Shell Oil Products US

April 16, 2003

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

Subject: **Shell-branded Service Station**
350 Grand Avenue
Oakland, California

Dear Mr. Hwang:

Attached for your review and comment is a copy of the *First Quarter 2003 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

P.O. Box 7869 Burbank, CA 91510-7869 Phone (559) 645-9306 Facsimile (559) 645-5643

CAMBRIA

April 16, 2003

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
350 Grand Avenue
Oakland, California
Incident #98995755
Cambria Project #245-0715-002

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. The site is located at the northeastern corner of the intersection of Grand Avenue and Perkins Street (Figures 1 and 2).

REMEDIATION SUMMARY

2001 Dual-Phase Vapor Extraction (DVE) Pilot Test: In June 2001, Cambria conducted an 8-hour DVE pilot test on groundwater monitoring well S-2. DVE is the process of applying high vacuum through an airtight well seal to simultaneously extract soil vapors from the vadose zone and enhance groundwater extraction from the saturated zone. Approximately 50 gallons of groundwater were extracted during the 8-hour test. This data is consistent with the low permeability soil (sandy silt and silt) encountered at this site. Estimated mass removal through groundwater extraction of total petroleum hydrocarbons as gasoline (TPHg), benzene and methyl tertiary butyl ether (MTBE) was 0.008 pounds, 0.0004 pounds and 0.009 pounds, respectively. Estimated mass removal through vapor extraction of TPHg, benzene and MTBE was 2.44 pounds, 0.002 pounds and 0.005 pounds, respectively. Based on this data, DVE from monitoring well S-2 does not appear to effectively recover hydrocarbons and MTBE from the subsurface.

Cambria Environmental Technology, Inc.

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

Mobile Groundwater Extraction (GWE): As recommended in our October 7, 2002 *Third Quarter 2002 Monitoring Report*, Cambria initiated twice-monthly mobile GWE using a vacuum truck at the site beginning in October 2002. Extraction is currently performed using tank backfill wells T-1 and T-2. Cumulative groundwater purge volume and estimated mass removal data are presented in Table 1. Figures 3 and 4 show MTBE concentrations and mass removal estimates over time for wells T-1 and T-2, respectively. As shown on Figures 3 and 4, MTBE concentrations in wells T-1 and T-2 have shown a decreasing concentration trend indicative of mass removal within the source area since GWE was reinitiated in October 2002. MTBE concentrations have decreased an order of magnitude in each well. The cumulative estimated mass of total petroleum hydrocarbons as gasoline and MTBE removed through GWE to date at the site is 0.30 pounds and 2.0 pounds, respectively.

FIRST QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells, and measured dissolved oxygen concentrations in selected site wells. Blaine calculated groundwater elevations and compiled the analytical data. Cambria prepared a a vicinity map which includes previously presented well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

Figure Correction: Previous site plans prepared by Cambria for the site have shown a diesel underground storage tank (UST) at the site in addition to the gasoline USTs. This diesel tank was removed in April 1996 as documented in an August 14, 1996 *Tank Removal Report* prepared by Weiss Associates of Emeryville, California. The diesel tank is now labeled as "former diesel UST" on Figure 2.

ANTICIPATED SECOND QUARTER 2003 ACTIVITIES

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

Subsurface Investigation: Cambria submitted a *Tank Backfill Well Installation Report and Investigation Work Plan Addendum* on September 26, 2002. Upon receiving written Alameda

County Health Care Services Agency approval of our work plan addendum, Cambria will obtain the required permits and schedule the field activities for installation of the four proposed borings.

Mobile GWE: Mobile GWE is anticipated to continue through the second quarter 2003. Estimated groundwater mass removal data will be presented in forthcoming quarterly monitoring reports, and continued GWE will be based on extracted groundwater volumes and groundwater concentration trends.

CLOSING

We appreciate the opportunity to work with you on this project. Please call Jacquelyn Jones at (510) 420-3316 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

Jacquelyn Jones
Project Geologist

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

Figures: 1 - Vicinity/Area Well Survey Map
2 - Groundwater Elevation Contour Map
3 - MTBE and Mass Removal – Well T-1
4 - MTBE and Mass Removal – Well T-2

Table: 1 - Groundwater Extraction – Mass Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869
Gursharnjeet Cheema, 1060 St. Raphael Drive, Bay Point, CA 94565

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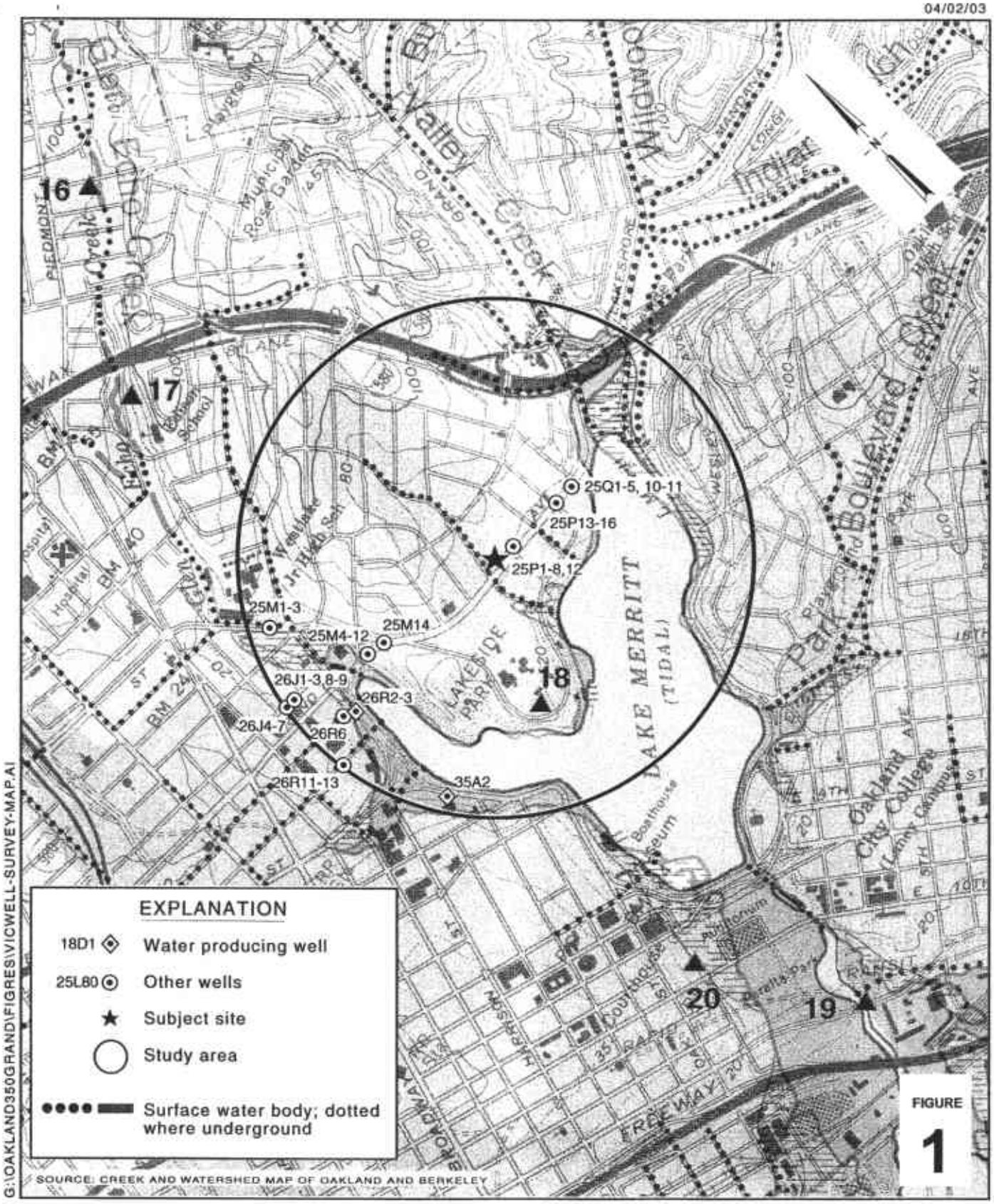


FIGURE 1

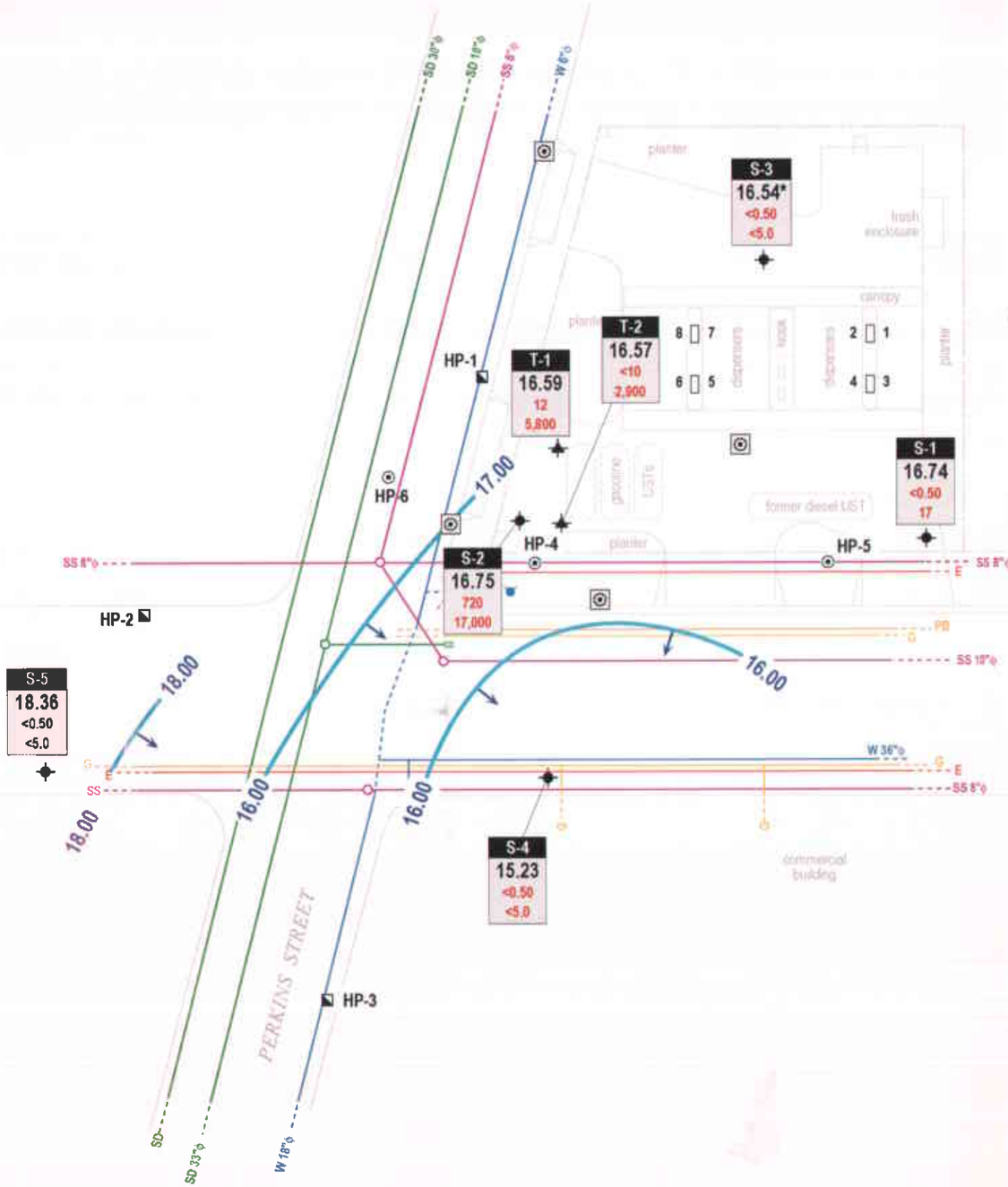
Shell-branded Service Station
350 Grand Avenue
Oakland, California
Incident #98995755

CAMBRIA

Vicinity/Area Well Survey Map

03/20/03

Groundwater Elevation Contour Map
January 16, 2003



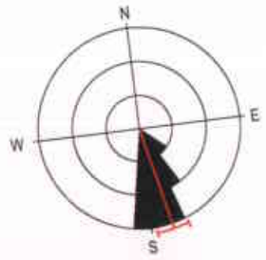
EXPLANATION

- Proposed soil boring location
- S-1 — Monitoring well location
- T-1 — Tank backfill well location
- HP-1 — Hydropunch boring location (1993)
- HP-4 — Soil boring location (1999)
- E — Electric utility line
- W — Water main utility line
- G — Gas utility line
- SS — Sanitary sewer utility line
- SD — Storm drain utility line
- PB — Pacific Bell utility line
- Storm drain inlet
- Manhole
- Fire hydrant
- Data anomalous, not used for contouring
- Groundwater flow direction
- XX.XX — Groundwater elevation contour, in feet above mean sea level (msl), approximately located; dashed where inferred

Well
ELEV
Benzene
MTBE

- Well designation
- Groundwater elevation, in feet above msl
- Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.

NOTE: Utilities lines are dashed where inferred.



Groundwater Flow Direction
(01/08/98 to 01/16/03)

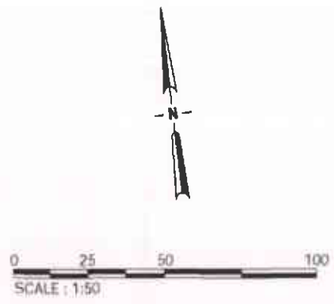


FIGURE
2

Shell-branded Service Station
350 Grand Avenue
Oakland, California
Incident #98995755

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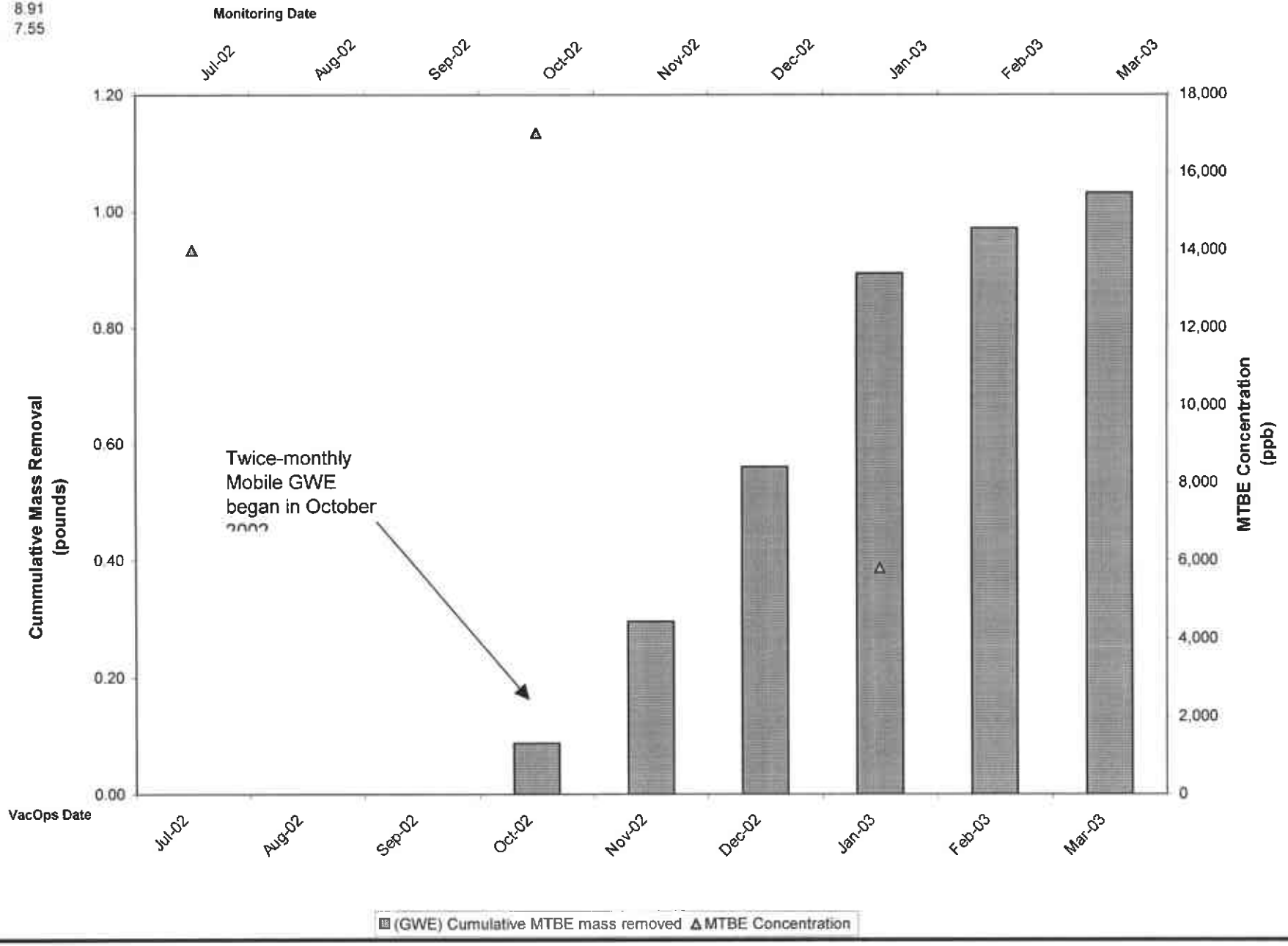
Figure 3
MTBE and Mass Removal
Well T-1

Date	DTW - ft
07/16/02	7.71
10/10/02	8.91
01/16/03	7.55



350 Grand Avenue, Oakland

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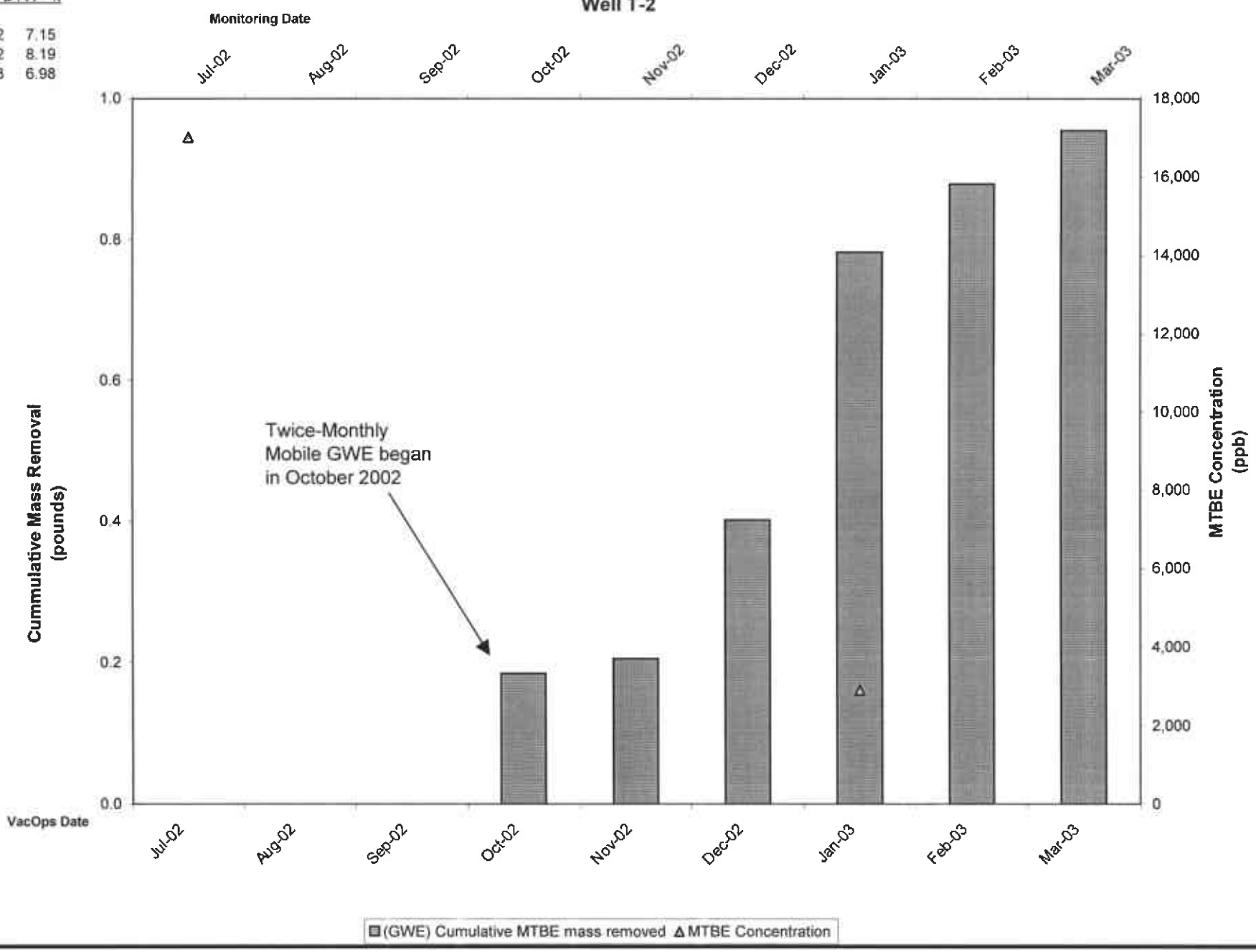
Figure 4
MTBE and Mass Removal
Well T-2

Date	DTW - ft
07/16/02	7.15
10/10/02	8.19
01/16/03	6.98



350 Grand Avenue, Oakland

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Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995755, 350 Grand Avenue, Oakland, California

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE MTBE Removed (pounds)	MTBE Removed To Date (pounds)
06/27/01	S-2	50	50	02/16/01	20,000	0.00834	0.00834	990	0.00041	0.00041	21,000	0.00876	0.00876
10/08/02	T-1	750	750	07/16/02	<5,000	0.01565	0.01565	<50	0.00016	0.00016	14,000	0.08762	0.08762
10/21/02	T-1	0	750	10/10/02	<5,000	0.00000	0.01565	<50	0.00000	0.00016	17,000	0.00000	0.08762
11/09/02	T-1	771	1,521	10/10/02	<5,000	0.01608	0.03173	<50	0.00016	0.00032	17,000	0.10937	0.19699
11/26/02	T-1	695	2,216	10/10/02	<5,000	0.01450	0.04623	<50	0.00014	0.00046	17,000	0.09859	0.29557
12/11/02	T-1	480	2,696	10/10/02	<5,000	0.01001	0.05624	<50	0.00010	0.00056	17,000	0.06809	0.36366
12/24/02	T-1	1,387	4,083	10/10/02	<5,000	0.02893	0.08518	<50	0.00029	0.00085	17,000	0.19675	0.56042
01/09/03	T-1	2,288	6,371	10/10/02	<5,000	0.04773	0.13290	<50	0.00048	0.00133	17,000	0.32456	0.88498
01/22/03	T-1	165	6,536	01/16/03	<1,000	0.00069	0.13359	12	0.00002	0.00135	5,800	0.00799	0.89296
02/10/03	T-1	0	6,536	01/16/03	<1,000	0.00000	0.13359	12	0.00000	0.00135	5,800	0.00000	0.89296
02/25/03	T-1	1,624	8,160	01/16/03	<1,000	0.00678	0.14037	12	0.00016	0.00151	5,800	0.07860	0.97156
03/12/03	T-1	1,000	9,160	01/16/03	<1,000	0.00417	0.14454	12	0.00010	0.00161	5,800	0.04840	1.01996
03/26/03	T-1	254	9,414	01/16/03	<1,000	0.00106	0.14560	12	0.00003	0.00163	5,800	0.01229	1.03225
10/08/02	T-2	550	550	07/16/02	<5,000	0.01147	0.01147	<50	0.00011	0.00011	17,000	0.07802	0.07802
10/21/02	T-2	750	1,300	07/16/02	<5,000	0.01565	0.02712	<50	0.00016	0.00027	17,000	0.10639	0.18441
11/09/02	T-2	150	1,450	07/16/02	<5,000	0.00313	0.03025	<50	0.00003	0.00030	17,000	0.02128	0.20569
11/26/02	T-2	0	1,450	07/16/02	<5,000	0.00000	0.03025	<50	0.00000	0.00030	17,000	0.00000	0.20569
12/11/02	T-2	0	1,450	07/16/02	<5,000	0.00000	0.03025	<50	0.00000	0.00030	17,000	0.00000	0.20569
12/24/02	T-2	1,383	2,833	07/16/02	<5,000	0.02885	0.05910	<50	0.00029	0.00059	17,000	0.19618	0.40187
01/09/03	T-2	2,309	5,142	07/16/02	<5,000	0.04817	0.10727	<50	0.00048	0.00107	17,000	0.32754	0.72941
01/22/03	T-2	2,200	7,342	01/16/03	<1,000	0.00918	0.11645	<10	0.00009	0.00116	2,900	0.05324	0.78265
02/10/03	T-2	2,103	9,445	01/16/03	<1,000	0.00877	0.12522	<10	0.00009	0.00125	2,900	0.05089	0.83354
02/25/03	T-2	1,883	11,328	01/16/03	<1,000	0.00786	0.13308	<10	0.00008	0.00133	2,900	0.04557	0.87911

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995755, 350 Grand Avenue, Oakland, California

					TPPH			Benzene			MTBE		
Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	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)
03/12/03	T-2	1,130	12,458	01/16/03	<1,000	0.00471	0.13779	<10	0.00005	0.00138	2,900	0.02734	0.90645
03/26/03	T-2	2,000	14,458	01/16/03	<1,000	0.00834	0.14613	<10	0.00008	0.00146	2,900	0.04840	0.95485
Total Gallons Extracted:			**23,922**		**Total Pounds Removed:**		**0.30008**			**0.00351**			**1.99586**
					Total Gallons Removed:		**0.04919**			**0.00048**			**0.32191**

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 ($g/10^6 µg$) 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, and MTBE analyzed by EPA Method 8260
Concentrations based on most recent groundwater monitoring results
If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.
Groundwater extracted by vacuum trucks provided by ACTI. Water disposed of at a Martinez Refinery.

ATTACHMENT A

Blaine Groundwater Monitoring Report and Field Notes

BLAINE
TECH SERVICES, Inc.

1680 ROGERS AVENUE
SAN JOSE, CA 95112-1105
(408) 573-7771 FAX
(408) 573-0555 PHONE
CONTRACTOR'S LICENSE #746684
www.blainetech.com

February 19, 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
350 Grand Avenue
Oakland, CA

Monitoring performed on January 16, 2003

Groundwater Monitoring Report **030116-DA-1**

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
350 Grand 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.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	01/23/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	9.73	11.11	NA
S-1	04/25/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	7.37	13.47	NA
S-1	07/19/1991	<50	<50	6.8	<0.5	<0.5	<0.5	NA	NA	20.84	8.92	11.92	NA
S-1	10/09/1991	120	260d	10	<0.5	<0.5	<0.5	NA	NA	20.84	9.62	11.22	NA
S-1	01/23/1992	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	8.94	11.90	NA
S-1	04/27/1992	<50	70b	1.2	<0.5	<0.5	<0.5	NA	NA	20.84	7.06	13.78	NA
S-1	07/10/1992	<50	930	13	<0.5	<0.5	<0.5	NA	NA	20.84	8.31	12.53	NA
S-1	10/06/1992	62	110	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	9.55	11.29	NA
S-1	01/06/1993	85	81	1.1	<0.5	<0.5	<0.5	NA	NA	20.84	9.86	10.98	NA
S-1	04/26/1993	<50	53c	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.30	14.54	NA
S-1 (D)	04/26/1993	<50	53c	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.30	14.54	NA
S-1	07/20/1993	<50	140	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	8.78	12.06	NA
S-1	10/18/1993	<50	210	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	9.20	11.64	NA
S-1	01/07/1994	<50	<50	1.4	1.5	0.55	2.8	NA	NA	20.84	9.53	11.31	NA
S-1 (D)	01/07/1994	<50	53	1.2	1.5	<0.5	2.7	NA	NA	20.84	9.53	11.31	NA
S-1	04/11/1994	<50	320	2.8	<0.5	<0.5	<0.5	NA	NA	20.84	8.50	12.34	NA
S-1 (D)	04/11/1994	<50	220	2.6	<0.5	<0.5	<0.5	NA	NA	20.84	8.50	12.34	NA
S-1	07/14/1994	NA	NA	NA	NA	NA	NA	NA	NA	20.84	8.45	12.39	NA
S-1	07/19/1994	<50	110	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	9.07	11.77	NA
S-1	10/06/1994	110	370	1.4	<0.5	<0.5	<0.5	NA	NA	20.84	11.68	9.16	NA
S-1	01/04/1995	120	1,000	2.5	<0.5	1.5	1.7	NA	NA	20.84	8.51	12.33	NA
S-1	04/12/1995	<50	290	2.1	<0.5	<0.5	<0.5	NA	NA	20.84	6.66	14.18	NA
S-1 (D)	04/12/1995	<50	480	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.66	14.18	NA
S-1	07/07/1995	<50	370	5.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.95	13.89	NA
S-1 (D)	07/07/1995	<50	450	6.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.95	13.89	NA
S-1	10/05/1995	<50	200	3.9	1.2	<0.5	2.4	NA	NA	20.84	8.50	12.34	NA

WELL CONCENTRATIONS
Shell-branded Service Station
350 Grand 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.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	01/12/1996	230	1,500	2.5	<0.5	0.9	0.6	NA	NA	20.84	8.02	12.82	NA
S-1	04/02/1996	95	2,000	0.91	<0.5	<0.5	<0.5	140	NA	20.84	4.98	15.86	NA
S-1	07/30/1996	<50	510	<0.5	<0.5	<0.5	<0.5	67	NA	20.84	6.40	14.44	NA
S-1 (D)	07/30/1996	<50	380	<0.5	<0.5	<0.5	<0.5	68	NA	20.84	6.40	14.44	NA
S-1	10/02/1996	<50	250	<0.5	<0.5	<0.5	<0.5	96	NA	20.84	7.53	13.31	NA
S-1	09/19/1997	<50	120	<0.50	<0.50	<0.50	<0.50	37	NA	20.84	8.54	12.30	0.8
S-1	01/08/1998	<50	210	<0.50	<0.50	<0.50	<0.50	74	NA	20.84	9.09	11.75	2.6
S-1	07/17/1998	<50	99	<0.50	<0.50	<0.50	<0.50	25	NA	20.86	6.48	14.38	2.6
S-1	01/28/1999	92.7	212	4.5	1.83	1.59	12.1	2.17	NA	20.86	10.46	10.40	2.2
S-1	07/23/1999	537	<50	81.1	91.3	24.8	81.6	47.9	NA	20.86	10.02	10.84	2.1
S-1	01/24/2000	<50.0	79.6	<0.500	<0.500	<0.500	<0.500	8.41	NA	20.86	8.42	12.44	2.2
S-1	07/27/2000	<50.0	127	<0.500	<0.500	<0.500	<0.500	31.9	NA	20.86	7.34	13.52	1.6
S-1	01/12/2001	<50.0	225	<0.500	<0.500	<0.500	<0.500	35.9	NA	20.86	8.15	12.71	1.8
S-1	02/16/2001	<50	140	<0.50	<0.50	<0.50	1.0	NA	24	20.86	7.42	13.44	6.1
S-1	07/09/2001	<50	57	<0.50	<0.50	<0.50	<0.50	NA	19	20.86	7.95	12.91	5.4
S-1	08/07/2001	NA	NA	NA	NA	NA	NA	NA	NA	20.86	7.67	13.19	NA
S-1	10/02/2001	NA	NA	NA	NA	NA	NA	NA	2.5	20.86	7.74	13.12	4.6
S-1	01/18/2002	<50	68	<0.50	<0.50	<0.50	<0.50	NA	31	20.86	6.37	14.49	6.7
S-1	04/17/2002	NA	NA	NA	NA	NA	NA	NA	NA	20.86	6.58	14.28	NA
S-1	07/16/2002	<50	100	<0.50	<0.50	<0.50	0.99	NA	35	23.66	7.38	16.28	7.0
S-1	10/10/2002	NA	NA	NA	NA	NA	NA	NA	NA	23.26	7.89	15.37	NA
S-1	**01/16/2003**	**<50**	**54**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**17**	**23.26**	**6.52**	**16.74**	**0.7**
S-2	01/23/1991	2,500	1,200	550	15	33	42	NA	NA	21.24	10.55	10.69	NA
S-2	04/25/1991	32,000	20,000b	2,900	480	1,400	2,300	NA	NA	21.24	8.24	13.00	NA
S-2	07/19/1991	21,000	30,000b	4,700	430	1,200	2,400	NA	NA	21.24	9.55	11.69	NA

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S-2	10/09/1991	29,000	32,000b	6,300	510	1,700	2,400	NA	NA	21.24	10.26	10.98	NA
S-2	01/23/1992	31,000	36,000b	5,800	480	2,000	2,700	NA	NA	21.24	9.51	11.73	NA
S-2	04/27/1992	21,000d	12,000b	4,800	320	1,600	1,400	NA	NA	21.24	7.83	13.41	NA
S-2	07/10/1992	31,000	3,700e	7,500	940	3,400	3,500	NA	NA	21.24	8.57	12.67	NA
S-2	10/06/1992	57,000	4,500e	9,300	1,200	4,000	4,900	NA	NA	21.24	9.49	11.75	NA
S-2	01/06/1993	55,000	5,600	5,600	360	3,000	3,000	NA	NA	21.24	8.56	12.68	NA
S-2	04/26/1993	32,000	9,400e	10,000	500	4,400	3,600	NA	NA	21.24	6.84	14.40	NA
S-2	07/20/1993	25,000	8,400e	5,800	300	2,700	1,400	NA	NA	21.24	8.52	12.72	NA
S-2 (D)	07/20/1993	25,000	8,900e	5,900	310	2,800	1,400	NA	NA	21.24	8.52	12.72	NA
S-2	10/18/1993	23,000	18,000e	3,700	200	2,100	1,600	NA	NA	21.24	9.36	11.88	NA
S-2 (D)	10/18/1993	28,000	14,000e	3,700	210	2,100	1,600	NA	NA	21.24	9.36	11.88	NA
S-2	01/07/1994	120,000	22,000e	6,900	400	3,100	2,600	NA	NA	21.24	8.37	12.87	NA
S-2	04/11/1994	34,000	17,000e	4,800	170	1,900	880	NA	NA	21.24	6.96	14.28	NA
S-2	07/14/1994	NA	NA	NA	NA	NA	NA	NA	NA	21.24	7.49	13.75	NA
S-2	07/19/1994	23,000	NA	4,300	210	1,100	1,000	NA	NA	21.24	8.02	13.22	NA
S-2 (D)	07/19/1994	29,000	NA	4,700	270	1,200	1,200	NA	NA	21.24	8.02	13.22	NA
S-2	10/06/1994	61,000	NA	4,600	290	1,900	1,900	NA	NA	21.24	11.00	10.24	NA
S-2 (D)	10/06/1994	52,000	NA	5,200	270	2,100	1,900	NA	NA	21.24	11.00	10.24	NA
S-2	01/04/1994	23,000	NA	4,500	49	1,300	500	NA	NA	21.24	8.07	13.17	NA
S-2 (D)	01/04/1995	18,000	NA	3,800	33	1,100	390	NA	NA	21.24	8.07	13.17	NA
S-2	04/12/1995	29,000	NA	4,300	210	990	700	NA	NA	21.24	6.12	15.12	NA
S-2	07/07/1995	26,000	NA	4,200	180	1,100	730	NA	NA	21.24	6.35	14.89	NA
S-2	10/05/1995	26,000	10,000	3,500	150	1,100	640	NA	NA	21.24	7.36	13.88	NA
S-2 (D)	10/05/1995	33,000	9,400	4,200	210	1,500	850	NA	NA	21.24	7.36	13.88	NA
S-2	01/12/1996	36,000	13,000	4,100	240	1,400	790	NA	NA	21.24	7.64	13.60	NA
S-2 (D)	01/12/1996	40,000	11,000	4,100	260	1,400	860	NA	NA	21.24	7.64	13.60	NA

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S-2	04/02/1996	12,000	7,300	1,300	120	460	150	4,000	NA	21.24	6.18	15.06	NA
S-2 (D)	04/02/1996	17,000	5,800	1,800	29	590	140	7,600	NA	21.24	6.18	15.06	NA
S-2	07/30/1996	18,000	13,000	3,000	100	1,200	420	17,000	19,000	21.24	7.22	14.02	NA
S-2	10/02/1996	28,000	18,000	3,700	110	1,100	260	20,000	NA	21.24	7.60	13.64	NA
S-2 (D)	10/02/1996	25,000	31,000	3,500	100	1,100	260	19,000	NA	21.24	7.60	13.64	NA
S-2	09/19/1997	21,000	11,000	2,300	120	500	110	11,000	NA	21.24	7.45	13.79	2.1
S-2	01/08/1998	35,000	8,100	3,200	260	850	320	23,000	NA	21.24	6.96	14.28	2.3
S-2 (D)	01/08/1998	27,000	5,400	3,400	190	860	200	23,000	NA	21.24	6.96	14.28	2.3
S-2	07/17/1998	19,000	12,000	1,700	130	610	130	13,000	NA	21.24	6.67	14.57	2.3
S-2	01/28/1999	482	99	24	7.52	5.41	63.7	11	NA	21.24	10.63	10.61	2.4
S-2	07/23/1999	320	223	52.0	54.5	14.7	48.6	33.9	NA	21.24	10.12	11.12	2.6
S-2	01/24/2000	18,500	7,600	1,440	140	472	68.9	6,940	NA	21.24	8.63	12.61	1.6
S-2	07/27/2000	14,900	10,200	1,250	98.8	437	<50.0	22,200	30,200	21.24	7.94	13.30	2.0
S-2	01/12/2001 h	17,200	8,050	930	88.8	497	57.0	23,200	18,500	21.24	8.82	12.42	1.9
S-2	02/16/2001	20,000	<5,000	990	93	450	63	NA	21,000	21.24	7.10	14.14	1.6
S-2	07/09/2001	16,000	26,000	690	62	210	<50	NA	27,000	21.24	8.35	12.89	2.1
S-2	08/07/2001	NA	NA	NA	NA	NA	NA	NA	NA	21.24	8.19	13.05	NA
S-2	10/02/2001	18,000	<12,000	810	89	470	69	NA	23,000	21.24	8.50	12.74	2.0
S-2	01/18/2002	21,000	21,000	750	79	470	69	NA	23,000	21.24	6.96	14.28	5.9
S-2	04/17/2002	34,000	<26,000	620	70	390	60	NA	17,000	21.24	7.39	13.85	0.6
S-2	07/16/2002	14,000	<10,000	630	75	310	33	NA	20,000	24.03	7.95	16.08	6.0
S-2	10/10/2002	11,000	<6,000	480	50	190	<50	NA	15,000	23.73	8.36	15.37	1.0
S-2	**01/16/2003**	**16,000**	**<8,000**	**720**	**88**	**290**	**89**	**NA**	**17,000**	**23.73**	**6.98**	**16.75**	**0.7**
S-3	01/23/1991	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	14.67	8.03	NA
S-3	04/25/1991	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.96	9.74	NA

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S-3	07/19/1991	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.45	10.25	NA
S-3	10/09/1991	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.98	9.72	NA
S-3	01/23/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	13.06	9.64	NA
S-3	04/27/1992	<50	100	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	7.25	15.45	NA
S-3	07/10/1992	<50	68	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	8.46	14.24	NA
S-3	10/06/1992	<50	<10	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	11.77	10.93	NA
S-3	01/06/1993	<50	<10	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.53	10.17	NA
S-3	04/26/1993	<50	69	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	4.28	18.42	NA
S-3	07/20/1993	<50	120	<0.5	0.6	<0.5	<0.5	NA	NA	22.70	5.70	17.00	NA
S-3	10/18/1993	<50	160	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	10.30	12.40	NA
S-3	01/07/1994 a	160	58	59	26	4.9	22	NA	NA	22.70	12.40	10.30	NA
S-3	04/11/1994	<50	<50	<0.52	<0.5	<0.5	<0.5	NA	NA	22.70	10.94	11.76	NA
S-3	07/14/1994	NA	NA	NA	NA	NA	NA	NA	NA	22.70	7.90	14.80	NA
S-3	07/19/1994	<50	110d	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	8.12	14.58	NA
S-3	10/06/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.15	10.55	NA
S-3	01/04/1995	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	11.18	11.52	NA
S-3	04/12/1995	<50	110	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	3.76	18.94	NA
S-3	07/07/1995	<50	410	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	4.72	17.98	NA
S-3	10/05/1995	<50	160	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	5.80	16.90	NA
S-3	01/12/1996	100	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	7.00	15.70	NA
S-3	04/02/1996	<50	170	<0.5	<0.5	<0.5	<0.5	3.4	NA	22.70	3.42	19.28	NA
S-3	07/30/1996	<50	92	<0.5	<0.5	<0.5	<0.5	4.3	NA	22.70	5.89	16.81	NA
S-3	10/02/1996	<50	160	<0.5	<0.5	<0.5	<0.5	4.1	NA	22.70	7.20	15.50	NA
S-3	09/19/1997	<50	260	<0.50	<0.50	<0.50	<0.50	4.3	NA	22.70	6.92	15.78	1.4
S-3 (D)	09/19/1997	<50	290	<0.50	<0.50	<0.50	<0.50	5.2	NA	22.70	6.92	15.78	1.4
S-3	01/08/1998	<50	170	<0.50	<0.50	<0.50	0.92	120	NA	22.70	5.77	16.93	2.7

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S-3	07/17/1998	<50	97	<0.50	<0.50	<0.50	<0.50	33	NA	22.71	4.17	18.54	2.7
S-3	01/28/1999	656	<50.0	45.4	10.2	4.98	83.2	87.2	NA	22.71	8.15	14.56	1.8
S-3	07/23/1999	<50.0	77.3	<0.500	<0.500	<0.500	<0.500	39.3	NA	22.71	7.46	15.25	1.9
S-3	01/24/2000	<50.0	77.2	<0.500	<0.500	<0.500	<0.500	12.0	NA	22.71	5.92	16.79	2.1
S-3	07/27/2000	<50.0	142	<0.500	<0.500	<0.500	<0.500	<5.00	NA	22.71	6.54	16.17	1.7
S-3	01/12/2001 f	<50.0	96	<0.500	<0.500	<0.500	<0.500	<2.50	NA	22.71	8.25	14.46	1.7
S-3	02/16/2001	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	2.0	22.71	11.37	11.34	NA
S-3	07/09/2001	<50	<50	<0.50	0.54	<0.50	<0.50	NA	<5.0	22.71	9.70	13.01	1.4
S-3	08/07/2001	NA	NA	NA	NA	NA	NA	NA	NA	22.71	11.48	11.23	NA
S-3	10/02/2001	NA	NA	NA	NA	NA	NA	NA	NA	22.71	11.56	11.15	NA
S-3	01/18/2002	<50	120	<0.50	<0.50	<0.50	<0.50	NA	<5.0	22.71	7.74	14.97	1.5
S-3	04/17/2002	NA	NA	NA	NA	NA	NA	NA	NA	22.71	6.45	16.26	NA
S-3	07/16/2002	<50	72	<0.50	<0.50	<0.50	0.61	NA	<5.0	25.49	7.70	17.79	5.0
S-3	10/10/2002	NA	NA	NA	NA	NA	NA	NA	NA	25.14	10.15	14.99	NA
S-3	**01/16/2003**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**25.14**	**8.60**	**16.54**	**2.9**
S-4	07/17/1998	<50	220	<0.50	<0.50	<0.50	<0.50	<2.5	NA	19.96	6.59	13.37	2.5
S-4 (D)	07/17/1998	<50	260	<0.50	<0.50	<0.50	<0.50	<2.5	NA	19.96	6.59	13.37	2.5
S-4	01/28/1999	<50.0	356	0.882	<0.500	<0.500	0.71	<2.00	NA	19.96	10.57	9.39	3.0
S-4	07/23/1999	<50.0	<50	<0.500	<0.500	<0.500	<0.500	8.27	NA	19.96	10.06	9.90	2.1
S-4	01/24/2000	Unable to sample		NA	NA	NA	NA	NA	NA	19.96	8.29	11.67	NA
S-4	02/02/2000	<50.0	410	<0.500	<0.500	<0.500	<0.500	<5.00	NA	19.96	9.93	10.03	2.0
S-4	07/27/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	19.96	NA	NA	NA
S-4	08/02/2000	<50.0	265	<0.500	<0.500	<0.500	<0.500	<2.50	NA	19.96	8.05	11.91	2.0
S-4	01/12/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	19.96	NA	NA	NA
S-4	01/25/2001	<50.0	235	<0.500	0.629	0.656	4.65	<2.50	NA	19.96	10.12	9.84	2.0

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S-4	02/16/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	19.96	NA	NA	NA
S-4	07/09/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	19.96	NA	NA	NA
S-4	08/07/2001	<50	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	19.96	8.77	11.19	2.3
S-4	10/02/2001	<50	350	<0.50	<0.50	<0.50	<0.50	NA	<5.0	19.96	9.09	10.87	2.6
S-4	01/18/2002	Well inaccessible		NA	NA	NA	NA	NA	NA	19.96	NA	NA	NA
S-4	01/23/2002	Insufficient water		NA	NA	NA	NA	NA	NA	19.96	7.13	12.83	NA
S-4	04/17/2002	Insufficient water		NA	NA	NA	NA	NA	NA	19.96	6.28	13.68	NA
S-4	04/26/2002	<50	260	<0.50	<0.50	<0.50	<0.50	NA	<5.0	19.96	5.63	14.33	g
S-4	07/16/2002	<50	250	<0.50	<0.50	<0.50	1.1	NA	<5.0	22.75	6.90	15.85	1.6
S-4	10/10/2002	Insufficient water		NA	NA	NA	NA	NA	NA	22.34	9.20	13.14	NA
S-4	**01/16/2003**	**<50**	**280**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**22.34**	**7.11**	**15.23**	**2.1**
S-5	07/17/1998	<50	110	<0.50	<0.50	<0.50	<0.50	<2.5	NA	22.27	6.78	15.49	2.2
S-5	01/28/1999	<50.0	109	<0.500	<0.500	<0.500	<0.500	<2.00	NA	22.27	10.75	11.52	2.0
S-5	07/23/1999	<50.0	204	<0.500	<0.500	<0.500	<0.500	5.95	NA	22.27	10.21	12.06	1.8
S-5	01/24/2000	Unable to sample		NA	NA	NA	NA	NA	NA	22.27	8.23	14.04	NA
S-5	02/02/2000	<50.0	172	<0.500	<0.500	<0.500	<0.500	<5.00	NA	22.27	10.15	12.12	1.9
S-5	07/27/2000	<50.0	119	<0.500	<0.500	<0.500	<0.500	<5.00	NA	22.27	7.41	14.86	2.0
S-5	01/12/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	22.27	8.80	13.47	NA
S-5	01/25/2001	NA	193	NA	NA	NA	NA	NA	NA	22.27	9.77	12.50	1.7
S-5	02/16/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	22.27	NA	NA	NA
S-5	07/09/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	22.27	NA	NA	NA
S-5	08/07/2001	<50	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	22.27	8.97	13.30	2.2
S-5	10/02/2001	NA	NA	NA	NA	NA	NA	NA	NA	22.27	8.44	13.83	NA
S-5	01/18/2002	<50	190	<0.50	<0.50	<0.50	0.51	NA	<5.0	22.27	6.67	15.60	1.9
S-5	04/17/2002	NA	NA	NA	NA	NA	NA	NA	NA	22.27	6.95	15.32	NA

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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.)	GW Elevation (MSL)	DO Reading (ppm)
S-5	07/16/2002	<50	1,200	<0.50	<0.50	<0.50	1.2	NA	<5.0	25.06	7.31	17.75	1.8
S-5	10/10/2002	NA	NA	NA	NA	NA	NA	NA	NA	24.78	8.07	16.71	NA
S-5	**01/16/2003**	**<50**	**110**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**24.78**	**6.42**	**18.36**	**2.3**
T-1	07/16/2002	<5,000	180	<50	<50	<50	<50	NA	14,000	NA	7.71	NA	5.0
T-1	10/10/2002	<5,000	320	<50	<50	<50	<50	NA	17,000	24.14	8.91	15.23	2.3
T-1	**01/16/2003**	**<1,000**	**230**	**12**	**<10**	**<10**	**<10**	**NA**	**5,800**	**24.14**	**7.55**	**16.59**	**1.2**
T-2	07/16/2002	<5,000	390	<50	<50	<50	<50	NA	17,000	NA	7.15	NA	4.0
T-2	10/10/2002	Insufficient water		NA	NA	NA	NA	NA	NA	23.55	8.19	15.36	NA
T-2	**01/16/2003**	**<1,000**	**120**	**<10**	**<10**	**<10**	**<10**	**NA**	**2,900**	**23.55**	**6.98**	**16.57**	**1.5**
HP-1	01/27/1993	22,000	14,000	2,500	130	1,400	140	NA	NA	NA	NA	NA	NA
HP-2	01/27/1993	<50	NA	<0.5	4.4	<0.5	<0.5	NA	NA	NA	NA	NA	NA
HP-3	01/27/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
350 Grand 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.)	GW Elevation (MSL)	DO Reading (ppm)

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to February 16, 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 February 16, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOB = Top of Wellbox Elevation

TOC = Top of Casing Elevation

GW = Groundwater

HP = Hydropunch ground water sample

T = Tank backfill well

DO = Dissolved Oxygen

ug/L = Parts per billion

ppm =Parts per million

MSL = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

NA = Not applicable

WELL CONCENTRATIONS
Shell-branded Service Station
350 Grand 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.)	GW Elevation (MSL)	DO Reading (ppm)

Notes:

a = TPPH/BETX concentrations anomalous with historical data. Lab verified concentrations.

b = Compounds reported as TPH-D appear to be the less volatile constituents of gasoline.

c = Compounds reported as TPH-D are primarily due to the presence of a heavier petroleum product, possibly motor oil.

d = Chromatogram pattern indicated an unidentified hydrcocarbon.

e = Compounds reported as TPH-D are primarily due to the presence of lighter petroleum product, possibly gasoline.

f = These results are listed as S-2 on the analytical report due to possible mislabeling in the field or laboratory.
Resampled on February 16,2001 to confirm mislabeling.

g = DO reading not taken due to insufficient water.

h = These results are listed as S-3 on the analytical report due to possible mislabeling in the field or laboratory.
Resampled on February 16,2001 to confirm mislabeling.

Wells S-1, S-3, S-4, and S-5 surveyed on May 4, 1998, by Virgil Chavez Land Surveying of Vallejo, California.

Site surveyed March 5 and July 29, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

Beginning October 10, 2002, depth to water referenced to Top of Casing elevation.

KIFF ANALYTICAL LLC

Report Number : 30977
Date : 1/21/2003

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

Subject : 7 Water Samples
Project Name : 350 Grand Ave., Oakland
Project Number : 030116-DA-1
P.O. Number : 98995755

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

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 30977
Date : 1/21/2003

Subject : 7 Water Samples
Project Name : 350 Grand Ave., Oakland
Project Number : 030116-DA-1
P.O. Number : 98995755

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for sample S-2. Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples S-4, S-5 and T-1.

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30977
Date : 1/21/2003

Project Name : **350 Grand Ave., Oakland**
Project Number : **030116-DA-1**

Sample : **S-1** Matrix : Water Lab Number : 30977-01
Sample Date :1/16/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/19/2003
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/19/2003
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/19/2003
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/19/2003
Methyl-t-butyl ether (MTBE)	**17**	5.0	ug/L	EPA 8260B	1/19/2003
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/19/2003
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	1/19/2003
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	1/19/2003
TPH as Diesel	**54**	50	ug/L	M EPA 8015	1/19/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30977
Date : 1/21/2003

Project Name : **350 Grand Ave., Oakland**
Project Number : **030116-DA-1**

Sample : **S-2** Matrix : Water Lab Number : 30977-02
Sample Date :1/16/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**720**	25	ug/L	EPA 8260B	1/19/2003
Toluene	**88**	25	ug/L	EPA 8260B	1/19/2003
Ethylbenzene	**290**	25	ug/L	EPA 8260B	1/19/2003
Total Xylenes	**89**	25	ug/L	EPA 8260B	1/19/2003
Methyl-t-butyl ether (MTBE)	**17000**	250	ug/L	EPA 8260B	1/19/2003
TPH as Gasoline	**16000**	2500	ug/L	EPA 8260B	1/19/2003
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	1/19/2003
4-Bromofluorobenzene (Surr)	94.5		% Recovery	EPA 8260B	1/19/2003
TPH as Diesel	**< 8000**	8000	ug/L	M EPA 8015	1/19/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30977
Date : 1/21/2003

Project Name : **350 Grand Ave., Oakland**
Project Number : **030116-DA-1**

Sample : **S-3** Matrix : Water Lab Number : 30977-03
Sample Date :1/16/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	1/18/2003
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/18/2003
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	1/18/2003
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	1/18/2003
TPH as Diesel	**< 50**	50	ug/L	M EPA 8015	1/19/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30977
Date : 1/21/2003

Project Name : **350 Grand Ave., Oakland**
Project Number : **030116-DA-1**

Sample : **S-4** Matrix : Water Lab Number : 30977-04
Sample Date :1/16/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	1/18/2003
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/18/2003
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	1/18/2003
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	1/18/2003
TPH as Diesel	**280**	50	ug/L	M EPA 8015	1/19/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30977

Date : 1/21/2003

Project Name : **350 Grand Ave., Oakland**

Project Number : **030116-DA-1**

Sample : **S-5** Matrix : Water Lab Number : 30977-05

Sample Date :1/16/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/18/2003
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	1/18/2003
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/18/2003
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	1/18/2003
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	1/18/2003
TPH as Diesel	**110**	50	ug/L	M EPA 8015	1/19/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30977
Date : 1/21/2003

Project Name : **350 Grand Ave., Oakland**
Project Number : **030116-DA-1**

Sample : **T-1** Matrix : Water Lab Number : 30977-06

Sample Date :1/16/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**12**	10	ug/L	EPA 8260B	1/20/2003
Toluene	**< 10**	10	ug/L	EPA 8260B	1/20/2003
Ethylbenzene	**< 10**	10	ug/L	EPA 8260B	1/20/2003
Total Xylenes	**< 10**	10	ug/L	EPA 8260B	1/20/2003
Methyl-t-butyl ether (MTBE)	**5800**	100	ug/L	EPA 8260B	1/20/2003
TPH as Gasoline	**< 1000**	1000	ug/L	EPA 8260B	1/20/2003
Toluene - d8 (Surr)	97.2		% Recovery	EPA 8260B	1/20/2003
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	1/20/2003
TPH as Diesel	**230**	50	ug/L	M EPA 8015	1/19/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30977
Date : 1/21/2003

Project Name : **350 Grand Ave., Oakland**
Project Number : **030116-DA-1**

Sample : **T-2** Matrix : Water Lab Number : 30977-07
Sample Date :1/16/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 10**	10	ug/L	EPA 8260B	1/19/2003
Toluene	**< 10**	10	ug/L	EPA 8260B	1/19/2003
Ethylbenzene	**< 10**	10	ug/L	EPA 8260B	1/19/2003
Total Xylenes	**< 10**	10	ug/L	EPA 8260B	1/19/2003
Methyl-t-butyl ether (MTBE)	**2900**	100	ug/L	EPA 8260B	1/19/2003
TPH as Gasoline	**< 1000**	1000	ug/L	EPA 8260B	1/19/2003
Toluene - d8 (Surr)	98.0		% Recovery	EPA 8260B	1/19/2003
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	1/19/2003
TPH as Diesel	**120**	50	ug/L	M EPA 8015	1/19/2003

Approved By: Joel Kiff

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

Report Number : 30977

Date : 1/21/2003

QC Report : Method Blank Data

Project Name : **350 Grand Ave., Oakland**

Project Number : **030116-DA-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	1/19/2003
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/19/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/19/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/19/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/19/2003
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/19/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/19/2003
Toluene - d8 (Surr)	102		%	EPA 8260B	1/19/2003
4-Bromofluorobenzene (Surr)	111		%	EPA 8260B	1/19/2003
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/18/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/18/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/18/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/18/2003
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/18/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/18/2003
Toluene - d8 (Surr)	103		%	EPA 8260B	1/18/2003
4-Bromofluorobenzene (Surr)	99.9		%	EPA 8260B	1/18/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 30977

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 1/21/2003

Project Name : **350 Grand Ave., Oakland**

Project Number : **030116-DA-1**

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
TPH as Diesel	Blank	<50	1000	1000	874	894	ug/L	M EPA 8015	1/19/03	87.4	89.4	2.23	70-130	25
Benzene	30978-01	23	39.5	39.7	63.2	62.2	ug/L	EPA 8260B	1/19/03	102	99.5	2.72	70-130	25
Toluene	30978-01	<0.50	39.5	39.7	41.0	41.2	ug/L	EPA 8260B	1/19/03	104	104	0.00	70-130	25
Tert-Butanol	30978-01	18	198	198	220	218	ug/L	EPA 8260B	1/19/03	102	100	1.45	70-130	25
Methyl-t-Butyl Ether	30978-01	98	39.5	39.7	136	138	ug/L	EPA 8260B	1/19/03	97.4	103	5.59	70-130	25
Benzene	30974-03	<0.50	40.0	40.0	40.9	39.4	ug/L	EPA 8260B	1/18/03	102	98.5	3.83	70-130	25
Toluene	30974-03	<0.50	40.0	40.0	39.8	38.6	ug/L	EPA 8260B	1/18/03	99.6	96.5	3.16	70-130	25
Tert-Butanol	30974-03	<5.0	200	200	203	199	ug/L	EPA 8260B	1/18/03	101	99.5	1.92	70-130	25
Methyl-t-Butyl Ether	30974-03	0.50	40.0	40.0	40.4	39.8	ug/L	EPA 8260B	1/18/03	99.7	98.2	1.59	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 30977

QC Report : Laboratory Control Sample (LCS)

Date : 1/21/2003

Project Name : **350 Grand Ave., Oakland**

Project Number : **030116-DA-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	1/19/03	106	70-130
Toluene	40.0	ug/L	EPA 8260B	1/19/03	105	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/19/03	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/19/03	108	70-130
Benzene	40.0	ug/L	EPA 8260B	1/18/03	104	70-130
Toluene	40.0	ug/L	EPA 8260B	1/18/03	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/18/03	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/18/03	100	70-130

KIFF ANALYTICAL, LLC

Approved By: Joel Kiff

SHELL Chain of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be invoiced: Karen Petryna

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

30977

INCIDENT NUMBER (S&E ONLY): 98995755

SAP or CRMT NUMBER (TS/CRMT):

DATE: 1/16/03

PAGE: 1 of 1

SAMPLING COMPANY	LOG CODE	SITE ADDRESS (Street and City)	GLOBAL ID NO.
Blaine Tech Services	BTSS	350 Grand Ave., Oakland	T0600101255

ADDRESS	EDF DELIVERABLE TO (Responsible Party or Designee)	PHONE NO.	E-MAIL	CONSULTANT PROJECT NO.
1680 Rogers Avenue, San Jose, CA 95112	Anni Kreml	(510) 420-3335	ShellOaklandEDF@cambria-env.com	BTS # 030116-DA-1

PROJECT CONTACT (Hardcopy or PDF Report to)	TELEPHONE	FAX	E-MAIL
Leon Gearhart	408-573-0555	408-573-7771	lgearhart@blainetech.com

SAMPLER NAME(S) (Print): David A. Allbut

LAB USE ONLY

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

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	TPH-D	TEMPERATURE ON RECEIPT C°
	S-1	1/16/03	1300	W	5	X	X	X						X	-01
	S-2		1320			X	X	X						X	-02
	S-3		1310			X	X	X						X	-03
	S-4		1132			X	X	X						X	-04
	S-5		1100			X	X	X						X	-05
	T1		1225			X	X	X						X	-06
	T2		1325			X	X	X						X	-07

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

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
David A. Allbut			
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	S. A. Turner Kff Analytical	011703	1130

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

Q&Q Graphic (714) 898-9702

WELL GAUGING DATA

Project # 030116-DA-1 Date 1/16/03 Client Shell

Site 350 W. Grand Ave. Oakland, CA

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	
S-1	3					6.52	17.70	TOC	
S-2	3					6.98	15.10		
S-3	3					8.60	15.07		
S-4	1					7.11	14.91		
S-5	1					6.47	13.95		
T-1	4		Gauged w/stinger in well			7.55	9.72		
T-2	4		Gauged w/stinger in well			6.98	8.77		

SHELL WELL MONITORING DATA SHEET

BTS #: 030115-DA-1	Site: 350 Grand Ave. Oakland, CA
Sampler: David A.	Date: 1/16/03
Well I.D.: S-1	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth (TD): 17.70	Depth to Water (DTW): 6.52
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.76	

Purge Method: Bailer, Disposable Bailer, Middleburg, X Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other ___

Sampling Method: X Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other: ___

4.1 (Gals.) X 3 = 12.3 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1157	64.3	6.5	605	97	4.5	Cloudy
1158	65.5	6.6	573	35	9	clearing
1159	66.7	6.6	569	35	12.5	" DTW=14.10

Did well dewater? Yes (No) Gallons actually evacuated: 12.5

Sampling Date: 1/16/03 Sampling Time: 1300 Depth to Water: 8.43

Sample I.D.: S-1 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:	0.7	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

SHELL WELL MONITORING DATA SHEET

BTS #: 030115-DA-1	Site: 350 Grand Ave. Oakland, CA
Sampler: David A.	Date: 1/16/03
Well I.D.: MW S-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 15.10	Depth to Water (DTW): 6.98
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.20	

Purge Method: Bailer, Disposable Bailer, Middleburg, X Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: X Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other:_____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	(4")	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

3.0 (Gals.) X 3 = 9.0 Gals.
Case Volume | Specified Volumes | Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1246	65.9	7.1	622	126	3	cloudy, odor
1247	66.9	6.8	799	78	6	"
1248	67.2	6.9	861	47	9	" DTW=12.91

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Date: 1/16/03 Sampling Time: 1330 Depth to Water: 8.64

Sample I.D.: S-2 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:	0.7 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 030116-DA-1	Site: 350 Grand Ave. Oakland, CA
Sampler: David A.	Date: 1/16/03
Well I.D.: S-3	Well Diameter: 2 (3) 4 6 8
Total Well Depth (TD): 15.07	Depth to Water (DTW): 8.60
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.89	

Purge Method: Bailer, Disposable Bailer, Middleburg, X Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other:_____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
(3)	0.37	Other	radius² * 0.163

2.3 (Gals.) X 3 = 6.9 Gals.
Case Volume | Specified Volumes | Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1207	66.5	6.4	489	186	2.5	cloudy
1208	66.7	6.2	465	161	5	"
1209	67.3	6.2	465	153	7	DTW 72.20

Did well dewater? Yes (No) Gallons actually evacuated: 7

Sampling Date: 1/16/03 Sampling Time: 1310 Depth to Water: 9.51

Sample I.D.: S-3 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:	2.9 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 030116-DA-1	Site: 350 Grand Ave. Oakland, CA
Sampler: David A.	Date: 1/16/03
Well I.D.: S-4	Well Diameter: 2 3 4 6 8 1
Total Well Depth (TD): 14.91	Depth to Water (DTW): 7.11
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.67	

Purge Method: Bailer, Disposable Bailer, Middleburg, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other 5/8" tubing w/check valve

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other: pin bailer

Well Diameter	Multiplier	Well Diameter	Multiplier
(1")	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

0.3 (Gals.) X 3 = 0.9 Gals.
Case Volume | Specified Volumes | Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1125	60.4	6.3	904	>200 tan, cloudy	0.3	tan, cloudy
1127	60.4	6.4	1087	7200	0.6	"
1129	60.3	6.4	1098	7200	0.9	"

Did well dewater? Yes (No) Gallons actually evacuated: 1

Sampling Date: 1/16/03 Sampling Time: 1132 Depth to Water: 7.52

Sample I.D.: S-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:	2.1	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

SHELL WELL MONITORING DATA SHEET

BTS #: 030116-DA-1	Site: 350 Grand Ave. Oakland, CA
Sampler: David A.	Date: 1/16/03
Well I.D.: S-5	Well Diameter: 2 3 4 6 8 1
Total Well Depth (TD): 13.45	Depth to Water (DTW): 6.42
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) 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; Middleburg; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other 5/8" tubing w/ check valve

Sampling Method: Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: pin bailer

0.3 (Gals.) X 3 = 0.9 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
(1")	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1053	60.8	6.7	2377	>200	0.3	tan, cloudy
1055	60.2	6.9	2386	7200	0.6	
1057	60.2	7.0	2415	7200	0.9	

Did well dewater? Yes (No) Gallons actually evacuated: 1

Sampling Date: 1/16/03 Sampling Time: 1100 Depth to Water:

Sample I.D.: S-5 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:	2.3	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

SHELL WELL MONITORING DATA SHEET

BTS #: 030116-DA-1	Site: 350 Grand Ave. Oakland, CA
Sampler: David A.	Date: 1/16/03
Well I.D.: T-1	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 9.72	Depth to Water (DTW): 7.55
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.98	

Purge Method: X Bailer; Disposable Bailer; Middleburg; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: X Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: _____

1.4 (Gals.) X 3 = 4.2 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1219	65.7	6.2	459	86	1.5	cloudy
1220	66.0	6.0	455	50	3	clearing
1221	65.8	6.0	453	64	4.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 1/16/03 Sampling Time: 1225 Depth to Water: 7.53

Sample I.D.: T-1 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:	1.2 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 030116-DA-1	Site: 350 Grand Ave. Oakland, CA
Sampler: David A.	Date: 1/16/03
Well I.D.: T-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 8.77	Depth to Water (DTW): 6.98
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: X Bailer / Disposable Bailer / Middleburg / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: X Bailer / Disposable Bailer / Extraction Port / Dedicated Tubing / Other: _____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	(4")	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

1.2 (Gals.) X 3 = 3.6 Gals.
Case Volume / Specified Volumes / Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1236	64.8	6.8	445	64	1.5	clear
1238	well dewatered @ 1.5 q DTW = 8.53					
1321	65.3	7.1	500	55	0	clear/odor

Did well dewater? Yes (No) Gallons actually evacuated: 1.5

Sampling Date: 1/16/03 Sampling Time: ~~1245~~ 1325 Depth to Water: 7.03

Sample I.D.: T-2 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:	1.5 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV