

C A M B R I A

ENVIRONMENTAL
PROTECTION

99 FEB -5 PM 3:16

February 3, 1999

2/8/99 Need permanent MWS

Ms. Eva Chu
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Re: **Secondary Subsurface Investigation Report**
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, California
Incident # 98995328
Cambria Project# 240-0548



Dear Ms. Chu:

On behalf of Equiva Services LLC (Equiva), Cambria Environmental Technology, Inc. (Cambria) is submitting the results of the subsurface investigation for the above-referenced site. The investigation objective was to evaluate soil and ground water conditions in the assumed downgradient direction from the underground storage tank (UST) complex. A site summary and the results of our investigation are presented below.

BACKGROUND

Site Location: This operating Shell-branded service station is located at the intersection of Dublin Boulevard and San Ramon Road in Dublin, California (Figure 1). The surrounding area is primarily commercial with retail businesses adjacent to the site. A Chevron service station is located northeast of the Shell-branded site.

Dispenser and Piping Removal and Replacement: In June 1997, soil samples were collected and analyzed during dispenser and piping replacement. Maximum detected concentrations of total purgable petroleum hydrocarbons as gasoline (TPPH) and total extractable petroleum hydrocarbons as diesel (TEPH) were 690 milligrams per kilogram (mg/kg) and 12,000 mg/kg, respectively. The highest detected benzene and methyl tert-butyl ether (MTBE) concentrations during the same sampling event were 0.55 mg/kg and 8.9 mg/kg, respectively, both from beneath the center dispenser in the northern pump island.

Oakland, CA
Sonoma, CA
Portland, OR
Seattle, WA

**Cambria
Environmental
Technology, Inc.**

Underground Storage Tanks: Three gasoline USTs and one diesel UST are in use on site.

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

Site Wells: On August 8, 1997, six tank backfill wells were abandoned in accordance with permit #97433 issued by the Alameda County Flood Control and Water Conservation District Zone 7 (Zone 7). One tank backfill well still exists on site. Water was not encountered at 12 ft below ground surface (bgs), the maximum tank backfill well depth.

Surface Waters: Dublin Creek is located within 1/4-mile south of the site.

Ground Water Depth and Flow Direction: Historical data from wells adjacent to the site, reviewed prior to this investigation, indicated that ground water is typically located 20 to 25 ft bgs. Topography slopes slightly to the east, and ground water flow direction was estimated to be toward the east to southeast.




INVESTIGATION PROCEDURES

To evaluate soil and groundwater conditions in the assumed downgradient direction from the UST complex, Cambria drilled two borings as proposed in our June 15, 1998 work plan. The work plan was approved in a letter from the Alameda County Health Care Services Agency (ACHCSA) dated June 24, 1998. Drilling procedures are summarized below. Analytic results for soil and ground water are summarized in Tables 1 and 2 and the analytical report is presented in Attachment A. Boring logs and Cambria's standard field procedures for Geoprobe® sampling are presented in Attachments B and C, respectively.

Field Activities

<i>Personnel Present:</i>	<i>Title:</i>	<i>Organization:</i>
John Riggi	Geologist	Cambria
Paul Rogers	Head Driller	Gregg Drilling
 <i>Permit:</i>	Zone 7 Water Agency Permit #98114 (Attachment D).	
 <i>Drilling Date:</i>	August 5, 1998	
 <i>Drilling Method:</i>	Hydraulic push with roto-hammer (Geoprobe®).	
 <i>Number of Borings:</i>	Two (SB-1 and SB-2, Figure 1).	

- 
- Ground Water Depth:** Ground water was encountered in borings SB-1 and SB-2 at 25 ft bgs.
- Sediment Lithology:** The shallow site subsurface consists mostly of gravelly sand with silt to a depth of approximately 5 feet below ground surface (ft bgs). Silty sand and sandy gravel with silt was encountered to a depth of approximately 8 to 12 ft bgs, followed by clayey sand to a depth of 22.5 ft bgs and silty clay from 22.5 ft to 30 ft bgs. Soils investigated were generally of low to moderate estimated permeability to the maximum explored depth of 30 ft bgs (Attachment B).
- Chemical Analysis:** Selected soil and ground water samples were analyzed for TPH and TEPH by modified EPA Method 8015, and BTEX and MTBE by EPA Method 8020. Detected MTBE concentrations were confirmed in sample SB-1 by EPA Method 8260.
- Backfill Method:** Borings were backfilled with cement grout to match the existing grade.

INVESTIGATION RESULTS

Hydrocarbon Distribution in Soil: Samples from boring SB-2 reported low concentrations of TEPH at 5 and 10 ft bgs, with all other analytes reported below detection limits to an explored depth of 20 ft bgs. Maximum concentrations of 250 mg/kg TPH and 2.8 mg/kg benzene were reported in soil boring sample SB-2(30'). Samples collected from soil boring SB-1 reported low concentrations of TEPH to an explored depth of 15 ft bgs and a trace concentration of 0.074 mg/kg MTBE. All other analytes were below detection limits in SB-1 at 15 ft bgs. Benzene was reported below detection limits in all soil samples from SB-1. Petroleum hydrocarbons and MTBE concentrations detected at depths of 20 and 25 ft bgs appear to be present due to the presence of these compounds in groundwater.

Hydrocarbon Distribution in Ground Water: Benzene was reported below detection limits in ground water samples collected from SB-1 and SB-2, however detection limits were 1000 micrograms per liter ($\mu\text{g/L}$) and 25 $\mu\text{g/L}$ respectively. A maximum concentration of **140,000**

$\mu\text{g/L}$ TPPH was reported in ground water sample SB-1. Analysis by EPA Method 8260 reported a maximum MTBE concentration of 14,000 $\mu\text{g/L}$ in the ground water sample SB-1.

CONCLUSIONS

Concentrations of petroleum hydrocarbons and MTBE in vadose zone soils are minimal. Elevated concentrations in soil were detected only in the capillary fringe and saturated zones.



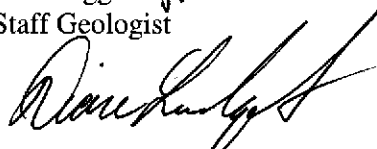
Petroleum hydrocarbons and MTBE were detected at elevated levels in boring SB-1. These concentrations attenuate approximately one order of magnitude in boring SB-2, which is located approximately 40 ft away in the assumed downgradient direction.

CLOSING

We appreciate your assistance with this project. Please call Darryk Ataide at 510-420-3339 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.


John Riggi
Staff Geologist


Diane M. Lundquist, P.E.
Principal Engineer



Attachments: A - Analytical Report for Soil and Ground Water
B - Soil Boring Logs
C - Standard Field Procedures for Geoprobe® Sampling
D - Drilling Permit

cc: Ms. Karen Petryna, Equiva Services LLC, P.O. Box 6249, Carson, CA 90749-6249
Wyman Hong, Alameda County Flood Control District, 5997 Parkside Drive,
Pleasanton, California, 94566

EXPLANATION

SB-1 ● Soil boring location

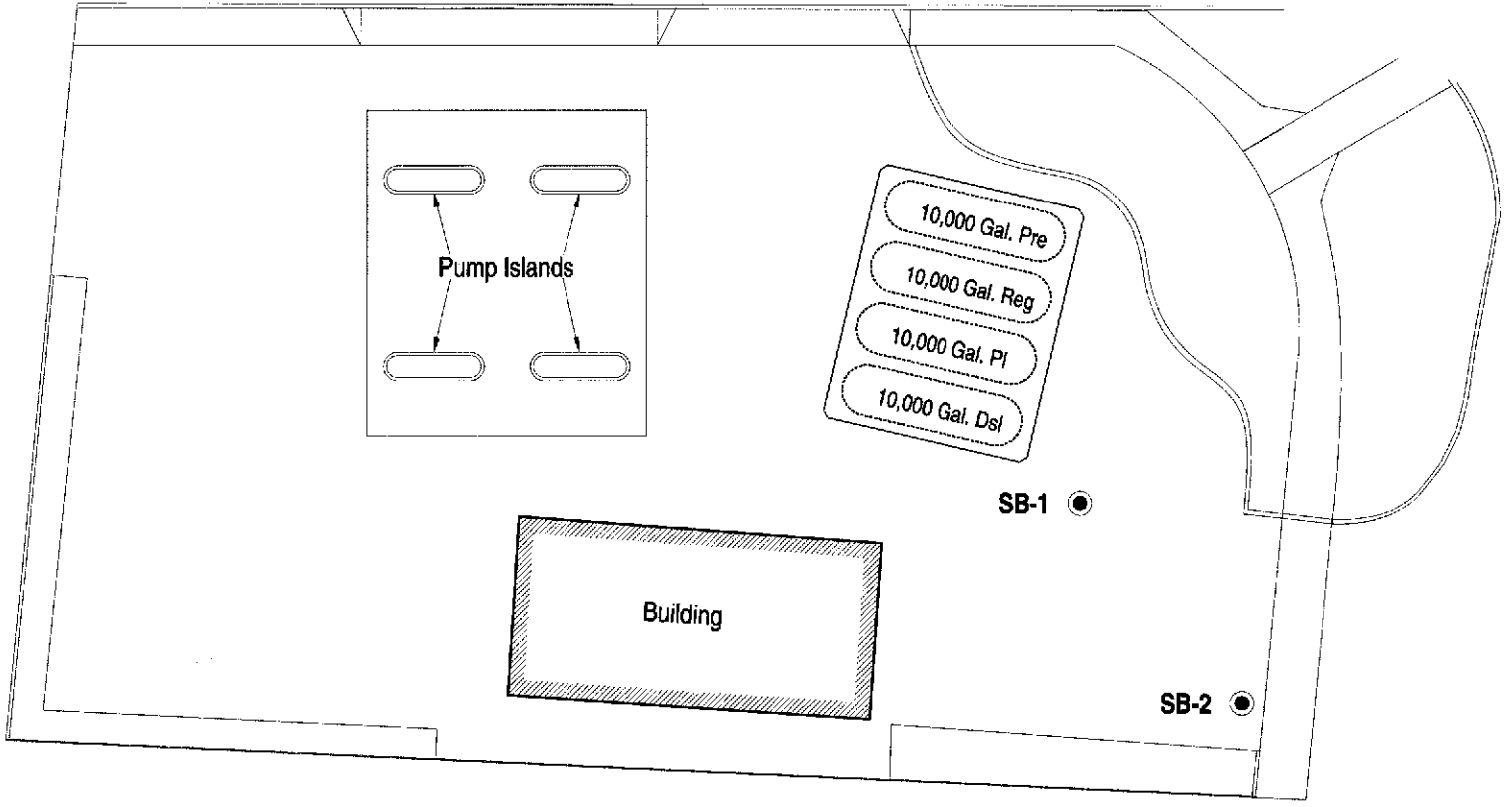


FIGURE
1

Shell Service Station
11989 Dublin Boulevard
Dublin, California



C A M B R I A

Soil Boring Location Map

August 4, 1998

CAMBRIA

Table 1. Soil Boring Analytic Data - Shell-branded Service Station - WIC# 204-2277-0204, 11989 Dublin Boulevard, Dublin, California

Sample ID	TPPH	TEPH	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	(Concentrations reported in milligrams per kilogram)						
August 5, 1998 Samples:							
SB-1 (5')	<1.0	13	<0.025	<0.0050	<0.0050	<0.0050	<0.0050
SB-1 (10')	<1.0	2.4	<0.025	<0.0050	<0.0050	<0.0050	<0.0050
SB-1 (15')	<1.0	1.6	0.074	<0.0050	<0.0050	<0.0050	<0.0050
SB-1 (20')	<1.0	<1.0	0.90	<0.0050	<0.0050	<0.0050	<0.0050
SB-1 (25')	46	120	1.4	<0.025	1.0	<0.025	0.052
SB-1 (30')	26	2.3	1.1	<0.025	0.35	0.037	0.093
SB-2 (5')	<1.0	3.2	<0.025	<0.0050	<0.0050	<0.0050	<0.0050
SB-2 (10')	<1.0	1.3	<0.025	<0.0050	<0.0050	<0.0050	<0.0050
SB-2 (15')	<1.0	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050
SB-2 (20')	<1.0	<1.0	<0.025	<0.0050	<0.0050	<0.0050	<0.0050
SB-2 (25')	91	13	0.43	1.0	0.26	<0.025	0.22
SB-2 (30')	250	42	<0.50	2.8	0.72	<0.10	0.69

Abbreviations/Notes:

TPPH = Total purgable petroleum hydrocarbons as gasoline by modified EPA Method 8015.

TEPH = Total extractable petroleum hydrocarbons as diesel by modified EPA Method 8015.

Benzene, ethylbenzene, toluene, xylenes by EPA Method 8020.

MTBE = Methyl tert-butyl ether by EPA Method 8020. Parenthesis indicate confirmation analysis by EPA Method 8260

<n = Below detection limits for n milligrams per kilograms

CAMBRIA

Table 2. Ground Water Analytic Data - Shell-branded Service Station - WIC# 204-2277-0204, 11989 Dublin Boulevard, Dublin, California

Sample ID	TPPH	TEPH	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	(Concentrations reported in micrograms per liter)						
August 5, 1998 Samples:							
SB-1	140,000	54,000	16,000 (14,000)	<1,000	<1,000	<1,000	<1,000
SB-2	10,000	7,000	8,400	<25	210	<25	<25

Abbreviations/Notes:

TPPH = Total purgable petroleum hydrocarbons as gasoline by modified EPA Method 8015.

TEPH = Total extractable petroleum hydrocarbons as diesel by modified EPA Method 8015.

Benzene, ethylbenzene, toluene, xylenes by EPA method 8020.

MTBE = Methyl tert-butyl ether by EPA Method 8020. Parenthesis indicate confirmation analysis by EPA Method 8260

<n = Below detection limit of n micrograms per liter

Attachment A
Analytical Report for Soil and Ground Water



Sequoia Analytical

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Cambria
1144 65th St. Suite C
Oakland, CA 94608
Attention: John Riggi

Project: Shell 11989 Dublin Blvd.

Enclosed are the results from samples received at Sequoia Analytical on August 6, 1998.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9808404 -01	SOLID, SB-1 (5')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -01	SOLID, SB-1 (5')	08/05/98	TPHD_S Extractable TPH
9808404 -02	SOLID, SB-1 (10')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -02	SOLID, SB-1 (10')	08/05/98	TPHD_S Extractable TPH
9808404 -03	SOLID, SB-1 (15')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -03	SOLID, SB-1 (15')	08/05/98	TPHD_S Extractable TPH
9808404 -04	SOLID, SB-1 (20')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -04	SOLID, SB-1 (20')	08/05/98	TPHD_S Extractable TPH
9808404 -05	SOLID, SB-1 (25')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -05	SOLID, SB-1 (25')	08/05/98	TPHD_S Extractable TPH
9808404 -06	SOLID, SB-1 (30')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -06	SOLID, SB-1 (30')	08/05/98	TPHD_S Extractable TPH
9808404 -07	LIQUID, SB-1	08/05/98	TPHD_W Extractable TPH
9808404 -07	LIQUID, SB-1	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -07	LIQUID, SB-1	08/05/98	MTBE by 8260
9808404 -08	SOLID, SB-2 (5')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -08	SOLID, SB-2 (5')	08/05/98	TPHD_S Extractable TPH
9808404 -09	SOLID, SB-2 (10')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -09	SOLID, SB-2 (10')	08/05/98	TPHD_S Extractable TPH
9808404 -10	SOLID, SB-2 (15')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -10	SOLID, SB-2 (15')	08/05/98	TPHD_S Extractable TPH

SEQUOIA ANALYTICAL





Sequoia Analytical

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FAX (707) 792-0342

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9808404 -11	SOLID, SB-2 (20')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -11	SOLID, SB-2 (20')	08/05/98	TPHD_S Extractable TPH
9808404 -12	SOLID, SB-2 (25')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -12	SOLID, SB-2 (25')	08/05/98	TPHD_S Extractable TPH
9808404 -13	SOLID, SB-2 (30')	08/05/98	Purgeable TPH/BTEX/MTBE
9808404 -13	SOLID, SB-2 (30')	08/05/98	TPHD_S Extractable TPH
9808404 -14	LIQUID, SB-2	08/05/98	TPHD_W Extractable TPH
9808404 -14	LIQUID, SB-2	08/05/98	Purgeable TPH/BTEX/MTBE

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL



Peggy Penner
Project Manager





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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (5') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-01	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
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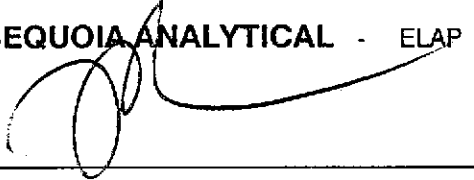
QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	100
4-Bromofluorobenzene	60 140	85

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





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Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (5') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-01	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	13 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 123

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Renner
Project Manager





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Cambria 1144 65th St. Suite C - Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (10') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-02	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/11/98 Reported: 08/28/98
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QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11929 Dublin Blvd. Sample Descript: SB-1 (10') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-02	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
Attention: John Riggi		

QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	2.4 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (15') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-03	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.074
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	88
4-Bromofluorobenzene	60 140	109

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Sheli 11989 Dublin Blvd. Sample Descript: SB-1 (15") Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-03	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
Attention: John Riggi		

QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	1.6 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 69

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





Sequoia
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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (20') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-04	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.90
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

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Peggy Penner
Project Manager





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Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (20') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-04	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	50

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (25') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-05	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
Attention: John Riggi		

QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP1

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	5.0	46
Methyl t-Butyl Ether	0.12	1.4
Benzene	0.025	N.D.
Toluene	0.025	1.0
Ethyl Benzene	0.025	N.D.
Xylenes (Total)	0.025	0.052
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (25') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-05	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	5.0	120
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	89

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (30') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-06	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP1

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	5.0	26
Methyl t-Butyl Ether	0.12	1.1
Benzene	0.025	N.D.
Toluene	0.025	0.35
Ethyl Benzene	0.025	0.037
Xylenes (Total)	0.025	0.093
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 (30") Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-06	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
Attention: John Riggi		

QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	2.3 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 80

Analytes reported as N.D. were not present above the stated limit of detection.

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Peggy Renner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9808404-07	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC0812980HBPEXC
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	1000	54000 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 107

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





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Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808404-07	Sampled: 08/05/98 Received: 08/06/98 Analyzed: 08/19/98 Reported: 08/28/98
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QC Batch Number: GC081998BTEX30A
Instrument ID: GCHP30

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	100000	140000
Methyl t-Butyl Ether	5000	16000
Benzene	1000	N.D.
Toluene	1000	N.D.
Ethyl Benzene	1000	N.D.
Xylenes (Total)	1000	N.D.
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	101

Analytes reported as N.D. were not present above the stated limit of detection.

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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-1 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9808404-07	Sampled: 08/05/98 Received: 08/06/98 Analyzed: 08/27/98 Reported: 08/28/98
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QC Batch Number: MS082698MTBEH6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	334	14000
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76	114
		89

Analytes reported as N.D. were not present above the stated limit of detection.

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Peggy Fenner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (5') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-08	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
Attention: John Riggi		

QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (5') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-08	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	3.2 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	82

Analytes reported as N.D. were not present above the stated limit of detection.

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Peggy Penner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (10') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-09	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
Attention: John Riggi		

QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (10') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-09	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	1.3 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 85

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (15') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-10	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
Attention: John Riggi		

QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (15') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-10	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
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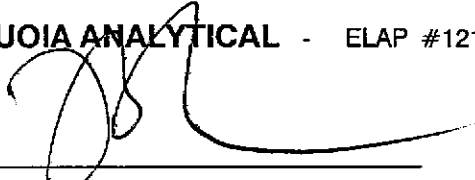
QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (20') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-11	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	82
4-Bromofluorobenzene	60 140	104

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (20') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-11	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
Attention: John Riggi		

QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	75

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (25') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-12	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	5.0	91
Methyl t-Butyl Ether	0.12	0.43
Benzene	0.025	1.0
Toluene	0.025	0.26
Ethyl Benzene	0.025	N.D.
Xylenes (Total)	0.025	0.22
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	95
4-Bromofluorobenzene	60 140	4 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


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Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (25') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-12	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	13 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 59

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (30') Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808404-13	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/11/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC081198BTEXEXB
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	20	250
Methyl t-Butyl Ether	0.50	N.D.
Benzene	0.10	2.8
Toluene	0.10	0.72
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	0.69
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	89
4-Bromofluorobenzene	60 140	1 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



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Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 (30') Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808404-13	Sampled: 08/05/98 Received: 08/06/98 Extracted: 08/12/98 Analyzed: 08/13/98 Reported: 08/28/98
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QC Batch Number: GC0812980HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	42 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 84

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


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(707) 792-1865

FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

Cambria
1144 65th St. Suite C
Oakland, CA 94608

Client Proj. ID: Shell 11989 Dublin Blvd.
Sample Descript: SB-2
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9808404-14

Sampled: 08/05/98
Received: 08/06/98
Extracted: 08/12/98
Analyzed: 08/14/98
Reported: 08/28/98

QC Batch Number: GC0812980HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	500	7000 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 99

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penber
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 11989 Dublin Blvd. Sample Descript: SB-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808404-14	Sampled: 08/05/98 Received: 08/06/98 Analyzed: 08/19/98 Reported: 08/28/98
--	---	---

QC Batch Number: GC081998BTEX30A
Instrument ID: GCHP30

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2500	10000
Methyl t-Butyl Ether	125	8400
Benzene	25	N.D.
Toluene	25	210
Ethyl Benzene	25	N.D.
Xylenes (Total)	25	N.D.
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	115

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Sequoia
Analytical

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Cambria 1144 65th St. Ste. C Oakland, CA 94608 Attention: John Riggi	Client Project ID: Shell 11989 Dublin Blvd. QC Sample Group: 9808404-01-06, -08-13	Reported: Aug 28, 1998
---	---	------------------------

QUALITY CONTROL DATA REPORT

Matrix: Solid
Method: EPA 8015M
Analyst: A. PORTER
ANALYTE: Diesel

QC Batch #: GC0812980HBPEXA

Sample No.: 9808404-6
Date Prepared: 8/12/98
Date Analyzed: 8/13/98
Instrument I.D.#: GCHP5A

Sample Conc., mg/Kg: 2.3 mg/Kg
Conc. Spiked, mg/Kg: 17

Matrix Spike, mg/Kg: 13
% Recovery: 63

Matrix
Spike Duplicate, mg/Kg: 15
% Recovery: 75

Relative % Difference: 17

RPD Control Limits: 0-50

LCS Batch#: BLK081298AS

Date Prepared: 8/12/98
Date Analyzed: 8/13/98
Instrument I.D.#: GCHP5A

Conc. Spiked, mg/Kg: 17

Recovery, mg/Kg: 14
LCS % Recovery: 82

Percent Recovery Control Limits:

MS/MSD	50-150
LCS	80-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.





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FAX (925) 988-9673
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FAX (707) 792-0342

Cambria 1144 65th St. Ste. C Oakland, CA 94608 Attention: John Riggi	Client Project ID: Shell 11989 Dublin Blvd.
QC Sample Group: 9808404-07, -14	Reported: Aug 28, 1998

QUALITY CONTROL DATA REPORT

Matrix: Liquid
Method: EPA 8015A
Analyst: G. Wardle
ANALYTE: Diesel

QC Batch #: GC0812980HBPEXC

Sample No.: DW9808114-1

Date Prepared: 8/12/98

Date Analyzed: 8/13/98

Instrument I.D.#: GCHP4A

Sample Conc., ug/L: N.D.
Conc. Spiked, ug/L: 1000

Matrix Spike, ug/L: 710
% Recovery: 71

Matrix
pike Duplicate, ug/L: 760
% Recovery: 76

Relative % Difference: 6.8

RPD Control Limits: 0-50

LCS Batch#: BLK081298CS

Date Prepared: 8/12/98

Date Analyzed: 8/13/98

Instrument I.D.#: GCHP4A

Conc. Spiked, ug/L: 1000

Recovery, ug/L: 850
LCS % Recovery: 85

Percent Recovery Control Limits:

MS/MSD	50-150
LCS	60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.





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Cambria
1144 65th St. Ste. C
Oakland, CA 94608
Attention: John Riggi

Client Project ID: Shell 11989 Dublin Blvd.

QC Sample Group: 9808404-07, -14

Reported: Aug 28, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid
Method:	EPA 8015
Analyst:	DB
ANALYTE	Gasoline

QC Batch #: GC081998BTEX30A

Sample No.: GW9808686-02

Date Prepared: 8/19/98

Date Analyzed: 8/19/98

Instrument I.D.#: GCHP30

Sample Conc., ug/L: N.D.

Conc. Spiked, ug/L: 250

Matrix Spike, ug/L: 260

% Recovery: 104

Matrix

pike Duplicate, ug/L: 240

% Recovery: 96

relative % Difference: 8.0

RPD Control Limits: 0-25

LCS Batch#: GWLCS081998A

Date Prepared: 8/19/98

Date Analyzed: 8/19/98

Instrument I.D.#: GCHP30

Conc. Spiked, ug/L: 250

LCS Recovery, ug/L: 250

LCS % Recovery: 100.0

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.





Sequoia
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FAX (707) 792-0342

Cambria
1144 65th St. Ste. C
Oakland, CA 94608
Attention: John Riggi

Client Project ID: Shell 11989 Dublin Blvd.

QC Sample Group: 9808404-01-06, -08-13

Reported: Aug 28, 1998

QUALITY CONTROL DATA REPORT

Matrix: Solid
Method: EPA 8015
Analyst: R. GECKLER

ANALYTE Gasoline

QC Batch #: GC081198BTEXEXB

Sample No.: GS9807J55-2

Date Prepared: 8/11/98
Date Analyzed: 8/11/98
Instrument I.D.#: GCHP7

Sample Conc., mg/Kg: N.D.
Conc. Spiked, mg/Kg: 5.0

Matrix Spike, mg/Kg: 4.6
% Recovery: 92

Matrix
Spike Duplicate, mg/Kg: 5.1
% Recovery: 102

Relative % Difference: 10

RPD Control Limits: 0-25

LCS Batch#: GSBLK081198B

Date Prepared: 8/11/98
Date Analyzed: 8/11/98
Instrument I.D.#: GCHP7

Conc. Spiked, mg/Kg: 5.0

Recovery, mg/Kg: 4.4
LCS % Recovery: 88

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Peggy Fenner
Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.





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Cambria Environmental Tech.
1144 65th St., Ste. C
Oakland, CA 94608
Attention: John Riggi

Client Project ID: Shell 11989 Dublin Blvd.
Matrix: Liquid

Work Order #: 9808404 -07

Reported: Aug 31, 1998

QUALITY CONTROL DATA REPORT

Analyte:	MTBE
QC Batch#:	MS082698MTBEH6A
Analy. Method:	EPA 8260
Prep. Method:	N.A.

Analyst: L. Duong
MS/MSD #: 980892902
Sample Conc.: N.D.
Prepared Date: 8/26/98
Analyzed Date: 8/26/98
Instrument I.D.#: H6
Conc. Spiked: 50 µg/L

Result: 48
MS % Recovery: 96

Dup. Result: 49
MSD % Recov.: 98

RPD: 2.1
RPD Limit: 0-25

LCS #: LCS082798
Prepared Date: 8/27/98
Analyzed Date: 8/27/98
Instrument I.D.#: H6
Conc. Spiked: 50 µg/L
LCS Result: 48
LCS % Recov.: 96

MS/MSD	60-140
LCS	70-130
Control Limits	

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9808404.CCC <1>





**Sequoia
Analytical**

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FAX (707) 792-0342

Cambria
1144 65th St. Suite C
Oakland, CA 94608
Attention: John Riggi

Client Proj. ID: Shell 11989 Dublin Blvd.

Received: 08/06/98

Lab Proj. ID: 9808404

Reported: 08/28/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 37 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL


Peggy Penner
Project Manager





SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Date: 8/5/98

Serial No: _____

Page / of 2

Site Address: 11987 Dublin Blvd Dublin CA

WIC#: 204-2277-0204

Shell Engineer: Karen Petryna Phone No.:
Fax #:

Consultant Name & Address: CAMBRIA ENVIRONMENTAL
1114 65th St. Suite C, Oakland, CA 94608

Consultant Contact: JOHN RIGGI Phone No.: 510
420-0700
Fax #: 420-9170

Comments:

Sampled by: JR 9808404

Printed Name:

Analysis Required

LAB: SEDUCIA

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4441	24 hours <input type="checkbox"/>
Site Investigation <input checked="" type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	4442	16 days <input checked="" type="checkbox"/> (normal)
Water Classfy/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	NOTE: If only Lab is open or Possible at 24/48 hrs. 1AL.
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	TPH (EPA 8015 Mod. GCs)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	MTBE 8020	MTBE 8260	Asbestos	Container Size	Preparation Used	Composite Y/N	
SB-1 (5')	8/5/98		X			1	X	X				X	X						N
SB-1 (10')			X			1	X	X				X	X						
SB-1 (15')			X			1	X	X				X	X						
SB-1 (20')			X			1	X	X				X	X						
SB-1 (25')			X			1	X	X				X	X						
SB-1 (30')			X			1	X	X				X	X						
SB-1				X		526' 24'	X	X											
SB-2 (5')			X				X	X				X	X	X					

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
01	Confirm
02	highest hit
03	w/ 8260
04	
05	
06	
07	
08	

Relinquished By (signature): John Rigg	Printed Name: JOHN RIGGI	Date: 8/6/98 Time: 3:35	Received (signature): John Frick	Printed Name: JOHN FRICK	Date: 8/6/98 Time:
Relinquished By (signature): [Signature]	Printed Name: JOHN FRICK	Date: Time:	Received (signature): [Signature]	Printed Name: MIKE YOUNG	Date: 8/6/98 Time: 1:25

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Date: 8/5/98

Page 2 of 2

Site Address: 11989 Dublin Blvd, Dublin CA
 WIC#: 204-2277-0204
 Shell Engineer: Kaeol Petryna Phone No.:
 Consultant Name & Address: CAMBRIA ENVIRONMENTAL
 1114 65th St, Suite C, Oakland, CA 94608
 Consultant Contact: DAN RIGGI Phone No.: 510
 420-0700
 Fax #: 420-9170

Analysis Required

LAB: SEBUOIA

CHECK ONE (1) BOX ONLY	CY/DT	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input checked="" type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.

Comments:
 Sampled by: JR
 Printed Name: 9808404

Sample ID	Date	Sludge	Soil	Water	Air	No. of confs.
SB-2 (10')	8/5/98		X			1
SB-2 (15')			X			1
SB-2 (20')			X			1
SB-2 (25')			X			1
SB-2 (30')			X			1
SB-2				X		5 LOTS 2 LR

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	STEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & STEX 8020	MRE 8020	MRE 8260	Asbestos	Container Size	Preparation Used	Composite Y/N

TEST AGENCY: ACDEH

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
09	* confirm
10	highest hit
11	w/ 9260
12	
13	
14	

Relinquished By (signature):
 Relinquished By (signature):
 Relinquished By (signature):

Printed Name: DAN A RIGGI
 Date: 8/6/98
 Time: 1:00 PM
 Received (signature):
 Date: 8/6/98
 Time:

Printed Name: JOHN FRICK
 Date: 8/6/98
 Time: 1:00 PM
 Received (signature):
 Date: 8/6/98
 Time:

Printed Name: MIKE YOUNG
 Date: 8/6/98
 Time: 1:53

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

Attachment B
Soil Boring Logs



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

BORING/WELL LOG

CLIENT NAME	Equilon Enterprises LLC	BORING/WELL NAME	SB-1
JOB/SITE NAME	Dublin-11989	DRILLING STARTED	05-Aug-98
LOCATION	11989 Dublin Boulevard, Dublin CA	DRILLING COMPLETED	05-Aug-98
PROJECT NUMBER	240-0548	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hydraulic push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVAL	NA
LOGGED BY	J. Riggi	DEPTH TO WATER (First Encountered)	25.0 ft (05-Aug-98)
REVIEWED BY		DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 5' bgs; located 10' SE of SE corner of UST slab.		

PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE ID	EXTENT DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
				0.5			ASPHALT	0.5	
				5	SW		Gravelly SAND with Silt: (SW); brown; moist; 10% clay, 25% silt, 40% sand, 25% gravel; low plasticity; high estimated permeability.	5.0	
				7.5	GM		Silty Sandy GRAVEL: (GM); brown; moist; 20% clay, 20% silt, 20% sand, 40% gravel; low plasticity; high estimated permeability.	7.5	
				10	GM		Sandy GRAVEL with Silt: (GM); light brown to brown; dry; 5% clay, 25% silt, 30% sand, 40% gravel; no plasticity; high estimated permeability.	12.5	
				15	SC		Clayey SAND: (SC); light brown; moist; 25% clay, 20% silt, 55% sand; low plasticity; low estimated permeability.	12.5	
				20					← Portland Type I/II
				25	CL		Silty CLAY: (CL); brown; damp; 40% clay, 35% silt, 25% fine sand; high plasticity; low estimated permeability.	22.5	
				30				30.0	Bottom of Boring @ 30 ft

WELL LOG (PID), G:\DUBLIN-1\GINT\DUB11989.GPJ DEFAULT.GDT, 1/25/99

8/5/98 ▽



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

BORING/WELL LOG

CLIENT NAME	Egilon Enterprises LLC	BORING/WELL NAME	SB-2
JOB/SITE NAME	Dublin-11989	DRILLING STARTED	05-Aug-98
LOCATION	11989 Dublin Boulevard, Dublin CA	DRILLING COMPLETED	05-Aug-98
PROJECT NUMBER	240-0548	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hydraulic push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVAL	NA
LOGGED BY	J. Riggi	DEPTH TO WATER (First Encountered)	25.0 ft (05-Aug-98)
REVIEWED BY		DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 5' bgs; located 50' SE of SE corner of UST slab.		

PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
					0.5		ASPHALT		0.5	
					5	SW	Gravelly SAND with Silt; (SW); light brown to brown; dry; 10% clay, 20% silt, 45% sand, 25% gravel; no plasticity; high estimated permeability.	5.0		
					7.5	SM	Silty SAND; (SM); light brown to brown; dry; 20% clay, 25% silt, 35% sand, 20% gravel; low plasticity; high estimated permeability.	7.5		
					10		Clayey SAND; (SC); light brown to brown; moist; 30% clay, 10% silt, 60% sand; medium plasticity; low estimated permeability.			
					15	SC	@ 14' - 25% clay, 15% silt, 60% sand; low to medium plasticity; moderate estimated permeability.			
					20		@ 19' - 35% clay, 25% silt, 40% sand; very low estimated permeability.			
					22.5		Silty CLAY; (CL); brown; wet; 35% clay, 30% silt, 35% sand; medium plasticity; very low estimated permeability.	22.5		
					25			8/5/98 ▽		
					30	CL			30.0	Bottom of Boring @ 30 ft

WELL LOG (PID) G:\DUBLIN-11989\GPJ_DEFAULT.GDT 1/25/99

Attachment C

Standard Field Procedures for Geoprobe® Sampling

STANDARD FIELD PROCEDURES FOR GEOPROBE® SAMPLING

This document describes Cambria Environmental Technology's standard field methods for GeoProbe® soil and ground water sampling. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e., sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or separate-phase hydrocarbon saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e., cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Sampling

GeoProbe® soil samples are collected from borings driven using hydraulic push technologies. A minimum of one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples can be collected near the water table and at lithologic changes. Samples are collected using samplers lined with polyethylene or brass tubes driven into undisturbed sediments at the bottom of the borehole. The ground surface immediately adjacent to the boring is used as a datum to measure sample depth. The horizontal location of each boring is measured in the field relative to a permanent on-site reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned or washed prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon® tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

After a soil sample has been collected, soil from the remaining tubing is placed inside a sealed plastic bag and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable GasTech® or photoionization detector measures volatile hydrocarbon vapor concentrations in the bag's headspace, extracting the vapor through a slit in the plastic bag. The measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Grab Ground Water Sampling

Ground water samples are collected from the open borehole using bailers, advancing disposable Tygon® tubing into the borehole and extracting ground water using a diaphragm pump, or using a hydro-punch style sampler with a bailer or tubing. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory.

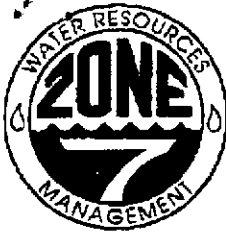
Duplicates and Blanks

Blind duplicate water samples are usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory quality assurance/quality control (QA/QC) blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Attachment D
Drilling Permits



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE, PLEASANTON, CALIFORNIA 94688-5127 PHONE (510) 484-2600 X235
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 11989 DUBLIN BLVD
DUBLIN, CA
SEE ATTACHED MAP FOR LOCATION

PERMIT NUMBER 98114
WELL NUMBER _____
APN 941 1550 001 12

California Coordinates Source _____ ft. Accuracy ± _____ ft.
CCN _____ ft. CCE _____ ft.
APN 941-1550-1-12

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT
Name EQUILON ENTERPRISES, LLC
Address P.O. BOX 8080 Phone (510) 335-5028
City MARTINEZ, CA Zip 94553

GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

APPLICANT
Name CAMBRIA ENVIRONMENTAL TECHNOLOGY
Address 1144 65TH STREET Phone (510) 420-3324
City OAKLAND, CA Zip 94608

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.

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>

ENVIRONMENTAL INVESTIGATION

PROPOSED WATER SUPPLY WELL USE	
New Domestic	<input type="checkbox"/> Replacement Domestic <input type="checkbox"/>
Municipal	<input type="checkbox"/> Irrigation <input type="checkbox"/>
Industrial	<input type="checkbox"/> Other _____ <input type="checkbox"/>

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.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	<u>GEOPROBE</u>	

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

DRILLER'S LICENSE NO. C57-485-165

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

WELL PROJECTS

Drill Hole Diameter	_____ in.	Maximum	
Casing Diameter	_____ in.	Depth	_____ ft.
Surface Seal Depth	_____ ft.	Number	_____

F. WELL DESTRUCTION. See attached.

G. SPECIAL CONDITIONS

GEOTECHNICAL PROJECTS - ENVIRONMENTAL INVESTIGATION

Number of Borings	<u>1-2</u>	Maximum	
Hole Diameter	<u>2</u> in.	Depth	<u>30</u> ft.

ESTIMATED STARTING DATE 7/30/98

ESTIMATED COMPLETION DATE 7/30/98

Approved Wyman Hong Date 10 Jul 98

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-58.

APPLICANT'S SIGNATURE [Signature] Date 7/20/98

Attachment D
Drilling Permits



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE, PLEASANTON, CALIFORNIA 94588-5127 PHONE (510) 484-2600 X236
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 11989 DUBLIN BLVD
DUBLIN, CA
SEE ATTACHED MAP FOR LOCATION

PERMIT NUMBER 98114
WELL NUMBER _____
APN 941 1550 001 12

California Coordinates Source _____ ft. Accuracy ± _____ ft.
CCN _____ ft. CCE _____ ft.
APN 941-1550-1-12

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT
Name COULON ENTERPRISES, LLC
Address P.O. Box 2080 Phone (510) 335-5028
City MARTINEZ, CA Zip 94553

GENERAL

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2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

APPLICANT
Name CAMBRIA ENVIRONMENTAL TECHNOLOGY
Address 1144 65TH STREET Phone (510) 420-3324
City OAKLAND, CA Zip 94608

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Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>

ENVIRONMENTAL INVESTIGATION

PROPOSED WATER SUPPLY WELL USE	
New Domestic	<input type="checkbox"/> Replacement Domestic <input type="checkbox"/>
Municipal	<input type="checkbox"/> Irrigation <input type="checkbox"/>
Industrial	<input type="checkbox"/> Other _____ <input type="checkbox"/>

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GEOTECHNICAL PROJECTS - ENVIRONMENTAL INVESTIGATION

Number of Borings	<u>1-2</u>	Maximum	
Hole Diameter	<u>2</u> in.	Depth	<u>30</u> ft.

ESTIMATED STARTING DATE 7/30/98

ESTIMATED COMPLETION DATE 7/30/98

Approved Wyman Hong Date 10 Jul 98
Wyman Hong

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-88.

APPLICANT'S SIGNATURE [Signature] Date 7/20/98