



**Shell Oil Products US**

April 15, 2003

Alameda County  
APR 21 2003  
Environmental Health

Mr. Don Hwang  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Subject: Shell-branded Service Station**  
6039 College Avenue  
Oakland, California

Dear Mr. Hwang:

Attached for your review and comment is a copy of the <sup>LSC</sup> ~~Fourth~~ *Quarter 2002 Monitoring Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

**Shell Oil Products US**

*Karen Petryna*

Karen Petryna  
Sr. Environmental Engineer

April 15, 2003

Mr. Don Hwang  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Re: First Quarter 2003 Monitoring Report**  
Shell-branded Service Station  
6039 College Avenue  
Oakland, California  
Incident #98995745  
Cambria Project #245-0503-002



Dear Mr. Hwang:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

## **FIRST QUARTER 2003 ACTIVITIES**

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California checked site monitoring wells for separate-phase hydrocarbons (SPH), gauged water levels, and calculated groundwater elevations. Cambria prepared a vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, including the laboratory report and supporting field documents, is included as Attachment A.

**Separate-Phase and Dissolved-Phase Hydrocarbon Removal:** Cambria initiated weekly extraction of SPH and dissolved-phase hydrocarbons at this site in September 1999. Between September 22 and November 10, 1999, Advanced Cleanup Technologies, Inc. of Benicia, California extracted SPH and groundwater from wells MW-3 and MW-4 with a vacuum truck. Beginning November 10, 1999, Blaine took over the weekly purging events as the volume of groundwater and SPH removed each week was not sufficient to warrant using a vacuum truck. Due to the absence of SPH in MW-4, weekly purging events by Blaine were discontinued on June 8, 2000. After SPH reappeared in the second and third quarters of 2001, Cambria reinstated monthly extraction using a vacuum truck in December 2001. No SPH has been detected since the third quarter of 2001. Field data collected from vacuum truck operations and Blaine purging is

**Cambria  
Environmental  
Technology, Inc.**

5900 Hollis Street  
Suite A  
Emeryville, CA 94608  
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included in Table 1. Groundwater monitoring and extraction data are depicted graphically in Figures 3 and 4.

**Additional Total Recoverable Petroleum Hydrocarbon (TRPH) Analysis:** Groundwater from MW-3 and MW-4 is analyzed annually in the first quarter for TRPH using EPA Method SM 5520B/F and for semi-volatile organic compounds using EPA Method 8270C. Analytical results are summarized in Tables 2, 3a and 3b.

**Agency Correspondence:** On March 27, 2003 Cambria received a letter from Alameda County Health Care Services Agency (ACHCSA) dated March 21, 2003. The letter contained technical comments and requested additional information regarding the historical, current and proposed characterization of the site. Cambria requested, and was granted, an extension until May 2, 2003 to respond to the letter.



**ANTICIPATED SECOND QUARTER 2003 ACTIVITIES**

**Groundwater Extraction (GWE):** Methyl tertiary-butyl ether (MTBE) concentrations dropped below 1,000 parts per billion in all wells and Cambria discontinued monthly mobile GWE in March 2003. However, due to an increase in MTBE concentrations in target wells MW-3 and MW-4, Cambria will reinstate GWE in April 2003.

**Groundwater Monitoring:** Blaine will measure for detected SPH, gauge all wells, sample selected site wells if no SPH are present, and tabulate the data. Cambria will prepare a quarterly monitoring report.

**Additional Groundwater Sample Analysis:** As requested in ACHCSA's March 21, 2003 letter, the samples collected in the second quarter of 2003 will be analyzed for tert-amyl methyl ether (TAME), ethyl tert-butyl ether (ETBE), di-isopropyl ether (DIPE), tert-butyl alcohol (TBA), ethanol, ethylene dibromide (EDB) and ethylene dichloride (1,2-DCA). Chemicals will be analyzed using the following laboratory reporting limits:

TPHg	50 parts per billion (ppb)	Benzene	0.5 ppb
Toluene	0.5 ppb	Ethylbenzene	0.5 ppb
Xylenes	1.0 ppb	MTBE	0.5 ppb
TAME	2.0 ppb	ETBE	2.0 ppb
DIPE	2.0 ppb	TBA	5.0 ppb
Ethanol	50 ppb	EDB	0.5 ppb
1,2 DCA	0.5 ppb		

**Subsurface Investigation:** On January 6, 2002, Cambria submitted a work plan to install five Geoprobe® soil borings to further define the extent of the MTBE plume southwest of the site and to determine whether offsite utility trenches provide preferential pathways for chemical migration as recommended in Cambria's *Second Quarter 2002 Monitoring Report*. In the March 20, 2003 letter referenced above, ACHCSA requested an amended work plan to increase the number soil borings in the investigation. Cambria will submit the requested subsurface investigation work plan amendment no later than May 2, 2003.



**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Melody Munz at (510) 420-3324 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**

Melody Munz  
Project Engineer

Matthew W. Derby, P.E.  
Senior Project Engineer

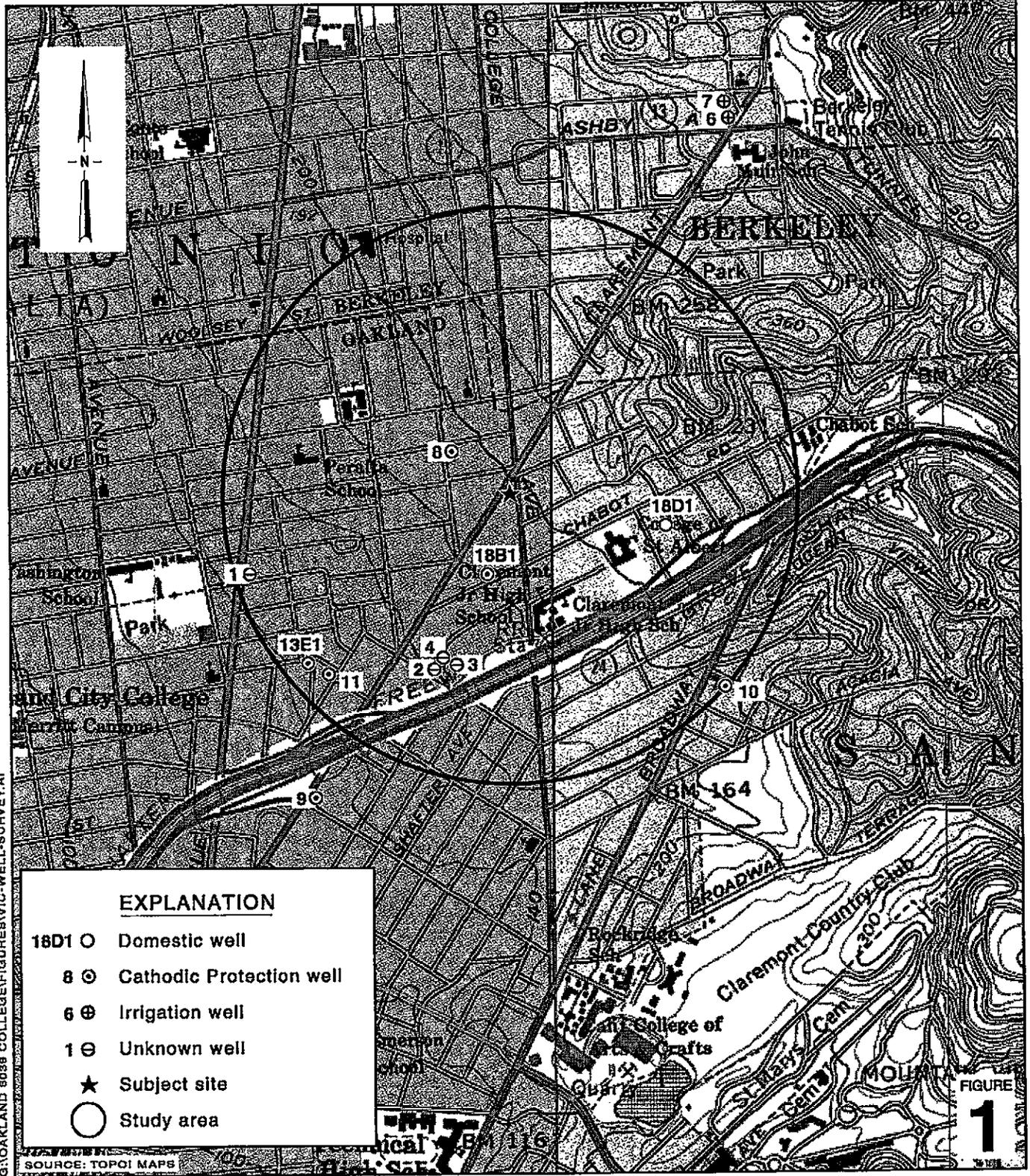


- Figures:
- 1 - Vicinity/Area Well Survey Map
  - 2 - Groundwater Elevation Contour Map
  - 3 - VacOps/DVE Effect on MTBE Concentration – MW-3
  - 4 - VacOps/DVE Effect on MTBE Concentration – MW-4

- Tables:
- 1 - Groundwater Extraction – Mass Removal Data
  - 2 - Total Recoverable Petroleum Hydrocarbons
  - 3a - Total Recoverable Petroleum Hydrocarbons – MW-3
  - 3b - Total Recoverable Petroleum Hydrocarbons – MW4

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869  
Russell J. Bruzzone, Inc. 899 Hope Lane, Lafayette, CA 94549  
Montrose Investment Co., 242 Rivera Circle, Greenbrae Marina, Larkspur, CA 94939  
Attn: Jim Graham



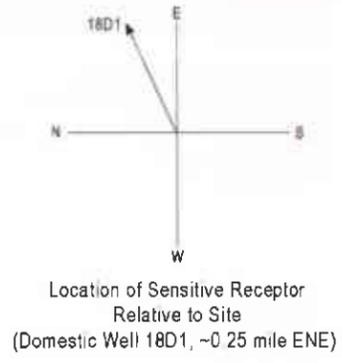
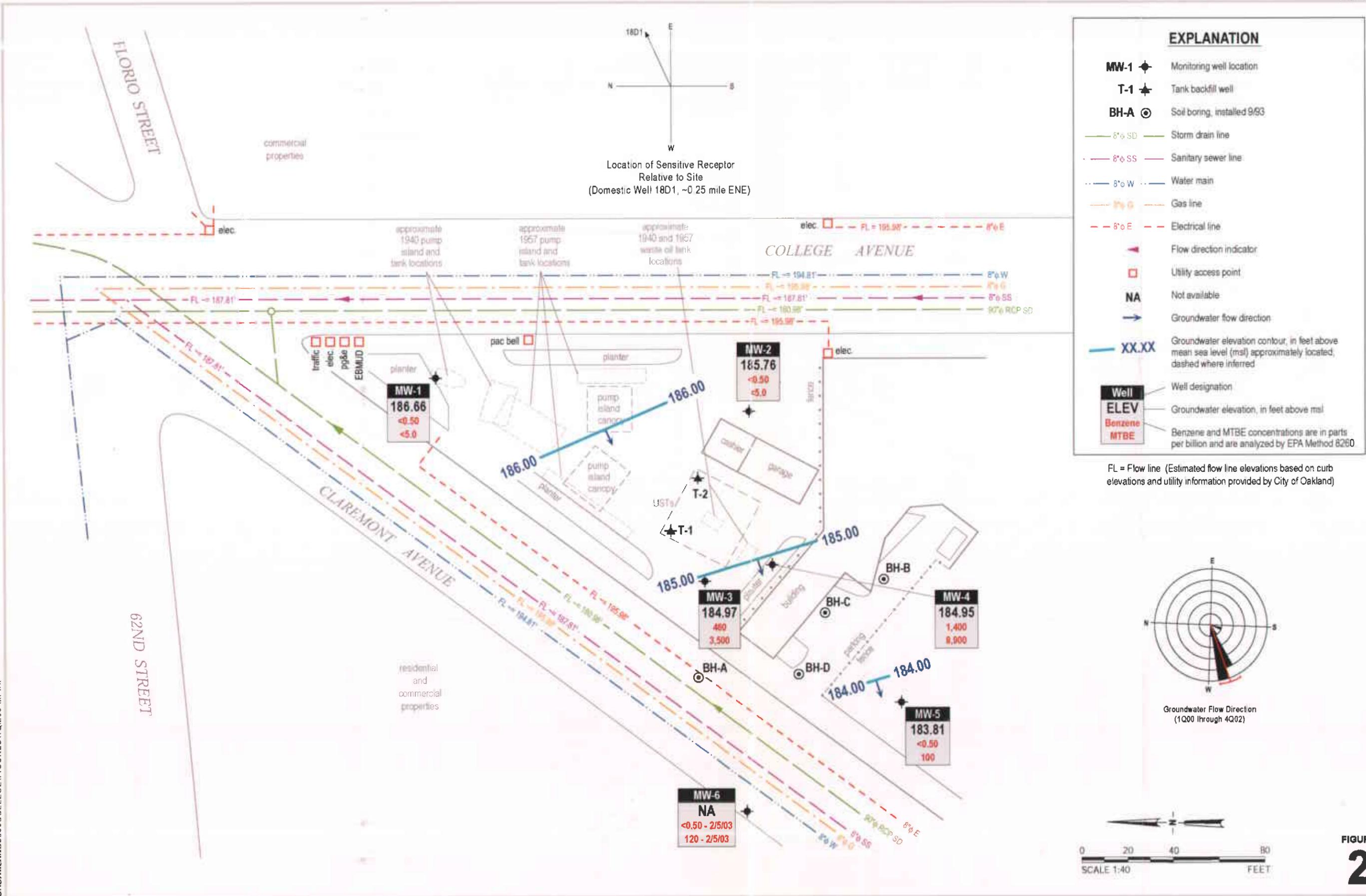
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**Shell-branded Service Station**  
 6039 College Avenue  
 Oakland, California  
 Incident #98995745



**Vicinity / Area Well  
 Survey Map**  
 1/2 Mile Radius

G:\OAKLAND\039COLLEGE\FIGURES\1Q003-MP.A1



Well Designation	ELEV	Benzene	MTBE
MW-1	186.66	<0.50	<5.0
MW-2	185.76	<0.50	<5.0
MW-3	184.97	480	3,500
MW-4	184.95	1,400	8,900
MW-5	183.81	<0.50	100
MW-6	NA	<0.50 - 2/5/03	120 - 2/5/03

SCALE 1:40 FEET

FIGURE 2

VacOps/DVE effect on MTBE concentration  
6039 College, Oakland - MW-3

Date	DTW-ft
2/11/00	12.85
5/4/00	17.05
8/31/00	16.47
8/31/00	14.26
11/30/00	15.75
2/13/01	13.05
5/29/01	13.84
7/30/01	15.46
12/12/01	12.93
1/31/02	11.88
5/31/02	13.65
7/25/02	15.04
11/26/02	17.15
01/29/03	12.21

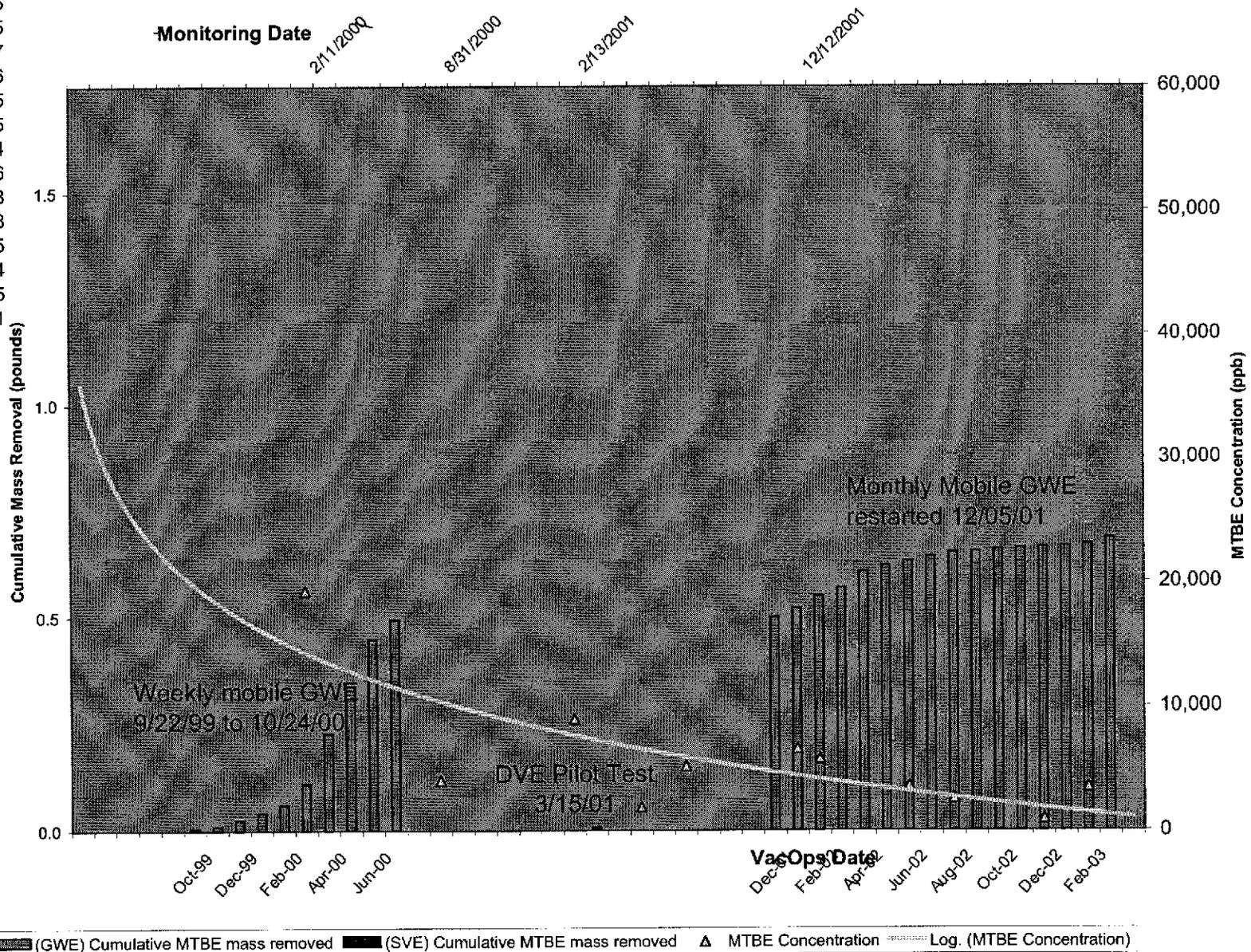


Figure 3

Date	DTW-ft
2/11/00	14.82
5/4/00	12.64
8/31/00	16.47
11/30/00	17.67
2/13/01	13.30
5/31/01	15.08
7/30/01	16.28
12/12/01	13.81
01/31/02	12.80
05/31/02	14.59
7/25/02	15.94
11/26/02	18.10
01/29/03	13.08

VacOps/DVE effect on MTBE concentration  
6039 College, Oakland - MW-4

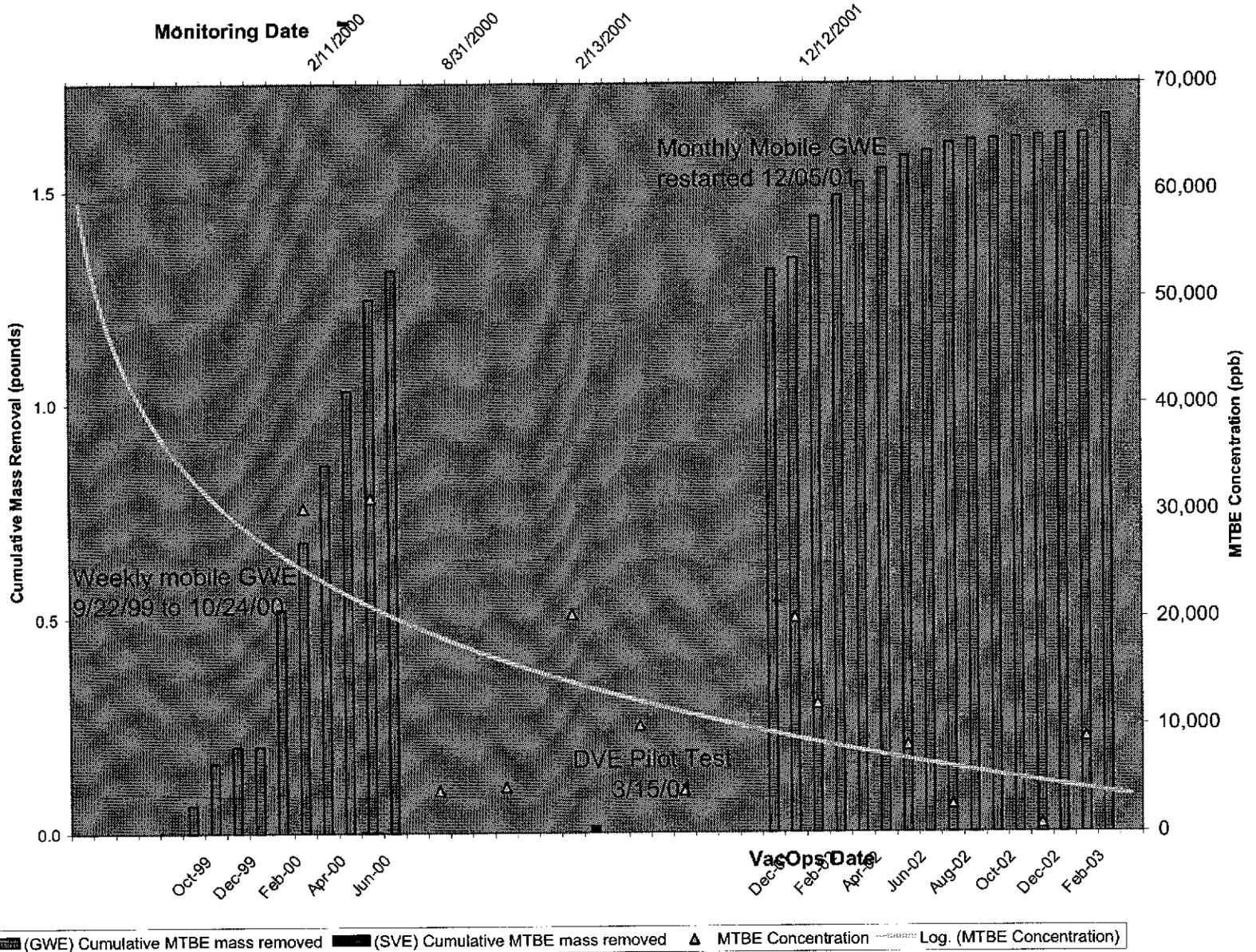


Figure 4

**Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995745, 6039 College Avenue, 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)
09/22/99	MW-3	115	115	08/31/99	1,550	0.00149	0.00149	232	0.00022	0.00022	4,620	0.00443	0.00443
10/06/99	MW-3	40	155	08/31/99	1,550	0.00052	0.00200	232	0.00008	0.00030	4,620	0.00154	0.00598
10/14/99	MW-3	50	205	08/31/99	1,550	0.00065	0.00265	232	0.00010	0.00040	4,620	0.00193	0.00790
10/18/99	MW-3	30	235	08/31/99	1,550	0.00039	0.00304	232	0.00006	0.00045	4,620	0.00116	0.00906
10/29/99	MW-3	30	265	08/31/99	1,550	0.00039	0.00343	232	0.00006	0.00051	4,620	0.00116	0.01022
11/03/99	MW-3	30	295	08/31/99	1,550	0.00039	0.00382	232	0.00006	0.00057	4,620	0.00116	0.01137
11/10/99	MW-3	30	325	08/31/99	1,550	0.00039	0.00420	232	0.00006	0.00063	4,620	0.00116	0.01253
11/19/99	MW-3	169	494	08/31/99	1,550	0.00219	0.00639	232	0.00033	0.00096	4,620	0.00652	0.01904
11/24/99	MW-3	160	654	08/31/99	1,550	0.00207	0.00846	232	0.00031	0.00127	4,620	0.00617	0.02521
12/02/99	MW-3	200	854	08/31/99	1,550	0.00259	0.01105	232	0.00039	0.00165	4,620	0.00771	0.03292
12/10/99	MW-3	60	914	08/31/99	1,550	0.00078	0.01182	232	0.00012	0.00177	4,620	0.00231	0.03524
12/17/99	MW-3	150	1,064	08/31/99	1,550	0.00194	0.01376	232	0.00029	0.00206	4,620	0.00578	0.04102
01/03/00	MW-3	0	1,064	08/31/99	1,550	0.00000	0.01376	232	0.00000	0.00206	4,620	0.00000	0.04102
01/07/00	MW-3	0	1,064	08/31/99	1,550	0.00000	0.01376	232	0.00000	0.00206	4,620	0.00000	0.04102
01/13/00	MW-3	360	1,424	08/31/99	1,550	0.00466	0.01842	232	0.00070	0.00276	4,620	0.01388	0.05490
01/21/00	MW-3	40	1,464	08/31/99	1,550	0.00052	0.01894	232	0.00008	0.00283	4,620	0.00154	0.05644
01/25/00	MW-3	80	1,544	08/31/99	1,550	0.00103	0.01997	232	0.00015	0.00299	4,620	0.00308	0.05952
02/01/00	MW-3	165	1,709	08/31/99	1,550	0.00213	0.02210	232	0.00032	0.00331	4,620	0.00636	0.06588
02/11/00	MW-3	24	1,733	02/11/00	10,900	0.00218	0.02429	1,030	0.00021	0.00351	19,300	0.00387	0.06975
02/15/00	MW-3	150	1,883	02/11/00	10,900	0.01364	0.03793	1,030	0.00129	0.00480	19,300	0.02416	0.09391
02/23/00	MW-3	100	1,983	02/11/00	10,900	0.00910	0.04703	1,030	0.00086	0.00566	19,300	0.01610	0.11001
03/02/00	MW-3	168	2,151	02/11/00	10,900	0.01528	0.06231	1,030	0.00144	0.00711	19,300	0.02706	0.13707
03/10/00	MW-3	270	2,421	02/11/00	10,900	0.02456	0.08686	1,030	0.00232	0.00943	19,300	0.04348	0.18055
03/15/00	MW-3	96	2,517	02/11/00	10,900	0.00873	0.09559	1,030	0.00083	0.01025	19,300	0.01546	0.19601
03/21/00	MW-3	100	2,617	02/11/00	10,900	0.00910	0.10469	1,030	0.00086	0.01111	19,300	0.01610	0.21211
03/27/00	MW-3	100	2,717	02/11/00	10,900	0.00910	0.11378	1,030	0.00086	0.01197	19,300	0.01610	0.22822
04/07/00	MW-3	160	2,877	02/11/00	10,900	0.01455	0.12834	1,030	0.00138	0.01335	19,300	0.02577	0.25399
04/13/00	MW-3	120	2,997	02/11/00	10,900	0.01091	0.13925	1,030	0.00103	0.01438	19,300	0.01933	0.27331

**Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995745, 6039 College Avenue, Oakland, California**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene			MTBE		
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04/18/00	MW-3	180	3,177	02/11/00	10,900	0.01637	0.15562	1,030	0.00155	0.01593	19,300	0.02899	0.30230
04/26/00	MW-3	225	3,402	02/11/00	10,900	0.02046	0.17609	1,030	0.00193	0.01786	19,300	0.03624	0.33853
05/04/00	MW-3	160	3,562	02/11/00	10,900	0.01455	0.19064	1,030	0.00138	0.01923	19,300	0.02577	0.36430
05/09/00	MW-3	180	3,742	02/11/00	10,900	0.01637	0.20701	1,030	0.00155	0.02078	19,300	0.02899	0.39329
05/17/00	MW-3	138	3,880	02/11/00	10,900	0.01255	0.21956	1,030	0.00119	0.02197	19,300	0.02222	0.41551
05/22/00	MW-3	200	4,080	02/11/00	10,900	0.01819	0.23775	1,030	0.00172	0.02369	19,300	0.03221	0.44772
06/01/00	MW-3	120	4,200	02/11/00	10,900	0.01091	0.24867	1,030	0.00103	0.02472	19,300	0.01933	0.46705
06/08/00	MW-3	170	4,370	02/11/00	10,900	0.01546	0.26413	1,030	0.00146	0.02618	19,300	0.02738	0.49443
11/05/01	MW-3	100	4,470	07/30/01	2,700	0.00225	0.26638	250	0.00021	0.02639	5,200	0.00434	0.49877
12/05/01	MW-3	500	4,970	07/30/01	2,700	0.01126	0.27765	250	0.00104	0.02743	5,200	0.02170	0.52046
01/25/02	MW-3	500	5,470	12/12/01	<10,000	0.02086	0.29851	720	0.00300	0.03043	6,600	0.02754	0.54800
02/13/02	MW-3	411	5,881	01/31/02	11,000	0.03772	0.33623	750	0.00257	0.03301	5,800	0.01989	0.56789
03/13/02	MW-3	783	6,664	01/31/02	11,000	0.07187	0.40810	750	0.00490	0.03791	5,800	0.03790	0.60578
04/17/02	MW-3	300	6,964	01/31/02	11,000	0.02754	0.43564	750	0.00188	0.03978	5,800	0.01452	0.62030
05/15/02	MW-3	215	7,179	01/31/02	11,000	0.01973	0.45538	750	0.00135	0.04113	5,800	0.01041	0.63071
06/14/02	MW-3	385	7,564	05/31/02	5,100	0.01638	0.47176	410	0.00132	0.04245	3,600	0.01157	0.64227
07/12/02	MW-3	300	7,864	05/31/02	5,100	0.01277	0.48453	410	0.00103	0.04347	3,600	0.00901	0.65129
08/16/02	MW-3	100	7,964	07/25/02	2,100	0.00175	0.48628	170	0.00014	0.04362	2,600	0.00217	0.65346
09/18/02	MW-3	229	8,193	07/25/02	2,100	0.00401	0.49029	170	0.00032	0.04394	2,600	0.00497	0.65842
10/29/02	MW-3	151	8,344	07/25/02	2,100	0.00265	0.49294	170	0.00021	0.04415	2,600	0.00328	0.66170
11/18/02	MW-3	81	8,425	07/25/02	2,100	0.00142	0.49436	170	0.00011	0.04427	2,600	0.00176	0.66346
12/21/02	MW-3	459	8,884	11/26/02	510	0.00195	0.49631	26	0.00010	0.04437	940	0.00360	0.66706
01/15/03	MW-3	619	9,503	11/26/02	510	0.00263	0.49894	26	0.00013	0.04450	940	0.00486	0.67191
02/18/03	MW-3	470	9,973	01/29/03	6,000	0.02353	0.52248	460	0.00180	0.04631	3,500	0.01373	0.68564
09/22/99	MW-4	100	100	11/03/97	32,000	0.02670	0.02670	1,100	0.00092	0.00092	78,000	0.06509	0.06509
10/06/99	MW-4	60	160	11/03/97	32,000	0.01602	0.04272	1,100	0.00055	0.00147	78,000	0.03905	0.10414
10/14/99	MW-4	30	190	11/03/97	32,000	0.00801	0.05073	1,100	0.00028	0.00174	78,000	0.01953	0.12366

**Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995745, 6039 College Avenue, 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)
10/18/99	MW-4	30	220	11/03/97	32,000	0.00801	0.05874	1,100	0.00028	0.00202	78,000	0.01953	0.14319
10/29/99	MW-4	30	250	11/03/97	32,000	0.00801	0.06675	1,100	0.00028	0.00229	78,000	0.01953	0.16271
11/03/99	MW-4	30	280	11/03/97	32,000	0.00801	0.07477	1,100	0.00028	0.00257	78,000	0.01953	0.18224
11/10/99	MW-4	30	310	11/03/97	32,000	0.00801	0.08278	1,100	0.00028	0.00285	78,000	0.01953	0.20177
11/19/99	MW-4	0	310	11/03/97	32,000	0.00000	0.08278	1,100	0.00000	0.00285	78,000	0.00000	0.20177
11/24/99	MW-4	0	310	11/03/97	32,000	0.00000	0.08278	1,100	0.00000	0.00285	78,000	0.00000	0.20177
12/02/99	MW-4	0	310	11/03/97	32,000	0.00000	0.08278	1,100	0.00000	0.00285	78,000	0.00000	0.20177
12/10/99	MW-4	0	310	11/03/97	32,000	0.00000	0.08278	1,100	0.00000	0.00285	78,000	0.00000	0.20177
12/17/99	MW-4	0	310	11/03/97	32,000	0.00000	0.08278	1,100	0.00000	0.00285	78,000	0.00000	0.20177
01/03/00	MW-4	0	310	11/03/97	32,000	0.00000	0.08278	1,100	0.00000	0.00285	78,000	0.00000	0.20177
01/07/00	MW-4	0	310	11/03/97	32,000	0.00000	0.08278	1,100	0.00000	0.00285	78,000	0.00000	0.20177
01/13/00	MW-4	350	660	11/03/97	32,000	0.09346	0.17623	1,100	0.00321	0.00606	78,000	0.22780	0.42957
01/21/00	MW-4	40	700	11/03/97	32,000	0.01068	0.18691	1,100	0.00037	0.00643	78,000	0.02603	0.45560
01/25/00	MW-4	100	800	11/03/97	32,000	0.02670	0.21362	1,100	0.00092	0.00734	78,000	0.06509	0.52069
02/01/00	MW-4	165	965	11/03/97	32,000	0.04406	0.25767	1,100	0.00151	0.00886	78,000	0.10739	0.62808
02/11/00	MW-4	19	984	02/11/00	47,200	0.00748	0.26516	905	0.00014	0.00900	27,400	0.00434	0.63242
02/15/00	MW-4	100	1,084	02/11/00	47,200	0.03939	0.30454	905	0.00076	0.00976	27,400	0.02286	0.65529
02/23/00	MW-4	100	1,184	02/11/00	47,200	0.03939	0.34393	905	0.00076	0.01051	27,400	0.02286	0.67815
03/02/00	MW-4	270	1,454	02/11/00	47,200	0.10634	0.45027	905	0.00204	0.01255	27,400	0.06173	0.73988
03/10/00	MW-4	220	1,674	02/11/00	47,200	0.08665	0.53692	905	0.00166	0.01421	27,400	0.05030	0.79018
03/15/00	MW-4	96	1,770	02/11/00	47,200	0.03781	0.57473	905	0.00072	0.01494	27,400	0.02195	0.81213
03/21/00	MW-4	100	1,870	02/11/00	47,200	0.03939	0.61411	905	0.00076	0.01569	27,400	0.02286	0.83499
03/27/00	MW-4	100	1,970	02/11/00	47,200	0.03939	0.65350	905	0.00076	0.01645	27,400	0.02286	0.85786
04/07/00	MW-4	113	2,083	02/11/00	47,200	0.04451	0.69800	905	0.00085	0.01730	27,400	0.02584	0.88369
04/13/00	MW-4	110	2,193	02/11/00	47,200	0.04332	0.74133	905	0.00083	0.01813	27,400	0.02515	0.90884
04/18/00	MW-4	225	2,418	02/11/00	47,200	0.08862	0.82994	905	0.00170	0.01983	27,400	0.05144	0.96029
04/26/00	MW-4	315	2,733	02/11/00	47,200	0.12406	0.95401	905	0.00238	0.02221	27,400	0.07202	1.03231
05/04/00	MW-4	150	2,883	02/11/00	47,200	0.05908	1.01308	905	0.00113	0.02334	27,400	0.03430	1.06660

**Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995745, 6039 College Avenue, 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 To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE To Date (pounds)
05/09/00	MW-4	315	3,198	02/11/00	47,200	0.12406	1.13715	905	0.00238	0.02572	27,400	0.07202	1.13862
05/17/00	MW-4	270	3,468	02/11/00	47,200	0.10634	1.24349	905	0.00204	0.02776	27,400	0.06173	1.20035
05/22/00	MW-4	200	3,668	02/11/00	47,200	0.07877	1.32226	905	0.00151	0.02927	27,400	0.04573	1.24608
06/05/00	MW-4	125	3,793	02/11/00	47,200	0.04923	1.37149	905	0.00094	0.03021	27,400	0.02858	1.27466
06/08/00	MW-4	170	3,963	02/11/00	47,200	0.06696	1.43845	905	0.00128	0.03150	27,400	0.03887	1.31353
11/05/01	MW-4*	0	3,963	07/30/01	6,700	0.00000	1.43845	260	0.00000	0.03150	3,900	0.00000	1.31353
12/05/01	MW-4	850	4,813	07/30/01	6,700	0.04752	1.48597	260	0.00184	0.03334	3,900	0.02766	1.34119
01/25/02	MW-4	578	5,391	12/12/01	15,000	0.07235	1.55831	1,300	0.00627	0.03961	20,000	0.09646	1.43765
02/13/02	MW-4	500	5,891	01/31/02	12,000	0.05007	1.60838	1,500	0.00626	0.04587	12,000	0.05007	1.48772
03/13/02	MW-4	300	6,191	01/31/02	12,000	0.03004	1.63842	1,500	0.00375	0.04962	12,000	0.03004	1.51776
04/17/02	MW-4	309	6,500	01/31/02	12,000	0.03094	1.66936	1,500	0.00387	0.05349	12,000	0.03094	1.54870
05/15/02	MW-4	291	6,791	01/31/02	12,000	0.02914	1.69850	1,500	0.00364	0.05713	12,000	0.02914	1.57784
06/14/02	MW-4	200	6,991	05/31/02	8,200	0.01368	1.71218	1,100	0.00184	0.05897	8,100	0.01352	1.59135
07/12/02	MW-4	263	7,254	05/31/02	8,200	0.01800	1.73018	1,100	0.00241	0.06138	8,100	0.01778	1.60913
08/16/02	MW-4	322	7,576	07/25/02	3,300	0.00887	1.73905	290	0.00078	0.06216	2,600	0.00699	1.61612
09/18/02	MW-4	150	7,726	07/25/02	3,300	0.00413	1.74318	290	0.00036	0.06253	2,600	0.00325	1.61937
10/29/02	MW-4	100	7,826	07/25/02	3,300	0.00275	1.74593	290	0.00024	0.06277	2,600	0.00217	1.62154
11/18/02	MW-4	200	8,026	07/25/02	3,300	0.00551	1.75144	290	0.00048	0.06325	2,600	0.00434	1.62588
12/21/02	MW-4	400	8,426	11/26/02	1,400	0.00467	1.75611	89	0.00030	0.06355	770	0.00257	1.62845
01/15/03	MW-4	400	8,826	11/26/02	1,400	0.00467	1.76078	89	0.00030	0.06385	770	0.00257	1.63102
02/18/03	MW-4	600	9,426	01/29/03	7,400	0.03705	1.79783	1,400	0.00701	0.07086	8,900	0.04456	1.67558
<b>Total Gallons Extracted:</b>		<b>19,399</b>		<b>Total Pounds Removed:</b>		<b>2.32031</b>		<b>0.11716</b>		<b>2.36122</b>			
				<b>Total Gallons Removed:</b>		<b>0.38038</b>		<b>0.01605</b>		<b>0.38084</b>			

**Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995745, 6039 College Avenue, Oakland, California**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	<u>TPPH</u>			<u>Benzene</u>			<u>MTBE</u>			
					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)	

**Abbreviations & Notes:**

TPPH = Total purgeable hydrocarbons as gasoline

MtBE = Methyl tert-butyl ether

ppb = Parts per billion

gal = Gallon

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

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

TPPH, benzene analyzed by EPA Method 8015/8020

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

Concentrations based on most recent groundwater monitoring results

Groundwater extracted by vacuum trucks provided by ACTI between September 22, 1999 and November 10, 1999, and from November 5, 2001 through December 5, 2001, and by Blaine Tech Services from November 19, 1999 to June 8, 2000.

Groundwater extracted by vacuum trucks provided by Onyx Industrial from January 25, 2002 and on. Water disposed of at a Martinez refinery.

\* = Well dry.

**Table 2: Total Recoverable Petroleum Hydrocarbons**

Shell-branded Service Station, Incident #98995745, 6039 College Avenue, Oakland, California

Date Sampled	Reporting Limit (mg/L)	MW-3 TRPH Concentration (mg/L)	MW-4 TRPH Concentration (mg/L)
08/19/96	5.0	9.2	NR
12/05/96	5.0	6.1	NR
02/20/97	5.0	NR	8.7
05/30/97	5.0	NR	8.1
08/18/97	5.0	NR	67
01/20/98	5.0	ND	NR
02/11/99	5.0	ND	NR
08/05/99	5.0	ND	NR
02/11/00	5.0	11.7	178
02/13/01	5.0	ND	13.3
01/31/02 <sup>(1)</sup>	1.0	3.6	21
01/23/03 <sup>(2)</sup>	1.0	3.3	16

**Abbreviations & Notes:**

TRPH = Total recoverable petroleum hydrocarbons

ND = Analyte NOT DETECTED at or above the reporting limit

NR = Not reported

<sup>(1)</sup> Hexane extractable Material analyzed by EPA Method 1664

<sup>(2)</sup> Oil and Grease - silica gel treated - analyzed using SM5520B/F

**Table 3a: Total Recoverable Petroleum Hydrocarbons - MW-3**  
 Shell-branded Service Station, Incident #98995745, 6039 College Avenue, Oakland, California

Date Sampled	TRPH Concentration (mg/L)	Bis(2-ethylhexyl)phthalate Concentration (ug/L)	2-Methylnaphthalene Concentration (ug/L)	4-Methylphenol Concentration (ug/L)	Napthalene Concentration (ug/L)	Phenol Concentration (ug/L)
08/19/96	9.2	<100	<50	<50	<50	<50
12/05/96	6.1	<100	<50	<50	<50	<50
02/20/97	<5	<100	<50	<50	23	<50
05/30/97	NA	NA	NA	NA	NA	NA
08/18/97	NA	NA	NA	NA	NA	NA
01/20/98	<5	<100	<50	<50	13	<50
02/11/99	<5	<100	<50	<50	13	19
08/05/99	<5	NA	NA	NA	NA	NA
02/11/00	11.7	20.9	8.42	8.22	52.1	26.3
02/13/01	<5	22	8.4	<50	39	<50
01/31/02 <sup>(1)</sup>	3.6	23	22	<10	140	<10
01/29/03 <sup>(2)</sup>	3.3	23	23	NA	91	<10
Reporting Limit	5	100	50	50	50	50

**Abbreviations & Notes:**

TRPH = Total recoverable petroleum hydrocarbons

NA = not analyzed

TRPH analyzed using SM 5520 B&F

Bis(2-ethylhexyl)phthalate, 2-Methylnaphthalene, 4-Methylphenol, Napthalene, Phenol analyzed using EPA Method 8270

<sup>(1)</sup> Hexane extractable Material analyzed by EPA Method 1664

<sup>(2)</sup> Oil and Grease - silica gel treated - analyzed using SM5520B/F

**Table 3b: Total Recoverable Petroleum Hydrocarbons - MW-4**  
 Shell-branded Service Station, Incident #98995745, 6039 College Avenue, Oakland, California

Date Sampled	TRPH	Bis(2-ethylhexyl)phthalate	2-Methylnapthalene	4-Methylphenol	Napthalene	Phenol
	Concentration (mg/L)	Concentration (ug/L)	Concentration (ug/L)	Concentration (ug/L)	Concentration (ug/L)	Concentration (ug/L)
08/19/96	NA	NA	NA	NA	NA	NA
12/05/96	NA	<100	<50	<50	<50	<50
02/20/97	8.7	<100	<50	<50	5.6	<50
05/30/97	8.1	<100	<50	<50	<50	<50
08/18/97	67	<100	<50	<50	<50	<50
01/20/98	NA	NA	NA	NA	NA	NA
02/11/99	NA	NA	NA	NA	NA	NA
08/05/99	NA	NA	NA	NA	NA	NA
02/11/00	178	14	42.2	<50	158	32.4
02/13/01	13.3	410	<50	<50	160	<50
01/31/02 <sup>(1)</sup>	21	260	29	<10	190	<10
01/29/03 <sup>(2)</sup>	16	38	23	NA	140	<10
Reporting Limit	5	100	50	50	50	50

**Abbreviations & Notes:**

TRPH = Total recoverable petroleum hydrocarbons

NA = not analyzed

TRPH analyzed using SM 5520 B&F

Bis(2-ethylhexyl)phthalate, 2-Methylnapthalene, 4-Methylphenol, Napthalene, Phenol analyzed using EPA Method 8270

<sup>(1)</sup> Hexane extractable Material analyzed by EPA Method 1664

<sup>(2)</sup> Oil and Grease - silica gel treated - analyzed using SM5520B/F

**ATTACHMENT A**  
**Blaine Groundwater Monitoring Report**  
**and Field Notes**

**BLAINE**  
TECH SERVICES, INC.



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(408) 573-7771 FAX  
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March 4, 2003

Karen Petryna  
Shell Oil Products US  
P.O. Box 7869  
Burbank, CA 91510-7869

First Quarter 2003 Groundwater Monitoring at  
Shell-branded Service Station  
6039 College Avenue  
Oakland, CA

Monitoring performed on January 29 and February 5, 2003

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Groundwater Monitoring Report 030129-RH-2

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

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

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. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Leon Gearhart  
Project Coordinator

LG/jt

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

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
5900 Hollis Street, Suite A  
Oakland, CA 94608

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
MW-1	02/15/1990	95	650	ND	0.67	0.37	3.2	NA	NA	195.89	17.73	NA	178.16	NA	NA
MW-1	04/19/1990	NA	NA	NA	NA	NA	NA	NA	NA	195.89	18.51	NA	177.38	NA	NA
MW-1	05/14/1990	95	ND	0.7	0.57	0.71	3.5	NA	NA	195.89	18.92	NA	176.97	NA	NA
MW-1	06/21/1990	NA	NA	NA	NA	NA	NA	NA	NA	195.89	18.21	NA	177.68	NA	NA
MW-1	09/12/1990	ND	84	ND	ND	ND	ND	NA	NA	195.89	19.81	NA	176.08	NA	NA
MW-1	11/27/1990	NA	NA	NA	NA	NA	NA	NA	NA	195.89	20.39	NA	175.50	NA	NA
MW-1	03/08/1991	ND	50	ND	ND	ND	ND	NA	NA	195.89	16.85	NA	179.04	NA	NA
MW-1	06/03/1991	ND	ND	ND	ND	ND	ND	NA	NA	195.89	17.82	NA	178.07	NA	NA
MW-1	08/30/1991	16.85	520	ND	ND	ND	ND	NA	NA	195.89	19.87	NA	176.02	NA	NA
MW-1	11/22/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	20.58	NA	175.31	NA	NA
MW-1	03/18/1992	<30	<50	<0.3	<0.3	<0.3	<0.3	NA	NA	195.89	13.55	NA	182.34	NA	NA
MW-1	05/28/1992	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	17.08	NA	178.81	NA	NA
MW-1	08/19/1992	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	19.07	NA	176.82	NA	NA
MW-1	11/17/1992	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	20.11	NA	175.78	NA	NA
MW-1	02/12/1993	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	12.10	NA	183.79	NA	NA
MW-1	06/10/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	14.87	NA	181.02	NA	NA
MW-1	08/18/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	16.90	NA	178.99	NA	NA
MW-1	11/19/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	19.72	NA	176.17	NA	NA
MW-1	02/28/1994	<50	NA	<0.5	<0.5	<0.5	1.7	NA	NA	195.89	15.08	NA	180.81	NA	NA
MW-1	05/04/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	17.20	NA	178.69	NA	NA
MW-1	08/10/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	18.76	NA	177.13	NA	NA
MW-1	11/08/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	16.00	NA	179.89	NA	NA
MW-1	02/01/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	10.18	NA	185.71	NA	NA
MW-1	05/10/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	11.88	NA	184.01	NA	NA
MW-1	08/24/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	15.60	NA	180.29	NA	NA
MW-1	11/10/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	18.24	NA	177.65	NA	NA
MW-1	02/24/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	195.89	9.88	NA	186.01	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
MW-1	05/22/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	195.89	12.24	NA	183.65	NA	NA
MW-1	08/19/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	195.89	15.86	NA	180.03	NA	NA
MW-1	12/05/1996	160	NA	7.3	8.2	5.5	23	<2.5	NA	195.89	16.21	NA	179.68	NA	NA
MW-1	01/08/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	195.89	9.73	NA	186.16	NA	NA
MW-1	02/20/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	195.89	11.60	NA	184.29	NA	NA
MW-1	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	195.89	15.02	NA	180.87	NA	NA
MW-1	08/18/1997	NA	NA	NA	NA	NA	NA	NA	NA	195.89	17.20	NA	178.69	NA	NA
MW-1	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	195.89	16.02	NA	179.87	NA	NA
MW-1	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	195.89	9.35	NA	186.54	NA	NA
MW-1	06/05/1998	NA	NA	NA	NA	NA	NA	NA	NA	195.89	11.75	NA	184.14	NA	NA
MW-1	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	195.89	13.32	NA	182.57	NA	NA
MW-1	11/19/1998	NA	NA	NA	NA	NA	NA	NA	NA	195.89	14.01	NA	181.88	NA	NA
MW-1	02/03/1999	NA	NA	NA	NA	NA	NA	NA	NA	195.89	15.62	NA	180.27	NA	NA
MW-1	06/04/1999	NA	NA	NA	NA	NA	NA	NA	NA	195.89	14.72	NA	181.17	NA	NA
MW-1	08/31/1999	NA	NA	NA	NA	NA	NA	NA	NA	195.89	17.00	NA	178.89	NA	NA
MW-1	12/10/1999	NA	NA	NA	NA	NA	NA	NA	NA	195.89	18.36	NA	177.53	NA	NA
MW-1	02/11/2000	NA	NA	NA	NA	NA	NA	NA	NA	195.89	15.09	NA	180.80	NA	NA
MW-1	05/04/2000	NA	NA	NA	NA	NA	NA	NA	NA	195.89	12.97	NA	182.92	NA	NA
MW-1	08/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	195.89	15.02	NA	180.87	NA	NA
MW-1	11/30/2000	NA	NA	NA	NA	NA	NA	NA	NA	195.89	12.90	NA	182.99	NA	NA
MW-1	02/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	195.89	14.28	NA	181.61	NA	NA
MW-1	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	195.89	16.04	NA	179.85	NA	NA
MW-1	07/30/2001	NA	NA	NA	NA	NA	NA	NA	NA	195.89	17.53	NA	178.36	NA	NA
MW-1	12/12/2001	NA	NA	NA	NA	NA	NA	NA	NA	195.89	14.79	NA	181.10	NA	NA
MW-1	01/31/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	195.89	13.71	NA	182.18	NA	NA
MW-1	05/31/2002	NA	NA	NA	NA	NA	NA	NA	NA	195.89	15.63	NA	180.26	NA	NA
MW-1	07/25/2002	NA	NA	NA	NA	NA	NA	NA	NA	195.89	17.08	NA	178.81	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
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MW-1	11/26/2002	NA	NA	NA	NA	NA	NA	NA	NA	200.56	19.30	NA	181.26	NA	NA
MW-1	01/29/2003	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	200.56	13.90	NA	186.66	NA	NA

MW-2	02/15/1990	ND	560	ND	ND	ND	ND	NA	NA	194.27	16.90	NA	177.37	NA	NA
MW-2	04/19/1990	NA	NA	NA	NA	NA	NA	NA	NA	194.27	17.69	NA	176.58	NA	NA
MW-2	05/14/1990	ND	ND	ND	ND	ND	ND	NA	NA	194.27	18.01	NA	176.26	NA	NA
MW-2	06/21/1990	NA	NA	NA	NA	NA	NA	NA	NA	194.27	17.39	NA	176.88	NA	NA
MW-2	09/12/1990	ND	ND	ND	ND	ND	ND	NA	NA	194.27	19.00	NA	175.27	NA	NA
MW-2	11/27/1990	ND	ND	ND	ND	ND	ND	NA	NA	194.27	19.44	NA	174.83	NA	NA
MW-2	03/08/1991	ND	ND	ND	ND	ND	ND	NA	NA	194.27	15.96	NA	178.31	NA	NA
MW-2	06/03/1991	ND	ND	ND	ND	ND	ND	NA	NA	194.27	17.00	NA	177.27	NA	NA
MW-2	08/30/1991	ND	ND	ND	ND	ND	ND	NA	NA	194.27	18.95	NA	175.32	NA	NA
MW-2	11/22/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	19.55	NA	174.72	NA	NA
MW-2	03/18/1992	<30	NA	<0.3	<0.3	<0.3	<0.3	NA	NA	194.27	12.91	NA	181.36	NA	NA
MW-2	05/28/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	16.25	NA	178.02	NA	NA
MW-2	08/19/1992	<50	NA	<0.5	2	1.2	1.9	NA	NA	194.27	18.21	NA	176.06	NA	NA
MW-2	11/17/1992	<50	NA	<0.5	2	1.2	1.9	NA	NA	194.27	19.15	NA	175.12	NA	NA
MW-2	02/12/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	11.60	NA	182.67	NA	NA
MW-2	06/10/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	14.14	NA	180.13	NA	NA
MW-2	08/18/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	16.10	NA	178.17	NA	NA
MW-2	11/19/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	18.77	NA	175.50	NA	NA
MW-2	02/28/1994	<50	NA	<0.5	<0.5	<0.5	1.6	NA	NA	194.27	14.35	NA	179.92	NA	NA
MW-2	05/04/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	16.34	NA	177.93	NA	NA
MW-2	08/10/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	15.79	NA	178.48	NA	NA
MW-2	11/08/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	15.04	NA	179.23	NA	NA
MW-2	02/01/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	10.08	NA	184.19	NA	NA
MW-2	05/10/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	11.68	NA	182.59	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
MW-2	08/24/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	14.94	NA	179.33	NA	NA
MW-2	11/10/1995	<50	NA	1.7	0.8	1.4	4.9	NA	NA	194.27	13.36	NA	180.91	NA	NA
MW-2	02/24/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	194.27	9.90	NA	184.37	NA	NA
MW-2	05/22/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	194.27	11.80	NA	182.47	NA	NA
MW-2	08/19/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	194.27	15.08	NA	179.19	NA	NA
MW-2	12/05/1996	<50	NA	1.5	1.6	1.2	5.2	<2.5	NA	194.27	15.16	NA	179.11	NA	NA
MW-2	01/08/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	194.27	9.76	NA	184.51	NA	NA
MW-2	02/20/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	194.27	11.47	NA	182.80	NA	NA
MW-2	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	194.27	14.30	NA	179.97	NA	NA
MW-2	08/18/1997	NA	NA	NA	NA	NA	NA	NA	NA	194.27	16.33	NA	177.94	NA	NA
MW-2	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	194.27	15.54	NA	178.73	NA	NA
MW-2	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	194.27	9.43	NA	184.84	NA	NA
MW-2	06/05/1998	NA	NA	NA	NA	NA	NA	NA	NA	194.27	11.45	NA	182.82	NA	NA
MW-2	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	194.27	12.71	NA	181.56	NA	NA
MW-2	11/19/1998	NA	NA	NA	NA	NA	NA	NA	NA	194.27	13.98	NA	180.29	NA	NA
MW-2	02/03/1999	NA	NA	NA	NA	NA	NA	NA	NA	194.27	15.01	NA	179.26	NA	NA
MW-2	06/04/1999	NA	NA	NA	NA	NA	NA	NA	NA	194.27	13.93	NA	180.34	NA	NA
MW-2	08/31/1999	NA	NA	NA	NA	NA	NA	NA	NA	194.27	16.22	NA	178.05	NA	NA
MW-2	12/10/1999	NA	NA	NA	NA	NA	NA	NA	NA	194.27	17.58	NA	176.69	NA	NA
MW-2	02/11/2000	NA	NA	NA	NA	NA	NA	NA	NA	194.27	14.10	NA	180.17	NA	NA
MW-2	05/04/2000	NA	NA	NA	NA	NA	NA	NA	NA	194.27	12.72	NA	181.55	NA	NA
MW-2	08/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	194.27	14.39	NA	179.88	NA	NA
MW-2	11/30/2000	NA	NA	NA	NA	NA	NA	NA	NA	194.27	17.00	NA	177.27	NA	NA
MW-2	02/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	194.27	13.58	NA	180.69	NA	NA
MW-2	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	194.27	15.26	NA	179.01	NA	NA
MW-2	07/30/2001	NA	NA	NA	NA	NA	NA	NA	NA	194.27	16.67	NA	177.60	NA	NA
MW-2	12/12/2001	NA	NA	NA	NA	NA	NA	NA	NA	194.27	13.91	NA	180.36	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
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MW-2	01/31/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	194.27	12.96	NA	181.31	NA	NA
MW-2	05/31/2002	NA	NA	NA	NA	NA	NA	NA	NA	194.27	14.85	NA	179.42	NA	NA
MW-2	07/25/2002	NA	NA	NA	NA	NA	NA	NA	NA	194.27	16.24	NA	178.03	NA	NA
MW-2	11/26/2002	NA	NA	NA	NA	NA	NA	NA	NA	198.95	18.35	NA	180.60	NA	NA
<b>MW-2</b>	<b>01/29/2003</b>	<b>&lt;50</b>	<b>NA</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;5.0</b>	<b>198.95</b>	<b>13.19</b>	<b>NA</b>	<b>185.76</b>	<b>NA</b>	<b>NA</b>

MW-3	02/15/1990	4,700	3,100	320	29	110	33	NA	NA	192.52	15.81	NA	176.71	NA	NA
MW-3	04/19/1990	NA	NA	NA	NA	NA	NA	NA	NA	192.52	16.57	NA	175.95	NA	NA
MW-3	05/14/1990	1,400	60	130	8.6	40	17	NA	NA	192.52	16.97	NA	175.55	NA	NA
MW-3	06/21/1990	NA	NA	NA	NA	NA	NA	NA	NA	192.52	16.27	NA	176.25	NA	NA
MW-3	09/12/1990	2,000	1,500	58	5.8	16	15	NA	NA	192.52	18.78	NA	173.74	NA	NA
MW-3	11/27/1990	540	240	18	1.5	8.7	2.5	NA	NA	192.52	18.27	NA	174.25	NA	NA
MW-3	03/08/1991	3,400	2,100	630	33	270	18	NA	NA	192.52	14.86	NA	177.66	NA	NA
MW-3	06/03/1991	1,700	690a	260	13	98	24	NA	NA	192.52	15.84	NA	176.68	NA	NA
MW-3	08/30/1991	870	370a	44	6.1	10	2.9	NA	NA	192.52	17.79	NA	174.73	NA	NA
MW-3	11/22/1991	310	140	18	1.2	3.3	2.9	NA	NA	192.52	18.40	NA	174.12	NA	NA
MW-3	03/18/1992	67,100	1,900	620	28	220	38	NA	NA	192.52	12.03	NA	180.49	NA	NA
MW-3	05/28/1992	2,300	1,100a	200	9	71	17	NA	NA	192.52	15.16	NA	177.36	NA	NA
MW-3	08/19/1992	5,700	1,000a	71	77	52	130	NA	NA	192.52	17.03	NA	175.49	NA	NA
MW-3	11/17/1992	3,600	160a	16	8.6	24	50	NA	NA	192.52	17.94	NA	174.58	NA	NA
MW-3	02/12/1993	4,700	560a	820	58	130	77	NA	NA	192.52	9.16	NA	183.36	NA	NA
MW-3	06/10/1993	2,200	NA	310	23	89	23	NA	NA	192.52	13.20	NA	179.32	NA	NA
MW-3	08/18/1993	260	NA	27	2	7	2.2	NA	NA	192.52	14.93	NA	177.59	NA	NA
MW-3	11/19/1993	1,500a	NA	24	54	37	17	NA	NA	192.52	17.58	NA	174.94	NA	NA
MW-3	02/28/1994	2,700	NA	65	5.2	16	6.3	NA	NA	192.52	13.30	NA	179.22	NA	NA
MW-3	05/04/1994	780	NA	120	7.5	21	6.9	NA	NA	192.52	15.25	NA	177.27	NA	NA
MW-3	08/10/1994	920	NA	20	2.3	3	2.2	NA	NA	192.52	16.63	NA	175.89	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
MW-3	11/08/1994	1,300	NA	180	16	7	12	NA	NA	192.52	13.88	NA	178.64	NA	NA
MW-3	02/01/1995	1,400	NA	210	8.5	11	8.7	NA	NA	192.52	9.25	NA	183.27	NA	NA
MW-3	05/10/1995	460	NA	97	10	1	19	NA	NA	192.52	10.76	NA	181.74	NA	NA
MW-3	08/24/1995	640	NA	68	21	14	19	NA	NA	192.52	13.90	NA	178.62	NA	NA
MW-3	11/10/1995	350	NA	15	2.3	1.2	2.5	NA	NA	192.52	16.20	NA	176.32	NA	NA
MW-3	02/24/1996	3,300	NA	240	53	38	55	NA	NA	192.52	8.93	NA	183.59	NA	NA
MW-3	05/22/1996	1,300	NA	110	15	<10	<10	3,500	NA	192.52	10.86	NA	181.66	NA	NA
MW-3	08/19/1996	350	NA	15	3.3	3.4	3.3	340	NA	192.52	13.97	NA	178.55	NA	NA
MW-3	12/05/1996	290	NA	12	7.6	5.4	16	370	NA	192.52	14.06	NA	178.46	NA	NA
MW-3	02/20/1997	980	NA	69	7.9	14	15	3,200	NA	192.52	10.60	NA	181.92	NA	NA
MW-3	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	192.52	13.26	NA	179.26	NA	NA
MW-3	08/18/1997	NA	NA	NA	NA	NA	NA	NA	NA	192.52	15.21	NA	177.31	NA	NA
MW-3	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	192.52	14.49	NA	178.03	NA	NA
MW-3	01/20/1998	3,100	NA	360	1,000	73	420	59,000	NA	192.52	8.43	NA	184.09	NA	NA
MW-3	06/05/1998	NA	NA	NA	NA	NA	NA	NA	NA	192.52	10.55	NA	181.97	NA	NA
MW-3	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	192.52	11.80	NA	180.72	NA	NA
MW-3	11/19/1998	NA	NA	NA	NA	NA	NA	NA	NA	192.52	11.97	NA	180.55	NA	NA
MW-3	02/03/1999	<10,000	NA	840	131	<100	316	27,600	NA	192.52	13.55	NA	178.97	NA	2.3
MW-3	06/04/1999	NA	NA	NA	NA	NA	NA	NA	NA	192.52	12.90	NA	179.62	NA	NA
MW-3	08/31/1999	1,550	NA	232	<10.0	125	293	4,620	2,460b	192.52	14.99	NA	177.53	NA	3.4
MW-3	12/10/1999	NA	NA	NA	NA	NA	NA	NA	NA	192.52	16.35	NA	176.17	NA	NA
MW-3	02/11/2000	10,900	NA	1,030	<50.0	308	1,000	19,300	NA	192.52	12.85	NA	179.67	NA	1.0
MW-3	05/04/2000	NA	NA	NA	NA	NA	NA	NA	NA	192.52	17.05	NA	175.47	NA	NA
MW-3	08/31/2000	2,560	NA	165	7.19	77.6	183	4,090	NA	192.52	14.26	NA	178.26	NA	c
MW-3	11/30/2000	NA	NA	NA	NA	NA	NA	NA	NA	192.52	15.75	NA	176.77	NA	NA
MW-3	02/13/2001	5,880	NA	563	<50.0	282	472	8,960	NA	192.52	13.05	NA	179.47	NA	3.6
MW-3	05/29/2001	1,800	NA	130	<5.0	84	100	NA	1,900	192.52	13.84	NA	178.68	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
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MW-3	07/30/2001	2,700	NA	250	8.8	130	120	NA	5,200	192.52	15.46	NA	177.06	NA	NA
MW-3	12/12/2001	<10,000	NA	720	<100	260	260	NA	6,600	192.52	12.93	NA	179.59	NA	NA
MW-3	01/31/2002	11,000	NA	750	14	570	510	NA	5,800	192.52	11.88	NA	180.64	NA	NA
MW-3	05/31/2002	5,100	NA	410	8.6	300	190	NA	3,600	192.52	13.65	NA	178.87	NA	NA
MW-3	07/25/2002	2,100	NA	170	<10	73	33	NA	2,600	192.52	15.04	NA	177.48	NA	NA
MW-3	11/26/2002	510	NA	26	<2.0	<2.0	2.1	NA	940	197.18	17.15	NA	180.03	NA	NA
<b>MW-3</b>	<b>01/29/2003</b>	<b>6,000</b>	<b>NA</b>	<b>460</b>	<b>8.5</b>	<b>250</b>	<b>87</b>	<b>NA</b>	<b>3,500</b>	<b>197.18</b>	<b>12.21</b>	<b>NA</b>	<b>184.97</b>	<b>NA</b>	<b>NA</b>

MW-4	02/15/1990	ND	1,200	ND	ND	ND	ND	NA	NA	193.37	16.73	NA	176.65	NA	NA
MW-4	04/19/1990	NA	NA	NA	NA	NA	NA	NA	NA	193.37	17.48	NA	175.89	NA	NA
MW-4	05/14/1990	650	350	160	7	1.9	3.1	NA	NA	193.37	17.88	NA	175.49	NA	NA
MW-4	06/21/1990	NA	NA	NA	NA	NA	NA	NA	NA	193.37	17.18	NA	176.19	NA	NA
MW-4	09/12/1990	440	260	91	1.1	0.75	0.79	NA	NA	193.37	17.85	NA	175.52	NA	NA
MW-4	11/27/1990	470	2,400	64	1.2	0.8	2.7	NA	NA	193.37	19.16	NA	174.21	NA	NA
MW-4	03/08/1991	1,100	2,600	330	3.5	88	5.8	NA	NA	193.37	15.77	NA	177.60	NA	NA
MW-4	06/03/1991	670	1,100	240	2.3	1.6	2.3	NA	NA	193.37	16.77	NA	176.60	NA	NA
MW-4	08/30/1991	570	280	64	1.8	0.9	0.9	NA	NA	193.37	18.71	NA	174.66	NA	NA
MW-4	11/22/1991	NA	NA	NA	NA	NA	NA	NA	NA	193.37	NA	NA	NA	NA	NA
MW-4	01/15/1992	NA	NA	NA	NA	NA	NA	NA	NA	193.37	NA	NA	NA	NA	NA
MW-4	02/15/1992	NA	NA	NA	NA	NA	NA	NA	NA	193.37	NA	NA	NA	NA	NA
MW-4	03/18/1992	NA	NA	NA	NA	NA	NA	NA	NA	193.37	13.15	NA	180.41	0.24	NA
MW-4	04/29/1992	NA	NA	NA	NA	NA	NA	NA	NA	193.37	NA	NA	NA	NA	NA
MW-4	05/28/1992	NA	NA	NA	NA	NA	NA	NA	NA	193.37	16.22	NA	177.25	0.12	NA
MW-4	08/19/1992	NA	NA	NA	NA	NA	NA	NA	NA	193.37	18.05	NA	175.39	0.09	NA
MW-4	11/17/1992	NA	NA	NA	NA	NA	NA	NA	NA	193.37	18.89	NA	174.48	NA	NA
MW-4	02/12/1993	NA	NA	NA	NA	NA	NA	NA	NA	193.37	11.78	NA	181.59	<0.01	NA
MW-4	06/10/1993	NA	NA	NA	NA	NA	NA	NA	NA	193.37	14.20	NA	179.17	0.02	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
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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.)	DO (ppm)
MW-4	08/18/1993	NA	NA	NA	NA	NA	NA	NA	NA	193.37	15.95	NA	177.43	0.01	NA
MW-4	11/19/1993	NA	NA	NA	NA	NA	NA	NA	NA	193.37	18.48	NA	174.90	0.01	NA
MW-4	02/28/1994	NA	NA	NA	NA	NA	NA	NA	NA	193.37	14.60	NA	178.77	0.01	NA
MW-4	05/04/1994	NA	NA	NA	NA	NA	NA	NA	NA	193.37	16.15	NA	177.22	<0.01	NA
MW-4	08/10/1994	NA	NA	NA	NA	NA	NA	NA	NA	193.37	17.58	NA	175.81	0.02	NA
MW-4	11/10/1994	NA	NA	NA	NA	NA	NA	NA	NA	193.37	15.05	NA	178.36	0.05	NA
MW-4	02/01/1995	NA	NA	NA	NA	NA	NA	NA	NA	193.37	10.71	NA	182.69	0.04	NA
MW-4	05/10/1995	NA	NA	NA	NA	NA	NA	NA	NA	193.37	11.90	NA	181.52	0.06	NA
MW-4	08/24/1995	NA	NA	NA	NA	NA	NA	NA	NA	193.37	14.97	NA	178.42	0.02	NA
MW-4	11/10/1995	4,700	NA	100	22	23	38	NA	NA	193.37	17.27	NA	176.10	<0.01	NA
MW-4	02/24/1996	NA	NA	NA	NA	NA	NA	NA	NA	193.37	10.44	NA	182.95	0.03	NA
MW-4	05/22/1996	NA	NA	NA	NA	NA	NA	NA	NA	193.37	11.88	NA	181.51	0.03	NA
MW-4	08/19/1996	NA	NA	NA	NA	NA	NA	NA	NA	193.37	15.23	NA	178.16	0.02	NA
MW-4	12/05/1996	NA	NA	NA	NA	NA	NA	NA	NA	193.37	14.70	NA	178.69	0.02	NA
MW-4	01/08/1997	<10,000	NA	<100	<100	<100	<100	24,000	NA	193.37	11.60	NA	181.79	0.02	NA
MW-4	02/20/1997	<10,000	NA	490	<100	<100	<100	59,000	NA	193.37	11.91	NA	181.46	NA	NA
MW-4	05/30/1997	<2,000	NA	72	<20	<20	<20	6,100	NA	193.37	14.68	NA	178.69	NA	NA
MW-4	08/18/1997	<5,000	NA	150	570	<50	130	31,000	NA	193.37	15.07	NA	178.30	NA	NA
MW-4	11/03/1997	32,000	NA	1,100	6,100	640	3,600	78,000	NA	193.37	15.87	NA	177.50	NA	NA
MW-4	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	193.37	10.25	NA	183.62	0.62	NA
MW-4	06/05/1998	NA	NA	NA	NA	NA	NA	NA	NA	193.37	11.62	NA	181.80	0.06	NA
MW-4	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	193.37	13.93	NA	179.51	0.09	NA
MW-4	11/19/1998	NA	NA	NA	NA	NA	NA	NA	NA	193.37	14.07	14.03	179.33	0.04	NA
MW-4	12/09/1998	NA	NA	NA	NA	NA	NA	NA	NA	193.37	15.84	15.81	177.55	0.03	NA
MW-4	02/03/1999	NA	NA	NA	NA	NA	NA	NA	NA	193.37	15.58	15.55	177.81	0.03	NA
MW-4	06/04/1999	NA	NA	NA	NA	NA	NA	NA	NA	193.37	14.04	14.02	179.35	0.02	NA
MW-4	08/31/1999	NA	NA	NA	NA	NA	NA	NA	NA	193.37	16.15	16.12	177.24	0.03	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
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MW-4	12/10/1999	NA	NA	NA	NA	NA	NA	NA	NA	193.37	17.41	17.31	176.04	0.10	NA
MW-4	02/11/2000	47,200	NA	905	<200	479	3,690	27,400	30,300b	193.37	14.82	NA	178.55	NA	0.6
MW-4	05/04/2000	30,800	NA	1,650	<100	574	3,310	28,600	31,200b	193.37	12.64	NA	180.73	NA	2.1
MW-4	08/31/2000	5,470	NA	366	<10.0	296	834	3,950	NA	193.37	16.47	NA	176.90	NA	c
MW-4	11/30/2000	20,700	NA	525	<50.0	447	1,570	2,440	4,280b	193.37	17.67	NA	175.70	NA	3.3
MW-4	02/13/2001	16,200	NA	909	<50.0	514	2,390	21,300	20,300	193.37	13.30	NA	180.07	NA	2.4
MW-4	05/29/2001	Well Inaccessible		NA	NA	NA	NA	NA	NA	193.37	NA	NA	NA	NA	NA
MW-4	05/31/2001	NA	NA	NA	NA	NA	NA	NA	NA	193.37	15.08	15.03	178.33	0.05	NA
MW-4	07/30/2001	6,700	NA	260	5.7	190	280	NA	3,900	193.37	16.29	16.28	177.09	0.01	NA
MW-4	12/12/2001	15,000	NA	1,300	<50	520	990	NA	20,000	193.37	13.81	NA	179.56	NA	NA
MW-4	01/31/2002	12,000	NA	1,500	<25	570	800	NA	12,000	193.37	12.80	NA	180.57	NA	NA
MW-4	05/31/2002	8,200	NA	1,100	<20	380	340	NA	8,100	193.37	14.59	NA	178.78	NA	NA
MW-4	07/25/2002	3,300	NA	290	<10	98	74	NA	2,600	193.37	15.94	NA	177.43	NA	NA
MW-4	11/26/2002	1,400	NA	89	2.9	14	14	NA	770	198.03	18.10	NA	179.93	NA	NA
<b>MW-4</b>	<b>01/29/2003</b>	<b>7,400</b>	<b>NA</b>	<b>1,400</b>	<b>&lt;20</b>	<b>140</b>	<b>200</b>	<b>NA</b>	<b>8,900</b>	<b>198.03</b>	<b>13.08</b>	<b>NA</b>	<b>184.95</b>	<b>NA</b>	<b>NA</b>

MW-5	08/30/1991	ND	80	ND	ND	ND	ND	NA	NA	190.35	16.74	NA	173.61	NA	NA
MW-5	11/22/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	17.27	NA	173.08	NA	NA
MW-5	03/18/1992	<30	<50	<0.3	<0.3	<0.3	<0.3	NA	NA	190.35	11.28	NA	179.07	NA	NA
MW-5	05/28/1992	Well Inaccessible		NA	NA	NA	NA	NA	NA	190.35	NA	NA	NA	NA	NA
MW-5	08/19/1992	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	15.99	NA	174.36	NA	NA
MW-5	11/17/1992	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	16.84	NA	173.51	NA	NA
MW-5	02/12/1993	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	10.30	NA	180.05	NA	NA
MW-5	06/10/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	12.36	NA	177.99	NA	NA
MW-5	08/18/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	14.02	NA	176.33	NA	NA
MW-5	11/19/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	16.50	NA	173.85	NA	NA
MW-5	02/28/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	12.55	NA	177.80	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
MW-5	05/04/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	14.27	NA	176.08	NA	NA
MW-5	08/10/1994	70a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	15.60	NA	174.75	NA	NA
MW-5	11/08/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	12.85	NA	177.50	NA	NA
MW-5	02/01/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	8.98	NA	181.37	NA	NA
MW-5	05/10/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	10.16	NA	180.19	NA	NA
MW-5	08/24/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	12.98	NA	177.37	NA	NA
MW-5	11/10/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	190.35	15.12	NA	175.23	NA	NA
MW-5	02/24/1996	NA	NA	NA	NA	NA	NA	NA	NA	190.35	NA	NA	NA	NA	NA
MW-5	05/22/1996	<2,000	NA	<20	<20	<20	<20	NA	NA	190.35	10.10	NA	180.25	NA	NA
MW-5	08/19/1996	<2,500	NA	<25	<25	<25	<25	NA	NA	190.35	13.09	NA	177.26	NA	NA
MW-5	12/05/1996	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	NA	190.35	13.31	NA	177.04	NA	NA
MW-5	02/20/1997	<1,000	NA	<10	<10	<10	<10	NA	NA	190.35	9.55	NA	180.80	NA	NA
MW-5	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	190.35	12.40	NA	177.95	NA	NA
MW-5	08/18/1997	NA	NA	NA	NA	NA	NA	NA	NA	190.35	14.19	NA	176.16	NA	NA
MW-5	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	190.35	13.66	NA	176.69	NA	NA
MW-5	01/20/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	1,600	NA	190.35	8.06	NA	182.29	NA	NA
MW-5	06/05/1998	NA	NA	NA	NA	NA	NA	NA	NA	190.35	9.95	NA	180.40	NA	NA
MW-5	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	190.35	11.10	NA	179.25	NA	NA
MW-5	11/19/1998	NA	NA	NA	NA	NA	NA	NA	NA	190.35	12.21	NA	178.14	NA	NA
MW-5	02/03/1999	<500	NA	<5.00	<5.00	<5.00	<5.00	2850	NA	190.35	12.99	NA	177.36	NA	2.4
MW-5	06/04/1999	NA	NA	NA	NA	NA	NA	NA	NA	190.35	12.08	NA	178.27	NA	NA
MW-5	08/31/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	4,260	NA	190.35	14.05	NA	176.30	NA	2.7
MW-5	12/10/1999	NA	NA	NA	NA	NA	NA	NA	NA	190.35	15.41	NA	174.94	NA	NA
MW-5	02/11/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	190.35	12.42	NA	177.93	NA	1.7
MW-5	05/04/2000	NA	NA	NA	NA	NA	NA	NA	NA	190.35	11.13	NA	179.22	NA	NA
MW-5	08/31/2000	<500	NA	<5.00	<5.00	<5.00	<5.00	13,000	15,700b	190.35	13.53	NA	176.82	NA	c
MW-5	11/30/2000	NA	NA	NA	NA	NA	NA	NA	NA	190.35	14.65	NA	175.70	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
MW-5	02/13/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	2,440	NA	190.35	12.05	NA	178.30	NA	4.1
MW-5	05/29/2001	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	1,300	190.35	13.26	NA	177.09	NA	NA
MW-5	07/30/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	310	190.35	14.49	NA	175.86	NA	NA
MW-5	12/12/2001	<200	NA	<2.0	<2.0	<2.0	<2.0	NA	350	190.35	12.08	NA	178.27	NA	NA
MW-5	01/31/2002	61	NA	<0.50	<0.50	<0.50	<0.50	NA	280	190.35	11.29	NA	179.06	NA	NA
MW-5	05/31/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	130	190.35	12.75	NA	177.60	NA	NA
MW-5	07/25/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	190	190.35	14.12	NA	176.23	NA	NA
MW-5	11/26/2002	Unable to sample		NA	NA	NA	NA	NA	NA	195.01	16.17	NA	178.84	NA	NA
MW-5	12/06/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	24	195.01	16.39	NA	178.62	NA	NA
<b>MW-5</b>	<b>01/29/2003</b>	<b>&lt;50</b>	<b>NA</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>100</b>	<b>195.01</b>	<b>11.20</b>	<b>NA</b>	<b>183.81</b>	<b>NA</b>	<b>NA</b>
MW-6	09/21/1993	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	189.05	14.64	NA	174.41	NA	NA
MW-6	11/19/1993	NA	NA	NA	NA	NA	NA	NA	NA	189.05	NA	NA	NA	NA	NA
MW-6	02/28/1994	98a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	189.05	12.18	NA	176.87	NA	NA
MW-6	05/04/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	189.05	13.62	NA	175.43	NA	NA
MW-6	08/10/1994	80a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	189.05	14.98	NA	174.07	NA	NA
MW-6	11/08/1994	NA	NA	NA	NA	NA	NA	NA	NA	189.05	12.20	NA	176.85	NA	NA
MW-6	02/01/1995	120	NA	3.5	21	3.4	22	NA	NA	189.05	8.70	NA	180.35	NA	NA
MW-6	05/10/1995	NA	NA	NA	NA	NA	NA	NA	NA	189.05	9.86	NA	179.19	NA	NA
MW-6	08/24/1995	80	NA	<0.5	<0.5	1.8	2.4	NA	NA	189.05	12.46	NA	176.59	NA	NA
MW-6	11/10/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	189.05	14.56	NA	174.49	NA	NA
MW-6	11/10/1995	60	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	189.05	14.56	NA	174.49	NA	NA
MW-6	02/24/1996	NA	NA	NA	NA	NA	NA	NA	NA	189.05	NA	NA	NA	NA	NA
MW-6	05/22/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	290	NA	189.05	10.23	NA	178.82	NA	NA
MW-6	08/19/1996	<1,250	NA	<12	<12	<12	<12	1,100	NA	189.05	12.61	NA	176.44	NA	NA
MW-6	12/05/1996	<125	NA	<1.2	<1.2	<1.2	<1.2	440	NA	189.05	12.47	NA	176.58	NA	NA
MW-6	02/20/1997	<100	NA	<1.0	<1.0	<1.0	<1.0	480	NA	189.05	9.85	NA	179.20	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
MW-6	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	189.05	11.96	NA	177.09	NA	NA
MW-6	08/18/1997	NA	NA	NA	NA	NA	NA	NA	NA	189.05	13.65	NA	175.40	NA	NA
MW-6	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	189.05	NA	NA	NA	NA	NA
MW-6	01/20/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	340	NA	189.05	7.76	NA	181.29	NA	NA
MW-6	06/05/1998	NA	NA	NA	NA	NA	NA	NA	NA	189.05	9.85	NA	179.20	NA	NA
MW-6	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	189.05	10.99	NA	178.06	NA	NA
MW-6	11/19/1998	NA	NA	NA	NA	NA	NA	NA	NA	189.05	11.36	NA	177.69	NA	NA
MW-6	02/03/1999	Well Inaccessible		NA	NA	NA	NA	NA	NA	189.05	NA	NA	NA	NA	NA
MW-6	06/04/1999	Well Inaccessible		NA	NA	NA	NA	NA	NA	189.05	NA	NA	NA	NA	NA
MW-6	06/22/1999	<5,000	NA	<50.0	<50.0	<50.0	<50.0	2,800	NA	189.05	12.15	NA	176.90	NA	2.1
MW-6	08/31/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	3,390	NA	189.05	13.62	NA	175.43	NA	2.5
MW-6	12/10/1999	NA	NA	NA	NA	NA	NA	NA	NA	189.05	14.98	NA	174.07	NA	NA
MW-6	02/11/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	189.05	12.00	NA	177.05	NA	1.1
MW-6	05/04/2000	NA	NA	NA	NA	NA	NA	NA	NA	189.05	10.94	NA	178.11	NA	NA
MW-6	08/31/2000	<250	NA	<2.50	<2.50	<2.50	<2.50	4,460	NA	189.05	13.19	NA	175.86	NA	c
MW-6	11/30/2000	NA	NA	NA	NA	NA	NA	NA	NA	189.05	14.28	NA	174.77	NA	NA
MW-6	02/13/2001	Well Inaccessible		NA	NA	NA	NA	NA	NA	189.05	NA	NA	NA	NA	NA
MW-6	02/16/2001	<500	NA	<5.00	<5.00	<5.00	<5.00	3,910	NA	189.05	12.10	NA	176.95	NA	3.8
MW-6	05/29/2001	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	2,000	189.05	12.94	NA	176.11	NA	NA
MW-6	07/30/2001	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	2,700	189.05	14.10	NA	174.95	NA	NA
MW-6	12/12/2001	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	2,100	189.05	12.11	NA	176.94	NA	NA
MW-6	01/31/2002	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	2,000	189.05	11.16	NA	177.89	NA	NA
MW-6	05/31/2002	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	1,800	189.05	12.52	NA	176.53	NA	NA
MW-6	07/25/2002	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	1,800	189.05	13.68	NA	175.37	NA	NA
MW-6	11/26/2002	Well Inaccessible		NA	NA	NA	NA	NA	NA	193.75	NA	NA	NA	NA	NA
MW-6	12/06/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	280	193.75	16.01	NA	177.74	NA	NA
<b>MW-6</b>	<b>01/29/2003</b>	<b>Well Inaccessible</b>		<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>193.75</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
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MW-6	02/05/2003	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	120	193.75	11.71	NA	182.04	NA	NA
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T-1	05/30/1997	NA	Dry	NA	NA	NA	NA								
T-1	08/18/1997	NA	Dry	NA	NA	NA	NA								
T-1	11/03/1997	NA	Dry	NA	NA	NA	NA								
T-1	01/20/1998	NA	Dry	NA	NA	NA	NA								
T-1	06/05/1998	NA	Dry	NA	NA	NA	NA								
T-1	07/23/1998	NA	Dry	NA	NA	NA	NA								
T-1	11/19/1998	NA	Dry	NA	NA	NA	NA								
T-1	02/03/1999	NA	Dry	NA	NA	NA	NA								
T-1	06/04/1999	NA	Dry	NA	NA	NA	NA								
T-1	08/31/1999	NA	Dry	NA	NA	NA	NA								
T-1	12/10/1999	NA	Dry	NA	NA	NA	NA								
T-1	02/11/2000	NA	Dry	NA	NA	NA	NA								
T-1	05/04/2000	NA	Dry	NA	NA	NA	NA								
T-1	08/31/2000	NA	Dry	NA	NA	NA	NA								
T-1	11/30/2000	NA	Dry	NA	NA	NA	NA								
T-1	02/13/2001	NA	Dry	NA	NA	NA	NA								
T-1	05/29/2001	NA	Dry	NA	NA	NA	NA								
T-1	07/30/2001	NA	Dry	NA	NA	NA	NA								
T-1	12/12/2001	NA	Dry	NA	NA	NA	NA								
T-1	01/31/2002	NA	Dry	NA	NA	NA	NA								
T-1	05/22/2002 d	NA	198.07	NA	NA	NA	NA	NA							

T-2	05/30/1997	NA	Dry	NA	NA	NA	NA								
T-2	08/18/1997	NA	Dry	NA	NA	NA	NA								
T-2	11/03/1997	NA	Dry	NA	NA	NA	NA								

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
T-2	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	06/05/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	11/19/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	02/03/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	06/04/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	08/31/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	12/10/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	02/11/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	05/04/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	08/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	11/30/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.50	NA	NA	NA	NA
T-2	02/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	07/30/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	12/12/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	01/31/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	NA	NA	NA	NA
T-2	05/22/2002 d	NA	NA	NA	NA	NA	NA	NA	NA	198.47	NA	NA	NA	NA	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**6039 College Avenue**  
**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.)	DO (ppm)
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Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to May 29, 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 May 29, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

DO = Dissolved Oxygen

ug/L = Parts per billion

ppm = Parts per million

MSL = Mean sea level

ft = Feet

<n = Below detection limit

NA = Not applicable

ND = Not detected at or above the minimum quantitation limits.

Notes:

a = Chromatogram patterns indicate an unidentified hydrocarbon.

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

c = DO Readings not taken this event.

d = Survey date only.

Site surveyed May 22, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

When separate-phase hydrocarbons are present, ground water elevation is adjusted using the relation:

Corrected ground water elevation = Top-of-casing elevation - depth to water + (0.8 x hydrocarbon thickness).



Report Number : 31189

Date : 2/5/03

Leon Gearhart  
Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject : 5 Water Samples  
Project Name : 6039 College Avenue, Oakland  
Project Number : 030129-RH2  
P.O. Number : 98995745

Dear Mr. Gearhart,

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,

  
Joel Kiff



Report Number : 31189

Date : 2/5/03

Project Name : 6039 College Avenue, Oakland

Project Number : 030129-RH2

Sample : MW-1

Matrix : Water

Lab Number : 31189-01

Sample Date :1/29/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/31/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/31/03
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	1/31/03
4-Bromofluorobenzene (Surr)	92.8		% Recovery	EPA 8260B	1/31/03

Sample : MW-2

Matrix : Water

Lab Number : 31189-02

Sample Date :1/29/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/31/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/31/03
Toluene - d8 (Surr)	98.0		% Recovery	EPA 8260B	1/31/03
4-Bromofluorobenzene (Surr)	85.8		% Recovery	EPA 8260B	1/31/03

Approved By:  Joel Kiff



Report Number : 31189

Date : 2/5/03

Project Name : 6039 College Avenue, Oakland

Project Number : 030129-RH2

Sample : MW-3

Matrix : Water

Lab Number : 31189-03

Sample Date :1/29/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	460	5.0	ug/L	EPA 8260B	2/1/03
Toluene	8.5	5.0	ug/L	EPA 8260B	2/1/03
Ethylbenzene	250	5.0	ug/L	EPA 8260B	2/1/03
Total Xylenes	87	5.0	ug/L	EPA 8260B	2/1/03
Methyl-t-butyl ether (MTBE)	3500	50	ug/L	EPA 8260B	2/1/03
TPH as Gasoline	6000	500	ug/L	EPA 8260B	2/1/03
Toluene - d8 (Surr)	96.4		% Recovery	EPA 8260B	2/1/03
4-Bromofluorobenzene (Surr)	98.0		% Recovery	EPA 8260B	2/1/03

Sample : MW-4

Matrix : Water

Lab Number : 31189-04

Sample Date :1/29/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1400	20	ug/L	EPA 8260B	2/3/03
Toluene	< 20	20	ug/L	EPA 8260B	2/3/03
Ethylbenzene	140	20	ug/L	EPA 8260B	2/3/03
Total Xylenes	200	20	ug/L	EPA 8260B	2/3/03
Methyl-t-butyl ether (MTBE)	8900	200	ug/L	EPA 8260B	2/3/03
TPH as Gasoline	7400	2000	ug/L	EPA 8260B	2/3/03
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	2/3/03
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	2/3/03

Approved By:  Joel Kiff



Report Number : 31189

Date : 2/5/03

Project Name : 6039 College Avenue, Oakland

Project Number : 030129-RH2

Sample : MW-5

Matrix : Water

Lab Number : 31189-05

Sample Date : 1/29/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Methyl-t-butyl ether (MTBE)	100	5.0	ug/L	EPA 8260B	1/31/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/31/03
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	1/31/03
4-Bromofluorobenzene (Surr)	92.2		% Recovery	EPA 8260B	1/31/03

Approved By:  Joel Kiff

Report Number : 31189

Date : 2/5/03

**QC Report : Method Blank Data**

**Project Name : 6039 College Avenue, Oakland**

**Project Number : 030129-RH2**

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/30/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/30/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/30/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/30/03
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/30/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/30/03
Toluene - d8 (Surr)	102		%	EPA 8260B	1/30/03
4-Bromofluorobenzene (Surr)	90.9		%	EPA 8260B	1/30/03
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/31/03
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/31/03
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/31/03
Toluene - d8 (Surr)	98.8		%	EPA 8260B	1/31/03
4-Bromofluorobenzene (Surr)	96.0		%	EPA 8260B	1/31/03

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
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Approved By:  Joel Kiff

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 6039 College Avenue,

Project Number : 030129-RH2

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
Benzene	31175-19	<0.50	40.0	40.0	39.3	36.9	ug/L	EPA 8260B	1/30/03	98.3	92.3	6.32	70-130	25
Toluene	31175-19	<0.50	40.0	40.0	37.8	40.4	ug/L	EPA 8260B	1/30/03	94.4	101	6.76	70-130	25
Tert-Butanol	31175-19	<5.0	200	200	183	196	ug/L	EPA 8260B	1/30/03	91.7	98.2	6.84	70-130	25
Methyl-t-Butyl Ether	31175-19	<0.50	40.0	40.0	37.7	37.1	ug/L	EPA 8260B	1/30/03	94.2	92.8	1.58	70-130	25
Benzene	31199-04	<0.50	40.0	40.0	41.5	40.1	ug/L	EPA 8260B	1/31/03	104	100	3.60	70-130	25
Toluene	31199-04	<0.50	40.0	40.0	37.8	36.5	ug/L	EPA 8260B	1/31/03	94.5	91.3	3.47	70-130	25
Tert-Butanol	31199-04	<5.0	200	200	196	195	ug/L	EPA 8260B	1/31/03	97.9	97.4	0.450	70-130	25
Methyl-t-Butyl Ether	31199-04	<0.50	40.0	40.0	39.8	40.4	ug/L	EPA 8260B	1/31/03	99.5	101	1.62	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Joel Kiff



## QC Report : Laboratory Control Sample (LCS)

Project Name : 6039 College Avenue,

Project Number : 030129-RH2

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	1/30/03	93.6	70-130
Toluene	40.0	ug/L	EPA 8260B	1/30/03	107	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/30/03	95.8	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/30/03	90.9	70-130
Benzene	40.0	ug/L	EPA 8260B	1/31/03	104	70-130
Toluene	40.0	ug/L	EPA 8260B	1/31/03	95.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/31/03	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/31/03	102	70-130

KIFF ANALYTICAL, LLC

Approved By:  Joel Kiff

**Calscience**  
**E**nvironmental  
**L**aboratories, Inc.

February 07, 2003

Joel Kiff  
Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Subject: **Calscience Work Order No.: 03-01-1629**  
Client Reference: **6039 College Avenue, Oakland**

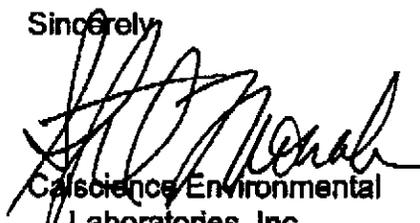
Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 1/31/03 and analyzed in accordance with the attached chain-of-custody.

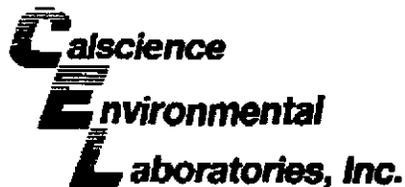
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

  
Calscience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager

  
\_\_\_\_\_  
Michael J. Crisostomo  
Quality Assurance Manager



**ANALYTICAL REPORT**

Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Sampled: 01/29/03  
Date Received: 01/31/03  
Date Analyzed: 02/06/03

Attn: Joel Kiff  
RE: 6039 College Avenue, Oakland

Work Order No.: 03-01-1629  
Method: SM 5520 B/F  
Page 1 of 1

All concentrations are reported in mg/L (ppm).

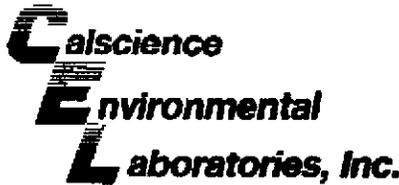
<u>Sample Number</u>	<u>Oil and Grease-SGT Concentration</u>	<u>Reporting Limit</u>
MW-3	3.3	1.0
MW-4	16	1.0
Method Blank	ND	1.0

**QA/QC**

<u>Sample Number</u>	<u>Sample Conc.</u>	<u>Duplicate Conc.</u>	<u>%RPD</u>	<u>Control Limits (%)</u>
MW-4 (Duplicate)	16	16	1	0 - 25

ND denotes not detected at indicated reportable limit.

Each sample was received by CEL chilled, intact, and with chain-of-custody attached.



**ANALYTICAL REPORT**

Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received: 01/31/03  
Work Order No: 03-01-1629  
Preparation: EPA 3520B  
Method: EPA 8270C

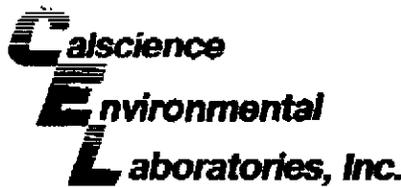
Project: 6039 College Avenue, Oakland

Page 1 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	GC Batch ID
MW-3	03-01-1629-1	01/29/03	Aqueous	02/03/03	02/06/03	030203L03

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
N-Nitrosodimethylamine	ND	10	1		ug/L	2,4-Dinitrophenol	ND	50	1		ug/L
Aniline	ND	10	1		ug/L	4-Nitrophenol	ND	10	1		ug/L
Phenol	ND	10	1		ug/L	Dibenzofuran	ND	10	1		ug/L
Bis(2-Chloroethyl) Ether	ND	25	1		ug/L	2,4-Dinitrotoluene	ND	10	1		ug/L
2-Chlorophenol	ND	10	1		ug/L	2,6-Dinitrotoluene	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	10	1		ug/L	Diethyl Phthalate	ND	10	1		ug/L
1,4-Dichlorobenzene	ND	10	1		ug/L	4-Chlorophenyl-Phenyl Ether	ND	10	1		ug/L
Benzyl Alcohol	ND	10	1		ug/L	Fluorene	ND	10	1		ug/L
1,2-Dichlorobenzene	ND	10	1		ug/L	4-Nitroaniline	ND	10	1		ug/L
2-Methylphenol	ND	10	1		ug/L	Azobenzene	ND	10	1		ug/L
Bis(2-Chloroisopropyl) Ether	ND	10	1		ug/L	4,6-Dinitro-2-Methylphenol	ND	50	1		ug/L
3/4-Methylphenol	ND	10	1		ug/L	N-Nitrosodiphenylamine	ND	10	1		ug/L
N-Nitroso-di-n-propylamine	ND	10	1		ug/L	4-Bromophenyl-Phenyl Ether	ND	10	1		ug/L
Hexachloroethane	ND	10	1		ug/L	Hexachlorobenzene	ND	10	1		ug/L
Nitrobenzene	ND	25	1		ug/L	Pentachlorophenol	ND	10	1		ug/L
Isophorone	ND	10	1		ug/L	Phenanthrene	ND	10	1		ug/L
2-Nitrophenol	ND	10	1		ug/L	Anthracene	ND	10	1		ug/L
2,4-Dimethylphenol	ND	10	1		ug/L	Di-n-Butyl Phthalate	ND	10	1		ug/L
Benzoic Acid	ND	50	1		ug/L	Fluoranthene	ND	10	1		ug/L
Bis(2-Chloroethoxy) Methane	ND	10	1		ug/L	Benzo(a) Pyrene	ND	50	1		ug/L
2,4-Dichlorophenol	ND	10	1		ug/L	Pyrene	ND	10	1		ug/L
1,2,4-Trichlorobenzene	ND	10	1		ug/L	Pyridine	ND	10	1		ug/L
Naphthalene	91	10	1		ug/L	Butyl Benzyl Phthalate	ND	10	1		ug/L
4-Chloroaniline	ND	10	1		ug/L	3,3'-Dichlorobenzidine	ND	25	1		ug/L
Hexachloro-1,3-Butadiene	ND	10	1		ug/L	Benzo(a) Anthracene	ND	10	1		ug/L
4-Chloro-3-Methylphenol	ND	10	1		ug/L	Bis(2-Ethylhexyl) Phthalate	23	10	1		ug/L
2-Methylnaphthalene	23	10	1		ug/L	Chrysene	ND	10	1		ug/L
Hexachlorocyclopentadiene	ND	25	1		ug/L	Di-n-Octyl Phthalate	ND	10	1		ug/L
2,4,6-Trichlorophenol	ND	10	1		ug/L	Benzo(k) Fluoranthene	ND	10	1		ug/L
2,4,5-Trichlorophenol	ND	10	1		ug/L	Benzo(b) Fluoranthene	ND	10	1		ug/L
2-Chloronaphthalene	ND	10	1		ug/L	Benzo(a) Pyrene	ND	10	1		ug/L
2-Nitroaniline	ND	10	1		ug/L	Benzo(g,h,i) Perylene	ND	10	1		ug/L
Dimethyl Phthalate	ND	10	1		ug/L	Indeno(1,2,3-c,d) Pyrene	ND	10	1		ug/L
Acenaphthylene	ND	10	1		ug/L	Dibenz(a,h) Anthracene	ND	10	1		ug/L
3-Nitroaniline	ND	10	1		ug/L	1-Methylnaphthalene	27	10	1		ug/L
Acenaphthene	ND	10	1		ug/L						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>		<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>			
2-Fluorophenol	66	15-138			Phenol-d6	73	17-141				
Nitrobenzene-d5	85	66-123			2-Fluorobiphenyl	85	45-120				
2,4,6-Tribromophenol	100	32-143			p-Terphenyl-d14	84	46-133				

RL - Reporting Limit    DF - Dilution Factor    Qual - Qualifiers



**ANALYTICAL REPORT**

Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-8593

Date Received: 01/31/03  
Work Order No: 03-01-1629  
Preparation: EPA 3520B  
Method: EPA 8270C

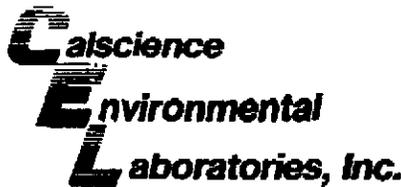
Project: 6039 College Avenue, Oakland

Page 2 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
NW-4	03-01-1629-2	01/29/03	Aqueous	02/03/03	02/08/03	030203L03

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
N-Nitrosodimethylamine	ND	10	1		ug/L	2,4-Dinitrophenol	ND	60	1		ug/L
Aniline	ND	10	1		ug/L	4-Nitrophenol	ND	10	1		ug/L
Phenol	ND	10	1		ug/L	Dibenzofuran	ND	10	1		ug/L
Bis(2-Chloroethyl) Ether	ND	25	1		ug/L	2,4-Dinitrotoluene	ND	10	1		ug/L
2-Chlorophenol	ND	10	1		ug/L	2,6-Dinitrotoluene	ND	10	1		ug/L
1,3-Dichlorobenzene	ND	10	1		ug/L	Diethyl Phthalate	ND	10	1		ug/L
1,4-Dichlorobenzene	ND	10	1		ug/L	4-Chlorophenyl-Phenyl Ether	ND	10	1		ug/L
Benzyl Alcohol	ND	10	1		ug/L	Fluorene	ND	10	1		ug/L
1,2-Dichlorobenzene	ND	10	1		ug/L	4-Nitroaniline	ND	10	1		ug/L
2-Methylphenol	ND	10	1		ug/L	Azobenzene	ND	10	1		ug/L
Bis(2-Chloroisopropyl) Ether	ND	10	1		ug/L	4,6-Dinitro-2-Methylphenol	ND	50	1		ug/L
3/4-Methylphenol	ND	10	1		ug/L	N-Nitrosodiphenylamine	ND	10	1		ug/L
N-Nitroso-di-n-propylamine	ND	10	1		ug/L	4-Bromophenyl-Phenyl Ether	ND	10	1		ug/L
Hexachloroethane	ND	10	1		ug/L	Hexachlorobenzene	ND	10	1		ug/L
Nitrobenzene	ND	25	1		ug/L	Pentachlorophenol	ND	10	1		ug/L
Isophorone	ND	10	1		ug/L	Phenanthrene	ND	10	1		ug/L
2-Nitrophenol	ND	10	1		ug/L	Anthracene	ND	10	1		ug/L
2,4-Dimethylphenol	ND	10	1		ug/L	Di-n-Butyl Phthalate	ND	10	1		ug/L
Benzic Acid	ND	50	1		ug/L	Fluoranthene	ND	10	1		ug/L
Bis(2-Chloroethoxy) Methane	ND	10	1		ug/L	Benzidine	ND	50	1		ug/L
2,4-Dichlorophenol	ND	10	1		ug/L	Pyrene	ND	10	1		ug/L
1,2,4-Trichlorobenzene	ND	10	1		ug/L	Pyridine	ND	10	1		ug/L
Naphthalene	140	10	1		ug/L	Butyl Benzyl Phthalate	ND	10	1		ug/L
4-Chloroaniline	ND	10	1		ug/L	3,3'-Dichlorobenzidine	ND	25	1		ug/L
Hexachloro-1,3-Butadiene	ND	10	1		ug/L	Benzo (a) Anthracene	ND	10	1		ug/L
4-Chloro-3-Methylphenol	ND	10	1		ug/L	Bis(2-Ethylhexyl) Phthalate	38	10	1		ug/L
2-Methylnaphthalene	23	10	1		ug/L	Chrysene	ND	10	1		ug/L
Hexachlorocyclopentadiene	ND	25	1		ug/L	Di-n-Octyl Phthalate	ND	10	1		ug/L
2,4,6-Trichlorophenol	ND	10	1		ug/L	Benzo (k) Fluoranthene	ND	10	1		ug/L
2,4,5-Trichlorophenol	ND	10	1		ug/L	Benzo (b) Fluoranthene	ND	10	1		ug/L
2-Chloronaphthalene	ND	10	1		ug/L	Benzo (a) Pyrene	ND	10	1		ug/L
2-Nitroaniline	ND	10	1		ug/L	Benzo (g,h,i) Perylene	ND	10	1		ug/L
Dimethyl Phthalate	ND	10	1		ug/L	Indeno (1,2,3-c,d) Pyrene	ND	10	1		ug/L
Acenaphthylene	ND	10	1		ug/L	Dibenz (a,h) Anthracene	ND	10	1		ug/L
3-Nitroaniline	ND	10	1		ug/L	1-Methylnaphthalene	40	10	1		ug/L
Acenaphthene	ND	10	1		ug/L						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>			<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>		
2-Fluorophenol	61	15-138				Phenol-d6	70	17-141			
Nitrobenzene-d5	85	56-123				2-Fluorobiphenyl	83	45-120			
2,4,6-Tribromophenol	90	32-143				p-Terphenyl-d14	87	46-133			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



**ANALYTICAL REPORT**

Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received: 01/31/03  
Work Order No: 03-01-1629  
Preparation: EPA 3520B  
Method: EPA 8270C

Project: 6039 College Avenue, Oakland

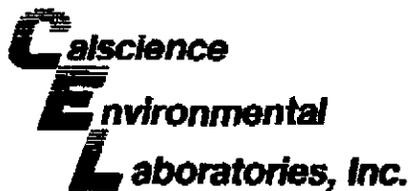
Page 3 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	035-01-003-1,209	N/A	Aqueous	02/03/03	02/09/03	030209L03

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
N-Nitrosodimethylamine	ND	5.0	0.5		ug/L	2,4-Dinitrophenol	ND	25	0.5		ug/L
Aniline	ND	5.0	0.5		ug/L	4-Nitrophenol	ND	5.0	0.5		ug/L
Phenol	ND	5.0	0.5		ug/L	Dibenzofuran	ND	5.0	0.5		ug/L
Bis(2-Chloroethyl) Ether	ND	13	0.5		ug/L	2,4-Dinitrotoluene	ND	5.0	0.5		ug/L
2-Chlorophenol	ND	5.0	0.5		ug/L	2,6-Dinitrotoluene	ND	5.0	0.5		ug/L
1,3-Dichlorobenzene	ND	5.0	0.5		ug/L	Diethyl Phthalate	ND	5.0	0.5		ug/L
1,4-Dichlorobenzene	ND	5.0	0.5		ug/L	4-Chlorophenyl-Phenyl Ether	ND	5.0	0.5		ug/L
Benzyl Alcohol	ND	5.0	0.5		ug/L	Fluorene	ND	5.0	0.5		ug/L
1,2-Dichlorobenzene	ND	5.0	0.5		ug/L	4-Nitroaniline	ND	5.0	0.5		ug/L
2-Methylphenol	ND	5.0	0.5		ug/L	Azobenzene	ND	6.0	0.5		ug/L
Bis(2-Chloroisopropyl) Ether	ND	5.0	0.5		ug/L	4,6-Dinitro-2-Methylphenol	ND	25	0.5		ug/L
3/4-Methylphenol	ND	5.0	0.5		ug/L	N-Nitrosodiphenylamine	ND	5.0	0.5		ug/L
N-Nitroso-di-n-propylamine	ND	5.0	0.5		ug/L	4-Bromophenyl-Phenyl Ether	ND	5.0	0.5		ug/L
Hexachloroethane	ND	5.0	0.5		ug/L	Hexachlorobenzene	ND	5.0	0.5		ug/L
Nitrobenzene	ND	13	0.5		ug/L	Pentachlorophenol	ND	5.0	0.5		ug/L
Isophorone	ND	5.0	0.5		ug/L	Phenanthrene	ND	5.0	0.5		ug/L
2-Nitrophenol	ND	5.0	0.5		ug/L	Anthracene	ND	5.0	0.5		ug/L
2,4-Dimethylphenol	ND	5.0	0.5		ug/L	Di-n-Butyl Phthalate	ND	5.0	0.5		ug/L
Benzoic Acid	ND	25	0.5		ug/L	Fluoranthene	ND	5.0	0.5		ug/L
Bis(2-Chloroethoxy) Methane	ND	5.0	0.5		ug/L	Benzidine	ND	25	0.5		ug/L
2,4-Dichlorophenol	ND	5.0	0.5		ug/L	Pyrene	ND	5.0	0.5		ug/L
1,2,4-Trichlorobenzene	ND	5.0	0.5		ug/L	Pyridine	ND	5.0	0.5		ug/L
Naphthalene	ND	5.0	0.5		ug/L	Butyl Benzyl Phthalate	ND	5.0	0.5		ug/L
4-Chloroaniline	ND	5.0	0.5		ug/L	3,3'-Dichlorobenzidine	ND	13	0.5		ug/L
Hexachloro-1,3-Butadiene	ND	5.0	0.5		ug/L	Benzo (a) Anthracene	ND	5.0	0.5		ug/L
4-Chloro-3-Methylphenol	ND	5.0	0.5		ug/L	Bis(2-Ethylhexyl) Phthalate	ND	5.0	0.5		ug/L
2-Methylnaphthalene	ND	6.0	0.5		ug/L	Chrysene	ND	6.0	0.5		ug/L
Hexachlorocyclopentadiene	ND	13	0.5		ug/L	Di-n-Octyl Phthalate	ND	5.0	0.5		ug/L
2,4,6-Trichlorophenol	ND	5.0	0.5		ug/L	Benzo (k) Fluoranthene	ND	5.0	0.5		ug/L
2,4,5-Trichlorophenol	ND	5.0	0.5		ug/L	Benzo (b) Fluoranthene	ND	5.0	0.5		ug/L
2-Chloronaphthalene	ND	5.0	0.5		ug/L	Benzo (a) Pyrene	ND	5.0	0.5		ug/L
2-Nitroaniline	ND	5.0	0.5		ug/L	Benzo (g,h,i) Perylene	ND	5.0	0.5		ug/L
Dimethyl Phthalate	ND	5.0	0.5		ug/L	Indeno (1,2,3-c,d) Pyrene	ND	5.0	0.5		ug/L
Acenaphthylene	ND	6.0	0.5		ug/L	Dibenz (a,h) Anthracene	ND	6.0	0.5		ug/L
3-Nitroaniline	ND	5.0	0.5		ug/L	1-Methylnaphthalene	ND	5.0	0.5		ug/L
Acenaphthene	ND	5.0	0.5		ug/L						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>			<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>	<b>Qual</b>		
2-Fluorophenol	42	15-138				Phenol-d6	33	17-141			
Nitrobenzene-d5	94	58-123				2-Fluorobiphenyl	89	45-120			
2,4,6-Tribromophenol	82	32-143				p-Terphenyl-d14	85	46-133			

RL - Reporting Limit . DF - Dilution Factor . Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Quality Control - LCS/LCS Duplicate

Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received: 01/31/03  
Work Order No: 03-01-1629  
Preparation: EPA 3520B  
Method: EPA 8270C

Project: 6039 College Avenue, Oakland

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-003-1,209	Aqueous	GC/MS P	02/03/03	02/05/03	030203L03

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Phenol	72	73	12-151	1	0-23	
2-Chlorophenol	75	73	45-135	3	0-18	
1,4-Dichlorobenzene	81	66	36-118	6	0-26	
N-Nitroso-di-n-propylamine	74	81	52-128	9	0-13	
1,2,4-Trichlorobenzene	75	65	42-120	14	0-21	
4-Chloro-3-Methylphenol	83	83	20-150	1	0-40	
Acenaphthene	94	85	81-137	10	0-11	
4-Nitrophenol	88	85	20-150	4	0-40	
2,4-Dinitrotoluene	109	98	25-143	11	0-36	
Pentachlorophenol	100	99	20-150	1	0-40	
Pyrene	66	88	45-135	0	0-20	



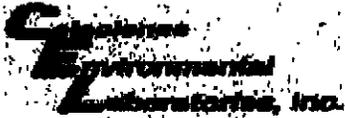
# GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 03-01-1629

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<u>Qualifier</u>	<u>Definition</u>
ND	Not detected at indicated reporting limit.

A handwritten signature in black ink, appearing to be 'M. M. M.', is located at the bottom left of the page.



WORK ORDER #: 03-01-1629

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: KIFF

DATE: 1/31/03

TEMPERATURE - SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- Chilled, cooler with temperature blank provided.
Chilled, cooler without temperature blank.
Chilled and placed in cooler with wet ice.
Ambient and placed in cooler with wet ice.
Ambient temperature.
°C Temperature blank.

LABORATORY (Other than Calscience Courier):

- 3 °C Temperature blank.
°C IR thermometer.
Ambient temperature.

Initial: [Signature]

CUSTODY SEAL INTACT:

Sample(s): Cooler: No (Not Intact): Not Applicable (N/A): Initial: [Signature]

SAMPLE CONDITION:

Table with 3 columns: Yes, No, N/A. Rows include Chain-Of-Custody document(s) received with samples, Sample container label(s) consistent with custody papers, Sample container(s) intact and good condition, Correct containers for analyses requested, Proper preservation noted on sample label(s), VOA vial(s) free of headspace, Tedlar bag(s) free of condensation.

Initial: [Signature]

COMMENTS:

Blank lines for handwritten comments.



2795 Second Street, Suite 300  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4808

1629  
 Cal Science Environmental  
 7440 Lincoln Way  
 Garden Grove, CA 92841  
 714-895-5494

Lab No. \_\_\_\_\_ Page 1 of 1

Project Contact (Hardcopy or PDF to): **Joel Kiff** EDF Report?  Yes  No Chain-of-Custody Record and Analysis Request

Company/Address: **Kiff Analytical, LLC** Recommended but not mandatory to complete this section: Sampling Company Log Code: **BTSS** Analysis Request Date Due: **February 13, 2003**

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_ Global ID: **T0600101272**

Project Number: **030129-RH2** P.O. No.: **31189** EDF Deliverable to (Email Address): **inbox@kiffanalytical.com**

Project Name: **6039 College Avenue, Oakland** E-mail address: **inbox@kiffanalytical.com**

Project Address: \_\_\_\_\_ Sampling Container Preservative Matrix

Sample Designation	Sampling		Container				Preservative				Matrix		EPA 8270	Oil & Grease (5520B/F)					Date Due: February 13, 2003	For Lab Use Only
	Date	Time	Glass Jar	Poly	Amber	Sleeve	HCl	HNO3	ICE	NONE	WATER	SOIL								
MW-3	1/29/2003	13:12			4					4	4			X	X					X
MW-4	1/29/2003	13:35			4					4	4			X	X					X

Relinquished by: *[Signature]* Date: **01/30/03** Time: **1815** Received by: \_\_\_\_\_ Remarks: **Incident No. 98995745**

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: **1/31/03** Time: **1115** Received by Laboratory: *[Signature]* Bill to: \_\_\_\_\_

TOTAL P.09

FEB-18-2003 10:50 CALSCIENCE ENVIRONMENTAL 714 894 7501 P.09

# SHELL Chain of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- GRANT HOUSTON

Karen Petryna

31189

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 7 4 5

SAP or CRMT NUMBER (TS/CRMT)

DATE: 1/29/03

PAGE: 1 of 1

SAMPLING COMPANY: <b>Blaine Tech Services</b>	LOG CODE: <b>BTSS</b>	SITE ADDRESS (Street and City): <b>6039 College Avenue, Oakland</b>	GLOBAL ID NO.: <b>T0600101272</b>
ADDRESS: <b>1680 Rogers Avenue, San Jose, CA 95112</b>		EDF DELIVERABLE TO (Responsible Party or Designee): <b>Anni Kremi</b>	PHONE NO.: <b>(510) 420-3335</b>
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Leon Gearhart</b>		E-MAIL: <b>ShellOaklandEDF@cambria-env.com</b>	CONSULTANT PROJECT NO.: <b>BTS #030129-R42</b>
TELEPHONE: <b>408-573-0555</b>	FAX: <b>408-573-7771</b>	E-MAIL: <b>lgearhart@blainetech.com</b>	LAB USE ONLY

SAMPLER NAME(S) (Print):

Ryan Hamstead

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

REQUESTED ANALYSIS

LA - RWQCB REPORT FORMAT  UST AGENCY: \_\_\_\_\_

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

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED

FIELD NOTES:  
Container/Preservative  
or PID Readings  
or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (0.21B - 5ppb RL)	MTBE (0.260B - 0.5ppb RL)	Oxygenates (5) by (0.260B)	Ethanol (0.260B)	Methanol	1,2-DCA (0.260B)	EDB (0.260B)	EPA 0270	Oil & Grease (5520B/F)	TPH - Diesel, Extractable (0.15m)	TEMPERATURE ON RECEIPT °C	
		DATE	TIME																
	mW-1	1/24/03	12:30	6W	3	X	X	X											-01
	mW-2		12:15		3	X	X	X											-02
	mW-3		13:12		7	X	X	X							X	X			-03
	mW-4		13:35		7	X	X	X							X	X			-04
	mW-5		12:50		3	X	X	X											-05
	<del>XXXXXXXXXX</del>																		

Relinquished by: (Signature) 	Received by: (Signature) _____	Date:	Time:
Relinquished by: (Signature) _____	Received by: (Signature) _____	Date:	Time:
Relinquished by: (Signature) _____	Received by: (Signature) <b>B. A. Brander</b>	Date: <b>01/30/03</b>	Time: <b>11:18</b>

Q&Q Graphic (714) 898-9702



Report Number : 31362

Date : 2/13/2003

Leon Gearhart  
Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject : 1 Water Sample  
Project Name : 6039 College Avenue, Oakland  
Project Number : 030205-BA2  
P.O. Number : 98995745

Dear Mr. Gearhart,

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, looped "J" and "K".

Joel Kiff



Report Number : 31362

Date : 2/13/2003

Project Name : 6039 College Avenue, Oakland

Project Number : 030205-BA2

Sample : MW-6

Matrix : Water

Lab Number : 31362-01

Sample Date :2/5/2003

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	2/8/2003
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	2/8/2003
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	2/8/2003
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	2/8/2003
<b>Methyl-t-butyl ether (MTBE)</b>	<b>120</b>	5.0	ug/L	EPA 8260B	2/8/2003
<b>TPH as Gasoline</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	2/8/2003
Toluene - d8 (Surr)	95.3		% Recovery	EPA 8260B	2/8/2003
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	2/8/2003

Approved By:  Joel Kiff

Report Number : 31362

Date : 2/13/2003

**QC Report : Method Blank Data**

Project Name : **6039 College Avenue, Oakland**

Project Number : **030205-BA2**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/7/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/7/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/7/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/7/2003
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	2/7/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/7/2003
Toluene - d8 (Surr)	99.6		%	EPA 8260B	2/7/2003
4-Bromofluorobenzene (Surr)	95.0		%	EPA 8260B	2/7/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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KIFF ANALYTICAL, LLC

2795 2nd St. Suite 300 Davis, CA 95616 530-297-4800

Approved By:  Joel Kiff

Report Number : 31362

Date : 2/13/2003

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **6039 College Avenue,**

Project Number : **030205-BA2**

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
Benzene	31343-01	<0.50	40.0	40.0	41.2	40.3	ug/L	EPA 8260B	2/7/03	103	101	2.06	70-130	25
Toluene	31343-01	<0.50	40.0	40.0	37.4	36.6	ug/L	EPA 8260B	2/7/03	93.6	91.4	2.35	70-130	25
Tert-Butanol	31343-01	<5.0	200	200	197	199	ug/L	EPA 8260B	2/7/03	98.4	99.6	1.19	70-130	25
Methyl-t-Butyl Ether	31343-01	<0.50	40.0	40.0	38.8	38.5	ug/L	EPA 8260B	2/7/03	97.0	96.2	0.880	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

## QC Report : Laboratory Control Sample (LCS)

Project Name : 6039 College Avenue,

Project Number : 030205-BA2

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	2/7/03	106	70-130
Toluene	40.0	ug/L	EPA 8260B	2/7/03	90.6	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/7/03	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/7/03	99.2	70-130

KIFF ANALYTICAL, LLC

Approved By:  Joel Kiff

# SHELL Chain Of Custody Record

51362

Lab Identification (if necessary):

Address:

City, State, Zip:

**Shell Project Manager to be Invoiced:**

**Karen Petryna**

SCIENCE & ENGINEERING  
 TECHNICAL SERVICES  
 CRMT HOUSTON

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 7 4 5

SAP or CRMT NUMBER (TS/CRMT)

DATE: 2/5/03

PAGE: 1 of 1

SAMPLING COMPANY: <b>Blaine Tech Services</b>		LOG CODE: <b>BTSS</b>	SITE ADDRESS (Street and City): <b>6039 College Avenue, Oakland</b>		GLOBAL ID NO.: <b>T0600101272</b>
ADDRESS: <b>1680 Rogers Avenue, San Jose, CA 95112</b>		EDF DELIVERABLE TO (Responsible Party or Designee): <b>Anni Kreml</b>		PHONE NO.: <b>(510) 420-3335</b>	E-MAIL: <b>ShellOaklandEDF@cambria-env.com</b>
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Leon Gearhart</b>		SAMPLER NAME(S) (Print): <b>BRIAN ALCORN</b>		CONSULTANT PROJECT NO. <b>030205-BA2</b>	
TELEPHONE: <b>408-573-0555</b>	FAX: <b>408-573-7771</b>	E-MAIL: <b>lgearhart@blainetech.com</b>		LAB USE ONLY	

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

**REQUESTED ANALYSIS**

LA - RWQCB REPORT FORMAT  
 UST AGENCY: \_\_\_\_\_

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

SPECIAL INSTRUCTIONS OR NOTES:      CHECK BOX IF EDD IS NOT NEEDED

**FIELD NOTES:**  
 Container/Preservative  
 or PID Readings  
 or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (0.21B - 5ppb RL)	MTBE (0.260B - 0.5ppb RL)	Oxygenates (5) by (0.260B)	Ethanol (0.260B)	Methanol	1,2-DCA (0.260B)	EDB (0.260B)	EPA 0270	Oil & Grease (0.520B/F)	TPH - Diesel, Extractable (0.15m)	TEMPERATURE ON RECEIPT C°	
		DATE	TIME																
	MW-6	2/5	1520	W	3	X	X	X											-01

Relinquished by: (Signature) 	Received by: (Signature) 	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) <b>Kiff Analytical</b>	Date: <b>020603</b>	Time: <b>1015</b>

C&O Graphic (7-14) 898-9702

# WELL GAUGING DATA

Project # 030205-BA3 Date 2/5/03 Client SHELL

Site 6039 COLLEGE AVE, OAKLAND

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-6	2					11.71	24.11	TOC	

**SHELL WELL MONITORING DATA SHEET**

BTS #: <u>030205-BA3</u>	Site: <u>6039 COLLEGE AVE, OAKLAND</u>
Sampler: <u>BRIAN ALORN</u>	Date: <u>2/5/03</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u>   </u>
Total Well Depth (TD): <u>24.11</u>	Depth to Water (DTW): <u>11.71</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd):      YSI      HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer Disposable Bailer <u>Middleburg</u> Electric Submersible	Water: Peristaltic Extraction Pump Other _____	Sampling Method: <u>(Bailer)</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	--

<u>2.0</u> (Gals.) X	<u>3</u>	= <u>6.0</u> Gals.
I Case Volume	Specified Volumes	Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1510	64.4	6.7	676	568	2.0	cloudy brown very mild odor
1513	65.4	6.6	666	333	4.0	"
1516	65.7	6.5	661	257	6.0	"

Did well dewater?    Yes    (No)      Gallons actually evacuated: 6

Sampling Date: 2/5/03    Sampling Time: 1520    Depth to Water:

Sample I.D.: MW-6      <sup>TRAFFIC WELL</sup>      Laboratory: (Kiff)    SPL    Other \_\_\_\_\_

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

EB I.D. (if applicable):      @ <sub>Time</sub>      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 # 030129-RHZ Date 1/29/03 Client Shell

Site 6039 Colloge Ave, Oakland

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 POS
mw-1	4					17.90	24.35	
mw-2	4					13.19	24.20	
mw-3	4					12.21	24.73	
mw-4	4					13.08	24.31	
mw-5	4					11.20	29.49	
mw-6	2	Well parked over					<del>24.35</del>	
		* Gauged w/ stinger in well						

## SHELL WELL MONITORING DATA SHEET

BTS #: <u>030129-RH2</u>	Site: <u>6039 College Ave, Oakland</u>
Sampler: <u>Ryan H</u>	Date: <u>1/29/03</u>
Well I.D.: <u>mw-1</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>24.35</u>	Depth to Water (DTW): <u>13.90</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Gmde	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>15.99</u>	

Purge Method: <u>Bailer</u>	Water: <u>Peristaltic</u>	Sampling Method: <u>Bailer</u>
Disposable Bailer	Extraction Pump	Disposable Bailer
Middleburg	Other: _____	Extraction Port
<u>Electric Submersible</u>		Dedicated Tubing

$\frac{6.8 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{20.4 \text{ Gals.}}{\text{Calculated Volume}}$	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	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
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. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1223	65.5	6.8	502	>200	6.8	cloudy
1224	65.6	6.7	485	>200	13.6	"
1226	65.8	6.7	489	>200	20.4	"

Did well dewater? Yes  No  Gallons actually evacuated: 20.4

Sampling Date: 1/29/03 Sampling Time: 1230 Depth to Water: 15.48

Sample I.D.: mw-1 Laboratory: Kiff SPL Other: \_\_\_\_\_

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

3B 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
D.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 030129-RH2	Site: 6039 College Ave, Oakland
Sampler: Ryan H	Date: 1/29/03
Well I.D.: mw-2	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 24.20	Depth to Water (DTW): 13.19
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.39	

Purge Method: Bailer      Water      Sampling Method: Bailer  
 Disposable Bailer      Peristaltic      Disposable Bailer  
 Middleburg      Extraction Pump      Extraction Port  
Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing

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

$7$ (Gals.) X $3$ = $21.0$ Gals. I Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	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
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. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1208	64.1	7.0	480	64.0	7.0	clear
1209	65.2	6.6	475	52.0	14.0	"
1210	65.6	6.5	470	46.3	21.0	"

Did well dewater? Yes No      Gallons actually evacuated: 21.0

Sampling Date: 1/29/03      Sampling Time: 1215      Depth to Water: 13.86

Sample I.D.: mw-2      Laboratory: Kiif SPL 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

## SHELL WELL MONITORING DATA SHEET

BTS #: 030129-RH2	Site: 6039 College Ave, Oakland
Sampler: Ryan H	Date: 1/29/03
Well I.D.: mw-3	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 24.73	Depth to Water (DTW): 12.21
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.71	

Purge Method: Bailer      Water      Sampling Method: Bailer  
 Disposable Bailer      Peristaltic      Disposable Bailer  
 Middleburg      Extraction Pump      Extraction Port  
Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing

<u>6</u> (Gals.) X	<u>3</u>	=	<u>24</u> Gals.	
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. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1259	65.4	6.8	523	50.4	8.0	clear
1300	65.4	6.6	584	39.1	16.0	"
1302	65.5	6.6	710	32.4	24.0	"

Did well dewater? Yes No Gallons actually evacuated: 24.0

Sampling Date: 1/29/03      Sampling Time: 1312      Depth to Water: 14.65  
~~1307~~

Sample I.D.: mw-3      Laboratory: Kiff SPL Other \_\_\_\_\_

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

3B 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

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

**SHELL WELL MONITORING DATA SHEET**

BTS #: 030129-RH2	Site: 6039 College Ave, Oakland
Sampler: Ryan H	Date: 1/29/03
Well I.D.: mw-4	Well Diameter: 2 3 <b>4</b> 6 8
Total Well Depth (TD): 24.31	Depth to Water (DTW): 13.08
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>PVC</b> Gmde	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.33	

Purge Method: <b>Bailer</b> Disposable Bailer Middleburg <b>Electric Submersible</b>	Water Peristaltic Extraction Pump Other:	Sampling Method: <b>Bailer</b> Disposable Bailer Extraction Port Dedicated Tubing Other:
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$\frac{7.3 \text{ (Gals.)} \times 3}{\text{Specified Volume}} = \frac{21.9}{\text{Calculated Volume}} \text{ Gals.}$	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	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
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. (mS or <b>µS</b> )	Turbidity (NTUs)	Gals. Removed	Observations
1222	63.9	6.7	733	46.9	7.3	Clear
1323	64.5	6.6	758	32.6	14.6	"
1325	64.6	6.7	787	30.8	21.9	"

Did well dewater? Yes **No** Gallons actually evacuated: 21.9

Sampling Date: 1/29/03 Sampling Time: 1335 Depth to Water: 14.55

Sample I.D.: mw-4 Laboratory: **Kiff** SPL 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

## SHELL WELL MONITORING DATA SHEET

BTS #: <u>030129-RH2</u>	Site: <u>6039 College Ave, Oakland</u>
Sampler: <u>Ryan H</u>	Date: <u>1/29/03</u>
Well I.D.: <u>mw-5</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>28.49</u>	Depth to Water (DTW): <u>11.20</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>14.66</u>	

Purge Method: <u>Bailer</u> Disposable Bailer Middleburg <u>Electric Submersible</u>	Watera Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
---	---	--

$$11.2 \text{ (Gals.)} \times \underline{3} = \underline{33.6} \text{ Gals.}$$
 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. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1241	64.5	6.9	433	53.2	11.2	clear
1243	64.9	6.7	445	78.4	22.4	"
1245	64.9	6.7	451	50.8	33.6	"

Did well dewater? Yes No Gallons actually evacuated: 33.6

Sampling Date: 1/29/03 Sampling Time: 1250 Depth to Water: 14.12

Sample I.D.: mw-5 Laboratory: Kitt SPL 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
D.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## SHELL WELL MONITORING DATA SHEET

BTS #: <u>030129-RH2</u>	Site: <u>6039 COLLEGE</u>
Sampler: <u>RYAN</u>	Date: <u>1-29-03</u>
Well I.D.: <u>MW-6</u>	Well Diameter: 2 3 4 6 8 / <u>    </u>
Total Well Depth (TD):	Depth to Water (DTW):
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> <u>HACH</u>
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <u>Bailer</u> Disposable Bailer Middleburg Electric Submersible	Water Peristaltic Extraction Pump Other <u>    </u>	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: <u>    </u>
--	--	--

_____ (Gals.) X _____ = _____ 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. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						<b>WELL PACKED OVER</b>
						<b>NO SAMPLE</b>

Did well dewater?    Yes    No	Gallons actually evacuated: _____	
Sampling Date: _____	Sampling Time: _____	Depth to Water: _____
Sample I.D.: _____	Laboratory: <u>Kiff</u> <u>SPL</u> Other _____	
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u> Other: _____		
EB I.D. (if applicable): _____ @ _____ Time	Duplicate I.D. (if applicable): _____	
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u> 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	