1 of 1

## SAMPLE RECEIPT FORM

CLIENT: DECTA

DATE: 08-30-08

**TEMPERATURE – SAMPLES RECEIVED BY:**

**CALSCIENCE COURIER:**

- Chilled, cooler with temperature blank provided.
- Chilled, cooler without temperature blank.
- Chilled and placed in cooler with wet ice.
- Ambient and placed in cooler with wet ice.
- Ambient temperature (For Air & Filter only).
  
- \_\_\_\_\_ °C Temperature blank.

**LABORATORY (Other than Calscience Courier):**

- 03.7 °C Temperature blank.
- \_\_\_\_\_ °C IR thermometer.
- Ambient temperature (For Air & Filter only).

Initial: TD

**CUSTODY SEAL INTACT:**

Sample(s): \_\_\_\_\_ Cooler: \_\_\_\_\_ No (Not Intact) : \_\_\_\_\_ Not Present:

Initial: TD

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>		
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>		
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>		
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>		
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>		
Proper preservation noted on sample label(s).....			<input checked="" type="checkbox"/>
VOA vial(s) free of headspace. ....			<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....			<input checked="" type="checkbox"/>

Initial: TD

**COMMENTS:**

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WORK ORDER #: **08** - **08** - **2740**

Cooler    of   

## SAMPLE RECEIPT FORM

CLIENT:   DECTA  

DATE:   08-30-08  

**TEMPERATURE – SAMPLES RECEIVED BY:**

**CALSCIENCE COURIER:**

- Chilled, cooler with temperature blank provided.
- Chilled, cooler without temperature blank.
- Chilled and placed in cooler with wet ice.
- Ambient and placed in cooler with wet ice.
- Ambient temperature (For Air & Filter only).
  
- °C Temperature blank.

**LABORATORY (Other than Calscience Courier):**

- 03.7   °C Temperature blank.
- °C IR thermometer.
- Ambient temperature (For Air & Filter only).

Initial:   TD  

**CUSTODY SEAL INTACT:**

Sample(s):    Cooler:    No (Not Intact) :    Not Present:   

Initial:   TD  

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>		
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>		
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>		
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>		
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>		
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>		
VOA vial(s) free of headspace. ....	<input checked="" type="checkbox"/>		
Tedlar bag(s) free of condensation.....			<input checked="" type="checkbox"/>

Initial:   TD  

**COMMENTS:**

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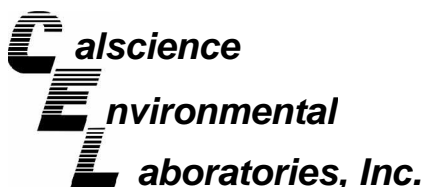
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November 05, 2008

Kevin McCarthy  
Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Subject: **CalScience Work Order No.: 08-10-2622**  
**Client Reference: 3519 Castro Valley Blvd., CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/30/2008 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jessie Kim'.

CalScience Environmental  
Laboratories, Inc.  
Jessie Kim  
Project Manager



## Analytical Report



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: 10/30/08  
Work Order No: 08-10-2622  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B  
Units: ug/L

Project: 3519 Castro Valley Blvd., CA

Page 1 of 3

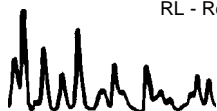
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	08-10-2622-1-C	10/28/08 15:10	Aqueous	GC/MS T	11/01/08	11/02/08 05:12	081101L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	15	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	38	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Ethylbenzene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Toluene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Ethanol	ND	100	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	119	74-140			1,2-Dichloroethane-d4	116	74-146		
Toluene-d8	101	88-112			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	84	74-110							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	08-10-2622-2-C	10/28/08 15:40	Aqueous	GC/MS T	11/01/08	11/02/08 05:43	081101L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	51	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Ethylbenzene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Toluene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Ethanol	ND	100	1	
o-Xylene	ND	1.0	1		TPPH	74	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	121	74-140			1,2-Dichloroethane-d4	122	74-146		
Toluene-d8	100	88-112			Toluene-d8-TPPH	99	88-112		
1,4-Bromofluorobenzene	84	74-110							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: 10/30/08  
Work Order No: 08-10-2622  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B  
Units: ug/L

Project: 3519 Castro Valley Blvd., CA

Page 2 of 3

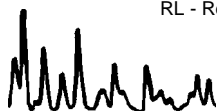
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	08-10-2622-3-C	10/28/08 16:05	Aqueous	GC/MS T	11/01/08	11/02/08 06:13	081101L02

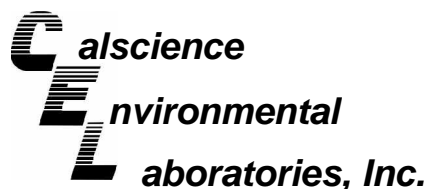
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	19	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Ethylbenzene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Toluene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Ethanol	ND	100	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	120	74-140			1,2-Dichloroethane-d4	115	74-146		
Toluene-d8	100	88-112			Toluene-d8-TPPH	99	88-112		
1,4-Bromofluorobenzene	84	74-110							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	08-10-2622-4-C	10/28/08 16:45	Aqueous	GC/MS T	11/01/08	11/02/08 06:44	081101L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Ethylbenzene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Toluene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Ethanol	ND	100	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	124	74-140			1,2-Dichloroethane-d4	120	74-146		
Toluene-d8	100	88-112			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	82	74-110							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





## Analytical Report



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: 10/30/08  
Work Order No: 08-10-2622  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B  
Units: ug/L

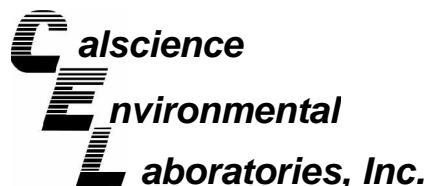
Project: 3519 Castro Valley Blvd., CA

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-767-296	N/A	Aqueous	GC/MS T	11/01/08	11/02/08 01:10	081101L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	1	
1,2-Dibromoethane	ND	1.0	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Ethylbenzene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
Toluene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Ethanol	ND	100	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Dibromofluoromethane	116	74-140			1,2-Dichloroethane-d4	112	74-146		
Toluene-d8	98	88-112			Toluene-d8-TPPH	97	88-112		
1,4-Bromofluorobenzene	83	74-110							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Quality Control - Spike/Spike Duplicate



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

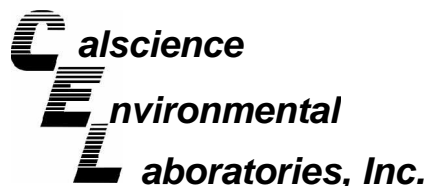
Date Received: 10/30/08  
Work Order No: 08-10-2622  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA  
8260B

Project 3519 Castro Valley Blvd., CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-10-2462-3	Aqueous	GC/MS T	11/01/08	11/02/08	081101S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	98	97	88-118	2	0-7	
Carbon Tetrachloride	106	106	67-145	0	0-11	
Chlorobenzene	98	96	88-118	2	0-7	
1,2-Dibromoethane	98	98	70-130	1	0-30	
1,2-Dichlorobenzene	97	92	86-116	5	0-8	
1,1-Dichloroethene	97	96	70-130	1	0-25	
Ethylbenzene	101	99	70-130	2	0-30	
Toluene	96	96	87-123	0	0-8	
Trichloroethene	98	96	79-127	2	0-10	
Vinyl Chloride	87	88	69-129	1	0-13	
Methyl-t-Butyl Ether (MTBE)	99	99	71-131	0	0-13	
Tert-Butyl Alcohol (TBA)	95	96	36-168	0	0-45	
Diisopropyl Ether (DIPE)	102	101	81-123	0	0-9	
Ethyl-t-Butyl Ether (ETBE)	78	79	72-126	2	0-12	
Tert-Amyl-Methyl Ether (TAME)	87	86	72-126	0	0-12	
Ethanol	105	104	53-149	1	0-31	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Delta Environmental Consultants  
4640 SW Macadam Ave; Suite 110  
Portland, OR 97239-4283

Date Received: N/A  
Work Order No: 08-10-2622  
Preparation: EPA 5030B  
Method: LUFT GC/MS / EPA 8260B

Project: 3519 Castro Valley Blvd., CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-767-296	Aqueous	GC/MS T	11/01/08	11/02/08	081101L02		
<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>ME CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	90	97	84-120	78-126	8	0-8	
Carbon Tetrachloride	100	107	63-147	49-161	6	0-10	
Chlorobenzene	92	97	89-119	84-124	6	0-7	
1,2-Dibromoethane	96	101	80-120	73-127	5	0-20	
1,2-Dichlorobenzene	88	92	89-119	84-124	4	0-9	ME
1,1-Dichloroethene	90	97	77-125	69-133	8	0-16	
Ethylbenzene	93	101	80-120	73-127	8	0-20	
Toluene	87	95	83-125	76-132	9	0-9	
Trichloroethene	94	101	89-119	84-124	7	0-8	
Vinyl Chloride	94	86	63-135	51-147	9	0-13	
Methyl-t-Butyl Ether (MTBE)	87	90	82-118	76-124	4	0-13	
Tert-Butyl Alcohol (TBA)	84	86	46-154	28-172	2	0-32	
Diisopropyl Ether (DIPE)	90	96	81-123	74-130	6	0-11	
Ethyl-t-Butyl Ether (ETBE)	74	79	74-122	66-130	6	0-12	
Tert-Amyl-Methyl Ether (TAME)	83	87	76-124	68-132	6	0-10	
Ethanol	102	104	60-138	47-151	2	0-32	
TPPH	116	112	65-135	53-147	3	0-30	

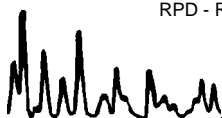
Total number of LCS compounds : 17

Total number of ME compounds : 1

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 08-10-2622

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.



LAB (LOCATION)

- CALSCIENCE (\_\_\_\_\_)
- SPL (\_\_\_\_\_)
- XENCO (\_\_\_\_\_)
- TEST AMERICA (\_\_\_\_\_)
- OTHER (\_\_\_\_\_)



# Shell Oil Products Chain Of Custody Record

Please Check Appropriate Box:

- |   |  |                                       |
|---|--|---------------------------------------|
| <input type="checkbox"/> ENV. SERVICES  | <input type="checkbox"/> MOTIVA RETAIL | <input type="checkbox"/> SHELL RETAIL |
| <input type="checkbox"/> MOTIVA SD&CM   | <input type="checkbox"/> CONSULTANT    | <input type="checkbox"/> LUBES        |
| <input type="checkbox"/> SHELL PIPELINE | <input type="checkbox"/> OTHER _____   |                                       |

Print Bill To Contact Name:

INCIDENT # (ENV SERVICES):

CHECK IF NO INCIDENT # APPLIES

PO #

SAP #

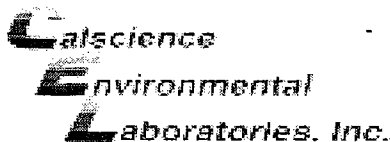
DATE: 10/28/2008

PAGE: 1 of 1

SAMPLING COMPANY: Delta Consultants				LOG CODE:				SITE ADDRESS: Street and City <b>3519 Castro Valley Blvd, Castro Valley</b>				State <b>CA</b>				GLOBAL ID NO: <b>T0600101556</b>																	
ADDRESS: <b>4640 SW McAdam Ave, Suite 110, Portland, OR. 97239</b>				EOP DELIVERABLE TO (Name, Company, Office Location): <b>Angela Pico, Delta Consultant San Jose, CA</b>				PHONE NO.: <b>408-826-1862</b>				E-MAIL: <b>apico@deltaenv.com</b>				CONSULTANT PROJECT NO.: <b>CASHBADD</b>																	
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Kevin McCarthy</b>				TELEPHONE: <b>503-863-2102</b>				FAX: <b>503-639-7619</b>				E-MAIL: <b>kmccarthy@deltaenv.com</b>				SAMPLER NAME(S) (Print): Abhik Dutta				LAB USE ONLY <b>08-10-2622</b>													
TURNAROUND TIME (CALENDAR DAYS): <input type="checkbox"/> STANDARD (14 DAY) <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 3 DAYS <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> RESULTS NEEDED ON WEEKEND				REQUESTED ANALYSIS																													
<input type="checkbox"/> LA - RWQCB REPORT FORMAT <input type="checkbox"/> UST AGENCY:				SPECIAL INSTRUCTIONS OR NOTES :				<input checked="" type="checkbox"/> SHELL CONTRACT RATE APPLIES <input type="checkbox"/> STATE REIMBURSEMENT RATE APPLIES <input type="checkbox"/> EDD NOT NEEDED <input type="checkbox"/> RECEIPT VERIFICATION REQUESTED				TEMPERATURE ON RECEIPT C°																					
LAB USE ONLY	Field Sample Identification			SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	All sites					+ diesel tank		+ waste oil tank					Container PID Readings or Laboratory Notes								
				DATE	TIME		HCL	HNO3	H2SO4	NONE	OTHER		TPH-C Purgeable (8260B)	BTEX (8260B)	5 Shell Oxygenates (8260B)	EDB (8260B)	EDC (8260B)	Ethanol (8260B)	TPH-D Extractable (8015M)		full suite VOCs (8260B)	1,2-DCA and EDB (8260B)	CAM 5 Metals (6010)	PNA and cresote (8270)		PCBs (8082)	TPH-D Extractable (8015M)	Oil and grease (8015M)					
	MW-1	10/28/2008	15:10	WATER	X							X	X	X	X	X	X																
	MW-2	10/28/2008	15:40	WATER	X							X	X	X	X	X	X																
	MW-3	10/28/2008	16:05	WATER	X							X	X	X	X	X	X																
	MW-4	10/28/2008	16:45	WATER	X							X	X	X	X	X	X																

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: <b>10/28/08</b>	Time: 
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature) <b>165866760</b>	Received by: (Signature) <i>[Signature]</i>	Date: <b>10/30/08</b>	Time: <b>2622 1000</b>

05/2006 Revision



WORK ORDER #: **08-10-2622**

**SAMPLE RECEIPT FORM**

Cooler 1 of 1

CLIENT: Delta

DATE: 10/30/08

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 3.3 °C + 1.8°C (CF) = 5.1 °C     Blank     Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:     Air     Filter    Initial: JP

**CUSTODY SEALS INTACT:**

Cooler     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: JP

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: YL

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

**Solid:**     4ozCGJ     8ozCGJ     16ozCGJ     Sleeve     EnCores®     TerraCores®     \_\_\_\_\_

**Water:**     VOA     VOA<sup>5</sup>h     VOAna<sub>2</sub>     125AGB     125AGBh     125AGBpo<sub>4</sub>     1AGB     1AGBna<sub>2</sub>

1AGBs     500AGB     500AGBs     250CGB     250CGBs     1PB     500PB     500PBna     250PB

250PBn     125PB     125PBz<sub>2</sub>na     100PBsterile     100PBna<sub>2</sub>     \_\_\_\_\_     \_\_\_\_\_     \_\_\_\_\_

**Air:**     Tedlar®     Summa®     \_\_\_\_\_

Container: C:Clear    A:Amber    P:Poly/Plastic    G:Glass    J:Jar    B:Bottle

Preservative: h:HCL    n:HNO<sub>3</sub>    na<sub>2</sub>:Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>    na:NaOH    po<sub>4</sub>:H<sub>3</sub>PO<sub>4</sub>    s:H<sub>2</sub>SO<sub>4</sub>    z<sub>2</sub>na:ZnAc<sub>2</sub>+NaOH

Checked/Labeled by: YL

Reviewed by: PS

Scanned by: YL



**APPENDIX D**  
**COPIES of WASTE DISPOSAL MANIFESTS**  
**(as applicable and available)**

**THIS ATTACHMENT HAS BEEN LEFT BLANK INTENTIONALLY. THE DOCUMENTS ASSOCIATED WITH THE DISPOSAL OF SOIL FOR THIS PHASE II ESA WERE NOT AVAILABLE AT THE TIME THE REPORT WAS WRITTEN.**

**APPENDIX E**  
**COPIES of RELEASE NOTIFICATIONS to AGENCY and RESPONSE**

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT			
EMERGENCY <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
REPORT DATE September 24, 2008		CASE #	
		FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFETY CODE.	
		SIGNED _____ DATE _____	
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Charles O'Neill		PHONE (916) 853-8927
	REPRESENTING <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> REGIONAL BOARD <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME Shell Oil Products US
	ADDRESS 20945 S. Wilmington Ave. Carson CA 90810 STREET CITY STATE ZIP		
RESPONSIBLE PARTY	NAME Shell Oil Products US <input type="checkbox"/> Unknown		CONTACT PERSON Carol Campagna
	ADDRESS 20945 S. Wilmington Ave Carson CA 90810 STREET CITY STATE ZIP		PHONE (707) 864-1617
SITE LOCATION	FACILITY NAME (IF APPLICABLE) Shell 171445		OPERATOR PHONE ( )
	ADDRESS 3519 Castro Valley Blvd Castro Valley Alameda 94546 STREET CITY COUNTY ZIP		
	CROSS STREET Redwood Road and Castro Valley		
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME Alameda County Environmental Health		PHONE (510) 567-6721
	REGIONAL BOARD San Francisco Regional Water Board		PHONE ( )
SUBSTANCES INVOLVED	(1) NAME TPPH (gasoline; 720 ppm soil, 900 ppb groundwater)		QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> Unknown
	(2) benzene (0.21 ppb groundwater)		<input checked="" type="checkbox"/> Unknown
DISCOVERY/ABATEMENT	DATE DISCOVERED 9/23/08	HOW DISCOVERED <input type="checkbox"/> Tank Test <input type="checkbox"/> Tank Removal <input type="checkbox"/> Nuisance Conditions <input type="checkbox"/> Inventory Control <input type="checkbox"/> Subsurface Monitoring <input checked="" type="checkbox"/> Other	
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> Remove Contents <input type="checkbox"/> Close Tank <input type="checkbox"/> Repair Tank <input type="checkbox"/> Change Procedure <input type="checkbox"/> Replace Tank <input checked="" type="checkbox"/> Other <input type="checkbox"/> Repair Piping	
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE Unknown		
SOURCE/ CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> Tank Leak <input type="checkbox"/> Piping Leak <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Other		CAUSE(S) <input type="checkbox"/> Overfill <input type="checkbox"/> Corrosion <input type="checkbox"/> Rupture/Failure <input type="checkbox"/> Unknown <input type="checkbox"/> Spill <input checked="" type="checkbox"/> Other
	CHECK ONE ONLY <input type="checkbox"/> Undetermined <input type="checkbox"/> Soil Only <input checked="" type="checkbox"/> Groundwater <input type="checkbox"/> Drinking Water – (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)		
CURRENT STATUS	CHECK ONE ONLY <input checked="" type="checkbox"/> No Action Taken <input type="checkbox"/> Case Closed (Cleanup Completed or Unnecessary) <input type="checkbox"/> Leak Being Confirmed <input type="checkbox"/> Pollution Characterization <input type="checkbox"/> Remediation Plan <input type="checkbox"/> Post Cleanup Monitoring in Progress <input type="checkbox"/> Preliminary Site Assessment Workplan Submitted <input type="checkbox"/> Cleanup Underway <input type="checkbox"/> Preliminary Site Assessment Underway		
	CHECK APPROPRIATE ACTION(S) <input type="checkbox"/> Cap Site (CD) <input type="checkbox"/> Excavate & Treat (ET) <input type="checkbox"/> Treatment At Hookup (HU) <input checked="" type="checkbox"/> Other <input type="checkbox"/> Contamination Barrier (CB) <input type="checkbox"/> No Action Required (NA) <input type="checkbox"/> Enhanced Bio Degradation (IT) <input type="checkbox"/> Vacuum Extract (VE) <input type="checkbox"/> Remove Free Product (FP) <input type="checkbox"/> Replace Supply (RS) <input type="checkbox"/> Excavate & Dispose (ED) <input type="checkbox"/> Pump & Treat Groundwater (GT) <input type="checkbox"/> Vent Soil (VS)		
COMMENTS	During review of laboratory analytical results from soil and groundwater sampling, concentrations of benzene (0.21 ppb); and TPPH (gasoline; 900 ppb groundwater, 720 ppm soil) were noted in groundwater and/or soil samples collected from the site by Delta Consultants (Delta). Delta notified Alameda County Environmental Health on 9/23/08 by phoning and leaving a telephone voicemail and emailing Donna Drogos at 3:16pm PST. A report documenting the findings will be submitted to the agency within 60 days.		

## Instructions for Completing UST Unauthorized Release (Leak) / Contamination Site Report

**EMERGENCY:** Indicate whether emergency response personnel and equipment were involved at any time. If so, a Hazardous Material Incident Report should be filed with the State Office of Emergency Services (OES). Indicate whether the OES report has been filed as of the date of this report.

**LOCAL AGENCY USE ONLY:** To avoid duplicate notifications pursuant to Health and safety Code Section 25180.7, a designated government employee should sign and date the form in this block. A signature here does not mean that the leak has been determined to pose a significant threat to human health or safety, only that notification procedures have been followed if required.

**REPORTED BY:** Enter name, telephone number, and address. Indicate which party you represent and provide company or agency name.

**SIGNATURE:** Sign the form in the space provided.

**RESPONSIBLE PARTY:** Enter the name, telephone number, contact person, and address of the party responsible for the leak. The Responsible Party would normally be the tank owner.

**SITE LOCATION:** Enter information regarding the tank facility. At a minimum, you must provide the facility name and full site address.

**IMPLEMENTING AGENCIES:** Enter the names of the local agency and Regional Water Quality Control Board having jurisdiction over the site.

**SUBSTANCES INVOLVED:** Enter the name and quantity lost of the hazardous substance(s) involved. If more than two substances leaked, list the two of most concern for cleanup.

**DISCOVERY/ABATEMENT:** Provide information regarding the discovery and abatement of the leak.

**SOURCE/CAUSE:** Indicate the source(s) of leak. Check box(es) indicating the cause(s) of leak.

**CASE TYPE:** Check one box only. Indicate the Case Type category for this leak. Case Type is based on the most sensitive resource affected. For example, if both soil and ground water have been affected, Case Type will be "Groundwater." Indicate "Drinking Water" only if one or more municipal or domestic water wells have actually been affected. A "Groundwater" designation does not imply that the affected water cannot be, or is not, used for drinking water, but only that water wells have not yet been affected. It is understood that Case Type may change upon further investigation.

**CURRENT STATUS:** Check one box only. Indicate the category which best describes the Current Status of the case. The response should be relative to the Case Type. For example, if the Case Type is "Groundwater," then Current Status should refer to the status of the ground water investigation or cleanup, as opposed to that of soil. Descriptions of options are as follows:

- **No Action Taken** – No action has been taken by the Responsible Party beyond initial reporting of the leak.
- **Leak Being Confirmed** – A leak is suspected at the site, but has not yet been confirmed.
- **Remediation Plan** – Remediation Plan submitted evaluating long term remediation options. Proposal and implementation schedule for appropriate remediation options also submitted.
- **Preliminary Site Assessment Workplan Submitted** – Workplan/proposal requested of/submitted by Responsible Party to determine whether ground water has been, or will be, impacted as a result of the release.
- **Preliminary Site Assessment Underway** – Workplan is being implemented.
- **Case Closed** – Regional Water Quality Control Board and local agency Local Oversight Program (LOP) agree that no further work is necessary at the site.
- **Pollution Characterization** – Responsible Party is in the process of fully defining the extent of contamination in soil and ground water and assessing impacts on surface and/or ground water.
- **Post Cleanup Monitoring in Progress** – Periodic ground water or other monitoring at site, as necessary, to verify and/or evaluate the effectiveness of remedial activities.
- **Cleanup Underway** – Remediation Plan is being implemented.

IMPORTANT: THE INFORMATION PROVIDED ON THIS FORM IS INTENDED FOR GENERAL STATISTICAL PURPOSES ONLY AND IS NOT TO BE CONSTRUED AS REPRESENTING THE OFFICIAL POSITION OF ANY GOVERNMENTAL AGENCY.

**REMEDIAL ACTION:** Indicate which actions have been used to clean up or remediate the leak. Descriptions of options are as follows:

- **Cap Site** – Install horizontal impermeable layer to reduce rainfall infiltration.
- **Containment Barrier** – Install vertical dike to block horizontal movement of contaminants.
- **Excavate and Dispose** – Remove contaminated soil and dispose at approved site.
- **Excavate and Treat** – Remove contaminated soil and treat (includes spreading or land farming).
- **Remove Free Product** – Remove floating product from water table.
- **Pump and Treat Groundwater** – Generally employed to remove dissolved contaminants.
- **Enhanced Biodegradation** – Use of any available technology to promote bacterial decomposition of contaminants.
- **Replace Supply** – Provide alternate water supply to affected parties.
- **Treatment at Hookup** – Install water treatment devices at each dwelling or other place of use.
- **Vacuum Extract** – Use pumps or blowers to draw air through soil.
- **Vent Soil** – Bore holes in soil to allow volatilization of contaminants.
- **No Action Required** – Incident is minor, requiring no remedial action.

**COMMENTS:** Use this space to elaborate on any aspects of the incident.

**DISTRIBUTION:** If this form is completed by the tank owner or his/her agent, retain a copy and forward the original to your local tank permitting agency for distribution.

- Original – Local UST permitting agency. (Agency contact information is available at [www.unidocs.org](http://www.unidocs.org).)
- Copy – Regional Water Quality Control Board. (Boundaries and contact information are available at [www.swrcb.ca.gov/regions.html](http://www.swrcb.ca.gov/regions.html).)
- Copy – Local Oversight Program (LOP) agency. (Agency contact information is available at [www.unidocs.org](http://www.unidocs.org).)
- Copy – Local Health Officer and County Board of Supervisors or their designee to receive Proposition 65 notifications.
- Copy – Owner/Responsible Party.