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Alameda County

July 19, 2004

JUL 21 2004

Mr. Don Hwang
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Environmental Health

Re: **Site Investigation Report and Well Installation Work Plan**
Shell-branded Service Station
9750 Golf Links Road
Oakland, California
SAP Code 135683
Incident #98995744
Fuel Leak Case # RO0002441



Dear Mr. Hwang:

Cambria Environmental Technology, Inc. (Cambria) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document recent site investigation activities at the above-referenced site. The purpose of this initial phase of the investigation was to further assess the depth to groundwater in sediments beneath the site to determine appropriate screened intervals for monitoring wells proposed in Cambria's *Well Installation Work Plan* dated May 17, 2002. Alameda County Health Care Services Agency (ACHCSA) responded to the work plan submittal in a correspondence dated May 17, 2002 requesting additional information and a work plan addendum. On December 4, 2002 Cambria submitted *Agency Response and Well Installation Work Plan Addendum* as requested. Since no response was received, Cambria notified the ACHCSA, in correspondence dated March 17, 2004, of our intent to install a pilot borehole prior to implementing the work plan. The ACHCSA approved the pilot boring activities in a letter dated April 5, 2004, and requested that a site investigation report be issued by June 15, 2004. Due to facility upgrades at this site, the drilling work was postponed. In an email correspondence dated June 7, 2004 Cambria requested the report submittal date be extended to July 20, 2004. The ACHCSA responded on June 8, 2004 via email, approving the extension. The work was performed in accordance with Regional Water Quality Control Board (RWQCB) and Alameda County Public Works Agency (ACPWA) guidelines.

SITE BACKGROUND


Site Description: The site is an active Shell-branded Service Station, located at the intersection of Golf Links Road and Mountain Boulevard in Oakland, California (Figure 1). Residential and commercial properties surround the site. Highway 580 runs near the northern boundary of the site.

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PREVIOUS WORK



1995 Waste Oil Underground Storage Tank (UST) Removal: On March 7, 1995, Weiss Associates of Emeryville, California (WA) observed the removal of a 550-gallon, single-walled, steel waste-oil UST and collected soil samples from the tank excavation floor and sidewalls. The highest hydrocarbon concentrations were 12,000 parts per million (ppm) total oil and grease (TOG), 190 ppm total petroleum hydrocarbons as gasoline (TPHg) and 3,900 ppm total petroleum hydrocarbons as diesel (TPHd), detected at 7 feet below grade (fbg). After over excavation, confirmation soil samples from a depth of 11 fbg at the site contained 62 ppm TOG, and no TPHg or TPHd. No benzene was detected in any of the excavation samples. Sidewall confirmation samples from approximately 7 – 8 fbg reported no TPHd, no TPHg, and no benzene constituents.

1995 Subsurface Investigation: On December 15, 1995, WA advanced one soil boring (B-1 on Figure 2) to 48 fbg in the vicinity of the former waste oil UST. Hydrocarbons detected were 2.8 ppm TPHd at 30.5 fbg and 56 ppm TOG at 40.5 fbg. No groundwater was encountered.

1998 Dispenser Upgrade: On February 4, 1998, Cambria observed station upgrade activities and collected soil samples from beneath one dispenser (D-4). The highest hydrocarbon concentrations were 7,800 ppm TPHg and 37 ppm benzene beneath dispenser D-4 at 4.0 fbg (Figure 2). No field indications of hydrocarbons were observed beneath the other dispensers, and sample collection was not required.

1998 Subsurface Investigation: On July 6 and 31, 1998, Cambria installed one soil boring (SB-1) to a depth of 30 fbg in the vicinity of dispenser sample D-4. Hydrocarbons were detected at a maximum concentration of 14,000 ppm TPHg and 100 ppm benzene at 13 fbg. A maximum concentration of 91 ppm of methyl tertiary butyl ether (MTBE) was reported at 9 fbg by EPA Method 8020. This detection was confirmed by EPA Method 8260 at a concentration of 23 ppm. Low concentrations of TPHg (5.6 ppm), benzene (0.035 ppm), and MTBE (0.16 ppm) by EPA Method 8020 were reported in the deepest sample collected at approximately 26 fbg. Cambria was unable to collect a groundwater sample, as the only water encountered was an apparent thin perched zone at approximately 12 fbg.

1999 Subsurface Investigation: On August 25, 1999, Cambria installed five soil borings (SB-1b and SB-2 though SB-5) to depths ranging from 16 to 30 fbg. The maximum TPHg concentration detected in soil was 243 ppm at approximately 10 fbg in boring SB-2. The maximum MTBE concentration detected in soil was 2.23 ppm (by EPA Method 8260) at approximately 10 fbg in boring SB-4. No benzene was reported in any of the analyzed soil samples collected. A perched

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water zone was encountered at approximately 12 fbg in boring SB-2 and approximately 20 fbg in boring SB-3. Groundwater was not encountered in the remaining soil borings. Grab water samples collected from the perched water encountered in borings SB-2 and SB-3 contained were both impacted with a maximum of 256 parts per billion (ppb) TPHg, 2.42 ppb benzene and 11,800 ppb MTBE (by EPA Method 8020) in SB-2.

2000 Sensitive Receptor Survey: In 2000, Cambria conducted a sensitive receptor survey for a ¼-mile radius of the site. Results of the survey are shown on Figure 1. The only well identified within the ¼-mile survey radius was a cathodic protection well located approximately 1,150 feet north-northwest of the site. Arroyo Viejo Creek was the only identified surface water body within the survey radius. Arroyo Viejo Creek is located aboveground southeast of the site and is diverted into an underground storm drain culvert which runs beneath the west portion of the site. The culvert outlet to Arroyo Viejo Creek is located approximately 575 feet northwest of the site.

2000 Conduit Study: In 2000, Cambria reviewed storm drain and sanitary sewer maps from the City of Oakland Public Works Department and the California Department of Transportation. Locations, depths and pipe diameters for the sanitary sewer and storm drain lines in the site vicinity are shown on Figure 2.

2004 Dispenser Upgrades: During upgrades of the dispensers and piping at this site in April 2004, eight soil samples were collected from depths between 4.5 – 5 fbg. The highest TPHg concentration was reported in soil from beneath dispenser piping at 5 fbg in P-1. This sample location was in very close proximity to the 1998 dispenser sample D-4. These activities and results were recently submitted in the July 16, 2004 *Product Dispenser and Piping Replacement Report*.

In an effort to better understand the lithology and assess the depth to a water-bearing unit, one pilot boring was installed using mud rotary drilling. The results of the pilot boring activities are presented below.

INVESTIGATION RESULTS

Personnel Present: Cambria geologist Anne Wettstone directed the field activities, working under the supervision of California Registered Geologist Ana Friel.

Permits: Boring permit No. W04-0325 was obtained from ACPWA (Appendix A).

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Drilling Company: Gregg Drilling and Testing, Inc. of Martinez, California (C57 License No. 485165).

Drilling Date: June 14, 2004.

Drilling Method: Mud-Rotary.

Soil Sampling Methods: Soil types were logged using the Unified Soil Classification System and Munsell Soil Color Charts. Encountered soil is described on the exploratory boring log presented in Appendix B. Soil samples were collected continuously for lithologic description. Soil samples were screened in the field for the presence of organic vapors using a photo-ionization detector (PID). PID readings are recorded on the boring logs.

Number of Borings: One pilot-hole soil boring (PH-1) was drilled. Boring specifications are described in Table 1 and the location is shown on Figure 2.

Boring Depth: Boring PH-1 was advanced to 62.5 fbg, at which point drilling was halted due to insufficient sample recovery for the varied sediments encountered.

Groundwater Depth: Other than a thin lens of saturated sediment at 7.5 fbg, groundwater was not encountered during drilling activities.

Sediment Types: Sediment types encountered while drilling the boring generally consisted of sandy silt, and sandy clayey silt (ML), sandy gravel (GM), and clayey silty sand (SM) to an approximate depth of 23 fbg. Weathered bedrock was encountered from 23 to 45 fbg, underlain by cobbles of granite, siltstone, and sandstone to the total explored depth of 62.5 fbg (Appendix B).

Chemical Analyses: Soil samples were analyzed for TPHg, BTEX, and MTBE by EPA Method 8260B. The Certified analytical report is provided in Appendix C.



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Soil Disposal:

Soil cuttings from boring PH-1 were stored in a covered 20-cubic yard soil bin. Approximately 2-3 cubic yards of soil was generated during drilling activities. The soil was characterized using analytical data previously collected at the site. Philip Services Inc. of Benicia, California will removed the soil bin from in July 2004 and transported it to Allied Waste's Forward Landfill in Manteca for disposal.

HYDROCARBON DISTRIBUTION IN SOIL



No TPHg, BTEX, or MTBE (by EPA Method 8260B) were detected in any of the nine soil samples collected from boring PH-1.

The soil chemical analytical data is summarized on Table 2, the TPHg, benzene, and MTBE concentrations are presented on Figure 2, and the laboratory analytical report is included in Appendix C.

DISCUSSION

The purpose of this initial phase of the investigation was to further assess the depth to groundwater in sediments beneath the site to determine appropriate screened intervals for proposed monitoring wells and to assess the presence and vertical extent of soil impact at this location. The pilot hole was intended to be extended to 100 fbg, or to groundwater, whichever was shallower. As was encountered during previous site activities, a thin water-bearing perched zone was observed at approximately 7.5 fbg at PH-1. Drilling activities were halted at approximately 62.5 fbg because of poor recovery. Cambria was unable to discern what type of material was being drilled through, and therefore, decided to cease drilling. Other than at 7.5 fbg, no other water-bearing sediments were observed.

WORK PLAN FOR WELL INSTALLATION

Technical Rationale for Proposed Scope of Work

- Impacted soil has been found at this site near the dispenser islands;
- Two grab water samples from a “perched” water zone indicated impact;
- Vertical assessment activities have not produced a more prolific water-bearing unit (to 62.5 fbg);
- Shallow perched water is present at several locations onsite; therefore, groundwater monitoring wells will be installed to monitor any water present within the first 20 feet below grade (fbg).



Work Tasks

Permits: Cambria will obtain appropriate permits for drilling from Alameda County Public Works Agency, Water Resources Section.

Site Safety Plan: Cambria will prepare a Site Safety Plan and Traffic Control Plan for field work.

Utility Clearance: Cambria will request copies of the service station as-built drawings and communicate with the station operator prior to confirming the locations of the proposed monitoring wells. Cambria will mark proposed drilling locations and the locations will be cleared through Underground Service Alert (USA) prior to drilling. Additionally, since the site is an active service station, a private utility line locating service will be retained to clear the proposed drilling locations of utilities or lines that are not identified by USA. To further protect the workers and subsurface equipment, an air-knife will be used to clear the top 5 to 10 feet at each location to a diameter of three inches larger than the lead auger.

Site Investigation: Five exploratory soil borings (S-1 through S-5) are proposed at the locations shown on Figure 2. The exploratory borings will be drilled using hollow-stem auger equipment and will be converted to groundwater monitoring wells. Well S-1 is positioned approximately 10 feet from the current UST complex, in the assumed downgradient direction. The other wells are positioned to assess the extent of impact at the property boundaries.

A Cambria geologist will supervise the drilling and describe encountered soils using the Unified Soil Classification System and Munsell Soil Color Charts. With the exception of the portion

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extended by the air-knife, soil samples from the borings will be collected continuously for soil description and retained at 5-foot intervals for chemical analyses and organic vapor screening with a photo-ionization detector (PID). Cambria will prepare an exploratory boring log for each well, and PID measurements will be recorded on the boring logs.

Soil samples designated for chemical analyses will be retained in stainless steel or brass sample tubes. The tubes will be covered on both ends with Teflon sheets and plastic end caps. Soil samples will be labeled, entered onto a chain-of-custody record, and placed into a cooler with ice for transport to a State of California certified laboratory for analyses. A standard two-week turn-around time will be requested for laboratory results.



Monitoring Well Installation: Each boring will be drilled to approximately 20 fbg or to auger refusal, whichever is shallower. Based on information from the activities to date, a perched water zone may be present between approximately 11 and 18 fbg. Wells will be constructed using 4-inch diameter Schedule 40 PVC casing. Each well screen interval will be placed from approximately 7 fbg to 20 fbg. The sandpack in each well will be placed from the bottom of the well screen up to 2 feet above the top of the well screen followed by a 2-foot thick bentonite seal and cement grout to grade. Actual well construction details will be based on field conditions during drilling. Each well will be secured with a locking cap under a traffic-rated well box.

Well Development and Sampling: Blaine Tech Services, Inc. (Blaine) of San Jose, California will develop the new groundwater monitoring wells prior to sampling. If the wells de-water during development, Blaine will add potable water to complete the development and will remove at least as much volume as they placed in the well. No sooner than 48-hours after well development, Blaine will sample the site groundwater monitoring wells and submit the samples to a State of California certified laboratory for chemical analyses.

Chemical Analyses: Groundwater samples and selected soil samples will be analyzed for TPHg, BTEX, and fuel oxygenates (MTBE, tertiary amyl methyl ether, ethyl tertiary butyl ether, tertiary butyl alcohol, and di-isopropyl ether) by EPA Method 8260. Samples will be analyzed on a standard two-week turnaround.

Wellhead Survey Activities: Following monitoring well installation, a licensed surveyor will survey wellhead elevations relative to mean sea level and the latitude and longitude of each well location.

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Report Preparation: Following the receipt of analytical results from the laboratory, Cambria will prepare a written report which will include field procedures, laboratory results, boring logs, and conclusions.

Certification: The scope of work described in this work plan will be performed under the supervision of a registered geologist.

SCHEDULE




Upon receipt of approval from the ACHCSA, Cambria will initiate permitting and scheduling activities. If a response is not received within approximately 60 days, we will assume agency concurrence and notify the ACHCSA of our intent to proceed.

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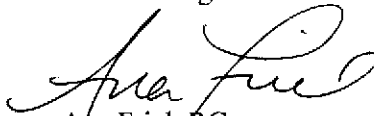
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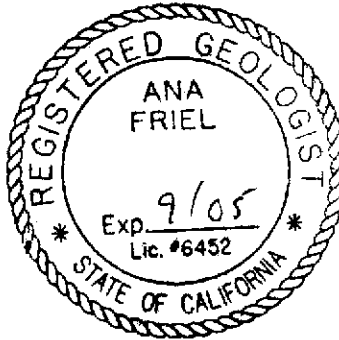
If you have any questions regarding the contents of this document, please call Ana Friel at (707) 442-2700.

Sincerely,
Cambria Environmental Technology, Inc.


for
Anne Wettstone
Staff Geologist




Ana Friel, RG
Senior Project Geologist
RG 6452



Attachments:

- | | |
|-------------|---|
| Table 1. | Boring Data |
| Table 2. | Soil Analytic Data |
| Figure 1. | Site Vicinity Map with Area Well Survey |
| Figure 2. | Site Plan/Soil Chemical Concentration Map |
| Figure 3. | Proposed Monitoring Well Location Map |
| Appendix A. | Permit |
| Appendix B. | Boring Log |
| Appendix C. | Certified Analytical Report |

cc: Karen Petryna, Shell

CAMBRIA

Table 1. Boring Data, Shell-branded Service Station, 9750 Golf Links Rd. Oakland, California

Name	Type	Date Installed	Surface Elev (ft msl)	Total Depth (fbg)	Soil Sample Interval (ft)	Soil Sample Depth (fbg)	First GW Depth (fbg)	TOC Elev (ft)	Screen Diam. (in)	Screen Depth (fbg) Top	Screen Depth (fbg) Bottom	Comments
B-1	HSA Boring	15-Dec-95	-	47	5	-	-	-	-	-	-	not surveyed
SB-1	HSA Boring	31-Jul-98	-	30	5	-	-	-	-	-	-	not surveyed
SB-1b	HSA Boring	25-Aug-99	-	26.5	5	-	-	-	-	-	-	not surveyed
SB-2	HSA Boring	25-Aug-99	-	16	5	-	-	-	-	-	-	not surveyed
SB-3	HSA Boring	25-Aug-99	-	25	5	-	-	-	-	-	-	not surveyed
SB-4	HSA Boring	25-Aug-99	-	26.5	5	-	-	-	-	-	-	not surveyed
SB-5	HSA Boring	25-Aug-99	-	30	5	-	-	-	-	-	-	not surveyed
PH-1	MR Boring	04-Jun-04	-	62.5	C	-	-	-	-	-	-	not surveyed

Abbreviations and Notes:

ft msl - Feet referenced to mean sea level

fbg = Feet below grade

ft = Feet

in = Inches

GW = Groundwater

TOC = Top of well casing

Diam = Diameter

C = Continuous

MR = Mud Rotary

Table 2. Soil Analytic Data, Shell-branded Service Station, 9750 Golf Links Road, Oakland, California

Sample ID	Depth (feet)	Date	TPHd (mg/kg)	TPHg (mg/kg)	POG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)
PH-1-5.5'	5.5	07-Jun-04	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PH-1-10.5'	10.5	07-Jun-04	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PH-1-15.5'	15.5	07-Jun-04	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PH-1-19.5'	19.5	07-Jun-04	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PH-1-24.5'	24.5	07-Jun-04	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PH-1-29.5'	29.5	07-Jun-04	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PH-1-34.5'	34.5	07-Jun-04	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PH-1-40.5'	40.5	07-Jun-04	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PH-1-45.5'	45.5	07-Jun-04	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
SB-1b-6.0-6.5	6.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-1b-11.0-11.5	11.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-1b-16.0-16.5	16.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-1b-20.0-21.0	20.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-1b-25.5-26.0	25.5	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-2-5.5-6.0	5.5	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-2-10.5-11.0	10.5	25-Aug-99	NA	243	NA	<0.100	0.248	0.664	1.08	<1.00
SB-3-6.0-6.5	6.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-3-11.0-11.5	11.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-3-16.0-16.5	16.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.449
SB-3-20-21.5	20.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.380
SB-3-21.0-21.5	21.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.418
SB-3-24-24.5	24.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.257
SB-3-24.5-25.5	24.5	25-Aug-99	NA	<1.0	NA	<0.005	0.00520	<0.005	0.00830	0.161
SB-4-5.5-6.0	5.5	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-4-10.5-11.0	10.5	25-Aug-99	NA	74.0	NA	<0.0250	0.0565	0.159	0.0915	2.60 (2.23)
SB-4-15.5-16.0	15.5	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-4-20.5-21.0	20.5	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	0.00550	<0.05
SB-4-25.5-26.0	25.5	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-5-5.5-6.0	5.5	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-5-10.5-11.0	10.5	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05
SB-5-16.0-16.5	16.0	25-Aug-99	NA	<1.0	NA	<0.005	<0.005	<0.005	0.0107	0.0726
SB-5-20.5-21.0	20.5	25-Aug-99	NA	<1.0	NA	<0.005	0.00930	<0.005	0.0193	<0.05
SB-5-24.0-24.5	24.0	25-Aug-99	NA	<1.0	NA	<0.005	0.0241	0.00890	0.0473	<0.05
SB-5-29.0-29.5	29.0	25-Aug-99	NA	<1.0	NA	<0.005	0.0144	0.00590	0.0323	<0.05

Table 2. Soil Analytic Data, Shell-branded Service Station, 9750 Golf Links Road, Oakland, California

Sample ID	Depth (feet)	Date	TPHd (mg/kg)	TPHg (mg/kg)	POG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)
SB-1-9.0'	9.0	06-Jul-98	NA	1,100	NA	6.1	40	143	98	91 (23)
SB-1-11.5'	11.5	06-Jul-98	NA	3.5	NA	0.019	0.34	0.076	0.55	0.79
SB-1-13.0'	13.0	06-Jul-98	NA	14,000	NA	100	530	190	1,200	66
SB-1-16.0'	16.0	31-Jul-98	NA	1.1	NA	<0.0050	0.029	0.013	0.091	1.4
SB-1-21.0'	21.0	31-Jul-98	NA	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	0.03
SB-1-26.0'	26.0	31-Jul-98	NA	5.6	NA	0.035	0.25	0.062	0.28	0.16
B1-5.5	5.5	15-Dec-95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	NA
B1-15.5	15.5	15-Dec-95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	NA
B1-20.5	20.5	15-Dec-95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	NA
B1-30.5	30.5	15-Dec-95	2.8	<1.0	<50	<0.005	<0.005	<0.005	<0.005	NA
B1-35.5	35.5	15-Dec-95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	NA
B1-40.5	40.5	15-Dec-95	<1.0	<1.0	56	<0.005	<0.005	<0.005	<0.005	NA
B1-45.5	45.5	15-Dec-95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	NA
WO1	7.0	08-Mar-95	3,900	190	12,000	<0.25	0.43	1.0	2.2	NA
WO2	11.0	08-Mar-95	<1.0	<1.0	62	<0.005	0.072	<0.005	<0.005	NA
NSW	7.5	08-Mar-95	<1.0	<1.0	<50	<0.005	0.10	<0.005	<0.005	NA
SSW	7.0	08-Mar-95	<1.0	<1.0	<50	<0.005	0.19	<0.005	<0.005	NA
ESW	7.0	08-Mar-95	<1.0	<1.0	<50	<0.005	0.18	<0.005	<0.005	NA
WSW	7.8	08-Mar-95	<1.0	<1.0	<50	<0.005	0.083	<0.005	<0.005	NA

Abbreviations and Notes:

mg/kg = Milligrams per kilogram

<x = Below detection limit of x mg/kg

TPH-G = Total petroleum hydrocarbons as gasoline (Pre-2004: by EPA Method 8015, 2004 = EPA Method 8260B)

B = Benzene (Pre-2004: By EPA Method 8020, 2004: by EPA Method 8260B)

T = Toluene (Pre-2004: By EPA Method 8020, 2004: by EPA Method 8260B)

E = Ethylbenzene (Pre-2004: By EPA Method 8020, 2004: by EPA Method 8260B)

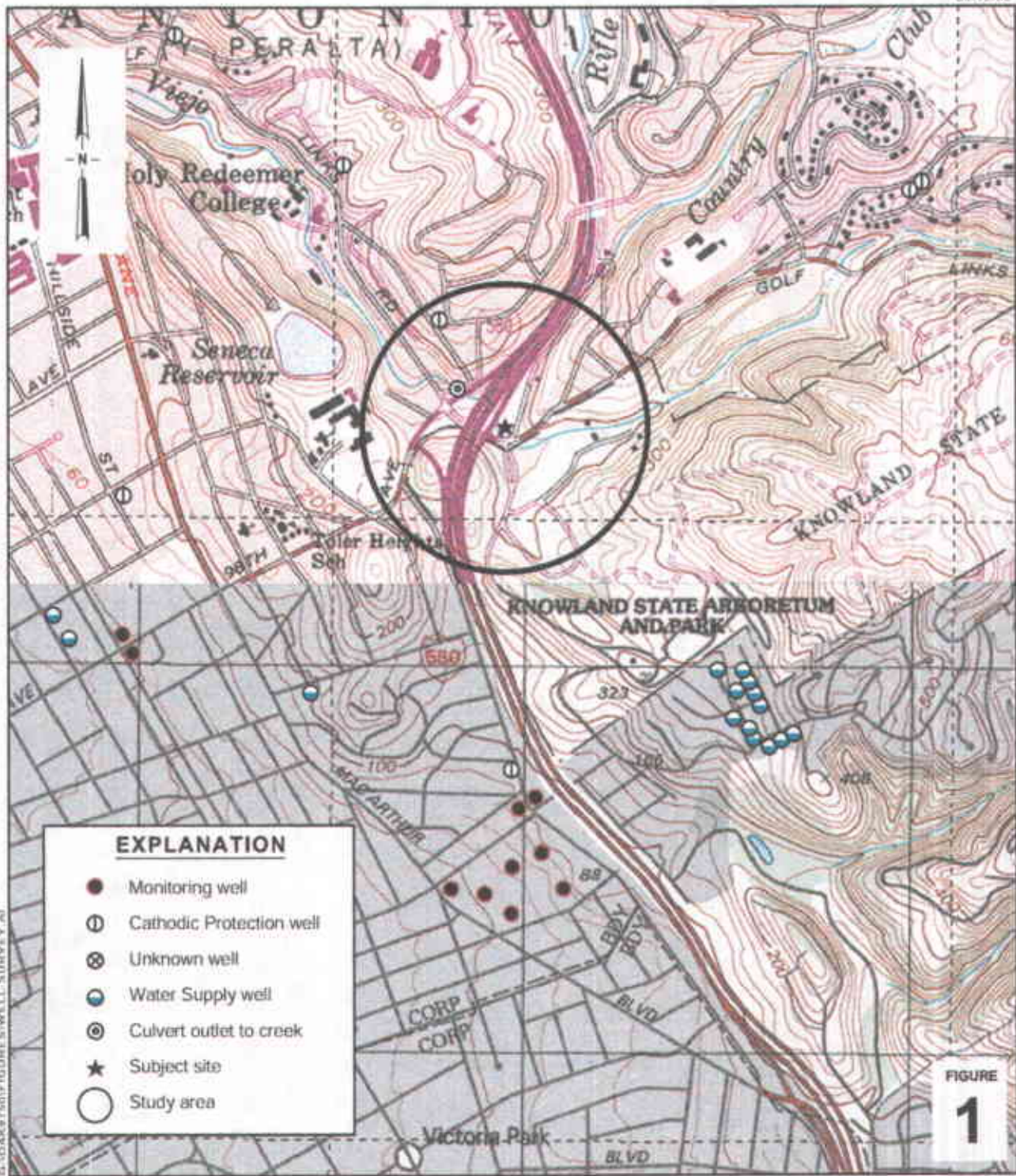
X = Xylenes (Pre-2004: By EPA Method 8020 2004: by EPA Method 8260B)

MTBE = Methyl tertiary butyl ether (Pre-2004: by EPA Method 8020, results in parenthesis by method 8260, 2004: by EPA Method 8260B)

TPH-D = Total petroleum hydrocarbons as diesel by modified EPA Method 8015

TOG = Total oil and grease by APHA Standard Method 5520E&F

Samples collected on 03/08/95 by Weiss Associates and analyzed by Sequoia Analytical, Redwood City, California; all other by Cambria.



Shell-branded Service Station
 9750 Golf Links Road
 Oakland, California
 Incident #98995744



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**Site Vicinity Map with
 Area Well Survey**
 (1/4-Mile Radius)

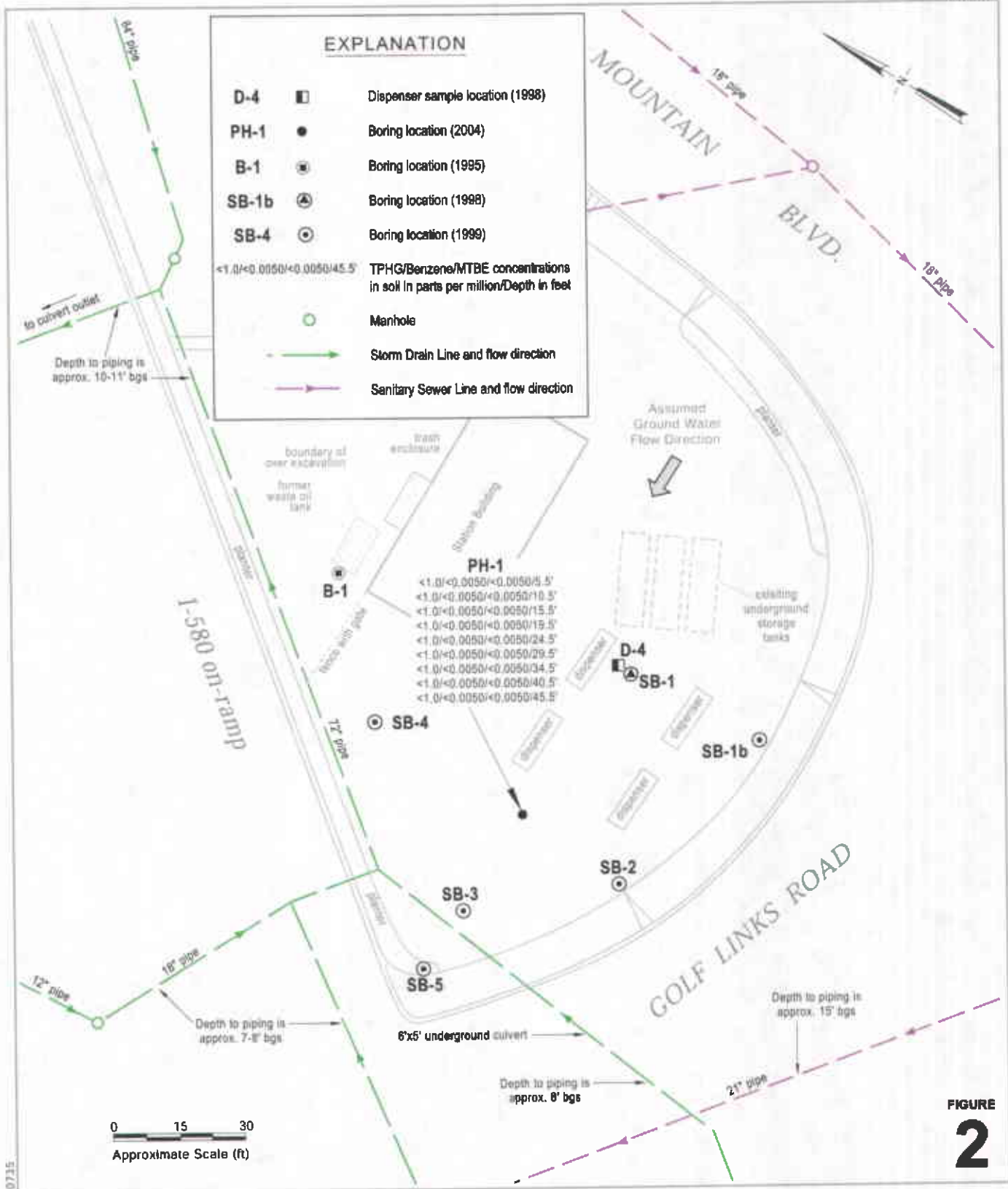


FIGURE 2

Shell-branded Service Station
9750 Golf Links Road
Oakland, California



**Site Plan/Soil Chemical
Concentration Map**

0715

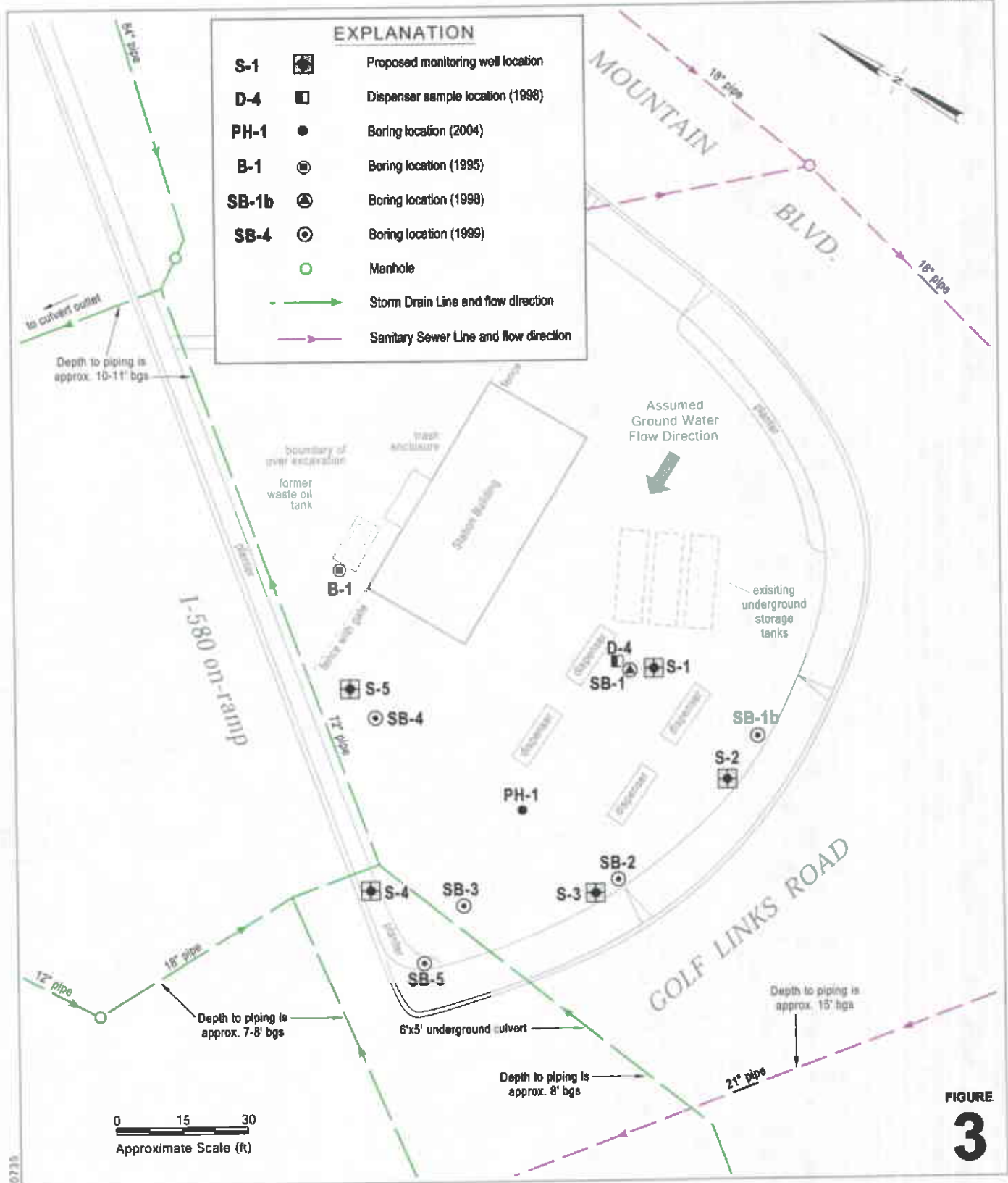


FIGURE 3

Shell-branded Service Station
 9750 Golf Links Road
 Oakland, California



Proposed Monitoring Well Location Map



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

399 ELMHURST ST. HAYWARD CA. 94544-1395

PHONE (510) 670-6633 James Yoo

FAX (510) 782-1939

APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 9750 Golf Links Rd.,
Oakland

PERMIT NUMBER WA-0325
WELL NUMBER _____
APN _____

CLIENT Name Shell Oil Products US
Address 2075 S. Wilmington Phone 559 452-9306
City Carson CA Zip 90810

APPLICANT Name Anne Wettstone / Cambria Environmental Tech.
Address 270 Perkins Fax 707 935-4662 6674
City Sonoma CA Phone 707 933-2368 Zip 95476

TYPE OF PROJECT

- Well Construction
- Cathodic Protection
- Water Supply
- Monitoring
- Geotechnical Investigation
- General
- Contamination
- Well Destruction

PROPOSED WATER SUPPLY WELL USE

- New Domestic
- Municipal
- Industrial
- Replacement Domestic
- Irrigation
- Other

DRILLING METHOD:

- Mud Rotary
- Cable
- Air Rotary
- Other
- Auger

DRILLER'S NAME Gregg Drilling & Testing

DRILLER'S LICENSE NO. CS7-985165

GEOTECHNICAL PROJECTS (soil boring)

Number of Borings 1 Maximum Depth 100 ft.
Hole Diameter 6"

STARTING DATE 4/12/04

COMPLETION DATE 4/13/04

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [Signature] DATE 3/16/04

LEASE PRINT NAME Anne Wettstone

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report. Loss out of 1
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL / Contamination
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

BA 1

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [Signature]

DATE 3-26-04

Appendix B

Boring Log



Cambria Environmental Technology, Inc.
 270 Perkins Street
 Sonoma, California 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	PH-1
JOB/SITE NAME	Shell-branded Service Station	DRILLING STARTED	04-Jun-04
LOCATION	9750 Golf Links Road, Oakland	DRILLING COMPLETED	07-Jun-04
PROJECT NUMBER	0735	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Mud-rotary	TOP OF CASING ELEVATION	Not Surveyed
BORING DIAMETER	6"	SCREENED INTERVAL	NA
LOGGED BY	A. Wettstone	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	A. Friel, RG 6452	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ftg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ftg)	WELL DIAGRAM
				0.0			ASPHALT Sandy SILT (ML); brown (7.5YR 4/2); moist; 5% clay, 60% silt, 35% fine to medium sand; no plasticity.	0.5	
		PH-1- 5.5'		5	ML			7.5	
		PH-1- 10.5'		10	GM		Sandy GRAVEL (GM); brown (7.5YR 4/2); wet; 5% clay, 10% silt, 30% fine to coarse sand, 55% fine to coarse gravel. @12'- light olive brown (2.5Y 5/3); moist; fine gravel.	14.0	
		PH-1- 15.5'		15	ML		Sandy SILT (ML); brown (7.5YR 4/3); moist; 10% clay, 60% silt, 30% fine to medium sand; no plasticity. @15'- Sandy Clayey SILT (ML); dark yellowish brown (10YR 3/6); moist; 25% clay, 55% silt, 20% fine sand; no plasticity.	18.0	
		PH-1- 19.5'		20	SM		Clayey Silty SAND (SM); dark greenish gray (10Y 3/1); moist; 15% clay, 30% silt, 55% fine to medium sand. @20'- very dark grayish brown (2.5Y 5/3); moist; 15% clay, 30% silt, 55% fine to medium sand.	23.0	
		PH-1- 24.5'		25			Weathered BEDROCK; Siltstone with altered granite; dark greenish gray (10Y 3/1); moist. @25'- Weathered SILTSTONE dark greenish gray (10Y 4/1). @29'- greenish gray (5GY 5/1). @34'- greenish black (5GY 2.5/1).		
		PH-1- 29.5'		30					← Portland Type I/II
				35					

WELL LOG (PID) I:\OAD\ES-1\GINT24\OAK9750.GPJ DEFAULT.GDT 7/5/04

Continued Next Page



CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	PH-1
JOB/SITE NAME	Shell-branded Service Station	DRILLING STARTED	04-Jun-04
LOCATION	9750 Golf Links Road, Oakland	DRILLING COMPLETED	07-Jun-04

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ftg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ftg)	WELL DIAGRAM
0.0		PH-1-34.5'					@35'- <u>Weathered GRANITE</u> ; dark greenish gray (10GY 4/1); moist.		
0.0		PH-1-40.5'		40			@40'- <u>Weathered GRANITE and SILTSTONE</u> moist. @41'- greenish black (5GY 2.5/1).		
0.0		PH-1-45.5'		45			@45'- <u>Weathered GRANITE</u> ; with recrystallized granite clasts; dark greenish gray (5GY 4/1); moist. @47'- unweathered granite clasts.		
				55			@55'- <u>SILTSTONE and SANDSTONE Cobbles</u>		
				60					
								62.5	Bottom of Boring @ 62.5 ft

WELL LOG (PID): I:\04DE7E-1\GINT240\OK9750.GPJ_DEFAULT.GDT 7/8/04

Appendix C
Certified Analytical Report

Cambria Environmental Sonoma

June 22, 2004

270 Perkins Street
Sonoma, CA 95476

Attn.: Ana Friel

Project#: 246-0735-006

Project: 98995744

Site: 9750 Golf Links Road East, Oakland

Attached is our report for your samples received on 06/08/2004 14:15
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after
07/23/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,
please call me at (925) 484-1919.

You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,



Vincent Vancil
Project Manager

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street

Sonoma, CA 95476

Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006

98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
PH-1-5.5'	06/07/2004 11:35	Soil	1
PH-1-10.5'	06/07/2004 11:41	Soil	2
PH-1-15.5'	06/07/2004 11:52	Soil	3
PH-1-19.5'	06/07/2004 11:55	Soil	4
PH-1-24.5'	06/07/2004 13:05	Soil	5
PH-1-29.5'	06/07/2004 13:35	Soil	6
PH-1-34.5'	06/07/2004 13:50	Soil	7
PH-1-40.5'	06/07/2004 14:15	Soil	8
PH-1-45.5'	06/07/2004 14:35	Soil	9

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street
Sonoma, CA 95476
Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	PH-1-5.5	Lab ID:	2004-06-0275 - 1
Sampled:	06/07/2004 11:35	Extracted:	6/10/2004 21:50
Matrix:	Soil	QC Batch#:	2004/06/10-2A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/10/2004 21:50	
Benzene	ND	0.0050	mg/Kg	1.00	06/10/2004 21:50	
Toluene	ND	0.0050	mg/Kg	1.00	06/10/2004 21:50	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/10/2004 21:50	
Total xylenes	ND	0.0050	mg/Kg	1.00	06/10/2004 21:50	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	1.00	06/10/2004 21:50	
Surrogate(s)						
1,2-Dichloroethane-d4	95.9	76-124	%	1.00	06/10/2004 21:50	
Toluene-d8	96.3	75-116	%	1.00	06/10/2004 21:50	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street
Sonoma, CA 95476
Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Prep(s): 5030B	Test(s): 8260B
Sample ID: PH-1-10.5	Lab ID: 2004-06-0275-2
Sampled: 06/07/2004 11:41	Extracted: 06/10/2004 23:01
Matrix: Soil	QC Batch#: 2004/06/10-2A-65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/10/2004 23:01	
Benzene	ND	0.0050	mg/Kg	1.00	06/10/2004 23:01	
Toluene	ND	0.0050	mg/Kg	1.00	06/10/2004 23:01	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/10/2004 23:01	
Total xylenes	ND	0.0050	mg/Kg	1.00	06/10/2004 23:01	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	1.00	06/10/2004 23:01	
Surrogate(s)						
1,2-Dichloroethane-d4	93.3	76-124	%	1.00	06/10/2004 23:01	
Toluene-d8	97.4	75-116	%	1.00	06/10/2004 23:01	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street
Sonoma, CA 95476
Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	PH-1-15.5	Lab ID:	2004-06-0275 - 3
Sampled:	06/07/2004 11:52	Extracted:	6/10/2004 23:26
Matrix:	Soil	QC Batch#:	2004/06/10-2A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/10/2004 23:26	
Benzene	ND	0.0050	mg/Kg	1.00	06/10/2004 23:26	
Toluene	ND	0.0050	mg/Kg	1.00	06/10/2004 23:26	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/10/2004 23:26	
Total xylenes	ND	0.0050	mg/Kg	1.00	06/10/2004 23:26	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	1.00	06/10/2004 23:26	
Surrogate(s)						
1,2-Dichloroethane-d4	99.1	76-124	%	1.00	06/10/2004 23:26	
Toluene-d8	102.8	75-116	%	1.00	06/10/2004 23:26	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street

Sonoma, CA 95476

Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006

98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	PH-1-19.5	Lab ID:	2004-06-0275-4
Sampled:	06/07/2004 11:55	Extracted:	6/10/2004 23:50
Matrix:	Soil	QC Batch#:	2004/06/10-2A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/10/2004 23:50	
Benzene	ND	0.0050	mg/Kg	1.00	06/10/2004 23:50	
Toluene	ND	0.0050	mg/Kg	1.00	06/10/2004 23:50	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/10/2004 23:50	
Total xylenes	ND	0.0050	mg/Kg	1.00	06/10/2004 23:50	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	1.00	06/10/2004 23:50	
Surrogate(s)						
1,2-Dichloroethane-d4	93.6	76-124	%	1.00	06/10/2004 23:50	
Toluene-d8	100.2	75-116	%	1.00	06/10/2004 23:50	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street
Sonoma, CA 95476
Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Prep(s): 5030B	Test(s): 8260B
Sample ID: PH-1-24.5	Lab ID: 2004-06-0275 - 5
Sampled: 06/07/2004 13:05	Extracted: 6/11/2004 00:15
Matrix: Soil	QC Batch#: 2004/06/10-2A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/11/2004 00:15	
Benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 00:15	
Toluene	ND	0.0050	mg/Kg	1.00	06/11/2004 00:15	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 00:15	
Total xylenes	ND	0.0050	mg/Kg	1.00	06/11/2004 00:15	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	1.00	06/11/2004 00:15	
Surrogate(s)						
1,2-Dichloroethane-d4	95.0	76-124	%	1.00	06/11/2004 00:15	
Toluene-d8	101.2	75-116	%	1.00	06/11/2004 00:15	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street

Sonoma, CA 95476

Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006

98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Prep(s): 5030B	Test(s): 8260B
Sample ID: PH-1-29.5	Lab ID: 2004-06-0275 - 6
Sampled: 06/07/2004 13:35	Extracted: 6/11/2004 00:39
Matrix: Soil	QC Batch#: 2004/06/10-2A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/11/2004 00:39	
Benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 00:39	
Toluene	ND	0.0050	mg/Kg	1.00	06/11/2004 00:39	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 00:39	
Total xylenes	ND	0.0050	mg/Kg	1.00	06/11/2004 00:39	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	1.00	06/11/2004 00:39	
Surrogate(s)						
1,2-Dichloroethane-d4	104.7	76-124	%	1.00	06/11/2004 00:39	
Toluene-d8	102.3	75-116	%	1.00	06/11/2004 00:39	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street

Sonoma, CA 95476

Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006

98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	PH-1-34.5	Lab ID:	2004-06-0275 - 7
Sampled:	06/07/2004 13:50	Extracted:	6/11/2004 01:03
Matrix:	Soil	QC Batch#:	2004/06/10-2A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/11/2004 01:03	
Benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 01:03	
Toluene	ND	0.0050	mg/Kg	1.00	06/11/2004 01:03	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 01:03	
Total xylenes	ND	0.0050	mg/Kg	1.00	06/11/2004 01:03	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	1.00	06/11/2004 01:03	
Surrogate(s)						
1,2-Dichloroethane-d4	99.3	76-124	%	1.00	06/11/2004 01:03	
Toluene-d8	98.7	75-116	%	1.00	06/11/2004 01:03	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street
Sonoma, CA 95476
Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	PH-1-40.5	Lab ID:	2004-06-0275-8
Sampled:	06/07/2004 14:15	Extracted:	6/11/2004 01:27
Matrix:	Soil	QC Batch#:	2004/06/10-2A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/11/2004 01:27	
Benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 01:27	
Toluene	ND	0.0050	mg/Kg	1.00	06/11/2004 01:27	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 01:27	
Total xylenes	ND	0.0050	mg/Kg	1.00	06/11/2004 01:27	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	1.00	06/11/2004 01:27	
Surrogate(s)						
1,2-Dichloroethane-d4	91.4	76-124	%	1.00	06/11/2004 01:27	
Toluene-d8	101.3	75-116	%	1.00	06/11/2004 01:27	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street
Sonoma, CA 95476
Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	PH-1-45.5	Lab ID:	2004-06-0275 - 9
Sampled:	06/07/2004 14:35	Extracted:	6/11/2004 20:22
Matrix:	Soil	QC Batch#:	2004/06/11-2A.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/11/2004 20:22	
Benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 20:22	
Toluene	ND	0.0050	mg/Kg	1.00	06/11/2004 20:22	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/11/2004 20:22	
Total xylenes	ND	0.0050	mg/Kg	1.00	06/11/2004 20:22	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	1.00	06/11/2004 20:22	
Surrogate(s)						
1,2-Dichloroethane-d4	95.1	76-124	%	1.00	06/11/2004 20:22	
Toluene-d8	102.7	75-116	%	1.00	06/11/2004 20:22	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma
Attn.: Ana Friel

270 Perkins Street
Sonoma, CA 95476
Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Batch QC Report					
Prep(s): 5030B				Test(s): 8260B	
Method: Blank		Soil		QC Batch #: 2004/06/10-2A.65	
MB: 2004/06/10-2A.65-035				Date Extracted: 06/10/2004 18:35	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1.000	mg/Kg	06/10/2004 18:35	
Benzene	ND	0.0050	mg/Kg	06/10/2004 18:35	
Toluene	ND	0.0050	mg/Kg	06/10/2004 18:35	
Ethyl benzene	ND	0.0050	mg/Kg	06/10/2004 18:35	
Total xylenes	ND	0.0050	mg/Kg	06/10/2004 18:35	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	06/10/2004 18:35	
Surrogates(s)					
1,2-Dichloroethane-d4	94.3	76-124	%	06/10/2004 18:35	
Toluene-d8	101.4	75-116	%	06/10/2004 18:35	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street
Sonoma, CA 95476
Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Batch QC Report					
Prep(s): 5030B				Test(s): 8260B	
Method Blank		Soil		QC Batch # 2004/06/11-2A_65	
MB: 2004/06/11-2A 65-007				Date Extracted: 06/11/2004 19:07	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1.000	mg/Kg	06/11/2004 19:07	
Methyl tert-butyl ether (MTBE)	ND	0.0050	mg/Kg	06/11/2004 19:07	
Benzene	ND	0.0050	mg/Kg	06/11/2004 19:07	
Toluene	ND	0.0050	mg/Kg	06/11/2004 19:07	
Ethyl benzene	ND	0.0050	mg/Kg	06/11/2004 19:07	
Total xylenes	ND	0.0050	mg/Kg	06/11/2004 19:07	
Surrogates(s)					
1,2-Dichloroethane-d4	99.6	76-124	%	06/11/2004 19:07	
Toluene-d8	100.2	75-116	%	06/11/2004 19:07	

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

Attn.: Ana Friel

270 Perkins Street
Sonoma, CA 95476
Phone: (707) 442-2700 Fax: (707) 442-2700

Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Batch QC Report									
Prep(s): 5030B					Test(s): 8260B				
Laboratory Control Spike			Soil			QC Batch # 2004/06/10-2A.65			
LCS	2004/06/10-2A.65-046		Extracted: 06/10/2004			Analyzed: 06/10/2004 17:46			
LCSD	2004/06/10-2A.65-011		Extracted: 06/10/2004			Analyzed: 06/10/2004 18:11			

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Benzene	54.4	60.3	50.0	108.8	120.6	10.3	69-129	20		
Toluene	51.2	57.8	50.0	102.4	115.6	12.1	70-130	20		
Methyl tert-butyl ether (MTBE)	52.3	56.1	50.0	104.6	112.2	7.0	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	447	432	500	89.4	86.4		76-124			
Toluene-d8	500	489	500	100.0	97.8		75-116			

Gas/BTEX/MTBE by 8260B (C6-C12)

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Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Batch QC Report			
Prep(s): 5030B	Test(s): 8260B		
Laboratory Control Spike	Soil	QC Batch # 2004/06/11-2A.65	
LCS 2004/06/11-2A.65-019	Extracted: 06/11/2004	Analyzed: 06/11/2004 18:19	
LCSD 2004/06/11-2A.65-043	Extracted: 06/11/2004	Analyzed: 06/11/2004 18:43	

Compound	Conc. mg/Kg		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	0.0520	0.0459	0.05	104.0	91.8	12.5	65-165	20		
Benzene	0.0536	0.0472	0.05	107.2	94.4	12.7	69-129	20		
Toluene	0.0515	0.0447	0.05	103.0	89.4	14.1	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	442	461	500	88.4	92.2		76-124			
Toluene-d8	506	502	500	101.2	100.4		75-116			

Gas/BTEX/MTBE by 8260B (C6-C12)

Cambria Environmental Sonoma

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Project: 246-0735-006
98995744

Received: 06/08/2004 14:15

Site: 9750 Golf Links Road East, Oakland

Batch QC Report			
Prep(s): 5030B	Test(s): 8260B		
Matrix Spike (MS / MSD)	Soil	QC Batch # 2004/06/10-2A 55	
PH-1-5.5' >> MS	Lab ID: 2004-06-0275-001		
MS: 2004/06/10-2A 65-013	Extracted: 06/10/2004	Analyzed: 06/10/2004 22:13	Dilution: 1.00
MSD: 2004/06/10-2A 65-038	Extracted: 06/10/2004	Analyzed: 06/10/2004 22:38	Dilution: 1.00

Compound	Conc. mg/Kg			Spk.Level mg/Kg	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	47.3	48.9	ND	46.1	102.6	106.1	3.4	69-129	20		
Toluene	42.0	44.9	0.199	46.1	90.7	97.0	6.7	70-130	20		
Methyl tert-butyl ether	45.9	47.8	ND	46.1	99.6	103.7	4.0	65-165	20		
<i>Surrogate(s)</i>											
1,2-Dichloroethane-d4	441	472		500	88.2	94.4		76-124			
Toluene-d8	496	494		500	99.2	98.8		75-116			

1220 Quarry Lane
Pleasanton, CA 94568
(925) 484-1919 (925) 484-1096 fax

Shell Project Manager to be Invoiced:
Karen Petryna

9 8 9 9 5 7 4 4

DATE: 6/7/04
PAGE: 1 of 1

SUPPLIER COMPANY: Cambria Environmental Technology, Inc.	USE CODE: CETS	SITE ADDRESS (Street and City): 9750 Golf Links Road East, Oakland	GLOBAL ID NO: T0600101931
ADDRESS: 270 Perkins Street, Sonoma, CA 95478	PROJECT CONTACT (Person or PCF Representative): Ana Friel	PHONE NO. (Area Code): (707) 449-2700	EMAIL: econmandr@cambria-env.com
PROJECT CONTACT (Person or PCF Representative): Ana Friel	PHONE NO. (Area Code): (707) 449-2700	EMAIL: econmandr@cambria-env.com	CORRELATION PROJECT NO. (if applicable): 245-0735-006

Anne H. Jefferson

TURNAROUND TIME (BUSINESS DAYS):
 10 DAYS 5 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT UST AGENCY

OCAMS MTR CONFIRMATION: HIGHEST _____ HIGHEST pH BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: _____ CHECK BOX IF EOC IS NOT NEEDED

REQUESTED ANALYSIS

Field Sample Identification	SAMPLING		MTR#	NO. OF CONT.	TPH - Permeable	TPH - Extrachains (6015th)	BTEX	MTBE	PBA	C. Oxypentane	1,2 DCA and EDC	Ethanol	Methanol	VOCs by GC/MS	Semi-Volatiles by MS/MS	Lead <input type="checkbox"/> Total <input type="checkbox"/> Pb <input type="checkbox"/> Cu <input type="checkbox"/> Ni <input type="checkbox"/> Zn	LUBS <input type="checkbox"/> Total <input type="checkbox"/> Pb <input type="checkbox"/> Cu <input type="checkbox"/> Ni <input type="checkbox"/> Zn	CANN7 <input type="checkbox"/> Total <input type="checkbox"/> Pb <input type="checkbox"/> Cu <input type="checkbox"/> Ni <input type="checkbox"/> Zn	Test for Disposal	PER ATTACHED SHEET	
	DATE	TIME																			
PH-1-5.5'	6/7	11:35	SD	1	X	X	X														
PH-1-10.5'		11:41		1	X	X	X														
PH-1-15.5'		11:52		1	X	X	X														
PH-1-19.5'		11:55		1	X	X	X														
PH-1-24.5'		13:05		1	X	X	X														
PH-1-29.5'		13:35		1	X	X	X														
PH-1-34.5'		13:50		1	X	X	X														
PH-1-40.5'		14:15		1	X	X	X														
PH-1-45.5'	✓	14:35	✓	1	X	X	X														

FIELD NOTES:
Container/Preservative
or PID Readings
or Laboratory Notes

TEMPERATURE ON RECEIPT OF: 5°

Received by (Signature): *[Signature]*
 Date: 6/8/04 Time: 1545

Received by (Signature): *[Signature]*
 Date: 6/8/04 Time: 1545

Received by (Signature): *[Signature]*
 Date: 6/8/04 Time: 1545