

# TOXICEM Management Systems, Inc.

Environmental & Occupational Health Services

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(415) 681-8816 / Fax (415) 681-8132

Industrial Hygiene - Exposure Assessment  
Quantitative Risk Assessment  
Compliance Audits  
Real Property Environmental Assessments  
Remedial Investigations  
Air, Soil, and Groundwater Sampling  
Remedial Engineering and Construction  
Regulatory Compliance and Negotiation  
Litigation Support Services

JUL 10 2001

July 5, 2001  
Project EQ-02.1A

# 435

REPORTS

Mr. Barney M. Chan  
Alameda County Health Care Services Agency  
Environmental Protection Division  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: **Quarterly Monitoring Report - First Quarter 2001**  
Former Texaco Service Station  
3810 Broadway, Oakland, California 94611  
Equiva Incident No. 93995026, SAP No. 128141

Dear Mr. Chan:

On behalf of Equiva Services LLC, this letter transmits the results of first quarter 2001 groundwater monitoring and sampling conducted at the site referenced above. This report presents an interpretation of results and recommendations and schedule for future actions. The groundwater elevation and analytical data are shown on Figures 1 and 2, respectively.

## INTERPRETATION OF RESULTS

### Groundwater Elevation

Groundwater monitoring and sampling data for the reporting was collected by Blaine Tech Services, Inc. on March 23, 2001. The average groundwater elevation at the site increased approximately 1 to 3 feet since the previous quarterly groundwater monitoring and sampling event, and it remains within the historical range of groundwater elevation.

### Groundwater Flow Direction and Gradient

During the reporting quarter, the direction of groundwater flow was northwest and the groundwater gradient was estimated at 0.03.

### Analytical Results

During the reporting quarter, separate phase hydrocarbons (SPH) were not measured in any well. Overall, the dissolved groundwater concentrations appear stable with no apparent fluctuations outside historical ranges.

### Groundwater Extraction Pilot Program

On February 8 and 22, 2001, a vacuum truck was used to extract groundwater from Well MW-6 to evaluate the potential effects on groundwater concentrations prior to groundwater monitoring and sampling. A total of 223 gallons of groundwater were extracted and transported to the Equilon Enterprises LLC Martinez Refinery for disposal. Based on the volume removed and fourth quarter 2000 groundwater monitoring and sampling concentrations, approximately 0.06 pounds of petroleum hydrocarbons were recovered. Between the fourth quarter 2000 and first quarter 2001 groundwater monitoring and sampling events, the petroleum hydrocarbon concentrations measured in Well MW-6 generally increased and are within their historical concentration ranges. This suggests that the extraction of groundwater from Well MW-6 had negligible effect on reducing concentrations.

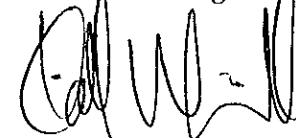
### RECOMMENDATIONS AND SCHEDULE FOR FUTURE ACTIONS

1. Continue the quarterly groundwater monitoring and sampling program.
2. Resume the analysis for methyl tertiary butyl ether by EPA Method 8020 because site usage has recently changed to an operating gasoline station.
3. Respond to Alameda County Health Care Services Agency's letter to Ms. Karen Petryna of Equiva, dated March 29, 2001.

If you have any questions regarding this site, please contact me at (415) 681-8816.

Sincerely,

Toxichem Management Systems, Inc.



Keith Winemiller, P.E.  
Senior Engineer



Enclosures

cc: Ms. Karen Petryna, P.E., Equiva Services LLC, P. O. Box 7869, Burbank, CA 91510-7869  
Mr. Joe Zadik, 8255 San Leandro Street, Oakland, CA 94621

Table 1  
Groundwater Extraction by Vacuum Truck

Former Texaco Service Station  
3810 Broadway  
Oakland, California

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene			MTBE		
					TPPH* Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene* Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE* Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)
02/08/01	MW-6	121	121	03/06/01	32,100	0.032	0.032	3,760	0.004	0.004	NA	NA	NA
02/22/01	MW-6	102	223	03/06/01	32,100	0.027	0.060	3,760	0.003	0.007	NA	NA	NA
<b>Total Gallons Extracted:</b>			<b>223</b>	<b>Total Pounds Removed:</b>			<b>0.060</b>	<b>0.007</b>			<b>NA</b>		
				<b>Total Gallons Removed:</b>			<b>0.010</b>	<b>0.001</b>			<b>NA</b>		

**Abbreviations & Notes:**

TPPH = Total purgeable hydrocarbons as gasoline

MTBE = Methyl tert-butyl ether

mg/L = Micrograms per liter

ppb = Parts per billion, equivalent to mg/L

L = Liter

gal = Gallon

g = Gram

\* = Concentration based on most recent groundwater monitoring results

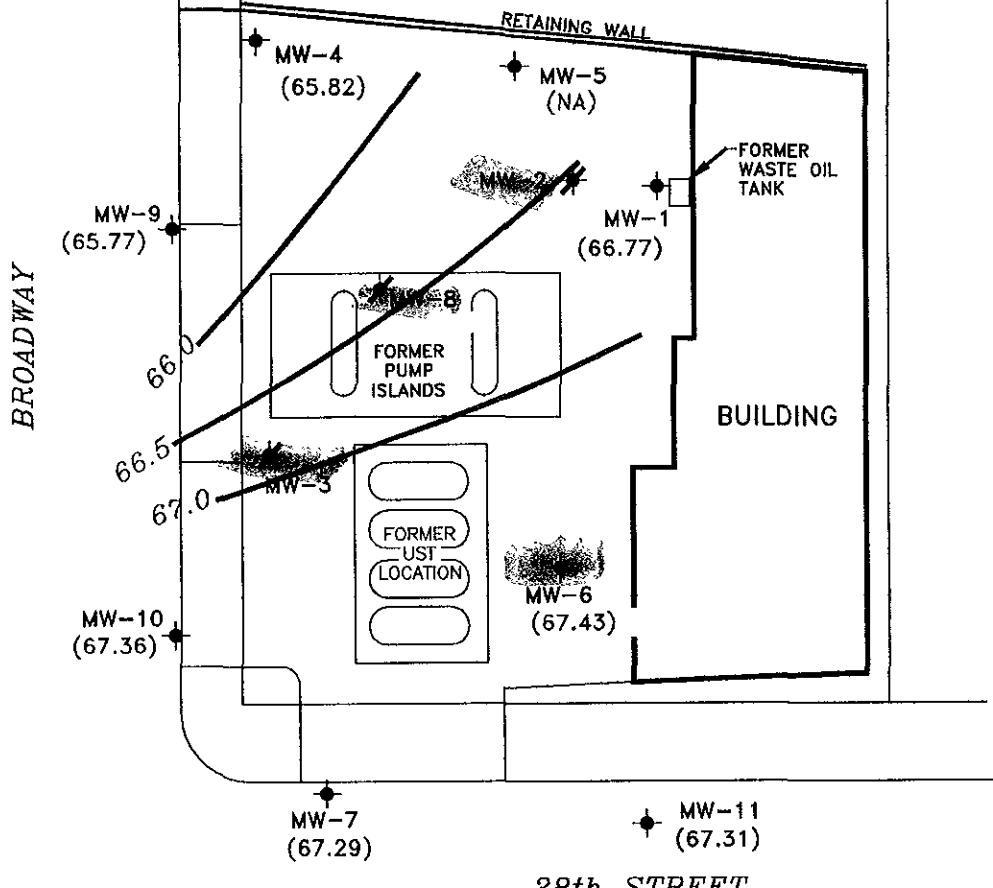
Mass removed based on the formula: volume extracted (gal) x Concentration (mg/L) x (g/10<sup>6</sup>mg) x (pound/453.6g) x (3.785 L/gal)

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

TPPH, benzene analyzed by EPA Method 8015/8020

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

Groundwater extracted by vacuum trucks provided by ACTI. Water disposed of at a Martinez Refinery.



Reference: EQ-02.1A/BR-OA.DWG  
Basemap from Remediation Risk Management, Inc.

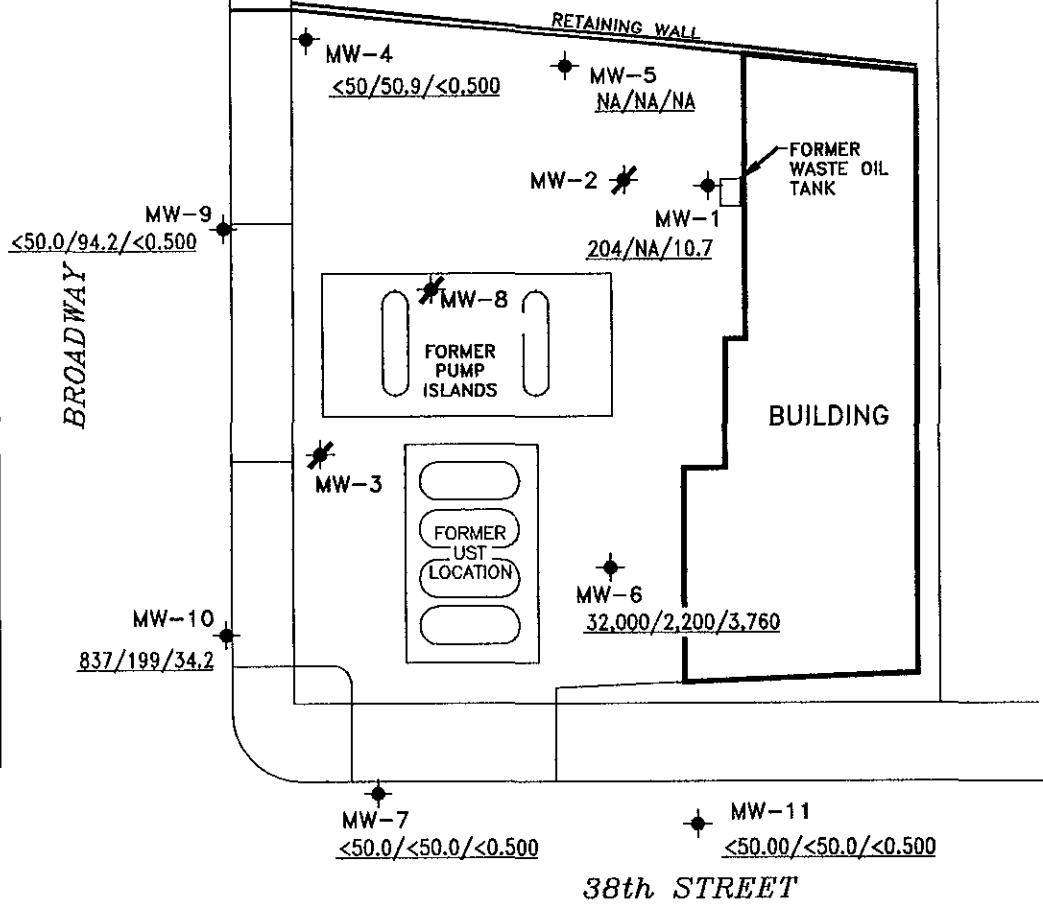


GROUNDWATER ELEVATION CONTOUR MAP, MARCH 23, 2001

Former Texaco Service Station  
3810 Broadway  
Oakland, California

FIGURE: 1

PROJECT: EQ-02



EXPLANATION

- MONITORING WELL
- \* DESTROYED WELL

<50.0/<50.0/<0.500 TPPH/TEPH/BENZENE CONCENTRATION IN GROUNDWATER,  
IN MICROGRAMS PER LITER, 3-23-01  
M<sup>t</sup>BE BY EPA METHOD 8260, IF AVAILABLE

NA DATA NOT AVAILABLE

SCALE (ft)

0 30

Reference: EQ-02-1A/BR-OA.DWG  
Basemap from Remediation Risk Management, Inc.



**TOXICHEM**  
Management  
Systems, Inc.  
Environmental & Occupational Health Services

TPPH/TEPH/BENZENE CONCENTRATION MAP, MARCH 23, 2001

Former Texaco Service Station  
3810 Broadway  
Oakland, California

FIGURE:

2

PROJECT:  
EQ-02

**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](http://www.blainetech.com)

April 9, 2001

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

First Quarter 2001 Groundwater Monitoring at  
Former Texaco Service Station  
3800 Broadway  
Oakland, CA

Monitoring performed on March 6 and 23, 2001

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#### Groundwater Monitoring Report 010306-T-1

This report covers the routine monitoring of groundwater wells at this Former Texaco 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.

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,



Deidre Kerwin  
Operations Manager

DK/jt

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

cc: Keith Winemiller  
Toxichem Management Systems, Inc.  
1562 44<sup>th</sup> Avenue  
San Francisco, CA 94122

**WELL CONCENTRATIONS**  
**Former Texaco Service Station**  
**3800 Broadway**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
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MW-1	06/28/1996	<100	<50	<0.5	<1.0	<1.0	<2.0	NA	NA	86.69	21.77	NA	64.92	NA	NA
MW-1	10/10/1996	520	<400	9.2	53	17	70	22	16**	86.69	23.26	NA	63.43	NA	NA
MW-1	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	86.69	23.27	NA	63.42	NA	NA
MW-1	12/18/1997	2,200	<50	<3.0	<3.0	<3.0	<3.0	<200	NA	86.69	19.70	NA	66.99	NA	NA
MW-1	04/06/1998	1,600	<50	16.4	0.8	<0.5	<0.5	38.3	NA	86.69	16.88	NA	69.81	NA	NA
MW-1	06/18/1998	330	280	7.8	<0.5	<0.5	<0.5	<0.5	NA	86.69	19.78	NA	66.91	NA	NA
MW-1	08/31/1998	<50	150	1.5	<0.5	<0.5	<0.5	<2.5	NA	86.69	21.71	NA	64.98	NA	NA
MW-1	12/21/1998	130	130	2.3	0.90	<0.5	<0.5	110	13	86.69	22.15	NA	64.54	NA	NA
MW-1	03/24/1999	1,520	305	11.7	<2.50	<2.50	<2.50	21.6	<25.0	86.69	19.55	NA	67.14	NA	NA
MW-1	06/25/1999	231	207	5.29	<0.500	<0.500	<0.500	3.94	1.01	86.69	21.60	NA	65.09	NA	NA
MW-1	09/24/1999	58.6	71.7	6.03	<0.500	<0.500	<0.500	3.70	NA	86.69	22.58	NA	64.11	NA	NA
MW-1	12/29/1999	117	345	4.26	<0.500	<0.500	1.97	26.2	<0.500	86.69	22.81	NA	63.88	NA	NA
MW-1	03/21/2000	834	319	<0.500	<0.500	<0.500	<0.500	21.5	NA	86.69	19.00	NA	67.69	NA	NA
MW-1	07/26/2000	<50.0	125	<0.500	<0.500	<0.500	<0.500	<2.50	NA	86.69	21.50	NA	65.19	NA	NA
MW-1	09/06/2000	88.1	192	15.60	<0.500	<0.500	<0.500	NA	NA	86.69	21.90	NA	64.79	NA	NA
MW-1	11/29/2000	<50.0	331	3.52	<0.500	<0.500	<0.500	NA	NA	86.92	22.05	NA	64.87	NA	NA
MW-1	03/06/2001	NA	NA	NA	NA	NA	NA	NA	NA	86.92	19.79	NA	67.13	NA	NA
MW-1	03/23/2001	204	d	10.7	<0.500	<0.500	<0.500	NA	NA	86.92	20.15	NA	66.77	NA	NA

MW-2	06/28/1996	NA	NA	NA	NA	NA	NA	NA	NA	85.83	22.10	NA	63.73	1.35	NA
MW-2	10/10/1996	99,000	1,800	4,100	9,400	2,300	9,900	390	<25**	85.83	22.36	NA	63.47	NA	NA
MW-2	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	85.83	22.39	NA	63.45	0.01	NA
MW-2	12/18/1997	24,000	4,700	600	1,800	750	2,400	<2,000	NA	85.83	20.19	NA	65.64	NA	NA
MW-2	04/06/1998	20,100	9.5	252	448	430	1,410	<200	NA	85.83	18.00	NA	67.83	NA	NA
MW-2	06/18/1998	20,000	5,200	240	370	270	790	<50	NA	85.83	19.63	NA	66.20	NA	NA
MW-2	08/31/1998	72,000	19,000	270	990	630	1,700	<125	NA	85.83	21.01	NA	64.82	NA	NA
MW-2	12/21/1998	290	13,000	8.7	18	9.7	38	10	29	85.83	21.31	NA	64.52	NA	NA
MW-2	03/24/1999	80,400	5,590	651	1,860	1,120	3,730	<40.0	<100	85.83	19.18	NA	66.65	NA	NA

**WELL CONCENTRATIONS**  
**Former Texaco Service Station**  
**3800 Broadway**  
**Oakland, CA**

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MW-2	06/25/1999	34,700	12,100	504	1,300	716	2,160	<40.0	NA	85.83	20.78	NA	65.05	NA	NA
MW-2	09/24/1999	6,510	108	1,030	350	183	680	<50.0	NA	85.83	21.82	NA	64.01	NA	1.0/.80
MW-2	12/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	85.83	22.17	21.87	63.90	0.30	2.6
MW-2	01/07/2000	NA	NA	NA	NA	NA	NA	NA	NA	85.83	22.84	22.45	63.30	0.39	NA
MW-2	03/21/2000	54,100	41,100	1,260	3,320	2,180	8,200	<1,250	NA	a	18.19	NA	NA	NA	3.3/3.6
MW-2	NA	Well destroyed		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

MW-3	06/28/1996	NA	NA	NA	NA	NA	NA	NA	NA	83.18	19.04	NA	64.14	NA	NA
MW-3	10/10/1996	110,000	1,200	6,600	16,000	2,200	12,000	<250	NA	83.18	19.51	NA	63.67	NA	NA
MW-3	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.40	NA	19.84	NA	NA
MW-3	12/18/1997	180,000	6,100,000	1,500	16,000	4,600	23,000	<3,000	NA	83.18	18.79	NA	64.39	NA	NA
MW-3	04/06/1998	NA	NA	NA	NA	NA	NA	NA	NA	83.18	16.58	NA	66.64	0.05	NA
MW-3	06/18/1998	NA	NA	NA	NA	NA	NA	NA	NA	83.18	NA*	NA	NA	>2.0	NA
MW-3	08/31/1998	NA	NA	NA	NA	NA	NA	NA	NA	83.18	19.56	NA	63.68	0.07	NA
MW-3	12/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	83.18	20.23	NA	65.13	2.73	NA
MW-3	03/24/1999	NA	NA	NA	NA	NA	NA	NA	NA	83.18	16.76	15.90	67.11	0.86	NA
MW-3	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	83.18	18.47	18.17	64.95	0.30	NA
MW-3	09/24/1999	NA	NA	NA	NA	NA	NA	NA	NA	83.18	19.43	19.35	63.81	0.08	NA
MW-3	12/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	83.18	19.25	19.21	63.96	0.04	NA
MW-3	01/07/2000	NA	NA	NA	NA	NA	NA	NA	NA	83.18	19.87	19.80	63.37	0.07	NA
MW-3	NA	Well destroyed		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

MW-4	06/28/1996	<100	<50	<0.5	<1.0	<1.0	<2.0	NA	NA	83.31	18.83	NA	64.48	NA	NA	
MW-4	10/10/1996	650	<50	3.9	65	22	120	<5.0	NA	83.31	19.84	NA	63.47	NA	NA	
MW-4	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	83.31	19.84	NA	63.47	NA	NA	
MW-4	12/18/1997	<50	2,000	<0.5	<0.5	<0.5	<0.5	<30	NA	83.31	17.77	NA	65.54	NA	NA	
MW-4	04/06/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<30	NA	83.31	15.45	NA	67.86	NA	NA	
MW-4	06/18/1998	<50	53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	83.31	16.89	NA	66.42	NA	NA

**WELL CONCENTRATIONS**  
**Former Texaco Service Station**  
**3800 Broadway**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
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MW-4	08/31/1998	<50	60	<0.5	<0.5	<0.5	<0.5	<2.5	NA	83.31	18.48	NA	64.83	NA	NA
MW-4	12/21/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	83.31	18.80	NA	64.51	NA	NA
MW-4	03/24/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	83.31	16.70	NA	66.61	NA	NA
MW-4	06/25/1999	<50.0	128	<0.500	<0.500	<0.500	<0.500	<2.00	NA	83.31	18.16	NA	65.15	NA	NA
MW-4	09/24/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	83.31	19.12	NA	64.19	NA	NA
MW-4	12/29/1999	<50.0	169	<0.500	<0.500	<0.500	<0.500	<5.00	NA	83.31	19.08	NA	64.23	NA	NA
MW-4	03/21/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	83.31	16.10	NA	67.21	NA	NA
MW-4	07/26/2000	Obstruction in well		NA	NA	NA	NA	NA	NA	83.31	NA	NA	NA	NA	NA
MW-4	09/06/2000	<50.0	c	<0.500	<0.500	<0.500	<0.500	NA	NA	83.31	18.52	NA	64.79	NA	NA
MW-4	11/29/2000	<50.0	183	<0.500	<0.500	<0.500	<0.500	NA	NA	83.63	18.75	NA	64.88	NA	NA
MW-4	03/06/2001	<50.0	50.9	<0.500	<0.500	<0.500	<0.500	NA	NA	83.63	17.81	NA	65.82	NA	NA

MW-5	10/10/1996	1,800	<50	34	4.7	11	44	21	5.0**	85.41	21.93	NA	63.48	NA	NA
MW-5	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	85.41	21.96	NA	63.45	NA	NA
MW-5	12/18/1997	1,200	<50	15	<1.0	15	<1.0	72	NA	85.41	19.81	NA	65.60	NA	NA
MW-5	04/06/1998	1,000	<50	126	0.5	0.8	1.5	<30	NA	85.41	17.43	NA	67.98	NA	NA
MW-5	06/18/1998	110	100	6.9	<0.5	<0.5	<0.5	<0.5	NA	85.41	19.15	NA	66.26	NA	NA
MW-5	08/31/1998	480	120	5.3	<2.5	<2.5	<2.5	<12	NA	85.41	20.46	NA	64.95	NA	NA
MW-5	12/21/1998	270	100	16	2.9	1.3	<1.0	34	<2.0	85.41	20.91	NA	64.50	NA	NA
MW-5	03/24/1999	143	93.3	2.80	<0.500	0.749	<0.500	<2.00	<5.00	85.41	18.74	NA	66.67	NA	NA
MW-5	06/25/1999	847	125	6.61	<0.500	0.611	<0.500	2.69	<2.00	85.41	20.31	NA	65.10	NA	NA
MW-5	09/24/1999	563	94.0	6.00	<2.50	<2.50	<2.50	25.1	NA	85.41	21.36	NA	64.05	NA	NA
MW-5	12/29/1999	896	173	16.6	1.48	8.92	2.67	61.1	<0.500	85.41	21.41	NA	64.00	NA	NA
MW-5	03/21/2000	858	158	53.7	<1.00	21.4	8.00	11.6	NA	85.41	18.13	NA	67.28	NA	NA
MW-5	07/26/2000	Obstruction in well		NA	NA	NA	NA	NA	NA	85.41	NA	NA	NA	NA	NA
MW-5	09/06/2000	670	231	153	<2.50	7.87	<2.50	NA	NA	85.41	20.33	NA	65.08	NA	NA
MW-5	11/29/2000	Obstruction in well		NA	NA	NA	NA	NA	NA	85.13	NA	NA	NA	NA	NA
MW-5	03/06/2001	Obstruction in well		NA	NA	NA	NA	NA	NA	85.13	NA	NA	NA	NA	NA

**WELL CONCENTRATIONS**  
**Former Texaco Service Station**  
**3800 Broadway**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
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MW-6	10/10/1996	45,000	500	8,300	2,900	810	3,100	190	40**	86.09	22.44	NA	63.65	NA	NA
MW-6	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	86.09	22.60	NA	63.49	NA	NA
MW-6	12/18/1997	60,000	1,900	12,000	9,800	1,800	8,600	<2,000	NA	86.09	22.28	NA	63.81	NA	NA
MW-6	04/06/1998	30,500	<50	5,950	3,720	952	3,750	<1,000	NA	86.09	19.90	NA	66.19	NA	NA
MW-6	06/18/1998	23,000	1,100	2,600	540	410	1,300	<250	NA	86.09	20.49	NA	65.60	NA	NA
MW-6	08/31/1998	17,000	1,800	3,400	460	530	1,800	<250	NA	86.09	21.05	NA	65.04	NA	NA
MW-6	12/21/1998	7,900	930	1,900	510	280	730	150	2.6	86.09	21.74	NA	64.35	NA	NA
MW-6	03/24/1999	12,200	763	1,970	327	338	794	<40.0	<50.0	86.09	21.18	NA	64.91	NA	NA
MW-6	06/25/1999	14,800	1,050	2,040	1,080	406	1,430	<40.0	NA	86.09	21.34	NA	64.75	NA	NA
MW-6	09/24/1999	17,200	1,720	2,810	1,330	489	2,340	<50.0	NA	86.09	22.28	NA	63.81	NA	1.0/1.2
MW-6	12/29/1999	14,700	1,480	2,790	974	469	1,720	<500	NA	86.09	24.96	NA	61.13	NA	1.3/1.5
MW-6	03/21/2000	20,000	1,120	4,160	962	719	2,330	<250	NA	86.09	18.70	NA	67.39	NA	3.0/4.3
MW-6	07/26/2000	Well inaccessible	NA	NA	NA	NA	NA	NA	NA	86.09	NA	NA	NA	NA	NA
MW-6	09/06/2000	Well inaccessible	NA	NA	NA	NA	NA	NA	NA	86.09	NA	NA	NA	NA	NA
MW-6	11/29/2000	22,800	2,060	4,120	2,010	872	3,180	NA	NA	86.48	21.30	NA	65.18	NA	2.0/1.8
MW-6	03/06/2001	32,100	2,220	3,760	4,590	1,160	5,360	NA	NA	86.48	19.05	NA	67.43	NA	3.7/4.0

MW-7	10/10/1996	<50	<50	0.6	<0.5	<0.5	<0.5	<5.0	NA	84.11	20.78	NA	63.33	NA	NA	
MW-7	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	84.11	20.80	NA	63.31	NA	NA	
MW-7	12/18/1997	<50	<50	<0.5	<0.5	<0.5	<0.5	<30	NA	84.11	17.27	NA	66.84	NA	NA	
MW-7	04/06/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<30	NA	84.11	15.91	NA	68.20	NA	NA	
MW-7	06/18/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	NA	84.11	17.95	NA	66.16	NA	NA	
MW-7	08/31/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	84.11	19.40	NA	64.71	NA	NA	
MW-7	12/21/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	84.11	19.75	NA	64.36	NA	NA	
MW-7	03/24/1999	<50.0	51.3	<0.500	<0.500	<0.500	<0.500	<0.500	<2.00	NA	84.11	17.54	NA	66.57	NA	NA
MW-7	06/25/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<2.00	NA	84.11	19.22	NA	64.89	NA	NA
MW-7	09/24/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	84.11	20.18	NA	63.93	NA	1.4/1.6	
MW-7	12/29/1999	<50.0	99.0	<0.500	<0.500	<0.500	<0.500	<0.500	<5.00	NA	84.11	20.15	NA	63.96	NA	2.3/1.8

**WELL CONCENTRATIONS**  
**Former Texaco Service Station**  
**3800 Broadway**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
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MW-7	03/21/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	84.11	16.35	NA	67.76	NA	5.8/9.0
MW-7	07/26/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	84.11	18.99	NA	65.12	NA	6.0/6.6
MW-7	09/06/2000	<50.0	c	<0.500	<0.500	<0.500	<0.500	NA	NA	84.11	19.49	NA	64.62	NA	4.3/5.0
MW-7	11/29/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	NA	NA	84.44	19.52	NA	64.92	NA	4.0/3.7
MW-7	03/06/2001	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	NA	NA	84.44	17.15	NA	67.29	NA	4.7/5.1

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MW-8	10/10/1996	17,000	110	1,300	1,200	64	1,300	110	<5.0**	84.01	20.82	NA	63.19	NA	NA
MW-8	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.44	NA	63.57	NA	NA
MW-8	12/18/1997	15,000	630	3,600	1,800	410	930	<600	NA	84.01	19.36	NA	64.65	NA	NA
MW-8	04/06/1998	32,300	<50	8,230	5,900	718	2,120	<1,000	NA	84.01	16.19	NA	67.82	NA	NA
MW-8	06/18/1998	74,000	<50	5,400	4,500	700	2,200	2,400	NA	84.01	17.75	NA	66.26	NA	NA
MW-8	08/31/1998	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-8	12/21/1998	9,600	1,200	2,600	410	220	300	700	<2.0	84.01	19.48	NA	64.53	NA	NA
MW-8	03/24/1999	86,100	2,890	9,890	11,700	1,650	7,130	<200	<250	84.01	17.44	NA	66.57	NA	NA
MW-8	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.69	20.59	63.40	0.10	NA
MW-8	07/01/1999	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.45	18.56	65.07	1.89	NA
MW-8	09/24/1999	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.98	19.45	64.25	1.53	NA
MW-8	12/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.25	19.99	63.97	0.26	NA
MW-8	01/07/2000	NA	NA	NA	NA	NA	NA	NA	NA	84.01	21.00	20.60	63.33	0.40	NA
MW-8	NA	Well destroyed		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

MW-9	10/10/1996	80	520	2.5	13	2.2	13	<5.0	NA	82.17	18.62	NA	63.55	NA	NA	
MW-9	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	63.53	NA	63.53	NA	NA	
MW-9	12/18/1997	<50	<50	<0.5	<0.5	<0.5	<0.5	<30	NA	82.17	16.42	NA	65.75	NA	NA	
MW-9	04/06/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<30	NA	82.17	14.00	NA	68.17	NA	NA	
MW-9	06/18/1998	<50	100	<0.5	<0.5	<0.5	<0.5	<0.5	NA	82.17	15.33	NA	66.84	NA	NA	
MW-9	08/31/1998	<50	57	<0.5	<0.5	<0.5	<0.5	<2.5	NA	82.17	17.14	NA	65.03	NA	NA	
MW-9	12/21/1998	<50	71	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	NA	82.17	17.40	NA	64.77	NA	NA

**WELL CONCENTRATIONS**  
**Former Texaco Service Station**  
**3800 Broadway**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
MW-9	03/24/1999	<50.0	84.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	82.17	16.22	NA	65.95	NA	NA
MW-9	06/25/1999	<50.0	92.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	82.17	16.90	NA	65.27	NA	NA
MW-9	09/24/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	82.17	17.89	NA	64.28	NA	1.0/1.2
MW-9	12/29/1999	<50.0	52.8	<0.500	<0.500	<0.500	<0.500	<5.00	NA	82.17	18.01	NA	64.16	NA	3.3/2.7
MW-9	03/21/2000	<50.0	72.4	<0.500	<0.500	<0.500	<0.500	<2.50	NA	82.17	14.80	NA	67.37	NA	3.2/7.3
MW-9	07/26/2000	<50.0	83.6	<0.500	<0.500	<0.500	<0.500	<2.50	NA	82.17	17.17	NA	65.00	NA	3.6/1.8
MW-9	09/06/2000	<50.0	74.3	<0.500	<0.500	<0.500	<0.500	NA	NA	82.17	17.95	NA	64.22	NA	3.8/4.0
MW-9	11/29/2000	<50.0	96.2	<0.500	<0.500	<0.500	<0.500	NA	NA	82.52	18.10	NA	64.42	NA	2.0/2.0
MW-9	03/06/2001	<50.0	94.2	<0.500	<0.500	<0.500	<0.500	NA	NA	82.52	16.75	NA	65.77	NA	4.0/4.9
MW-10	10/10/1996	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	81.83	18.40	NA	63.43	NA	NA
MW-10	11/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	81.83	18.43	NA	63.40	NA	NA
MW-10	12/18/1997	350	<50	6.9	0.87	0.88	0.77	<30	NA	81.83	16.18	NA	65.65	NA	NA
MW-10	04/06/1998	2,300	<50	224	168	81.4	253	<30	NA	81.83	14.39	NA	67.44	NA	NA
MW-10	06/18/1998	7,200	320	310	210	83	280	<0.5	NA	81.83	15.11	NA	66.72	NA	NA
MW-10	08/31/1998	460	120	51	8.2	5.1	10	<5.0	NA	81.83	17.03	NA	64.80	NA	NA
MW-10	12/21/1998	120	79	5.5	<1.0	<1.0	<1.0	8.7	<2.0	81.83	17.32	NA	64.51	NA	NA
MW-10	03/24/1999	1,330	923	85.9	42.9	29.7	95.2	20.4	<25.0	81.83	15.25	NA	66.58	NA	NA
MW-10	06/25/1999	1,130	167	115	32.6	17.2	36.3	<4.00	NA	81.83	16.82	NA	65.01	NA	NA
MW-10	09/24/1999	382	76.7	20.0	<1.00	2.21	1.37	8.83	NA	81.83	17.75	NA	64.08	NA	NA
MW-10	12/29/1999	114	107	9.03	<0.500	0.531	<0.500	<5.00	NA	81.83	18.13	NA	63.70	NA	NA
MW-10	03/21/2000	1,270	194	86.3	52.3	38.1	102	19.5	NA	81.83	14.22	NA	67.61	NA	NA
MW-10	07/26/2000	562	192	74.8	7.51	24.3	14.8	13.3	<1.00b	81.83	16.61	NA	65.22	NA	NA
MW-10	09/06/2000	606	205	93.4	5.36	16.7	38.9	NA	NA	81.83	17.08	NA	64.75	NA	NA
MW-10	11/29/2000	583	258	40.0	1.46	4.69	15.8	NA	NA	82.16	16.90	NA	65.26	NA	NA
MW-10	03/06/2001	837	199	34.2	26.4	20.8	27.5	NA	NA	82.16	14.80	NA	67.36	NA	NA
MW-11	08/08/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	25.61	NA	NA	NA	NA

**WELL CONCENTRATIONS**  
**Former Texaco Service Station**  
**3800 Broadway**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
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MW-11	08/16/2000	<50.0	56.80	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	25.50	NA	NA	NA	NA
MW-11	09/06/2000	<50.0	c	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	25.90	NA	NA	NA	NA
MW-11	11/29/2000	<50.0	63.8	<0.500	<0.500	<0.500	<0.500	NA	NA	90.63	25.80	NA	64.83	NA	NA
MW-11	03/06/2001	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	NA	NA	90.63	23.32	NA	67.31	NA	NA

Abbreviations:

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

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

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

MTBE = methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

D.O. = Dissolved Oxygen

ug/L = parts per billion

ppm = parts per million

msl = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

NA = Not applicable

n/n = Pre-purge/Post-purge D.O. reading.

**WELL CONCENTRATIONS**  
**Former Texaco Service Station**  
**3800 Broadway**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
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Notes:

\* Free product could not be accurately measured (>2.0 feet of product in well).

\*\* MTBE confirmation by 8240.

a = TOC for MW-2 has changed.

b = This sample analyzed outside of EPA recommended hold time.

c = During shipment by laboratory, sample containers for MW-4, MW-7, and MW-11 were broken.

d = Sample containers for TEPH broke during transport to lab.

Survey information provided by Toxicem Management Systems, Inc., on December 11, 2000.



# Sequoia Analytical

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Morgan Hill, CA 95037  
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5 April, 2001

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

RE: 3800 Broadway  
Sequoia Report: MKC0157

Enclosed are the results of analyses for samples received by the laboratory on 03/07/01 09:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jeff Smyly  
Project Manager

CA ELAP Certificate #1210





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
04/05/01 17:34

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4	MKC0157-01	Water	03/06/01 10:00	03/07/01 09:55
MW-6	MKC0157-02	Water	03/06/01 11:20	03/07/01 09:55
MW-7	MKC0157-03	Water	03/06/01 09:30	03/07/01 09:55
MW-9	MKC0157-04	Water	03/06/01 10:20	03/07/01 09:55
MW-10	MKC0157-05	Water	03/06/01 11:00	03/07/01 09:55
MW-11	MKC0157-06	Water	03/06/01 09:50	03/07/01 09:55

Sequoia Analytical - Morgan Hill

Jeff Smyly, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*





# Sequoia Analytical

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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
04/05/01 17:34

## 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-4 (MKC0157-01) Water Sampled: 03/06/01 10:00 Received: 03/07/01 09:55</b>									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C13009	03/13/01	03/13/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.0 %	70-130	"	"	"	"	"	
<b>MW-6 (MKC0157-02) Water Sampled: 03/06/01 11:20 Received: 03/07/01 09:55</b>									
Purgeable Hydrocarbons	32100	5000	ug/l	100	1C08004	03/08/01	03/08/01	DHS LUFT	P-01
Benzene	3760	50.0	"	"	"	"	"	"	
Toluene	4590	50.0	"	"	"	"	"	"	
Ethylbenzene	1160	50.0	"	"	"	"	"	"	
Xylenes (total)	5360	50.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	70-130	"	"	"	"	"	
<b>MW-7 (MKC0157-03) Water Sampled: 03/06/01 09:30 Received: 03/07/01 09:55</b>									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C08004	03/08/01	03/08/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		106 %	70-130	"	"	"	"	"	
<b>MW-9 (MKC0157-04) Water Sampled: 03/06/01 10:20 Received: 03/07/01 09:55</b>									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C08004	03/08/01	03/08/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	70-130	"	"	"	"	"	





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
04/05/01 17:34

**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-10 (MKC0157-05) Water    Sampled: 03/06/01 11:00    Received: 03/07/01 09:55</b>									
Purgeable Hydrocarbons	837	100	ug/l	2	1C13009	03/13/01	03/13/01	DHS LUFT	P-03
Benzene	34.2	1.00	"	"	"	"	"	"	P-03
Toluene	26.4	1.00	"	"	"	"	"	"	
Ethylbenzene	20.8	1.00	"	"	"	"	"	"	
Xylenes (total)	27.5	1.00	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>163 %</i>		<i>70-130</i>		"	"	"	"	<i>S-02</i>
<b>MW-11 (MKC0157-06) Water    Sampled: 03/06/01 09:50    Received: 03/07/01 09:55</b>									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C08004	03/08/01	03/08/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>106 %</i>		<i>70-130</i>		"	"	"	"	





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Blaine Tech Services (Shell)  
1680 Rogers Avenue  
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Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
04/05/01 17:34

## Diesel Hydrocarbons (C9-C24) by DHS LUFT

### Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-4 (MKC0157-01) Water Sampled: 03/06/01 10:00 Received: 03/07/01 09:55</b>									
Diesel Range Hydrocarbons	50.9	50.0	ug/l	1	1C15014	03/15/01	03/16/01	DHS LUFT	D-15
Surrogate: n-Pentacosane		71.1 %	50-150	"	"	"	"	"	
<b>MW-6 (MKC0157-02) Water Sampled: 03/06/01 11:20 Received: 03/07/01 09:55</b>									
Diesel Range Hydrocarbons	2220	50.0	ug/l	1	1C15014	03/15/01	03/20/01	DHS LUFT	D-15
Surrogate: n-Pentacosane		96.5 %	50-150	"	"	"	"	"	
<b>MW-7 (MKC0157-03) Water Sampled: 03/06/01 09:30 Received: 03/07/01 09:55</b>									
Diesel Range Hydrocarbons	ND	50.0	ug/l	1	1C15014	03/15/01	03/20/01	DHS LUFT	
Surrogate: n-Pentacosane		83.4 %	50-150	"	"	"	"	"	
<b>MW-9 (MKC0157-04) Water Sampled: 03/06/01 10:20 Received: 03/07/01 09:55</b>									
Diesel Range Hydrocarbons	94.2	50.0	ug/l	1	1C15014	03/15/01	03/19/01	DHS LUFT	D-15
Surrogate: n-Pentacosane		88.0 %	50-150	"	"	"	"	"	
<b>MW-10 (MKC0157-05) Water Sampled: 03/06/01 11:00 Received: 03/07/01 09:55</b>									
Diesel Range Hydrocarbons	199	50.0	ug/l	1	1C15014	03/15/01	03/19/01	DHS LUFT	D-15
Surrogate: n-Pentacosane		94.4 %	50-150	"	"	"	"	"	
<b>MW-11 (MKC0157-06) Water Sampled: 03/06/01 09:50 Received: 03/07/01 09:55</b>									
Diesel Range Hydrocarbons	ND	50.0	ug/l	1	1C15014	03/15/01	03/19/01	DHS LUFT	
Surrogate: n-Pentacosane		90.5 %	50-150	"	"	"	"	"	





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

Reported:  
04/05/01 17:34

**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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1C08004 - EPA 5030B [P/T]**

Blank (1C08004-BLK1)							Prepared & Analyzed: 03/08/01			
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	"							
Surrogate: <i>a,a,a-Trifluorotoluene</i>	10.4		"	10.0		104	70-130			

LCS (1C08004-BS1)							Prepared & Analyzed: 03/08/01			
Benzene	9.66	0.500	ug/l	10.0		96.6	70-130			
Toluene	9.99	0.500	"	10.0		99.9	70-130			
Ethylbenzene	10.2	0.500	"	10.0		102	70-130			
Xylenes (total)	30.9	0.500	"	30.0		103	70-130			
Surrogate: <i>a,a,a-Trifluorotoluene</i>	10.3		"	10.0		103	70-130			

Matrix Spike (1C08004-MS1)		Source: MKC0154-02					Prepared & Analyzed: 03/08/01			
Benzene	9.72	0.500	ug/l	10.0	ND	97.2	60-140			
Toluene	10.2	0.500	"	10.0	ND	102	60-140			
Ethylbenzene	10.3	0.500	"	10.0	ND	103	60-140			
Xylenes (total)	31.3	0.500	"	30.0	ND	104	60-140			
Surrogate: <i>a,a,a-Trifluorotoluene</i>	10.6		"	10.0		106	70-130			

Matrix Spike Dup (1C08004-MSD1)		Source: MKC0154-02					Prepared & Analyzed: 03/08/01			
Benzene	9.21	0.500	ug/l	10.0	ND	92.1	60-140	5.39	25	
Toluene	9.54	0.500	"	10.0	ND	95.4	60-140	6.69	25	
Ethylbenzene	9.66	0.500	"	10.0	ND	96.6	60-140	6.41	25	
Xylenes (total)	29.5	0.500	"	30.0	ND	98.3	60-140	5.92	25	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	9.69		"	10.0		96.9	70-130			





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

Reported:  
04/05/01 17:34

**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
<b>Batch 1C13009 - EPA 5030B [P/T]</b>										
<b>Blank (1C13009-BLK1)</b>										
Prepared & Analyzed: 03/13/01										
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	"							
Surrogate: <i>a,a,a</i> -Trifluorotoluene	9.83	"		10.0		98.3	70-130			
<b>LCS (1C13009-BS1)</b>										
Prepared & Analyzed: 03/13/01										
Benzene	9.43	0.500	ug/l	10.0		94.3	70-130			
Toluene	10.1	0.500	"	10.0		101	70-130			
Ethylbenzene	11.0	0.500	"	10.0		110	70-130			
Xylenes (total)	29.7	0.500	"	30.0		99.0	70-130			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	10.2	"		10.0		102	70-130			
<b>Matrix Spike (1C13009-MS1)</b>										
Source: MKC0158-03 Prepared & Analyzed: 03/13/01										
Benzene	8.78	0.500	ug/l	10.0	ND	87.8	60-140			
Toluene	9.59	0.500	"	10.0	ND	95.9	60-140			
Ethylbenzene	10.2	0.500	"	10.0	ND	102	60-140			
Xylenes (total)	29.7	0.500	"	30.0	ND	99.0	60-140			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	9.55	"		10.0		95.5	70-130			
<b>Matrix Spike Dup (1C13009-MSD1)</b>										
Source: MKC0158-03 Prepared & Analyzed: 03/13/01										
Benzene	9.00	0.500	ug/l	10.0	ND	90.0	60-140	2.47	25	
Toluene	9.71	0.500	"	10.0	ND	97.1	60-140	1.24	25	
Ethylbenzene	10.3	0.500	"	10.0	ND	103	60-140	0.976	25	
Xylenes (total)	29.3	0.500	"	30.0	ND	97.7	60-140	1.36	25	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	9.88	"		10.0		98.8	70-130			





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
04/05/01 17:34

**Diesel Hydrocarbons (C9-C24) 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
<b>Batch 1C15014 - EPA 3510B</b>										
<b>Blank (1C15014-BLK1)</b>										
Diesel Range Hydrocarbons	121	50.0	ug/l							A-01,Q-19
Surrogate: n-Pentacosane	90.2	"		100		90.2	50-150			
<b>LCS (1C15014-BS1)</b>										
Diesel Range Hydrocarbons	1990	50.0	ug/l	2000		99.5	60-140			
Surrogate: n-Pentacosane	234	"		200		117	50-150			
<b>Matrix Spike (1C15014-MS1)</b>										
Diesel Range Hydrocarbons	633	50.0	ug/l	1000	50.9	58.2	50-150			
Surrogate: n-Pentacosane	65.6	"		100		65.6	50-150			
<b>Matrix Spike Dup (1C15014-MSD1)</b>										
Diesel Range Hydrocarbons	505	50.0	ug/l	1000	50.9	45.4	50-150	22.5	50	
Surrogate: n-Pentacosane	63.9	"		100		63.9	50-150			





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
04/05/01 17:34

## Notes and Definitions

- A-01 Chromatogram Pattern: The method blank had an analyte concentration that was outside of acceptable criteria. A non detectable sample in the batch, MKC0157-03, satisfied the QC requirements and validated the batch.
- D-15 Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
- P-01 Chromatogram Pattern: Gasoline C6-C12
- P-03 Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
- Q-19 The method blank contains an analyte at a concentration above the MRL.
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
- 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



LAB: SER

EQUIVA Services LLC Chain Of Custody Record

Lab identification (if necessary):

**Address:**

**City, State, Zip.**

Equiva Project Manager to be invoiced:		INCIDENT NUMBER (S&E ONLY)							
<input checked="" type="checkbox"/> SCIENCE & ENGINEERING	Karen Petryna	9	3	9	9	5	0	2	6
<input type="checkbox"/> TECHNICAL SERVICES		SAP or CRNT NUMBER (IS/CRNT)						DATE: 03-06-01	
<input type="checkbox"/> CRNT HOUSTON								PAGE: 1 of 1	

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Received by 

*[Signature]*  
Received by: (Signature)

62

Date: 3-7-

Date: 3/14/05

Time: 4:15

Time 9:55



# Sequoia Analytical

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

30 March, 2001

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

RE: 3800 Broadway  
Sequoia Report: MKC0590

Enclosed are the results of analyses for samples received by the laboratory on 03/26/01 10:37. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Smyly  
Project Manager

CA ELAP Certificate #1210





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
03/30/01 12:32

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MKC0590-01	Water	03/23/01 09:27	03/26/01 10:37





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
03/30/01 12:32

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MKC0590-01) Water   Sampled: 03/23/01 09:27   Received: 03/26/01 10:37</b>									
Purgeable Hydrocarbons	204	50.0	ug/l	1	1C27003	03/27/01	03/27/01	DHS LUFT	P-03
Benzene	10.7	0.500	"	"	"	"	"	"	"
Toluene	ND	0.500	"	"	"	"	"	"	"
Ethylbenzene	ND	0.500	"	"	"	"	"	"	"
Xylenes (total)	ND	0.500	"	"	"	"	"	"	"
Surrogate: a,a,a-Trifluorotoluene		147 %		70-130	"	"	"	"	S-02





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
03/30/01 12:32

**Total Purgeable Hydrocarbons (C6-C12) and BTEX 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
<b>Batch 1C27003 - EPA 5030B [P/T]</b>										
<b>Blank (1C27003-BLK1)</b>										
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
<i>Surrogate: a,a,a-Tri fluorotoluene</i>	9.16	"		10.0		91.6	70-130			
<b>LCS (1C27003-BS1)</b>										
Purgeable Hydrocarbons	209	50.0	ug/l	250		83.6	70-130			
<i>Surrogate: a,a,a-Tri fluorotoluene</i>	13.1	"		10.0		131	70-130			S-02
<b>Matrix Spike (1C27003-MS1)</b>										
Purgeable Hydrocarbons	280	50.0	ug/l	250	ND	112	60-140			
<i>Surrogate: a,a,a-Tri fluorotoluene</i>	14.2	"		10.0		142	70-130			S-02
<b>Matrix Spike Dup (1C27003-MSD1)</b>										
Purgeable Hydrocarbons	204	50.0	ug/l	250	ND	81.6	60-140	31.4	25	Q-07
<i>Surrogate: a,a,a-Tri fluorotoluene</i>	11.5	"		10.0		115	70-130			





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

Project: 3800 Broadway  
Project Number: 3800 Broadway/ Oakland  
Project Manager: Nick Sudano

**Reported:**  
03/30/01 12:32

## Notes and Definitions

- P-03 Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
- Q-07 The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
- 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



LAB: Sequoria

## EQUIVA Services LLC Chain Of Custody Record

Lab Identification (if necessary).

Address.

City, State, Zip.

Equiva Project Manager to be invoiced:

<input checked="" type="checkbox"/> SCIENCE & ENGINEERING
<input type="checkbox"/> TECHNICAL SERVICES
<input type="checkbox"/> CRMT HOUSTON

Karen Petryna

INCIDENT NUMBER (S&amp;E ONLY)

9 3 9 9 5 0 2 6

SAP or CRMT NUMBER (TS/CRMT)

DATE: 3/23/01PAGE: 1 of 1

CONSULTANT COMPANY:

Blaine Tech Services

ADDRESS

1680 Rogers Avenue

CITY

San Jose, CA 95112

TELEPHONE:

408-573-0555

FAX

408-573-7771

E-MAIL:

nsudano@blainetech.com

SITE ADDRESS (Street and City):

3800 Broadway, Oakland

PROJECT CONTACT (Report to):

Nick Sudano

SAMPLER NAME(S) (Print):

*Hoyt Rvalos*

CONSULTANT PROJECT NO:

BTS # 010323-X2

LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS):

 10 DAYS  5 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS LA - RWQCB REPORT FORMAT  LIST AGENCY:

GC/MS MTBE CONFIRMATION. HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: TEMPERATURE ON RECEIPT C° 

## REQUESTED ANALYSIS

MKC0590

## FIELD NOTES:

Container/Preservative  
or PID Readings  
or Laboratory NotesLAB  
USE  
ONLY

## Field Sample Identification

## SAMPLING

MATRIX

NO. OF  
CONT.

DATE

TIME

TPH - Gas, Purgeable (80/5m)

BTEX (8021B)

MTBE (8021B)

MTBE (8280B)

TPH - Diesel, Extractable (80/5m)

Oxygenates (5) by 8280

Ethanol, Methanol (8015B)

1,2-DCA &amp; EDB by 8010

MTBE (8280B) Confirmation, See Note

*Diesel  
sample broken**MW-1**3/23/01**0927**W**X**X*

Relinquished by: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

*WHD**3-26-01*

Date:

Time:

*SJG**8:30*

Date:

Time:

## WELL GAUGING DATA

Project # 010323-X2 Date 3/23/01 Client EQUITY

Site 3800 Broadway OAKLAND CA

# EQUIVA WELL MONITORING DATA SHEET

BTS #:	010323-XZ	Site:	93995026
Sampler:	Hoyt	Date:	3/23/01
Well I.D.:	MW-1	Well Diameter:	(2) 3 4 6 8
Total Well Depth:	29.68	Depth to Water:	20.15
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 Tubing w/ check valve

Disposable Bailer  
Extraction Port  
Dedicated Tubing  
Other PVC Bailer

$$\frac{1.5}{1 \text{ Case Volume}} (\text{Gals}) \times \frac{3}{\text{Specified Volumes}} = \frac{4.5}{\text{Calculated Volume}} \text{ Gals}$$

Well Diameter	Multipher	Well Diameter	Multipher
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius $\cdot 0.163$

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
0914	63.1	6.71	1209	110.4	1.5	odor
0919	63.1	6.73	1234	178.7	3	
0924	63.3	6.74	1281	7200	4.5	↓

Did well dewater? Yes No Gallons actually evacuated: 4.5

Sampling Time: 0927 Sampling Date: 3/23/01

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

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

EB I.D. (if applicable): w 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:	mV

## WELL GAUGING DATA

Project # D1D306-71

Date 03-06-01

Client 93995026

Site 3800 Broadway, OAKLAND

# EQUIVA WELL MONITORING DATA SHEET

BTS #: 010306-71	Site: 93995026		
Sampler: MT	Date: 03-06-01		
Well I.D.: MW-1	Well Diameter: ② 3 4 6 8		
Total Well Depth: 29.00	Depth to Water: 19.79		
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 \_\_\_\_\_

$$\frac{(\text{Gals.})}{\text{1 Case Volume}} \times \frac{3}{\text{Specified Volumes}} = \frac{\text{Gals.}}{\text{Calculated Volume}}$$

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
						* Casing Bent can't get Bailer past bent section. ② Sft down.

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time:

Sampling Date: 03-06-01

Sample I.D.: MW-

Laboratory: Sequoia Columbia Other \_\_\_\_\_

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

EB I.D. (if applicable): @ Time 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:	mV

# EQUITVA WELL MONITORING DATA SHEET

BTS #: 010306-T1	Site: 939950260		
Sampler: MT	Date: 03-06-01		
Well I.D.: MW-4	Well Diameter: ② 3 4 6 8		
Total Well Depth: 35.01	Depth to Water: 17.81		
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 Case Volume	(Gals.) X	Specified Volumes	=	Calculated Volume
2.8	3			8.4 Gals.

Well Diameter	Multipier	Well Diameter	Multipier
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
1030	64.3	6.8	676	>200	3	
1034	64.1	6.9	651	>200	6	
1038	64.0	6.7	643	>200	8.5	

Did well dewater? Yes

No

Gallons actually evacuated: 8.5

Sampling Time: 1040

Sampling Date: 03-06-01

Sample I.D.: MW-4

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:	mV

# EQUIVA WELL MONITORING DATA SHEET

BTS #: 010306-TT	Site: 939950260		
Sampler: MT	Date: 03-06-01		
Well I.D.: MW-5	Well Diameter: ② 3 4 6 8		
Total Well Depth: 10.22	Depth to Water: Dry		
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: \_\_\_\_\_

$$\frac{(\text{Gals.})}{\text{1 Case Volume}} \times \frac{3}{\text{Specified Volumes}} = \frac{\text{Gals.}}{\text{Calculated Volume}}$$

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
				- Obstruction @ 10.22 feet.		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date: 03-06-01

Sample I.D.: MW-5 Laboratory: Sequoia Columbia Other \_\_\_\_\_

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

EB I.D. (if applicable): @ Time 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:	mV

# EQUIVA WELL MONITORING DATA SHEET

BTS #: 010306-TI	Site: 93995026
Sampler: MT	Date: 03-06-01
Well I.D.: MW-6	Well Diameter: ② 3 4 6 8
Total Well Depth: 32.65	Depth to Water: 19.05
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	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: \_\_\_\_\_

2.2	(Gals.) X	3	=	6.6	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
110	64.3	6.7	874	>200	2.25	dry
114	64.5	6.7	851	>200	4.5	"
118	64.6	6.7	849	>200	6.75	"

\* Removed & Replaced Stinger

Did well dewater? Yes  Gallons actually evacuated: 6.75

Sampling Time: 1120 Sampling Date: 03-06-01

Sample I.D.: MW-6 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:	8.7 mg/L	Post-purge:	4.0 mg/L
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O.R.P. (if req'd):	Pre-purge:	-90 mV	Post-purge:	-100 mV
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# EQUIVA WELL MONITORING DATA SHEET

BTS #: 010306-T1	Site: 93995026
Sampler: MT	Date: 03-06-01
Well I.D.: MW-7	Well Diameter: <input checked="" type="radio"/> 3 4 6 8
Total Well Depth: 33.90	Depth to Water: 17.15
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	Grade D.O. Meter (if req'd): TSI HACH

Purge Method:

Bailer  
Disposable Bailer X  
Middleburg  
Electric Submersible

Waterra  
Peristaltic  
Extraction Pump  
Other \_\_\_\_\_

Sampling Method:

Bailer

Disposable Bailer  
Extraction Port  
Dedicated Tubing

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

2.7 (Gals.) X	3	=	8.1 Gals
1 Case Volume	Specified Volumes	Calculated Volume	

Well Diameter	Multipher	Well Diameter	Multipher
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
0915	64.0	6.6	620	>200	2.75	
0919	63.7	6.5	612	7200	5.5	
0924	63.9	6.5	607	>200	8.25	

Did well dewater? Yes  Gallons actually evacuated: 8.25

Sampling Time: 0930 Sampling Date: 03-06-01

Sample I.D.: MW-7 Laboratory: Sequoia Columbia Other \_\_\_\_\_

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

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

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

D.O. (if req'd):	Pre-purge:	4.7 mg/L	Post-purge:	5.1 mg/L
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O.R.P. (if req'd):	Pre-purge:	100 mV	Post-purge:	97 mV
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# EQUIVA WELL MONITORING DATA SHEET

BTS #: 010306-TI	Site: 93995026		
Sampler: MT	Date: 03-06-01		
Well I.D.: MW-9	Well Diameter: ② 3 4 6 8		
Total Well Depth: 34.10	Depth to Water: 16.75		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): XS	HACH

Purge Method:

Bailer

Disposable Bailer

Middleburg

Electric Submersible

Waterra

Peristaltic

Extraction Pump

Other \_\_\_\_\_

Sampling Method:

Bailer

Disposable Bailer

Extraction Port

Dedicated Tubing

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

2.8	(Gals.) X	3	=	8.4	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
1006	64.0	6.8	821	176	3	
1010	63.9	6.7	800	>200	4	
1015	64.1	6.8	817	>200	8.5	

Did well dewater? Yes

No

Gallons actually evacuated: 8.5

Sampling Time: 1020

Sampling Date: 03-06-01

Sample I.D.: MW-9

Laboratory: Sequoia Columbia Other \_\_\_\_\_

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

EB I.D. (if applicable):

@

Time

Duplicate I.D. (if applicable):

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

D.O. (if req'd):

Pre-purge:

4.0

mg/L

Post-purge:

4.9

mg/L

O.R.P. (if req'd):

Pre-purge:

-100

mV

Post-purge:

-91

mV

# EQUIVA WELL MONITORING DATA SHEET

BTS #: 010306-T1	Site: 93995026
Sampler: MT	Date: 03-06-01
Well I.D.: MW-10	Well Diameter: ② 3 4 6 8
Total Well Depth: 38.45	Depth to Water: 14.80
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	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: \_\_\_\_\_

3	(Gals) X	3	=	9	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
1047	64.3	6.8	700	>200	3	odor
1051	63.9	6.9	726	>200	6	"
1055	64.1	6.9	715	>200	9	"

Did well dewater? Yes

Gallons actually evacuated: 9

Sampling Time: 1100

Sampling Date: 03-06-01

Sample I.D.: MW-10

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:	mV

# EQUIVA WELL MONITORING DATA SHEET

BTS #: 010306-T1	Site: 93995026
Sampler: MT	Date: 03-06-01
Well I.D.: MW-11	Well Diameter: ② 3 4 6 8
Total Well Depth: 39.30	Depth to Water: 23.32
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH

Purge Method:

 Bailex Disposable Bailex Middleburg Electric Submersible

Waterra

Peristaltic

Extraction Pump

Other \_\_\_\_\_

Sampling Method:

 Bailex Disposable Bailex Extraction Port Dedicated Tubing

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

$$2.6 \text{ (Gals.)} \times \frac{3}{\text{1 Case Volume}} = \frac{7.8}{\text{Specified Volumes}} \text{ Gals. Calculated Volume}$$

Well Diameter	Multipier	Well Diameter	Multipier
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
0935	63.0	6.9	700	170	2.75	
0939	63.4	6.9	731	>200	5.5	
0944	63.4	6.8	736	>200	8	

Did well dewater? Yes

Gallons actually evacuated: 8

Sampling Time: 0950

Sampling Date: 03-06-01

Sample I.D.: MW-11

Laboratory: Sequoia Columbia Other

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

EB I.D. (if applicable): @ Time 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:	mV