Shell Oil Products US

343

May 1, 2003

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

Subject: **Former Shell Service Station**
461 8th Street
Oakland, California

Dear Mr. Chan:

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

May 1, 2003

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

Re: **First Quarter 2003 Monitoring Report**
Former Shell Service Station
461 8th Street
Oakland, California
Incident #97093399
Cambria Project #245-1501-002

Dear Mr. Chan:

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

FIRST QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled all site wells, checked the wells for separate-phase hydrocarbon (SPH), calculated groundwater elevations, and compiled the analytical data. No SPH has been detected since January 1998. Cambria prepared a vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation map (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is presented as Attachment A.

Oxygenate Sampling: As requested in a May 6, 2002 Alameda County Health Care Services Agency (ACHCSA) letter and stated in our June 7, 2002 *Agency Response and Work Plan Addendum*, groundwater samples collected from wells S-5, S-6 and S-8 during the fourth quarter 2002 and the first quarter 2003 monitoring events were additionally analyzed for tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary butyl alcohol (TBA), ethylene dibromide (EDB) and 1,2-dichloroethane (1,2-DCA or EDC) by EPA Method 8260. Analytical results are summarized on Table 1. None of the additional analytes were detected. Cambria will discontinue the additional analysis in the second quarter 2003.

Cambria Environmental Technology, Inc.

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

Suspension of Over-Purging: As noted in our October 3, 2002 *Third Quarter 2002 Monitoring Report*, Cambria recommended suspension of over-purging from wells S-5 and S-6 to determine equilibrium groundwater conditions in groundwater and to possibly collect an SPH sample. This recommendation was approved by the ACHCSA during an August 7, 2002 telephone conversation. Over-purging was not performed during the fourth quarter 2002 or the first quarter 2003 monitoring events, and no SPH were detected in wells S-5 and S-6. Cumulative groundwater purge volume and estimated mass removal data are presented in Table 2. The cumulative estimated mass of total petroleum hydrocarbons as gasoline and benzene removed to date is 2.22 pounds and 0.50 pounds, respectively.

ANTICIPATED SECOND QUARTER 2003 ACTIVITIES

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

Oxygenate Sampling: As noted above, wells S-5, S-6 and S-8 were additionally analyzed during the fourth quarter 2002 and the first quarter 2003 monitoring events for TAME, ETBE, DIPE, TBA, EDB and 1,2-DCA. None of the additional analytes were detected. Based on this, Cambria does not recommend further monitoring for the additional analytes. As noted in our June 7, 2002 *Agency Response and Work Plan Addendum*, grab groundwater samples collected from borings installed during the upcoming site investigation will, however, be analyzed for the additional analytes.

Reinitiation of Over-Purging: During the second quarter 2003 monitoring event, wells S-5 and S-6 will be checked for SPH. If SPH are present, a sample will be collected. Over-purging of wells S-5 and S-6 will be reinitiated during the second quarter 2003 monitoring event following gauging and possible SPH sample collection.

Subsurface Investigation Status: Per Cambria's April 30, 2002 *Agency Response and Investigation Work Plan* and June 7, 2002 *Work Plan Addendum*, Cambria recommends both onsite and offsite investigation to determine the source of contamination detected in wells S-5 and S-6. The scope of work for this investigation was approved in a June 11, 2002 ACHCSA letter. As noted in a September 26, 2002 electronic-mail correspondence to Barney Chan of the ACHCSA, we have amended several boring and well installation locations. The amended locations are shown on Figure 2, included herein.

As noted in Cambria's December 4, 2002 *Investigation Status Report*, we are in the process of obtaining an updated access agreement for the former Shell-branded service station property. Cambria will notify the ACHCSA when the access agreement has been secured.

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 L. Jones
Project Geologist

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

REGISTERED PROFESSIONAL ENGINEER
MATTHEW W. DERBY
No. C055475
Exp. 12/31/04
CIVIL
STATE OF CALIFORNIA

Figures: 1 - Vicinity/Area Well Survey Map
2 - Groundwater Elevation Contour Map

Tables: 1 - Groundwater Analytical Data - Oxygenates Groundwater
2 - Extraction - Estimated 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
Lhea Goldberg, Hanson, Bridgett, Marcus, Vlahos, & Rudy, 333 Market Street, Suite 2300, San Francisco, CA 94105-2173
Wells Fargo Bank National Association, Tr. (Property Owners), c/o Pacific Property, 364 Bush Street, San Francisco, CA 94104-2805
R. Casteel & Co., P.O. Box 6839, Moraga, CA 94570
Leroy Griffin, City of Oakland Fire Prevention Bureau, 250 Frank Ogawa Plaza, 3rd Floor, Suite 3341, Oakland, CA 94612

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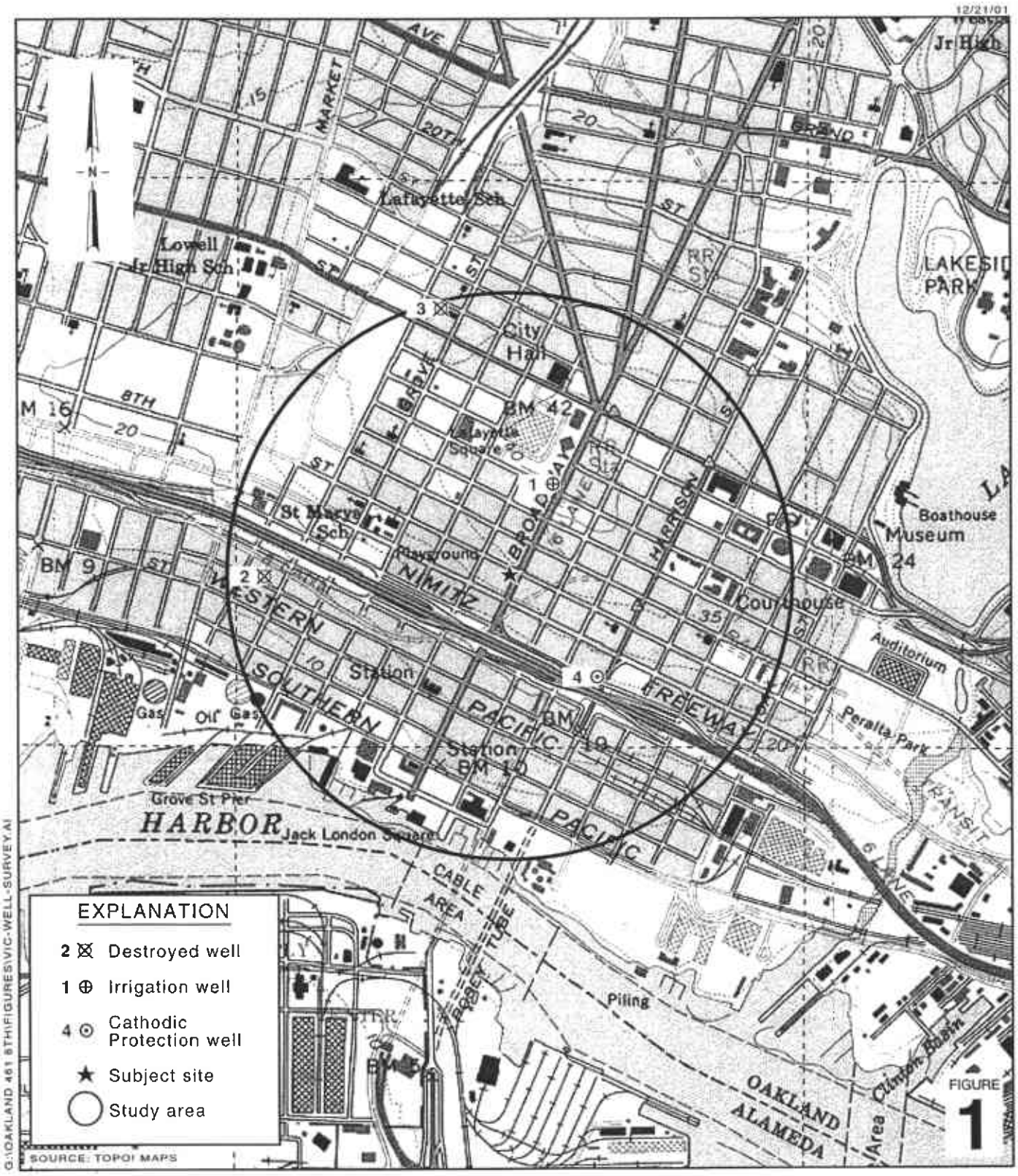

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

FIGURE 1

Former Shell Service Station
461 Eighth Street
Oakland, California
Incident #97093399

CAMBRIA

Vicinity / Area Well Survey Map

1/2 Mile Radius

05/01/03

EXPLANATION

- Proposed monitoring well location
- Proposed soil boring location
- S-4 — Monitoring well
- S-1 — Abandoned monitoring well
- Groundwater flow direction
- XX.XX — Groundwater elevation contour, in feet above mean sea level (msl), approximately located
- Well designation
- ELEV — Groundwater elevation, in feet above msl
- Benzene / MTBE — Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.
- MH — Manhole
- FL = 16.50' — Flow line depth below ground surface
- Flow direction indicator
- Underground BART line (B)
- Storm Drain line (SD)
- Water line (W)
- Sanitary Sewer line (SS)
- Pacific Bell line (T)
- Gas line (G)
- Electrical line (E)

Groundwater Flow Direction
(1Q00 to 1Q03)

Approximate Groundwater Gradient (ft/ft)
(1Q03)

S-10
13.85
1.8
<5.0

S-1

former UST

former dispenser islands and fuel lines

Former Shell Station

S-5
12.64
660
<5.0

S-9
13.35
<0.50
<5.0

S-8
13.90
55
<0.50

S-6
11.96
21,000
<50

freight elevator

Storm drain inlet

S-4
13.66
<0.50
<5.0

Former Chevron Station

BROADWAY

SIXTH STREET

SEVENTH SRTEET

EIGHTH STREET

12.50
12.00
13.00
13.50

0 25 50 100
Scale (ft)

FIGURE
2

Groundwater Elevation Contour Map

January 2, 2003

C A M B R I A

Former Shell Service Station
461 Eighth Street
Oakland, California
Incident #97093399

G:\OAKLAND\461EIGHTH\FIGURES\1QMD3.MXD .DWG

Table 1. **Groundwater Analytical Data - Oxygenates** - Former Shell Service Station, Incident #97093399, 461 8th Street, Oakland,, California

Sample ID	Date Sampled	MTBE	DIPE	ETBE	TAME	TBA	1,2-DCA	EDB
		← (Concentrations in ppb) →						
S-5	10/17/02	<10	<10	<10	<10	<100	<10	<10
	01/02/03	**<5.0**	**<5.0**	**<5.0**	**<5.0**	**<50**	**<5.0**	**<5.0**
S-6	10/15/02	<100	<100	<100	<100	<1,000	<100	<100
	01/02/03	**<50**	**<50**	**<50**	**<50**	**<500**	**<50**	**<50**
S-8	10/15/02	<0.50	<2.0	<2.0	<2.0	<50	<2.0	<2.0
	01/02/03	**<0.50**	**<2.0**	**<2.0**	**<2.0**	**<50**	**<2.0**	**<2.0**

Abbreviations:

MTBE = Methyl tert-butyl ether, analyzed by by EPA Method 8260
DIPE = Di-isopropyl ether, analyzed by EPA Method 8260
ETBE = Ethyl tert-butyl ether, analyzed by EPA Method 8260
TAME = Tert-amyl methyl ether, analyzed by EPA Method 8260
TBA = Tert-butyl alcohol, analyzed by EPA Method 8260
1,2-DCA = 1,2-dichloroethane, analyzed by EPA Method 8260
EDB = 1,2-dibromomethane or ethlyene dibromide, analyzed by EPA Method 8260
ppb = Parts per billion

Table 2: Groundwater Extraction - Estimated Mass Removal Data - Former Shell Service Station, Incident #97093399, 461 Eighth Street, 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)
05/13/93	S-5	0	0	07/31/90	53,000	0.00000	0.00000	14,000	0.00000	0.00000	NA	0.00000	0.00000
07/22/93	S-5	200	200	07/31/90	53,000	0.08845	0.08845	14,000	0.02336	0.02336	NA	0.00000	0.00000
10/20/93	S-5	200	400	07/31/90	53,000	0.08845	0.17690	14,000	0.02336	0.04673	NA	0.00000	0.00000
01/25/94	S-5	150	550	07/31/90	53,000	0.06634	0.24324	14,000	0.01752	0.06425	NA	0.00000	0.00000
04/25/94	S-5	36	586	07/31/90	53,000	0.01592	0.25916	14,000	0.00421	0.06846	NA	0.00000	0.00000
05/26/94	S-5	130	716	07/31/90	53,000	0.05749	0.31665	14,000	0.01519	0.08364	NA	0.00000	0.00000
06/16/94	S-5	50	766	07/31/90	53,000	0.02211	0.33876	14,000	0.00584	0.08948	NA	0.00000	0.00000
07/21/94	S-5	50	816	07/31/90	53,000	0.02211	0.36088	14,000	0.00584	0.09533	NA	0.00000	0.00000
08/25/94	S-5	80	896	07/31/90	53,000	0.03538	0.39626	14,000	0.00935	0.10467	NA	0.00000	0.00000
09/22/94	S-5	45	941	07/31/90	53,000	0.01990	0.41616	14,000	0.00526	0.10993	NA	0.00000	0.00000
10/24/94	S-5	40	981	07/31/90	53,000	0.01769	0.43385	14,000	0.00467	0.11460	NA	0.00000	0.00000
11/29/94	S-5	85	1,066	07/31/90	53,000	0.03759	0.47144	14,000	0.00993	0.12453	NA	0.00000	0.00000
12/22/94	S-5	0	1,066	07/31/90	53,000	0.00000	0.47144	14,000	0.00000	0.12453	NA	0.00000	0.00000
01/03/95	S-5	40	1,106	07/31/90	53,000	0.01769	0.48913	14,000	0.00467	0.12920	NA	0.00000	0.00000
02/22/95	S-5	60	1,166	07/31/90	53,000	0.02654	0.51566	14,000	0.00701	0.13621	NA	0.00000	0.00000
03/31/95	S-5	40	1,206	07/31/90	53,000	0.01769	0.53335	14,000	0.00467	0.14089	NA	0.00000	0.00000
04/20/95	S-5	60	1,266	07/31/90	53,000	0.02654	0.55989	14,000	0.00701	0.14790	NA	0.00000	0.00000
05/26/95	S-5	50	1,316	07/31/90	53,000	0.02211	0.58200	14,000	0.00584	0.15374	NA	0.00000	0.00000
06/30/95	S-5	60	1,376	07/31/90	53,000	0.02654	0.60854	14,000	0.00701	0.16075	NA	0.00000	0.00000
10/04/95	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
01/03/96	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
04/11/96	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
07/11/96	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
10/02/96	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
01/22/97	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
07/21/97	S-5	75	1,451	07/31/90	53,000	0.03317	0.64171	14,000	0.00876	0.16951	NA	0.00000	0.00000
10/29/97	S-5	60	1,511	07/31/90	53,000	0.02654	0.66824	14,000	0.00701	0.17652	NA	0.00000	0.00000
01/22/98	S-5	60	1,571	07/31/90	53,000	0.02654	0.69478	14,000	0.00701	0.18353	NA	0.00000	0.00000
05/01/98	S-5	50	1,621	07/31/90	53,000	0.02211	0.71689	14,000	0.00584	0.18937	NA	0.00000	0.00000

Table 2: Groundwater Extraction - Estimated Mass Removal Data - Former Shell Service Station, Incident #97093399, 461 Eighth Street, 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)
07/08/98	S-5	100	1,721	07/31/90	53,000	0.04423	0.76111	14,000	0.01168	0.20105	NA	0.00000	0.00000
10/26/98	S-5	100	1,821	07/31/90	53,000	0.04423	0.80534	14,000	0.01168	0.21273	NA	0.00000	0.00000
01/28/99	S-5	100	1,921	01/28/99	51,000	0.04256	0.84790	13,000	0.01085	0.22358	2,400	0.00200	0.00200
04/23/99	S-5	100	2,021	04/23/99	65,600	0.05474	0.90263	2,540	0.00212	0.22570	<1,000	0.00042	0.00242
07/29/99	S-5	0	2,021	07/29/99	61,400	0.00000	0.90263	3,320	0.00000	0.22570	<1,000	0.00000	0.00242
11/01/99	S-5	100	2,121	11/01/99	48,200	0.04022	0.94285	2,700	0.00225	0.22795	**<40.0**	0.00002	0.00244
01/07/00	S-5	100	2,221	01/07/00	39,000	0.03254	0.97540	3,900	0.00325	0.23121	1,500	0.00125	0.00369
04/11/00	S-5	100	2,321	04/11/00	29,300	0.02445	0.99985	1,680	0.00140	0.23261	<250	0.00010	0.00379
07/19/00	S-5	100	2,421	07/19/00	6,420	0.00536	1.00520	2,110	0.00176	0.23437	**253**	0.00021	0.00400
10/12/00	S-5	100	2,521	10/12/00	41,500	0.03463	1.03983	2,940	0.00245	0.23682	**<66.7**	0.00003	0.00403
01/09/01	S-5	100	2,621	01/09/01	142,000	0.11849	1.15832	7,030	0.00587	0.24269	779	0.00065	0.00468
04/13/01	S-5	100	2,721	04/13/01	59,800	0.04990	1.20822	4,810	0.00401	0.24670	<10.0	0.00000	0.00469
07/25/01	S-5	50	2,771	07/25/01	71,000	0.02962	1.23784	2,900	0.00121	0.24791	<250	0.00005	0.00474
08/13/01	S-5	50	2,821	07/25/01	71,000	0.02962	1.26747	2,900	0.00121	0.24912	<250	0.00005	0.00479
11/01/01	S-5*	0	2,821	07/25/01	71,000	0.00000	1.26747	2,900	0.00000	0.24912	<250	0.00000	0.00479
01/17/02	S-5	100	2,921	01/17/02	58,000	0.04840	1.31586	460	0.00038	0.24950	<200	0.00008	0.00487
05/08/02	S-5	100	3,021	05/08/02	60,000	0.05007	1.36593	650	0.00054	0.25005	<100	0.00004	0.00492
05/13/93	S-6	0	0	05/13/93	58,000	0.00000	0.00000	21,000	0.00000	0.00000	NA	NA	NA
07/22/93	S-6	0	0	07/22/93	70,000	0.00000	0.00000	31,000	0.00000	0.00000	NA	NA	NA
10/20/93	S-6	0	0	10/20/93	48,000	0.00000	0.00000	28,000	0.00000	0.00000	NA	NA	NA
01/25/94	S-6	0	0	01/25/94	70,000	0.00000	0.00000	23,000	0.00000	0.00000	NA	NA	NA
04/25/94	S-6	0	0	04/25/94	61,000	0.00000	0.00000	23,000	0.00000	0.00000	NA	NA	NA
05/26/94	S-6	NA	0	04/25/94	61,000	0.00000	0.00000	23,000	0.00000	0.00000	NA	NA	NA
06/16/94	S-6	NA	0	04/25/94	61,000	0.00000	0.00000	23,000	0.00000	0.00000	NA	NA	NA
07/21/94	S-6	NA	0	07/21/94	44,000	0.00000	0.00000	8,200	0.00000	0.00000	NA	NA	NA
08/25/94	S-6	NA	0	07/21/94	44,000	0.00000	0.00000	8,200	0.00000	0.00000	NA	NA	NA
09/22/94	S-6	NA	0	07/21/94	44,000	0.00000	0.00000	8,200	0.00000	0.00000	NA	NA	NA
10/24/94	S-6	0	0	10/24/94	2,936	0.00000	0.00000	1,184	0.00000	0.00000	NA	NA	NA

Table 2: Groundwater Extraction - Estimated Mass Removal Data - Former Shell Service Station, Incident #97093399, 461 Eighth Street, 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)
11/29/94	S-6	NA	0	10/24/94	2,936	0.00000	0.00000	1,184	0.00000	0.00000	NA	NA	NA
12/22/94	S-6	0	0	12/22/94	32,000	0.00000	0.00000	7,000	0.00000	0.00000	NA	NA	NA
01/03/95	S-6	NA	0	12/22/94	32,000	0.00000	0.00000	7,000	0.00000	0.00000	NA	NA	NA
02/22/95	S-6	NA	0	12/22/94	32,000	0.00000	0.00000	7,000	0.00000	0.00000	NA	NA	NA
03/31/95	S-6	NA	0	12/22/94	32,000	0.00000	0.00000	7,000	0.00000	0.00000	NA	NA	NA
04/20/95	S-6	0	0	04/20/95	56,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
05/26/95	S-6	NA	0	04/20/95	56,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
06/30/95	S-6	NA	0	04/20/95	56,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
10/04/95	S-6	0	0	10/04/95	49,000	0.00000	0.00000	8,400	0.00000	0.00000	NA	NA	NA
01/03/96	S-6	0	0	01/03/96	52,000	0.00000	0.00000	9,100	0.00000	0.00000	NA	NA	NA
04/11/96	S-6	0	0	04/11/96	59,000	0.00000	0.00000	11,000	0.00000	0.00000	NA	NA	NA
07/11/96	S-6	0	0	07/11/96	72,000	0.00000	0.00000	18,000	0.00000	0.00000	NA	NA	NA
10/02/96	S-6	0	0	10/02/96	57,000	0.00000	0.00000	11,000	0.00000	0.00000	NA	NA	NA
01/22/97	S-6	0	0	01/22/97	67,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
07/21/97	S-6	0	0	07/21/97	61,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
10/29/97	S-6	40	40	07/21/97	61,000	0.02036	0.02036	15,000	0.00501	0.00501	NA	NA	NA
01/22/98	S-6	60	100	01/22/98	46,000	0.02303	0.04339	14,000	0.00701	0.01202	NA	NA	NA
05/01/98	S-6	200	300	01/22/98	46,000	0.07677	0.12016	14,000	0.02336	0.03538	NA	NA	NA
07/08/98	S-6	150	450	07/08/98	74,000	0.09262	0.21278	26,000	0.03254	0.06792	NA	NA	NA
10/26/98	S-6	100	550	07/08/98	74,000	0.06175	0.27453	26,000	0.02170	0.08962	NA	NA	NA
01/28/99	S-6	150	700	01/28/99	120,000	0.15020	0.42473	9,000	0.01126	0.10088	3,700	0.00463	0.00463
04/23/99	S-6	150	850	04/23/99	58,500	0.07322	0.49795	15,900	0.01990	0.12078	<2,500	0.00156	0.00620
07/29/99	S-6	0	850	07/29/99	36,200	0.00000	0.49795	10,300	0.00000	0.12078	<1,000	0.00000	0.00620
11/01/99	S-6	150	1,000	11/01/99	36,000	0.04506	0.54301	11,700	0.01464	0.13543	**<40.0**	0.00003	0.00622
01/07/00	S-6	0	1,000	01/07/00	36,000	0.00000	0.54301	7,600	0.00000	0.13543	<1,000	0.00000	0.00622
04/11/00	S-6	150	1,150	04/11/00	14,600	0.01827	0.56128	7,540	0.00944	0.14487	621	0.00078	0.00700
07/19/00	S-6	150	1,300	07/19/00	2,590	0.00324	0.56452	629	0.00079	0.14565	**72.7**	0.00009	0.00709
10/28/00	S-6	45	1,345	10/12/00	32,900	0.01235	0.57688	14,200	0.00533	0.15099	**<100**	0.00002	0.00711
02/05/01	S-6	150	1,495	01/09/01	27,600	0.03455	0.61142	11,200	0.01402	0.16500	1,430	0.00179	0.00890

Table 2: Groundwater Extraction - Estimated Mass Removal Data - Former Shell Service Station, Incident #97093399, 461 Eighth Street, 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)
04/06/01	S-6	150	1,645	04/06/01	16,900	0.02115	0.63258	7,800	0.00976	0.17477	**<20**	0.00001	0.00891
07/25/01	S-6	150	1,795	07/25/01	29,000	0.03630	0.66888	9,800	0.01227	0.18703	**<250**	0.00016	0.00907
11/01/01	S-6	150	1,945	11/01/01	41,000	0.05132	0.72019	15,000	0.01877	0.20581	**<500**	0.00031	0.00938
01/17/02	S-6	150	2,095	01/17/02	38,000	0.04756	0.76776	11,000	0.01377	0.21958	**<500**	0.00031	0.00969
05/08/02	S-6	150	2,245	05/08/02	72,000	0.09012	0.85787	21,000	0.02628	0.24586	**<1,000**	0.00063	0.01032
Total Gallons Extracted:			**5,266**		**Total Pounds Removed:**		**2.22380**			**0.49591**			**0.01523**
					Total Gallons Removed:		**0.36456**			**0.06793**			**0.00246**

Abbreviations and Notes:

TPPH = Total purgeable hydrocarbons as gasoline
MtBE = Methyl tert-butyl ether
ppb = Parts per billion
gal = Gallon
NA = Not available/not analyzed
Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/10^6µg) x (pound/453.6g) x (3.785 L/gal)
Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)
TPPH, benzene analyzed by EPA Method 8015/8020
MTBE analyzed by EPA Method 8260 in bold font, all other MTBE analyzed by EPA Method 8020
Purging performed by Blaine Technologies of San Jose, California
If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.
* = Well inaccessible

ATTACHMENT A

Blaine Groundwater Monitoring Report and Field Notes

BLAINE
TECH SERVICES

1680 ROGERS AVENUE
SAN JOSE, CA 95112-1105
(408) 573-7771 FAX
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CONTRACTOR'S LICENSE #746684
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January 28, 2003

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

First Quarter 2003 Groundwater Monitoring at
Former Shell Service Station
461 8th Street
Oakland, CA

Monitoring performed on January 2, 2003

Groundwater Monitoring Report **030102-SS-4**

This report covers the routine monitoring of groundwater wells at this Former Shell 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
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
S-4	10/26/1988	130	3.8	13	4.0	30	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	02/14/1989	<50	0.5	<1	<1	3.0	NA	NA	93.51 (TOC)	12.82	80.69	NA
S-4	05/01/1989	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	16.48	77.03	NA
S-4	07/27/1989	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.84	77.67	NA
S-4	10/05/1989	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.98	77.53	NA
S-4	01/09/1990	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.86	77.65	NA
S-4	04/30/1990	<50	<0.5	<0.5	<0.5	<1	NA	NA	93.51 (TOC)	14.48	79.03	NA
S-4	07/31/1990	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	10/30/1990	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	05/06/1991	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.23	78.28	NA
S-4	06/27/1991	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	93.51 (TOC)	13.54	79.97	NA
S-4	09/24/1991	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.85	77.66	NA
S-4	11/07/1991	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.60	77.91	NA
S-4	02/13/1992	<50	<0.5	<0.5	<0.5	3.0	NA	NA	93.51 (TOC)	14.27	79.24	NA
S-4	05/11/1992	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	12/03/1992	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	05/13/1993	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.81	78.70	NA
S-4	07/22/1993	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.42	79.09	NA
S-4	10/20/1993	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	01/25/1994	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.60	78.91	NA
S-4	04/25/1994	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.39	79.12	NA
S-4	07/21/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	93.51 (TOC)	22.29	71.22	NA
S-4	10/24/1994	<500	<0.3	<0.3	<0.3	<0.6	NA	NA	93.51 (TOC)	22.72	70.79	NA
S-4	12/22/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	25.77*	22.25	3.52	NA
S-4	04/20/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	25.77	21.16	4.61	NA
S-4	10/04/1995	<50	1.2	0.7	<0.5	<0.5	NA	NA	25.77	22.25	3.52	NA
S-4	01/03/1996	<50	0.6	<0.5	<0.5	1.7	NA	NA	25.77	23.28	2.49	NA
S-4	04/11/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	25.77	21.58	4.19	NA

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
S-4	07/11/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	21.60	4.17	NA
S-4	10/02/1996	<50	<0.50	<0.50	<0.50	<0.50	2.6	NA	25.77	22.46	3.31	NA
S-4	01/22/1997	<50	0.73	<0.50	<0.50	0.63	<2.5	NA	25.77	20.06	5.71	NA
S-4	07/21/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	22.10	3.67	NA
S-4	01/22/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	20.50	5.27	NA
S-4	07/08/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	20.86	4.91	NA
S-4	10/26/1998	NA	NA	NA	NA	NA	NA	NA	25.77	21.41	4.36	NA
S-4	01/28/1999	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	22.34	3.43	NA
S-4	04/23/1999	NA	NA	NA	NA	NA	NA	NA	25.77	21.43	4.34	NA
S-4	07/29/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	25.77	21.45	4.32	NA
S-4	11/01/1999	NA	NA	NA	NA	NA	NA	NA	25.77	22.08	3.69	NA
S-4	01/07/2000	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	22.29	3.48	NA
S-4	04/11/2000	NA	NA	NA	NA	NA	NA	NA	25.77	21.11	4.66	NA
S-4	07/19/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	25.77	21.19	4.58	NA
S-4	10/12/2000	NA	NA	NA	NA	NA	NA	NA	25.77	22.22	3.55	NA
S-4	01/09/2001	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	25.77	22.17	3.60	NA
S-4	04/06/2001	NA	NA	NA	NA	NA	NA	NA	25.77	21.50	4.27	NA
S-4	07/25/2001	<50	2.0	0.52	<0.50	1.0	NA	<5.0	25.77	21.50	4.27	NA
S-4	11/01/2001	NA	NA	NA	NA	NA	NA	NA	25.77	21.95	3.82	NA
S-4	01/17/2002 d	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	25.77	21.13	4.64	NA
S-4	05/08/2002	NA	NA	NA	NA	NA	NA	NA	25.77	21.35	4.42	NA
S-4	07/18/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	34.41	21.19	13.22	NA
S-4	10/15/2002	NA	NA	NA	NA	NA	NA	NA	34.41	21.42	12.99	NA
S-4	**01/02/2003**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**34.41**	**20.75**	**13.66**	**NA**
S-5	04/16/1987	130000	15000	16000	NA	14000a	NA	NA	99.36 (TOC)	NA	NA	NA
S-5	10/26/1988	110000	20000	25000	2300	10000	NA	NA	99.36 (TOC)	NA	NA	NA
S-5	02/14/1989	94000	16000	21000	1800	10000	NA	NA	99.36 (TOC)	19.87	79.49	NA

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
S-5	05/01/1989	120000	29000	35000	3100	15000	NA	NA	99.36 (TOC)	21.23	78.13	NA
S-5	07/27/1989	110000	20000	29000	2400	14000	NA	NA	99.36 (TOC)	20.41	78.95	NA
S-5	10/05/1989	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.43	78.94	0.01
S-5	01/09/1990	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.16	78.21	0.01
S-5	04/30/1990	100000	13000	22000	2100	11000	NA	NA	99.36 (TOC)	20.96	78.40	NA
S-5	07/31/1990	53000	8300	14000	1200	7400	NA	NA	99.36 (TOC)	20.88	78.48	NA
S-5	10/30/1990	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.96	77.42	0.03
S-5	05/06/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	23.00	76.46	0.13
S-5	06/27/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.53	78.85	0.03
S-5	09/24/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.40	78.01	0.06
S-5	11/07/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.33	78.23	0.25
S-5	02/13/1992	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.52	77.09	0.31
S-5	05/11/1992	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.46	77.36	0.58
S-5	12/03/1992	Well inaccessible		NA	NA	NA	NA	NA	99.36 (TOC)	NA	NA	NA
S-5	05/13/1993	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.22	77.36	0.27
S-5	07/22/1993	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.68	77.88	0.25
S-5	10/20/1993	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.51	79.03	0.23
S-5	01/25/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.93	77.57	0.18
S-5	04/25/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.97	77.67	0.35
S-5	05/26/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.84	78.80	0.35
S-5	06/10/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.01	78.61	0.32
S-5	07/21/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.18	77.56	0.47
S-5	08/25/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.01	77.70	0.44
S-5	09/22/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.00	77.48	0.15
S-5	10/24/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.28	77.53	0.56
S-5	12/22/1994	NA	NA	NA	NA	NA	NA	NA	22.94*	22.88	0.85	0.99
S-5	04/20/1995	NA	NA	NA	NA	NA	NA	NA	22.94	21.66	1.54	0.33
S-5	10/04/1995	NA	NA	NA	NA	NA	NA	NA	22.94	22.18	0.76	NA

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
S-5	01/03/1996	NA	NA	NA	NA	NA	NA	NA	22.94	22.80	0.80	0.83
S-5	04/11/1996	NA	NA	NA	NA	NA	NA	NA	22.94	21.15	2.33	0.67
S-5	07/11/1996	NA	NA	NA	NA	NA	NA	NA	22.94	22.62	1.04	0.90
S-5	10/02/1996	NA	NA	NA	NA	NA	NA	NA	22.94	23.07	0.38	0.64
S-5	01/22/1997	NA	NA	NA	NA	NA	NA	NA	22.94	20.83	2.24	0.16
S-5	07/21/1997	NA	NA	NA	NA	NA	NA	NA	22.94	21.16	1.82	0.05
S-5	01/22/1998	NA	NA	NA	NA	NA	NA	NA	22.94	20.04	2.93	0.04
S-5	07/08/1998	220	14	40	5.8	34	3.3	NA	22.94	18.61	4.33	NA
S-5	10/26/1998	NA	NA	NA	NA	NA	NA	NA	22.94	17.31	5.63	NA
S-5	01/28/1999	51000	13000	1200	1200	2400	2400	NA	22.94	20.11	2.83	NA
S-5	04/23/1999	65600	2540	7300	1790	9840	<1000	NA	22.94	19.21	3.73	NA
S-5	07/29/1999	61400	3320	6980	1520	7700	<1000	NA	22.94	14.77	8.17	NA
S-5	11/01/1999	48200	2700	5740	1290	7850	<500	<40.0	22.94	15.56	7.38	NA
S-5	01/07/2000	39000	3900	8500	790	8300	1500	NA	22.94	15.82	7.12	NA
S-5	04/11/2000	29300	1680	5060	1130	6220	<250	NA	22.94	18.19	4.75	NA
S-5	07/19/2000	6420	2110	207	252	681	355	253b	22.94	19.01	3.93	NA
S-5	10/12/2000	41500	2940	4940	1520	7770	<250	<66.7	22.94	19.62	3.32	NA
S-5	01/09/2001	142000	7030	9550	2340	12600	779	NA	22.94	19.94	3.00	NA
S-5	04/06/2001	Well inaccessible		NA	NA	NA	NA	NA	22.94	NA	NA	NA
S-5	04/13/2001	59800	4810	10800	1950	10100	842	<10.0	22.94	14.72	8.22	NA
S-5	07/25/2001	71000	2900	6800	1700	9100	NA	<250	22.94	14.91	8.03	NA
S-5	08/13/2001	NA	NA	NA	NA	NA	NA	NA	22.94	19.43	3.51	NA
S-5	11/01/2001	Unable to locate		NA	NA	NA	NA	NA	22.94	NA	NA	NA
S-5	01/17/2002 d	58000	460	3300	1900	8400	NA	<200	c	14.27	NA	NA
S-5	05/08/2002 d	60000	650	2700	1800	8800	NA	<100	22.94	18.40	4.54	NA
S-5	07/18/2002	53000	240	1200	1500	6400	NA	<100	27.36	14.25	13.11	NA
S-5	10/15/2002	Well inaccessible		NA	NA	NA	NA	NA	27.36	NA	NA	NA
S-5	10/17/2002	42000	420	1100	1200	5500	NA	<10	27.36	14.90	12.46	NA

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
S-5	**01/02/2003**	**26000**	**680**	**1500**	**780**	**3800**	**NA**	**<5.0**	**27.36**	**14.72**	**12.64**	**NA**
S-6	04/16/1987	81000	16000	9000	NA	6400a	NA	NA	100.58 (TOC)	NA	NA	NA
S-6	10/26/1988	110000	29000	18000	2500	8200	NA	NA	100.58 (TOC)	NA	NA	NA
S-6	02/14/1989	54000	18000	4500	1400	4000	NA	NA	100.58 (TOC)	20.87	79.71	NA
S-6	05/01/1989	93000	43000	9900	3000	8000	NA	NA	100.58 (TOC)	20.49	80.09	NA
S-6	07/27/1989	52000	20000	3200	1700	5500	NA	NA	100.58 (TOC)	21.01	79.57	NA
S-6	10/05/1989	55000	20000	2900	1600	5500	NA	NA	100.58 (TOC)	21.24	79.34	NA
S-6	01/09/1990	76000	35000	9100	2300	8600	NA	NA	100.58 (TOC)	22.62	77.96	SHEEN
S-6	04/30/1990	39000	13000	2300	900	2800	NA	NA	100.58 (TOC)	22.10	78.48	NA
S-6	07/31/1990	48000	20000	4600	1500	4900	NA	NA	100.58 (TOC)	22.00	78.58	NA
S-6	10/30/1990	27000	7400	900	600	1400	NA	NA	100.58 (TOC)	22.14	78.44	NA
S-6	05/06/1991	35000	3900	2700	2300	3500	NA	NA	100.58 (TOC)	22.40	78.18	NA
S-6	06/27/1991	51000	19000	5600	1700	6300	NA	NA	100.58 (TOC)	21.21	79.37	NA
S-6	09/24/1991	42000	14000	4300	1200	4000	NA	NA	100.58 (TOC)	22.26	78.32	NA
S-6	11/07/1991	39000	11000	2000	800	2300	NA	NA	100.58 (TOC)	22.35	78.23	NA
S-6	02/13/1992	64000	21000	6200	1600	5100	NA	NA	100.58 (TOC)	22.28	78.30	NA
S-6	05/11/1992	57000	22000	7600	2200	7700	NA	NA	100.58 (TOC)	22.10	78.48	NA
S-6	12/03/1992	110000	26000	9400	2100	8700	NA	NA	100.58 (TOC)	22.14	78.44	NA
S-6	05/13/1993	58000	21000	6800	2500	9800	NA	NA	100.58 (TOC)	22.16	78.42	NA
S-6	07/22/1993	70000	31000	14000	3000	13000	NA	NA	100.58 (TOC)	21.64	78.94	NA
S-6	10/20/1993	48000	28000	9800	3200	12000	NA	NA	100.58 (TOC)	21.62	78.96	NA
S-6	01/25/1994	70000	23000	7500	2500	8000	NA	NA	100.58 (TOC)	21.80	78.78	NA
S-6	04/25/1994	61000	16000	4000	1800	5100	NA	NA	100.58 (TOC)	21.68	78.90	NA
S-6	07/21/1994	44000	8200	3600	1400	3900	NA	NA	100.58 (TOC)	21.78	78.80	NA
S-6 (D)	07/21/1994	32000	7800	3400	1300	3700	NA	NA	22.08	NA	NA	NA
S-6	10/24/1994	2936	1184	440.6	163	648.4	NA	NA	100.58 (TOC)	22.06	78.52	NA
S-6 (D)	10/24/1994	2968	770.8	325.3	144	622	NA	NA	22.08	NA	NA	NA

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
S-6	12/22/1994	32000	7000	2900	790	2400	NA	NA	22.08*	21.91	0.17	NA
S-6 (D)	12/22/1994	32000	8000	3800	1100	3400	NA	NA	22.08	NA	NA	NA
S-6	04/20/1995	56000	15000	3800	1900	4900	NA	NA	22.08	21.38	0.70	NA
S-6 (D)	04/20/1995	49000	13000	3500	1800	4700	NA	NA	22.08	NA	NA	NA
S-6	10/04/1995	49000	8400	4700	1800	4800	NA	NA	22.08	21.80	0.28	NA
S-6 (D)	10/04/1995	41000	8400	4100	1400	4400	NA	NA	22.08	NA	NA	NA
S-6	01/03/1996	52000	9100	7100	1800	5800	NA	NA	22.08	21.70	0.38	NA
S-6	04/11/1996	59000	11000	7100	2100	6400	<500	NA	22.08	21.62	0.46	NA
S-6 (D)	04/11/1996	59000	11000	6800	1900	6400	<500	NA	22.08	NA	NA	NA
S-6	07/11/1996	72000	18000	6600	2500	8400	<1000	NA	22.08	21.65	2.78	NA
S-6	10/02/1996	57000	11000	6500	1500	5100	<500	NA	22.08	21.80	2.63	NA
S-6	01/22/1997	67000	15000	5000	1800	5400	<1000	NA	22.08	19.95	2.13	NA
S-6 (D)	01/22/1997	63000	15000	4800	1800	5200	<1000	NA	22.08	NA	NA	NA
S-6	07/21/1997	61000	15000	2100	1100	3500`	1900	NA	22.08	20.61	1.47	NA
S-6	01/22/1998	46000	14000	3200	1300	3400	<500	NA	22.08	19.82	2.26	NA
S-6	07/08/1998	74000	26000	7500	2200	6200	<1000	NA	22.08	18.20	3.88	NA
S-6	10/26/1998	NA	NA	NA	NA	NA	NA	NA	22.08	18.81	3.27	NA
S-6	01/28/1999	120000	9000	14000	2700	14000	3700	NA	22.08	19.73	2.35	NA
S-6	04/23/1999	58500	15900	1360	1640	3030	<2500	NA	22.08	17.58	4.50	NA
S-6	07/29/1999	36200	10300	760	930	1360	<1000	NA	22.08	21.35	0.73	NA
S-6	11/01/1999	36000	11700	767	865	1670	<1250	<40.0	22.08	19.23	2.85	NA
S-6	01/07/2000	36000	7600	4600	840	3600	<1000	NA	22.08	19.53	2.55	NA
S-6	04/11/2000	14600	7540	205	306	609	621	NA	22.08	18.16	3.92	NA
S-6	07/19/2000	2590	629	63.9	99.6	267	124	72.7b	22.08	18.40	3.68	NA
S-6	10/12/2000	32900	14200	966	1060	1790	<500	<100	22.08	19.52	2.56	NA
S-6	01/09/2001	27600	11200	675	666	1580	1430	<10.0b	22.08	19.69	2.39	NA
S-6	02/05/2001	NA	NA	NA	NA	NA	NA	NA	22.08	19.20	2.88	NA
S-6	04/06/2001	16900	7800	343	172	966	809	<20.0	22.08	18.25	3.83	NA

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

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S-6	07/25/2001	29000	9800	1700	1000	1800	NA	<250	22.08	18.27	3.81	NA
S-6	11/01/2001	41000	15000	2400	1100	2500	NA	<500	22.08	19.30	2.78	NA
S-6	01/17/2002 d	38000	11000	1700	990	2200	NA	<500	22.08	18.51	3.57	NA
S-6	05/08/2002	72000	21000	4400	2200	5300	NA	<1000	22.08	18.30	3.78	NA
S-6	07/18/2002	71000	17000	4300	1700	4800	NA	<1000	30.56	18.19	12.37	NA
S-6	10/15/2002	55000	16000	4600	1500	4600	NA	<100	30.56	18.77	11.79	NA
S-6	**01/02/2003**	**75000**	**21000**	**5000**	**2400**	**6400**	**NA**	**<50**	**30.56**	**18.60**	**11.96**	**NA**
S-8	12/22/1994	600	120	32	5.2	34	NA	NA	27.21	24.87	2.34	NA
S-8	04/20/1995	460	180	23	5.2	21	NA	NA	27.21	23.90	3.31	NA
S-8	10/04/1995	830	210	38	11	42	NA	NA	27.21	24.48	2.73	NA
S-8	01/03/1996	350	61	12	2.5	12	NA	NA	27.21	24.62	2.59	NA
S-8 (D)	01/03/1996	340	54	12	2.4	12	NA	NA	27.21	NA	NA	NA
S-8	04/11/1996	570	140	37	12	47	<6.2	NA	27.21	24.32	2.89	NA
S-8	07/11/1996	980	98	32	9.1	160	<12	NA	27.21	24.10	3.11	NA
S-8	10/02/1996	280	62	13	3.3	25	15	NA	27.21	25.38	1.83	NA
S-8 (D)	10/02/1996	490	110	24	7.0	45	22	<2.0	27.21	NA	NA	NA
S-8	01/22/1997	400	90	13	4.9	25	12	NA	27.21	23.91	3.30	NA
S-8	07/21/1997	2900	380	110	26	260	85	NA	27.21	23.62	3.59	NA
S-8 (D)	07/21/1997	3200	420	120	32	300	130	NA	27.21	NA	NA	NA
S-8	01/22/1998	3800	790	140	42	330	160	NA	27.21	23.52	3.69	NA
S-8 (D)	01/22/1998	3500	780	120	33	300	160	NA	27.21	NA	NA	NA
S-8	07/08/1998	3600	1800	<25	<25	<25	<125	NA	27.21	21.52	5.69	NA
S-8 (D)	07/08/1998	4000	1800	<25	<25	31	<125	NA	27.21	NA	NA	NA
S-8	10/26/1998	NA	NA	NA	NA	NA	NA	NA	27.21	22.01	5.20	NA
S-8	01/28/1999	2000	630	6.2	24	51	43	NA	27.21	23.03	4.18	NA
S-8	04/23/1999	1050	408	<5.00	<5.00	6.65	<50.0	NA	27.21	22.15	5.06	NA
S-8	07/29/1999	955	344	<2.50	6.90	16.2	<25.0	NA	27.21	21.95	5.26	NA

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
S-8	11/01/1999	1800	550	6.45	15	40.4	<50.0	NA	27.21	22.55	4.66	NA
S-8	01/07/2000	1300	600	11	29	48	<13	NA	27.21	22.87	4.34	NA
S-8	04/11/2000	342	101	4.42	4.24	14.7	21.4	NA	27.21	21.86	5.35	NA
S-8	07/19/2000	579	228	6.37	6.45	25.0	<12.5	NA	27.21	21.93	5.28	NA
S-8	10/12/2000	947	340	8.64	3.26	38.3	<12.5	<2.00	27.21	22.92	4.29	NA
S-8	01/09/2001	1090	394	<10.0	<10.0	33.3	57.6	NA	27.21	23.19	4.02	NA
S-8	04/06/2001	671	182	12.5	16.4	47.1	42.5	NA	27.21	22.46	4.75	NA
S-8	07/25/2001	500	70	6.7	11	23	NA	<5.0	27.21	22.50	4.71	NA
S-8	11/01/2001	1900	250	28	39	180	NA	<5.0	27.21	22.44	4.77	NA
S-8	01/17/2002 d	830	140	11	12	89	NA	<5.0	27.21	21.82	5.39	NA
S-8	05/08/2002 d	210	34	1.7	4.1	15	NA	<5.0	27.21	21.35	5.86	NA
S-8	07/18/2002	650	68	2.8	9.7	42	NA	<5.0	35.85	21.53	14.32	NA
S-8	10/15/2002	1000	160	4.2	7.7	74	NA	<0.50	35.85	21.97	13.88	NA
S-8	**01/02/2003**	**440**	**55**	**1.8**	**2.9**	**31**	**NA**	**<0.50**	**35.85**	**21.95**	**13.90**	**NA**
S-9	12/22/1994	2600	400	150	42	310	NA	NA	26.06	24.37	1.69	NA
S-9	04/20/1995	1900	400	130	51	200	NA	NA	26.06	23.49	2.57	NA
S-9	10/04/1995	3200	590	260	68	280	NA	NA	26.06	24.01	2.05	NA
S-9	01/03/1996	Well inaccessible		NA	NA	NA	NA	NA	26.06	NA	NA	NA
S-9	04/11/1996	2100	440	1500	42	210	<25	NA	26.06	23.61	2.45	NA
S-9	07/11/1996	5200	940	450	120	520	<50	NA	26.06	23.78	2.28	NA
S-9 (D)	07/11/1996	4800	890	430	110	500	<50	NA	26.06	NA	NA	NA
S-9	10/02/1996	3000	680	220	56	270	<62	NA	26.06	24.31	1.75	NA
S-9	01/22/1997	1500	230	71	36	130	<12	NA	26.06	23.08	2.98	NA
S-9	07/21/1997	3400	590	57	19	210	96	NA	26.06	22.83	3.23	NA
S-9	01/22/1998	2600	300	46	<10	270	62	NA	26.06	21.96	4.10	NA
S-9	07/08/1998	820	150	6.2	8	57	<10	NA	26.06	20.85	5.21	NA
S-9	10/26/1998	NA	NA	NA	NA	NA	NA	NA	26.06	21.39	4.67	NA

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
S-9	01/28/1999	<50	1.0	<0.50	<0.50	<0.50	<2.5	NA	26.06	22.32	3.74	NA
S-9	04/23/1999	NA	NA	NA	NA	NA	NA	NA	26.06	21.41	4.65	NA
S-9	07/29/1999	117	7.77	0.817	0.683	5.05	<5.00	NA	26.06	21.25	4.81	NA
S-9	11/01/1999	NA	NA	NA	NA	NA	NA	NA	26.06	21.92	4.14	NA
S-9	01/07/2000	<50	1.2	<0.50	<0.50	<0.50	<2.5	NA	26.06	22.11	3.95	NA
S-9	04/11/2000	NA	NA	NA	NA	NA	NA	NA	26.06	21.14	4.92	NA
S-9	07/19/2000	Well inaccessible		NA	NA	NA	NA	NA	26.06	NA	NA	NA
S-9	10/12/2000	NA	NA	NA	NA	NA	NA	NA	26.06	22.24	3.82	NA
S-9	01/09/2001	<50.0	1.45	<0.500	<0.500	<0.500	<2.50	NA	26.06	22.52	3.54	NA
S-9	04/06/2001	NA	NA	NA	NA	NA	NA	NA	26.06	23.61	2.45	NA
S-9	07/25/2001	Well inaccessible		NA	NA	NA	NA	NA	26.06	NA	NA	NA
S-9	08/13/2001	Well inaccessible		NA	NA	NA	NA	NA	26.06	NA	NA	NA
S-9	11/01/2001	NA	NA	NA	NA	NA	NA	NA	26.06	21.78	4.28	NA
S-9	01/17/2002 d	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	26.06	21.15	4.91	NA
S-9	05/08/2002	NA	NA	NA	NA	NA	NA	NA	26.06	20.56	5.50	NA
S-9	07/18/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	34.70	20.88	13.82	NA
S-9	10/15/2002	NA	NA	NA	NA	NA	NA	NA	34.70	21.41	13.29	NA
S-9	**01/02/2003**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**34.70**	**21.35**	**13.35**	**NA**
S-10	12/22/1994	420	27	8.0	18	45	NA	NA	28.04	25.84	2.20	NA
S-10	04/20/1995	820	49	3.7	97	52	NA	NA	28.04	24.92	3.12	NA
S-10	10/04/1995	240	6.5	1.1	16	12	NA	NA	28.04	25.47	2.57	NA
S-10	01/03/1996	1100	27	4.9	110	70	NA	NA	28.04	25.60	2.44	NA
S-10	04/11/1996	530	19	1.6	82	52	<5.0	NA	28.04	25.27	2.77	NA
S-10	07/11/1996	570	16	3.2	53	53	<2.5	NA	28.04	25.46	2.58	NA
S-10	10/02/1996	270	8.2	0.77	24	23	3.3	NA	28.04	25.81	2.23	NA
S-10	01/22/1997	160	4.8	0.73	16	11	<2.5	NA	28.04	24.74	3.30	NA
S-10	07/21/1997	530	5.7	0.70	29	69	<2.5	NA	28.04	24.50	3.54	NA

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
S-10	01/22/1998	1500	15	<5.0	88	130	<25	NA	28.04	24.44	3.60	NA
S-10	07/08/1998	530	4.8	1.1	47	51	<2.5	NA	28.04	22.36	5.68	NA
S-10	10/26/1998	NA	NA	NA	NA	NA	NA	NA	28.04	22.81	5.23	NA
S-10	01/28/1999	630	4.6	0.98	<0.50	59	<2.5	NA	28.04	23.82	4.22	NA
S-10	04/23/1999	NA	NA	NA	NA	NA	NA	NA	28.04	22.96	5.08	NA
S-10	07/29/1999	728	3.40	<1.00	41.8	38.0	<10.0	NA	28.04	22.63	5.41	NA
S-10	11/01/1999	NA	NA	NA	NA	NA	NA	NA	28.04	23.02	5.02	NA
S-10	01/07/2000	870	8.5	1.3	110	110	<2.5	NA	28.04	23.33	4.71	NA
S-10	04/11/2000	NA	NA	NA	NA	NA	NA	NA	28.04	22.64	5.40	NA
S-10	07/19/2000	612	3.75	<0.500	41.6	43.6	<2.50	NA	28.04	23.04	5.00	NA
S-10	10/12/2000	NA	NA	NA	NA	NA	NA	NA	28.04	23.92	4.12	NA
S-10	01/09/2001	647	7.62	1.01	66.2	42.4	<2.50	NA	28.04	24.13	3.91	NA
S-10	04/06/2001	NA	NA	NA	NA	NA	NA	NA	28.04	25.37	2.67	NA
S-10	07/25/2001	340	1.5	<0.50	42	19	NA	<5.0	28.04	25.35	2.69	NA
S-10	11/01/2001	NA	NA	NA	NA	NA	NA	NA	28.04	23.22	4.82	NA
S-10	01/17/2002 d	1100	3.5	<0.50	55	46	NA	<5.0	28.04	22.72	5.32	NA
S-10	05/08/2002	NA	NA	NA	NA	NA	NA	NA	28.04	22.35	5.69	NA
S-10	07/18/2002	750	1.8	<0.50	42	26	NA	<5.0	36.35	22.05	14.30	NA
S-10	10/15/2002	NA	NA	NA	NA	NA	NA	NA	36.35	22.51	13.84	NA
S-10	**01/02/2003**	**440**	**1.8**	**<0.50**	**14**	**24**	**NA**	**<5.0**	**36.35**	**22.50**	**13.85**	**NA**

WELL CONCENTRATIONS
Former Shell Service Station
461 8th Street
Oakland, CA

Well ID	Date	TPPH (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)	SPH Thickness (ft.)

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to July 25, 2001, analyzed by EPA Method 8015.
BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to July 25, 2001, analyzed by EPA Method 8020
MTBE = Methyl-tertiary-butyl ether
TOC = Top of Casing Elevation
TOB = Top of Wellbox Elevation
SPH = Separate-Phase Hydrocarbons
GW = Groundwater
ug/L = Parts per billion
MSL = Mean sea level
ft = Feet
<n = Below detection limit
D = Duplicate sample
NA = Not applicable

Notes:
a = Ethylbenzene and xylenes combined.
b = This sample analyzed outside of EPA recommended holding time.
c = Depth to water measured from Top of Casing; elevation unknown.
d = Grab sampled.
* = Prior to December 22, 1994, well elevations taken from Top of Casing.
Beginning July 18, 2002, well elevations taken from Top of Casing.
Site surveyed March 5, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

KIFF ANALYTICAL LLC

Report Number : 30725
Date : 1/8/2003

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

Subject : 6 Water Samples
Project Name : 461 8th Street, Oakland
Project Number : 030102-SS4
P.O. Number : 97093399

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 : 30725
Date : 1/8/2003

Project Name : **461 8th Street, Oakland**
Project Number : **030102-SS4**

Sample : **S-4** Matrix : Water Lab Number : 30725-01

Sample Date :1/2/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	1/5/2003
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/5/2003
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	1/5/2003
4-Bromofluorobenzene (Surr)	98.6		% Recovery	EPA 8260B	1/5/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30725

Date : 1/8/2003

Project Name : **461 8th Street, Oakland**

Project Number : **030102-SS4**

Sample : **S-5** Matrix : Water Lab Number : 30725-02

Sample Date :1/2/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**680**	5.0	ug/L	EPA 8260B	1/6/2003
Toluene	**1500**	5.0	ug/L	EPA 8260B	1/6/2003
Ethylbenzene	**780**	5.0	ug/L	EPA 8260B	1/6/2003
Total Xylenes	**3800**	5.0	ug/L	EPA 8260B	1/6/2003
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	1/6/2003
Diisopropyl ether (DIPE)	**< 5.0**	5.0	ug/L	EPA 8260B	1/6/2003
Ethyl-t-butyl ether (ETBE)	**< 5.0**	5.0	ug/L	EPA 8260B	1/6/2003
Tert-amyl methyl ether (TAME)	**< 5.0**	5.0	ug/L	EPA 8260B	1/6/2003
Tert-Butanol	**< 50**	50	ug/L	EPA 8260B	1/6/2003
TPH as Gasoline	**26000**	500	ug/L	EPA 8260B	1/6/2003
1,2-Dichloroethane	**< 5.0**	5.0	ug/L	EPA 8260B	1/6/2003
1,2-Dibromoethane	**< 5.0**	5.0	ug/L	EPA 8260B	1/6/2003
Toluene - d8 (Surr)	96.3		% Recovery	EPA 8260B	1/6/2003
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	1/6/2003
Dibromofluoromethane (Surr)	96.6		% Recovery	EPA 8260B	1/6/2003
1,2-Dichloroethane-d4 (Surr)	95.8		% Recovery	EPA 8260B	1/6/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30725

Date : 1/8/2003

Project Name : **461 8th Street, Oakland**

Project Number : **030102-SS4**

Sample : **S-6** Matrix : Water Lab Number : 30725-03

Sample Date :1/2/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**21000**	200	ug/L	EPA 8260B	1/6/2003
Toluene	**5000**	50	ug/L	EPA 8260B	1/6/2003
Ethylbenzene	**2400**	50	ug/L	EPA 8260B	1/6/2003
Total Xylenes	**6400**	50	ug/L	EPA 8260B	1/6/2003
Methyl-t-butyl ether (MTBE)	**< 50**	50	ug/L	EPA 8260B	1/6/2003
Diisopropyl ether (DIPE)	**< 50**	50	ug/L	EPA 8260B	1/6/2003
Ethyl-t-butyl ether (ETBE)	**< 50**	50	ug/L	EPA 8260B	1/6/2003
Tert-amyl methyl ether (TAME)	**< 50**	50	ug/L	EPA 8260B	1/6/2003
Tert-Butanol	**< 500**	500	ug/L	EPA 8260B	1/6/2003
TPH as Gasoline	**75000**	5000	ug/L	EPA 8260B	1/6/2003
1,2-Dichloroethane	**< 50**	50	ug/L	EPA 8260B	1/6/2003
1,2-Dibromoethane	**< 50**	50	ug/L	EPA 8260B	1/6/2003
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	1/6/2003
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	1/6/2003
Dibromofluoromethane (Surr)	98.7		% Recovery	EPA 8260B	1/6/2003
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	1/6/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30725
Date : 1/8/2003

Project Name : **461 8th Street, Oakland**
Project Number : **030102-SS4**

Sample : **S-8** Matrix : Water Lab Number : 30725-04
Sample Date :1/2/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**55**	0.50	ug/L	EPA 8260B	1/5/2003
Toluene	**1.8**	0.50	ug/L	EPA 8260B	1/5/2003
Ethylbenzene	**2.9**	0.50	ug/L	EPA 8260B	1/5/2003
Total Xylenes	**31**	0.50	ug/L	EPA 8260B	1/5/2003
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Diisopropyl ether (DIPE)	**< 2.0**	2.0	ug/L	EPA 8260B	1/5/2003
Ethyl-t-butyl ether (ETBE)	**< 2.0**	2.0	ug/L	EPA 8260B	1/5/2003
Tert-amyl methyl ether (TAME)	**< 2.0**	2.0	ug/L	EPA 8260B	1/5/2003
Tert-Butanol	**< 50**	50	ug/L	EPA 8260B	1/5/2003
TPH as Gasoline	**440**	50	ug/L	EPA 8260B	1/5/2003
1,2-Dichloroethane	**< 2.0**	2.0	ug/L	EPA 8260B	1/5/2003
1,2-Dibromoethane	**< 2.0**	2.0	ug/L	EPA 8260B	1/5/2003
Toluene - d8 (Surr)	88.8		% Recovery	EPA 8260B	1/5/2003
4-Bromofluorobenzene (Surr)	96.0		% Recovery	EPA 8260B	1/5/2003
Dibromofluoromethane (Surr)	105		% Recovery	EPA 8260B	1/5/2003
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	1/5/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30725
Date : 1/8/2003

Project Name : **461 8th Street, Oakland**
Project Number : **030102-SS4**

Sample : **S-9** Matrix : Water Lab Number : 30725-05
Sample Date :1/2/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	1/5/2003
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/5/2003
Toluene - d8 (Surr)	93.2		% Recovery	EPA 8260B	1/5/2003
4-Bromofluorobenzene (Surr)	91.9		% Recovery	EPA 8260B	1/5/2003

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 30725
Date : 1/8/2003

Project Name : **461 8th Street, Oakland**
Project Number : **030102-SS4**

Sample : **S-10** Matrix : Water Lab Number : 30725-06
Sample Date :1/2/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**1.8**	0.50	ug/L	EPA 8260B	1/5/2003
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/5/2003
Ethylbenzene	**14**	0.50	ug/L	EPA 8260B	1/5/2003
Total Xylenes	**24**	0.50	ug/L	EPA 8260B	1/5/2003
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	1/5/2003
TPH as Gasoline	**440**	50	ug/L	EPA 8260B	1/5/2003
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	1/5/2003
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	1/5/2003

Approved By: Joel Kiff

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

Report Number : 30725

Date : 1/8/2003

QC Report : Method Blank Data

Project Name : **461 8th Street, Oakland**

Project Number : **030102-SS4**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
Tert-Butanol	< 50	50	ug/L	EPA 8260B	1/5/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/5/2003
1,2-Dichloroethane	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
1,2-Dibromoethane	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
Toluene - d8 (Surr)	91.3		%	EPA 8260B	1/5/2003
4-Bromofluorobenzene (Surr)	116		%	EPA 8260B	1/5/2003
Dibromofluoromethane (Surr)	103		%	EPA 8260B	1/5/2003
1,2-Dichloroethane-d4 (Surr)	112		%	EPA 8260B	1/5/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/4/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/4/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/4/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/4/2003
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/4/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/4/2003
Toluene - d8 (Surr)	99.4		%	EPA 8260B	1/4/2003
4-Bromofluorobenzene (Surr)	99.0		%	EPA 8260B	1/4/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/5/2003
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
Tert-Butanol	< 50	50	ug/L	EPA 8260B	1/5/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/5/2003
1,2-Dichloroethane	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
1,2-Dibromoethane	< 2.0	2.0	ug/L	EPA 8260B	1/5/2003
Toluene - d8 (Surr)	94.9		%	EPA 8260B	1/5/2003
4-Bromofluorobenzene (Surr)	92.5		%	EPA 8260B	1/5/2003
Dibromofluoromethane (Surr)	110		%	EPA 8260B	1/5/2003
1,2-Dichloroethane-d4 (Surr)	106		%	EPA 8260B	1/5/2003

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 30725

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 1/8/2003

Project Name : **461 8th Street, Oakland**

Project Number : **030102-SS4**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	30691-01	1.1	39.9	39.8	43.9	43.3	ug/L	EPA 8260B	1/5/03	107	106	1.27	70-130	25
Toluene	30691-01	<0.50	39.9	39.8	37.4	37.2	ug/L	EPA 8260B	1/5/03	93.8	93.5	0.320	70-130	25
Tert-Butanol	30691-01	<5.0	200	199	185	181	ug/L	EPA 8260B	1/5/03	92.5	90.8	1.87	70-130	25
Methyl-t-Butyl Ether	30691-01	1.4	39.9	39.8	42.1	42.0	ug/L	EPA 8260B	1/5/03	102	102	0.116	70-130	25
Benzene	30717-02	<0.50	40.0	40.0	42.2	41.8	ug/L	EPA 8260B	1/4/03	105	104	0.977	70-130	25
Toluene	30717-02	<0.50	40.0	40.0	39.5	39.0	ug/L	EPA 8260B	1/4/03	98.8	97.6	1.25	70-130	25
Tert-Butanol	30717-02	<5.0	200	200	200	202	ug/L	EPA 8260B	1/4/03	100	101	0.792	70-130	25
Methyl-t-Butyl Ether	30717-02	<0.50	40.0	40.0	37.2	37.4	ug/L	EPA 8260B	1/4/03	93.1	93.4	0.268	70-130	25
Benzene	30716-01	<0.50	40.0	40.0	39.8	39.0	ug/L	EPA 8260B	1/5/03	99.6	97.4	2.21	70-130	25
Toluene	30716-01	<0.50	40.0	40.0	38.4	37.3	ug/L	EPA 8260B	1/5/03	95.9	93.2	2.88	70-130	25
Tert-Butanol	30716-01	<5.0	200	200	183	190	ug/L	EPA 8260B	1/5/03	91.5	94.9	3.64	70-130	25
Methyl-t-Butyl Ether	30716-01	<0.50	40.0	40.0	37.6	37.2	ug/L	EPA 8260B	1/5/03	94.0	93.0	0.989	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 30725

QC Report : Laboratory Control Sample (LCS)

Date : 1/8/2003

Project Name : **461 8th Street, Oakland**

Project Number : **030102-SS4**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	20.0	ug/L	EPA 8260B	1/5/03	102	70-130
Toluene	20.0	ug/L	EPA 8260B	1/5/03	90.2	70-130
Tert-Butanol	100	ug/L	EPA 8260B	1/5/03	90.1	70-130
Methyl-t-Butyl Ether	20.0	ug/L	EPA 8260B	1/5/03	101	70-130
Benzene	40.0	ug/L	EPA 8260B	1/4/03	98.4	70-130
Toluene	40.0	ug/L	EPA 8260B	1/4/03	98.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/4/03	99.5	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/4/03	87.6	70-130
Benzene	40.0	ug/L	EPA 8260B	1/5/03	98.4	70-130
Toluene	40.0	ug/L	EPA 8260B	1/5/03	94.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/5/03	91.8	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/5/03	92.6	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

30725

INCIDENT NUMBER (S&E ONLY): 97093399

SAP or CRMT NUMBER (TS/CRMT):

DATE: 1/2/03

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services	LOG CODE: BTSS
ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112	
PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart	
TELEPHONE: 408-573-0555	FAX: 408-573-7771
E-MAIL: lgearhart@blainetech.com	
SITE ADDRESS (Street and City): 461 8th Street, Oakland	GLOBAL ID NO.: T0600101263
EDF DELIVERABLE TO (Responsible Party or Designee): Anni Kreml	PHONE NO.: 510-420-3335
E-MAIL: ShellOaklandEDF@cambria-env.com	CONSULTANT PROJECT NO.: BTS # 030102-SS4
SAMPLER NAME(S) (Print): SUCHEON SUNG	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	1,2-DCA (8260B)	EDB (8260B)	TPH - Diesel, Extractable (8015m)	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes / TEMPERATURE ON RECEIPT C°
	S-4	1/2/03	1245	GW	3	X	X	X								-01
	S-5		1325		3	X	X			X			X	X		-02
	S-6		1340		3	X	X			X			X	X		-03
	S-8		1305		3	X	X			X			X	X		-04
	S-9		1315		3	X	X	X								-05
	S-10		1255		3	X	X	X								-06

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) John Cuttle/Kiff Analytical	Date: 010303	Time: 1050

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

Q&Q Graphic (714) 898-9702

10/16/00 Revision

WELL GAUGING DATA

Project # 030102554 Date 1/2/03 Client Shell

Site 461 9th St. 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-4	4					20.75	28.90		
S-5	4					14.72	38.61		BROKEN CAP
S-6	4					18.60	36.42		
S-8	4					21.95	29.25		BAILED WATER FROM BOX
S-9	4					21.35	29.89		NO LOCK
S-10	4					22.50	36.40		BAILED WATER FROM BOX

SHELL WELL MONITORING DATA SHEET

BTS #: 030102-SS4	Site: 461 8th ST. OAKLAND
Sampler: SCOTT	Date: 1/2/03
Well I.D.: S-4	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 28.90	Depth to Water (DTW): 20.75
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_____

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

NO PURGE.

_____(Gals.) X _____ = _____ 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
1245	66.0	7.4	483	31	~~——~~	CLEAR

Did well dewater? ~~Yes~~ No Gallons actually evacuated: ~~——~~

Sampling Date: 1/2/03 Sampling Time: 1245 Depth to Water: 20.75

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030102-SS4	Site: 461 8th ST. OAKLAND
Sampler: South	Date: 1/2/03
Well I.D.: S-5	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 38.61	Depth to Water (DTW): 14.72
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 ____

Sampling Method: (Bailer) / Disposable Bailer / Extraction Port / Dedicated Tubing / Other: ____

NO PURGE
____ (Gals.) X ____ = ____ 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
1325	67.3	6.5	640	29	———	CLEAR/GAS ODOR

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

Sampling Date: 1/2/03 Sampling Time: 1325 Depth to Water: 14.72

Sample I.D.: S-5 Laboratory: (Kiff) SPL Other ____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: OXY'S + 1,2-DCA, EDB BY 8260

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030102-SS4	Site: 461 8th ST. OAKLAND
Sampler: Scott	Date: 1/2/03
Well I.D.: S-6	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 36.42	Depth to Water (DTW): 18.60
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]:	

Purge Method: Bailer, Disposable Bailer, Middleburg, Electric Submersible, ~~Waterra~~, Peristaltic, Extraction Pump, Other ____

Sampling Method: (Bailer), Disposable Bailer, Extraction Port, Dedicated Tubing, Other: ____

NO PURGE

____(Gals.) X ____ = ____ 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
1340	67.0	6.5	1043	30	----	CLEAR/GAS ODOR

Did well dewater? Yes ~~No~~ Gallons actually evacuated: ~~—~~

Sampling Date: 1/2/03 Sampling Time: 1340 Depth to Water: 18.60

Sample I.D.: S-6 Laboratory: (Kiff) SPL Other ____

Analyzed for: (TPH-G BTEX) MTBE TPH-D Other: OXY'S, 1,2-DCA, EDB BY 8260

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030102-SS4	Site: 461 8th ST. OAKLAND
Sampler: Scott	Date: 1/2/03
Well I.D.: S-8	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 29.25	Depth to Water (DTW): 21.95
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_____

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

NO PURGE

_____(Gals.) X 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
1305	68.3	6.7	627	20	—	CLEAR

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

Sampling Date: 1/2/03 Sampling Time: 1305 Depth to Water: 21.95

Sample I.D.: S-8 Laboratory: (Kiff) SPL Other_____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: O&G's, 1,2-DCA, EDB By 8260

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030102-SS4	Site: 461 8th ST. OAKLAND
Sampler: Scott	Date: 1/2/03
Well I.D.: S-9	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 29.89	Depth to Water (DTW): 21.35
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_____

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

NO PURGE
_____(Gals.) X _____ = _____ 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
1315	66.2	6.5	435	17	—	CLEAR

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/2/03 Sampling Time: 1315 Depth to Water: 21.35

Sample I.D.: S-9 Laboratory: (Kiff) SPL Other_____

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

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030102-554	Site: 461 8th ST. OAKLAND
Sampler: SCOTT	Date: 1/2/03
Well I.D.: S-10	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 36.40	Depth to Water (DTW): 22.50
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_____

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

NO PURGE
_____(Gals.) X _____ = _____ 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
1255	67.0	6.6	965	25	———	CLEAR

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 1/2/03 Sampling Time: 1255 Depth to Water: 22.50

Sample I.D.: S-10 Laboratory: (Kiff) SPL Other_____

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

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

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

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