Shell Oil Products US

RO-367

November 18, 2002

Alameda County
NOV 21 2002
Environmental Health

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

Subject: **Shell-branded Service Station**
1784 150th Avenue
San Leandro, California

Dear Mr. Seery:

Attached for your review and comment is a copy of the *Offsite Monitoring Well Installation Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

Karen Petryna

Karen Petryna
Sr. Environmental Engineer

P.O. Box 7869 Burbank, CA 91510-7869 Phone (559) 645-9306 Facsimile (559) 645-5643

CAMBRIA

November 18, 2002

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

Re: **Offsite Monitoring Well Installation Report**
Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident #: 98996068
Project #: 244-0612-010

Dear Mr. Seery

Cambria Environmental Technology, Inc. (Cambria) is submitting this *Offsite Monitoring Well Installation Report* on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). The well installation was conducted in accordance with our September 16, 2002 *Offsite Monitoring Well Installation Work Plan* which was approved by Mr. Scott Seery of the Alameda County Health Care Services Agency (ACHCSA) in an e-mail dated September 30, 2002 and in the field on October 3, 2002. The objective of this investigation is to define the extent of the methyl tertiary butyl ether (MTBE) plume offsite to the northwest and to provide for ongoing groundwater monitoring. Presented below are summaries of the site background, investigation procedures, investigation results, and conclusions.

SITE BACKGROUND

Site Location: The site is an operating Shell service station located at the southern corner of 150th and Freedom Avenues in San Leandro, California (Figure 1).

Local Topography: The base of the San Leandro hills is approximately 0.25 miles to the northeast. The site is about 50 feet above mean sea level and the local topography slopes westward toward San Francisco Bay, about 6 miles to the west.

Surroundings: The site is surrounded by mixed commercial and residential development.

Local Geology: Sediments beneath the site are Quaternary alluvial deposits derived from sedimentary and igneous rocks of the Diablo Range. The site is intersected by the Hayward Fault Zone. The site is underlain by low estimated permeability sediments (clay) with interspersed

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

moderate estimated permeability sediments. During recent investigations at the site, soil consisted of silty clay, clayey silts and clayey sandy silts interlayed with sands and gravels to the total explored depth of 32 feet below grade (fbg).

Groundwater: Local drinking water is supplied by a utility, not groundwater. An area well survey in 1992 identified 21 wells within ½ mile of the site. No wells were immediately downgradient of the site. Groundwater depths have ranged between 17 and 30 fbg onsite and between approximately 4 and 14 fbg in offsite well MW-4. Water level measurements have not shown a consistent or reliable groundwater flow direction. In June 2002, depth to groundwater measurements ranged from approximately 4 to 22 fbg.

Previous Investigations

1986 Waste Oil Tank Removal: According to an October 13, 1989 letter from Weiss Associates (Weiss) to Shell, Petroleum Engineering of Santa Rosa, California removed a 550-gallon waste oil tank from the site in November 1986. Immediately following the tank removal, Blaine Tech Services (Blaine) of San Jose, California collected soil samples beneath the former tank at 8 feet and 11 feet depths. The soil samples contained petroleum oil and grease at 196 and 167 parts per million (ppm), respectively. The tank pit was overexcavated to a total depth of 16 feet, but soil samples were not collected. Groundwater was not encountered in the tank excavation. A new 550-gallon fiberglass waste oil tank was installed in the same location.

1990 Well Installation: In March 1990, Weiss installed groundwater monitoring well MW-1 adjacent to the waste oil tank. In a soil sample collected from 29 fbg, 35 ppm total petroleum hydrocarbons as gasoline (TPHg) and 0.23 ppm benzene were detected.

1992 Well Installations: In February 1992, Weiss installed monitoring wells MW-2 and MW-3. A soil sample collected near the water table from the boring for well MW-2 contained 79 ppm TPHg. Although well MW-3 is located over 100 feet upgradient of the tanks, up to 68 ppm TPHg were detected in soil from this boring.

1994-5 Subsurface Investigation: In 1994 and 1995, Weiss drilled 10 soil borings around the site. No hydrocarbons were detected in soil samples from any borings, except for 0.013 ppm benzene in boring BH-3 at 16 fbg. Also, no hydrocarbons were detected in groundwater samples from borings BH-1, BH-4, BH-5 and BH-6. Groundwater from borings BH-2 and BH-3 contained over 5,000 parts per billion (ppb) TPHg.

1995 Well Installation: In February and March 1995, Weiss drilled four soil borings (BH-7 through BH-10) and converted BH-10 to monitoring well MW-4. No petroleum hydrocarbons were detected in any of the soil samples. Up to 100 ppb TPHg and 1.0 ppb benzene were

detected in grab groundwater samples from BH-7 and BH-9. No TPHg or benzene was detected in the grab groundwater sample from MW-4. Groundwater was not encountered in soil boring BH-8.

1996 Soil Vapor Survey and Soil Sampling: In July 1996, Weiss conducted a subsurface investigation to obtain site-specific data for a risk-based corrective action (RBCA) evaluation of the site. Soil vapor and soil samples were collected from the vadose zone at 10 onsite and offsite locations (SVS-1 through SVS-10). The highest soil vapor hydrocarbon concentrations were detected near the northwest corner of the underground storage tank complex (SVS-5 at 3.0 ft bgs contained 7,600 parts per billion by volume [ppmv] benzene). No TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX), or MTBE was detected in any of the soil samples except for 1.1 ppm TPHg detected in sample SVS-5 at 18-20 fbg. Weiss concluded that depleted oxygen concentrations and elevated carbon dioxide and methane concentrations in the vadose zone indicated that biodegradation was occurring.

1997 RBCA Evaluation: In 1997, Weiss prepared a RBCA evaluation for the site. Results of the RBCA analysis indicated that concentrations of BTEX, MTBE, 1,2-dichloroethane, and tetrachloroethane detected in soil and groundwater beneath the site did not exceed a target risk level of 10^{-5} for residential indoor or outdoor air exposure pathways. However, a risk threshold exceedance was identified associated with ingestion of groundwater from a hypothetical well 25 feet downgradient of the source.

1997 Dispenser and Turbine Sump Upgrade: The dispensers and turbine sumps at the station were upgraded in December 1997. Cambria collected soil samples Disp-A through Disp-D from beneath the dispenser islands during upgrade activities. Up to 590 ppm TPHg (Disp-C at 4.5 feet bgs), 1.8 ppm benzene (Disp-C at 2.0 feet bgs) and 1.4 ppm MTBE (Disp-C at 2.0 feet bgs) were detected.

1998 Soil Vapor Survey and Soil Sampling: In November 1998, Cambria conducted a subsurface investigation to obtain site-specific data for a RBCA evaluation of the site. Soil samples, soil vapor samples and grab groundwater samples were collected from the vadose zone at three onsite and three offsite locations (SVS-11 through SVS-16). In soil vapor, maximum concentrations of 2.7 ppmv TPHg (C5+ hydrocarbons) and 0.17 ppmv TPHg (C2-C4 hydrocarbons) were detected in borings SVS-14 and SVS-15, respectively, at 10 fbg. A maximum concentration 0.0099 ppmv benzene was detected in SVS-16 at 5 fbg. In soil, 1.6 ppm TPHg and 0.005 ppm benzene were detected in boring SVS-11 at 19.5 fbg. No TPHg or benzene was detected in any other soil samples. MTBE was reported at 0.029 ppm in boring SVS-14 at 19 fbg using EPA Method 8020; however, MTBE was not detected in this sample using EPA Method 8260. In groundwater, maximum concentrations of 130,000 ppb TPHg and

18,000 ppb benzene were detected using EPA Method 8020. MTBE was reported at a concentration of 1,500 ppb in boring SVS-11 by EPA Method 8020.

1999 RBCA Evaluation: In September 1999, Cambria prepared a RBCA evaluation for the site. Cambria analyzed the following potential exposure pathways: offsite ingestion of groundwater, onsite ingestion of surficial soil, volatilization of benzene from soil or groundwater into onsite or offsite indoor air, and migration of benzene soil vapor to onsite or offsite outdoor air. Results of Tier 1 and Tier 2 RBCA analysis indicated that contaminants within soil and groundwater do not present significant health risks.

October 2001 Offsite Monitoring Well Installation: Two monitoring wells (MW-5, MW-6) were installed offsite to the southwest. Soil sample results collected during this investigation indicate only minimal MTBE impact to offsite soil southwest of the site. This finding is corroborated by Cambria's 1998 subsurface investigation, in which no TPHg or benzene and only low MTBE concentrations were detected in soil from three borings (SVS-14 through 16) along the private driveway. No MTBE or benzene was detected in groundwater from either of the new wells; however, TPHg, ethylbenzene and xylene were detected in groundwater from well MW-5 at concentrations of 190 ppb, 0.85 ppb, and 1.5 ppb, respectively.

Groundwater Monitoring: Groundwater has been sampled quarterly since March 1990 Groundwater samples from MW-2 have contained the highest TPHg and benzene concentrations, up to 160,000 ppb and 36,000 ppb, respectively. Although hydrocarbons have been detected in water from wells MW-1 and MW-3, no hydrocarbons have been detected in water from downgradient well MW-4. The groundwater gradient is typically flat and no consistent flow direction can be determined. Based on the groundwater elevation contours since the first quarter of 2000 through the second quarter of 2002, the average groundwater gradient is approximately 0.0031 ft/ft.

INVESTIGATION PROCEDURES

Cambria supervised the installation of two 2-inch diameter off-site monitoring wells and one soil boring in the westbound, right lane of 150th Street northwest of the site (Figure 2). The well was installed by Gregg Drilling Inc. (Gregg) of Martinez California using both a direct push drill rig and a hollow-stem auger drill rig. Well installation and soil sampling procedures are described in Cambria's *Monitoring Well Installation Work Plan* dated September 16, 2002.

Permits: Monitoring well installation and soil boring permits were obtained from the Alameda County Public Works Agency for the installation of the monitoring wells and soil boring (Permit #'s W02-0858, W02-0859 and W02-0994). As required by the City of San Leandro, an encroachment permit was obtained from the City in order to drill in the public-right-of-way. Copies of the drilling and encroachment permits are included as Attachment A.

Drilling Date: October 3-4, 2002.

Drilling Company: Gregg (C-57 License #485165).

Personnel Present: Stewart Dalie, Staff Geologist, Cambria
Scott Seery, Regulator, ACHCSA
Daniel Gutierrez, Inspector, City of San Leandro
Rich Nessinger, Driller, Gregg

Drilling Method: 2¼-inch diameter direct push, geoprobe.
8-inch diameter hollow-stem auger.

Number of Borings: Three: MW-7, MW-8 (completed as monitoring wells) and soil boring SB-9.

Well Depths: MW-7 was installed to a depth of 27 fbg and MW-8 was installed to a depth of 24 fbg (Attachment B).

Soil Sampling Method: MW-7 soil samples were collected continuously using a direct push drill rig with acetate liners. MW-8 soil samples were collected continuously using a hollow stem auger drill rig with brass tubes. An additional boring was advanced at the request of Scott Seery of the ACHCSA. The boring location SB-9 is located equidistant between MW-7 and MW-8, northwest of the site. One soil sample was obtained at the capillary fringe, and one grab groundwater sample was obtained using the direct push drill rig.

Sediment Lithology: Soil encountered in the borings consisted predominantly of asphalt and road base to 3 fbg, clay to 12.5 fbg, and clayey silts and silty gravel with sand and gravels interlayed with silts and sands to the total explored depth of 32 and 27.5 fbg respectively (Attachment B).

Groundwater Depths: Groundwater was encountered at approximately 24.5 fbg in MW-7 and 21 fbg in MW-8 during drilling activities. Static groundwater depth in the new well will be measured by Blaine during the next quarterly monitoring event.

Well Materials: MW-7 and MW-8 were constructed using 2-inch diameter, Schedule 40, PVC casing with 0.010-inch slotted screen. The filter pack consisted of Monterey sand #2/12 from 20 to 27 fbg in MW-7 and 17 to 24 fbg in MW-8. The annular space between the borehole and the casing was sealed with bentonite from 20 to 18 fbg in MW-7 and 1715 fbg in MW-8. Portland Type I neat cement grout was used to seal the remainder of the annular space to surface grade. A traffic-rated well box was installed over each well (Attachment B).

Screened Interval: Based on field observations by Stewart Dalie of Cambria and Mr. Scott Seery of the ACHCSA of first encountered water levels on October 3, 2002, monitoring wells MW-7 and MW-8 were screened from 22 to 27 fbg and 19 to 24 fbg, respectively (Attachment B).

Well Elevation Survey: The top of casing elevation was surveyed by Virgil Chavez Land Surveying of Vallejo, California on October 9, 2002. The benchmark for this survey was a cinch nail in the top of a catch basin on the northwest corner of 150th and East 14th Streets. The latitude, longitude and coordinates are for top of casings and are based on the California State Coordinate System, Zone III (NAD83). Benchmark elevation = 26.883 feet (NGVD29).

Well Development and Sampling: Blaine will develop the well using surge-block agitation and pump evacuation. The well will be developed at least 72 hours after installation and at least 72 hours prior to sampling. Blaine will sample the new well during the next regularly scheduled groundwater monitoring event.

Chemical Analyses: Selected soil samples collected from the borings were analyzed by a State-certified laboratory for TPHg, BTEX, and MTBE using EPA Method 8260B. To characterize stockpiled drill cuttings from the boring for disposal purposes, four brass tubes of soil were collected, then composited and analyzed by Kiff

Analytical LLC of Davis, California for TPHg, BTEX and MTBE using EPA Method 8260B, and for total threshold limit concentration lead. (Attachment C).

Stockpile Soil Sampling And Disposal: Drill cuttings produced from the boring were wrapped in plastic sheeting, labeled and temporarily stockpiled on the site. Soil cuttings produced from the borings were transported on October 24, 2002 by Manley and Sons Trucking Company of Sacramento, California to Forward Landfill in Manteca, California for disposal (Attachment D).

INVESTIGATION RESULTS

Analyte Results in Soil: No MTBE was detected in soil for MW-7, MW-8 or SB-9. Benzene was detected in only one soil sample (MW-8@25') at a concentration of 0.072 ppm. The highest TPHg concentration in soil was 68 parts ppm in MW-7@30' and 1.1 ppm in SB-9@22'. Analytical results for the soil samples for this and previous investigations at the site are summarized in Table 1. The certified analytical laboratory reports for this investigation are included as Attachment C.

Analyte Results in Groundwater: No MTBE was detected in grab groundwater samples collected from MW-7, MW-8 or SB-9. TPHg and BTEX compounds were detected in all grab groundwater samples. The sample from MW-7 contained 60,000 ppb TPHg and 59 ppb benzene. The sample from MW-8 contained 83,000 ppb TPHg and 810 ppb benzene. The sample from SB-9 contained 78,000 ppb TPHg and 2200 ppb benzene. Analytical results for the grab groundwater samples are summarized in Table 2, and the certified analytical laboratory reports are included as Attachment C.

CONCLUSIONS AND RECOMMENDATIONS

The soil and grab groundwater sample results collected during this investigation did not indicate any detectable MTBE impact to offsite soil or groundwater northwest of the site. However, the sample results indicate TPHg and BTEX impact to both soil and groundwater northwest of the site. These results are consistent with previous onsite investigations and confirm that no new release has occurred at the site. Incorporation of MW-7 and MW-8 into the quarterly sampling

plan will enable further definition of the groundwater gradient and hydrocarbon concentration trends and evaluation of any hydrocarbon plume stability or natural attenuation. Ongoing monitoring and confirmation of possible de-watering activities occurring just north and upgradient of the site, along Highway 580, will enable definition of groundwater gradient and plume stability. After evaluation of the groundwater gradient and concentration fluctuation over the next two quarters, Cambria will re-evaluate plume stability and make further recommendations.

CLOSING

Please call Melody Munz at (510) 420-3324, if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Melody Munz
Project Engineer

Matthew W. Derby, P.E.
Senior Project Engineer

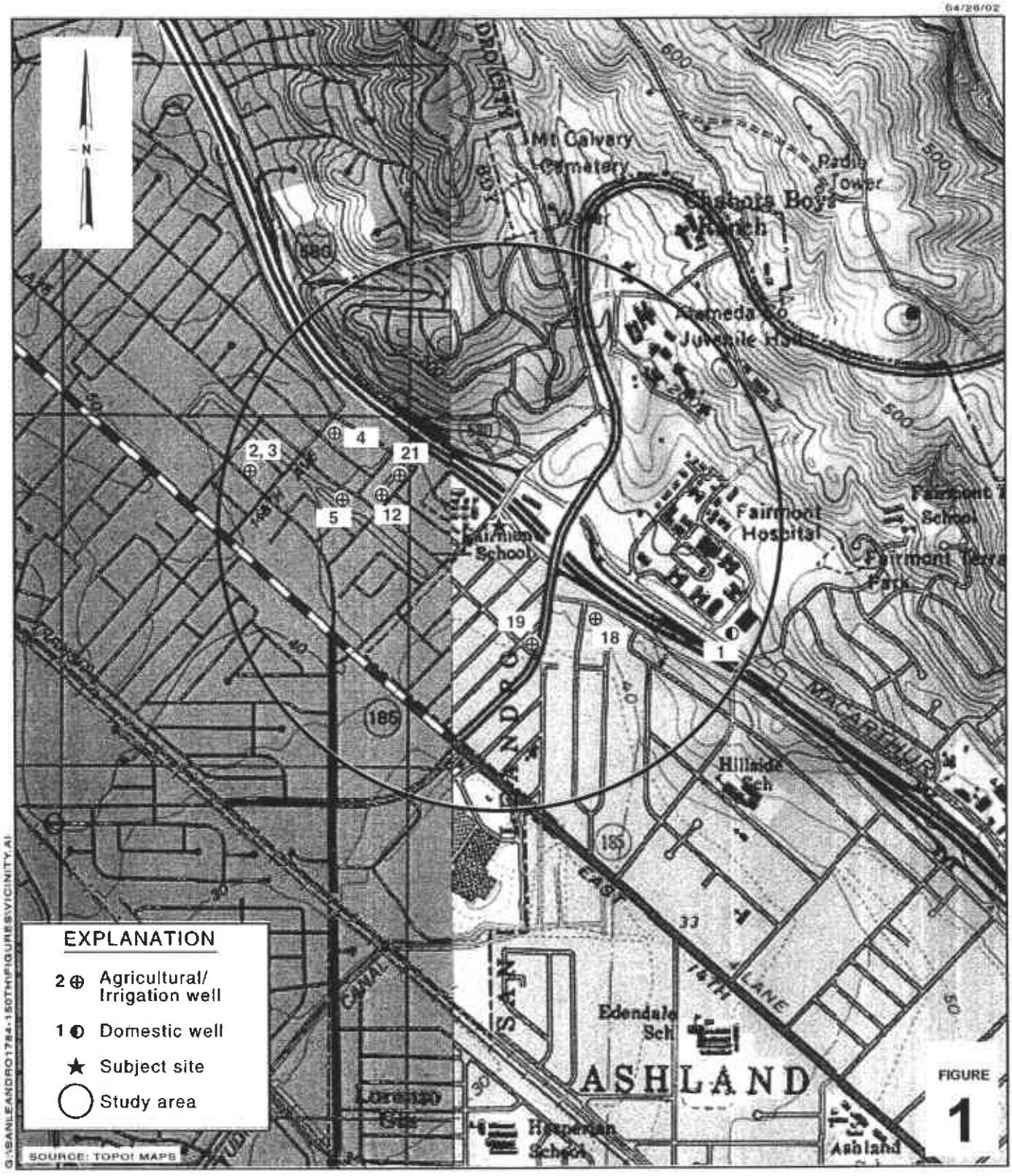
Figures:
1- Vicinity/Area Well Survey Map
2- Monitoring Well and Soil Boring Location Map

Tables:
1 - Soil Analytical Results
2 - Groundwater Analytical Results

Attachments:
A - Permits
B - Boring Logs/Well Completion Report
C - Laboratory Analytical Reports
D - Disposal Confirmation

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA. 91510-7869
Victor Lemon, City of San Leandro, Engineering and Transportation Division, 835 East 14th Street, San Leandro, CA. 94577
City of San Leandro, Environmental Division, 835 East 14th Street, San Leandro, CA. 94577

G:\San Leandro 1784 150th\Well Installation 2002\1784 150th MW Install Report.doc



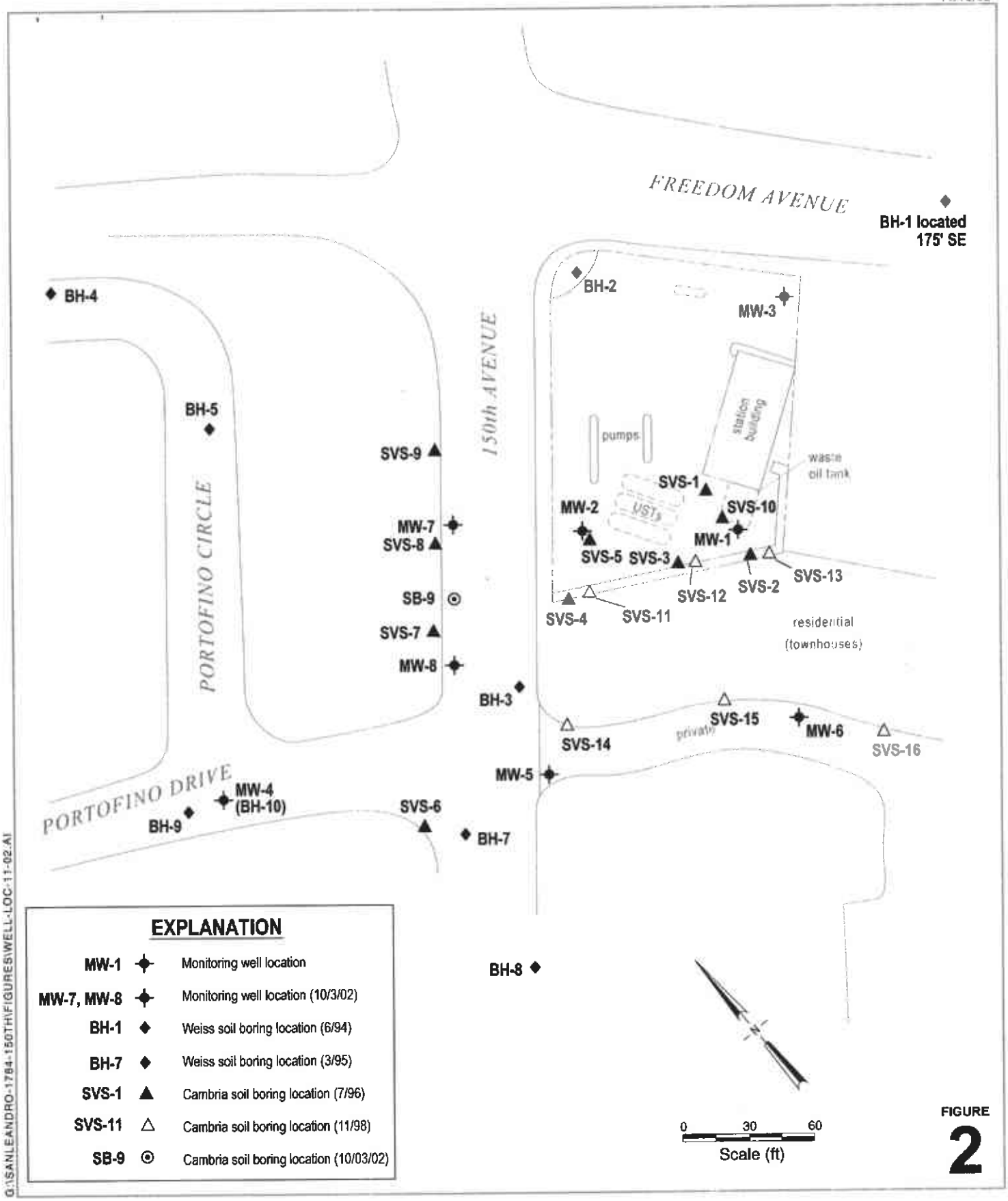
Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident #98996068

CAMBRIA

Vicinity/Area Well Survey Map

1/2-Mile Radius

11/18/02



EXPLANATION

MW-1	✦	Monitoring well location
MW-7, MW-8	✦	Monitoring well location (10/3/02)
BH-1	◆	Weiss soil boring location (6/94)
BH-7	◆	Weiss soil boring location (3/95)
SVS-1	▲	Cambria soil boring location (7/96)
SVS-11	△	Cambria soil boring location (11/98)
SB-9	⊙	Cambria soil boring location (10/03/02)

FIGURE
2

G:\SANLEANDRO-1784-150TH\FIGURES\WELL-LOC-11-02.AI

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident #98996068

CAMBRIA

Monitoring Well and Soil Boring Location Map

Table 1. Soil Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE EPA Method 8020	MTBE EPA Method 8260
		(fbg)	(Concentrations in mg/kg)						
BH-A[a,b]	3/5/1990	5.0	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---
BH-A[a,b]	3/5/1990	15.7	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---
BH-A[a,b,c]	3/5/1990	24.7	<1	**0.020**	<0.0025	<0.0025	<0.0025	---	---
BH-A[a,d]	3/5/1990	29.2	**35**	**0.23**	**0.20**	<0.0025	**0.64**	---	---
BH-A[a,b]	3/5/1990	41.2	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---
BH-B[b]	2/4/1992	11.5	<1	**0.0026**	<0.0025	<0.0025	<0.0025	---	---
BH-B	2/4/1992	16.5	<1	**0.0058**	<0.0025	<0.0025	<0.0025	---	---
BH-B[b,e]	2/4/1992	21.5	**79**	**0.20**	**0.60**	**1.0**	**4.1**	---	---
BH-B	2/4/1992	26.5	**74**	**0.59**	**0.91**	**1.5**	**3.9**	---	---
BH-C[b]	2/5/1992	11.5	<1	**0.0042**	**0.0029**	**0.0039**	<0.0025	---	---
BH-C[b]	2/5/1992	21.5	<1	<0.0025	<0.0025	<0.0025	<0.0025	---	---
BH-C[b,f]	2/5/1992	26.5	**3.9**	<0.0025	<0.0025	<0.0025	**0.0054**	---	---
BH-C	2/5/1992	31.5	**68**	<0.05	<0.05	<0.05	**0.17**	---	---
BH-1-21	6/6/1994	21	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
BH-2-20	6/6/1994	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
BH-3-16[g]	6/6/1994	16	<1.0	**0.013**	<0.0050	<0.0050	<0.0050	---	---
BH-4-20.6	6/7/1994	20.6	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
BH-5-15.6	6/7/1994	15.6	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
BH-6-20.5	6/7/1994	20.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
BH-7-15.8	2/14/1995	15.8	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	---	---
BH-8-16.0	2/14/1995	16.0	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	---	---
BH-9-19.5	2/14/1995	19.5	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	---	---
BH-10-15.2	3/3/1995	15.2	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
SVS-3	7/18-19/96	16-18	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---
SVS-5	7/18-19/96	4-6	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---
SVS-5	7/18-19/96	8-10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---
SVS-5	7/18-19/96	18-20	**1.1**	<0.005	<0.005	<0.005	<0.005	<0.025	---
SVS-9	7/18-19/96	3-5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---
SVS-9	7/18-19/96	8-10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---
SVS-9	7/18-19/96	16-18	<1.0	<0.005	<0.005	<0.005	<0.005	<0.025	---

Table 1. Soil Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE EPA Method 8020	MTBE EPA Method 8260
		(fbg)	← (Concentrations in mg/kg) →						
Disp-A	12/4/1997	2.0	**3.1**	<0.005	**0.037**	**0.022**	<0.01	**0.019**	---
Disp-A, 4.5	12/4/1997	4.5	**6.3**	**0.096**	**0.012**	**0.46**	**0.037**	**0.056**	---
Disp-B	12/4/1997	2.0	**130**	<1	<1	**<1**	<2	<1	---
Disp-B, 4.5	12/4/1997	4.5	**1.0**	**0.045**	<0.005	**0.064**	**0.32**	<0.03	---
Disp-C	12/4/1997	2.0	**190**	**1.8**	**2.1**	**3.6**	**20**	**1.4**	---
Disp-C, 4.5[h]	12/4/1997	4.5	**590**	<0.5	**0.98**	**2.3**	**3.1**	<0.5	---
Disp-D	12/4/1997	2.0	**3.8**	**0.11**	<0.005	**0.15**	**0.17**	**0.11**	---
Disp-D, 4.5	12/4/1997	4.5	**1.4**	**0.027**	<0.005	**0.036**	**0.178**	**0.005**	---
SVS-11-5.5	11/10/1998	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-11-6	11/10/1998	6	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-11-9.5	11/10/1998	9.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-11-10	11/10/1998	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-11-15	11/10/1998	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-11-15.5	11/10/1998	15.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-11-19	11/10/1998	19	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-11-19.5	11/10/1998	19.5	**1.6**	**0.0050**	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-14-5	11/11/1998	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-14-5.5	11/11/1998	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-14-10	11/11/1998	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-14-10.5	11/11/1998	10.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-14-15	11/11/1998	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-14-15.5	11/11/1998	15.5	<1.0	<0.0050	**0.006**	<0.0050	<0.0050	<0.025	---
SVS-14-19	11/11/1998	19	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.029**	<25
SVS-14-19.5	11/11/1998	19.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-15-4.5	11/11/1998	4.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-15-5	11/11/1998	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-15-10	11/11/1998	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-15-10.5	11/11/1998	10.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-15-15	11/11/1998	15	<1.0	<0.0050	<0.0050	<0.0050	**0.013**	<0.025	---
SVS-15-15.5	11/11/1998	15.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-15-19.5	11/11/1998	19.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---

Table 1. Soil Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE EPA Method 8020	MTBE EPA Method 8260
		(fbg)	← (Concentrations in mg/kg) →						
SVS-15-20	11/11/1998	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-16-5	11/11/1998	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-16-5.5	11/11/1998	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-16-10	11/11/1998	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-16-10.5	11/11/1998	10.5	<1.0	<0.0050	<0.0050	<0.0050	**0.0093**	**0.026**	---
SVS-16-15	11/11/1998	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
SVS-16-15.5	11/11/1998	15.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	---
MW-5-515.5	10/24/01	15.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050
MW-6-5.5	10/24/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	**0.012**
MW7@5'	10/03/02	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5
MW7@10'	10/03/02	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5
MW7@15'	10/03/02	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5
MW7@20'	10/03/02	20	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5
MW7@25'	10/03/02	25	**11**	<0.0050	**0.0060**	**0.086**	**0.13**	---	<0.5
MW7@30'	10/03/02	30	**68**	<0.025	**0.19**	**0.89**	**3.7**	---	<0.5
MW7@32'	10/03/02	32	**1.2**	<0.0050	**0.0069**	**0.025**	**0.11**	---	<0.5
MW8@5'	10/04/02	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5
MW8@10'	10/04/02	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5
MW8@15'	10/04/02	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5
MW8@20'	10/04/02	20	**1.2**	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.5
MW8@25'	10/04/02	25	**140**	**0.072**	**0.15**	**1.5**	**5.8**	---	<0.5
SB9@22	10/04/02	22	1.1	<0.0050	<0.0050	**0.016**	**0.088**	---	<0.5

Table 1. Soil Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE EPA Method 8020	MTBE EPA Method 8260
		(fbg)	← (Concentrations in mg/kg) →						

Abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline. From 1990 through 1998, analyzed by modified EPA Method 8015; from 2001 through 2002, analyzed by EPA Method 8260B.
Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8020 from 1990 through 1998; from 2001 through 2002, analyzed by EPA Method 8260B.
MTBE = Methyl tert-butyl ether
fbg = Feet below grade
mg/kg = milligrams per kilogram
<n = Below detection limit of n mg/kg
--- = Not analyzed

Notes:

a = Petroleum oil and grease analyzed by American Public Health Association Standard Method 503E; no detections above 100 ppm detection limit. Total oil and grease analyzed by American Public Health Association Standard Method 503E; no detections above 50 ppm detection limit.
b = Analyzed for halogenated volatile organic compounds by EPA Method 8010; none detected.
c = Total petroleum hydrocarbons as diesel (TPHd) and total petroleum hydrocarbons as motor oil (TPHmo) analyzed by modified EPA Method 8015; no TPHd detected at 1 ppm limit; no TPHmo detected at 10 ppm limit.
d = 1,2-dicholorethane detected at 0.0064 ppm by EPA Method 8010.
e = TPHd detected at 23 ppm by modified EPA Method 8015; lab characterized detected compounds as hydrocarbons lighter than diesel.
f = TPHd detected at 4.9 ppm by modified EPA Method 8015; lab characterized detected compounds as hydrocarbons lighter than diesel.
g = Analyzed for volatile organic compounds by EPA Method 8010; none detected above detection limits ranging from 0.005 to 0.050 ppm.
h = Sample saturated with perched water from beneath dispenser.

G:\San Leandro 1784 150th\[Soil Summary 1784 150th.xls]Soil Summary

Table 2. Groundwater Analytical Results - Shell-branded Service Station, 1784 150th St., San Leandro, California - Incident #98996068

Sample ID	Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
		←			(ppb)		→
MW7-W	10/03/02	**60,000**	**59**	**590**	**1,900**	**7,300**	<100
MW8-W	10/04/02	**83,000**	**810**	**2,000**	**3,700**	**17,000**	<500
SB9-W	10/04/02	**78,000**	**2,200**	**8,200**	**2,300**	**13,000**	<500

Abbreviations and Notes:

ppb = parts per billion

TPHg = Total Petroleum Hydrocarbons as gasoline, analyzed by EPA Method 8260B.

Benzene, toluene, ethylbenzene, and xylene analyzed by EPA Method 8260B.

MTBE = Methyl tertiary butyl ether, analyzed by EPA Method 8260B.

G:\San Leandro 1784 150th\Well Installation 2002\[1784soiltbl.xls]Soil

ATTACHMENT A

Permits

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1784 150th AVENUE
SAN LEANDRO, CA

CLIENT
Name SHELL OIL PRODUCTS, US ATTN: KAREN PETRYNA
Address P.O. Box 7869 Phone (925) 645-9306
City BURBANK, CA Zip 91510

APPLICANT
Name CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.
Address 1144 65th STREET, SUITE B Fax (510) 420-9170
City OAKLAND, CA Phone (510) 420-0700
Zip 94608

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☒ SOIL BORING
Monitoring	☐	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE N/A

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☐	DIRECT PUSH	X

DRILLER'S NAME GREGG DRILLING

DRILLER'S LICENSE NO. C57 485165

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum
Casing Diameter ____ in. Depth ____ ft.
Surface Seal Depth ____ ft. Owner's Well Number ____

GEOTECHNICAL PROJECTS
Number of Borings 1 Maximum
Hole Diameter 2" in. Depth 30 ft.

ESTIMATED STARTING DATE OCTOBER 4, 2002
ESTIMATED COMPLETION DATE OCTOBER 4, 2002

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

APPLICANT'S SIGNATURE [signature] DATE 10/3/02

PLEASE PRINT NAME MELODY MUNZ

FOR OFFICE USE
PERMIT NUMBER W02-0994
WELL NUMBER
APN

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.
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
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 SCH3 Attached.

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 10-3-02

Rev. 5-13-00

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-6633 James You
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

LOCATION OF PROJECT 1789 150th Avenue
San Leandro, CA

CLIENT
Name (US) Shell Oil Products Co. Phone 554-635-9306
Address P.O. Box 7869 Zip 94510-7869
City Benicia, CA

APPLICANT
Name Stewart Dulie Fax (510) 420-9170
Address 1401 65th Ave Phone (510) 420-3339
City Oakland, CA Zip 94608

TYPE OF PROJECT
Well Construction
Cathodic Protection
Water Supply
Monitoring X
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 X

DRILLER'S NAME Gregg Drilling
DRILLER'S LICENSE NO. C57-555165

WELL PROJECTS 2 wells (same)
Drill Hole Diameter 8 in. Maximum Depth 25-45 ft.
Casing Diameter 2 in.
Surface Seal Depth 15 ft. Owner's Well Number MW-7

GEOTECHNICAL PROJECTS
Number of Borings
Hole Diameter in. Maximum Depth ft.

ESTIMATED STARTING DATE 10/3/02
ESTIMATED COMPLETION DATE 10/4/02

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

APPLICANT'S SIGNATURE [signature] DATE 8/27/02
PLEASE PRINT NAME Stewart A. Dulie

FOR OFFICE USE
PERMIT NUMBER W02-0858
WELL NUMBER
APN

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.
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
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 above 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
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
Submit site map with 5 days showing well location

APPROVED [signature] DATE 8-28-02

Rev. 3-04-02

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

LOCATION OF PROJECT 1784 150th Avenue
San Leandro, CA

CLIENT
Name (OS) Shell Oil Products Co. Phone 559-645-9306
Address P.O. Box 7869 Zip 91510-7869
City Burbank, CA

APPLICANT
Name Stewart Dalie
Company Cambria Environmental Fax (510) 420-9170
Address 1144 65th Ave Phone (510) 420-3339
City Oakland, CA Zip 94608

TYPE OF PROJECT
Well Construction
Cathodic Protection ( )
Water Supply ( )
Monitoring (X)
Geotechnical Investigation
General ( )
Contamination ( )
Well Destruction ( )

PROPOSED WATER SUPPLY WELL USE
New Domestic ( ) Replacement Domestic ( )
Municipal ( ) Irrigation ( )
Industrial ( ) Other ( )

DRILLING METHOD:
Mud Rotary ( ) Air Rotary ( ) Auger (X)
Cable ( ) Other ( )

DRILLER'S NAME Gregg Drilling
DRILLER'S LICENSE NO. C57-555165

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum 2 wells (same)
Casing Diameter 2 in. Depth 25-45 ft.
Surface Seal Depth 15 ft. Owner's Well Number [redacted] MW-8

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum
Hole Diameter ____ in. Depth ____ ft.

ESTIMATED STARTING DATE 10/3/02
ESTIMATED COMPLETION DATE 10/4/02

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

APPLICANT'S SIGNATURE [signature] DATE 8/27/02
PLEASE PRINT NAME Stewart A. Dalie

Rev.3-04-02

FOR OFFICE USE

PERMIT NUMBER W02-0859
WELL NUMBER
APN

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.
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
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

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

#7 Submit site map showing well location within 5 days.

APPROVED [signature] DATE 8-28-02

02366

Service No._____

CITY OF SAN LEANDRO
APPLICATION TO PERFORM WORK IN THE PUBLIC RIGHT-OF-WAY

Permit Number

9/20/02

Date Approved

Work Site: 1784 150th Ave, San Leandro

Applicant: Name Stu Dalie Address 1144 65th St, Oak, CA Tel. (510) 420-3339

Owner: Name Cambria Environmental Address 1144 65th St. Oak, CA Tel. (510) 420-0700

Emergency: Name Susan Crentz Mobile (510) 376-0116 Tel. (510) 420-3320

Purpose of Permit:

☐ Utility ☐ Street Excavation ☐ Curb, Gutter, Sidewalk, Driveway ☒ Other Well installation

Detailed Description and Dimensions of Work: Install 2, 2"-25-35' bgs monitoring wells. 1 lane of 150th will be shut down.

Plan Submitted: Yes X No_____ Profile Submitted: Yes X No_____

Date Work to be Started: 10/3/02 Date Work to be Completed: 10/4/02

Building Permit No._____ State Encroachment Permit No._____

Oro Loma Permit No._____ Alameda County Public Works Agency Permit No. W02-0856 W02-0857

Excavation and Grading Permit No._____

Compliance with State Labor Code, in accordance with Section 3800:

☒ Applicant has on file with the City of San Leandro evidence that worker's compensation insurance is carried.

☐ Applicant will not employ anyone and therefore will not be subject to the worker's compensation laws of California.

Statement of State Contractor's License, in accordance with Section 7031.5 of the State Business and Professions Code:

☐ Applicant has State License No. C51485/65 Class A in full force and effect.

☐ Applicant is exempt from the State Contractor's License Law for the following reason(s):

By the application and acceptance of this permit, the undersigned intending to be legally bound does hereby agree that all work performed will be in accordance with all applicable provisions of this permit and all regulations, provisions, and specifications as adopted by the City. Further, the undersigned agrees that this permit is to serve as a guaranty for payment for all permit and/or inspection charges as billed by the City. Any misrepresentation of information requested from the applicant on this form shall make this permit null and void.

Printed Name: Stewart Dalie Signature: [signature] Date: 8/27/02

PLEASE CALL (510) 577-3308 FOR INSPECTIONS

SPECIAL PROVISIONS

Backfill Required_____

Pavement Section Required_____

Minimum Depth of Cover_____

ALL WORK PER CITY GENERAL PROVISIONS. ALSO SEE ATTACHED SPECIAL CONDITIONS.

Police & Fire Dept. to be notified 24 hours prior to start: YES ✓ NO____

PEDESTRIAN SAFETY AND TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES.

SEE REVERSE SIDE FOR GENERAL PROVISIONS APPLICABLE TO ALL PERMIT WORK

PERMIT IS VALID WHEN SIGNED

RECEIVED
SEP 20 2002
TRANS

Any omission on the part of the City to specify on this permit any rule, regulation, provision, or specification shall not excuse the permittee from complying with all requirements of law and appropriate ordinances and all applicable regulations, provisions, and specifications adopted by the City.

ISSUED BY CITY ENGINEER

Victor Lemmon

INSPECTION RECORD

Date	Comments	Insp	Hrs. Charged

NOTE: 1 hr. minimum charge per inspection stop

Hours forwarded from reverse side:_____

TOTAL HOURS CHARGED:_____

FEES

PERMIT FEE: $50 — To Acct #3306

RESTORE/INSPECT DEPOSIT: $1150 — To CN# 14993

STREET CUT FEE:_____ To Acct #3304

TOTAL: $1200 —

☐ All charges collected at permit issuance.

☐ All charges to be billed to CN# 14993

CITY OF SAN LEANDRO

835 EAST 14th STREET • SAN LEANDRO, CALIFORNIA 94577

RECEIPT NO. 83127

Taxpayer ID# 94-6000421

RECEIVED
CITY OF SAN LEANDRO
SEP 20 2002
ENG'G / TRANS.

PERMIT # 02366
(510) 420-0700

Date 9/20 20 02

Received From CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC. $ 1200 —

Address 1144 - 65th STREET SUITE B, OAKLAND, CA 94608

For (2) MONITORING WELLS @ 1784 150th AVE.

ACCT # 3306 $ 50 —

CK # 14993 $ 1150 —

TOTAL $ 1200 —

Account No. CK # 2171

By Victor Jemmerson

NOT VALID UNTIL RECEIPTED BY CASHIER

Printed on Recycled Paper

FORM 095

ATTACHMENT B

Boring Logs/Well Completion Report

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	**BORING/WELL NAME**	MW-7
JOB/SITE NAME	1784 150th Avenue, San Leandro, California	**DRILLING STARTED**	03-Oct-02
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	03-Oct-02
PROJECT NUMBER	244-0612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	44.86 ft above msl
DRILLING METHOD	Hollow Stem Auger	**TOP OF CASING ELEVATION**	44.45 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	22 to 27 ft bgs
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	24.5 ft (03-Oct-02) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	18.88 ft (04-Oct-02) ▼
REMARKS	Hand augered to 5' bgs.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)
					Asphalt	0.8
				GM	**Silty GRAVEL with Sand**; (GM); 10YR 5/3, brown; loose; dry; 30% Silt, 10% Sand, 60% Clay; no plasticity; no odor; road base.	2.8
		SB7@5'	5	CL	**Silty CLAY**; (CL); 10YR 2/1, Black; hard; dry; 65% Clay, 35% Silt; very low plasticity; no odor.	
		SB7@10'	10		10YR 4/2, very dark greyish brown; very hard. Clay; Very stiff to hard; dry; 60% Clay, 40% Silt. 10YR 3/2, very gark greyish brown.	13.0
		SB7@15'	15	ML	**SILT with some Clay**; (ML); 2.5Y 5/2, greyish brown; hard; dry; 2% Clay, 98% Silt; no plasticity; no odor. 10YR 5/2, greyish brown.	
		SB7@20'	20		Very stiff, brittle; dry; 100% Silt.	22.3
				GW	**Well Graded GRAVEL with Silt and Sand**; (GW); 5Y 3/2; dark olive grey; loose; moist; 20% Silt, 25% Sand, 55% Gravel; no plasticity; no odor.	23.0
		SB7@25'	25	ML	**Clayey SILT with some fine Gravels and Sand**; (ML); 5Y 3/2, olive grey; medium stiff; moist to wet; 25% Clay, 60% Silt, 5% Sand, 10% Gravel; no plasticity; slight hydrocarbon odor.	25.8
				GM	**Silty GRAVEL with Sand**; (GM); 5Y 4/2, olive grey; loose; wet to saturated; 30% Silt, 5% Sand, 65% Gravel; no plasticity; "old" hydrocarbon or petroleum odor.	
		SB7@32'	30			32.0

BORING BACKFILL

- Portland Type I/II Cement
- Bentonite Seal
- Monterey Sand #2/12
- 2"-diameter, 0.010" Slotted Schedule 40 PVC

Bottom of Boring @ 32 ft

BOR LOG (TPH-G) G:\SANLEA-3\GINT\SNL1784.GPJ DEFAULT.GDT 10/23/02

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	**BORING/WELL NAME**	MW-8
JOB/SITE NAME	1784 150th Avenue, San Leandro, California	**DRILLING STARTED**	04-Oct-02
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	04-Oct-02
PROJECT NUMBER	244-0612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	43.60 ft above msl
DRILLING METHOD	Direct Push/Hollow Stem Auger	**TOP OF CASING ELEVATION**	43.27 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	19 to 24 ft bgs
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	21.0 ft (04-Oct-02)
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	17.76 ft (04-Oct-02)
REMARKS	Hand augered to 5' bgs.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
							Asphalt	0.8	
					GW		**Well graded GRAVEL with Sand**; (GW); 10YR 4/2, dark greyish brown; loose; dry; 20% Sand, 80% Gravel; no plasticity; no odor; road base.	2.3	
		MW8@5'		5	CL		**Silty CLAY**; (CL); 10YR 2/1, black; medium hard; dry; 80% Clay; 20% Silt; very low plasticity; no odor.		Portland Type I/II Cement
		MW8@10'		10			10YR 3/1, very dark grey; very hard; dry; 75% Clay, 25% Silt; low plasticity.	11.5	
		MW8@15'		15	ML		**Clayey SILT**; (ML); GLEY, 5GY 5/1; stiff; hard; 10% Clay, 90% Silt; no plasticity.		Bentonite Seal
							Slighlty more Clay; stiff; dry; 20% Clay, 80% Silt; slight staining.		
		MW8@20'		20			GLEY, 5GY 5/1, stained; stiff; dry; 25% Clay, 75% Silt; hydrocarbon odor.	20.8	Monterey Sand #2/12
					GM		**Silty GRAVEL with Sand and some Clay**; (GM); GLEY, 5GY 5/1, stained; soft; moist to wet; 5% Clay, 20% Silt, 15% Sand, 60% Gravel; no plasticity; strong hydrocarbon odor.		2"-diameter, 0.010" Slotted Schedule 40 PVC
		MW8@25'		25			No Clay; loose; wet to saturated; 15% Silt, 15% Sand, 70% Gravel; no plasticity; strong hydrocarbon odor.	26.0	
					CL		**Silty CLAY**; (CL); 5Y 3/2, olive grey; very hard; dry; 75% Clay, 25% Silt; low plasticity; slight hydrocarbon odor.	27.5	Bottom of Boring @ 27.5 ft

BOR LOG (TPH-G) G:\SANLEA-3\GINT\SNL1784.GPJ DEFAULT.GDT 10/23/02

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

10/23/02

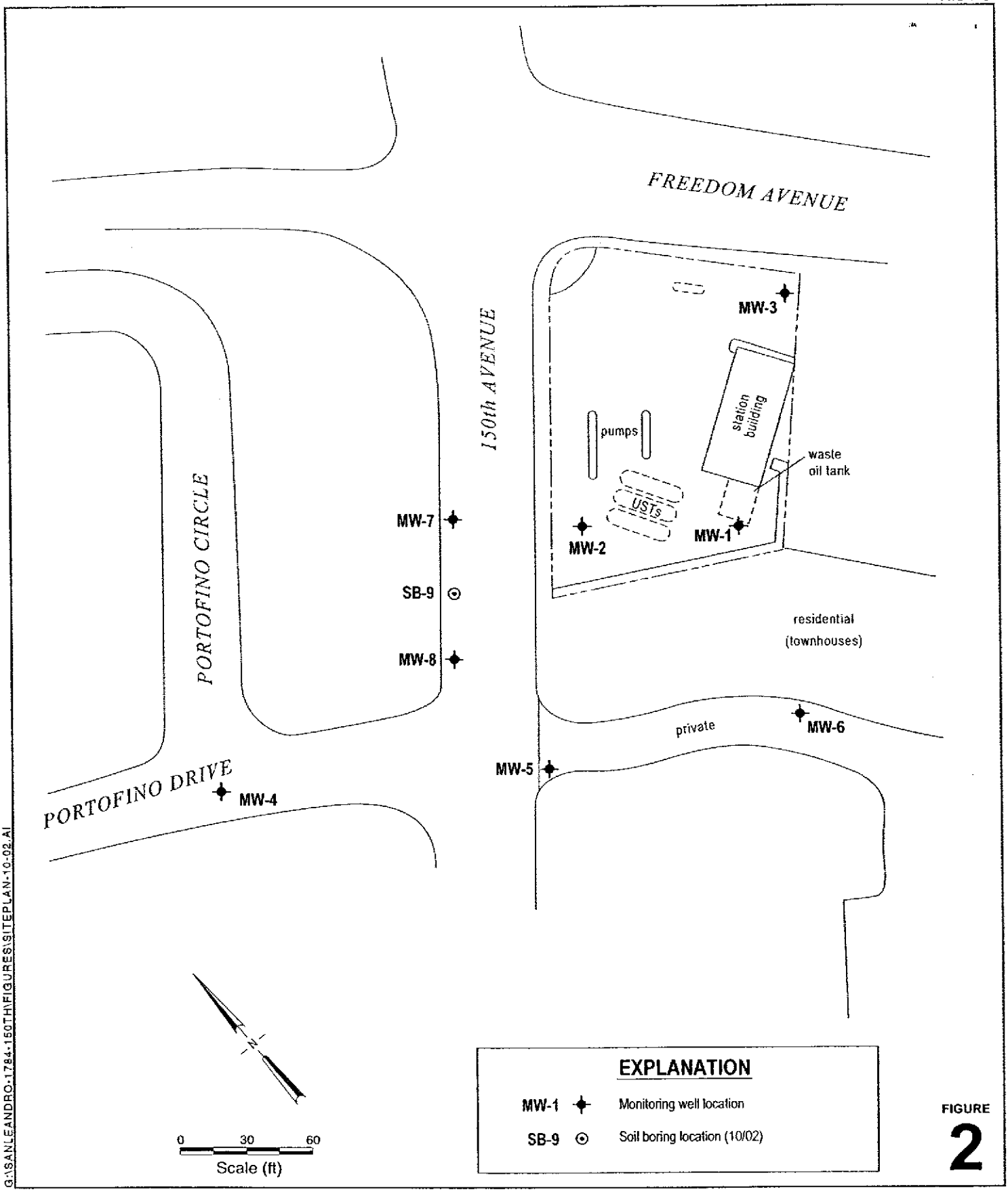


FIGURE 2

G:\SANLEANDRO-1784-150TH\FIGURES\SITEPLAN-10-02.AI

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident #98996068

CAMBRIA

Monitoring Well and Soil Boring Location Map

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

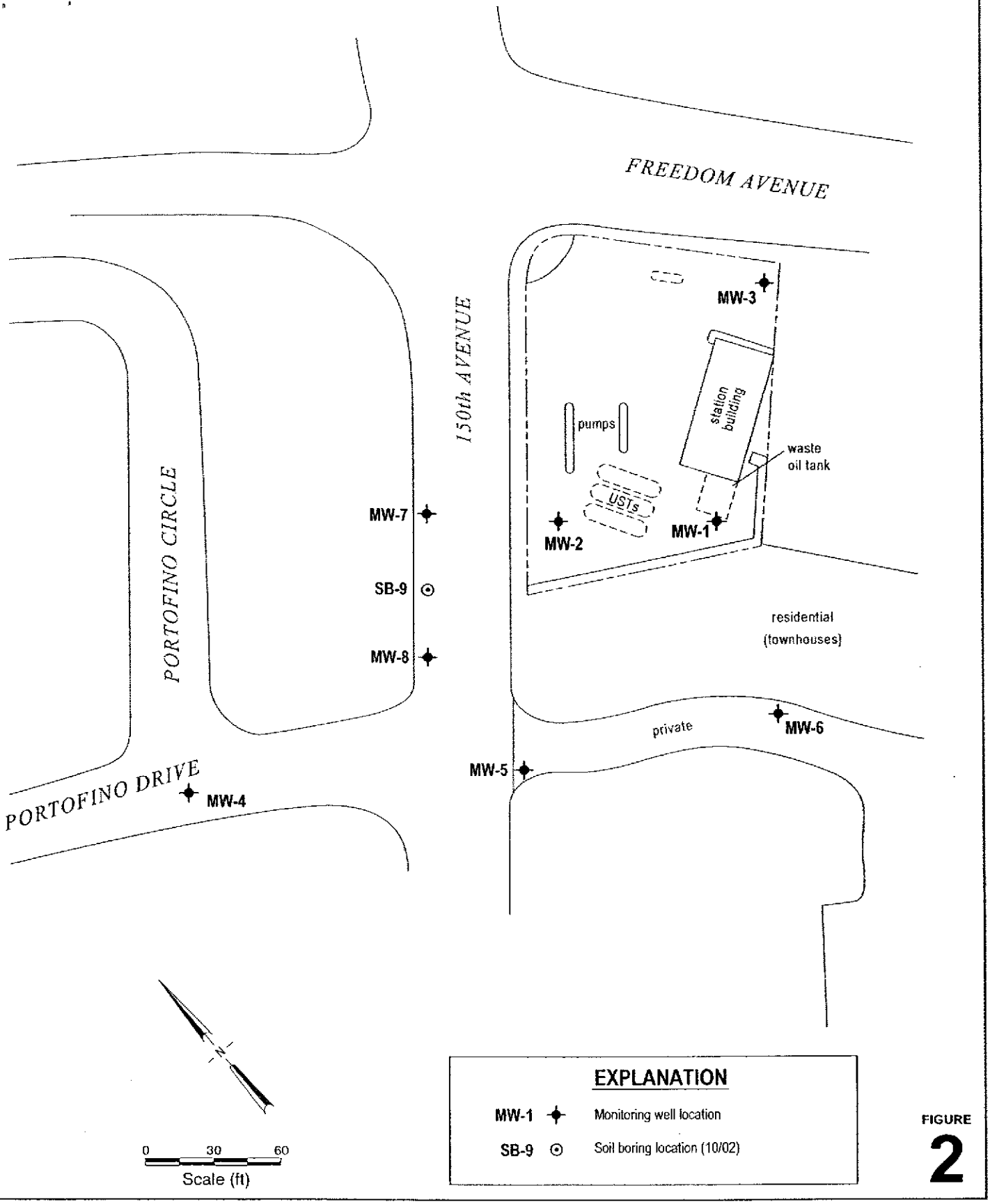
Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	**BORING/WELL NAME**	MW-7
JOB/SITE NAME	1784 150th Avenue, San Leandro, California	**DRILLING STARTED**	03-Oct-02
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	03-Oct-02
PROJECT NUMBER	244-0612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	44.86 ft above msl
DRILLING METHOD	Hollow Stem Auger	**TOP OF CASING ELEVATION**	44.45 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	22 to 27 ft bgs
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	24.5 ft (03-Oct-02) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	18.88 ft (04-Oct-02) ▼
REMARKS	Hand augered to 5' bgs.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	BORING BACKFILL
							Asphalt	0.8	
					GM		**Silty GRAVEL with Sand**; (GM); 10YR 5/3, brown; loose; dry; 30% Silt, 10% Sand, 60% Clay; no plasticity; no odor; road base.	2.8	
		SB7@5'		5	CL		**Silty CLAY**; (CL); 10YR 2/1, Black; hard; dry; 65% Clay, 35% Silt; very low plasticity; no odor.		
		SB7@10'		10			10YR 4/2, very dark greyish brown; very hard. Clay; Very stiff to hard; dry; 60% Clay, 40% Silt. 10YR 3/2, very gark greyish brown.		Portland Type I/II Cement
		SB7@15'		15	ML		**SILT with some Clay**; (ML); 2.5Y 5/2, greyish brown; hard; dry; 2% Clay, 98% Silt; no plasticity; no odor. 10YR 5/2, greyish brown.	13.0	
		SB7@20'		20			Very stiff, brittle; dry; 100% Silt.		Bentonite Seal
					GW		**Well Graded GRAVEL with Silt and Sand**; (GW); 5Y 3/2; dark olive grey; loose; moist; 20% Silt, 25% Sand, 55% Gravel; no plasticity; no odor.	22.3 23.0	Monterey Sand #2/12 2"-diameter, 0.010" Slotted Schedule 40 PVC
		SB7@25'		25	ML		**Clayey SILT with some fine Gravels and Sand**; (ML); 5Y 3/2, olive grey; medium stiff; moist to wet; 25% Clay, 60% Silt, 5% Sand, 10% Gravel; no plasticity; slight hydrocarbon odor.	25.8	
					GM		**Silty GRAVEL with Sand**; (GM); 5Y 4/2, olive grey; loose; wet to saturated; 30% Silt, 5% Sand, 65% Gravel; no plasticity; "old" hydrocarbon or petroleum odor.		
		SB7@32'		30				32.0	Bottom of Boring @ 32 ft

BOR LOG (TPH-G) G:\SANLEA-3\GINT\SNL1784.GPJ DEFAULT.GDT 10/23/02



G:\SANLEANDRO-1784-150TH\FIGURES\SITEPLAN-10-02.AI

FIGURE
2

Shell-branded Service Station
1784 150th Avenue
San Leandro, California
Incident #98996068

CAMBRIA

Monitoring Well and Soil Boring Location Map

Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	**BORING/WELL NAME**	MW-8
JOB/SITE NAME	1784 150th Avenue, San Leandro, California	**DRILLING STARTED**	04-Oct-02
LOCATION	1784 150th Avenue, San Leandro, California	**DRILLING COMPLETED**	04-Oct-02
PROJECT NUMBER	244-0612	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	43.60 ft above msl
DRILLING METHOD	Direct Push/Hollow Stem Auger	**TOP OF CASING ELEVATION**	43.27 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	19 to 24 ft bgs
LOGGED BY	S. Dalie	**DEPTH TO WATER (First Encountered)**	21.0 ft (04-Oct-02) ▽
REVIEWED BY	M. Derby, PE# 55475	**DEPTH TO WATER (Static)**	17.76 ft (04-Oct-02) ▼
REMARKS	Hand augered to 5' bgs.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)
							Asphalt	0.8
					GW		**Well graded GRAVEL with Sand**; (GW); 10YR 4/2, dark greyish brown; loose; dry; 20% Sand, 80% Gravel; no plasticity; no odor; road base.	2.3
							Silty CLAY; (CL); 10YR 2/1, black; medium hard; dry; 80% Clay; 20% Silt; very low plasticity; no odor.	
		MW8@5'		5	CL			
		MW8@10'		10			10YR 3/1, very dark grey; very hard; dry; 75% Clay, 25% Silt; low plasticity.	11.5
							Clayey SILT; (ML); GLEY, 5GY 5/1; stiff; hard; 10% Clay, 90% Silt; no plasticity.	
		MW8@15'		15	ML		Slighlty more Clay; stiff; dry; 20% Clay, 80% Silt; slight staining. ▼	
		MW8@20'		20			GLEY, 5GY 5/1, stained; stiff; dry; 25% Clay, 75% Silt; hydrocarbon odor.	20.8 ▽
					GM		**Silty GRAVEL with Sand and some Clay**; (GM); GLEY, 5GY 5/1, stained; soft; moist to wet; 5% Clay, 20% Silt, 15% Sand, 60% Gravel; no plasticity; strong hydrocarbon odor.	
		MW8@25'		25			No Clay; loose; wet to saturated; 15% Silt, 15% Sand, 70% Gravel; no plasticity; strong hydrocarbon odor.	26.0
					CL		**Silty CLAY**; (CL); 5Y 3/2, olive grey; very hard; dry; 75% Clay, 25% Silt; low plasticity; slight hydrocarbon odor.	27.5

BORING BACKFILL

- Portland Type I/II Cement
- Bentonite Seal
- Monterey Sand #2/12
- 2"-diameter, 0.010" Slotted Schedule 40 PVC

Bottom of Boring @ 27.5 ft

BOR LOG (TPH-G) G:\SANLEA~3\GINT\SNL1784.GPJ DEFAULT.GDT 10/23/02

ATTACHMENT C

Laboratory Analytical Results

KIFF ANALYTICAL LLC

Report Number : 29055
Date : 10/16/02

Stu Dalie
Cambria Environmental Technology Inc
6262 Hollis Street
Emeryville, CA 94608

Subject : 2 Water Samples and 6 Soil Samples
Project Name : 1784 150th Street, San Leandro
Project Number : 244-0612
P.O. Number : 98996068

Dear Mr. Dalie,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 29055
Date : 10/16/02

Subject : 2 Water Samples and 6 Soil Samples
Project Name : 1784 150th Street, San Leandro
Project Number : 244-0612
P.O. Number : 98996068

Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with samples MW8-W- and SB9-W- for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

Approved By: Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 916-297-4800

KIFF ANALYTICAL LLC

Report Number : 29055
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : **MW8@5'** Matrix : Soil Lab Number : 29055-01
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/15/02
Toluene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/15/02
Ethylbenzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/15/02
Total Xylenes	**< 0.010**	0.010	mg/Kg	EPA 8260B	10/15/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/15/02
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	10/15/02
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	10/15/02
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	10/15/02

Sample : **MW8@10'** Matrix : Soil Lab Number : 29055-02
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Toluene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Ethylbenzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Total Xylenes	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/12/02
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	10/12/02
Toluene - d8 (Surr)	112		% Recovery	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	95.8		% Recovery	EPA 8260B	10/12/02

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 29055
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : **MW8@15'** Matrix : Soil Lab Number : 29055-03
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Toluene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Ethylbenzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Total Xylenes	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/12/02
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	10/12/02
Toluene - d8 (Surr)	112		% Recovery	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	90.4		% Recovery	EPA 8260B	10/12/02

Sample : **MW8@20'** Matrix : Soil Lab Number : 29055-04
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/14/02
Toluene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/14/02
Ethylbenzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/14/02
Total Xylenes	**< 0.010**	0.010	mg/Kg	EPA 8260B	10/14/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/14/02
TPH as Gasoline	**1.2**	1.0	mg/Kg	EPA 8260B	10/14/02
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	10/14/02
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	10/14/02

Joel Kiff

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 29055
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : **MW8@25'** Matrix : Soil Lab Number : 29055-05
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**0.072**	0.005	mg/Kg	EPA 8260B	10/14/02
Toluene	**0.15**	0.005	mg/Kg	EPA 8260B	10/14/02
Ethylbenzene	**1.5**	0.005	mg/Kg	EPA 8260B	10/14/02
Total Xylenes	**5.8**	0.050	mg/Kg	EPA 8260B	10/16/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/14/02
TPH as Gasoline	**140**	5.0	mg/Kg	EPA 8260B	10/16/02
Toluene - d8 (Surr)	90.6		% Recovery	EPA 8260B	10/14/02
4-Bromofluorobenzene (Surr)	99.7		% Recovery	EPA 8260B	10/14/02

Sample : **MW8-W-** Matrix : Water Lab Number : 29055-06
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**810**	50	ug/L	EPA 8260B	10/14/02
Toluene	**2000**	50	ug/L	EPA 8260B	10/14/02
Ethylbenzene	**3700**	50	ug/L	EPA 8260B	10/14/02
Total Xylenes	**17000**	50	ug/L	EPA 8260B	10/14/02
Methyl-t-butyl ether (MTBE)	**< 500**	500	ug/L	EPA 8260B	10/14/02
TPH as Gasoline	**83000**	5000	ug/L	EPA 8260B	10/14/02
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	10/14/02
4-Bromofluorobenzene (Surr)	96.8		% Recovery	EPA 8260B	10/14/02

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 29055
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : **SB9@22'** Matrix : Soil Lab Number : 29055-07
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/14/02
Toluene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/14/02
Ethylbenzene	**0.016**	0.005	mg/Kg	EPA 8260B	10/14/02
Total Xylenes	**0.088**	0.005	mg/Kg	EPA 8260B	10/14/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/14/02
TPH as Gasoline	**1.1**	1.0	mg/Kg	EPA 8260B	10/14/02
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	10/14/02
4-Bromofluorobenzene (Surr)	97.2		% Recovery	EPA 8260B	10/14/02

Sample : **SB9-W-** Matrix : Water Lab Number : 29055-08
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**2200**	50	ug/L	EPA 8260B	10/14/02
Toluene	**8200**	50	ug/L	EPA 8260B	10/14/02
Ethylbenzene	**2300**	50	ug/L	EPA 8260B	10/14/02
Total Xylenes	**13000**	50	ug/L	EPA 8260B	10/14/02
Methyl-t-butyl ether (MTBE)	**< 500**	500	ug/L	EPA 8260B	10/14/02
TPH as Gasoline	**78000**	5000	ug/L	EPA 8260B	10/14/02
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	10/14/02
4-Bromofluorobenzene (Surr)	98.0		% Recovery	EPA 8260B	10/14/02

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29055

Date : 10/16/02

QC Report : Method Blank Data

Project Name : **1784 150th Street, San Leandro**

Project Number : **244-0612**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Toluene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Ethylbenzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Total Xylenes	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/12/02
Toluene - d8 (Surr)	101		%	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	103		%	EPA 8260B	10/12/02
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/13/02
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/13/02
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/13/02
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/13/02
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	10/13/02
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/13/02
Toluene - d8 (Surr)	104		%	EPA 8260B	10/13/02
4-Bromofluorobenzene (Surr)	98.3		%	EPA 8260B	10/13/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29055

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/16/02

Project Name : **1784 150th Street, San**

Project Number : **244-0612**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	29127-01	<0.0050	0.0395	0.0399	0.0396	0.0399	mg/Kg	EPA 8260B	10/12/02	100	99.9	0.150	70-130	25
Toluene	29127-01	<0.0050	0.0395	0.0399	0.0384	0.0386	mg/Kg	EPA 8260B	10/12/02	97.1	96.7	0.413	70-130	25
Tert-Butanol	29127-01	<0.0050	0.198	0.200	0.188	0.188	mg/Kg	EPA 8260B	10/12/02	95.1	94.4	0.717	70-130	25
Methyl-t-Butyl Ether	29127-01	<0.0050	0.0395	0.0399	0.0402	0.0389	mg/Kg	EPA 8260B	10/12/02	102	97.5	4.27	70-130	25
Benzene	29045-03	30	66.7	61.2	101	89.4	ug/L	EPA 8260B	10/13/02	106	96.4	9.52	70-130	25
Toluene	29045-03	12	66.7	61.2	77.6	69.3	ug/L	EPA 8260B	10/13/02	98.9	94.3	4.76	70-130	25
Tert-Butanol	29045-03	6.7	333	306	316	295	ug/L	EPA 8260B	10/13/02	92.7	94.2	1.59	70-130	25
Methyl-t-Butyl Ether	29045-03	230	66.7	61.2	317	291	ug/L	EPA 8260B	10/13/02	129	99.6	26.0	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29055

QC Report : Laboratory Control Sample (LCS)

Date : 10/16/02

Project Name : **1784 150th Street, San**

Project Number : **244-0612**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0394	mg/Kg	EPA 8260B	10/12/02	102	70-130
Toluene	0.0394	mg/Kg	EPA 8260B	10/12/02	101	70-130
Tert-Butanol	0.197	mg/Kg	EPA 8260B	10/12/02	93.7	70-130
Methyl-t-Butyl Ether	0.0394	mg/Kg	EPA 8260B	10/12/02	97.0	70-130
Benzene	40.0	ug/L	EPA 8260B	10/13/02	104	70-130
Toluene	40.0	ug/L	EPA 8260B	10/13/02	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/13/02	92.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/13/02	104	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL

720 Olive Drive, Suite D

Davis, CA 95616

(530) 297-4800 (530) 297-4803 fax

SHELL Chain Of Custody Record

Shell Project Manager to be invoiced: Karen Petryna

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

29055

INCIDENT NUMBER (S&E ONLY): 98996068

SAP or CRMT NUMBER (TS/CRMT): 136019

DATE: 10/04/02

PAGE: 1 of 1

SAMPLING COMPANY: Cambria Environmental Technology

LOG CODE: CETO

SITE ADDRESS): 1784 150th Street, San Leandro

GLOBAL ID NO.: T0600101230

ADDRESS: 1144-65TH Street, Oakland, CA 94608

PDF DELIVERABLE TO :Shelloaklanderd@cambria-env.com

PHONE NO.: 510-420-3339

E-MAIL: sdalie@cambria-env.com

CONSULTANT PROJECT NO.: 244-0612

PROJECT CONTACT (Hardcopy or PDF Report to): Stu Dalie

SAMPLER NAME: STU DALIE

LAB USE ONLY

TELEPHONE: 510-420-3339 FAX: 510-420-9170 E-MAIL: sdalie@cambria-env.com

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

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

Please cc copy of lab report to kepetryna@equiva.com and sdalie@cambria-env.com

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (4B-)	TPH - Diesel, Extractable (8015m)	MTBE (8260B) Confirmation, See Note	TEMPERATURE ON RECEIPT C°
	MW8@5'	10/4-Oct	0950	soil	1	X	X	X																ON ICE -01
	MW8@10'		1000																					-02
	MW8@15'		1015																					-03
	MW8@20'		1030																					-04
	MW8@25'		1045																					-05
	MW8-W-		1100	Water	3																			-06
	SB9@22'		1100		1																			-07
	SB9-W-		1115	Water	3																			-08

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

Relinquished by: (Signature)	Received by: (Signature) SAPE Location 6202 Hollis St	Date: 10/4/02 10/4/02	Time: 500
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) John Cuttle / Kiff Analytical	Date: 100702	Time: 1005

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client

10/15/00 Revision

Q&Q Graphic (714) 898-9702

KIFF ANALYTICAL LLC

Report Number : 29015
Date : 10/16/02

Stu Dalie
Cambria Environmental Technology Inc
6262 Hollis Street
Emeryville, CA 94608

Subject : 1 Water Sample and 7 Soil Samples
Project Name : 1784 150th Street, San Leandro
Project Number : 244-0612
P.O. Number : 98996068

Dear Mr. Dalie,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 29015
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : **SB7@ 5'** Matrix : Soil Lab Number : 29015-01
Sample Date :10/3/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/16/02
Toluene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/16/02
Ethylbenzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/16/02
Total Xylenes	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/16/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/16/02
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	10/16/02
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	10/16/02
4-Bromofluorobenzene (Surr)	89.7		% Recovery	EPA 8260B	10/16/02

Sample : **SB7@ 10'** Matrix : Soil Lab Number : 29015-02
Sample Date :10/3/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Toluene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Ethylbenzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Total Xylenes	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/12/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/12/02
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	10/12/02
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	99.1		% Recovery	EPA 8260B	10/12/02

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 29015
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : SB7@ 15' Matrix : Soil Lab Number : 29015-03
Sample Date :10/3/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/16/02
Toluene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/16/02
Ethylbenzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/16/02
Total Xylenes	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/16/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/16/02
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	10/16/02
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	10/16/02
4-Bromofluorobenzene (Surr)	96.5		% Recovery	EPA 8260B	10/16/02

Sample : SB7@ 20' Matrix : Soil Lab Number : 29015-04
Sample Date :10/3/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/15/02
Toluene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/15/02
Ethylbenzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/15/02
Total Xylenes	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/15/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/15/02
TPH as Gasoline	**< 1.0**	1.0	mg/Kg	EPA 8260B	10/15/02
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	10/15/02
4-Bromofluorobenzene (Surr)	98.6		% Recovery	EPA 8260B	10/15/02

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 29015
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : **SB7@ 25'** Matrix : Soil Lab Number : 29015-05
Sample Date :10/3/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/15/02
Toluene	**0.0060**	0.005	mg/Kg	EPA 8260B	10/15/02
Ethylbenzene	**0.086**	0.005	mg/Kg	EPA 8260B	10/15/02
Total Xylenes	**0.13**	0.010	mg/Kg	EPA 8260B	10/15/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/15/02
TPH as Gasoline	**11**	1.0	mg/Kg	EPA 8260B	10/15/02
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	10/15/02
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	10/15/02

Sample : **SB7@ 30'** Matrix : Soil Lab Number : 29015-06
Sample Date :10/3/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.025**	0.025	mg/Kg	EPA 8260B	10/16/02
Toluene	**0.19**	0.025	mg/Kg	EPA 8260B	10/16/02
Ethylbenzene	**0.89**	0.025	mg/Kg	EPA 8260B	10/16/02
Total Xylenes	**3.7**	0.025	mg/Kg	EPA 8260B	10/16/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/16/02
TPH as Gasoline	**68**	5.0	mg/Kg	EPA 8260B	10/16/02
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	10/16/02
4-Bromofluorobenzene (Surr)	98.8		% Recovery	EPA 8260B	10/16/02

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 29015
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : **SB7@ 32'** Matrix : Soil Lab Number : 29015-07
Sample Date :10/3/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.005**	0.005	mg/Kg	EPA 8260B	10/15/02
Toluene	**0.0069**	0.005	mg/Kg	EPA 8260B	10/15/02
Ethylbenzene	**0.025**	0.005	mg/Kg	EPA 8260B	10/15/02
Total Xylenes	**0.11**	0.010	mg/Kg	EPA 8260B	10/15/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/15/02
TPH as Gasoline	**1.2**	1.0	mg/Kg	EPA 8260B	10/15/02
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	10/15/02
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	10/15/02

Sample : **SB7-W-** Matrix : Water Lab Number : 29015-08
Sample Date :10/3/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**59**	10	ug/L	EPA 8260B	10/13/02
Toluene	**590**	10	ug/L	EPA 8260B	10/13/02
Ethylbenzene	**1900**	10	ug/L	EPA 8260B	10/13/02
Total Xylenes	**7300**	10	ug/L	EPA 8260B	10/13/02
Methyl-t-butyl ether (MTBE)	**< 100**	100	ug/L	EPA 8260B	10/13/02
TPH as Gasoline	**60000**	2000	ug/L	EPA 8260B	10/16/02
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	10/13/02
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	10/13/02

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29015

Date : 10/16/02

QC Report : Method Blank Data

Project Name : **1784 150th Street, San Leandro**

Project Number : **244-0612**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/13/02
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/13/02
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/13/02
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/13/02
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	10/13/02
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/13/02
Toluene - d8 (Surr)	103		%	EPA 8260B	10/13/02
4-Bromofluorobenzene (Surr)	94.4		%	EPA 8260B	10/13/02
Benzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/9/02
Toluene	< 0.005	0.005	mg/Kg	EPA 8260B	10/9/02
Ethylbenzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/9/02
Total Xylenes	< 0.005	0.005	mg/Kg	EPA 8260B	10/9/02
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/9/02
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/9/02
Toluene - d8 (Surr)	100		%	EPA 8260B	10/9/02
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	10/9/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29015

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/16/02

Project Name : **1784 150th Street, San**

Project Number : **244-0612**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	29037-26	<0.50	65.8	66.2	67.7	69.3	ug/L	EPA 8260B	10/13/02	103	105	1.76	70-130	25
Toluene	29037-26	<0.50	65.8	66.2	66.5	68.2	ug/L	EPA 8260B	10/13/02	101	103	1.81	70-130	25
Tert-Butanol	29037-26	<5.0	329	331	335	297	ug/L	EPA 8260B	10/13/02	102	89.6	12.9	70-130	25
Methyl-t-Butyl Ether	29037-26	<0.50	65.8	66.2	61.6	61.6	ug/L	EPA 8260B	10/13/02	93.6	93.1	0.589	70-130	25
Benzene	29013-01	<0.0050	0.0425	0.0382	0.0311	0.0296	mg/Kg	EPA 8260B	10/9/02	73.3	77.6	5.70	70-130	25
Toluene	29013-01	<0.0050	0.0425	0.0382	0.0316	0.0304	mg/Kg	EPA 8260B	10/9/02	74.4	79.7	6.85	70-130	25
Tert-Butanol	29013-01	<0.0050	0.212	0.191	0.173	0.163	mg/Kg	EPA 8260B	10/9/02	81.3	85.6	5.13	70-130	25
Methyl-t-Butyl Ether	29013-01	<0.0050	0.0425	0.0382	0.0348	0.0305	mg/Kg	EPA 8260B	10/9/02	82.0	80.0	2.47	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29015

Date : 10/16/02

QC Report : Laboratory Control Sample (LCS)

Project Name : **1784 150th Street, San**

Project Number : **244-0612**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	10/13/02	106	70-130
Toluene	40.0	ug/L	EPA 8260B	10/13/02	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/13/02	79.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/13/02	91.3	70-130
Benzene	0.0406	mg/Kg	EPA 8260B	10/9/02	91.2	70-130
Toluene	0.0406	mg/Kg	EPA 8260B	10/9/02	86.6	70-130
Tert-Butanol	0.203	mg/Kg	EPA 8260B	10/9/02	80.0	70-130
Methyl-t-Butyl Ether	0.0406	mg/Kg	EPA 8260B	10/9/02	77.7	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL

720 Olive Drive, Suite D

Davis, CA 95616

(530) 297-4800 (530) 297-4803 fax

SHELL Chain Of Custody Record

29015

Shell Project Manager to be invoiced:

☑ SCIENCE & ENGINEERING Karen Petryna

☐ TECHNICAL SERVICES

☐ CRMT HOUSTON

INCIDENT NUMBER (S&E ONLY): 98996062

SAP or CRMT NUMBER (TS/CRMT): [redacted]13609

DATE: 10/03/02

PAGE: 1 of 1

SAMPLING COMPANY: Cambria Environmental Technology	LOG CODE: CETO	SITE ADDRESS): 1784 150th Street, San Leandro	GLOBAL ID NO.: T0600101230
ADDRESS: 1144-65TH Street, Oakland, CA 94608	EDF DELIVERABLE TO :Shelloaklanderdf@cambria-env.com	PHONE NO.: 510-420-3339	E-MAIL: sdalie@cambria-env.com
PROJECT CONTACT (Hardcopy or PDF Report to): Stu Dalie	SAMPLER NAME: STU DALIE		CONSULTANT PROJECT NO.: 244-0612
TELEPHONE: 510-420-3339	FAX: 510-420-9170	E-MAIL: sdalie@cambria-env.com	LAB USE ONLY

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

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

Please cc copy of lab report to kepetryna@equiva.com and sdalie@cambria-env.com

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (48-)		TPH - Diesel, Extractable (8015m)		MTBE (8260B) Confirmation, See Note	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes / TEMPERATURE ON RECEIPT C°
✓	SB7@5'	10/3/02	1030	soil	1	X	X	X																		ON ICE 01
✓	SB7@10'		1045																							02
✓	SB7@15'		1100																							03
✓	SB7@20'		1115																							04
✓	SB7@25'		1130																							05
✓	SB7@30'		1145																							06
✓	SB7@32		1150																							07
[redacted]																										
✓	SB7-W-	10/3/02	1700	Water	3	X	X	X																		08

Relinquished by: (Signature)	Received by: (Signature) 760 Hollis St	Date: 10/3/02	Time:
Relinquished by: (Signature)	Received by: (Signature) SFPL Logistics	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) K. Brunsen Kiff Analytical	Date: 100402	Time: 1045

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/18/00 Revision

*QBQ Graphics (714) 898-9702

KIFF ANALYTICAL LLC

Report Number : 29056
Date : 10/16/02

Stu Dalie
Cambria Environmental Technology Inc
6262 Hollis Street
Emeryville, CA 94608

Subject : 5 Soil Samples
Project Name : 1784 150th Street, San Leandro
Project Number : 244-0612
P.O. Number : 98996068

Dear Mr. Dalie,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 29056
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : **SP A** Matrix : Soil Lab Number : 29056-01
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	**42**	5.0	mg/Kg	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	98.5		% Recovery	EPA 8260B	10/12/02

Sample : **SP B** Matrix : Soil Lab Number : 29056-02
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	**54**	5.0	mg/Kg	EPA 8260B	10/15/02
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	10/15/02

Sample : **SP C** Matrix : Soil Lab Number : 29056-03
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	**82**	50	mg/Kg	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	99.0		% Recovery	EPA 8260B	10/12/02

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 29056
Date : 10/16/02

Project Name : **1784 150th Street, San Leandro**
Project Number : **244-0612**

Sample : **SP D** Matrix : Soil Lab Number : 29056-04
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	**2.8**	1.0	mg/Kg	EPA 8260B	10/16/02
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	10/16/02

Sample : **SP (A,B,C,D)** Matrix : Soil Lab Number : 29056-05
Sample Date :10/4/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.025**	0.025	mg/Kg	EPA 8260B	10/15/02
Toluene	**0.12**	0.025	mg/Kg	EPA 8260B	10/15/02
Ethylbenzene	**1.0**	0.025	mg/Kg	EPA 8260B	10/15/02
Total Xylenes	**5.4**	0.050	mg/Kg	EPA 8260B	10/15/02
Methyl-t-butyl ether (MTBE)	**< 0.5**	0.5	mg/Kg	EPA 8260B	10/15/02
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	10/15/02
4-Bromofluorobenzene (Surr)	98.3		% Recovery	EPA 8260B	10/15/02

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29056

Date : 10/16/02

QC Report : Method Blank Data

Project Name : **1784 150th Street, San Leandro**

Project Number : **244-0612**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/7/02
Toluene	< 0.005	0.005	mg/Kg	EPA 8260B	10/7/02
Ethylbenzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/7/02
Total Xylenes	< 0.005	0.005	mg/Kg	EPA 8260B	10/7/02
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/7/02
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/7/02
Toluene - d8 (Surr)	98.1		%	EPA 8260B	10/7/02
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	10/7/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29056

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/16/02

Project Name : **1784 150th Street, San**

Project Number : **244-0612**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	29017-05	<0.0050	0.0391	0.0395	0.0400	0.0324	mg/Kg	EPA 8260B	10/7/02	102	82.0	22.1	70-130	25
Toluene	29017-05	<0.0050	0.0391	0.0395	0.0386	0.0313	mg/Kg	EPA 8260B	10/7/02	98.8	79.2	22.0	70-130	25
Tert-Butanol	29017-05	<0.0050	0.195	0.198	0.194	0.181	mg/Kg	EPA 8260B	10/7/02	99.5	91.5	8.39	70-130	25
Methyl-t-Butyl Ether	29017-05	<0.0050	0.0391	0.0395	0.0344	0.0334	mg/Kg	EPA 8260B	10/7/02	88.1	84.6	4.02	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29056

Date : 10/16/02

QC Report : Laboratory Control Sample (LCS)

Project Name : **1784 150th Street, San**

Project Number : **244-0612**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0397	mg/Kg	EPA 8260B	10/7/02	101	70-130
Toluene	0.0397	mg/Kg	EPA 8260B	10/7/02	97.8	70-130
Tert-Butanol	0.198	mg/Kg	EPA 8260B	10/7/02	91.4	70-130
Methyl-t-Butyl Ether	0.0397	mg/Kg	EPA 8260B	10/7/02	91.0	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Calscience Environmental Laboratories, Inc.

October 16, 2002

Joel Kiff
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Subject: **Calscience Work Order No.:** **02-10-0497**
Client Reference: **1784 150th Street, San Leandro**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/9/2002 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 Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis 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,

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

Michael J. Crisostomo
Quality Assurance Manager

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 10/09/02
Work Order No: 02-10-0497
Preparation: Total Digestion
Method: EPA 6010B

Project: 1784 150th Street, San Leandro

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
SP (A,B,C,D)	02-10-0497-1	10/04/02	Solid	10/09/02	10/10/02	021009L01A

Parameter	Result	RL	DF	Qual	Units
Lead	2.33	0.50	1		mg/kg

Method Blank	097-01-002-3,690	N/A	Solid	10/09/02	10/09/02	021009L01A

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 10/09/02
Work Order No: 02-10-0497
Preparation: Total Digestion
Method: EPA 6010B

Project: 1784 150th Street, San Leandro

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
02-10-0489-1	Solid	ICP 3300	10/09/02	10/09/02	021009S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	104	104	75-125	1	0-20	

Calscience Environmental Laboratories, Inc.

Quality Control - Laboratory Control Sample

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 10/09/02
Work Order No: 02-10-0497
Preparation: Total Digestion
Method: EPA 6010B

Project: 1784 150th Street, San Leandro

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-01-002-3,680	Solid	ICP 3300	10/09/02	021009-I-01	021009L01A

Parameter	Conc Added	Conc Recovered	%Rec	%Rec CL	Qualifiers
Lead	50.0	54.0	108	80-120	

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 02-10-0497

Qualifier	Definition
ND	Not detected at indicated reporting limit.

KIFF ANALYTICAL LLC

2795 Second Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4803

Cal Science Environmental
7440 Lincoln Way
Garden Grove, CA 92841
714-895-5494

Lab No. 0497 Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF to): Joel Kiff

EDF Report? ___ Yes X No

Recommended but not mandatory to complete this section:

Company/Address: Kiff Analytical, LLC

Sampling Company Log Code:

Phone No.: FAX No.:

Global ID:

Project Number: 244-0612 P.O. No.: 29056

EDF Deliverable to (Email Address):

Project Name: 1784 150th Street, San Leandro

E-mail address: inbox@kiffanalytical.com

Project Address:

Analysis Request — Date due: October 21, 2002

Sample Designation	Sampling: Date	Sampling: Time	Container: Glass Jar	Container: Poly	Container: Amber	Container:	Container:	Preservative: HCl	Preservative: HNO3	Preservative: ICE	Preservative: NONE	Preservative:	Matrix: WATER	Matrix: SOIL	Matrix:	TTLC Lead	STLC Lead if TTLC => 50 Mg/KG	ORGANIC Lead if TTLC => 13 MG/KG					For Lab Use Only
SP (A,B,C,D)	10/4/02	200	1							X				X		X	X	X					X	

Relinquished by:	Date	Time	Received by:
Dave Tu - Kiff Analytical	100802	1910	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 100902	Time 0930	Received by Laboratory:

Remarks: Return Shipped Coolers

Incident# 98996068

Bill to:

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 02-10-0497

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: KIFF DATE: 10/09/02

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.
_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

2 °C Temperature blank.
_____ °C IR thermometer.
_____ Ambient temperature.

Initial: NC

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: ✓ No (Not Intact): _____ Not Applicable (N/A): _____

Initial: NC

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace			✓
Tedlar bag(s) free of condensation			✓

Initial: NC

COMMENTS:

KIFF ANALYTICAL

720 Olive Drive, Suite D

Davis, CA 95616

(530) 297-4800 (530) 297-4803 fax

SHELL Chain Of Custody Record

Shell Project Manager to be invoiced:

☑ SCIENCE & ENGINEERING Karen Petryna

☐ TECHNICAL SERVICES

☐ CRMT-HOUSTON

29056

INCIDENT NUMBER (S&E ONLY): 98996068

SAP or CRMT NUMBER (TS/CRMT): 136019

DATE: 10/04/02

PAGE: 1 of 1

SAMPLING COMPANY: Cambria Environmental Technology	LOG CODE: CETO
ADDRESS: 1144-65TH Street, Oakland, CA 94608	SITE ADDRESS): 1784 150th Street, San Leandro
PROJECT CONTACT (Hardcopy or PDF Report to): Stu Dalie	GLOBAL ID NO.: T0600101230
TELEPHONE: 510-420-3339 FAX: 510-420-9170 E-MAIL: sdalie@cambria-env.com	EDF DELIVERABLE TO (Responsible Party or Designee): PHONE NO.: E-MAIL: CONSULTANT PROJECT NO.: 244-0612
	SAMPLER NAME: STU DALIE LAB USE ONLY

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

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☑

Please cc copy of lab report to kepetryna@equiva.com and sdalie@cambria-env.com

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (48-28)		TPH - Diesel, Extractable (8015m)		MTBE (8260B) Confirmation, See Note	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	SP(A,B,C,D)	4-Oct	909	soil	4	X	X	X													X					-01,02 ON ICE 03,04 705

TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature)	Received by: (Signature) 6262 Kelly St SAFE LOCATION	Date: 10/4/02	Time: 5 pm
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) John Cuttell/Kiff Analytical	Date: 100702	Time: 1006

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

Q&Q Graphics (714) 898-9702

ISSUED DATE: 05/23/97
CANCELS ISSUE: 03/05/97
ISSUED BY: RLG

MATERIAL: MINIMUM SOIL ANALYSIS FOR UST SOIL WITH GASOLINE OR DIESEL CONTAMINATION

USE FOR ARIZONA , CALIFORNIA AND NEVADA WASTE ONLY!!!

NOTE: ANALYSES ARE BASED ON CHARACTERIZATION MINIMUM. YOU MUST BE SURE THAT THE FACILITY WILL TAKE THE FOLLOWING AS ACCEPTANCE. FURTHER ANALYSIS MAY BE REQUIRED FOR CHARACTERIZATION UPON REVIEW BY THE WASTE TEAM MEMBER OR TO MEET DISPOSAL SITE REQUIREMENTS. IF THE MATERIAL IS RETURNED TO CONSULTANT, COPIES OF ALL TRANSPORTATION DOCUMENTS MUST BE SENT TO THE WASTE DISPOSAL COORDINATOR FOR RECORDING WHEN PROJECT IS COMPLETE.

MINIMUM REQUIRED TESTING

Note: If material is to be sent to a BFI facility EPA METHOD 8010 must be run IN ADDITION to the following analysis prior to requesting profile approval:

TPH = TOTAL PETROLEUM HYDROCARBONS, DHS GC-FID MOD 8015
GASOLINE OR DIESEL AS REQUIRED.
BTXE = EPA 8020 + MTBE
CAM METALS = TTLC LEAD, STLC LEAD IF TTLC => 50 MG/KG AND/OR
ORGANIC LEAD IF TTLC => 13 MG/KG

AQUATIC BIOASSAY (FISH TOX) IS ONLY TO BE RUN ON SAMPLES WITH GREATER THAN 5000 PPM TPH. COMPOSITE A MAXIMUM OF 4 SAMPLES.

AQUATIC BIOASSAY (FISH TOX) = PART 800 OF "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER (15TH EDITION)"

LABORATORY INSTRUCTIONS (MINIMUM GUIDELINES ONLY)

- 8015/8020 TO BE BILLED AS "COMBO" WITHOUT EXCEPTION
- TPH REQUIRED FOR ALL SAMPLES.
- ALL OTHER TESTS REQUIRED TO BE RUN ON COMPOSITE(S). MAXIMUM 4 SAMPLES PER COMPOSITE.
- STLC REQUIRED FOR METALS WITH TTLC VALUE 10 X STLC MAXIMUM.
- ORGANIC ANALYSIS REQUIRED FOR TTLC LEAD OF 13 MG/KG OR GREATER.
- LABORATORY IS TO SUPPLY QA/QC INFORMATION WITH ALL ANALYTICAL REPORTS.
- MAIL OR FAX ALL ANALYSIS TO PERSON REQUESTING ANALYSIS.

PROCEDURE ORIGINAL DATE: 07/10/90
PROCEDURE REVISED DATE: 03/05/97

ATTACHMENT D

Disposal Confirmation

Disposal Confirmation

Request for Transportation Received: 10/22/02

Consultant Information

Company:	Cambria Environmental
Contact:	Stewart Dalie
Phone:	510-420-3339
Fax:	510-420-9170

Site Information

Station #:	N/A
Street Address:	5489 Thornton Ave.
City, State, ZIP:	Newark, CA
Customer:	Shell Oil Company RESA-0023-LDC
RIPR #:	17066
SAP # / Location:	276501
Incident #:	98995713
Location / WIC #:	N/A
Environmental Engineer:	Karen Petryna
Material Description:	Soil
Estimated Quantity:	6 Yards
Service Requested Date:	10/29/02
Disposal Facility:	Allied-BFI
Contact:	Griffith, Joe
Phone:	800-204-4242
Approval #:	2551
Date of Disposal:	10/29/02
Actual Tonnage	1.00 Ton
Transporter:	Manley & Sons Trucking, Inc.
Contact:	Glenell Forbes
Phone:	916 381-6864
Fax:	916 381-1573
Invoice:	50332
Date of Invoice:	11/7/02