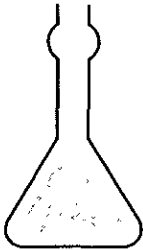


Ro 56



**TOXICHEM  
Management  
Systems, Inc.**

**Environmental & Occupational Health Services**

1562 44th Avenue  
San Francisco, California 94122  
(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

August 8, 2001  
Project EQ-02.1A

AUG 13 2001

**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 - Second Quarter 2001**  
Former Texaco/Current Broadway Discount Gas Station  
3810 Broadway, Oakland, California  
Equiva Incident No. 93995026, SAP No. 128141

Dear Mr. Chan:

On behalf of Equiva Services LLC, this letter transmits the results of second 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 June 19, 2001. The average groundwater elevation at the site decreased approximately 1 to 2 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 predominant direction of groundwater flow was to the northwest and the groundwater gradient was estimated at 0.004.

**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. The analysis for methyl tertiary butyl ether by EPA Method 8260 has resumed, pursuant to Alameda County Health Care Services Agency's (ACHCSA's) request dated March 29, 2001.

### **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, and the pilot program was discontinued.

### **RECOMMENDATIONS AND SCHEDULE FOR FUTURE ACTIONS**

1. Continue the quarterly groundwater monitoring and sampling program.
2. Properly destroy and replace Well MW-5.
3. Install one new well to replace previously destroyed Wells MW-3 and MW-8.

### **RESPONSE TO MARCH 29, 2001 LETTER**

Equiva's responses to each of your comments are presented below.

**1. "Please comment on whether you believe a replacement well [for Well MW-5] is needed."**

Several attempts to remove the blockage from Well MW-5, caused by the property owner's redevelopment activities, have been unsuccessful. A well to replace Well MW-5 is recommended given the downgradient proximity to the existing underground storage tanks and past concentrations of petroleum hydrocarbons, specifically benzene. TOXICHEM proposes to drill-out the existing well and install a replacement well within the same borehole. The replacement well will be constructed identically to Well MW-5 and without the collection of any soil samples. The field procedures for well installation are presented as Attachment A.

**2. "Please comment on the status [of replacing] these wells [MW-3 and MW-8]."**

One replacement well is recommended to allow collection of groundwater samples from within the former excavation pit in order to estimate any potential residual health risk and to determine if a contaminant source remains. The proposed location of the replacement well is shown on Figure 3 and the field procedures for well installation are presented as Attachment A.

**3. "Please clarify whether any sampling can be done from the piping array installed in the tank excavation pit. Please illustrate the nature of the damage or impairment to the piping array."**

Currently the PVC piping array cannot be used for any purpose as a result of the property owner's redevelopment activities. The property owner's contractor damaged the PVC piping array riser and its repair is prevented by the presence of a concrete footing at the surface location of the PVC piping array riser. The concrete footing is approximately 7 by 7 by 3 feet deep. The damage cannot be corrected until the concrete footing for the canopy and possibly the product piping to the northwestern most dispenser is removed or relocated, and there are no plans to repair the damage. A figure illustrating the nature of the damage is presented as Figure 4.

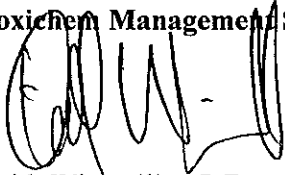
August 8, 2001

Page 3

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

Sincerely,

Toxic Management Systems, Inc.

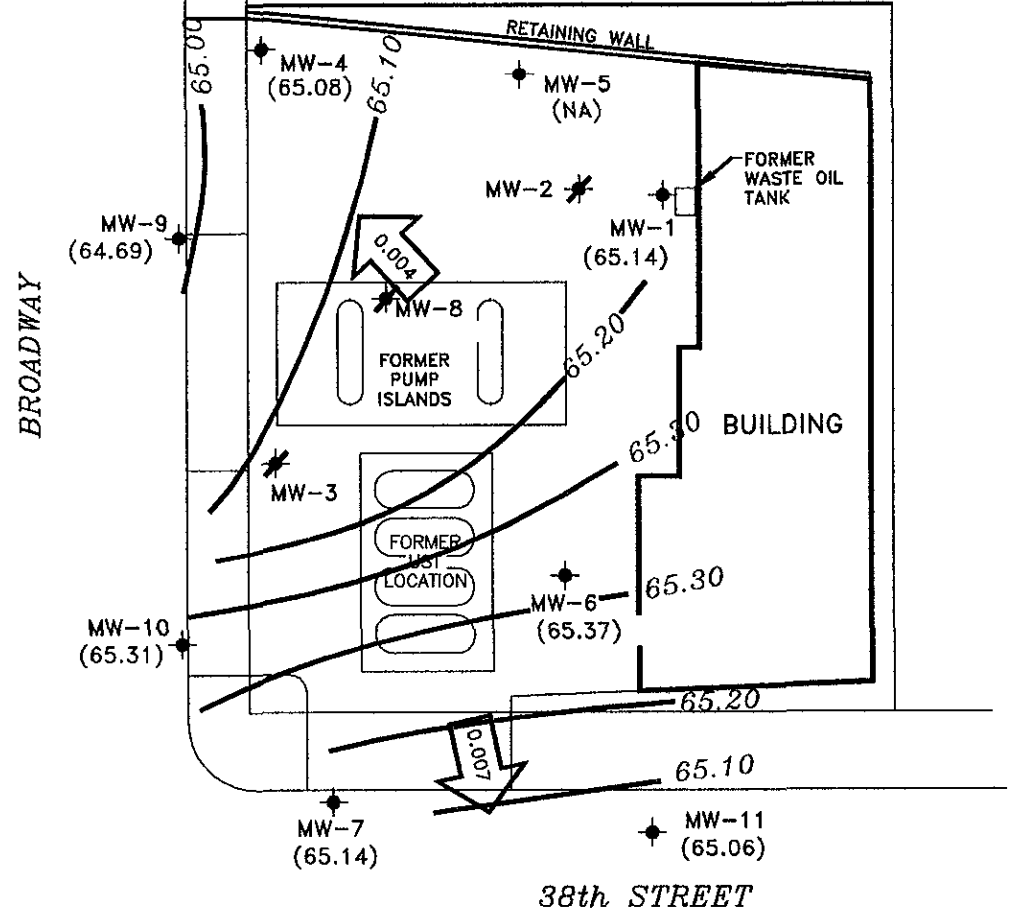
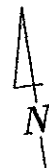


Keith Winemiller, P.E.  
Senior Engineer



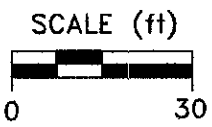
Attachments: Figure 1 - Groundwater Elevation Contour Map, June 19, 2001  
Figure 2 - TPHH/TEPH/Benzene Concentration Map, June 19, 2001  
Figure 3 - Proposed Well Location Map  
Figure 4 - Status of PVC Piping Array  
Attachment A - Well Installation Field Procedures  
Attachment B - Blaine Tech Services, Inc. Report, dated July 16, 2001

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



**EXPLANATION**

- ◆ MONITORING WELL
- ✱ DESTROYED WELL
- (64.69) GROUNDWATER ELEVATION (FT, MSL), 6-19-01
- NA NOT AVAILABLE
- ↘ APPROXIMATE DIRECTION OF GROUNDWATER AND APPROXIMATE GRADIENT

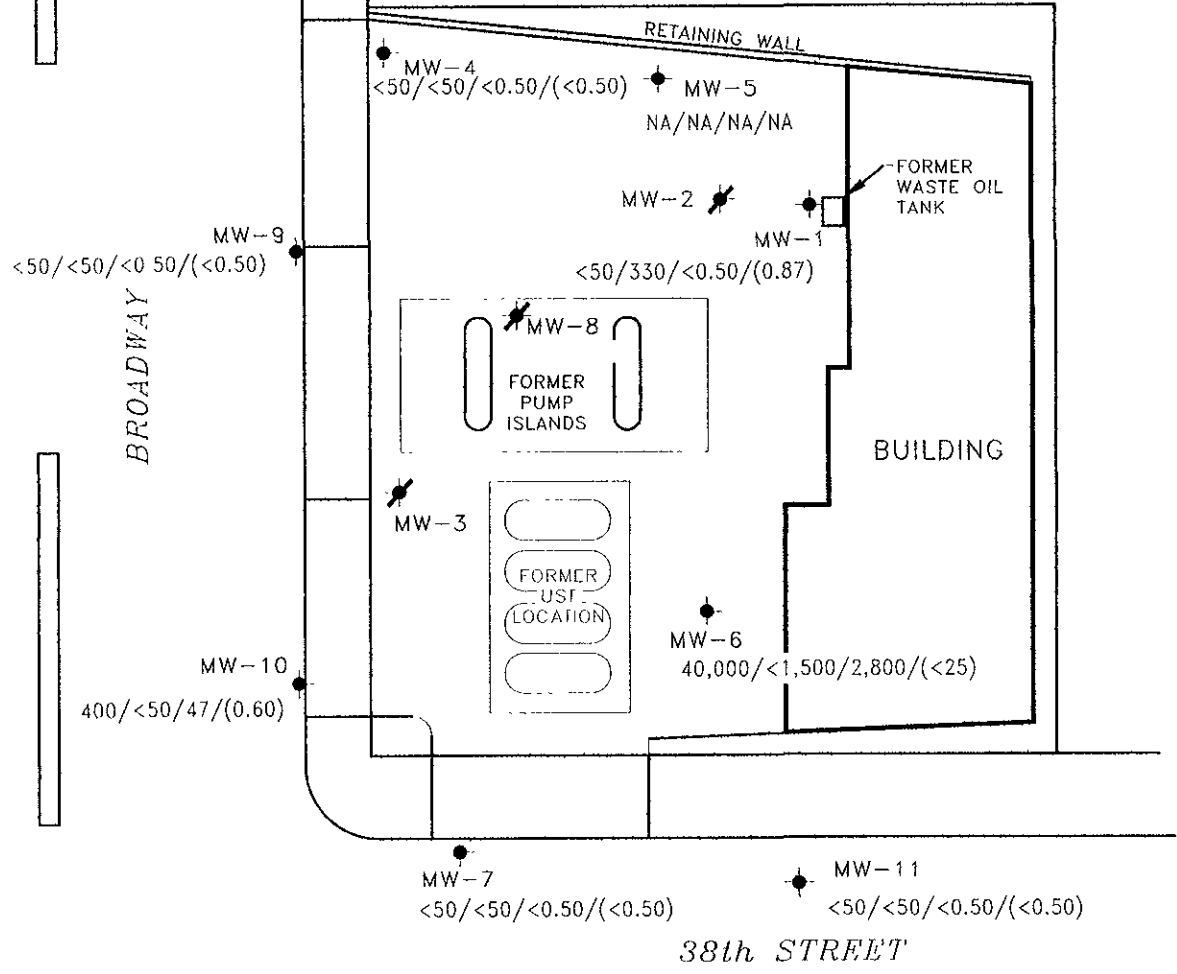


Reference: EQ-02.1A/EQ020MR.DWG  
 Basemap from Remediation Risk Management, Inc.



**GROUNDWATER ELEVATION CONTOUR MAP, JUNE 19, 2001**  
 Former Texaco/Current Broadway Discount Gas Station  
 3810 Broadway  
 Oakland, California

FIGURE:  
**1**  
 PROJECT:  
 EQ-02



**EXPLANATION**

● MONITORING WELL

✘ DESTROYED WELL

$<50/<50/<0.50/<0.50$  TPHH/TEPH/BENZENE/MtBE CONCENTRATION IN GROUNDWATER, IN MICROGRAMS PER LITER, 6-19-01

MtBE BY EPA METHOD 8020,

( ) BY EPA METHOD 8260

NA DATA NOT AVAILABLE

**SCALE (ft)**

0 30

Reference: LO-07.1A/1002QMR.DWG  
 Basemap from Remediation Risk Management, Inc.



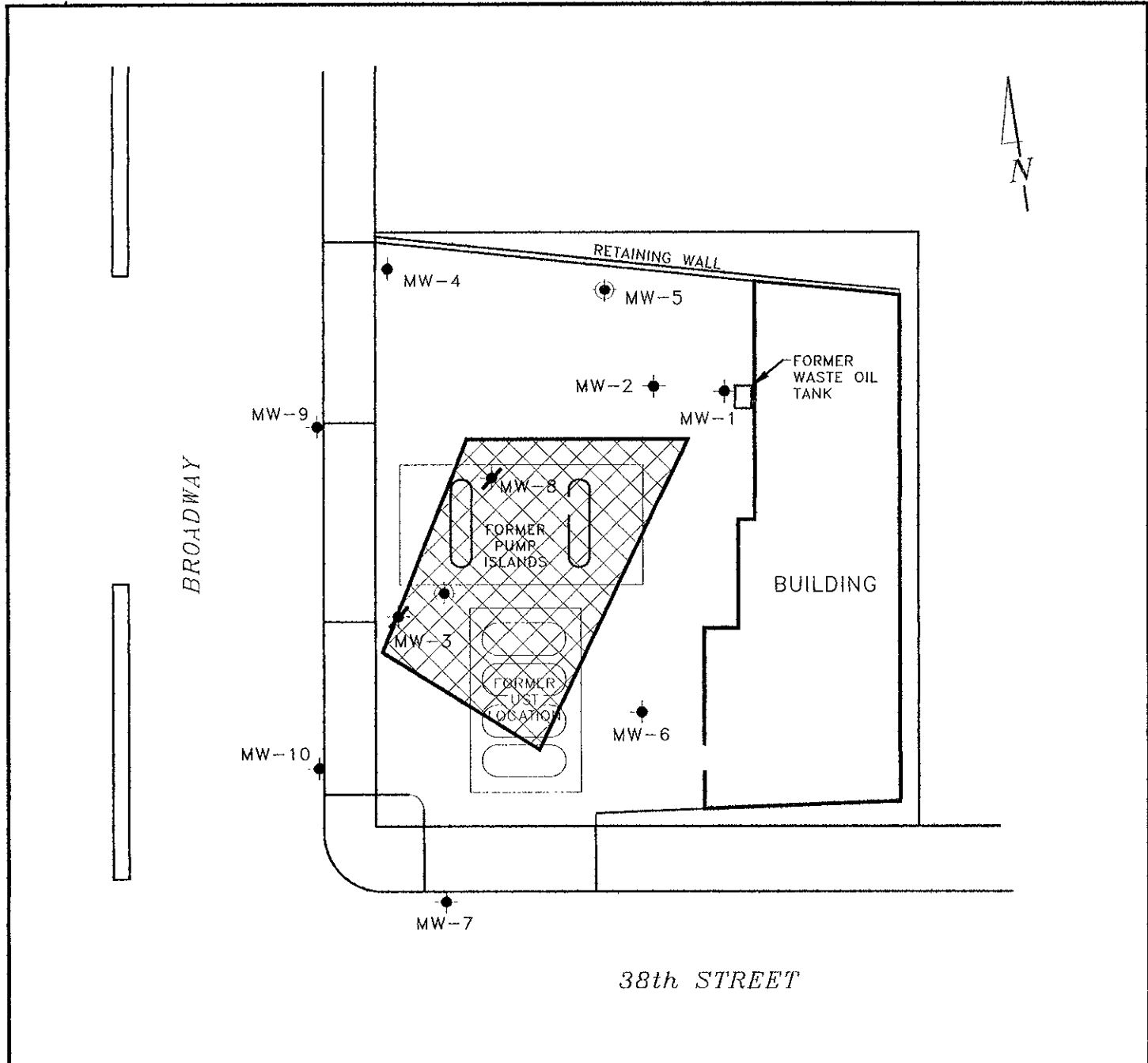
**TOXICHEM Management Systems, Inc.**  
 Environmental & Occupational Health Services

TPHH/TEPH/BENZENE/MtBE CONCENTRATION MAP, JUNE 19, 2001

Former Texaco/Current Broadway Discount Gas Station  
 3810 Broadway  
 Oakland, California


FIGURE: **2**


PROJECT: EQ-02




**EXPLANATION**

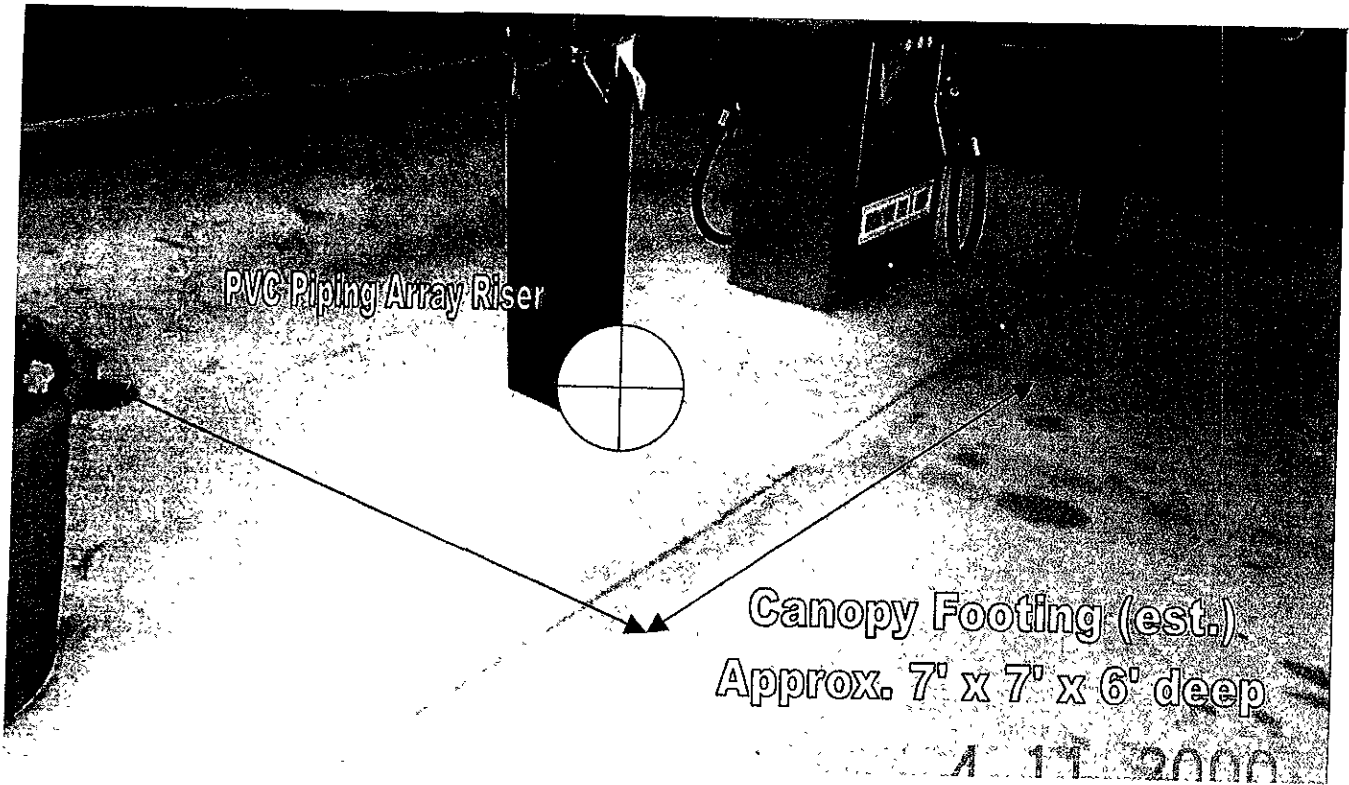
- MONITORING WELL
- ✖ DESTROYED WELL
- ⊙ PROPOSED MONITORING WELL


 EXTENT OF EXCAVATED SOIL DISPOSED OF AT FORWARD LANDFILL. AVERAGE DEPTH OF EXCAVATION -22 FEET  
 AREA OF EXCAVATION- 1,734 FEET

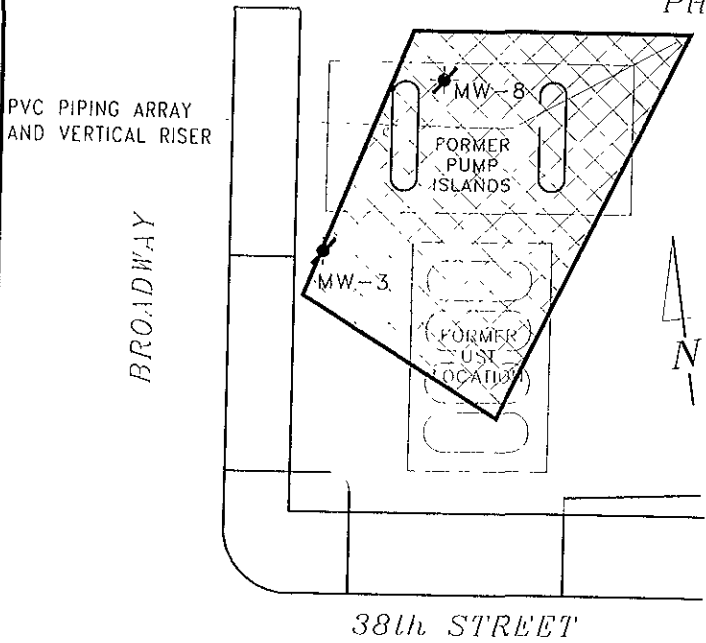
**SCALE (ft)**  
  
 0 30

Reference: FO 07 1A/EXCAVATION DWG  
 Basemap from Remediation Risk Management, Inc.

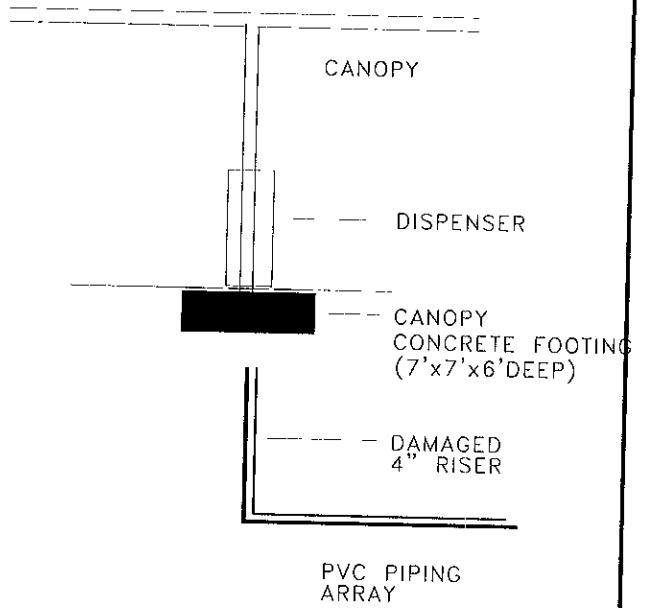
 <p><b>TOXICHEM</b>  <b>Management</b>  <b>Systems, Inc.</b>  <small>Environmental &amp; Occupational Health Services</small></p>	<b>PROPOSED WELL LOCATION MAP</b>	FIGURE:
	Former Texaco/Current Broadway Discount Gas Station 3810 Broadway Oakland, California	<b>3</b>
		PROJECT: EQ-02



PHOTOGRAPH



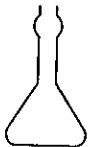
TOP VIEW



SIDE VIEW  
(PROJECTED)

- EXPLANATION
- MONITORING WELL
  - ✘ DESTROYED WELL
  - ▨ EXTENT OF EXCAVATED SOIL

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



Environmental & Occupational Health Services

STATUS OF PVC PIPING ARRAY

Former Texaco/Current Broadway Discount Gas Station  
3810 Broadway  
Oakland, California

FIGURE:

4

PROJECT:

EQ-02

**ATTACHMENT A**  
**WELL INSTALLATION FIELD PROCEDURES**



## **ATTACHMENT A WELL INSTALLATION FIELD PROCEDURES**

TOXICHEM will supervise the installation of one groundwater monitoring well at the location presented on Figure 1. Under the supervision of TOXICHEM staff, a licensed drilling contractor will advance an 8- or 10-inch diameter soil boring. The boring will be advanced with a truck-mounted drill rig equipped with an 8- or 10-inch diameter continuous flight, hollow-stem auger.

### **Well MW-5R**

A groundwater monitoring well will be designed and constructed in accordance with ACHCSA guidelines and will be identical to the former Well MW-5. When the boring is completed, a 2-inch diameter, groundwater monitoring well was constructed within the borehole. Flush thread jointed, Schedule 40, polyvinyl chloride casing of 2-inch diameter will be placed down the hollow stem of the augers to the base of the boring. The well will be constructed to approximately 35 feet below ground surface and the screened interval extends from approximately 10 to 35 feet bgs. The remaining casing section will be solid and non-slotted. A well cap will be slipped on to the bottom of the well casing and a locking cap placed at the top of each well.

### **Well MW-12**

A groundwater monitoring well will be designed and constructed in accordance with ACHCSA guidelines and will be identical to the Well MW-5. When the boring is completed, a 4-inch diameter, groundwater monitoring well was constructed within the bore hole. Flush thread jointed, Schedule 40, polyvinyl chloride casing of 4-inch diameter will be placed down the hollow stem of the augers to the base of the boring. The well will be constructed to approximately 35 feet below ground surface and the screened interval extends from approximately 10 to 35 feet bgs. The remaining casing section will be solid and non-slotted. A well cap will be slipped on to the bottom of the well casing and a locking cap placed at the top of each well.

### **Wells MW-5R and MW-12**

The monitoring wells will be filter-packed with clean Monterey silica sand throughout the screened interval. Specification of the filter material will be determined based on lithology encountered during drilling and will likely consist of one of the following: No. 3 Monterey Sand, No. 2/12 Lonestar Sand, and/or No. 2/16 Lonestar Sand. The filter-pack material will be installed in the annular spacing between the monitoring well pipe and the auger; the filter-pack material will extend a minimum of 6-inches above the top of the screened interval.

A one foot thick layer of bentonite pellets will be placed above the filter material to provide an annular seal and the remainder of the boring will be filled with a sand-cement slurry to within one foot of grade. The well casing will be enclosed inside a watertight cast iron or aluminum traffic-rated box installed in concrete slightly above the surface.

A licensed surveyor will be retained to survey the top of the casing of the well head relative to mean sea level.

The initial well development will be conducted by using a 1.7 inch Brainard-Kilman mechanical lift hand pump, an air-lift or nitrogen-lift pump, or a positive displacement bladder pump dependent on the depth to ground water and the screened interval. The well will be developed until a minimum of four well volumes are purged (if recharge rates permit) and the discharged

water appears clear of sediment. Electrical conductivity, temperature, and pH of the ground water will be recorded throughout the development process. The well development will continue until the electrical conductivity, temperature, and pH of the discharged water stabilize. Depth to water measurements will then be recorded prior to and following the well development activities.

Prior to sampling, a minimum of four well volumes will be purged from the well through the use of a positive displacement bladder pump or Teflon bailer. Electrical conductivity, temperature, and pH of the ground water will be recorded throughout the purging process. The purging activities will continue until the electrical conductivity, temperature, and pH of the discharged water have stabilized. A water sample for analytical testing will be obtained through the use of a bladder pump, disposable bailer, or Teflon bailer. The water developed from the monitoring well will be transported off-site and ultimately disposed of at the Equilon Refinery in Martinez, California.

The water will be immediately sealed in the vials and properly labeled including the date, time, sample location, project number, and indication of any preservatives added to the sample. The samples will then be placed on ice immediately for transport to the laboratory under chain-of-custody documentation.

The groundwater samples will be submitted and analyzed by a State of California, Department of Health Services certified laboratory. The groundwater samples will be analyzed for TPH, BTEX compounds, and MtBE by EPA Method 8260 and TEPH by Modified EPA Method 8015.

**ATTACHMENT B**

**BLAINE TECH SERVICES, INC. REPORT, DATED JULY 16, 2001**

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

July 16, 2001

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

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

Monitoring performed on June 19, 2001

---

Groundwater Monitoring Report **010619-C-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.

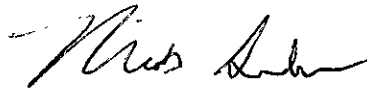
At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

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,

A handwritten signature in black ink, appearing to read "Nick Sudano".

Nick Sudano  
Project Coordinator

NS/mb

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)
---------	------	----------------	----------------	-------------	-------------	-------------	-------------	------------------------	------------------------	--------------	----------------------------	--------------------------	--------------------------	---------------------------	---------------------------

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-1	06/19/2001	<50	330	<0.50	<0.50	<0.50	<0.50	NA	0.87	86.92	21.78	NA	65.14	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

**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-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
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

**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	MTBE	TOC (MSL)	Depth to	Depth to	GW	SPH	D.O.
								8020 (ug/L)	8260 (ug/L)		Water (ft.)	SPH (ft.)	Elevation (MSL)	Thickness (ft.)	Readings (ppm)
MW-4	06/18/1998	<50	53	<0.5	<0.5	<0.5	<0.5	<0.5	NA	83.31	16.89	NA	66.42	NA	NA
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
<b>MW-4</b>	<b>06/19/2001</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>NA</b>	<b>&lt;0.50</b>	<b>83.63</b>	<b>18.55</b>	<b>NA</b>	<b>65.08</b>	<b>NA</b>	<b>NA</b>

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



**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	MTBE	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
								8020 (ug/L)	8260 (ug/L)						
MW-5	11/29/00	Obstruction in well		NA	NA	NA	NA	NA	NA	85.13	NA	NA	NA	NA	NA
MW-5	03/06/01	Obstruction in well		NA	NA	NA	NA	NA	NA	85.13	NA	NA	NA	NA	NA
MW-5	06/19/01	Obstruction in well		NA	NA	NA	NA	NA	NA	85.13	NA	NA	NA	NA	NA
MW-6	10/10/96	45,000	500	8,300	2,900	810	3,100	190	40**	86.09	22.44	NA	63.65	NA	NA
MW-6	11/07/96	NA	NA	NA	NA	NA	NA	NA	NA	86.09	22.60	NA	63.49	NA	NA
MW-6	12/18/97	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	04/06/98	30,500	<50	5,950	3,720	952	3,750	<1,000	NA	86.09	19.90	NA	66.19	NA	NA
MW-6	06/18/98	23,000	1,100	2,600	540	410	1,300	<250	NA	86.09	20.49	NA	65.60	NA	NA
MW-6	08/31/98	17,000	1,800	3,400	460	530	1,800	<250	NA	86.09	21.05	NA	65.04	NA	NA
MW-6	12/21/98	7,900	930	1,900	510	280	730	150	2.6	86.09	21.74	NA	64.35	NA	NA
MW-6	03/24/99	12,200	763	1,970	327	338	794	<40.0	<50.0	86.09	21.18	NA	64.91	NA	NA
MW-6	06/25/99	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	09/24/99	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	12/29/99	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	03/21/00	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	07/26/00	Well inaccessible		NA	NA	NA	NA	NA	NA	86.09	NA	NA	NA	NA	NA
MW-6	09/06/00	Well inaccessible		NA	NA	NA	NA	NA	NA	86.09	NA	NA	NA	NA	NA
MW-6	11/29/00	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	03/06/01	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-6	06/19/01	40,000	<1,500	2,800	6,000	1,200	5,300	NA	<25	86.48	21.11	NA	65.37	NA	3.0/3.4
MW-7	10/10/96	<50	<50	0.6	<0.5	<0.5	<0.5	<5.0	NA	84.11	20.78	NA	63.33	NA	NA
MW-7	11/07/96	NA	NA	NA	NA	NA	NA	NA	NA	84.11	20.80	NA	63.31	NA	NA
MW-7	12/18/97	<50	<50	<0.5	<0.5	<0.5	<0.5	<30	NA	84.11	17.27	NA	66.84	NA	NA
MW-7	04/06/98	<50	<50	<0.5	<0.5	<0.5	<0.5	<30	NA	84.11	15.91	NA	68.20	NA	NA
MW-7	06/18/98	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	NA	84.11	17.95	NA	66.16	NA	NA
MW-7	08/31/98	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	84.11	19.40	NA	64.71	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		TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
								8020 (ug/L)	8260 (ug/L)						

MW-7	12/21/98	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	84.11	19.75	NA	64.36	NA	NA
MW-7	03/24/99	<50.0	51.3	<0.500	<0.500	<0.500	<0.500	<2.00	NA	84.11	17.54	NA	66.57	NA	NA
MW-7	06/25/99	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	84.11	19.22	NA	64.89	NA	NA
MW-7	09/24/99	<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	12/29/99	<50.0	99.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	84.11	20.15	NA	63.96	NA	2.3/1.8
MW-7	03/21/00	<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	07/26/00	<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	09/06/00	<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	11/29/00	<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	03/06/01	<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
MW-7	06/19/01	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	84.44	19.30	NA	65.14	NA	3.8/4.2

p															
MW-8	10/10/96	17,000	110	1,300	1,200	64	1,300	110	<5.0**	84.01	20.82	NA	63.19	NA	NA
MW-8	11/07/96	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.44	NA	63.57	NA	NA
MW-8	12/18/97	15,000	630	3,600	1,800	410	930	<600	NA	84.01	19.36	NA	64.65	NA	NA
MW-8	04/06/98	32,300	<50	8,230	5,900	718	2,120	<1,000	NA	84.01	16.19	NA	67.82	NA	NA
MW-8	06/18/98	74,000	<50	5,400	4,500	700	2,200	2,400	NA	84.01	17.75	NA	66.26	NA	NA
MW-8	08/31/98	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-8	12/21/98	9,600	1,200	2,600	410	220	300	700	<2.0	84.01	19.48	NA	64.53	NA	NA
MW-8	03/24/99	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	06/25/99	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.69	20.59	63.40	0.10	NA
MW-8	07/01/99	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.45	18.56	65.07	1.89	NA
MW-8	09/24/99	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.98	19.45	64.25	1.53	NA
MW-8	12/29/99	NA	NA	NA	NA	NA	NA	NA	NA	84.01	20.25	19.99	63.97	0.26	NA
MW-8	01/07/00	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	10/10/96	80	520	2.5	13	2.2	13	<5.0	NA	82.17	18.62	NA	63.55	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	11/07/96	NA	NA	NA	NA	NA	NA	NA	NA	NA	63.53	NA	63.53	NA	NA
MW-9	12/18/97	<50	<50	<0.5	<0.5	<0.5	<0.5	<30	NA	82.17	16.42	NA	65.75	NA	NA
MW-9	04/06/98	<50	<50	<0.5	<0.5	<0.5	<0.5	<30	NA	82.17	14.00	NA	68.17	NA	NA
MW-9	06/18/98	<50	100	<0.5	<0.5	<0.5	<0.5	<0.5	NA	82.17	15.33	NA	66.84	NA	NA
MW-9	08/31/98	<50	57	<0.5	<0.5	<0.5	<0.5	<2.5	NA	82.17	17.14	NA	65.03	NA	NA
MW-9	12/21/98	<50	71	<0.5	<0.5	<0.5	<0.5	<2.5	NA	82.17	17.40	NA	64.77	NA	NA
MW-9	03/24/99	<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	06/25/99	<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	09/24/99	<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	12/29/99	<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	03/21/00	<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	07/26/00	<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	09/06/00	<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	11/29/00	<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	03/06/01	<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
<b>MW-9</b>	<b>06/19/01</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>NA</b>	<b>&lt;0.50</b>	<b>82.52</b>	<b>17.83</b>	<b>NA</b>	<b>64.69</b>	<b>NA</b>	<b>3.4/4.0</b>

MW-10	10/10/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	81.83	18.40	NA	63.43	NA	NA
MW-10	11/07/96	NA	NA	NA	NA	NA	NA	NA	NA	81.83	18.43	NA	63.40	NA	NA
MW-10	12/18/97	350	<50	6.9	0.87	0.88	0.77	<30	NA	81.83	16.18	NA	65.65	NA	NA
MW-10	04/06/98	2,300	<50	224	168	81.4	253	<30	NA	81.83	14.39	NA	67.44	NA	NA
MW-10	06/18/98	7,200	320	310	210	83	280	<0.5	NA	81.83	15.11	NA	66.72	NA	NA
MW-10	08/31/98	460	120	51	8.2	5.1	10	<5.0	NA	81.83	17.03	NA	64.80	NA	NA
MW-10	12/21/98	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	03/24/99	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	06/25/99	1,130	167	115	32.6	17.2	36.3	<4.00	NA	81.83	16.82	NA	65.01	NA	NA
MW-10	09/24/99	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	12/29/99	114	107	9.03	<0.500	0.531	<0.500	<5.00	NA	81.83	18.13	NA	63.70	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	MTBE	TOC (MSL)	Depth to	Depth to	GW	SPH	D.O.
								8020 (ug/L)	8260 (ug/L)		Water (ft.)	SPH (ft.)	Elevation (MSL)	Thickness (ft.)	Readings (ppm)
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-10	06/19/2001	400	<50	47	2.6	8.8	17	NA	0.60	82.16	16.85	NA	65.31	NA	NA
MW-11	08/08/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	25.61	NA	NA	NA	NA
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
MW-11	06/19/2001	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	90.63	25.57	NA	65.06	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	MTBE	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	D.O. Readings (ppm)
								8020 (ug/L)	8260 (ug/L)						

Abbreviations:

TPPH= Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to June 19, 2001, analyzed by EPA method 8015.

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

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to June 19, 2001, analyzed 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.

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 Toxicchem Management Systems, Inc., on December 11, 2000.



Report Number : 20917

Date : 7/6/2001

Nick Sudano  
Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject : 7 Water Samples  
Project Name : 3800 Broadway, Oakland  
Project Number : 010619-C1  
P.O. Number : 93995026

Dear Mr. Sudano,

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

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

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large initial "J" and "K".

Joel Kiff



Report Number : 20917


Date : 7/6/2001

Subject : 7 Water Samples  
Project Name : 3800 Broadway, Oakland  
Project Number : 010619-C1  
P.O. Number : 93995026

## Case Narrative

The Method Reporting Limit for TPH as Diesel has been increased due to interference from Gasoline-Range Hydrocarbons for the following sample :

MW-6

Approved By:  \_\_\_\_\_  
Joel Kiff



Report Number : 20917

Date : 7/6/2001

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1

Sample : MW-1

Matrix : Water

Lab Number : 20917-01

Sample Date :6/19/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>Methyl-t-butyl ether (MTBE)</b>	<b>0.87</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>TPH as Gasoline</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	7/1/2001
Toluene - d8 (Surr)	95.7		% Recovery	EPA 8260B	7/1/2001
4-Bromofluorobenzene (Surr)	99.2		% Recovery	EPA 8260B	7/1/2001
<b>TPH as Diesel</b>	<b>330</b>	50	ug/L	M EPA 8015	7/1/2001

Approved By:  Joel Kiff





Report Number : 20917

Date : 7/6/2001

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1


Sample : MW-4

Matrix : Water

Lab Number : 20917-02

Sample Date :6/19/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/1/2001
Toluene - d8 (Surr)	97.2		% Recovery	EPA 8260B	7/1/2001
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	7/1/2001
TPH as Diesel	< 50	50	ug/L	M EPA 8015	7/1/2001

Approved By:  Joel Kiff



Report Number : 20917

Date : 7/6/2001

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1

Sample : MW-6

Matrix : Water

Lab Number : 20917-03

Sample Date :6/19/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>2800</b>	25	ug/L	EPA 8260B	7/1/2001
<b>Toluene</b>	<b>6000</b>	25	ug/L	EPA 8260B	7/1/2001
<b>Ethylbenzene</b>	<b>1200</b>	25	ug/L	EPA 8260B	7/1/2001
<b>Total Xylenes</b>	<b>5300</b>	25	ug/L	EPA 8260B	7/1/2001
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 25</b>	25	ug/L	EPA 8260B	7/1/2001
<b>TPH as Gasoline</b>	<b>40000</b>	5000	ug/L	EPA 8260B	7/1/2001
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	7/1/2001
4-Bromofluorobenzene (Surr)	98.7		% Recovery	EPA 8260B	7/1/2001
<b>TPH as Diesel</b>	<b>&lt; 1500</b>	1500	ug/L	M EPA 8015	7/1/2001

Approved By:  Joel Kiff



Report Number : 20917

Date : 7/6/2001

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1

Sample : MW-7

Matrix : Water

Lab Number : 20917-04

Sample Date :6/19/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	7/1/2001
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	7/1/2001
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	7/1/2001
<b>TPH as Diesel</b>	< 50	50	ug/L	M EPA 8015	7/1/2001

Approved By:  Joel Kiff



Report Number : 20917

Date : 7/6/2001

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1

Sample : MW-9

Matrix : Water

Lab Number : 20917-05

Sample Date :6/19/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	7/1/2001
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	7/1/2001
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	7/1/2001
<b>TPH as Diesel</b>	< 50	50	ug/L	M EPA 8015	7/1/2001

Approved By:  Joel Kiff



Report Number : 20917

Date : 7/6/2001

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1

Sample : MW-10

Matrix : Water

Lab Number : 20917-06

Sample Date :6/19/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>47</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>Toluene</b>	<b>2.6</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>Ethylbenzene</b>	<b>8.8</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>Total Xylenes</b>	<b>17</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>Methyl-t-butyl ether (MTBE)</b>	<b>0.60</b>	0.50	ug/L	EPA 8260B	7/1/2001
<b>TPH as Gasoline</b>	<b>400</b>	50	ug/L	EPA 8260B	7/1/2001
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	7/1/2001
4-Bromofluorobenzene (Surr)	98.4		% Recovery	EPA 8260B	7/1/2001
<b>TPH as Diesel</b>	<b>&lt; 50</b>	50	ug/L	M EPA 8015	7/1/2001

Approved By:  Joel Kiff



Report Number : 20917

Date : 7/6/2001

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1

Sample : MW-11

Matrix : Water

Lab Number : 20917-07

Sample Date :6/19/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	7/1/2001
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	7/1/2001
4-Bromofluorobenzene (Surr)	98.9		% Recovery	EPA 8260B	7/1/2001
<b>TPH as Diesel</b>	< 50	50	ug/L	M EPA 8015	7/1/2001

Approved By:  Joel Kiff

Report Number : 20917


Date : 7/6/2001

Project Name : **3800 Broadway, Oakland**

Project Number : **010619-C1**

20917 Quality Control Data - Method Blank

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	6/30/2001

Approved By:  \_\_\_\_\_  
Joel Kiff

Report Number : 20917

Date : 7/6/2001

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Spike Recovery Data														
TPH as Diesel	Blank	<50	1000	1000	868	856	ug/L	M EPA 8015	6/27/2001	186.8	85.6	1.44	70-130	25

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By:  Joel Kiff



Report Number : 20917

Date : 7/6/2001

Project Name : **3800 Broadway, Oakland**

Project Number : **010619-C1**

20917 Quality Control Data - Method Blank

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	7/1/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	7/1/2001
Toluene - d8 (Surr)	95.8		% Recovery	EPA 8260B	7/1/2001
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	7/1/2001

Approved By:  Joel Kiff

Report Number : 20917

Date : 7/6/2001

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Spike Recovery Data														
Benzene	20937-04	<0.50	19.3	19.7	16.7	17.4	ug/L	EPA 8260B	6/30/2001	186.6	88.1	1.72	70-130	25
Toluene	20937-04	<0.50	19.3	19.7	17.8	18.1	ug/L	EPA 8260B	6/30/2001	192.6	91.8	0.976	70-130	25
Tert-Butanol	20937-04	<5.0	96.3	98.6	87.6	89.4	ug/L	EPA 8260B	6/30/2001	191.0	90.7	0.330	70-130	25
Methyl-t-Butyl Ether	20937-04	67	19.3	19.7	68.4	68.0	ug/L	EPA 8260B	6/30/2001	17.22	4.61	44.0	70-130	25

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By:  Joel Kiff

Report Number : 20917

Date : 7/6/2001

QC Report : Laboratory Control Sample (LCS)

Project Name : 3800 Broadway, Oakland

Project Number : 010619-C1

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	200	ug/L	EPA 8260B	6/30/2001	85.9	70-130
Toluene	200	ug/L	EPA 8260B	6/30/2001	90.2	70-130
Tert-Butanol	1000	ug/L	EPA 8260B	6/30/2001	89.6	70-130
Methyl-t-Butyl Ether	200	ug/L	EPA 8260B	6/30/2001	87.2	70-130

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By:  Joel Kiff

LAB: KIPP

# EQUIVA Services LLC Chain Of Custody Record

Lab Identification # (required):  
 Address:  
 City, State, Zip:

Equiva Project Manager to be Invoiced:  
**Karen Patryna** 20917

PROJECT NO: 838828  
 ANALYSIS NO: 010619-C1

DATE: 6-19-01  
 PAGE: 1 of 1

**Client Tech Services**  
 1880 Rogers Avenue  
 San Jose, CA 95112  
 Telephone: 408-573-0558  
 Fax: 408-573-7771  
 E-Mail: [tracy@bjstestech.com](mailto:tracy@bjstestech.com)

3800 Broadway, Oakland  
 Nick Sabino  
Hank Castro

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

### REQUESTED ANALYSIS

LA - TRACER REPORT FORMAT  LIST AGENCY: \_\_\_\_\_  
 GCMS MIRE CONFIRMATION: HIGHEST  HIGHEST PER BORING \_\_\_\_\_ ALL \_\_\_\_\_  
 SPECIAL INSTRUCTIONS OR NOTES: TEMPERATURE ON RECEIPT (°)  
Confirm the highest detected MTBE concentration by 8260 or if the detection limit is greater than 5ppb.

TPH - Gas, Purgeable (M010m)	MTBE (M011B)	MTHM (M011B)	MTBE (M010B)	TPH - Dissol, Insoluble (M010m)	Organics (S) by 8260	Ethanol, Methylol (M015B)	GC/MS by 8210	MTBE (M010B) Confirmation, See Note	FIELD NOTES:
X	X	X	X	X			X		01
X	X	X	X	X			X		02
X	X	X	X	X			X		03
X	X	X	X	X			X		04
X	X	X	X	X			X		05
X	X	X	X	X			X		06
X	X	X	X	X			X		07

Field Sample Identification	SAMPLING		MTRK	ML of CONT.
	DATE	TIME		
MW-1-	6/19/01	1310	✓	6
MW-4-		1245		6
MW-6-		1210		6
MW-7-		1140		6
MW-9-		1220		6
MW-10-		1200		6
MW-11-		1117		6

Prepared by: Hank Castro  
 Received by: \_\_\_\_\_  
 Date: \_\_\_\_\_

©2001 EQUIVA. This is a Controlled Document. Yellow and Pink to Client.

JUN - 21 '01 (THU) 14:03  
 BAINE TECH SERVICES, INC  
 TEL: 408 573 7771  
 P. 002

LAB: KIPP

# EQUIVA Services LLC Chain Of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Equiva Project Manager to be Invoiced:

Karen Petryna

20917

- ANALYSIS & ENGINEERING
- TECHNICAL SERVICES
- CLIENT PROTECTION

INCIDENT NUMBER (EQUIVA ONLY)

9 3 9 9 5 0 2 8

LAB or CUSTY NUMBER (EQUIVA ONLY)

DATE: 6-19-01

PAGE: 1 of 1

CONSULTANT COMPANY:  
**Blaine Tech Services**  
 ADDRESS:  
**1680 Rogers Avenue**  
 CITY:  
**San Jose, CA 95112**  
 TELEPHONE: **408-673-8555** FAX: **408-673-7771** EMAIL: **neudano@blainetech.com**

SITE ADDRESS (Street and City):  
**3800 Broadway, Oakland**

PROJECT CONTACT (Report to):  
**Nick Sudano**  
 CONSULTANT PROJECT NO.:  
**BTS # 010619-C1**

SAMPLER NAME(S) (See):  
Hank Castro

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

## REQUESTED ANALYSIS

LA - RMQCB REPORT FORMAT  LIST AGENCY: \_\_\_\_\_

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

SPECIAL INSTRUCTIONS OR NOTES: \_\_\_\_\_ TEMPERATURE ON RECEIPT (°) \_\_\_\_\_

TPH - Gas, Purgeable (8010a)	BTX (8010b)	MTBE (8021B)	MTBE (8200B)	TPH - Diesel, Extractable (8010m)	Chlorinated (8) by 8200	Benzene, Methanol (8015B)	1,2-DCA & EDB by 8010	MTBE (8200B) Confirmation, See Note	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes

Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable (8010a)	BTX (8010b)	MTBE (8021B)	MTBE (8200B)	TPH - Diesel, Extractable (8010m)	Chlorinated (8) by 8200	Benzene, Methanol (8015B)	1,2-DCA & EDB by 8010	MTBE (8200B) Confirmation, See Note
	DATE	TIME											
MW-1	6/19/01	1310	W	6	X	X			X				
MW-4		1245		6	X	X			X				
MW-6		1230		6	X	X			X				
MW-7		1140		6	X	X			X				
MW-9		1220		6	X	X			X				
MW-10		1200		6	X	X			X				
MW-11		1117		6	X	X			X				

Relinquished by: (Signature) Hank Castro

Received by: (Signature) \_\_\_\_\_

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

Relinquished by: (Signature) \_\_\_\_\_

Received by: (Signature) \_\_\_\_\_

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

Relinquished by: (Signature) \_\_\_\_\_

Received by: (Signature) Karen Petryna

Date: 062001 Time: 1035

## WELL GAUGING DATA

Project # 010619-C1 Date 6-19-01 Client Equiva

Site 3800 Broadway

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-1	2					21.78	28.80	↓
MW-4	2					18.55	35.00	
MW-5	2	Obstruction @ 10.20		<del>10.20</del> ?		—	10.20	
MW-6	2					21.11	32.65	
MW-7	2					19.30	33.87	
MW-8	2					17.83	34.10	
MW-10	2					16.85	33.40	
MW-11	2					25.57	39.30	

# EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010619-C1</u>	Site: <u>3800 Broadway</u>
Sampler: <u>Hank</u>	Date: <u>6-19-01</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>28.80</u>	Depth to Water: <u>21.75</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>(VSI)</u> HACH

Purge Method:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> Bailer</li> <li><input checked="" type="checkbox"/> Disposable Bailer</li> <li><input type="checkbox"/> Middleburg</li> <li><input type="checkbox"/> Electric Submersible</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Waterra</li> <li><input type="checkbox"/> Peristaltic</li> <li><input type="checkbox"/> Extraction Pump</li> <li><input type="checkbox"/> Other _____</li> </ul> |
|--|--|

Sampling Method:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Bailer</li> <li><input checked="" type="checkbox"/> Disposable Bailer</li> <li><input type="checkbox"/> Extraction Port</li> <li><input type="checkbox"/> Dedicated Tubing</li> <li>Other: _____</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Bailer</li> <li><input checked="" type="checkbox"/> Disposable Bailer</li> <li><input type="checkbox"/> Extraction Port</li> <li><input type="checkbox"/> Dedicated Tubing</li> <li>Other: _____</li> </ul> |
|--|---|

1.1 (Gals.) X 3 = 3.3 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
1255	68.7	6.8	1069	>200	1.1	
1300	68.1	6.8	1042	>200	2.2	
1305	68.0	6.7	1109	>200	3.5	

Did well dewater? Yes  No       Gallons actually evacuated: 3.5

Sampling Time: 1310      Sampling Date: 6-19-01

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

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

## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010619-C1</u>	Site: <u>3800 Broadway</u>
Sampler: <u>Hantek</u>	Date: <u>6-19-01</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>35,00</u>	Depth to Water: <u>18.55</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>(HACH)</u> HACH

Purge Method:

- |  |  |
|--|--|
| <input type="checkbox"/> Bailer<br><input checked="" type="checkbox"/> Disposable Bailer<br><input type="checkbox"/> Middleburg<br><input type="checkbox"/> Electric Submersible | <input type="checkbox"/> Waterra<br><input type="checkbox"/> Peristaltic<br><input type="checkbox"/> Extraction Pump<br><input type="checkbox"/> Other _____ |
|--|--|

Sampling Method:

- |   |                                 |
|---|---------------------------------|
| <input checked="" type="checkbox"/> Disposable Bailer<br><input type="checkbox"/> Extraction Port<br><input type="checkbox"/> Dedicated Tubing<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Bailer |
|---|---------------------------------|

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

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
1232	69.8	7.0	473	>200	2.6	
1237	69.8	7.0	491	>200	5.2	
1240	70.0	6.9	481	>200	8	

Did well dewater? Yes  No  Gallons actually evacuated: 8

Sampling Time: 1245 Sampling Date: 6-19-01

Sample I.D.: MW-4 Laboratory: Sequoia Columbia Other KIFA

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 #: <u>010619-01</u>	Site: <u>3800 Broadway</u>
Sampler: <u>Hant</u>	Date: <u>6-19-01</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>10.20</u>	Depth to Water: <u>Dry</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(251)</u> HACH

Purge Method:

Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible

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

Sampling Method:

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

$$\frac{\text{I Case Volume}}{\text{Specified Volumes}} \times \underline{3} = \text{Calculated Volume Gals.}$$

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
						<p style="font-size: 1.2em;">- obstruction @ 10.20 feet</p>

Did well dewater? Yes  No

Gallons actually evacuated: \_\_\_\_\_

Sampling Time: \_\_\_\_\_ Sampling Date: 6-19-01

Sample I.D.: MW-5 Laboratory: Sequoia Columbia Other Ki f A

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

## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010619-21</u>	Site: <u>3800 Broadway</u>
Sampler: <u>Hank</u>	Date: <u>6-19-01</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: <u>32.65</u>	Depth to Water: <u>21.11</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Purge Method:

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

Sampling Method:

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

$$1.8 \text{ (Gals.)} \times 3 = 5.4 \text{ Gals.}$$
 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
1318	69.4	6.6	1011	>200	1.8	
1322	69.5	6.5	1042	>200	3.6	
1326	69.6	6.6	1030	>200	5.5	
Removed & Replaced Strainer						

Did well dewater? Yes  No  Gallons actually evacuated: 5.5

Sampling Time: 1330 Sampling Date: 6-19-01

Sample I.D.: MW-6 Laboratory: Sequoia Columbia Other KIFA

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: 3.0 mg/L Post-purge: 3.4 mg/L

O.R.P. (if req'd): Pre-purge: -42 mV Post-purge: -60 mV

# EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010619-21</u>	Site: <u>3800 Broadway</u>
Sampler: <u>Hant</u>	Date: <u>6-19-01</u>
Well I.D.: <u>MW-7</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>19.30</u>	Depth to Water: <u>33.57</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> HACH

Purge Method:

- |  |  |
|--|--|
| <input type="checkbox"/> Bailer<br><input checked="" type="checkbox"/> Disposable Bailer<br><input type="checkbox"/> Middleburg<br><input type="checkbox"/> Electric Submersible | <input type="checkbox"/> Waterra<br><input type="checkbox"/> Peristaltic<br><input type="checkbox"/> Extraction Pump<br><input type="checkbox"/> Other _____ |
|--|--|

Sampling Method:

- |  |                                       |
|--|---------------------------------------|
| <input checked="" type="checkbox"/> Disposable Bailer<br><input type="checkbox"/> Extraction Port<br><input type="checkbox"/> Dedicated Tubing | <input type="checkbox"/> Other: _____ |
|--|---------------------------------------|

$$\frac{2.3 \text{ (Gals.)} \times 3 \text{ Specified Volumes}}{1 \text{ Case Volume}} = 6.9 \text{ Gals. Calculated Volume}$$

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
1125	69.1	6.7	503	7200	2.3	
1129	69.0	6.7	519	7200	4.6	
1135	69.0	6.6	532	7200	7	

Did well dewater? Yes  No

Gallons actually evacuated: 7

Sampling Time: 1140

Sampling Date: 6-19-01

Sample I.D.: MW-7

Laboratory: Sequoia Columbia Other KIFA

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: 3.8 mg/L Post-purge: 4.2 mg/L

O.R.P. (if req'd): Pre-purge: 134 mV Post-purge: 100 mV

## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010619-01</u>	Site: <u>3800 Broadway</u>
Sampler: <u>Hank</u>	Date: <u>6-19-01</u>
Well I.D.: <u>MW-9</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>34.10</u>	Depth to Water: <u>17.83</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> HACH

Purge Method:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> Bailer</li> <li><input checked="" type="checkbox"/> Disposable Bailer</li> <li><input type="checkbox"/> Middleburg</li> <li><input type="checkbox"/> Electric Submersible</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Waterra</li> <li><input type="checkbox"/> Peristaltic</li> <li><input type="checkbox"/> Extraction Pump</li> <li><input type="checkbox"/> Other _____</li> </ul> |
|--|--|

Sampling Method:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Disposable Bailer</li> <li><input type="checkbox"/> Extraction Port</li> <li><input type="checkbox"/> Dedicated Tubing</li> <li>Other: _____</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Bailer</li> </ul> |
|--|---|

$$2.6 \text{ (Gals.)} \times \underline{3} = \underline{7.8} \text{ Gals.}$$
 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
1207	69.7	6.9	414	>200	2.6	
1212	69.6	6.8	428	>200	5.2	
1216	69.7	6.9	421	>200	8	

Did well dewater? Yes  No  Gallons actually evacuated: 8

Sampling Time: 1220 Sampling Date: 6-19-01

Sample I.D.: MW-9 Laboratory: Sequoia Columbia Other KIFA

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):	<u>(Pre-purge)</u>	<u>3.4</u> mg/L	<u>(Post-purge)</u>	<u>4.0</u> mg/L
O.R.P. (if req'd):	<u>(Pre-purge)</u>	<u>-81</u> mV	<u>(Post-purge)</u>	<u>-52</u> mV

# EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010619-01</u>	Site: <u>3800 Broadway</u>
Sampler: <u>Hant</u>	Date: <u>6-19-01</u>
Well I.D.: <u>MW-10</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>33.40</u>	Depth to Water: <u>16.85</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(ESI)</u> HACH

Purge Method:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> Bailer</li> <li><input checked="" type="checkbox"/> Disposable Bailer</li> <li><input type="checkbox"/> Middleburg</li> <li><input type="checkbox"/> Electric Submersible</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Waterra</li> <li><input type="checkbox"/> Peristaltic</li> <li><input type="checkbox"/> Extraction Pump</li> <li><input type="checkbox"/> Other _____</li> </ul> |
|--|--|

Sampling Method:

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

$$2.6 \text{ (Gals.)} \times 3 = 7.8 \text{ Gals.}$$
 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
1145	68.7	6.9	637	>200	2.6	
1149	68.9	6.9	648	>200	5.2	
1155	68.7	6.9	621	>200	8	

Did well dewater? Yes  No

Gallons actually evacuated: 8

Sampling Time: 1200      Sampling Date: 6-19-01

Sample I.D.: MW-10      Laboratory: Sequoia Columbia Other KIFA

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

# EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010614-01</u>	Site: <u>3800 Broadway</u>
Sampler: <u>Hant</u>	Date: <u>6-19-01</u>
Well I.D.: <u>MW-11</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>39.30</u>	Depth to Water: <u>25.57</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <del>SI</del> <u>IIACH</u>

Purge Method:  Bailer  Disposable Bailer  Middleburg  Electric Submersible

Watera  Peristaltic  Extraction Pump  Other \_\_\_\_\_

Sampling Method:  Bailer  Disposable Bailer  Extraction Port  Dedicated Tubing

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

$$2.1 \text{ (Gals.)} \times 3 = 6.3 \text{ Gals.}$$
 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
1104	70.5	6.6	745	>200	2.1	
1108	70.2	6.5	791	>200	4.2	
1112	70.4	6.6	780	>200	6.5	

Did well dewater? Yes  No

Gallons actually evacuated: 6.5

Sampling Time: 1117      Sampling Date: 6-19-01

Sample I.D.: MW-11      Laboratory: Sequoia Columbia Other KIFA

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