

C A M B R I A

March 15, 2001

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

Co. 793

Re: **Fourth Quarter 2000 Monitoring Report**  
Shell-branded Service Station  
610 Market Street  
Oakland, California  
Incident #99895750  
Cambria Project #243-0594-002

MAR 22 2001



Dear Mr. Seto:

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

#### **FOURTH QUARTER 2000 ACTIVITIES**

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a groundwater elevation contour map (Figure 1). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

**Mobile Dual-Phase Vacuum Extraction Treatment (DVE):** From March to October 2000, Cambria coordinated mobile DVE from wells MW-2 and MW-3. DVE removes soil vapors and separate-phase hydrocarbons from the vadose zone and enhances groundwater removal from remediation or monitoring wells. Due to low water-extraction volumes, DVE was discontinued. Hydrocarbon mass removal calculations for extracted groundwater and vapor are presented in Tables 1 and 2, respectively.

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 2001 ACTIVITIES**

**Groundwater Monitoring:** Blaine will gauge and sample all wells and tabulate the data. Cambria will prepare a monitoring report.

**Internal Combustion (IC) Pilot Test:** Cambria will conduct a pilot test using an IC engine and wells MW-2 and MW-3 to remediate hydrocarbons at the site. Test data and an evaluation of the test will be presented in a forthcoming quarterly monitoring report.




**Site Conceptual Model:** Cambria is preparing a site conceptual model (SCM) for this site. Based on the SCM, previous DVE activities onsite and the engine pilot test data, Cambria will evaluate whether previously proposed wells are warranted.

**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Troy Buggle at (510) 420-3333 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**

  
Troy A. Buggle  
Project Environmental Scientist

  
Stephan A. Bork, C.E.G., C.H.G.  
Associate Hydrogeologist

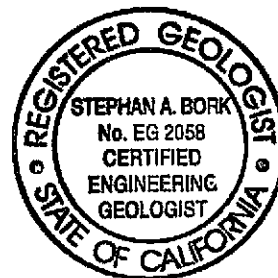
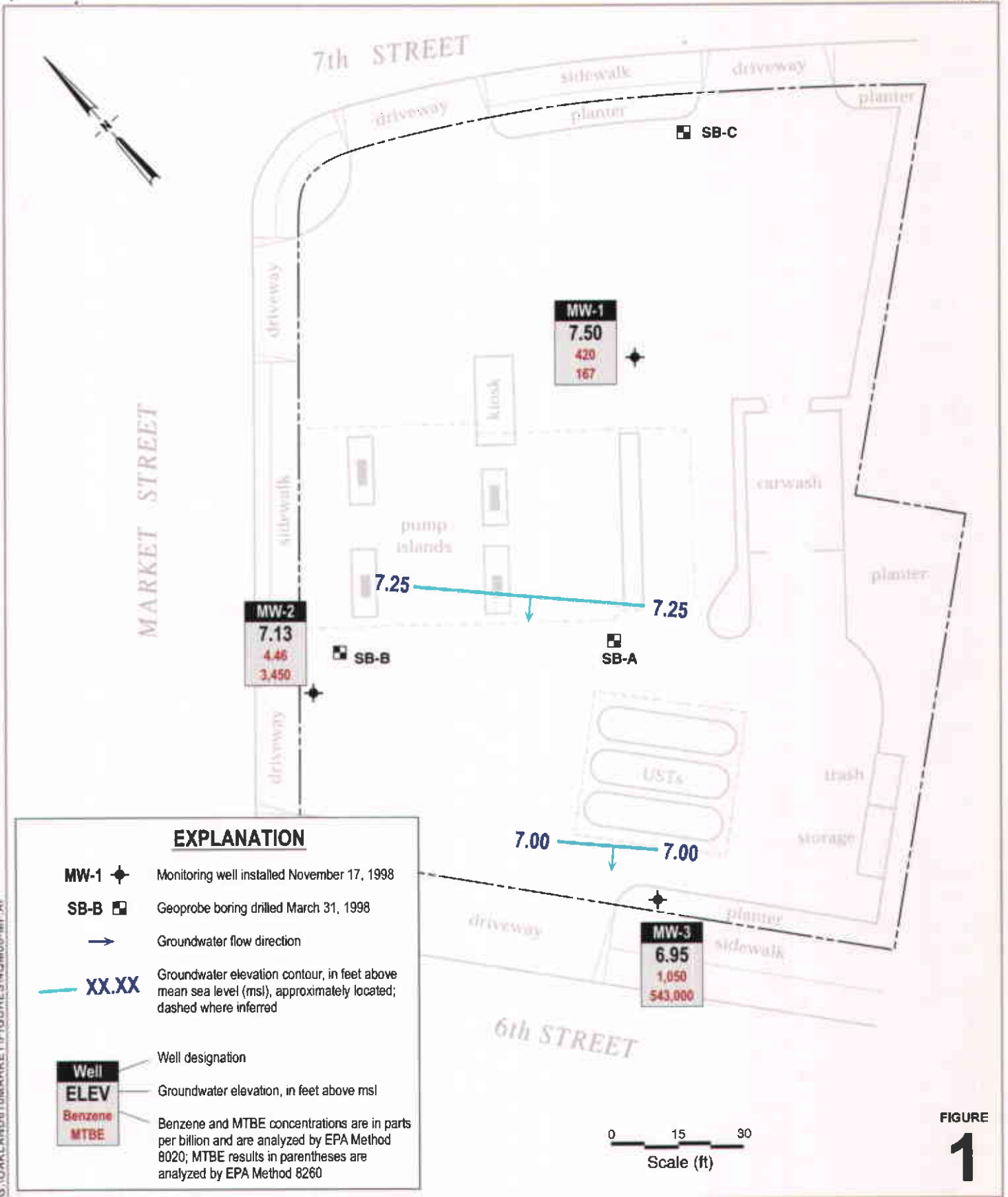


Figure: 1 - Groundwater Elevation Contour Map

Table: 1 - Groundwater Extraction - Mass Removal Data  
2 - Soil Vapor Extraction - Mass Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, California 91510-7869  
Virginia R. Rawson, Tr., 1860 Tice Creek Drive #1353, Walnut Creek, CA 94595  
Ronald L. & Cathy L. Labatt, PO Box 462, Kamiah, ID 83536



**FIGURE 1**

### Shell-branded Service Station

610 Market Street  
Oakland, California  
Incident #98995750



C A M B R I A

### Groundwater Elevation Contour Map

November 30, 2000

G:\OAKLAND\610MARKET\FIGURES\40M00-MP.A1

**Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995750, 610 Market Street, Oakland, CA**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene			MTBE		
					TPPH Concentration (ppb)	TPPH Removed (lb)	TPPH Removed To Date (lb)	Benzene Concentration (ppb)	Benzene Removed (lb)	Benzene Removed to Date (lb)	MTBE Concentration (ppb)	MTBE Removed (lb)	MTBE Removed To Date (lb)
03/15/00	MW-2	0	0	03/21/00	< 5,000	< 0.00000	< 0.00000	94.7	0.00000	0.00000	13,900	0.00000	0.00000
03/22/00	MW-2	100	100	03/21/00	< 5,000	< 0.00417	< 0.00417	94.7	0.00008	0.00008	13,900	0.01160	0.01160
03/27/00	MW-2	75	175	03/21/00	< 5,000	< 0.00313	< 0.00730	94.7	0.00006	0.00014	13,900	0.00870	0.02030
04/03/00	MW-2	100	275	03/21/00	< 5,000	< 0.00417	< 0.01147	94.7	0.00008	0.00022	13,900	0.01160	0.03190
04/17/00	MW-2	200	475	03/21/00	< 5,000	< 0.00834	< 0.01982	94.7	0.00016	0.00038	13,900	0.02320	0.05509
04/24/00	MW-2	125	600	03/21/00	< 5,000	< 0.00522	< 0.02503	94.7	0.00010	0.00047	13,900	0.01450	0.06959
05/01/00	MW-2	50	650	03/21/00	< 5,000	< 0.00209	< 0.02712	94.7	0.00004	0.00051	13,900	0.00580	0.07539
05/15/00	MW-2	75	725	03/21/00	< 5,000	< 0.00313	< 0.03025	94.7	0.00006	0.00057	13,900	0.00870	0.08409
05/22/00	MW-2	100	825	03/21/00	< 5,000	< 0.00417	< 0.03442	94.7	0.00008	0.00065	13,900	0.01160	0.09569
05/29/00	MW-2	75	900	03/21/00	< 5,000	< 0.00313	< 0.03755	94.7	0.00006	0.00071	13,900	0.00870	0.10439
06/05/00	MW-2	617	1,517	03/21/00	< 5,000	< 0.02574	< 0.06329	94.7	0.00049	0.00120	13,900	0.07156	0.17595
08/17/00	MW-2	665	2,182	06/20/00	101	0.00056	< 0.06385	5.95	0.00003	0.00123	7,670	0.04256	0.21851
09/13/00	MW-2	429	2,611	06/20/00	101	0.00036	< 0.06421	5.95	0.00002	0.00125	7,670	0.02746	0.24597
10/27/00*	MW-2	75	2,686	06/20/00	101	0.00006	< 0.06428	5.95	0.00000	0.00126	7,670	0.00480	0.25077
03/15/00	MW-3	500	500	03/21/00	< 25,000	< 0.02086	< 0.02086	466	0.00194	0.00194	155,000	0.64669	0.64669
03/22/00	MW-3	100	600	03/21/00	< 25,000	< 0.01565	< 0.03651	466	0.00039	0.00233	155,000	0.12934	0.77603
03/27/00	MW-3	75	675	03/21/00	< 25,000	< 0.01565	< 0.05215	466	0.00029	0.00262	155,000	0.09700	0.87303
04/03/00	MW-3	100	775	03/21/00	< 25,000	< 0.02086	< 0.07301	466	0.00039	0.00301	155,000	0.12934	1.00237
04/17/00	MW-3	200	975	03/21/00	< 25,000	< 0.04172	< 0.11473	466	0.00078	0.00379	155,000	0.25868	1.26104
04/24/00	MW-3	125	1,100	03/21/00	< 25,000	< 0.02608	< 0.14081	466	0.00049	0.00428	155,000	0.16167	1.42271
05/01/00	MW-3	100	1,200	03/21/00	< 25,000	< 0.02086	< 0.16167	466	0.00039	0.00467	155,000	0.12934	1.55205
05/15/00	MW-3	75	1,275	03/21/00	< 25,000	< 0.01565	< 0.17732	466	0.00029	0.00496	155,000	0.09700	1.64905
05/22/00	MW-3	50	1,325	03/21/00	< 25,000	< 0.01043	< 0.18775	466	0.00019	0.00515	155,000	0.06467	1.71372
05/29/00	MW-3	75	1,400	03/21/00	< 25,000	< 0.01565	< 0.20339	466	0.00029	0.00544	155,000	0.09700	1.81073
06/05/00	MW-3	675	2,075	03/21/00	< 25,000	< 0.14081	< 0.34420	466	0.00262	0.00807	155,000	0.87303	2.68375
08/17/00	MW-3	554	2,629	06/20/00	16,200	0.07489	< 0.41909	1,140	0.00527	0.01334	579,000	2.67659	5.36034

**Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995750, 610 Market Street, Oakland, CA**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene			MTBE		
					TPPH Concentration (ppb)	TPPH Removed (lb)	TPPH Removed To Date (lb)	Benzene Concentration (ppb)	Benzene Removed (lb)	Benzene Removed to Date (lb)	MTBE Concentration (ppb)	MTBE Removed (lb)	MTBE Removed To Date (lb)
09/13/00	MW-3	716	3,345	06/20/00	16,200	0.09679	< 0.51588	1,140	0.00681	0.02015	<b>579,000</b>	3.45927	8.81961
10/27/00*	MW-3	250	3,595	06/20/00	16,200	0.03379	< 0.54968	1,140	0.00238	0.02253	<b>579,000</b>	1.20785	10.02745
<b>Total Gallons Extracted:</b>			<b>6,281</b>		<b>Total Pounds Removed:</b>		<b>&lt; 0.61395</b>			<b>0.02378</b>			<b>10.27822</b>
					<b>Total Gallons Removed:</b>		<b>&lt; 0.10065</b>			<b>0.00326</b>			<b>1.65778</b>

**Abbreviations & Notes:**

TPPH = Total purgeable hydrocarbons as gasoline

MtBE = Methyl tert-butyl ether

µg/L = Micrograms per liter

ppb = Parts per billion, equivalent to µg/L

lb = Pound

SPH = Separate phase hydrocarbons

L = Liter

gal = Gallon

g = Gram

\* = Groundwater volume pumped estimated; data not available

Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/10<sup>6</sup>µg) x (pound/453.6g) x (3.785 L/gal)

Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)

TPPH and benzene analyzed by EPA Method 8015/8020

MTBE data in bold font analyzed by EPA Method 8260, all other MTBE analyzed by EPA Method 8020

Concentrations based on most recent groundwater monitoring results

Groundwater extracted by vacuum trucks provided by ACTI; water disposed of at a Martinez refinery

# CAMBRIA

**Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995750, 610 Market Street, Oakland, California**

Date	Well ID	Interval Hours of Operation (hours)	System Flow Rate (CFM)	Hydrocarbon Concentrations			TPHg		Benzene		MTBE	
				TPHg	Benzene	MTBE	TPHg Removal Rate (#/hour)	Cumulative TPHg Removed (#)	Benzene Removal Rate (#/hour)	Cumulative Benzene Removed (#)	MTBE Removal Rate (#/hour)	Cumulative MTBE Removed (#)
				(Concentrations in ppmv)								
03/15/00	MW-2	0	0	NA	NA	NA	0.000	0.000	0.000	0.000	0.000	0.000
04/17/00	MW-2	1.00	0.86	15.9	0.340	519	0.000	0.000	0.000	0.000	0.006	0.006
06/05/00	MW-2	0.91	9.8	1,910	62.7	363	0.250	0.228	0.007	0.007	0.049	0.050
07/07/00	MW-2	3.67	13.7	473	< 3.1	42	0.087	0.546	< 0.001	< 0.009	0.008	0.079
08/17/00	MW-2	4.00	17	1,799	61	149	0.409	2.181	0.013	< 0.059	0.035	0.218
09/13/00	MW-2	2.75	38	3,300	< 15.7	631	1.676	6.791	< 0.007	< 0.079	0.328	1.120
10/27/00	MW-2	1.75	5.8	16.8	0.229	9.29	0.001	6.793	< 0.000	< 0.079	0.001	1.121
03/15/00	MW-3	0.22	0.87	3,400	50	410	0.040	0.009	0.001	0.000	0.005	0.001
03/15/00	MW-3	3.27	0.74	3,700	47	410	0.037	0.128	0.000	0.001	0.004	0.015
04/17/00	MW-3	1.00	7.8	246	8.05	2,850	0.026	0.154	0.001	0.002	0.304	0.319
06/05/00	MW-3	3.91	5	2,130	23.0	529	0.142	0.711	0.001	0.008	0.036	0.460
07/07/00	MW-3	1.67	0.8	< 2,833	57	3,861	< 0.030	< 0.761	0.001	0.009	0.042	0.531
08/17/00	MW-3	1.50	2.8	22,833	346	4,222	0.855	< 2.043	0.012	0.026	0.162	0.773
09/13/00	MW-3	4.00	34	15,200	< 31.4	1,670	6.909	< 29.677	< 0.013	< 0.078	0.777	3.880
10/27/00	MW-3	1.50	6.4	11.7	0.215	9.27	0.001	< 29.679	< 0.000	< 0.078	0.001	3.881
<b>Total Pounds Removed:</b>							<b>TPHg = &lt; 36.472</b>		<b>Benzene = &lt; 0.157</b>		<b>MTBE = 5.002</b>	

**Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995750, 610 Market Street, Oakland, California**

**Abbreviations and Notes:**

CFM = Cubic feet per minute

TPHg = Total petroleum hydrocarbons as gasoline (C6-C12) by modified EPA Method 8015 in 1 liter tedlar bag samples

ppmv = Parts per million by volume

# = Pounds

NA = Not available

TPHG, Benzene, and MTBE analyzed by EPA Method 8015/8020 in 1 liter tedlar bag samples

TPHg / Benzene / MTBE removal rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

(Rate = Concentration (ppmv) x system flow rate (cfm) x (1lb-mole/386ft<sup>3</sup>) x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene, 88 lb/lb-mole for MTBE)  
x 60 min/hour x 1/1,000,000)

Cumulative TPHg / Benzene / MTBE removal = Previous removal rate multiplied by the hour-interval of operation plus the previous total

**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  
CONTRACTOR'S LICENSE #746684  
www.blainetech.com

January 19, 2001

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

Fourth Quarter 2000 Groundwater Monitoring at  
Shell-branded Service Station  
610 Market Street  
Oakland, CA

Monitoring performed on November 30, 2000

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Groundwater Monitoring Report 001130-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. Purge water (if applicable) is, likewise, collected and transported to the Shell Martinez Manufacturing Complex.

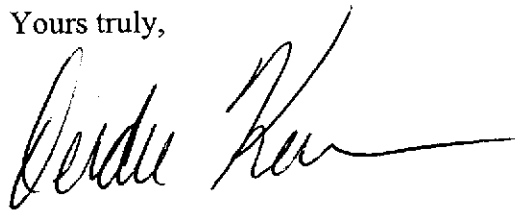
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At 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/jt

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

cc: Anni Kreml  
Cambria Environmental  
1144 65<sup>th</sup> St. Suite C  
Oakland, CA 94608-2411

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**610 Market Street**  
**Oakland, CA**  
**WIC #204-5508-5702**

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)
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MW-1	12/17/1998	2,200	20	<10	110	420	<50	NA	21.70	13.71	7.99
MW-1	03/09/1999	4,320	25.8	<10.0	338	474	<100	NA	21.70	13.03	8.67
MW-1	06/16/1999	6,150	107	84.0	615	1,050	<250	NA	21.70	13.82	7.88
MW-1	09/29/1999	3,440	97.3	58.7	433	578	89.1	NA	21.70	14.45	7.25
MW-1	12/22/1999	1,370	34.5	4.38	196	49.1	29.3	NA	21.70	15.39	6.31
MW-1	03/21/2000	2,550	10.3	3.36	164	312	65.6	NA	21.70	11.94	9.76
MW-1	06/20/2000	4,770	64.3	18.6	387	732	51.3	NA	21.70	13.15	8.55
MW-1	09/21/2000	7,490	350	229	690	1,490	160	NA	21.70	13.65	8.05
MW-1	11/30/2000	5,410	420	168	494	1,170	167	NA	21.70	14.20	7.50

MW-2	12/17/1998	<5,000	<50	<50	<50	<50	11,000	NA	19.61	12.07	7.54
MW-2	03/09/1999	<250	5.20	<2.50	<2.50	<2.50	9,870	NA	19.61	11.46	8.15
MW-2	06/16/1999	<50.0	0.569	<0.500	<0.500	<0.500	3,440	NA	19.61	12.26	7.35
MW-2	09/29/1999	58.6	2.51	0.978	<0.500	<0.500	3,930	NA	19.61	12.51	7.10
MW-2	12/22/1999	<2,000	50.4	<20.0	<20.0	<20.0	15,000	NA	19.61	13.40	6.21
MW-2	03/21/2000	<5,000	94.7	<50.0	<50.0	<50.0	13,900	NA	19.61	10.36	9.25
MW-2	06/20/2000	101	5.95	<0.500	<0.500	0.552	7,670	NA	19.61	11.12	8.49
MW-2	09/21/2000	<2,000	<20.0	<20.0	<20.0	<20.0	4,460	NA	19.61	11.95	7.66
MW-2	11/30/2000	81.1	4.46	0.924	0.841	3.23	3,450	NA	19.61	12.48	7.13

MW-3	12/17/1998	30,000	890	110	2,100	4,300	42,000	43,000	19.05	11.65	7.40
MW-3	03/09/1999	22,700	536	<200	1,030	1,510	35,400	38,500	19.05	11.03	8.02
MW-3	06/16/1999	19,300	625	129	805	1,210	42,400	51,600	19.05	11.89	7.16
MW-3	09/29/1999	20,200	727	155	1,000	1,180	84,100	136,000a	19.05	12.35	6.70
MW-3	12/22/1999	44,500	767	64.4	1,810	2,090	191,000	186,000a	19.05	13.45	5.60
MW-3	03/21/2000	<25,000	466	<250	727	2,280	126,000	155,000	19.05	10.00	9.05
MW-3	06/20/2000	16,200	1,140	98.8	1,140	1,410	579,000	376,000a	19.05	11.15	7.90
MW-3	09/21/2000	<50,000	712	<500	520	795	293,000	298,000	19.05	11.58	7.47

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**610 Market Street**  
**Oakland, CA**  
**WIC #204-5508-5702**

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)
MW-3	11/30/2000	18,000	1,050	124	1,120	2,010	543,000a	403,000a	19.05	12.10	6.95

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 by EPA Method 8020

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

NA = Not applicable

Notes:

Wells MW-1, MW-2, and MW-3 surveyed December 9, 1998 by Virgil Chavez Land Surveying of Vallejo, California.

a = Sample was analyzed outside the EPA recommended holding time.



# Sequoia Analytical

885 Jarvis Drive  
Morgan Hill, CA 95037  
(408) 776-9600  
FAX (408) 782-6308  
[www.sequoialabs.com](http://www.sequoialabs.com)

3 January, 2001

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

RE: 610 Market Street  
Sequoia Report: MJL0165

Enclosed are the results of analyses for samples received by the laboratory on 12/01/00 12:57. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wayne Stevenson  
Client Services Manager

CA ELAP Certificate #1210





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

Project: 610 Market Street  
Project Number: 610 Market St./ Oakland  
Project Manager: Nick Sudano

**Reported:**  
01/03/01 09:43

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MJL0165-01	Water	11/30/00 12:35	12/01/00 12:57
MW-2	MJL0165-02	Water	11/30/00 12:15	12/01/00 12:57
MW-3	MJL0165-03	Water	11/30/00 12:50	12/01/00 12:57





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

Project: 610 Market Street  
Project Number: 610 Market St./ Oakland  
Project Manager: Nick Sudano

**Reported:**  
01/03/01 09:43

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MJL0165-01) Water</b> Sampled: 11/30/00 12:35 Received: 12/01/00 12:57									
Purgeable Hydrocarbons	5410	1000	ug/l	20	0L12002	12/12/00	12/12/00	DHS LUFT	P-01
Benzene	420	10.0	"	"	"	"	"	"	
Toluene	168	10.0	"	"	"	"	"	"	
Ethylbenzene	494	10.0	"	"	"	"	"	"	
Xylenes (total)	1170	10.0	"	"	"	"	"	"	
Methyl tert-butyl ether	167	50.0	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		111 %	70-130		"	"	"	"	
<b>MW-2 (MJL0165-02) Water</b> Sampled: 11/30/00 12:15 Received: 12/01/00 12:57									
Purgeable Hydrocarbons	81.1	50.0	ug/l	1	0L14004	12/14/00	12/14/00	DHS LUFT	P-01
Benzene	4.46	0.500	"	"	"	"	"	"	
Toluene	0.924	0.500	"	"	"	"	"	"	
Ethylbenzene	0.841	0.500	"	"	"	"	"	"	
Xylenes (total)	3.23	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	3450	100	"	40	"	"	12/13/00	"	M-03
Surrogate: a,a,a-Trifluorotoluene		106 %	70-130		"	"	12/14/00	"	
<b>MW-3 (MJL0165-03) Water</b> Sampled: 11/30/00 12:50 Received: 12/01/00 12:57									
Purgeable Hydrocarbons	18000	5000	ug/l	100	0L08004	12/08/00	12/08/00	DHS LUFT	
Benzene	1050	50.0	"	"	"	"	"	"	
Toluene	124	50.0	"	"	"	"	"	"	
Ethylbenzene	1120	50.0	"	"	"	"	"	"	
Xylenes (total)	2010	50.0	"	"	"	"	"	"	
Methyl tert-butyl ether	543000	12500	"	5000	"	"	12/19/00	"	H-02,M-03
Surrogate: a,a,a-Trifluorotoluene		85.1 %	70-130		"	"	12/08/00	"	





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

Project: 610 Market Street  
Project Number: 610 Market St./ Oakland  
Project Manager: Nick Sudano

**Reported:**  
01/03/01 09:43

**MTBE Confirmation by EPA Method 8260A  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (MJL0165-03) Water</b> <b>Sampled: 11/30/00 12:50</b> <b>Received: 12/01/00 12:57</b>									
Methyl tert-butyl ether	403000	20000	ug/l	20000	1A02024	12/25/00	12/28/00	EPA 8260A	H-02
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130		"	"	12/25/00	"	H-02







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Project Manager: Nick Sudano

Reported:  
01/03/01 09:43

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 0L08004 - EPA 5030B [P/T]

#### Blank (0L08004-BLK1)

Prepared & Analyzed: 12/08/00

Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	7.64		"	10.0		76.4	70-130			

#### LCS (0L08004-BS1)

Prepared & Analyzed: 12/08/00

Benzene	9.36	0.500	ug/l	10.0		93.6	70-130			
Toluene	9.93	0.500	"	10.0		99.3	70-130			
Ethylbenzene	10.0	0.500	"	10.0		100	70-130			
Xylenes (total)	29.3	0.500	"	30.0		97.7	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.18		"	10.0		81.8	70-130			

#### Matrix Spike (0L08004-MS1)

Source: MJL0097-02

Prepared & Analyzed: 12/08/00

Benzene	9.87	0.500	ug/l	10.0	ND	98.7	60-140			
Toluene	10.3	0.500	"	10.0	ND	103	60-140			
Ethylbenzene	10.3	0.500	"	10.0	ND	103	60-140			
Xylenes (total)	30.0	0.500	"	30.0	ND	100	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.95		"	10.0		89.5	70-130			

#### Matrix Spike Dup (0L08004-MSD1)

Source: MJL0097-02

Prepared & Analyzed: 12/08/00

Benzene	9.68	0.500	ug/l	10.0	ND	96.8	60-140	1.94	25	
Toluene	10.1	0.500	"	10.0	ND	101	60-140	1.96	25	
Ethylbenzene	10.1	0.500	"	10.0	ND	101	60-140	1.96	25	
Xylenes (total)	29.4	0.500	"	30.0	ND	98.0	60-140	2.02	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.81		"	10.0		88.1	70-130			



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Reported:  
01/03/01 09:43

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 0L12002 - EPA 5030B [P/T]

#### Blank (0L12002-BLK1)

Prepared & Analyzed: 12/12/00

Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.94		"	10.0		99.4	70-130			

### Batch 0L14004 - EPA 5030B [P/T]

#### Blank (0L14004-BLK1)

Prepared & Analyzed: 12/14/00

Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.3		"	10.0		103	70-130			

#### LCS (0L14004-BS1)

Prepared & Analyzed: 12/14/00

Purgeable Hydrocarbons	86.2	50.0	ug/l				70-130			
Benzene	10.8	0.500	"	10.0		108	70-130			
Toluene	10.4	0.500	"	10.0		104	70-130			
Ethylbenzene	10.3	0.500	"	10.0		103	70-130			
Xylenes (total)	31.2	0.500	"	30.0		104	70-130			
Methyl tert-butyl ether	ND	2.50	"				70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.5		"	10.0		105	70-130			





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

Project: 610 Market Street  
Project Number: 610 Market St./ Oakland  
Project Manager: Nick Sudano

**Reported:**  
01/03/01 09:43

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0L14004 - EPA 5030B [P/T]**

<b>Matrix Spike (0L14004-MS1)</b>		<b>Source: MJL0299-01</b>			<b>Prepared &amp; Analyzed: 12/14/00</b>					
Purgeable Hydrocarbons	84.6	50.0	ug/l		ND		60-140			
Benzene	11.1	0.500	"	10.0	ND	111	60-140			
Toluene	10.5	0.500	"	10.0	ND	105	60-140			
Ethylbenzene	10.5	0.500	"	10.0	ND	105	60-140			
Xylenes (total)	31.4	0.500	"	30.0	ND	105	60-140			
Methyl tert-butyl ether	ND	2.50	"		ND		60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>10.8</i>		<i>"</i>	<i>10.0</i>		<i>108</i>	<i>70-130</i>			

<b>Matrix Spike Dup (0L14004-MSD1)</b>		<b>Source: MJL0299-01</b>			<b>Prepared &amp; Analyzed: 12/14/00</b>					
Purgeable Hydrocarbons	83.7	50.0	ug/l		ND		60-140	1.07	25	
Benzene	11.0	0.500	"	10.0	ND	110	60-140	0.905	25	
Toluene	10.5	0.500	"	10.0	ND	105	60-140	0	25	
Ethylbenzene	10.3	0.500	"	10.0	ND	103	60-140	1.92	25	
Xylenes (total)	31.2	0.500	"	30.0	ND	104	60-140	0.639	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>10.3</i>		<i>"</i>	<i>10.0</i>		<i>103</i>	<i>70-130</i>			





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

Project: 610 Market Street  
Project Number: 610 Market St./ Oakland  
Project Manager: Nick Sudano

**Reported:**  
01/03/01 09:43

**MTBE Confirmation by EPA Method 8260A - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1A02024 - EPA 5030B [P/T]</b>										
<b>Blank (1A02024-BLK1)</b>										
Prepared & Analyzed: 12/25/00										
Methyl tert-butyl ether	ND	1.00	ug/l							
Surrogate: 1,2-Dichloroethane-d4	9.21		"	10.0		92.1	70-130			
<b>LCS (1A02024-BS1)</b>										
Prepared & Analyzed: 12/25/00										
Methyl tert-butyl ether	9.44	1.00	ug/l	10.0		94.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	10.6		"	10.0		106	70-130			
<b>LCS Dup (1A02024-BSD1)</b>										
Prepared & Analyzed: 12/25/00										
Methyl tert-butyl ether	10.3	1.00	ug/l	10.0		103	70-130	8.71	25	
Surrogate: 1,2-Dichloroethane-d4	10.5		"	10.0		105	70-130			
<b>Matrix Spike (1A02024-MS1)</b>										
Source: MJL0337-04 Prepared & Analyzed: 12/25/00										
Methyl tert-butyl ether	175	20.0	ug/l	200	ND	87.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	16.1		"	10.0		161	70-130			S-04
<b>Matrix Spike Dup (1A02024-MSD1)</b>										
Source: MJL0337-04 Prepared & Analyzed: 12/25/00										
Methyl tert-butyl ether	149	20.0	ug/l	200	ND	74.5	70-130	16.0	25	
Surrogate: 1,2-Dichloroethane-d4	15.4		"	10.0		154	70-130			S-04





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

Project: 610 Market Street  
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Project Manager: Nick Sudano

**Reported:**  
01/03/01 09:43

### Notes and Definitions

H-02 This sample was analyzed outside of EPA recommended hold time.

M-03 Sample was analyzed at a second dilution per clients request.

P-01 Chromatogram Pattern: Gasoline C6-C12

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

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

LAB

SEQUOIA

DH

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTIC LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER

RWQCB REGION \_\_\_\_\_

### CHAIN OF CUSTODY

CLIENT 00130-21  
 Equiva - Karen Petryna

SITE  
 610 Market Street  
 Oakland, CA

C = COMPOSITE ALL CONTAINERS

SAMPLE I.D.	DATE	TIME	MATRIX		CONTAINERS	
			S= SOIL W=H <sub>2</sub> O	TOTAL		

1001	11/20/00	1235	✓	3															
1002		1215	✓	3															
1003		1250	✓	3															

TPH - gas, BTEX  
 MTBE by 8020  
 MTBE by 8260  
 TPH - diesel  
 Oxygenates by 8260

### SPECIAL INSTRUCTIONS

Send invoice to Equiva

Incident # 98995750

Send report to Blaine Tech Services, Inc.

ATTN: Nick Sudano

*MJL 01/63*

ADD'L INFORMATION      STATUS      CONDITION      LAB SAM

*'Confian highest MADE AIR  
 by EPA SAGO.'*

SAMPLING COMPLETED DATE 11/20/00 TIME 1250 SAMPLING PERFORMED BY SEJ

RESULTS NEEDED NO LATER THAN

RELEASED BY SEJ DATE 12/1/00 TIME 8:40 RECEIVED BY Stans M (mt) DATE 12/1 TIME 8

RELEASED BY SEJ DATE 12/1/00 TIME 12 RECEIVED BY MTB DATE 12/1 TIME 12

RELEASED BY \_\_\_\_\_ DATE \_\_\_\_\_ TIME \_\_\_\_\_ RECEIVED BY \_\_\_\_\_ DATE \_\_\_\_\_ TIME \_\_\_\_\_

\_\_\_\_\_ SHIPPED VIA \_\_\_\_\_ DATE SENT \_\_\_\_\_ TIME SENT \_\_\_\_\_ COOLER # \_\_\_\_\_



# EQUIVA WELL MONITORING DATA SHEET

Project #: <u>001139-S4</u>	Job #: <del>0130-33</del> <u>204-5509-5702</u>
Sampler: <u>Stylin</u>	Date: <u>11/30/00</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>21.57</u>	Depth to Water: <u>14.20</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 * 0.163	

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

<u>674</u>	X	<u>3</u>	=	<u>2022</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>1228</u>	<u>46.7</u>	<u>6.7</u>	<u>799.6</u>	<u>7200</u>	<u>7</u>	<u>Turbid</u>
<u>122</u>	<u>69.9</u>	<u>6.6</u>	<u>983.1</u>	<u>7200</u>	<u>14</u>	<u>"</u>
<u>1230</u>	<u>70.5</u>	<u>6.7</u>	<u>941.2</u>	<u>7200</u>	<u>21</u>	<u>"</u>

Did well dewater? Yes  No       Gallons actually evacuated: 21

Sampling Time: 1235      Sampling Date: 11/30/00

Sample I.D.: MW-1      Laboratory: Segube BC Other: \_\_\_\_\_

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

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





# EQUIVA WELL MONITORING DATA SHEET

Project #: <u>001130-53</u>	Job # <u>204-5508-5702</u>
Sampler: <u>Steph</u>	Date: <u>11/30/00</u>
Well I.D.: <u>4" 3</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>19.75</u>	Depth to Water: <u>12.10</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 * 0.163

Purge Method:  Bailer  Middleburg  Electric Submersible  Extraction Pump

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

Sampling Method:  Bailer  Extraction Port

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

<u>4.97</u>	X	<u>3</u>	=	<u>14.92</u>	Gals
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>1243</u>	<u>70.3</u>	<u>7.0</u>	<u>724.1</u>	<u>7200</u>	<u>5</u>	<u>Turbid/odor</u>
<u>1244</u>	<u>72.0</u>	<u>6.9</u>	<u>735.50</u>	<u>7200</u>	<u>10</u>	<u>"</u>
<u>1245</u>	<u>72.2</u>	<u>6.9</u>	<u>490.1</u>	<u>200</u>	<u>15</u>	<u>"</u>

Did well dewater? Yes   No Gallons actually evacuated: 15

Sampling Time: 1250 Sampling Date: 11/30/00

Sample I.D.: 4" 3 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
C.F.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV