

# CAMBRIA

ENVIRONMENTAL  
PROTECTION

March 30, 2000

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# 3646

Barney Chan  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: **Fourth Quarter 1999 Monitoring Report**  
Shell-branded Service Station  
540 Hegenberger Road  
Oakland, California  
Incident #98995752  
Cambria Project #242-0414-002



Dear Mr. Chan:

On behalf of Equiva Services LLC (Equiva), Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

## FOURTH QUARTER 1999 ACTIVITIES

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California collected dissolved oxygen (DO) measurements, gauged water levels, and sampled the monitoring wells using the non-purging method. Blaine calculated groundwater elevations and compiled the analytical data. Cambria prepared a groundwater elevation contour map (Figure 1). The Blaine report, presenting the laboratory report and supporting field documents, is included as Attachment A.

**Interim Remedial Action:** Due to the elevated concentrations of MTBE in site wells, Cambria initiated weekly high vacuum groundwater extraction from the four tank backfill wells (A through D) and monitoring wells MW-1 and MW-3. Approximately 33,459 gallons of groundwater have been extracted from site wells since purging began on July 29, 1999. Weekly purge data and hydrocarbon mass removal calculations are presented in Tables 1 and Table 2, respectively. Due to low hydrocarbon mass removal from weekly vacuum truck operations, Cambria reduced weekly purging to wells MW-1 and MW-3 only and reduced the high-vacuum extraction to well purging with a submersible pump.

Oakland, CA  
San Ramon, CA  
Sonoma, CA  
Portland, OR


**Cambria  
Environmental  
Technology, Inc.**

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

**ANTICIPATED FIRST QUARTER 2000 ACTIVITIES**

**Groundwater Monitoring:** Blaine will collect DO measurements, gauge water levels, sample the monitoring wells using the non-purging method, and tabulate the data. Cambria will prepare a monitoring report.

**Interim Remedial Action:** As a means of source removal and potential contaminant migration control, Cambria will continue to coordinate weekly purging of wells MW-1 and MW-3. - not sufficient



**Investigation and Well Installation:** In response to the Alameda County Health Care Services Agency's (ACHCSA) January 4, 1999 correspondence, Cambria submitted a *Subsurface Investigation Work Plan* dated February 25, 1999. Implementation of the work plan includes advancing one boring and completing this boring as a groundwater monitoring well to evaluate the lateral extent of MTBE in groundwater. Cambria expects to receive the encroachment permit for the first week of April 2000 from the City of Oakland. Cambria plans to schedule drilling for mid-April.


An investigation of underground conduits to evaluate preferential migration pathways, as proposed in our work plan, is currently in progress. A separate report will present the results of this investigation and two additional borings to be drilled in the site vicinity.

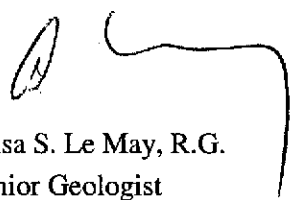
**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**



  
Darryk Ataide, REA I  
Project Manager

  
Ailsa S. Le May, R.G.  
Senior Geologist



- Figure: 1 - Groundwater Elevation Contour Map
- Table: 1 - Purge Data  
2 - Hydrocarbon Mass Removal Data
- Attachment: A - Blaine Groundwater Monitoring Report and Field Notes
- cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, California 91501-7869

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**ATTACHMENT A**

Blaine Groundwater Monitoring Report  
and Field Notes



*This is an aberration due to the 6/22/99 survey*

### EXPLANATION

- MW-1 ● Ground water monitoring well location
- SB-D ● Soil boring location
- A ● Tank backfill well location
- NS ● Well not surveyed

—X.XX Groundwater elevation contour, feet above mean sea level, approximately located; dashed where inferred



Well designation

ELEV Ground water elevation (msl)

Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8020; MTBE results in parentheses are analyzed by EPA Method 8260

HEGENBERGER RD

EDES AVE

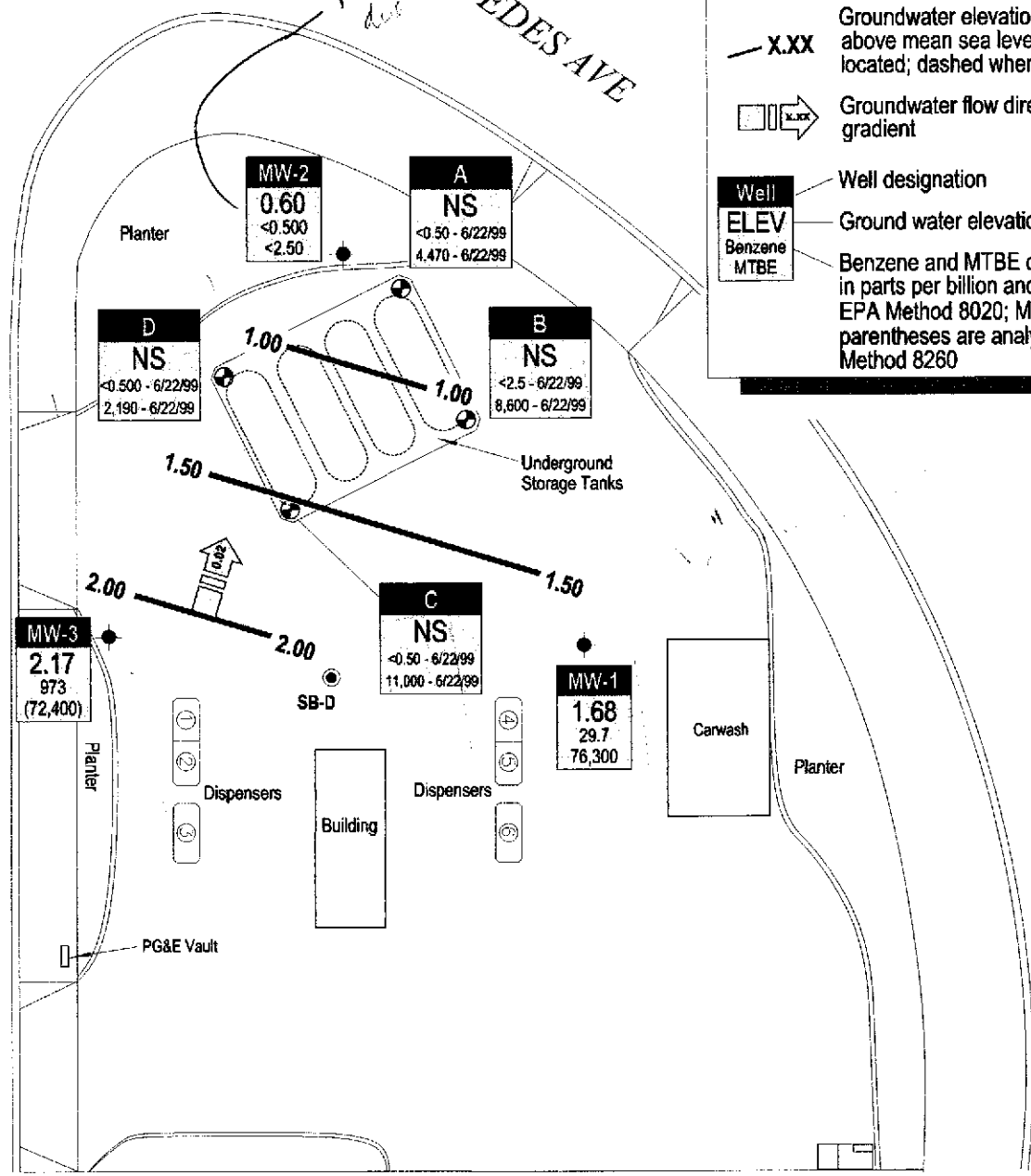


FIGURE 1

0:\OAK\401\FIGURES\4QMS9-MP.DWG

Base Map by R.H. Lee & Assoc.

**Shell-branded Service Station**  
 540 Hegenberger Road  
 Oakland, California  
 Incident #988995752



C A M B R I A

**Ground Water Elevation Contour Map**

December 10, 1999

**Table 1. Purge Data - Shell-branded Service Station - Incident #98995752 - 540 Hegenberger Road, Oakland, California**

Well ID	Date	Volume (gals)	Total per well (gals)
MW-1	07/29/99	150	100
	08/04/99	150	250
	08/11/99	15	265
	08/20/99	44	309
	08/30/99	218	527
	9/03/99*	125	652
	9/10/99*	75	727
	09/23/99	175	902
	09/29/99	50	952
	11/19/99	22.5	974.5
	11/24/99	25	999.5
	12/02/99	25	1,024.5
	12/17/99	25	1,049.5
MW-3	07/29/99	100	100
	08/04/99	100	200
	08/11/99	45	245
	08/20/99	55	300
	08/30/99	77	377
	9/03/99*	50	427
	9/10/99*	40	467
	09/23/99	10	477
	09/29/99	50	527
	11/19/99	22.5	549.5
	11/24/99	28	577.5
	12/02/99	25	602.5
	12/17/99	35	637.5
BW-A	07/29/99	400	100
	08/04/99	2,000	2,100
	08/11/99	2,437	4,537
	08/20/99	1,213	5,750
	08/30/99	2,673	8,423
	9/03/99*	325	8,748
	9/10/99*	425	9,173
	09/23/99	615	9,788
	09/29/99	800	10,588
BW-B	07/29/99	100	100
	08/04/99	800	900
	08/11/99	2,213	3,113
	08/20/99	1,213	4,326
	08/30/99	877	5,203
	9/03/99*	325	5,528
	9/10/99*	425	5,953
	09/23/99	750	6,703
	09/29/99	600	7,303

# CAMBRIA

**Table 1. Purge Data - Shell-branded Service Station - Incident #98995752 - 540 Hegenberger Road, Oakland, California**

Well ID	Date	Volume (gals)	Total per well (gals)
BW-C	07/29/99	300	100
	08/04/99	700	800
	08/11/99	0	800
	08/20/99	1,013	1,813
	08/30/99	375	2,188
	9/03/99*	325	2,513
	9/10/99*	425	2,938
	09/23/99	750	3,688
	09/29/99	700	4,388
BW-D	07/29/99	1,500	1,500
	08/04/99	250	1,750
	08/11/99	0	1,750
	08/20/99	1,213	2,963
	08/30/99	280	3,243
	9/03/99*	325	3,568
	9/10/99*	425	3,993
	09/23/99	750	4,743
	09/29/99	700	5,443
<b>Total to date</b>			<b>30,859.0</b>

**Abbreviations and Notes:**

gals = Gallons

All purging performed by Ecology Control Industries, Inc. of Richmond, California

**Table 2: Mass Removal Calculations - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California**

Date	Well Number	Volume Groundwater Extracted (gallions)
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7/29/99	BW-A	400
7/29/99	BW-B	1,000
7/29/99	BW-C	300
7/29/99	BW-D	1,500
7/29/99	MW-1	150
7/29/99	MW-3	100
8/4/99	BW-A	2,000
8/4/99	BW-B	800
8/4/99	BW-C	700
8/4/99	BW-D	250
8/4/99	MW-1	150
8/4/99	MW-3	100
8/11/99	BW-A	2,437
8/11/99	BW-B	2,213
8/11/99	BW-C	0
8/11/99	BW-D	0
8/11/99	MW-1	15
8/11/99	MW-3	45
8/20/99	BW-A	1,213
8/20/99	BW-B	1,213
8/20/99	BW-C	1,013
8/20/99	BW-D	1,213
8/20/99	MW-1	44
8/20/99	MW-3	55
8/30/99	BW-A	2,673
8/30/99	BW-B	877
8/30/99	BW-C	375
8/30/99	BW-D	280
8/30/99	MW-1	218
8/30/99	MW-3	77
9/3/99	BW-A	325
9/3/99*	BW-B	325

Sample Date	TPPH (ug/L)	TPPH Removed (pounds)	Benzene (ug/L)	Benzene Removed (pounds)	MTBE (ug/L)	MTBE Removed (pounds)
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6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00001	<b>653,000</b>	0.001
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00001	<b>653,000</b>	0.001
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	<b>653,000</b>	0.000
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	<b>653,000</b>	0.000
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	<b>653,000</b>	0.000
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000



Date	Well Number	Volume Groundwater Extracted (gallons)
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9/3/99*	BW-C	325
9/3/99*	BW-D	325
9/3/99*	MW-1	125
9/3/99*	MW-3	50
9/10/99*	BW-A	425
9/10/99*	BW-B	425
9/10/99*	BW-C	425
9/10/99*	BW-D	425
9/10/99*	MW-1	75
9/10/99*	MW-3	40
9/23/99	BW-A	615
9/23/99	BW-B	750
9/23/99	BW-C	750
9/23/99	BW-D	750
9/23/99	MW-1	175
9/23/99	MW-3	10
9/29/99	BW-A	800
9/29/99	BW-B	600
9/29/99	BW-C	700
9/29/99	BW-D	700
9/29/99	MW-1	50
9/29/99	MW-3	50
11/5/99	BW-A	675
11/5/99	BW-B	650
11/5/99	BW-C	550
11/5/99	BW-D	625
11/5/99	MW-1	50
11/5/99	MW-3	50
11/19/99	MW-1	22.5
11/19/99	MW-3	22.5
11/24/99	MW-1	25
11/24/99	MW-3	28
12/2/99	MW-1	25
12/2/99	MW-3	25
12/17/99	MW-1	25
12/17/99	MW-3	35

Sample Date	TPPH (ug/L)	TPPH Removed (pounds)	Benzene (ug/L)	Benzene Removed (pounds)	MTBE (ug/L)	MTBE Removed (pounds)
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6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	<b>653,000</b>	0.000
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	<b>653,000</b>	0.000
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	<b>653,000</b>	0.000
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	<b>653,000</b>	0.000
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
6/22/99	20,000	0.0000	100	0.00000	150,000	0.000
6/22/99	58,000	0.0000	6,600	0.00000	<b>653,000</b>	0.000
6/22/99	318	0.0000	0.25	0.00000	4,470	0.000
6/22/99	125	0.0000	1.25	0.00000	8,600	0.000
6/22/99	25	0.0000	0.25	0.00000	11,000	0.000
6/22/99	25	0.0000	0.25	0.00000	2,190	0.000
9/30/99	< 2,500	0.0000	< 25.0	0.00000	30,900	0.000
9/30/99	4,360	0.0000	121	0.00000	35,600	0.000
9/30/99	< 2,500	0.0000	< 25.0	0.00000	30,900	0.000
9/30/99	4,360	0.0000	121	0.00000	35,600	0.000
9/30/99	< 2,500	0.0000	< 25.0	0.00000	30,900	0.000
9/30/99	4,360	0.0000	121	0.00000	35,600	0.000
9/30/99	< 2,500	0.0000	< 25.0	0.00000	30,900	0.000
9/30/99	4,360	0.0000	121	0.00000	35,600	0.000
12/10/99	< 50.0	0.0000	29.7	0.00000	76,300	0.000
12/10/99	4,220	0.0000	973	0.00000	72,400	0.000

Date	Well Number	Volume Groundwater Extracted (gallons)
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Sample Date	TPPH (ug/L)	TPPH Removed (pounds)	Benzene (ug/L)	Benzene Removed (pounds)	MTBE (ug/L)	MTBE Removed (pounds)
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**Total Gallons Extracted:** 33,459

**Total Pounds Removed:** 0.0005      0.00003      0.006

**Notes:**

\* = Ground water extracted per well estimated; subcontractor did not report individual well volumes

- 1) Mass removal calculations based on quarterly groundwater data.
- 2) MTBE concentrations based on results by EPA Method 8020, bold results by 8260.
- 3) Groundwater extracted by vacuum trucks provided by ECI. Water disposed of a Martinez Refinery.
- 4) Mass removed = Volume extracted (gallons) x Concentration (ug/L) x (1 g/1e9 ug) x (1 pound/453.6 g) x (3.785 L/1 gallon)

**ATTACHMENT A**

Blaine Groundwater Monitoring Report  
and Field Notes

**BLAINE**  
TECH SERVICES INC.



1680 ROGERS AVENUE  
SAN JOSE, CA 95112-1105  
(408) 573-7771 FAX  
(408) 573-0555 PHONE

February 21, 2000

Karen Petryna  
Equiva Services LLC  
P.O. Box 7869  
Burbank, CA 91510-7869

Fourth Quarter 1999 Groundwater Monitoring at  
Shell-branded Service Station  
540 Hegenberger Road  
Oakland, CA

Monitoring performed on December 10, 1999

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### Groundwater Monitoring Report **991210-S-3**

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

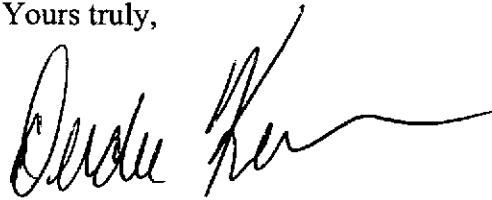
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

As a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read "Deidre Kerwin", with a long horizontal flourish extending to the right.

Deidre Kerwin  
Operations Manager

DK/jh

attachments: Cumulative Table of WELL CONCENTRATIONS  
Certified Analytical Report  
Field Data Sheets

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
1144 65<sup>th</sup> Street  
Oakland, CA 94608-2411

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**540 Hegenberger Road**  
**Oakland, CA**  
**WIC #204-5508-5900**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
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MW-1 (a)	08/26/1998	2,700	28	55	59	39	33,000	NA	10.54	7.91	2.63	1.8
MW-1 (b)	08/26/1998	<1,000	22	<10	<10	<10	17,000	NA	10.54	7.91	2.63	2.2
MW-1	12/28/1998	<5,000	<50.0	<50.0	<50.0	<50.0	153,000	33,000	10.54	8.75	1.79	1.9
MW-1	03/29/1999	<2,000	<20.0	<20.0	<20.0	<20.0	693,000	NA	10.54	8.32	2.22	2.0
MW-1	06/22/1999	20,000	<200	<200	<200	<200	150,000	NA	10.54	9.05	1.49	1.7
MW-1	09/30/1999	<2,500	<25.0	<25.0	<25.0	<25.0	30,000	NA	10.54	8.35	2.19	2.6
MW-1	12/10/1999	<50.0	29.7	<20.0	<20.0	<20.0	76,300	NA	10.54	8.86	1.68	1.2

MW-2 (a)	08/26/1998	<250	3.2	<2.5	<2.5	<2.5	4,000	NA	9.21	7.18	2.03	2.4
MW-2 (b)	08/26/1998	<250	3.1	<2.5	<2.5	<2.5	4,800	NA	9.21	7.18	2.03	2.7
MW-2 (D)(b)	08/26/1998	<250	4.8	<2.5	<2.5	6.0	3,300	NA	9.21	7.18	2.03	2.7
MW-2	12/28/1998	<50.0	<0.500	<0.500	<0.500	<0.500	28.8	NA	9.21	7.34	1.87	2.1
MW-2	03/29/1999	235	<0.500	<0.500	<0.500	3.4	101	NA	9.21	6.85	2.36	2.0
MW-2	06/22/1999	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	9.21	7.10	2.11	1.9
MW-2	09/30/1999	<50.0	<0.500	<0.500	<0.500	<0.500	1,700	NA	9.21	8.06	1.15	1.0
MW-2	12/10/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	9.21	8.61	0.60	1.4

MW-3 (a)	08/26/1998	2,300	180	330	<0.50	420	44,000	NA	9.45	6.52	2.93	1.8
MW-3 (b)	08/26/1998	<50	<0.50	<0.50	<0.50	<0.50	52,000	75,000	9.45	6.52	2.93	2.3
MW-3	12/28/1998	<5,00	139	<50.0	<50.0	<50.0	15,100	NA	9.45	6.73	2.72	1.7
MW-3	03/29/1999	52,500	5,500	6,900	1,360	6,250	508,000	630,000 (c)	9.45	6.21	3.24	2.1
MW-3	06/22/1999	58,000	6,600	9,850	1,640	6,950	677,000	653,000	9.45	7.00	2.45	1.3
MW-3	09/30/1999	4,360	121	122	36.1	647	33,700	35,600	9.45	6.84	2.61	0.6
MW-3	12/10/1999	4,220	973	26.3	273	584	88,200	72,400	9.45	7.28	2.17	2.5

A	06/22/1999	318	<0.50	<0.50	0.590	1.48	4,470	NA	NA	4.71	NA	1.1
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**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**540 Hegenberger Road**  
**Oakland, CA**  
**WIC #204-5508-5900**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
B	06/22/1999	<250	<2.5	<2.5	<2.5	<2.5	8,600	NA	NA	5.90	NA	1.2
C	06/22/1999	<50	<0.50	<0.50	<0.50	0.98	11,000	NA	NA	5.91	NA	1.6
D	06/22/1999	<50.0	<0.500	<0.500	<0.500	<0.500	2,190	NA	NA	4.78	NA	1.4

Abbreviations:

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

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020

MTBE = methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

GW = Groundwater

DO = Dissolved Oxygen

ppm = parts per million

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

NA = Not applicable

Notes:

a = pre-purge

b = post-purge

c = Lab confirmed MTBE by mistake. MTBE value at MW-1 should have been confirmed instead.



# Sequoia Analytical

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885 Jarvis Drive  
Morgan Hill, CA 95037  
(408) 776-9600  
FAX (408) 782-6308

January 5, 2000

Leah Davis  
Blaine Tech Services (Shell)  
1680 Rogers Avenue  
San Jose, CA 95112

RE: Equiva 540 Hegenberger Road, Oakland/M912496

Dear Leah Davis

Enclosed are the results of analyses for sample(s) received by the laboratory on December 13, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kayvan Kimyai  
Project Manager D.M.

CA ELAP Certificate Number 1210







Blaine Tech Services (Shell)  
1680 Rogers Avenue  
San Jose, CA 95112

Project: Equiva  
Project Number: 540 Hegenberger Rd.  
Project Manager: Leah Davis

Sampled: 12/10/99  
Received: 12/13/99  
Reported: 1/5/00

**ANALYTICAL REPORT FOR M912496**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	M912496-01	Water	12/10/99
MW-2	M912496-02	Water	12/10/99
MW-3	M912496-03	Water	12/10/99





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 540 Hegenberger Rd. Project Manager: Leah Davis	Sampled: 12/10/99 Received: 12/13/99 Reported: 1/5/00
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT  
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>MW-1</b>				<b>M912496-01</b>		<b>Water</b>		
Purgeable Hydrocarbons	9120616	12/20/99	12/20/99		50.0	ND	ug/l	
Benzene	"	"	"		20.0	29.7	"	D
Toluene	"	"	"		20.0	ND	"	D
Ethylbenzene	"	"	"		20.0	ND	"	D
Xylenes (total)	"	"	"		20.0	ND	"	D
Methyl tert-butyl ether	"	"	12/21/99		2500	76300	"	1,D
Surrogate: a,a,a-Trifluorotoluene	"	"	12/20/99	70.0-130		81.8	%	
<b>MW-2</b>				<b>M912496-02</b>		<b>Water</b>		
Purgeable Hydrocarbons	9120659	12/21/99	12/21/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		82.6	%	
<b>MW-3</b>				<b>M912496-03</b>		<b>Water</b>		
Purgeable Hydrocarbons	9120616	12/20/99	12/20/99		2000	4220	ug/l	2,D
Benzene	"	"	"		20.0	973	"	D
Toluene	"	"	"		20.0	26.3	"	D
Ethylbenzene	"	"	"		20.0	273	"	D
Xylenes (total)	"	"	"		20.0	584	"	D
Methyl tert-butyl ether	"	"	12/21/99		2500	88200	"	1,D
Surrogate: a,a,a-Trifluorotoluene	"	"	12/20/99	70.0-130		82.1	%	





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 540 Hegenberger Rd. Project Manager: Leah Davis	Sampled: 12/10/99 Received: 12/13/99 Reported: 1/5/00
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**MTBE by EPA Method 8260A  
Sequoia Analytical - Morgan Hill**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>MW-3</b>				<b>M912496-03</b>			<b>Water</b>	
<b>Methyl tert-butyl ether</b>	9120679	12/23/99	12/23/99		2500	<b>72400</b>	ug/l	D
<i>Surrogate: 1,2-Dichloroethane-d4</i>	"	"	"	70.0-130		73.9	%	





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 540 Hegenberger Rd. Project Manager: Leah Davis	Sampled: 12/10/99 Received: 12/13/99 Reported: 1/5/00
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9120616</b>			<b>Date Prepared: 12/20/99</b>			<b>Extraction Method: EPA 5030B [P/T]</b>				
<b>Blank</b>			<b>9120616-BLK1</b>							
Purgeable Hydrocarbons	12/20/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	2.50				
Surrogate: <i>a, a, a</i> -Trifluorotoluene	"	10.0		8.02	"	70.0-130	80.2			
<b>LCS</b>			<b>9120616-BS1</b>							
Benzene	12/20/99	10.0		9.42	ug/l	70.0-130	94.2			
Toluene	"	10.0		9.41	"	70.0-130	94.1			
Ethylbenzene	"	10.0		9.50	"	70.0-130	95.0			
Xylenes (total)	"	30.0		28.9	"	70.0-130	96.3			
Surrogate: <i>a, a, a</i> -Trifluorotoluene	"	10.0		8.49	"	70.0-130	84.9			
<b>Batch: 9120659</b>			<b>Date Prepared: 12/21/99</b>			<b>Extraction Method: EPA 5030B [P/T]</b>				
<b>Blank</b>			<b>9120659-BLK1</b>							
Purgeable Hydrocarbons	12/21/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	2.50				
Surrogate: <i>a, a, a</i> -Trifluorotoluene	"	10.0		7.09	"	70.0-130	70.9			
<b>LCS</b>			<b>9120659-BS1</b>							
Purgeable Hydrocarbons	12/21/99	250		219	ug/l	70.0-130	87.6			
Surrogate: <i>a, a, a</i> -Trifluorotoluene	"	10.0		11.6	"	70.0-130	116			
<b>LCS</b>			<b>9120659-BS2</b>							
Benzene	12/21/99	10.0		9.21	ug/l	70.0-130	92.1			
Surrogate: <i>a, a, a</i> -Trifluorotoluene	"	10.0		9.03	"	70.0-130	90.3			
<b>Matrix Spike</b>			<b>9120659-MS1 M912360-07</b>							
Purgeable Hydrocarbons	12/21/99	250	ND	211	ug/l	60.0-140	71.1			
Surrogate: <i>a, a, a</i> -Trifluorotoluene	"	10.0		11.1	"	70.0-130	111			
<b>Matrix Spike Dup</b>			<b>9120659-MSD1 M912360-07</b>							
Purgeable Hydrocarbons	12/21/99	250	ND	222	ug/l	60.0-140	88.8	25.0	5.08	
Surrogate: <i>a, a, a</i> -Trifluorotoluene	"	10.0		11.4	"	70.0-130	114			





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose, CA 95112	Project: Equiva Project Number: 540 Hegenberger Rd. Project Manager: Leah Davis	Sampled: 12/10/99 Received: 12/13/99 Reported: 1/5/00
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**MTBE by EPA Method 8260A/Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9120679</b>	<b>Date Prepared: 12/21/99</b>					<b>Extraction Method: EPA 5030B IP/TI</b>				
<b>Blank</b>	<b>9120679-BLK1</b>									
Methyl tert-butyl ether	12/21/99			ND	ug/l	0.500				
Surrogate: 1,2-Dichloroethane-d4	"	10.0		9.17	"	70.0-130	91.7			
<b>Blank</b>	<b>9120679-BLK2</b>									
Methyl tert-butyl ether	12/22/99			ND	ug/l	0.500				
Surrogate: 1,2-Dichloroethane-d4	"	10.0		7.16	"	70.0-130	71.6			
<b>Blank</b>	<b>9120679-BLK3</b>									
Methyl tert-butyl ether	12/23/99			ND	ug/l	0.500				
Surrogate: 1,2-Dichloroethane-d4	"	10.0		7.36	"	70.0-130	73.6			
<b>LCS</b>	<b>9120679-BS1</b>									
Methyl tert-butyl ether	12/21/99	10.0		8.18	ug/l	70.0-130	81.8			
Surrogate: 1,2-Dichloroethane-d4	"	10.0		8.51	"	70.0-130	85.1			
<b>LCS</b>	<b>9120679-BS2</b>									
Methyl tert-butyl ether	12/22/99	10.0		7.16	ug/l	70.0-130	71.6			
Surrogate: 1,2-Dichloroethane-d4	"	10.0		7.10	"	70.0-130	71.0			
<b>LCS</b>	<b>9120679-BS3</b>									
Methyl tert-butyl ether	12/23/99	10.0		10.3	ug/l	70.0-130	103			
Surrogate: 1,2-Dichloroethane-d4	"	10.0		8.72	"	70.0-130	87.2			
<b>Matrix Spike</b>	<b>9120679-MS1</b>		<b>M912299-02</b>							
Methyl tert-butyl ether	12/21/99	10000	9980	18100	ug/l	70.0-130	81.2			D
Surrogate: 1,2-Dichloroethane-d4	"	10.0		8.98	"	70.0-130	89.8			
<b>Matrix Spike Dup</b>	<b>9120679-MSD1</b>		<b>M912299-02</b>							
Methyl tert-butyl ether	12/21/99	10000	9980	18900	ug/l	70.0-130	89.2	25.0	9.39	D
Surrogate: 1,2-Dichloroethane-d4	"	10.0		8.70	"	70.0-130	87.0			





Blaine Tech Services (Shell)  
1680 Rogers Avenue  
San Jose, CA 95112

Project: Equiva  
Project Number: 540 Hegenberger Rd.  
Project Manager: Leah Davis

Sampled: 12/10/99  
Received: 12/13/99  
Reported: 1/5/00

## Notes and Definitions

#	Note
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D	Data reported from a dilution.
1	Sample was analyzed at a second dilution per clients request.
2	Chromatogram Pattern: Gasoline C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference



# BLAINE

TECH SERVICES INC.

1680 ROGERS AVENUE  
 SAN JOSE, CALIFORNIA 95112-1105  
 FAX (408) 573-7771  
 PHONE (408) 573-0555

## CONDUCT ANALYSIS TO DETECT

C = COMPOSITE ALL CONTAINERS

TPH - gas, BTEX  
 MTBE by 8020  
 MTBE by 8260  
 TPH - diesel  
 Oxygenates by 8260  
 1,2-DCA & EDB by 8010

LAB Equiva DHS # \_\_\_\_\_  
 ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND  
 EPA  RWQCB REGION \_\_\_\_\_  
 LIA  
 OTHER

M912496

SPECIAL INSTRUCTIONS  
 Send invoice to Equiva  
 Incident # 98995752  
 Send report to Blaine Tech Services  
 Attn: Ann Pember

CHAIN OF CUSTODY

CLIENT  
Equiva - Karen Petryna

SITE  
540 Hegenberger Road  
Oakland, CA

SAMPLE I.D.	S = SOIL W = H2O	MATRIX	CONTAINERS	TOTAL	C = COMPOSITE ALL CONTAINERS	TPH - gas, BTEX	MTBE by 8020	MTBE by 8260	TPH - diesel	Oxygenates by 8260	1,2-DCA & EDB by 8010	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
<u>MW-1</u>	<u>12/10/99</u>	<u>12:30</u>	<u>W</u>	<u>3</u>		<u>X</u>	<u>X</u>					<u>Combin</u>			<u>01</u>
<u>MW-2</u>	<u>12/11/99</u>	<u>12:17</u>	<u>W</u>	<u>1</u>		<u>X</u>						<u>Hidden</u>			<u>02</u>
<u>MW-3</u>	<u>12/11/99</u>	<u>12:16</u>	<u>W</u>	<u>1</u>								<u>MTBE Hits</u>			<u>03</u>
												<u>By 8260</u>			

SAMPLING COMPLETED DATE | TIME | SAMPLING PERFORMED BY Kenn Sullivan | RESULTS NEEDED NO LATER THAN

RELEASED BY [Signature] DATE 12/13/99 TIME 10:00 | RECEIVED BY [Signature] DATE 12-16 TIME 10:02

RELEASED BY [Signature] DATE | TIME | RECEIVED BY [Signature] DATE 12/13 TIME 10:28

RELEASED BY | DATE | TIME | RECEIVED BY | DATE | TIME

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #





## EQUIVA WELL MONITORING DATA SHEET

Project #: <u>991119-52</u>	Job # <u>204-5508-5900</u>
Sampler: <u>KPS</u>	Date: <u>11/19/99</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>9.58</u>	Depth to Water: <u>24.45</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer  
Middleburg      Extraction Port  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

Other: \_\_\_\_\_

_____	X	_____	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
						Slow purge rate
						Started purge @ 12:30
						Ended purge @ 13:15
						~ 1/2 gal/min

Did well dewater?    Yes      No      Gallons actually evacuated: ~~22.5~~ 22.5

Sampling Time: \_\_\_\_\_      Sampling Date: \_\_\_\_\_

Sample type: \_\_\_\_\_      Sequence: \_\_\_\_\_      Other: \_\_\_\_\_

\_\_\_\_\_      MTBE      \_\_\_\_\_

D.O. (if req'd):      Pre-purge: \_\_\_\_\_ mg/L      Post-purge: \_\_\_\_\_ mg/L

O.R.P. (if req'd):      Pre-purge: \_\_\_\_\_ mV      Post-purge: \_\_\_\_\_ mV

## EQUIVA WELL MONITORING DATA SHEET

Project #: 991119-52	Job # 204-5508-5900
Sampler: KPS	Date: 11/19/99
Well I.D.: MW-3	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 19.57	Depth to Water: 7.93
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method:

Bailer  
 Middleburg  
 Electric Submersible  
 Extraction Pump

Sampling Method:

Bailer  
 Extraction Port

Other: \_\_\_\_\_

Other: \_\_\_\_\_

_____	X	_____	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
						Slow purge Rate @ 1/2 gal/minute

Did well dewater? Yes  No

Gallons actually evacuated: 22.5

Sampling Time:

Sampling Date:

Sample I.D.:

Laboratory: Sequoia BC Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



## EQUIVA WELL MONITORING DATA SHEET

Project #: 991124M-2	Job #: 204-5508-5900
Sampler: Mark S.	Date: 11-24-99
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8
Total Well Depth: 24.28	Depth to Water: 9.65
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer  
Middleburg      Extraction Port  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

Other: \_\_\_\_\_

_____	X	_____	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
11:00						Started to Purge Well
11:45					25	Stopped purging well
*						Removed 1 inch PVC Pipe to Purge Well

Did well dewater? Yes  No       Gallons actually evacuated: 25

Sampling Time: \_\_\_\_\_      Sampling Date: \_\_\_\_\_

Sample I.D.: \_\_\_\_\_      Laboratory: Sequoia BC Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## EQUIVA WELL MONITORING DATA SHEET

Project #: 991124 m-2	Job # 204-5508-5908
Sampler: Mark J.	Date: 11-24-99
Well I.D.: Mw-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 19.50	Depth to Water: 8.25
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer  
Middleburg      Extraction Port  
 Electric Submersible      Other: \_\_\_\_\_  
 Extraction Pump

Other: \_\_\_\_\_

_____	X	_____	=	_____ Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
12:00						Started to purge well
12:45					28	Stopped purging well
*						Removed 1 inch PVC pipe to purge well

Did well dewater? Yes (No)      Gallons actually evacuated: 28

Sampling Time: \_\_\_\_\_      Sampling Date: \_\_\_\_\_

Sample I.D.: \_\_\_\_\_      Laboratory: Sequoia BC Other \_\_\_\_\_

Analyzed for: HHS BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV





## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>991202m-2</u>	Site: <u>204-5508-5900</u>
Sampler: <u>Mark S</u>	Date: <u>12-2-99</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u>   </u>
Total Well Depth: <u>19.50</u>	Depth to Water: <u>7.55</u>
Depth to Free Product: <u>   </u>	Thickness of Free Product (feet): <u>   </u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible
- Waterra  
 Peristaltic  
 Extraction Pump  
 Other

Sampling Method:

- Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other:

(Gals.) X	=	Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>1310</u>	<u>   </u>	<u>   </u>	<u>   </u>	<u>   </u>	<u>   </u>	<u>Started to purge well</u>
<u>1355</u>	<u>   </u>	<u>   </u>	<u>   </u>	<u>   </u>	<u>25 gals. removed.</u>	<u>Stopped purging well</u>
<u>*</u>	<u>   </u>	<u>   </u>	<u>   </u>	<u>   </u>	<u>   </u>	<u>Removed 1 inch PVC pipe to purge well</u>

Did well dewater? Yes   No Gallons actually evacuated: 2.5

Sampling Time:     Sampling Date:    

Sample I.D.:     Laboratory: Sequoia Columbia Other    

Analyzed for: TPH-G BTEX MTBE TPH-D Other:    

EP I.D. (if applicable):     @     Duplicate I.D. (if req'd):    

Analyzed for: TPH-G BTEX MTBE TPH-D Other:    

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV





## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>991210-53</u>	Site: <u>204-5508-5900</u>
Sampler: <u>Kp</u>	Date: <u>12/10/99</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: <u>24.43</u>	Depth to Water: <u>8.86</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> <u>Grade</u>	D.O. Meter (if req'd): <u>YSI</u> <u>HACH</u>

Purge Method:

- Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible
- Waterra  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method:

- Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other: \_\_\_\_\_

2.5 (Gals.) X 3 = 7.5 Gals.  
 1 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
12:30	-	13:15				
13:18	70.5	7.2	1096	7200	28	/
13:21	71.2	7.2	1160	7200	31 <del>33</del>	
13:24	71.5	7.2	1159	7200	33	

Did well dewater? Yes  No  Gallons actually evacuated: 33

Sampling Time: 13:30 Sampling Date: 12/10/99

Sample I.D.: MW-1 Laboratory: Sequoia Columbia Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

ER I.D. (if applicable): \_\_\_\_\_ Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd): Pre-purge: 1.2 mg/L Post-purge: \_\_\_\_\_ mg/L

O.R.P. (if req'd): Pre-purge: \_\_\_\_\_ mV Post-purge: \_\_\_\_\_ mV

## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>991210-53</u>	Site: <u>204-5508-5900</u>
Sampler: <u>KPS</u>	Date: <u>12/10/99</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>19.30</u>	Depth to Water: <u>8.61</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- (Bailer)
- Disposable Bailer
- Middleburg
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other \_\_\_\_\_

Sampling Method:

- (Bailer)
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: \_\_\_\_\_

<u>1.7</u> (Gals.) X	<u>3</u>	=	<u>5.1</u> Gals.
I Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>12:05</u>	<u>71.2</u>	<u>7.2</u>	<u>1097</u>	<u>7200</u>	<u>2</u>	
<u>12:08</u>	<u>71.0</u>	<u>7.2</u>	<u>1083</u>	<u>7200</u>	<u>4</u>	
<u>12:11</u>	<u>71.0</u>	<u>7.2</u>	<u>1042</u>	<u>7200</u>	<u>6</u>	

Did well dewater? Yes  No

Gallons actually evacuated: 6

Sampling Time: 12:17 Sampling Date: 12/10/99

Sample I.D.: MW-2 Laboratory: Sequoia Columbia Other \_\_\_\_\_

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: \_\_\_\_\_

EB I.D. (if applicable): @ \_\_\_\_\_ Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	<u>1.4</u> mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## EQUIVA WELL MONITORING DATA SHEET

BTS #: <del>MW-3</del> - 991210-53	Site: 204-5508-5900
Sampler: KPS	Date: 12/10/99
Well I.D.: MW-3	Well Diameter: ② 3 4 6 8
Total Well Depth: 19.55	Depth to Water: 7.28
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible  
 Waterra  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method:

- Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other: \_\_\_\_\_

1.9 (Gals.) X 3 = 5.7 Gals.  
 1 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
13:40 - 14:25				25 gal	25	
14:28	71.0	7.2	14321	<200	27	
14:31	70.4	7.2	12460	<200	29	
14:34	70.8	7.2	13580	<200	31	

Did well dewater? Yes  No  Gallons actually evacuated: 31

Sampling Time: 14:40      Sampling Date: 12/10/99

Sample I.D.: MW-3      Laboratory: Sequoia Columbia Other \_\_\_\_\_

Analyzed for:  TPH-G    BTEX    MTBE    TPH-D   Other: \_\_\_\_\_

EB 1-D (if applicable): \_\_\_\_\_      Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge: 25 mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge: mV	Post-purge:	mV



## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>99/217-23</u>	Site: <u>204 5508-5900</u>
Sampler:	Date: <u>12/17/99</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>24.43</u>	Depth to Water: <u>8.32</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- Middleburg
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other \_\_\_\_\_

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: \_\_\_\_\_

	(Gals.) X	=		Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
						<u>Weekly Purge</u>
				<u>15min</u>		

Did well dewater? Yes  No  Gallons actually evacuated: 25

Sampling Time: \_\_\_\_\_ Sampling Date: \_\_\_\_\_

Sample I.D.: MW-1 Laboratory: Sequoia Columbia Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

EB I.D. (if applicable): \_\_\_\_\_ Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
	O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:

