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CAMBRIA

October 7, 2002

Alameda County
OCT 11 2002
Environmental Health

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

Re: **Third Quarter 2002 Monitoring Report**
Shell-branded Service Station
350 Grand Avenue
Oakland, California
Incident #98995755
Cambria Project #244-0715-002

Dear Mr. Hwang:

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

THIRD QUARTER 2002 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.

Site Investigation: Cambria submitted a *Subsurface Investigation Work Plan* on December 20, 2001. On March 29, 2002, the Alameda County Health Care Services Agency (ACHCSA) responded to the work plan with several specific requests, which were addressed in Cambria's May 17, 2002 *Agency Response*. In a July 9, 2002 correspondence, the ACHCSA requested additional work. Cambria installed two tank backfill wells at the site on July 10, 2002, and submitted a *Tank Backfill Well Installation Report and Investigation Work Plan Addendum* on September 26, 2002.

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

ANTICIPATED FOURTH QUARTER 2002 ACTIVITIES

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

Subsurface Investigation: Upon receiving written ACHCSA approval of our September 26, 2002 work plan addendum, Cambria will obtain the required permits and schedule the field activities.

Mobile Groundwater Extraction (GWE): Due to the elevated methyl tertiary butyl ether concentrations reported in recently installed tank backfill wells T-1 and T-2, Cambria recommends conducting mobile GWE using a vacuum truck at the site beginning in October 2002. Groundwater will be extracted from wells T-1 and T-2 on a twice-monthly basis. 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

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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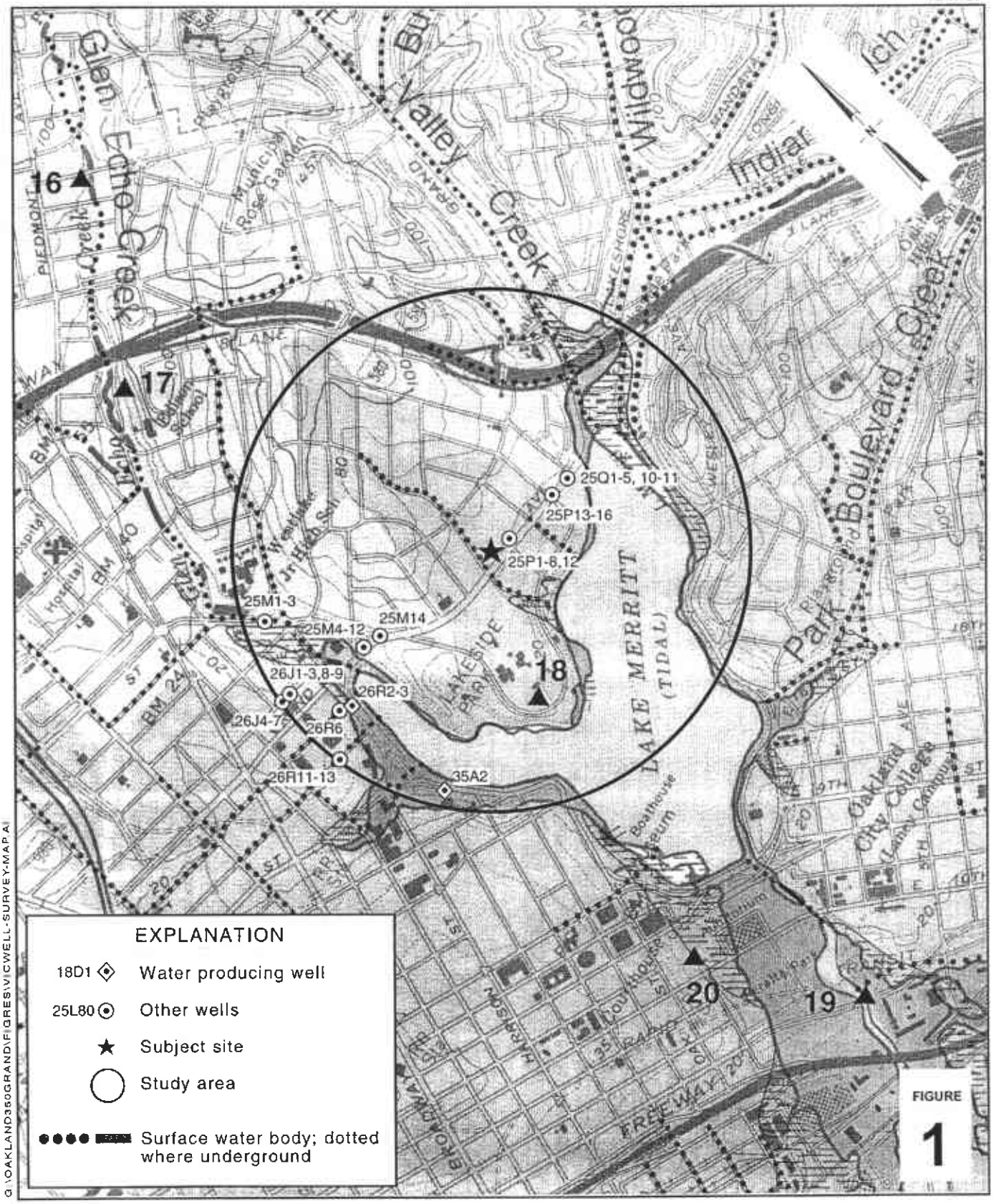

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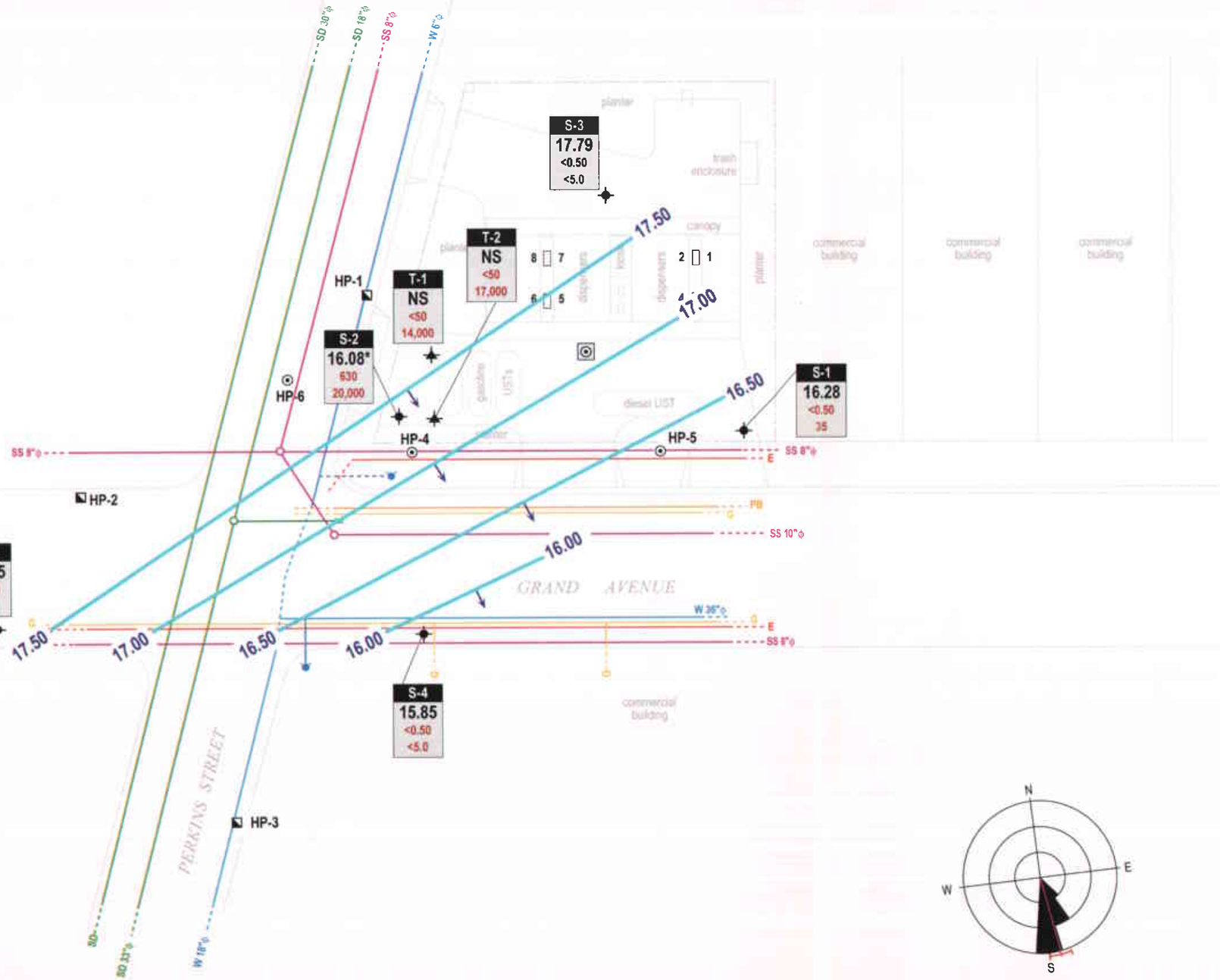
Shell-branded Service Station
350 Grand Avenue
Oakland, California
Incident #98995755

CAMBRIA

Vicinity / Area Well Survey Map

09/05/02

Groundwater Elevation Contour Map
July 16, 2002



EXPLANATION

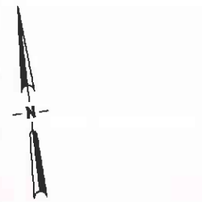
- Proposed soil boring location
- S-1 — Monitoring well location
- T-1 — Tank backfill well location
- HP-1 — Hydropunch boring location (1993)
- HP-4 — Soil boring location (1999)
- E — Electric utility line
- W — Water main utility line
- G — Gas utility line
- SS — Sanitary sewer utility line
- SD — Storm drain utility line
- PB — Pacific Bell utility line
- Storm drain inlet
- Manhole
- Fire hydrant
- NS — Not surveyed
- * — 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 07/16/02)



0 25 50 100
SCALE : 1:50

FIGURE
2

CAMBRIA

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

G:\OAKLAND\350GRAND\FIGURES\3QM02-MP.AI

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

August 8, 2002

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

Third Quarter 2002 Groundwater Monitoring at
Shell-branded Service Station
350 Grand Avenue
Oakland, CA

Monitoring performed on July 16, 2002

Groundwater Monitoring Report **020716-DW-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.
1144 65th Street, Suite C
Oakland, CA 94608-2411

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)	TOB (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)	TOB (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-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
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

WELL CONCENTRATIONS
Shell-branded Service Station
350 Grand Avenue
Oakland, CA

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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
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

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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-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
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

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
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
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

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)	TOB (MSL)	Depth to Water (ft)	GW Elevation (MSL)	DO Reading (ppm)
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-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
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

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)	TOB (MSL)	Depth to Water (ft)	GW Elevation (MSL)	DO Reading (ppm)
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-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
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**
T-1	**07/16/2002**	**<5,000**	**180**	**<50**	**<50**	**<50**	**<50**	**NA**	**14,000**	**NA**	**7.71**	**NA**	**5.0**
T-2	**07/16/2002**	**<5,000**	**390**	**<50**	**<50**	**<50**	**<50**	**NA**	**17,000**	**NA**	**7.15**	**NA**	**4.0**
HP-1	01/27/1993	22,000	14,000	2,500	130	1,400	140	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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
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

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
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)	TOB (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, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

KIFF ANALYTICAL LLC

Report Number : 27524
Date : 7/27/2002

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 : 020716-DW-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 : 27524
Date : 7/27/2002

Subject : 7 Water Samples
Project Name : 350 Grand Ave., Oakland
Project Number : 020716-DW-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-2.

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 916-297-4800

KIFF ANALYTICAL LLC

Report Number : 27524
Date : 7/27/2002

Project Name : **350 Grand Ave., Oakland**
Project Number : **020716-DW-1**

Sample : **S-1** Matrix : Water Lab Number : 27524-01
Sample Date :7/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Total Xylenes	**0.99**	0.50	ug/L	EPA 8260B	7/19/2002
Methyl-t-butyl ether (MTBE)	**35**	5.0	ug/L	EPA 8260B	7/19/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	7/19/2002
Toluene - d8 (Surr)	87.5		% Recovery	EPA 8260B	7/19/2002
4-Bromofluorobenzene (Surr)	96.9		% Recovery	EPA 8260B	7/19/2002
TPH as Diesel	**100**	50	ug/L	M EPA 8015	7/20/2002

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 27524
Date : 7/27/2002

Project Name : **350 Grand Ave., Oakland**
Project Number : **020716-DW-1**

Sample : **S-2** Matrix : Water Lab Number : 27524-02
Sample Date :7/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**630**	25	ug/L	EPA 8260B	7/22/2002
Toluene	**75**	25	ug/L	EPA 8260B	7/22/2002
Ethylbenzene	**310**	25	ug/L	EPA 8260B	7/22/2002
Total Xylenes	**33**	25	ug/L	EPA 8260B	7/22/2002
Methyl-t-butyl ether (MTBE)	**20000**	250	ug/L	EPA 8260B	7/22/2002
TPH as Gasoline	**14000**	2500	ug/L	EPA 8260B	7/22/2002
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	7/22/2002
4-Bromofluorobenzene (Surr)	91.3		% Recovery	EPA 8260B	7/22/2002
TPH as Diesel	**< 10000**	10000	ug/L	M EPA 8015	7/20/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 27524
Date : 7/27/2002

Project Name : **350 Grand Ave., Oakland**
Project Number : **020716-DW-1**

Sample : **S-3** Matrix : Water Lab Number : 27524-03
Sample Date :7/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Total Xylenes	**0.61**	0.50	ug/L	EPA 8260B	7/19/2002
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	7/19/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	7/19/2002
Toluene - d8 (Surr)	87.1		% Recovery	EPA 8260B	7/19/2002
4-Bromofluorobenzene (Surr)	95.7		% Recovery	EPA 8260B	7/19/2002
TPH as Diesel	**72**	50	ug/L	M EPA 8015	7/20/2002

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 27524
Date : 7/27/2002

Project Name : **350 Grand Ave., Oakland**
Project Number : **020716-DW-1**

Sample : **S-4** Matrix : Water Lab Number : 27524-04
Sample Date :7/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Total Xylenes	**1.1**	0.50	ug/L	EPA 8260B	7/19/2002
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	7/19/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	7/19/2002
Toluene - d8 (Surr)	88.4		% Recovery	EPA 8260B	7/19/2002
4-Bromofluorobenzene (Surr)	94.4		% Recovery	EPA 8260B	7/19/2002
TPH as Diesel	**250**	50	ug/L	M EPA 8015	7/24/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 27524
Date : 7/27/2002

Project Name : **350 Grand Ave., Oakland**
Project Number : **020716-DW-1**

Sample : **S-5** Matrix : Water Lab Number : 27524-05
Sample Date :7/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	7/19/2002
Total Xylenes	**1.2**	0.50	ug/L	EPA 8260B	7/19/2002
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	7/19/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	7/19/2002
Toluene - d8 (Surr)	86.8		% Recovery	EPA 8260B	7/19/2002
4-Bromofluorobenzene (Surr)	99.7		% Recovery	EPA 8260B	7/19/2002
TPH as Diesel	**1200**	50	ug/L	M EPA 8015	7/20/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 27524
Date : 7/27/2002

Project Name : **350 Grand Ave., Oakland**
Project Number : **020716-DW-1**

Sample : **T-1** Matrix : Water Lab Number : 27524-06
Sample Date :7/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 50**	50	ug/L	EPA 8260B	7/22/2002
Toluene	**< 50**	50	ug/L	EPA 8260B	7/22/2002
Ethylbenzene	**< 50**	50	ug/L	EPA 8260B	7/22/2002
Total Xylenes	**< 50**	50	ug/L	EPA 8260B	7/22/2002
Methyl-t-butyl ether (MTBE)	**14000**	500	ug/L	EPA 8260B	7/22/2002
TPH as Gasoline	**< 5000**	5000	ug/L	EPA 8260B	7/22/2002
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	7/22/2002
4-Bromofluorobenzene (Surr)	88.6		% Recovery	EPA 8260B	7/22/2002
TPH as Diesel	**180**	50	ug/L	M EPA 8015	7/19/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 27524
Date : 7/27/2002

Project Name : **350 Grand Ave., Oakland**
Project Number : **020716-DW-1**

Sample : **T-2** Matrix : Water Lab Number : 27524-07
Sample Date :7/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 50**	50	ug/L	EPA 8260B	7/22/2002
Toluene	**< 50**	50	ug/L	EPA 8260B	7/22/2002
Ethylbenzene	**< 50**	50	ug/L	EPA 8260B	7/22/2002
Total Xylenes	**< 50**	50	ug/L	EPA 8260B	7/22/2002
Methyl-t-butyl ether (MTBE)	**17000**	500	ug/L	EPA 8260B	7/22/2002
TPH as Gasoline	**< 5000**	5000	ug/L	EPA 8260B	7/22/2002
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	7/22/2002
4-Bromofluorobenzene (Surr)	89.7		% Recovery	EPA 8260B	7/22/2002
TPH as Diesel	**390**	50	ug/L	M EPA 8015	7/20/2002

Approved By: Joel Kiff

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

Report Number : 27524

Date : 7/27/2002

QC Report : Method Blank Data

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

Project Number : **020716-DW-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	7/18/2002
TPH as Diesel	< 50	50	ug/L	M EPA 8015	7/23/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/21/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/21/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/21/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/21/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	7/21/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/21/2002
Toluene - d8 (Surr)	102		%	EPA 8260B	7/21/2002
4-Bromofluorobenzene (Surr)	93.4		%	EPA 8260B	7/21/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/19/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/19/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/19/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/19/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	7/19/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/19/2002
Toluene - d8 (Surr)	82.6		%	EPA 8260B	7/19/2002
4-Bromofluorobenzene (Surr)	94.5		%	EPA 8260B	7/19/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 27524

Date : 7/27/2002

QC Report : Matrix Spike/ Matrix Spike Duplicate

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

Project Number : **020716-DW-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	854	925	ug/L	M EPA 8015	7/18/02	85.4	92.5	7.95	70-130	25
Benzene	27531-02	<0.50	39.8	38.5	39.1	38.1	ug/L	EPA 8260B	7/21/02	98.4	99.0	0.557	70-130	25
Toluene	27531-02	<0.50	39.8	38.5	40.3	39.2	ug/L	EPA 8260B	7/21/02	101	102	0.492	70-130	25
Tert-Butanol	27531-02	2400	199	193	2380	2440	ug/L	EPA 8260B	7/21/02	0.00	11.3	200	70-130	25
Methyl-t-Butyl Ether	27531-02	<0.50	39.8	38.5	40.1	40.0	ug/L	EPA 8260B	7/21/02	101	104	2.78	70-130	25
Benzene	27555-01	<0.50	40.0	40.0	43.4	42.5	ug/L	EPA 8260B	7/19/02	108	106	2.10	70-130	25
Toluene	27555-01	<0.50	40.0	40.0	36.2	35.9	ug/L	EPA 8260B	7/19/02	90.4	89.8	0.638	70-130	25
Tert-Butanol	27555-01	200	200	200	389	395	ug/L	EPA 8260B	7/19/02	93.8	96.8	3.16	70-130	25
Methyl-t-Butyl Ether	27555-01	<0.50	40.0	40.0	41.7	44.3	ug/L	EPA 8260B	7/19/02	104	111	6.02	70-130	25
TPH as Diesel	Blank	<50	1000	1000	1050	1040	ug/L	M EPA 8015	7/23/02	105	104	0.965	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

QC Report : Laboratory Control Sample (LCS)

Report Number : 27524
Date : 7/27/2002

Project Name : **350 Grand Ave., Oakland**
Project Number : **020716-DW-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	7/21/02	100	70-130
Toluene	40.0	ug/L	EPA 8260B	7/21/02	104	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/21/02	96.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/21/02	102	70-130
Benzene	40.0	ug/L	EPA 8260B	7/19/02	104	70-130
Toluene	40.0	ug/L	EPA 8260B	7/19/02	90.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/19/02	96.5	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/19/02	110	70-130

Approved By: Joel Kiff

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

LAB: 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

27524

INCIDENT NUMBER (S&E ONLY): 98995755

SAP or CRMT NUMBER (TS/CRMT):

DATE: 7-16-02

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: 1680 Rogers Avenue, San Jose, CA 95112

EDF DELIVERABLE TO (Responsible Party or Designee): Anni Kreml | PHONE NO.: (510) 420-3335 | E-MAIL: ShellOaklandEDF@cambria-env.com | CONSULTANT PROJECT NO.: 020716-DW-1

PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart

TELEPHONE: 408-573-0555 | FAX: 408-573-7771 | E-MAIL: lgearhart@blainetech.com

SAMPLER NAME(S) (Print): Dave Walter | LAB USE ONLY | BTS #

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	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes — TEMPERATURE ON RECEIPT C°
	S-1	7-16	10:47	W	5	X	X	X						X	-01
	S-2		11:31			X	X	X						X	-02
	S-3		11:08			X	X	X						X	-03
	S-4		11:45			X	X	X						X	-04
	S-5		10:17			X	X	X						X	-05
	T-1		14:25			X	X	X						X	-06
	T-2		13:58			X	X	X						X	-07

Relinquished by: (Signature) Dave Walter	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) KIFF	Date: 071702	Time: 1331

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

10/16/00 Revision

Q&Q Graphic (714) 895-5702

WELL GAUGING DATA

Project # 020716-DW-1 Date 7-16-02 Client Shell

Site 350 Grand 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
S-1	3					7.38	17.70	
S-2	3	*gauged w/ stinger in well				7.95	15.10	
S-3	3					7.70	15.07	
S-4	1					6.90	14.91	
S-5	1					7.31	13.45	
T-1	4					7.71	9.72	
T-2	4					7.15	8.77	

SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DW-1	Site: 350 Grand Ave Oakland
Sampler: Dave Walter	Date: 7-16-02
Well I.D.: S-1	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 17.70	Depth to Water: 7.38
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI (HACH)

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

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

3.8 (Gals.) X	3	=	11.4 Gals.
1 Case Volume	Specified Volumes		Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
10:38	66.5	6.9	733	7.200	4	cloudy
10:39	68.0	6.8	594	68	8	clearer
10:41	68.8	6.7	526	60	12	

Did well dewater? Yes (No) Gallons actually evacuated: 12

Sampling Time: 10:47 Sampling Date: 7-16-02

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

SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DW-1	Site: 350 Grand Ave Oakland
Sampler: Dave Walter	Date: 7-16-02
Well I.D.: S-2	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 15.10	Depth to Water: 7.95
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI (HACH)

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

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

2.6 (Gals.) X	3 =	7.8 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
11:24	69.8	6.3	500	29	3	odor
11:25	70.8	6.3	737	60	6	
11:26	71.0	6.3	77.7	63	9	

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

Sampling Time: 11:31 Sampling Date: 7-16-02

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

SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DW-1	Site: 350 Grand Ave Oakland
Sampler: Dave Walter	Date: 7-16-02
Well I.D.: S-3	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 15.07	Depth to Water: 7.70
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI (HACH)

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

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

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

Well Diameter	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
11:01	68.8	6.5	630	88	3	
11:02	69.5	6.4	478	38	6	
11:03	69.8	6.3	440	20	9	

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

Sampling Time: 11:08 Sampling Date: 7-16-02

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

SHELL WELL MONITORING DATA SHEET

BTS #: 020716 DW-1	Site: 350 Grand Ave Oakland
Sampler: Dave Wilbur	Date: 7-16-02
Well I.D.: S-4	Well Diameter: 2 3 4 6 8 (1")
Total Well Depth: 14.91	Depth to Water: 6.90
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI (HACH)

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:_____

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
9:45	64.6	5.9	1167	>200	0.3	Brown
	we	dewatered @	0.3 gl.	DTW = 14.01		
11:45	64.8	5.9	1176	>200	—	DTW = 11.67

Did well dewater? (Yes) No — Gallons actually evacuated: 0.3

Sampling Time: 11:45 — Sampling Date: 7-16-02

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

SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DW-1	Site: 350 Grand Ave Oakland
Sampler: Dave Walter	Date: 7-16-02
Well I.D.: S-5	Well Diameter: 2 3 4 6 8 (1")
Total Well Depth: 13.45	Depth to Water: 7.31
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI (HACH)

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:_____

0.2 (Gals.) X	3	= 0.6 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
10:10	69.4	6.5	1771	175	0.2	
10:11	64.2	6.4	1858	7.200	0.4	Brown
10:12	64.1	6.5	1907	7200	0.6	

Did well dewater? Yes (No) Gallons actually evacuated: 0.6

Sampling Time: 10:17 Sampling Date: 7-16-02

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

SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DW-1	Site: 350 Grand Ave Oakland
Sampler: Dave Walter	Date: 7-16-02
Well I.D.: T-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 7.71	Depth to Water: 9.72
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI (HACH)

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

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

1.3 (Gals.) X	3	= 3.9 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
14:15	73.5	6.7	726	7200	1.3	cloudy
14:17	74.4	6.7	733	7200	2.6	
14:19	74.7	6.7	731	7200	3.9	

Did well dewater? Yes (No) Gallons actually evacuated: 3.9

Sampling Time: 14:25 Sampling Date: 7-16-02

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

SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DW-1	Site: 550 Grand Ave Oakland
Sampler: Dave Walker	Date: 7-16-02
Well I.D.: T-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 8.77	Depth to Water: 7.15
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC (Grade)	D.O. Meter (if req'd): YSI (HACH)

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

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

1	(Gals.) X	3	=	3.3	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
13:48	75.1	6.7	735	>200	1.1	cloudy
13:50	75.5	6.7	708	>200	2.2	odor
13:52	75.6	6.7	696	>200	3.3	

Did well dewater? Yes (No) Gallons actually evacuated: 3.3

Sampling Time: 13:58 Sampling Date: 7-16-02

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