Shell Oil Products US

December 10, 2002

RO220

Alameda County
DEC 13 2002
Environmental Health

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

Subject: **Shell-branded Service Station**
285 Hegenberger Road
Oakland, California

Review DR 3/4/03

Dear Mr. Chan:

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

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

Sincerely,

Shell Oil Products US

Karen Petryna

Karen Petryna
Sr. Environmental Engineer

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

CAMBRIA

December 10, 2002

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

Re: **Fourth Quarter 2002 Monitoring Report**
Shell-branded Service Station
285 Hegenberger Road
Oakland, California
Incident #98995749
Cambria Project #244-0734-002

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.

FOURTH QUARTER 2002 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California collected dissolved oxygen (DO) measurements, gauged water levels, sampled selected wells, calculated groundwater elevations and compiled the gasoline constituents analytical data. Cambria compiled the non-gasoline constituents analytical data (Table 1) and prepared a groundwater elevation contour map (Figure 1). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

Bio-Attenuation Parameter Monitoring: Bio-attentuation parameters have been measured in groundwater samples to determine the status of, and trends in, aerobic degradation of the site hydrocarbons in groundwater. In typical reducing environments, an inverse relationship between benzene, toluene, ethylbenzene and xylenes (BTEX) concentrations and oxygen, nitrate, and sulfate concentrations, and a direct relationship between BTEX and ferrous iron concentrations are expected. The observed relationships between measured BTEX concentrations and the bioparameters are indicated in Table 1. In general, the evidence indicates that biological degradation of BTEX is occurring in groundwater at the site.

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

Air-Sparge and Soil Vapor Extraction (AS/SVE) System Operation: An AS/SVE system has been operated at the site using AS/SVE wells AS-1/VEW-5, AS-2/VEW-6 and AS-3/VEW-7 since March 25, 2002. In accordance with Bay Area Air Quality Management District (BAAQMD) Permit to Operate #3356, vapor monitoring using an organic vapor analyzer (OVA) is conducted monthly. In addition to OVA monitoring, influent, midfluent and effluent vapor samples are collected and analyzed for total petroleum hydrocarbons as gasoline (TPHg), BTEX and methyl tertiary butyl ether using EPA Method 8260B. Analytical results and vapor monitoring data are summarized in Table 2. Field data sheets for the AS/SVE system are included as Attachment B.

ANTICIPATED FIRST QUARTER 2003 ACTIVITIES

Groundwater Monitoring: The next sampling event is scheduled for the first quarter of 2003. At that time, Blaine will collect DO measurements, gauge water levels, sample selected site wells and tabulate the data. Cambria will prepare a monitoring report.

Air-Sparge and SVE System Operation: Cambria will continue to operate the AS/SVE system. In accordance with the BAAQMD Permit to Operate, Cambria will monitor influent, midfluent and effluent vapor concentrations on a monthly basis.

CLOSING

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

Sincerely,
Cambria Environmental Technology, Inc

Melody Munz
Project Engineer

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

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

Figure: 1 - Groundwater Elevation Contour Map

Tables: 1 - Groundwater Analytical Data - Other Constituents
2 - Vapor Extraction – Mass Removal Data

Attachments: A - Blaine Groundwater Monitoring Report and Field Notes
B - AS/SVE System Vapor Monitoring Data

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869
J.T., Elizabeth G., W.T., and Jeanette Watters, Tr., c/o Property Tax Dept, PO Box 2099, Houston, TX 77252-1413

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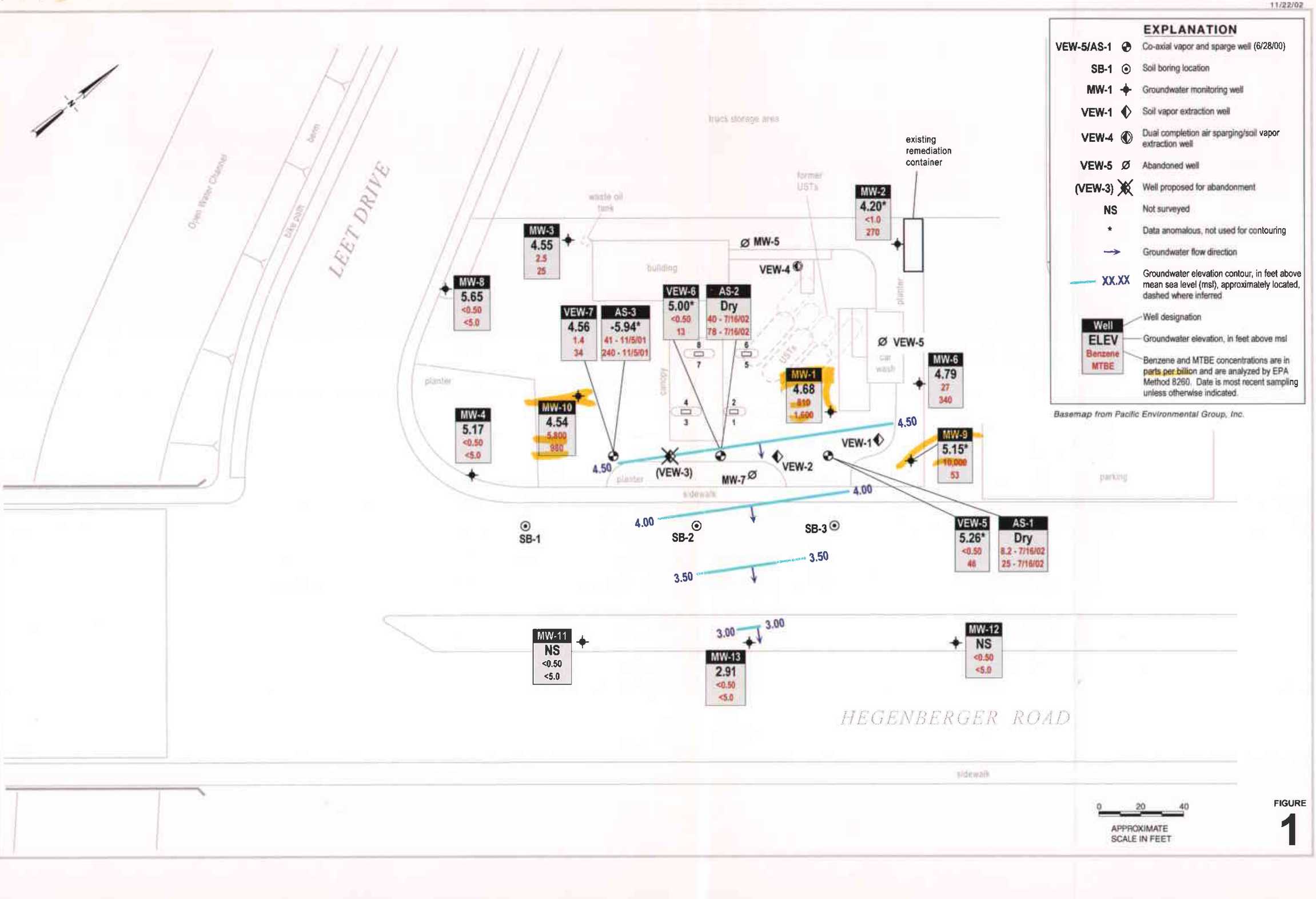
11/22/02

Groundwater Elevation Contour Map

October 17, 2002



EXPLANATION

VEW-5/AS-1	Co-axial vapor and sparge well (6/28/00)
SB-1	Soil boring location
MW-1	Groundwater monitoring well
VEW-1	Soil vapor extraction well
VEW-4	Dual completion air sparging/soil vapor extraction well
VEW-5	Abandoned well
(VEW-3)	Well proposed for abandonment
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. Date is most recent sampling unless otherwise indicated.

Basemap from Pacific Environmental Group, Inc.

0 20 40

APPROXIMATE SCALE IN FEET

FIGURE

1

CAMBRIA

Shell-branded Service Station
285 Hegenberger Road
Oakland, California
Incident #98995749

G:\OAKLAND285HEGENBERGER\FIGURES\4QM02-MP.AI

Table 1. **Groundwater Analytical Data - Other Constituents** - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP (millivolts)
		← (Concentrations in ppm) →					
MW-1	06/10/98	----	<1.0	3.3	14	0.5/0.5	-163/-178
	06/10/98[dup]	----	<1.0	5.1	14	0.5/0.5	-163/-178
	12/30/98	<0.250	<1.0	6.8	9.2	1.6/1.4	-119/-107
	06/25/99	----	0.0800	1.39	11.40	1.2/2.1	-150/-148
	12/28/99	0.507	<5.00	<5.00	3.80	1.4/1.8	-156/-152
	05/31/00	<0.500	<1.00	11.9	1.30	0.98/2.27	2/-130
	10/17/00	<0.5	<0.200	2.68	7.98	4.0/3.1	-122/-114
	05/01/01	0.297	<0.2	<1	0.541	1.6/1.3	-125/-130
	11/07/01	<5	<0.2	<1	3.4	2.1/1.4	-42/-56
	05/01/02	<0.1	<0.2	<1	4.7	3.4/2.3	-87/-108
	07/16/02	<5	<0.50	2.0	<0.10	0.9/0.8	-120/-134
	10/17/02	**<5**	**0.12**	**1.2**	**0.10**	**0.8/1.2**	**-117/-170**
MW-2	06/10/98	----	<1.0	47	5.1	0.7/0.6	-155/-161
	12/30/98	<0.250	<1.0	84	7.6	1.3/1.2	-96/-107
	06/25/99	----	<0.0500	126	7.97	2.3/2.5	-101/-106
	12/28/99	<0.500	<5.00	98.8	0.380	2.1/2.4	-112/-120
	05/31/00	<0.500	6.89	129	0.130	1.8/2.7	-15/-73
	10/17/00	---	---	---	---	---	---
	11/05/01	<0.1	<0.2	3	0.43	0.6/1.1	-81/-111
	05/01/02	<0.1	<0.2	380	0.19	6.2/0.9	-62/-50
	07/16/02	<5	0.60	62	<0.10	0.9/1.3	-79/-67
	10/17/02	**<5**	**0.11**	**14**	**<0.10**	**0.6/2.2**	**-95/-48**
MW-3	06/10/98	----	<1.0	15	3.5	0.8/0.9	-101/-149
	12/30/98	<0.250	<1.0	21	2.1	1.3/1.4	-84/-76
	06/25/99	----	<0.0500	4.74	8.73	1.4/1.9	-138/-148
	12/28/99	<0.500	<5.00	5.10	0.260	1.3/1.5	-86/-74
	05/31/00	<0.500	<1.00	19.3	22.6	1.2/2.2	-68/-103
	10/17/00	<0.5	<1.00	21.2	5.78	2.0/2.1	152/138
	05/01/01	<0.25	---	8.72	0.328	1.9/2.7	-63/-95
	05/29/01	---	0.45	---	---	3.0/1.9	78/-8
	11/05/01	<0.1	<0.2	6.6	0.19	0.5/1.9	-119/113

Table 1. **Groundwater Analytical Data - Other Constituents** - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP (millivolts)
		← (Concentrations in ppm) →					
MW-3 (cont.)	05/01/02	0.39	0.83	20	<0.1	4.1/0.7	-82/-44
	07/16/02	<5	<0.50	2.5	<0.10	0.3/1.7	-95/-112
	10/17/02	**<5**	**0.11**	**4.9**	**<0.10**	**0.8/2.4**	**-30/-47**
MW-4	12/30/98	<0.250	<1.0	9.6	1.6	1.7/1.6	-118/-111
	12/28/99	<0.500	<5.00	<5.00	<0.0100	1.4/1.5	-121/-117
	05/31/00	<0.500	---	---	---	---	---
	10/17/00	0.513	1.05	16.0	0.338	3.8/4.0	167/131
	11/05/01	<0.1	0.2	12	0.46	1.3/1.5	-126/112
	05/01/02	<0.1	<0.2	7.4	0.43	2.6/1.1	146/-90
	10/17/02	**<5**	**<0.10**	**13**	**<0.10**	**1.4/2.4**	**533/0**
MW-6	06/10/98	----	<1.0	7.4	1.8	0.4/0.4	-159/-155
	12/30/98	<0.250	<1.0	120	0.46	2.1/1.6	-98/-107
	06/25/99	----	0.101	22.1	12.80	1.4/3.6	-143/-136
	12/28/99	0.568	<5.00	147	0.320	1.8/2.0	-108/-96
	05/31/00	<0.500	<1.00	19.2	0.704	0.92/2.30	-31/-91
	10/17/00	<0.5	<1.00	<5.00	3.31	2.5/2.1	-107/-126
	05/01/01	0.416	---	4.88	<0.1	2.2/1.6	-107/-112
	05/29/01	---	<0.1	---	---	2.0/1.3	33/-65
	11/07/01	<5	<0.2	44	2.4	2.4/1.8	60/51
	05/01/02	<0.1	<0.2	10	<0.1	2.5/2.0	-111/-130
	07/16/02	<5	<0.50	1.7	<0.10	0.6/0.6	-108/-105
	10/17/02	**<5**	**0.11**	**17**	**<0.10**	**1.2/1.1**	**-92/-119**
MW-8	12/30/98	<0.250	12	54	0.031	0.8/0.9	-128/-121
	12/28/99	<0.500	<5.00	<5.00	<0.0100	1.0/0.9	-136/-121
	05/31/00	---	---	---	---	---	---
	10/17/00	<0.5	<1.00	23.2	1.12	4.0/4.1	114/119
	11/05/01	<0.1	0.59	22	0.13	0.6/1.3	-66/-75
	05/01/02	<0.1	2.1	18	<0.1	0.6/3.6	30/87
	10/17/02	**<5**	**0.71**	**17**	**1.7**	**3.3/2.2**	**-99/-42**

Table 1. **Groundwater Analytical Data - Other Constituents** - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP (millivolts)
		← (Concentrations in ppm) →					
MW-9	06/10/98	----	<1.0	6.6	21	0.3/0.4	-169/-188
	12/30/98	<0.250	<1.0	6.4	9.3	1.1/1.2	-107/-111
	06/25/99	----	0.0900	1.25	19.80	1.2/2.4	-164/-153
	12/28/99	<0.500	<5.00	<5.00	0.660	1.0/1.1	-111/-115
	05/31/00	<0.500	<1.00	13.9	1.41	2.8/a	-21/162
	10/17/00	<0.5	<1.00	<5.00	13.3	3.0/3.5	-126/-132
	05/01/01	<0.250	---	<1	2.66	1.6/1.0	-144/-154
	05/29/01	---	<0.1	---	---	1.9/1.5	45/-96
	11/07/01	<5	<0.2	<1	2.7	1.4/1.1	-39/-54
	05/01/02	<0.1	<0.2	<1	12	2.9/1.1	-111/-181
	07/16/02	<5	<0.50	1.4	0.12	0.7/0.4	-54/-121
	10/17/02	**<5**	**<0.40**	**<4.0**	**1.6**	**1.0/1.2**	**-100/-140**
MW-10	06/10/98	----	<1.0	6.3	17	0.7/0.5	-149/-162
	12/30/98	<0.250	<1.0	8.0	17	1.0/0.7	-72/-89
	06/25/99	----	0.134	<1.00	15.80	0.9/2.5	-139/-119
	12/28/99	0.604	0.998	<5.00	2.20	1.2/1.4	-87/-92
	05/31/00	<0.500	<1.00	12.4	3.22	2.8/3.9	-28/-93
	10/17/00	<0.5	<1.00	<5.00	8.30	2.3/3.0	-160/-113
	05/01/01	0.884	---	<1	2.34	2.0/1.1	-129/-137
	05/29/01	---	<0.1	---	---	3.70/1.8	-15/-50
	11/07/01	<5	<0.2	<1	2.4	1.8/1.0	-139/-147
	05/01/02	<0.1	<0.2	<1	1.9	4.0/0.5	-121/-113
	07/16/02	<5	<0.50	0.82	<0.10	0.5/1.5	-120/-118
	10/17/02	**<5**	**0.10**	**<1.0**	**0.21**	**0.8/1.2**	**-56/-40**
MW-11	12/30/98	<0.250	<1.0	1,000	0.21	0.7/0.6	-86/-74
	12/28/99	<0.500	<5.00	<5.00	<0.0100	0.8/1.0	-94/-67
	05/31/00	---	---	---	---	---	---
	10/17/00	<0.50	<1.00	1,140	1.74	4.1/4.0	81/64
	05/08/02	<5	3.8	1,000	1.2	1.0/1.1	-33/-21
	10/17/02	**<5**	**<10.0**	**860**	**0.60**	**1.3/1.0**	**67/-57**

Table 1. **Groundwater Analytical Data - Other Constituents** - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP (millivolts)
		← (Concentrations in ppm) →					
MW-12	12/30/98	<0.250	6.1	1,500	0.06	1.3/0.9	-119/-106
	12/28/99	<0.500	<5.00	<5.00	<0.0100	1.0/1.2	-120/-110
	05/31/00	---	---	---	---	---	---
	10/17/00	<0.50	<1.00	182	0.0107	5.1/3.0	15/24
	05/08/02	<5	12	170	<0.10	1.2/0.9	17/26
	10/17/02	**<5**	**0.91**	**92**	**<0.10**	**1.8/1.5**	**-20/10**
MW-13	12/30/98	<0.250	7.2	230	0.031	1.1/0.8	-111/-104
	12/28/99	<0.500	<5.00	<5.00	<0.0100	0.8/1.0	-117/-115
	05/31/00	---	---	---	---	---	---
	10/17/00	<0.5	<1.00	1,800	0.169	2.5/2.8	-10/19
	05/01/02	<0.1	10	280	<0.1	3.5/3.5	96/102
	10/17/02	**<5**	**1.8**	**220**	**<0.10**	**1.4/0.9**	**-94/-42**
VEW-5	10/17/00	<1	<1.00	15.0	2.64	3.0/3.1	-112/-126
	05/01/01	1.45	---	---	2.4	0.4/0.6	-95/-133
	11/05/01	<100	<0.2	<1	5.6	0.6/a	-108/a
	05/01/02	<0.1	0.2	21	19	4.7/2.9	492/-0
	07/16/02	<5	<0.50	3.0	0.61	0.4/0.3	-96/-185
	10/17/02	**<5**	**8.4**	**82**	**<0.10**	**1.1/1.0**	**-107/-126**
VEW-6	10/17/00	<1	<1.00	17.7	4.16	2.0/2.1	-92/-115
	05/01/01	0.805	---	---	1.67	0.8/1.2	-108/-129
	05/29/01	---	0.49	---	---	3.0/1.7	-13//-53
	11/05/01	<100	<0.2	14	5.6	0.8/1.3	-145/-127
	05/01/02	<0.1	<0.2	13	3.3	0.2/0.4	-177/-182
	07/16/02	<5	<0.50	41	<0.10	0.3/0.2	-125/-108
	10/17/02	**<5**	**9.0**	**130**	**<0.10**	**0.9/1.3**	**-170/-266**
VEW-7	10/17/00	<1	<0.200	1.96	508	3.5/4.1	-87/-82
	05/01/01	0.348	---	---	1.97	0.8/0.8	-102/-120
	05/29/01	---	0.43	---	---	2.5/1.4	-21/-75
	11/05/01	<100	<0.2	4.1	4.8	3.52/a	-113/-147

Table 1. **Groundwater Analytical Data - Other Constituents** - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP (millivolts)
		← (Concentrations in ppm) →					
VEW-7 (cont.)	05/01/02	<0.1	<0.2	41	0.62	2.9/3.3	110/0
	07/16/02	<5	25	240	<0.10	3.6/2.5	-102/-36
	10/17/02	**<5**	**9.3**	**480**	**<0.10**	**3.0/1.9**	**-226/-184**
AS-1	10/17/00	<1	<1.00	965	0.708	2.0/2.5	-109/-79
	11/05/01	<100	<0.2	830	0.21	0.4/0.5	-122/150
	07/16/02	<5	<0.50	1,800	<0.10	4.6/2.8	-51/-95
AS-2	10/17/00	<0.5	<1.00	3,810	2.46	3.1/3.0	-65/-69
	11/05/01	<100	<10	4,100	8.8	0.8/0.6	-97/-132
	05/01/02	<0.1	<2	5,500	0.34	1.0/0.8	0/-163
	07/16/02	<5	<2.5	5,300	<0.10	0.7/0.9	-71/-93
AS-3	10/17/00	1.26	<1.00	493	0.0402	3.1/3.0	26/29
	11/05/01	<100	<0.2	450	0.13	1.1/3.2	-71/-62

Ideal Aerobic Degradation Relationship:	Inverse	Inverse	Direct	Inverse	Direct
Observed Relationship:	Inconclusive	Moderately Inverse	Direct	Moderately Inverse	Inconclusive

Abbreviations:

ppm = Parts per million
DO = Dissolved oxygen, measured in the field, reported as pre-purge/post-purge
ORP = Oxidation reduction potential, measured in the field, reported as pre-purge/post-purge

Notes:

---- = Not analyzed
<n = Below detection limit of n ppm
Motor oil by DHS LUFT
Ferrous iron analyzed by EPA Method 200.7
Nitrate as nitrate and sulfate analyzed by EPA Method 300.0
a = Post-purge reading not taken

Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, CA 94621

							TPHg		Benzene		MTBE	
		Interval	System				TPHg	Cumulative	Benzene	Cumulative	MTBE	Cumulative
		Hours of	Flow	Hydrocarbon Concentrations			Removal	TPHg	Removal	Benzene	Removal	MTBE
	Hour	Operation	Rate	TPHg	Benzene	MTBE	Rate	Removed	Rate	Removed	Rate	Removed
Date	Meter	(hours)	(CFM)	(Concentrations in ppmv)			(#/hour)	(#)	(#/hour)	(#)	(#/hour)	(#)
03/25/02	---	---	---	<5.0	<0.050	<0.10	nc	nc	nc	nc	nc	nc
03/26/02	---	---	---	<5.0	<0.050	<0.10	nc	nc	nc	nc	nc	nc
03/27/02	---	---	---	<5.0	<0.050	<0.10	nc	nc	nc	nc	nc	nc
03/28/02	---	---	---	<5.0	<0.050	<0.10	nc	nc	nc	nc	nc	nc
03/29/02	---	---	---	<5.0	<0.050	<0.10	nc	nc	nc	nc	nc	nc
04/30/02	0	0	---	300	3.40	<0.20	nc	nc	nc	nc	nc	nc
05/09/02	---	---	8.0	300	3.40	<0.20	0.032	0.000	0.000	0.000	0.000	0.000
05/14/02	---	---	4.7	52	1.70	0.32	0.003	0.000	0.000	0.000	0.000	0.000
06/03/02	---	---	---	52	1.70	0.32	nc	nc	nc	nc	nc	nc
06/25/02	---	---	---	52	1.70	0.32	nc	nc	nc	nc	nc	nc
07/05/02	---	---	---	91	1.60	0.12	nc	nc	nc	nc	nc	nc
07/16/02	---	---	---	91	1.60	0.12	nc	nc	nc	nc	nc	nc
07/30/02	---	---	---	120	1.50	0.16	nc	nc	nc	nc	nc	nc
08/13/02	2,055	2,055	---	120	1.50	0.16	0.000	0.000	0.000	0.000	0.000	0.000
09/23/02	2,057	2	39.4	930	5.6	<4.0	0.490	0.980	0.003	0.005	0.001	0.002
10/01/02	2,243	186	32.0	930	5.6	<4.0	0.398	74.976	0.002	0.409	0.001	0.165
10/15/02	2,580	337	18.5	90	0.31	<0.10	0.022	82.476	0.000	0.433	0.000	0.169
10/29/02	2,916	336	34.5	90	0.31	<0.10	0.042	96.423	0.000	0.476	0.000	0.177
11/11/02	3,008	92	37.5	<5.0	<0.050	<0.10	0.003	96.653	0.000	0.478	0.000	0.180
11/26/02	NA	NA	25.5	<5.0	<0.050	<0.10	0.002	96.653	0.000	0.478	0.000	0.180
Total Pounds Removed:							**TPHg =**	**96.653**	**Benzene =**	**0.478**	**MTBE =**	**0.180**

Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, CA 94621

Abbreviations and Notes:

CFM = Cubic feet per minute

TPHg = Total petroleum hydrocarbons as gasoline (C6-C12) by modified EPA Method 8015 in 1 liter tedlar bag samples

ppmv = Parts per million by volume

= Pounds

nc = Not calculated

TPHG, Benzene, and MTBE analyzed by EPA Method 8015/8020 in 1 liter tedlar bag samples

TPHg / Benzene / MTBE removal rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

(Rate = Concentration (ppmv) x system flow rate (cfm) x (1lb-mole/386ft3) x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene, 88 lb/lb-mole for MTBE) x 60 min/hour x 1/1,000,000)

Calculations based on most recent sampling results (system sampled monthly).

Cumulative TPHg / Benzene / MTBE removal = Previous removal rate multiplied by the hour-interval of operation plus the previous total

If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.

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

November 12, 2002

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

Fourth Quarter 2002 Groundwater Monitoring at
Shell-branded Service Station
285 Hegenberger Road
Oakland, CA

Monitoring performed on October 17, 2002

Groundwater Monitoring Report **021017-MT-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.
114 65th Street, Suite C
Oakland, CA 94608-2411

WELL CONCENTRATIONS
Shell-branded Service Station
285 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-1	02/16/1989	99,000	NA	20,000	23,000	5,700	2,300	NA	NA	6.64	3.83	2.81	NA
MW-1	05/23/1989	48,000	11,000	4,200	5,200	1,200	7,700	NA	NA	6.64	3.59	3.05	NA
MW-1	08/03/1989	63,000	11,000	5,500	5,500	3,200	9,500	NA	NA	6.64	4.04	2.60	NA
MW-1	12/15/1989	30,000	11,000	ND	ND	ND	ND	NA	NA	6.64	4.22	2.42	NA
MW-1	02/07/1990	93,000	10,000	13,000	9,600	2,400	14,000	NA	NA	6.64	4.60	2.04	NA
MW-1	04/18/1990	55,000	8,700	14,000	8,400	3,200	13,000	NA	NA	6.64	4.02	2.62	NA
MW-1	07/23/1990	73,000	3,600	16,000	7,400	2,800	15,000	NA	NA	6.64	4.17	2.47	NA
MW-1	09/27/1990	45,000	1,700	8,000	4,300	2,000	11,000	NA	NA	6.64	4.60	2.04	NA
MW-1	01/03/1991	43,000	3,100	10,000	3,400	1,900	11,000	NA	NA	6.64	4.88	1.76	NA
MW-1	04/10/1991	67,000	1,800	20,000	9,600	3,500	16,000	NA	NA	6.64	3.55	3.09	NA
MW-1	07/12/1991	NA	NA	NA	NA	NA	NA	NA	NA	6.64	3.97	2.67	NA
MW-1	10/08/1991	55,000	7,400	18,000	3,500	2,300	8,600	NA	NA	6.64	4.26	2.38	NA
MW-1	02/06/1992	48,000	15,000 a	12,000	2,800	1,900	7,400	NA	NA	6.64	4.94	1.70	NA
MW-1	05/04/1992	71,000	10,000 a	16,000	6,000	3,100	14,000	NA	NA	6.64	3.58	3.06	NA
MW-1	07/28/1992	68,000	18,000 a	21,000	5,500	3,400	15,000	NA	NA	6.64	3.91	2.73	NA
MW-1 (D)	07/28/1992	70,000	19,000 a	17,000	5,000	2,700	13,000	NA	NA	6.64	3.91	2.73	NA
MW-1	10/27/1992	53,000	1,300	18,000	3,700	3,400	11,000	NA	NA	6.64	4.79	1.85	NA
MW-1 (D)	10/27/1992	48,000	2,500 a	17,000	3,600	3,100	9,900	NA	NA	6.64	4.79	1.85	NA
MW-1	01/14/1993	84,000	2,200 a	17,000	5,400	3,000	13,000	NA	NA	6.64	3.39	3.25	NA
MW-1	04/23/1993	100,000	2,300 a	18,000	7,800	4,700	20,000	NA	NA	6.64	2.67	3.97	NA
MW-1	07/20/1993	41a	3,100 a	12,000	870	1,500	4,400	NA	NA	9.50	3.48	6.02	NA
MW-1	10/18/1993	33,000	8,100 a	14,000	1,200	2,000	4,900	NA	NA	9.50	4.20	5.30	NA
MW-1 (D)	10/18/1993	44,000	3,700 a	14,000	1,200	2,000	4,900	NA	NA	9.50	4.20	5.30	NA
MW-1	01/06/1994	71,000	9,000 a	9,000	870	1,600	5,100	NA	NA	9.50	4.13	5.37	NA
MW-1	04/12/1994	42,000	5,900	6,600	170	2,300	4,700	NA	NA	9.50	2.42	7.08	NA
MW-1 (D)	04/12/1994	40,000	4,700	6,300	180	2,000	4,400	NA	NA	9.50	2.42	7.08	NA

WELL CONCENTRATIONS
Shell-branded Service Station
285 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-1	07/25/1994	13,000	7,000 a	4,400	110	460	1,400	NA	NA	9.50	3.37	6.13	NA
MW-1	10/25/1994	19,000	3,900	5,500	210	880	2,000	NA	NA	9.50	4.07	5.43	NA
MW-1	01/09/1995	37,000	8,600 a	6,700	800	2,800	8,900	NA	NA	9.50	2.65	6.85	NA
MW-1	04/11/1995	26,000	5,500	4,700	270	1,800	3,400	NA	NA	9.50	2.38	7.12	NA
MW-1	07/18/1995	57,000	7,000	7,500	880	4,100	11,000	NA	NA	9.50	3.49	6.01	NA
MW-1 (D)	07/19/1995	46,000	6,600	6,000	670	3,200	7,500	NA	NA	9.50	3.49	6.01	NA
MW-1	10/18/1995b	37,000	3,200	5,400	450	2,600	7,400	10,000	NA	9.50	NA	NA	NA
MW-1	01/09/1996	32,000	NA	3,000	240	1,900	3,500	6,100	NA	9.50	2.95	6.55	NA
MW-1	04/02/1996	30,000	NA	3,100	260	2.0	3,900	8.0	NA	9.50	2.00	7.50	NA
MW-1	10/03/1996	18,000	2,800	3,000	120	1,200	1,700	7,500	NA	9.50	3.21	6.29	2.2
MW-1	04/03/1997	29,000	3,000	2,300	170	2,300	2,900	4,300	NA	9.50	2.84	6.66	2.2
MW-1	10/08/1997	22,000	3,600	920	71	2,400	2,200	820	NA	9.50	2.58	6.92	1.5
MW-1	06/10/1998	13,000	2,900	860	<100	1,300	500	29,000	32,000	9.50	2.67	6.83	0.5/0.5
MW-1 (D)	06/10/1998	9,400	2,100	870	<50	1,300	520	28,000	NA	9.50	2.67	6.83	0.5/0.5
MW-1	12/30/1998	6,930	1,540	714	52.7	243	<25.0	9,000	NA	9.50	4.68	4.82	1.6/1.4
MW-1 *	06/25/1999	12,600	NA	1,110	44.7	1,340	710	6,080	NA	9.50	2.86	6.64	1.2/2.1
MW-1	12/28/1999	3,260	1,170	527	14.0	50.7	40.3	5,430	7,060b	9.50	3.23	6.27	1.4/1.8
MW-1	05/31/2000	6,820	2,050	1,620	<50.0	116	<50.0	6,070	4,710	9.50	2.39	7.11	0.98/2.27
MW-1	10/17/2000	2,530	995 a	388	<10.0	16.4	22.1	917	NA	9.50	2.05	7.45	4.0/3.1
MW-1	05/01/2001	12,300	1,510	1,480	19.5	205	111	4,160	NA	9.50	3.55	5.95	1.6/1.3
MW-1	11/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	9.85 e	4.43	5.42	0.4
MW-1	11/07/2001	3,000	<1,000	290	6.0	11	15	NA	870	9.85	4.00	5.85	2.1/1.4
MW-1	05/01/2002	11,000	<2,000	2,100	29	180	68	NA	1,500	9.85	3.14	6.71	3.4/2.3
MW-1	07/16/2002	7,400	<1,500	1,200	22	37	24	NA	1,900	9.85	3.69	6.16	0.9/0.8
MW-1	**10/17/2002**	**4,600**	**<2,000**	**810**	**16**	**68**	**31**	**NA**	**1,600**	**9.44**	**4.76**	**4.68**	**0.8/1.2**

WELL CONCENTRATIONS
Shell-branded Service Station
285 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-2	02/16/1989	20,000	NA	200	900	2,700	9,600	NA	NA	7.68	5.33	2.35	NA
MW-2	05/23/1989	1,500	1,600	4.3	2.9	11	150	NA	NA	7.68	5.23	2.45	NA
MW-2	08/03/1989	15,000	7,400	75	120	850	2,200	NA	NA	7.68	6.03	1.65	NA
MW-2	12/15/1989	5,000	2,600	52	13	4.1	290	NA	NA	7.68	6.43	1.25	NA
MW-2	02/07/1990	13,000	4,800	32	34	230	640	NA	NA	7.68	5.82	1.86	NA
MW-2	04/18/1990	9,800	3,200	33	19	460	1,700	NA	NA	7.68	5.88	1.80	NA
MW-2	07/23/1990	9,600	2,700	41	27	540	940	NA	NA	7.68	6.05	1.63	NA
MW-2	10/01/1990	390	1,600	3.4	15	8.5	25	NA	NA	7.68	NA	NA	NA
MW-2	01/03/1991	1,800	830	56	4.4	4.8	92	NA	NA	7.68	6.82	0.86	NA
MW-2	04/10/1991	1,900	280	ND	28	140	490	NA	NA	7.68	4.80	2.88	NA
MW-2	07/12/1991	8,100	1,100	89	66	350	930	NA	NA	7.68	5.70	1.98	NA
MW-2	10/08/1991	1,400	2,600	5.1	1.5	36	270	NA	NA	7.68	6.40	1.28	NA
MW-2	02/06/1992	2,000	5,400 a	7.8	2.5	130	210	NA	NA	7.68	6.40	1.28	NA
MW-2	05/04/1992	21	1,000	ND	ND	300	960	NA	NA	7.68	4.68	3.00	NA
MW-2	07/28/1992	2,100	830 a	7.7	3.3	130	310	NA	NA	7.68	5.86	1.82	NA
MW-2	10/27/1992	1,100	530	16	3.1	4.5	25	NA	NA	7.68	6.96	0.72	NA
MW-2	01/14/1993	290	170 a	5.2	3.1	8.4	21	NA	NA	7.68	4.12	3.56	NA
MW-2	04/23/1993	2,400	1,200 a	ND	ND	210	610	NA	NA	7.68	3.84	3.84	NA
MW-2	07/20/1993	440	130	1.7	1.7	15	38	NA	NA	10.55	5.17	5.38	NA
MW-2	10/18/1993	2,100	1,600 a	ND	ND	90	110	NA	NA	10.55	6.20	4.35	NA
MW-2	01/06/1994	1.9a	130	ND	6.7	7.1	12	NA	NA	10.55	5.39	5.16	NA
MW-2	04/12/1994	120	130	ND	ND	3.4	4.3	NA	NA	10.55	4.72	5.83	NA
MW-2	07/25/1994	0.18a	280 a	5.3	ND	6.2	8.2	NA	NA	10.55	5.44	5.11	NA
MW-2	10/25/1994	170	400	ND	ND	ND	ND	NA	NA	10.55	6.73	3.82	NA
MW-2	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.55	4.34	6.21	NA
MW-2	04/11/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.55	3.72	6.83	NA

WELL CONCENTRATIONS
Shell-branded Service Station
285 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-2	07/18/1995	250	160	2.8	0.5	12	13	NA	NA	10.55	4.91	5.64	NA
MW-2	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.55	5.88	4.67	NA
MW-2	01/09/1996	790	130	5.1	1.5	2.4	4.6	1,400	NA	10.55	4.75	5.80	NA
MW-2	04/02/1996	260	NA	<2	<2	13	6.9	540	NA	10.55	3.25	7.30	NA
MW-2	10/03/1996	<2,000	620	<20	<20	<20	<20	13,000	NA	10.55	5.27	5.28	2.3
MW-2	04/03/1997	<1,000	190	<10	<10	<10	<10	2,800	NA	10.55	3.99	6.56	2.2
MW-2	10/08/1997	<5,000	1,100	<50	<50	<50	<50	d	NA	10.55	5.03	5.52	1.6
MW-2	06/10/1998	120	310	1.7	<1.0	<1.0	<1.0	3,800	NA	10.55	4.11	6.44	0.7/0.6
MW-2	12/30/1998	<5,000	1,050	<50.0	<50.0	<50.0	<50.0	12,100	15,300	10.55	4.76	5.79	1.3/1.2
MW-2 *	06/25/1999	<1,000	NA	<10.0	<10.0	<10.0	<10.0	7,570	NA	10.55	4.63	5.92	2.3/2.5
MW-2	12/28/1999	228	446	4.54	<0.500	<0.500	<0.500	4,260	NA	10.55	4.95	5.60	2.1/2.4
MW-2	05/31/2000	597	187	19.3	<0.500	0.860	<0.500	2,480	NA	10.55	4.06	6.49	1.8/2.7
MW-2	10/17/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	10.55	NA	NA	NA
MW-2	05/01/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	10.55	NA	NA	NA
MW-2	11/05/2001	<500	610	<5.0	<5.0	<5.0	<5.0	NA	1,800	10.55	6.12	4.43	0.6/1.1
MW-2	05/01/2002	440	<50	<2.5	<2.5	<2.5	<2.5	NA	1,300	10.55	3.85	6.70	6.2/0.9
MW-2	07/16/2002	<500	250	<5.0	<5.0	<5.0	<5.0	NA	2,100	10.55	4.56	5.99	0.9/1.3
MW-2	**10/17/2002**	**280**	**240**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**NA**	**270**	**10.10**	**5.90**	**4.20**	**0.6/2.2**
MW-3	02/16/1989	60,000	NA	5,500	ND	3,200	5,200	NA	NA	7.81	5.17	2.64	NA
MW-3	05/23/1989	ND	1,500	ND	200	ND	ND	NA	NA	7.81	5.09	2.72	NA
MW-3	08/03/1989	2,000	1,200	120	ND	ND	86	NA	NA	7.81	5.34	2.47	NA
MW-3	12/15/1989	5,200	1,700	380	12	17	410	NA	NA	7.81	6.02	1.79	NA
MW-3	02/07/1990	260	230	17	47	5.4	2.5	NA	NA	7.81	4.95	2.86	NA
MW-3	04/18/1990	260	ND	ND	ND	ND	9.4	NA	NA	7.81	5.55	2.26	NA
MW-3	07/23/1990	510	210	46	ND	ND	9.3	NA	NA	7.81	5.81	2.00	NA

WELL CONCENTRATIONS
Shell-branded Service Station
285 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-3	09/27/1990	460	350	6.3	1.2	ND	15	NA	NA	7.81	6.86	0.95	NA
MW-3	01/03/1991	4,800	630	920	1.7	ND	190	NA	NA	7.81	6.84	0.97	NA
MW-3	04/10/1991	120	60	1.2	8.8	3.5	21	NA	NA	7.81	4.93	2.88	NA
MW-3	07/12/1991	430	ND	12	0.8	ND	7.7	NA	NA	7.81	5.56	2.25	NA
MW-3	10/08/1991	770	560	140	ND	ND	53	NA	NA	7.81	6.62	1.19	NA
MW-3	02/06/1992	500	340 a	74	0.7	5.2	5.3	NA	NA	7.81	6.28	1.53	NA
MW-3	05/04/1992	310	290 a	47	0.9	17	16	NA	NA	7.81	4.65	3.16	NA
MW-3	07/28/1992	780	100 a	130	ND	13	4.2	NA	NA	7.81	5.56	2.25	NA
MW-3	10/27/1992	740	69a	92	ND	7.8	9.6	NA	NA	7.81	6.65	1.16	NA
MW-3	01/14/1993	ND	ND	2.4	2.8	ND	ND	NA	NA	7.81	3.88	3.93	NA
MW-3	04/23/1993b	NA	NA	NA	NA	NA	NA	NA	NA	7.81	NA	NA	NA
MW-3	07/20/1993b	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	NA	NA	NA
MW-3	10/18/1993b	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	NA	NA	NA
MW-3	01/06/1994	130	64	1.7	ND	ND	0.93	NA	NA	11.25 (TOB)	5.54	NA	NA
MW-3	04/12/1994	ND	75	0.82	ND	ND	0.7	NA	NA	11.25 (TOB)	4.82	NA	NA
MW-3	07/25/1994	0.06a	ND	2.8	ND	ND	0.7	NA	NA	11.25 (TOB)	6.03 (TOB)	5.22	NA
MW-3	10/25/1994	70	100	ND	ND	ND	ND	NA	NA	11.25 (TOB)	6.48	NA	NA
MW-3	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	11.25 (TOB)	4.86 (TOB)	6.39	NA
MW-3	04/11/1995	ND	ND	ND	ND	ND	ND	NA	NA	11.25 (TOB)	4.22 (TOB)	7.03	NA
MW-3	07/18/1995	ND	90	2.8	ND	ND	ND	NA	NA	11.25 (TOB)	5.44 (TOB)	5.81	NA
MW-3	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	5.72	NA	NA
MW-3	01/09/1996	90	90	1.7	ND	<0.5	<0.5	61	NA	11.25 (TOB)	4.96	NA	NA
MW-3	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	24	NA	11.25 (TOB)	3.43	NA	NA
MW-3	10/03/1996	<500	180	<5	<5	<5	<5	1,200	NA	11.25 (TOB)	5.39	NA	2.4
MW-3	04/03/1997	150	83	3.2	<0.50	<0.50	0.81	280	NA	11.25 (TOB)	4.20	NA	2.0
MW-3	10/08/1997	180	120	7.3	0.68	0.54	3.9	1,700	NA	11.25 (TOB)	5.51(TOB)	5.74	2.1

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-3	06/10/1998	130	120	12	0.85	<0.50	2.1	600	NA	11.25 (TOB)	3.91(TOB)	7.34	0.8/0.9
MW-3	12/30/1998	<250	108	<2.50	<2.50	<2.50	<2.50	1,010	NA	11.25 (TOB)	5.76 (TOB)	5.49	1.3/1.4
MW-3 *	06/25/1999	269	NA	4.24	<2.50	<2.50	<2.50	1,180	NA	11.25 (TOB)	4.73	NA	1.4/1.9
MW-3	12/28/1999	333	122	41.4	6.48	6.57	21.3	2,680	NA	11.25 (TOB)	5.75 (TOB)	5.50	1.3/1.5
MW-3	05/31/2000	1,180	89.2	19.1	1.92	3.26	<1.00	2,130	NA	11.25 (TOB)	4.96 (TOB)	6.29	1.2/2.2
MW-3	10/17/2000	156	183 a	5.22	0.819	<0.500	1.53	2,250	NA	11.25 (TOB)	5.70 (TOB)	5.55	2.0/2.1
MW-3	05/01/2001	286	95.9	<2.50	<2.50	<2.50	<2.50	1,470	NA	11.25 (TOB)	4.88 (TOB)	6.37	1.9/2.7
MW-3	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	5.25 (TOB)	6.00	3.0/1.9
MW-3	11/05/2001	<500	<50	<5.0	<5.0	<5.0	<5.0	NA	2,100	11.25 (TOB)	6.25 (TOB)	5.00	0.5/1.9
MW-3	05/01/2002	<100	80	<1.0	<1.0	<1.0	<1.0	NA	430	11.25 (TOB)	4.77 (TOB)	6.48	4.1/0.7
MW-3	07/16/2002	410	340	12	2.0	<2.0	3.5	NA	530	11.25 (TOB)	5.44 (TOB)	5.81	0.3/1.7
MW-3	**10/17/2002**	**220**	**82**	**2.5**	**<2.0**	**<2.0**	**2.3**	**NA**	**25**	**10.58**	**6.03**	**4.55**	**0.8/2.4**
MW-4	05/23/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.38	5.60	1.78	NA
MW-4	08/03/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.37	1.01	NA
MW-4	12/15/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.91	0.47	NA
MW-4	03/08/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.06	1.32	NA
MW-4	04/18/1990	NA	NA	NA	NA	NA	NA	NA	NA	7.38	5.84	1.54	NA
MW-4	07/23/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.92	0.46	NA
MW-4	09/27/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	8.03	0.65	NA
MW-4	01/03/1991	NA	NA	NA	NA	NA	NA	NA	NA	7.38	7.54	-0.16	NA
MW-4	04/10/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	5.06	2.32	NA
MW-4	07/12/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.86	0.52	NA
MW-4	10/08/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	7.44	-0.06	NA
MW-4	02/06/1992	120	2,500 a	ND	ND	ND	ND	NA	NA	7.38	7.29	0.09	NA
MW-4	05/04/1992	ND	53	ND	ND	ND	ND	NA	NA	7.38	5.33	2.05	NA

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MW-4	07/28/1992	ND	60	ND	ND	ND	ND	NA	NA	7.38	6.95	0.43	NA
MW-4	10/27/1992	ND	ND	ND	ND	ND	ND	NA	NA	7.38	7.65	-0.27	NA
MW-4	01/14/1993	ND	ND	ND	ND	ND	ND	NA	NA	7.38	4.84	2.54	NA
MW-4	04/23/1993	ND	ND	ND	ND	ND	ND	NA	NA	7.38	4.84	2.54	NA
MW-4	07/20/1993	ND	ND	2.2	ND	1.1	7.7	NA	NA	10.28	6.47	3.81	NA
MW-4	10/18/1993	ND	ND	ND	1.2	ND	ND	NA	NA	10.28	7.35	2.93	NA
MW-4	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.28	7.64	2.64	NA
MW-4	04/12/1994	ND	76	ND	ND	ND	ND	NA	NA	10.28	6.39	3.89	NA
MW-4	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.28	7.00	3.28	NA
MW-4	10/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.28	7.53	2.75	NA
MW-4	01/09/1995	ND	70 a	ND	ND	ND	ND	NA	NA	10.28	4.90	5.38	NA
MW-4	04/11/1995	ND	140	1.5	ND	0.6	3.4	NA	NA	10.28	5.04	5.24	NA
MW-4	07/18/1995	ND	160	13	3.4	ND	ND	NA	NA	10.28	6.18	4.10	NA
MW-4	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.28	6.63	3.65	NA
MW-4	01/09/1996	<50	ND	<0.5	ND	<0.5	<0.5	ND	NA	10.28	3.82	6.46	NA
MW-4	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.28	3.97	6.31	NA
MW-4	10/03/1996	<50	81	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.28	3.74	6.54	NA
MW-4	04/03/1997	<50	69	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.28	3.74	6.54	1.8
MW-4	10/08/1997	<50	75	<0.50	<0.50	<0.50	<0.50	13	NA	10.28	4.89	5.39	2.0
MW-4 (D)	10/08/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.28	4.89	5.39	2.0
MW-4	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.28	4.39	5.89	NA
MW-4	12/30/1998	<50.0	94.1	<0.500	<0.500	<0.500	0.580	7.33	NA	10.28	5.58	4.70	1.7/1.6
MW-4	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.28	4.17	6.11	NA
MW-4	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	10.28	4.54	5.74	1.4/1.5
MW-4	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	10.28	3.85	6.43	NA
MW-4	10/17/2000	<50.0	274a	<0.500	<0.500	<0.500	<0.500	9.40	NA	10.28	3.50	6.78	3.8/4.0

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MW-4	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.28	4.10	6.18	NA
MW-4	11/05/2001	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	8.4	10.28	5.21	5.07	1.3/1.5
MW-4	05/01/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	10.28	4.28	6.00	2.6/1.1
MW-4	07/16/2002	NA	NA	NA	NA	NA	NA	NA	NA	10.28	3.87	6.41	NA
MW-4	**10/17/2002**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**9.83**	**4.66**	**5.17**	**1.4/2.4**
MW-5	05/23/1989	26,000	7,000	1,500	280	ND	8,100	NA	NA	8.18	5.47	2.71	NA
MW-5	08/03/1989	12,000	8,700	860	94	ND	2,600	NA	NA	8.18	5.94	2.24	NA
MW-5	12/15/1989	1,000	710	22	35	18	44	NA	NA	8.18	6.75	1.43	NA
MW-5	02/07/1990	ND	620	0.8	ND	ND	ND	NA	NA	8.18	6.03	2.15	NA
MW-5	04/18/1990	19,000	5,000	4,500	850	97	8,000	NA	NA	8.18	5.80	2.38	NA
MW-5	07/23/1990	23,000	2,700	3,600	400	160	6,500	NA	NA	8.18	6.00	2.18	NA
MW-5	09/23/1990	5,400	550	1,400	26	13	1,300	NA	NA	8.18	7.18	1.00	NA
MW-5	01/03/1991	860	560	280	2.8	0.8	45	NA	NA	8.18	7.17	1.01	NA
MW-5	04/10/1991	12,000	1,800	710	130	500	2,400	NA	NA	8.18	5.25	2.93	NA
MW-5	07/12/1991	24,000	1,700	2,200	280	430	5,700	NA	NA	8.18	5.70	2.48	NA
MW-5	10/08/1991	2,800	1,400	860	13	ND	580	NA	NA	8.18	6.50	1.68	NA
MW-5	02/06/1992	1,000	1,200	300	ND	14	62	NA	NA	8.18	6.35	1.83	NA
MW-5	05/04/1992	10,000	4,100 a	1,500	350	710	2,300	NA	NA	8.18	4.87	3.31	NA
MW-5	07/28/1992	12,000	3,800 a	2,200	63	1,400	3,500	NA	NA	8.18	5.73	2.45	NA
MW-5	10/27/1992	7,500	480 a	1,100	59	230	900	NA	NA	8.18	6.98	1.20	NA
MW-5	01/14/1993	7,700	1,100 a	420	49	570	840	NA	NA	8.18	4.70	3.48	NA
MW-5	04/23/1993	110,000	1,600 a	2,900	2,500	3,400	12,000	NA	NA	8.18	4.19	3.99	NA
MW-5	07/20/1993	18a	1,200 a	1,400	84	1,500	3,200	NA	NA	10.87	5.10	5.77	NA
MW-5	10/18/1993	14,000	5,800 a	2,000	100	2,300	5,100	NA	NA	10.87	5.79	5.08	NA
MW-5	01/06/1994	81,000	1,100 a	11,000	9,300	3,600	12,000	NA	NA	10.87	5.56	5.31	NA

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MW-5	04/12/1994	17,000	4,100	2,900	380	430	1,300	NA	NA	10.87	4.90	5.97	NA
MW-5	07/25/1994	5,900	5,400 a	1,500	42	34	170	NA	NA	10.87	5.38	5.49	NA
MW-5	10/25/1994	2,300	1,900 a	35	3	ND	8	NA	NA	10.87	6.16	4.71	NA
MW-5	01/09/1995	8,300	3,700 a	1,500	95	330	1,900	NA	NA	10.87	4.60	6.27	NA
MW-5	04/11/1995	7,300	9,800	1,200	230	600	550	NA	NA	10.87	3.74	7.13	NA
MW-5	07/18/1995	17,000	5,100	2,300	730	770	2,500	NA	NA	10.87	4.97	5.90	NA
MW-5	10/18/1995	Well abandoned		NA	NA	NA	NA	NA	NA	10.87	5.67	5.20	NA
MW-6	05/23/1989	22,000	7,000	16	6.5	7	3,400	NA	NA	8.21	5.47	2.74	NA
MW-6	08/03/1989	28,000	8,800	1,200	130	2,100	2,800	NA	NA	8.21	5.91	2.30	NA
MW-6	12/15/1989	16,000	5,500	370	92	200	180	NA	NA	8.21	5.98	2.23	NA
MW-6	02/07/1990	22,000	2,600	520	85	630	770	NA	NA	8.21	5.47	2.74	NA
MW-6	04/18/1990	21,000	5,700	900	77	2,700	2,700	NA	NA	8.21	5.80	2.41	NA
MW-6	07/23/1990	24,000	3,000	1,000	94	3,400	2,700	NA	NA	8.21	5.85	2.36	NA
MW-6	09/27/1990	22,000	ND	700	93	2,500	2,400	NA	NA	8.21	6.42	1.79	NA
MW-6	01/03/1991	25,000	960	1,000	88	2,600	3,700	NA	NA	8.21	6.73	1.48	NA
MW-6	04/10/1991	18,000	920	560	190	480	830	NA	NA	8.21	5.24	2.97	NA
MW-6	07/12/1991	9,500	1,900	670	51	1,100	920	NA	NA	8.21	5.78	2.43	NA
MW-6	10/08/1991	11,000	5,100	1,000	43	ND	ND	NA	NA	8.21	6.36	1.85	NA
MW-6	02/06/1992	7,200	1,500 a	560	8	720	160	NA	NA	8.21	6.15	2.06	NA
MW-6	05/04/1992	7,900	2,900 a	610	ND	1,500	240	NA	NA	8.21	5.07	3.14	NA
MW-6	07/28/1992	17,000	3,200 a	1,200	ND	3,000	610	NA	NA	8.21	5.85	2.36	NA
MW-6	10/27/1992	15,000	1,300 a	1,300	130	1,700	490	NA	NA	8.21	6.69	1.52	NA
MW-6	01/14/1993	4,900	1,600 a	80	31	330	37	NA	NA	8.21	4.52	3.69	NA
MW-6	04/23/1993	4,800	1,800 a	120	ND	780	73	NA	NA	8.21	4.32	3.89	NA
MW-6	07/20/1993	19a	910 a	570	18	1,100	130	NA	NA	11.04	5.39	5.65	NA

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MW-6	10/18/1993	24,000	2,500 a	770	440	1,600	830	NA	NA	11.04	6.67	4.37	NA
MW-6	01/06/1994	20 a	2,300 a	450	30	530	52	NA	NA	11.04	5.66	5.38	NA
MW-6	04/12/1994	3,600	1,600	150	ND	340	21	NA	NA	11.04	4.91	6.13	NA
MW-6	07/25/1994	1,600	2,200 a	160	ND	ND	10	NA	NA	11.04	5.55	5.49	NA
MW-6 (D)	07/25/1994	1,000	2,400 a	160	ND	ND	18	NA	NA	11.04	5.55	5.49	NA
MW-6	10/25/1994	9,800	3,000 a	390	22	300	57	NA	NA	11.04	6.24	4.80	NA
MW-6	01/09/1995	2,200	800 a	74	12	400	39	NA	NA	11.04	4.58	6.46	NA
MW-6	04/11/1995	5,000	7,700	330	15	760	85	NA	NA	11.04	4.04	7.00	NA
MW-6	07/18/1995	4,200	1,700	320	11	490	22	NA	NA	11.04	5.01	6.03	NA
MW-6	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	11.04	5.86	5.18	NA
MW-6	01/09/1996	5,600	790	59	<5	180	12	14,000	NA	11.04	4.75	6.29	NA
MW-6	04/02/1996	1,500	NA	12	<5	170	9	1,900	NA	11.04	3.82	7.22	NA
MW-6	10/03/1996	2,600	1,800	110	<25	<25	<25	11,000	NA	11.04	5.27	5.77	2.2
MW-6	04/03/1997	<2,500	650	30	<25	32	<25	10,000	NA	11.04	4.42	6.62	2.0
MW-6	10/08/1997	1,900	1,100	31	<5.0	6.1	<5.0	2,600	NA	11.04	4.70	6.34	1.0
MW-6	06/10/1998	<1,000	1,500	17	12	14	88	14,000	NA	11.04	4.36	6.68	0.4/0.4
MW-6	12/30/1998	260	528	<2.50	<2.50	<2.50	<2.50	909	NA	11.04	4.98	6.06	2.1/1.6
MW-6 *	06/25/1999	<2,500	NA	<25.0	<25.0	<25.0	<25.0	8,850	7,630	11.04	4.81	6.23	1.4/3.6
MW-6	12/28/1999	526	416	7.60	<1.00	<1.00	<1.00	1,510	NA	11.04	5.17	5.87	1.8/2.0
MW-6	05/31/2000	2,870	998	45.7	4.70	8.61	<2.50	3,780	NA	11.04	4.58	6.46	0.92/2.30
MW-6	10/17/2000	2,370	944a	49.8	5.36	<5.00	<5.00	746	NA	11.04	4.80	6.24	2.5/2.1
MW-6	05/01/2001	3,000	706	2.72	<2.50	4.46	<2.50	473	NA	11.04	4.75	6.29	2.2/1.6
MW-6	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	11.04	4.86	6.18	2.0/1.3
MW-6	11/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	11.04	5.73	5.31	0.6
MW-6	11/07/2001	1,700	180	1.3	1.2	1.3	1.1	NA	430	11.04	5.75	5.29	2.4/1.8
MW-6	05/01/2002	1,400	<300	2.0	0.61	4.3	0.68	NA	220	11.04	4.47	6.57	2.5/2.0

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MW-6	07/16/2002	3,500	<600	31	1.5	5.7	1.2	NA	220	11.04	5.05	5.99	0.6/0.6
MW-6	**10/17/2002**	**3,000**	**<700**	**27**	**1.7**	**2.9**	**1.8**	**NA**	**340**	**10.59**	**5.80**	**4.79**	**1.2/1.1**
MW-7	05/23/1989	47,000	11,000	3,500	5,000	1,500	7,800	NA	NA	7.44	5.48	1.96	NA
MW-7	08/03/1989	68,000	22,000	6,200	6,600	3,600	8,800	NA	NA	7.44	4.22	3.22	NA
MW-7	12/15/1989	100,000	12,000	4,500	5,300	1,300	5,300	NA	NA	7.44	4.58	2.86	NA
MW-7	02/07/1990	96,000	8,100	15,000	15,000	2,500	14,000	NA	NA	7.44	5.34	2.10	NA
MW-7	04/18/1990	94,000	10,000	25,000	13,000	3,300	13,000	NA	NA	7.44	4.92	2.52	NA
MW-7	07/23/1990	84,000	12,000	3,800	26,000	13,000	3,000	NA	NA	7.44	4.99	2.45	NA
MW-7	09/27/1990	43,000	ND	25,000	6,100	2,400	9,000	NA	NA	7.44	6.16	1.28	NA
MW-7	01/03/1991	78,000	3,100	26,000	16,000	3,000	14,000	NA	NA	7.44	4.96	2.48	NA
MW-7	04/10/1991	140,000	1,800	26,000	16,000	2,200	14,000	NA	NA	7.44	4.13	3.31	NA
MW-7	07/12/1991	79,000	1,100	7,700	7,200	2,300	10,000	NA	NA	7.44	4.98	2.46	NA
MW-7	10/08/1991	55,000	390 a	29,000	7,500	1,800	9,300	NA	NA	7.44	5.48	1.96	NA
MW-7	02/06/1992	63,000	9,600 a	16,000	8,700	1,600	7,400	NA	NA	7.44	5.05	2.39	NA
MW-7	05/04/1992	67,000	9,800 a	22,000	13,000	1,800	9,400	NA	NA	7.44	4.43	3.01	NA
MW-7	07/28/1992	85,000	13,000 a	26,000	17,000	2,900	15,000	NA	NA	7.44	4.88	2.56	NA
MW-7	10/27/1992	63,000	1,900 a	21,000	11,000	3,000	11,000	NA	NA	7.44	5.39	2.05	NA
MW-7	01/14/1993	120,000	2,300 a	28,000	21,000	1,600	15,000	NA	NA	7.44	4.26	3.18	NA
MW-7	04/23/1993	60,000	12,000 a	17,000	3,700	2,200	11,000	NA	NA	7.44	4.04	3.40	NA
MW-7 (D)	04/23/1993	50,000	14,000 a	17,000	4,200	2,200	11,000	NA	NA	7.44	4.04	3.40	NA
MW-7	07/20/1993	47,000	13,000	23,000	9,900	2,200	12,000	NA	NA	10.28	4.36	5.92	NA
MW-7	10/18/1993	44,000	10,000 a	22,000	3,800	2,600	10,000	NA	NA	10.28	5.14	5.14	NA
MW-7	01/06/1994	65,000	5,200 a	16,000	4,900	1,900	8,500	NA	NA	10.28	4.83	5.45	NA
MW-7	04/12/1994	68,000	3,400	12,000	2,000	580	6,400	NA	NA	10.28	4.24	6.04	NA
MW-7	07/25/1994	63,000	4,200 a	16,000	5,800	300	8,300	NA	NA	10.28	4.58	5.70	NA

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-7	10/25/1994	46,000	3,800 a	16,000	3,700	1,200	7,300	NA	NA	10.28	5.07	5.21	NA
MW-7	01/09/1995	62,000	3,300 a	24,000	8,500	1,100	9,400	NA	NA	10.28	3.38	6.90	NA
MW-7 (D)	01/11/1995	57,000	3,200 a	9,500	7,900	620	8,000	NA	NA	10.28	3.38	6.90	NA
MW-7	04/11/1995	53,000	7,000	13,000	4,200	1,500	7,700	NA	NA	10.28	3.52	6.76	NA
MW-7 (D)	04/12/1995	55,000	7,600	11,000	3,700	1,300	6,400	NA	NA	10.28	3.52	6.76	NA
MW-7	07/18/1995	95,000	2,700	24,000	8,000	2,100	12,000	NA	NA	10.28	4.70	5.58	NA
MW-7	10/18/1995	Well abandoned		NA	NA	NA	NA	NA	NA	10.28	5.25	5.03	NA
MW-8	05/23/1989	ND	100	ND	ND	ND	ND	NA	NA	7.79	6.62	1.17	NA
MW-8	08/03/1989	ND	75	ND	ND	ND	ND	NA	NA	7.79	6.62	1.17	NA
MW-8	12/15/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.79	6.71	1.08	NA
MW-8	03/08/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.79	4.95	2.84	NA
MW-8	04/18/1990	NA	NA	NA	NA	NA	NA	NA	NA	7.79	6.40	1.89	NA
MW-8	07/23/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.79	6.62	1.17	NA
MW-8	09/27/1990	ND	1,100	ND	ND	ND	ND	NA	NA	7.79	6.98	0.81	NA
MW-8	01/03/1991	ND	ND	1.3	ND	ND	ND	NA	NA	7.79	7.03	0.76	NA
MW-8	04/10/1991	50	ND	0.7	1.1	0.8	1	NA	NA	7.79	4.40	3.39	NA
MW-8	07/12/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.79	6.80	0.99	NA
MW-8	10/08/1991	ND	ND	1.4	ND	ND	ND	NA	NA	7.79	7.56	0.23	NA
MW-8	02/06/1992	ND	60 a	ND	0.7	ND	ND	NA	NA	7.79	6.94	0.85	NA
MW-8	05/04/1992	ND	210 a	ND	ND	ND	ND	NA	NA	7.79	5.86	1.93	NA
MW-8	07/28/1992	51	ND	ND	ND	1	0.6	NA	NA	7.79	6.94	0.85	NA
MW-8	10/27/1992	ND	ND	ND	6.6	ND	ND	NA	NA	7.79	7.83	-0.04	NA
MW-8	01/14/1993	ND	64a	ND	ND	ND	ND	NA	NA	7.79	3.60	4.19	NA
MW-8 (D)	01/14/1993	ND	NA	ND	ND	ND	ND	NA	NA	7.79	3.60	4.19	NA
MW-8	04/23/1993	ND	ND	ND	ND	ND	ND	NA	NA	7.79	4.12	3.67	NA

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-8	07/20/1993	ND	ND	0.7	0.7	0.8	4.1	NA	NA	10.61	6.38	4.23	NA
MW-8	10/18/1993	ND	ND	ND	800	ND	ND	NA	NA	10.61	7.47	3.14	NA
MW-8	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.61	7.20	3.41	NA
MW-8	04/12/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.61	6.16	4.45	NA
MW-8	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.61	6.94	3.67	NA
MW-8	10/25/1994	ND	ND	ND	1	ND	ND	NA	NA	10.61	7.43	3.18	NA
MW-8	01/09/1995	ND	70 a	ND	ND	ND	ND	NA	NA	10.61	3.98	6.63	NA
MW-8	04/11/1995	ND	78	0.63	1.3	ND	0.75	NA	NA	10.61	4.12	6.49	NA
MW-8	07/18/1995	ND	130	ND	ND	ND	ND	NA	NA	10.61	5.21	5.40	NA
MW-8	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.61	5.58	5.03	NA
MW-8	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	10.61	5.09	5.52	NA
MW-8	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.61	3.42	7.19	NA
MW-8	10/03/1996	<50	<69	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.61	4.30	6.31	NA
MW-8	04/03/1997	<50	62	<0.50	<0.50	<0.50	0.91	<2.5	NA	10.61	4.58	6.03	2.6
MW-8	10/08/1997	<50	57	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.61	3.00	7.61	3.6
MW-8	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.61	2.88	7.73	NA
MW-8	12/30/1998	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	10.61	5.38	5.23	0.8/0.9
MW-8	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.61	4.53	6.08	NA
MW-8	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	10.61	4.93	5.68	1.0/0.9
MW-8	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	10.61	4.02	6.59	NA
MW-8	10/17/2000	<50.0	143a	<0.500	<0.500	<0.500	<0.500	<2.50	NA	10.61	3.10	7.51	4.0/4.1
MW-8	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.61	4.12	6.49	NA
MW-8	11/05/2001	<50	<50	<0.50	0.99	<0.50	<0.50	NA	<5.0	10.61	5.00	5.61	0.6/1.3
MW-8	05/01/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	10.61	3.25	7.36	0.6/3.6
MW-8	07/16/2002	NA	NA	NA	NA	NA	NA	NA	NA	10.61	3.64	6.97	NA
MW-8	**10/17/2002**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**10.18**	**4.53**	**5.65**	**3.3/2.2**

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MW-9	08/03/1989	47,000	12,000	5,600	6,600	1,500	8,500	NA	NA	7.63	5.78	1.85	NA
MW-9	12/15/1989	88,000	9,200	4,300	5,400	140	5,600	NA	NA	7.63	5.24	2.39	NA
MW-9	02/07/1990	50,000	7,400	1,800	1,400	3,200	1,800	NA	NA	7.63	5.23	2.40	NA
MW-9	04/18/1990	50,000	7,500	14,000	11,000	730	10,000	NA	NA	7.63	5.34	2.29	NA
MW-9	07/23/1990	62,000	3,200	19,000	16,000	950	15,000	NA	NA	7.63	5.65	1.98	NA
MW-9	09/27/1990	30,000	2,700	16,000	6,500	980	11,000	NA	NA	7.63	5.96	1.67	NA
MW-9	01/03/1991	34,000	2,500	9,200	3,200	770	7,000	NA	NA	7.63	6.23	1.40	NA
MW-9	04/10/1991	66,000	2,200	17,000	13,000	1,400	14,000	NA	NA	7.63	4.65	2.98	NA
MW-9	07/12/1991	40,000	2,000	7,700	3,200	1,100	9,400	NA	NA	7.63	5.65	1.98	NA
MW-9	10/08/1991	20,000	4,700 a	11,000	640	240	6,000	NA	NA	7.63	6.08	1.55	NA
MW-9	02/06/1992	36,000	6,600 a	11,000	490	1,100	6,700	NA	NA	7.63	5.92	1.71	NA
MW-9	05/04/1992	31,000	5,800 a	11,000	1,700	1,200	8,700	NA	NA	7.63	4.80	2.83	NA
MW-9	07/28/1992	50,000	14,000	17,000	1,200	1,500	12,000	NA	NA	7.63	5.61	2.02	NA
MW-9	10/27/1992	43,000	880 a	15,000	680	1,700	8,100	NA	NA	7.63	6.24	1.39	NA
MW-9	01/14/1993	52,000	730 a	9,600	1,100	1,100	7,000	NA	NA	7.63	4.95	2.68	NA
MW-9	04/23/1993	45,000	8,000 a	11,000	1,400	1,500	10,000	NA	NA	7.63	4.54	3.09	NA
MW-9	07/20/1993	25,000	5,100	10,000	320	1,100	7,100	NA	NA	10.48	5.25	5.23	NA
MW-9	10/18/1993	32,000	4,900 a	14,000	530	2,000	10,000	NA	NA	10.48	6.00	4.48	NA
MW-9	01/06/1994	41,000	7,700 a	15,000	810	1,400	9,000	NA	NA	10.48	5.62	4.86	NA
MW-9 (D)	01/06/1994	43,000	8,300 a	15,000	920	1,300	8,000	NA	NA	10.48	5.62	4.86	NA
MW-9	04/12/1994	39,000	2,000	8,300	ND	ND	4,000	NA	NA	10.48	4.31	6.17	NA
MW-9	07/25/1994	22,000	3,600 a	7,500	150	ND	4,100	NA	NA	10.48	5.43	5.05	NA
MW-9	10/25/1994	31,000	3,200 a	13,000	240	1,000	8,500	NA	NA	10.48	6.00	4.48	NA
MW-9 (D)	10/26/1994	31,000	3,500 a	13,000	220	1,100	8,300	NA	NA	10.48	6.00	4.48	NA
MW-9	01/09/1995	4,800	2,300 a	1,200	510	42	1,400	NA	NA	10.48	4.26	6.22	NA

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MW-9	04/11/1995	20,000	3,400	5,100	460	400	3,400	NA	NA	10.48	4.08	6.40	NA
MW-9	07/18/1995	43,000	2,900	12,000	1,800	960	9,100	NA	NA	10.48	5.07	5.41	NA
MW-9	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.48	5.82	4.66	NA
MW-9	01/09/1996	64,000	2,800	12,000	5,400	1,800	10,000	2100	NA	10.48	4.36	6.12	NA
MW-9	04/02/1996	39,000	NA	10,000	100	520	4,100	<500	NA	10.48	3.86	6.62	NA
MW-9	10/03/1996	46,000	3,100	12,000	180	1,400	6,700	2,300	NA	10.48	4.90	5.58	1.4
MW-9	04/03/1997	36,000	2,300	9,700	140	580	3,900	<500	NA	10.48	3.98	6.50	1.8
MW-9	10/08/1997	34,000	3,500	6,900	<100	830	4,500	<125	NA	10.48	4.17	6.31	0.8
MW-9	06/10/1998	20,000	2,500	9,900	250	3,100	170	460	NA	10.48	3.84	6.64	0.3/0.4
MW-9	12/30/1998	30,100	1,900	8,500	166	603	3,340	<100	NA	10.48	4.72	5.76	1.1/1.2
MW-9 *	06/25/1999	26,300	NA	8,090	73.5	409	2,730	<100	NA	10.48	4.47	6.01	1.2/2.4
MW-9	12/28/1999	4,130	839	1,260	57.9	103	213	1,470	NA	10.48	4.82	5.66	1.0/1.1
MW-9	05/31/2000	8,210	1,300	9,290	62.3	141	908	565	NA	10.48	3.87	6.61	2.8/c
MW-9	10/17/2000	19,000	1,510 a	5,420	54.5	479	2,680	<250	NA	10.48	3.87	6.61	3.0/3.5
MW-9	05/01/2001	24,300	976	11,200	52.9	159	1,610	<250	NA	10.48	4.44	6.04	1.6/1.0
MW-9	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.48	3.99	6.49	1.9/1.5
MW-9	11/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.48	5.41	5.07	0.7
MW-9	11/07/2001	25,000	<1,000	7,300	85	630	4,100	NA	<250	10.48	5.60	4.88	1.4/1.1
MW-9	05/01/2002	27,000	<700	11,000	79	260	1,300	NA	<500	10.48	3.38	7.10	2.9/1.1
MW-9	07/16/2002	29,000	<700	12,000	<50	74	810	NA	<500	10.48	4.04	6.44	0.7/0.4
MW-9	**10/17/2002**	**15,000**	**<800**	**10,000**	**31**	**36**	**490**	**NA**	**53**	**10.07**	**4.92**	**5.15**	**1.0/1.2**
MW-10	12/15/1989	ND	3,100	1,500	ND	ND	ND	NA	NA	7.45	6.33	0.82	NA
MW-10	03/08/1990	25,000	1,800	17,000	330	2,100	1,400	NA	NA	7.45	5.41	2.00	NA
MW-10	04/18/1990	23,000	3,600	15,000	1,200	190	3,300	NA	NA	7.45	5.60	1.85	NA
MW-10	07/23/1990	18,000	1,900	12,000	380	ND	1,400	NA	NA	7.45	5.81	1.64	NA

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MW-10	09/27/1990	9,500	430	13,000	100	1,800	230	NA	NA	7.45	6.64	0.81	NA
MW-10	01/03/1991	4,300	630	3,700	10	ND	110	NA	NA	7.45	6.96	0.49	NA
MW-10	04/10/1991	45,000	1,400	16,000	4,600	3,000	6,900	NA	NA	7.45	4.70	2.75	NA
MW-10	07/12/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.45	5.90	1.55	NA
MW-10	10/08/1991	3,800	1,500 a	13,000	82	9	500	NA	NA	7.45	6.68	0.77	NA
MW-10	02/06/1992	22,000	1,600 a	12,000	ND	600	170	NA	NA	7.45	7.04	0.41	NA
MW-10	05/04/1992	39,000	8,000 a	14,000	5,000	1,800	5,000	NA	NA	7.45	4.69	2.76	NA
MW-10	07/28/1992	38,000	8,700 a	17,000	2,800	1,500	4,000	NA	NA	7.45	6.00	1.45	NA
MW-10	10/27/1992b	NA	NA	NA	NA	NA	NA	NA	NA	7.45	NA	NA	NA
MW-10	01/14/1993	26,000	950 a	10,000	ND	ND	160	NA	NA	7.45	6.07	1.38	NA
MW-10	04/23/1993	80,000	1,900 a	21,000	13,000	3,400	12,000	NA	NA	7.45	4.14	3.31	NA
MW-10	07/20/1993	31,000	4,800	14,000	4,200	1,700	5,500	NA	NA	10.61	5.62	4.99	NA
MW-10	10/18/1993	13,000	1,200 a	8,600	220	ND	450	NA	NA	10.61	6.43	4.18	NA
MW-10	01/06/1994	16,000	670 a	9,700	<125	<125	210	NA	NA	10.61	6.74	3.87	NA
MW-10	04/12/1994	16,000	860	5,600	ND	ND	ND	NA	NA	10.61	5.98	4.63	NA
MW-10	07/25/1994	2,300	2,100 a	1,400	26	25	51	NA	NA	10.61	6.31	4.30	NA
MW-10	10/25/1994	1,400	1,000 a	290	5	2	38	NA	NA	10.61	6.64	3.97	NA
MW-10	01/09/1995	16,000	2,300 a	7,500	1,400	230	1,500	NA	NA	10.61	5.70	4.91	NA
MW-10	04/11/1995	54,000	5,000	13,000	4,500	1,500	4,500	NA	NA	10.61	5.82	4.79	NA
MW-10	07/18/1995	72,000	2,600	20,000	7,200	2,800	9,000	NA	NA	10.61	6.79	3.82	NA
MW-10	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.61	5.31	5.30	NA
MW-10	01/09/1996	32,000	2,100	8,000	1,600	880	3,200	12,000	NA	10.61	5.92	4.69	NA
MW-10	04/02/1996	68,000	NA	9,100	2,300	1,100	3,700	3,300	NA	10.61	5.43	5.18	NA
MW-10	10/03/1996	33,000	2,900	11,000	1,300	830	2,400	7,300	NA	10.61	6.07	4.54	1.7
MW-10 (D)	10/03/1996	40,000	3,300	12,000	1,700	1,100	3,100	6,500	NA	10.61	6.07	4.54	1.7
MW-10	04/03/1997	36,000	3,400	12,000	2,300	1,400	4,500	2,300	NA	10.61	3.45	7.16	1.8

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-10 (D)	04/03/1997	52,000	3,000	12,000	2,300	1,400	4,500	2,100	NA	10.61	3.45	7.16	1.8
MW-10	10/08/1997	20,000	3,100	7,500	420	470	1,300	1,500	NA	10.61	3.72	6.89	1.2
MW-10	06/10/1998	48,000	2,500	14,000	2,600	1,500	4,800	1,800	NA	10.61	4.00	6.61	0.7/0.5
MW-10	12/30/1998	17,800	2,820	6,000	136	344	639	1,250	NA	10.61	5.26	5.35	1.0/0.7
MW-10 *	06/25/1999	17,600	NA	6,150	212	287	687	1,740	NA	10.61	4.49	6.12	0.9/2.5
MW-10	12/28/1999	10,800	1,400	3,370	155	321	626	3,740	NA	10.61	4.87	5.74	1.2/1.4
MW-10	05/31/2000	3,020	2,270	1,080	34.3	118	251	775	NA	10.61	3.48	7.13	2.8/3.9
MW-10	10/17/2000	15,500	1,750 a	7,450	54.7	387	308	3,840	4,300	10.61	4.25	6.36	2.3/3.0
MW-10	05/01/2001	27,900	2,260	9,920	1,050	1,020	2,370	2,180	NA	10.61	5.40	5.21	2.0/1.1
MW-10	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.61	3.74	6.87	3.70/1.8
MW-10	11/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.61	6.08	4.53	0.6
MW-10	11/07/2001	14,000	360	5,300	260	430	810	NA	1,700	10.61	5.45	5.16	1.8/1.0
MW-10	05/01/2002	79,000	<1,500	16,000	4,400	3,300	8,800	NA	890	10.61	4.62	5.99	4.0/0.5
MW-10	07/16/2002	21,000	<1,000	6,500	350	460	1,000	NA	1,200	10.61	5.80	4.81	0.5/1.5
MW-10	**10/17/2002**	**17,000**	**<1,800**	**5,800**	**290**	**520**	**1,100**	**NA**	**980**	**9.81**	**5.27**	**4.54**	**0.8/1.2**
MW-11	07/20/1993	50	ND	2.5	1.9	3.9	18	NA	NA	10.56	8.08	2.48	NA
MW-11	10/18/1993	ND	65	ND	ND	ND	ND	NA	NA	10.56	8.24	2.32	NA
MW-11	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.56	8.47	2.09	NA
MW-11	04/12/1994	ND	ND	1.1	0.87	ND	1.5	NA	NA	10.56	8.44	2.12	NA
MW-11	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.56	8.20	2.36	NA
MW-11	10/25/1994	ND	100	ND	ND	ND	ND	NA	NA	10.56	8.67	1.89	NA
MW-11	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.56	7.63	2.93	NA
MW-11	04/11/1995	ND	140	ND	0.7	ND	0.5	NA	NA	10.56	8.06	2.50	NA
MW-11	07/18/1995	ND	50	ND	ND	ND	ND	NA	NA	10.56	9.31	1.25	NA
MW-11	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.56	8.34	2.22	NA

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MW-11	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	10.56	8.22	2.34	NA
MW-11	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.56	7.97	2.59	NA
MW-11	10/03/1996	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.56	8.37	2.19	3.6
MW-11	04/03/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.56	8.31	2.25	2.2
MW-11	10/08/1997	<50	54	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.56	8.56	2.00	1.2
MW-11	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.56	7.85	2.71	NA
MW-11	12/30/1998	<50.0	66.2	<0.500	<0.500	<0.500	<0.500	<2.00	NA	10.56	8.51	2.05	0.7/0.6
MW-11	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.56	8.01	2.55	NA
MW-11	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	10.56	8.39	2.17	0.8/1.0
MW-11	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	10.56	7.38	3.18	NA
MW-11	10/17/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	10.56	8.35	2.21	4.1/4.0
MW-11	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.56	8.15	2.41	NA
MW-11	11/05/2001	Unable to locate		NA	NA	NA	NA	NA	NA	10.56	NA	NA	NA
MW-11	05/01/2002	Unable to locate		NA	NA	NA	NA	NA	NA	10.56	NA	NA	NA
MW-11	05/08/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	10.56	7.82	2.74	1.0/1.1
MW-11	07/16/2002	NA	NA	NA	NA	NA	NA	NA	NA	10.56	7.64	2.92	NA
MW-11	**10/17/2002**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**NA**	**7.95**	**NA**	**1.3/1.0**
MW-12	07/20/1993	ND	1,500	2.8	1.9	3.2	ND	NA	NA	9.56	6.76	2.80	NA
MW-12	10/18/1993	ND	ND	ND	ND	ND	ND	NA	NA	9.56	7.12	2.44	NA
MW-12	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	9.56	7.15	2.41	NA
MW-12	04/12/1994	ND	ND	0.61	ND	ND	1.1	NA	NA	9.56	6.68	2.88	NA
MW-12	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	9.56	6.83	2.73	NA
MW-12	10/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	9.56	7.34	2.22	NA
MW-12	01/09/1995	ND	80 a	ND	ND	ND	ND	NA	NA	9.56	5.02	4.54	NA
MW-12	04/11/1995	ND	200	ND	ND	ND	ND	NA	NA	9.56	7.38	2.18	NA

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MW-12	07/18/1995	ND	90	ND	ND	ND	ND	NA	NA	9.56	8.50	1.06	NA
MW-12	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	9.56	6.63	2.93	NA
MW-12	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	9.56	6.32	3.24	NA
MW-12	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	9.56	5.60	3.96	NA
MW-12	10/03/1996	<50	72	<0.5	<0.5	<0.5	<0.5	<2.5	NA	9.56	3.30	6.26	2.5
MW-12	04/03/1997	<50	74	<0.50	<0.50	<0.50	<0.50	<2.5	NA	9.56	6.13	3.43	2.2
MW-12	10/08/1997	<50	73	<0.50	<0.50	<0.50	<0.50	<2.5	NA	9.56	6.49	3.07	3.0
MW-12	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	9.56	5.85	3.71	NA
MW-12	12/30/1998	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	9.56	8.42	1.14	1.3/0.9
MW-12	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	9.56	7.89	1.67	NA
MW-12	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	9.56	8.26	1.30	1.0/1.2
MW-12	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	9.56	7.21	2.35	NA
MW-12	10/17/2000	<50.0	82.9 a	<0.500	<0.500	<0.500	<0.500	<2.50	NA	9.56	6.80	2.76	5.1/3.0
MW-12	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	9.56	5.95	3.61	NA
MW-12	11/05/2001	Unable to locate		NA	NA	NA	NA	NA	NA	9.56	NA	NA	NA
MW-12	05/01/2002	Unable to locate		NA	NA	NA	NA	NA	NA	9.56	NA	NA	NA
MW-12	05/08/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	9.56	4.75	4.81	1.2/0.9
MW-12	07/16/2002	NA	NA	NA	NA	NA	NA	NA	NA	9.56	4.88	4.68	NA
MW-12	**10/17/2002**	**<50**	**81**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**NA**	**5.11**	**NA**	**1.8/1.5**
MW-13	07/20/1993	ND	1,500	ND	ND	ND	ND	NA	NA	10.10	8.32	1.78	NA
MW-13 (D)	07/21/1993	ND	1,000	ND	ND	ND	ND	NA	NA	10.10	8.32	1.78	NA
MW-13	10/18/1993	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.66	1.44	NA
MW-13	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.70	1.40	NA
MW-13	04/12/1994	ND	100	1.7	1.2	0.59	2.4	NA	NA	10.10	8.20	1.90	NA
MW-13	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.39	1.71	NA

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MW-13	10/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.70	1.40	NA
MW-13	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.10	7.35	2.75	NA
MW-13	04/11/1995	ND	320	ND	ND	ND	ND	NA	NA	10.10	5.50	4.60	NA
MW-13	07/18/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.10	6.63	3.47	NA
MW-13	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.10	8.12	1.98	NA
MW-13	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	10.10	7.74	2.36	NA
MW-13	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.10	6.30	3.80	NA
MW-13	10/03/1996	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.10	6.50	3.60	3.0
MW-13	04/03/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.10	7.58	2.52	2.0
MW-13	10/08/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.10	8.17	1.93	1.0
MW-13	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.10	7.54	2.56	NA
MW-13	12/30/1998	<50.0	69.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	10.10	6.91	3.19	1.1/0.8
MW-13	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.10	6.31	3.79	NA
MW-13	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	10.10	6.65	3.45	0.8/1.0
MW-13	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	10.10	5.94	4.16	NA
MW-13	10/17/2000	<50.0	121 a	<0.500	<0.500	<0.500	<0.500	<2.50	NA	10.10	8.38	1.72	2.5/2.8
MW-13	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.10	7.65	2.45	NA
MW-13	11/05/2001	Unable to locate		NA	NA	NA	NA	NA	NA	10.10	NA	NA	NA
MW-13	05/01/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	10.10	6.80	3.30	3.5/3.5
MW-13	07/16/2002	NA	NA	NA	NA	NA	NA	NA	NA	10.10	6.84	3.26	NA
MW-13	**10/17/2002**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**9.64**	**6.73**	**2.91**	**1.4/0.9**
VEW-5	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.91	NA	NA
VEW-5	10/17/2000	74,800	4,180 a	9,090	14,600	2,630	14,500	632	NA	NA	2.65	NA	3.0/3.1
VEW-5	05/01/2001	94,800	5,350	11,300	12,900	4,520	22,200	419	NA	NA	2.86	NA	0.4/0.6
VEW-5	11/05/2001	82,000	<1,600	14,000	7,400	2,900	15,000	NA	740	NA	4.11	NA	0.6/c

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VEW-5	05/01/2002	16,000	<3,000	610	320	7.9	3,600	NA	310	NA	2.63	NA	4.7/2.9
VEW-5	07/16/2002	45,000	<3,000	7,900	2,700	1,000	4,600	NA	920	NA	2.96	NA	0.4/0.3
VEW-5	**10/17/2002**	**<50**	**200**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**46**	**8.81**	**3.55**	**5.26**	**1.1/1.0**
VEW-6	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.94	NA	NA
VEW-6	10/17/2000	63,800	4,820 a	6,940	2,750	2,760	18,700	3,700	NA	NA	3.13	NA	2.0/2.1
VEW-6	05/01/2001	57,000	3,460	6,280	697	2,640	15,800	6,240	NA	NA	3.25	NA	0.8/1.2
VEW-6	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.17	NA	3.0/1.7
VEW-6	11/05/2001	39,000	<1,300	6,800	380	1,900	7,900	NA	8,800	NA	4.35	NA	0.8/1.3
VEW-6	05/01/2002	24,000	<4,500	1,800	270	470	3,700	NA	3,100	NA	2.73	NA	0.2/0.4
VEW-6	07/16/2002	19,000	<2,700	1,900	250	140	3,500	NA	2,900	NA	3.59	NA	0.3/0.2
VEW-6	**10/17/2002**	**<50**	**110**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**13**	**9.33**	**4.33**	**5.00**	**0.9/1.3**
VEW-7	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.59	NA	NA
VEW-7	10/17/2000	74,300	3,990 a	11,900	12,500	1,640	15,500	36,600	NA	NA	3.72	NA	3.5/4.1
VEW-7	05/01/2001	46,000	1,930	7,250	5,300	1,960	9,820	15,600	16,900	NA	3.40	NA	0.8/0.8
VEW-7	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.54	NA	2.5/1.4
VEW-7	11/05/2001	38,000	<900	9,300	610	1,700	6,000	NA	21,000	NA	4.85	NA	3.52/c
VEW-7	05/01/2002	590	<600	6.3	7.2	<2.5	81	NA	1,100	NA	2.62	NA	2.9/3.3
VEW-7	07/16/2002	95	54	1.5	<0.50	1.5	6.1	NA	100	NA	3.84	NA	3.6/2.5
VEW-7	**10/17/2002**	**<50**	**110**	**1.4**	**<0.50**	**<0.50**	**<0.50**	**NA**	**34**	**9.49**	**4.93**	**4.56**	**3.0/1.9**
AS-1	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.67	NA	NA
AS-1	10/17/2000	13,400	3,280 a	1,600	82.8	<20.0	2,600	498	NA	NA	5.50	NA	2.0/2.5
AS-1	05/01/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AS-1	11/05/2001	5,300	<900	85	26	46	120	NA	190	NA	6.11	NA	0.4/0.5

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AS-1	05/01/2002	Insufficient water		NA	NA	NA	NA	NA	NA	NA	14.73	NA	NA
AS-1	07/16/2002	210	<150	8.2	<0.50	7.9	3.5	NA	25	NA	5.59	NA	4.6/2.8
AS-1	**10/17/2002**	**Well dry**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**8.23**	**NA**	**NA**	**NA**
AS-2	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.38	NA	NA
AS-2	10/17/2000	4,380	1,380 a	167	<10.0	225	680	315	NA	NA	5.50	NA	3.1/3.0
AS-2	05/01/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AS-2	11/05/2001	2,200	<300	100	0.99	91	21	NA	220	NA	5.99	NA	0.8/0.6
AS-2	05/01/2002	880	<300	19	<0.50	31	22	NA	57	NA	5.25	NA	1.0/0.8
AS-2	07/16/2002	910	<200	40	4.1	39	43	NA	78	NA	5.53	NA	0.7/0.9
AS-2	**10/17/2002**	**Well dry**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**8.65**	**NA**	**NA**	**NA**
AS-3	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.75	NA	NA
AS-3	10/17/2000	3,520	942 a	588	521	41.2	566	1,740	NA	NA	6.18	NA	3.1/3.0
AS-3	05/01/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AS-3	11/05/2001	1,600	110	41	4.9	8.2	30	NA	240	NA	6.41	NA	1.1/3.2
AS-3	05/01/2002	Insufficient water		NA	NA	NA	NA	NA	NA	NA	14.90	NA	NA
AS-3	07/16/2002	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AS-3	**10/17/2002**	**Insufficient water**		**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**8.84**	**14.78**	**-5.94**	**NA**

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Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to November 5, 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 November 5, 2001, analyzed by EPA Method 8020.
MTBE = Methyl-tertiary-butyl ether
TOC = Top of Casing Elevation
TOB = Top of Wellbox
GW = Groundwater
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
n/n = Dissolved oxygen reading; pre-purge/post-purge.
NA = Not applicable

Notes:
a = Chromatogram pattern indicates an unidentified hydrocarbon.
b = Sample was analyzed outside of EPA recommended holding time.
c = Post-purge DO reading not taken.
d = Lab did not record detected result.
e = Change in casing elevation due to wellhead maintenance.
* All diesel and motor oil samples for this event were lost in laboratory fire.
Site surveyed (except wells MW-11 and MW-12) March 18, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

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

Subject : 14 Water Samples
Project Name : 285 Hegenberger Road, Oakland
Project Number : 021017-MT1
P.O. Number : 98995749

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 : 29229
Date : 10/30/2002

Subject : 14 Water Samples
Project Name : 285 Hegenberger Road, Oakland
Project Number : 021017-MT1
P.O. Number : 98995749

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-1, MW-6, MW-9 and MW-10. Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for sample MW-3.

Approved By: Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 916-297-4800

KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-1** Matrix : Water Lab Number : 29229-01
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**810**	5.0	ug/L	EPA 8260B	10/22/2002
Toluene	**16**	5.0	ug/L	EPA 8260B	10/22/2002
Ethylbenzene	**68**	5.0	ug/L	EPA 8260B	10/22/2002
Total Xylenes	**31**	5.0	ug/L	EPA 8260B	10/22/2002
Methyl-t-butyl ether (MTBE)	**1600**	50	ug/L	EPA 8260B	10/22/2002
TPH as Gasoline	**4600**	500	ug/L	EPA 8260B	10/22/2002
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	10/22/2002
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	10/22/2002
TPH as Diesel	**< 2000**	2000	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-6** Matrix : Water Lab Number : 29229-02
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**27**	0.50	ug/L	EPA 8260B	10/19/2002
Toluene	**1.7**	0.50	ug/L	EPA 8260B	10/19/2002
Ethylbenzene	**2.9**	0.50	ug/L	EPA 8260B	10/19/2002
Total Xylenes	**1.8**	0.50	ug/L	EPA 8260B	10/19/2002
Methyl-t-butyl ether (MTBE)	**340**	5.0	ug/L	EPA 8260B	10/19/2002
TPH as Gasoline	**3000**	50	ug/L	EPA 8260B	10/19/2002
Toluene - d8 (Surr)	92.0		% Recovery	EPA 8260B	10/19/2002
4-Bromofluorobenzene (Surr)	98.2		% Recovery	EPA 8260B	10/19/2002
TPH as Diesel	**< 700**	700	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-9** Matrix : Water Lab Number : 29229-03
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**10000**	50	ug/L	EPA 8260B	10/26/2002
Toluene	**31**	5.0	ug/L	EPA 8260B	10/22/2002
Ethylbenzene	**36**	5.0	ug/L	EPA 8260B	10/22/2002
Total Xylenes	**490**	5.0	ug/L	EPA 8260B	10/22/2002
Methyl-t-butyl ether (MTBE)	**53**	50	ug/L	EPA 8260B	10/22/2002
TPH as Gasoline	**15000**	500	ug/L	EPA 8260B	10/22/2002
Toluene - d8 (Surr)	96.7		% Recovery	EPA 8260B	10/22/2002
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	10/22/2002
TPH as Diesel	**< 800**	800	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **VEW-5** Matrix : Water Lab Number : 29229-04
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Methyl-t-butyl ether (MTBE)	**46**	5.0	ug/L	EPA 8260B	10/20/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	10/20/2002
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	10/20/2002
4-Bromofluorobenzene (Surr)	98.5		% Recovery	EPA 8260B	10/20/2002
TPH as Diesel	**200**	50	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-8** Matrix : Water Lab Number : 29229-07
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	10/20/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	10/20/2002
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	10/20/2002
4-Bromofluorobenzene (Surr)	98.0		% Recovery	EPA 8260B	10/20/2002
TPH as Diesel	**< 50**	50	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-10** Matrix : Water Lab Number : 29229-08
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**5800**	25	ug/L	EPA 8260B	10/23/2002
Toluene	**290**	25	ug/L	EPA 8260B	10/23/2002
Ethylbenzene	**520**	25	ug/L	EPA 8260B	10/23/2002
Total Xylenes	**1100**	25	ug/L	EPA 8260B	10/23/2002
Methyl-t-butyl ether (MTBE)	**980**	250	ug/L	EPA 8260B	10/23/2002
TPH as Gasoline	**17000**	2500	ug/L	EPA 8260B	10/23/2002
Toluene - d8 (Surr)	95.7		% Recovery	EPA 8260B	10/23/2002
4-Bromofluorobenzene (Surr)	96.1		% Recovery	EPA 8260B	10/23/2002
TPH as Diesel	**< 1800**	1800	ug/L	M EPA 8015	10/26/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/26/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-2** Matrix : Water Lab Number : 29229-09
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 1.0**	1.0	ug/L	EPA 8260B	10/21/2002
Toluene	**< 1.0**	1.0	ug/L	EPA 8260B	10/21/2002
Ethylbenzene	**< 1.0**	1.0	ug/L	EPA 8260B	10/21/2002
Total Xylenes	**< 1.0**	1.0	ug/L	EPA 8260B	10/21/2002
Methyl-t-butyl ether (MTBE)	**270**	10	ug/L	EPA 8260B	10/21/2002
TPH as Gasoline	**280**	100	ug/L	EPA 8260B	10/21/2002
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	10/21/2002
4-Bromofluorobenzene (Surr)	97.4		% Recovery	EPA 8260B	10/21/2002
TPH as Diesel	**240**	50	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-3** Matrix : Water Lab Number : 29229-10
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**2.5**	2.0	ug/L	EPA 8260B	10/22/2002
Toluene	**< 2.0**	2.0	ug/L	EPA 8260B	10/22/2002
Ethylbenzene	**< 2.0**	2.0	ug/L	EPA 8260B	10/22/2002
Total Xylenes	**2.3**	2.0	ug/L	EPA 8260B	10/22/2002
Methyl-t-butyl ether (MTBE)	**25**	20	ug/L	EPA 8260B	10/22/2002
TPH as Gasoline	**220**	200	ug/L	EPA 8260B	10/22/2002
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	10/22/2002
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	10/22/2002
TPH as Diesel	**82**	50	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-4** Matrix : Water Lab Number : 29229-11
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	10/20/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	10/20/2002
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	10/20/2002
4-Bromofluorobenzene (Surr)	97.2		% Recovery	EPA 8260B	10/20/2002
TPH as Diesel	**< 50**	50	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-11** Matrix : Water Lab Number : 29229-12
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	10/20/2002
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	10/20/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	10/20/2002
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	10/20/2002
4-Bromofluorobenzene (Surr)	98.0		% Recovery	EPA 8260B	10/20/2002
TPH as Diesel	**< 50**	50	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-12** Matrix : Water Lab Number : 29229-13
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/23/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	10/23/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/23/2002
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	10/23/2002
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	10/23/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	10/23/2002
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	10/23/2002
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	10/23/2002
TPH as Diesel	**81**	50	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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

KIFF ANALYTICAL LLC

Report Number : 29229
Date : 10/30/2002

Project Name : **285 Hegenberger Road, Oakland**
Project Number : **021017-MT1**

Sample : **MW-13** Matrix : Water Lab Number : 29229-14
Sample Date :10/17/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/23/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	10/23/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	10/23/2002
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	10/23/2002
Methyl-t-butyl ether (MTBE)	**< 5.0**	5.0	ug/L	EPA 8260B	10/23/2002
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	10/23/2002
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	10/23/2002
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	10/23/2002
TPH as Diesel	**< 50**	50	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	**< 5000**	5000	ug/L	M EPA 8015	10/25/2002

Approved By: Joel Kiff

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

Report Number : 29229

Date : 10/30/2002

QC Report : Method Blank Data

Project Name : **285 Hegenberger Road, Oakland**

Project Number : **021017-MT1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	10/25/2002
TPH as Motor Oil	< 5000	5000	ug/L	M EPA 8015	10/25/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/21/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/21/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/21/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/21/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	10/21/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/21/2002
Toluene - d8 (Surr)	106		%	EPA 8260B	10/21/2002
4-Bromofluorobenzene (Surr)	97.8		%	EPA 8260B	10/21/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/18/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/18/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/18/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/18/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	10/18/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/18/2002
Toluene - d8 (Surr)	100		%	EPA 8260B	10/18/2002
4-Bromofluorobenzene (Surr)	97.4		%	EPA 8260B	10/18/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/25/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/25/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/25/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/25/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	10/25/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/25/2002
Toluene - d8 (Surr)	100		%	EPA 8260B	10/25/2002
4-Bromofluorobenzene (Surr)	96.6		%	EPA 8260B	10/25/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/20/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/20/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/20/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/20/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	10/20/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/20/2002
Toluene - d8 (Surr)	100		%	EPA 8260B	10/20/2002
4-Bromofluorobenzene (Surr)	99.2		%	EPA 8260B	10/20/2002

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 29229

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 10/30/2002

Project Name : **285 Hegenberger Road,**

Project Number : **021017-MT1**

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	1020	1100	ug/L	M EPA 8015	10/25/02	102	110	7.98	70-130	25
Benzene	29229-09	<0.50	66.2	66.7	65.1	64.5	ug/L	EPA 8260B	10/21/02	98.4	96.8	1.61	70-130	25
Toluene	29229-09	<0.50	66.2	66.7	64.6	62.7	ug/L	EPA 8260B	10/21/02	97.6	94.0	3.71	70-130	25
Tert-Butanol	29229-09	2200	331	333	2460	2420	ug/L	EPA 8260B	10/21/02	71.6	59.8	18.1	70-130	25
Methyl-t-Butyl Ether	29229-09	270	66.2	66.7	329	322	ug/L	EPA 8260B	10/21/02	87.1	75.1	14.8	70-130	25
Benzene	29238-08	<0.50	40.0	40.0	41.9	40.7	ug/L	EPA 8260B	10/18/02	105	102	2.95	70-130	25
Toluene	29238-08	<0.50	40.0	40.0	41.8	40.8	ug/L	EPA 8260B	10/18/02	105	102	2.49	70-130	25
Tert-Butanol	29238-08	<5.0	200	200	197	196	ug/L	EPA 8260B	10/18/02	98.4	98.1	0.285	70-130	25
Methyl-t-Butyl Ether	29238-08	<0.50	40.0	40.0	41.7	41.8	ug/L	EPA 8260B	10/18/02	104	105	0.431	70-130	25
Benzene	29363-04	<0.50	40.0	40.0	41.6	39.8	ug/L	EPA 8260B	10/25/02	104	99.6	4.35	70-130	25
Toluene	29363-04	<0.50	40.0	40.0	41.8	40.0	ug/L	EPA 8260B	10/25/02	104	100	4.30	70-130	25
Tert-Butanol	29363-04	<5.0	200	200	206	206	ug/L	EPA 8260B	10/25/02	103	103	0.0486	70-130	25
Methyl-t-Butyl Ether	29363-04	<0.50	40.0	40.0	39.0	38.8	ug/L	EPA 8260B	10/25/02	97.6	97.0	0.565	70-130	25
Benzene	29229-07	<0.50	40.0	40.0	41.4	41.0	ug/L	EPA 8260B	10/20/02	103	102	1.07	70-130	25
Toluene	29229-07	<0.50	40.0	40.0	41.1	40.8	ug/L	EPA 8260B	10/20/02	103	102	0.683	70-130	25
Tert-Butanol	29229-07	<5.0	200	200	199	200	ug/L	EPA 8260B	10/20/02	99.5	100	0.571	70-130	25
Methyl-t-Butyl Ether	29229-07	<0.50	40.0	40.0	39.9	39.7	ug/L	EPA 8260B	10/20/02	99.8	99.3	0.502	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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

Report Number : 29229

QC Report : Laboratory Control Sample (LCS)

Date : 10/30/2002

Project Name : **285 Hegenberger Road,**

Project Number : **021017-MT1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	20.0	ug/L	EPA 8260B	10/21/02	99.6	70-130
Toluene	20.0	ug/L	EPA 8260B	10/21/02	97.3	70-130
Tert-Butanol	100	ug/L	EPA 8260B	10/21/02	99.9	70-130
Methyl-t-Butyl Ether	20.0	ug/L	EPA 8260B	10/21/02	101	70-130
Benzene	40.0	ug/L	EPA 8260B	10/18/02	105	70-130
Toluene	40.0	ug/L	EPA 8260B	10/18/02	109	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/18/02	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/18/02	107	70-130
Benzene	40.0	ug/L	EPA 8260B	10/25/02	100	70-130
Toluene	40.0	ug/L	EPA 8260B	10/25/02	104	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/25/02	99.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/25/02	102	70-130
Benzene	40.0	ug/L	EPA 8260B	10/20/02	103	70-130
Toluene	40.0	ug/L	EPA 8260B	10/20/02	99.9	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/20/02	104	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/20/02	96.2	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:

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

Karen Petryna

29229

INCIDENT NUMBER (S&E ONLY): 98995749

SAP or CRMT NUMBER (TS/CRMT):

DATE: 10/17/02

PAGE: 1 of 2

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS (Street and City):	GLOBAL ID NO.:
Blaine Tech Services	BTSS	285 Hegenberger Road, Oakland	T0600101245

ADDRESS:	EDF DELIVERABLE TO (Responsible Party or Designee):	PHONE NO.:	E-MAIL:	CONSULTANT PROJECT NO.:
1680 Rogers Avenue, San Jose, CA 95112	Anni Kreml	510-420-3335	akreml@cambria-env.com	BTS # D2617-LSTI

PROJECT CONTACT (Hardcopy or PDF Report to):	TELEPHONE:	FAX:	E-MAIL:	SAMPLER NAME(S) (Print):
Leon Gearhart	408-573-0555	408-573-7771	lgearhart@blainetech.com	Michael Toll

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 ☐

Ferrous Iron was Field Filtered.

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)	TPH-Motor Oil	Nitrate	Sulfate	Ferrous Iron	MTBE (8260B) Confirmation, See Note	TEMPERATURE ON RECEIPT C°
	MW-1	10/17/02	1250	W	8	X	X	X							X	X	X	X			-01
	MW-6		1245		8	X	X	X							X	X	X	X			-02
	MW-9		1320		8	X	X	X							X	X	X	X			-03
	VEW-5		1110		8	X	X	X							X	X	X	X			-04
	VEW-6		1140		8	X	X	X							X	X	X	X			-05
	VEW-7		1030		8	X	X	X							X	X	X	X			-06
	MW-8		1355		8	X	X	X							X	X	X	X			-07
	MW-10		1410		8	X	X	X							X	X	X	X			-08

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

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Hall			
	John Cuttle/Kiff Analytical	101702	1457

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

10/16/00 Revision

Q&Q Graphic (714) 898-9702

SHELL Chain of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be invoiced:

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

Karen Petryna

29229

INCIDENT NUMBER (S&E ONLY): 98099574

SAP or CRMT NUMBER (TS/CRMT):

DATE: 10/17/02

PAGE: 2 of 2

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS (Street and City):	GLOBAL ID NO.:
Blaine Tech Services	BTSS	285 Hegenberger Road, Oakland	T0600101245

ADDRESS	EDF DELIVERABLE TO (Responsible Party or Designee):	PHONE NO.:	E-MAIL:	CONSULTANT PROJECT NO.:
1680 Rogers Avenue, San Jose, CA 95112	Anni Kreml	510-420-3335	akreml@cambria-env.com	021017-MT1

PROJECT CONTACT (Hardcopy or PDF Report to):	TELEPHONE:	FAX:	E-MAIL:	SAMPLER NAME(S) (Print):	BTS #
Leon Gearhart	408-573-0555	408-573-7771	lgearhart@blainetech.com	Brian Alcorn	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)		TPH-Motor Oil	Nitrate	Sulfate	Ferrous iron		MTBE (8260B) Confirmation, See Note			TEMPERATURE ON RECEIPT C°
	MW-2	10/17	1415	W	8	X	X	X								X		X	X	X	X					-09
	MW-3		1355			X	X	X								X		X	X	X	X					-10
	~~MW-12~~ MW-4		1335			X	X	X								X		X	X	X	X					-11
	MW-11		1010			X	X	X								X		X	X	X	X					-12
	MW-12		1110			X	X	X								X		X	X	X	X					-13
	MW-13		1045			X	X	X								X		X	X	X	X					-14

FIELD NOTES:

Container/Preservative or PID Readings or Laboratory Notes

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: 101702	Time: 1457

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

10/16/00 Revision

Q&Q Graphic (714) 898-9702

Calscience
Environmental
Laboratories, Inc.

October 28, 2002

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

Subject: **Calscience Work Order No.: 02-10-1118**
Client Reference: 285 Hegenberger Road, Oakland

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/18/2002 and analyzed in accordance with the attached chain-of-custody.

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

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

Sincerely,

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

Michael J. Crisostomo
Quality Assurance Manager

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

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

Date Received: 10/18/02
Work Order No: 02-10-1118
Preparation: N/A
Method: EPA 300.0

Project: 285 Hegenberger Road, Oakland

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-1	02-10-1118-1	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	0.12	0.10	1		mg/L	Sulfate	1.2	1.0	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-5	02-10-1118-2	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	0.11	0.10	1		mg/L	Sulfate	17	10	10	D	mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-9	02-10-1118-3	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	ND	0.20	2		mg/L	Sulfate	ND	2.0	2		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
VEW-5	02-10-1118-4	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	8.4	1.0	10	D	mg/L	Sulfate	82	10	10	D	mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
VEW-6	02-10-1118-5	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	9.0	1.0	10	D	mg/L	Sulfate	130	100	100	D	mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
VEW-7	02-10-1118-6	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	9.3	1.0	10	D	mg/L	Sulfate	480	100	100	D	mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-8	02-10-1118-7	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	0.71	0.10	1		mg/L	Sulfate	17	10	10	D	mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-10	02-10-1118-8	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	0.10	0.10	1		mg/L	Sulfate	ND	1.0	1		mg/L

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

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

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

Date Received: 10/18/02
Work Order No: 02-10-1118
Preparation: N/A
Method: EPA 300.0

Project: 285 Hegenberger Road, Oakland

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	02-10-1118-9	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	0.11	0.10	1		mg/L	Sulfate	14	10	10	D	mg/L

MW-3	02-10-1118-10	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	0.11	0.10	1		mg/L	Sulfate	4.9	1.0	1		mg/L

MW-4	02-10-1118-11	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	ND	0.10	1		mg/L	Sulfate	13	10	10	D	mg/L

MW-11	02-10-1118-12	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	ND	1.0	10		mg/L	Sulfate	660	100	100	D	mg/L

MW-12	02-10-1118-13	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	0.81	0.10	1		mg/L	Sulfate	92	10	10	D	mg/L

MW-13	02-10-1118-14	10/17/02	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	1.8	0.5	5		mg/L	Sulfate	220	50	50	D	mg/L

Method Blank	099-05-113-1,471	N/A	Aqueous	N/A	10/18/02	021018L01

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Nitrate-N	ND	0.10	1		mg/L	Sulfate	ND	1.0	1		mg/L

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

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

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

Date Received: 10/18/02
Work Order No: 02-10-1118
Preparation: N/A
Method: SM3500-FeD

Project: 285 Hegenberger Road, Oakland

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-1	02-10-1118-1	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	0.10	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-5	02-10-1118-2	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-9	02-10-1118-3	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	1.6	0.1	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
VEW-5	02-10-1118-4	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
VEW-6	02-10-1118-5	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
VEW-7	02-10-1118-6	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-8	02-10-1118-7	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	1.7	0.1	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-10	02-10-1118-8	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	0.21	0.10	1		mg/L

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

Calscience Environmental Laboratories, Inc.

ANALYTICAL REPORT

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

Date Received: 10/18/02
Work Order No: 02-10-1118
Preparation: N/A
Method: SM3500-FeD

Project: 285 Hegenberger Road, Oakland

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-2	02-10-1118-9	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-3	02-10-1118-10	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-4	02-10-1118-11	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-11	02-10-1118-12	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	0.80	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-12	02-10-1118-13	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-13	02-10-1118-14	10/17/02	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	099-05-111-1,250	N/A	Aqueous	N/A	10/18/02	21018FEL1

Parameter	Result	RL	DF	Qual	Units
Iron (II)	ND	0.10	1		mg/L

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Project: 285 Hegenberger Road, Oakland

Date Received: 10/18/02
Work Order No: 02-10-1118
Preparation: N/A
Method: SM3500-FeD

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-13	Aqueous	UV 2	N/A	10/18/02	21018FES1

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Iron (II)	100	101	70-130	1	0-25	

Calscience Environmental Laboratories, Inc.

Quality Control - Laboratory Control Sample

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

Date Received: 10/18/02
Work Order No: 02-10-1118
Preparation: N/A
Method: SM3500-FeD

Project: 285 Hegenberger Road, Oakland

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
099-05-111-1,250	Aqueous	UV 2	10/18/02	NONE	21018FEL1

Parameter	Conc Added	Conc Recovered	%Rec	%Rec CL	Qualifiers
Iron (II)	1.0	0.97	97	80-120	

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 10/18/02
Work Order No: 02-10-1118
Preparation: N/A
Method: EPA 300.0

Project: 285 Hegenberger Road, Oakland

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	Aqueous	IC4	N/A	10/18/02	021018S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Nitrate-N	98	98	50-150	0	0-25	
Sulfate	100	101	50-150	1	0-25	

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

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

Project: 285 Hegenberger Road, Oakland

Date Received: 10/18/02
Work Order No: 02-10-1118
Preparation: N/A
Method: EPA 300.0

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-118-1,471	Aqueous	IC 4	N/A	10/18/02	021018L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Nitrate-N	99	100	80-120	1	0-25	
Sulfate	102	103	80-120	1	0-25	

Calscience Environmental Laboratories, Inc.

GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 02-10-1118

Qualifier	Definition
D	The sample data was reported from a diluted analysis.
ND	Not detected at indicated reporting limit.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 02-[1][0]-[1][1][1][8]

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: Kiff DATE: 10/18/02

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

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

LABORATORY (Other than Calscience Courier):

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

Initial: [illegible]

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: ✓ No (Not Intact) : _____ Not Applicable (N/A): _____

Initial: [illegible]

SAMPLE CONDITION:

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

Initial: [illegible]

COMMENTS:

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

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

Lab No. 1118 Page 1 of 2

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF to): Joel Kiff	EDF Report? _X_ Yes __No
Company/Address: Kiff Analytical, LLC	Recommended but not mandatory to complete this section: Sampling Company Log Code: BTSS
Phone No.: / FAX No.:	Global ID: T0600101245
Project Number: 021017-MT1 / P.O. No.: 29229	EDF Deliverable to (Email Address): Inbox@kiffanalytical.com
Project Name: 285 Hegenberger Road, Oakland	E-mail address: Inbox@kiffanalytical.com
Project Address:	

	Sample Designation	Sampling Date	Sampling Time	Container: Glass Jar	Container: Poly	Container: Amber	Container: Sleeve		Preservative: HCl	Preservative: HNO3	Preservative: ICE	Preservative: NONE		Matrix: WATER	Matrix: SOIL		Analysis Request: Nitrate	Sulfate	Ferrous Iron*					Date due: October 31, 2002	For Lab Use Only
1	MW-1	10/17/02	12:50		1	1					X	X		X			X	X	X					X	
2	MW-6	10/17/02	12:15		1	1					X	X		X			X	X	X					X	
3	MW-9	10/17/02	13:20		1	1					X	X		X			X	X	X					X	
4	VEW-5	10/17/02	11:10		1	1					X	X		X			X	X	X					X	
5	VEW-6	10/17/02	11:40		1	1					X	X		X			X	X	X					X	
6	VEW-7	10/17/02	10:30		1	1					X	X		X			X	X	X					X	
7	MW-8	10/17/02	13:55		1	1					X	X		X			X	X	X					X	
8	MW-10	10/17/02	14:10		1	1					X	X		X			X	X	X					X	

	Date	Time		
Relinquished by: Kris A. Kiff / Kiff Analytical	10/17/02	1800	Received by:	Remarks: Incident No. 98995749
Relinquished by:	Date	Time	Received by:	* Ferrous Iron was Field Filtered.
Relinquished by:	Date 10/18/02	Time 0830	Received by Laboratory:	Bill to:

KIFF ANALYTICAL LLC

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

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

Lab No. 1118

Page 2 of 2

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF to): Joel Kiff	EDF Report? _X_ Yes __No
Company/Address: Kiff Analytical, LLC	Recommended but not mandatory to complete this section:
Phone No.:	FAX No.:
Project Number: 021017-MT1	P.O. No.: 29229
Project Name: 285 Hegenberger Road, Oakland	
Project Address:	

Sampling Company Log Code: BTSS
Global ID: T0600101245
EDF Deliverable to (Email Address): inbox@kiffanalytical.com
E-mail address: inbox@kiffanalytical.com

Analysis Request — Date due: October 31, 2002

	Sample Designation	Sampling Date	Sampling Time	Container: Glass Jar	Container: Poly	Container: Amber	Container: Sleeve	Preservative: HCl	Preservative: HNO3	Preservative: ICE	Preservative: NONE	Matrix: WATER	Matrix: SOIL	Nitrate	Sulfate	Ferrous Iron*					Date due: October 31, 2002	For Lab Use Only
9	MW-2	10/17/02	14:15		1	1				X	X	X		X	X	X					X	
10	MW-3	10/17/02	13:55		1	1				X	X	X		X	X	X					X	
11	MW-4	10/17/02	13:35		1	1				X	X	X		X	X	X					X	
12	MW-11	10/17/02	10:10		1	1				X	X	X		X	X	X					X	
13	MW-12	10/17/02	11:10		1	1				X	X	X		X	X	X					X	
14	MW-13	10/17/02	10:45		1	1				X	X	X		X	X	X					X	

Relinquished by: Kris A. Kiff / Kiff Analytical	Date 10/17/02	Time 1900	Received by:	Remarks: Incident No. 98995749
Relinquished by:	Date	Time	Received by:	
Relinquished by:	Date 10/18/02	Time 0830	Received by Laboratory:	* Ferrous Iron was Field Fittered.
				Bill to:

WELL GAUGING DATA

Project # 021017-MT1 Date 10-17-02 Client 9899549

Site 285 HEGENBERGER RD., 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)	
MW-1	4					4.76	9.36		
MW-2	4					5.90	9.60		
MW-3	4					6.03	9.87		
MW-4	4					4.66	10.17		
MW-6	4					5.80	10.97		
MW-8	4					4.53	9.88		
MW-9	4					4.92	10.76		
MW-10	4					5.27	10.03		
MW-11	4					7.95	13.86		
MW-12	4					5.11	14.41		
MW-13	4					6.73	14.65		
VEW-5	4					3.55	9.54		
VEW-6	4					4.33	9.94		
VEW-7	4					4.93	9.76		
AS-1	1					DRY	14.78		
AS-2	1					DRY	15.00		
AS-3	1					14.78	14.91		

SHELL WELL MONITORING DATA SHEET

BTS #: 02017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 9.30	Depth to Water (DTW): 4.76
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]: 5.68	

Purge Method: Bailer, Disposable Bailer, (Middleburg), Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other____

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

3 (Gals.) X	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
1231	71.1	6.8	1825	12	3	Odor
1236	72.6	6.7	1457	10	6	"
1240	72.8	6.7	1444	8	9	"

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

Sampling Date: 10-17-02 Sampling Time: 1250 Depth to Water: 5.52

Sample I.D.: MW-1 Laboratory: (Kiff) SPL Other____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	0.8 mg/L	(Post-purge):	1.2	mg/L
O.R.P. (if req'd):	(Pre-purge):	-117 mV	(Post-purge):	-170	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 021017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 9.60	Depth to Water (DTW): 5.90
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]: 6.64	

Purge Method: Bailer, (Disposable Bailer) Pre, Middleburg, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

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

2.4 (Gals.) X 3 = 7.2 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
1240	74.0	6.7	1370	18	2.5	clear/mild odor
1244	73.3	7.1	1414	37	5	
Dewatered					6	DTW 8.94
1415	72.3	8.4	1386	20	—	@departure DTW 7.05

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

Sampling Date: 10-17-02 Sampling Time: 1415 Depth to Water: 7.05

Sample I.D.: MW-2 Laboratory: (Kiff) SPL Other_____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	0.6 mg/L	(Post-purge):	2.2 mg/L	
O.R.P. (if req'd):	(Pre-purge):	-95 mV	(Post-purge):	-48 mV	

SHELL WELL MONITORING DATA SHEET

BTS #: 021017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): ~~10.4~~ 9.87	Depth to Water (DTW): 6.03
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]: 6.80	

Purge Method: Bailer, (Disposable Bailer) Pre, Middleburg, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

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

2.5 (Gals.) X 3 = 7.5 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
1215	73.2	6.9	1573	30	2.5	clear/mild odor
1219	Dewatered				4	DTW 9.25
1250						DTW 8.97
~~1355~~	73.4	8.3	1583	25	—	@ departure DTW 7.95

Did well dewater? (Yes) No Gallons actually evacuated: 4

Sampling Date: 10-17-02 Sampling Time: 1355 Depth to Water: 7.95

Sample I.D.: MW-3 Laboratory: (Kiff) SPL Other_____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	0.8 mg/L	(Post-purge):	2.4	mg/L
O.R.P. (if req'd):	(Pre-purge):	-30 mV	(Post-purge):	-47	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 021017-MT1	Site: 9899549
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 10.17	Depth to Water (DTW): 4.66
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]: 5.76	

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

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

3.6 (Gals.) X 3 = 10.8 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
1150	70.0	7.4	2323	82	3.5	clear
1151	69.4	7.6	1408	16	7	"
Dewatered					7	DTW 7.87
1332	66.6	7.5	1870	12	—	@ departure DTW 7.32

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

Sampling Date: 10-17-02 — Sampling Time: ~~1455~~ 1335 — Depth to Water: 7.32

Sample I.D.: MW-4 — Laboratory: (Kiff) SPL Other ____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	1.4 mg/L	(Post-purge):	2.4	mg/L
O.R.P. (if req'd):	(Pre-purge):	533 mV	(Post-purge):	0	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 02-1017-MT-1	Site: 9899574
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-6	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 10.97	Depth to Water (DTW): 5.80
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]: 6.83	

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

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

3.3 (Gals.) X	3	= 9.9 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 (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1155	67.6	7.1	1012	77	3.5	odor
1159	67.4	7.0	1000	49	7	"
1205	67.3	7.0	976	31	10	"

Did well dewater? Yes (No) Gallons actually evacuated: 10

Sampling Date: 10-17-02 Sampling Time: 1215 Depth to Water: 6.75

Sample I.D.: ~~1215~~ MW-6 Laboratory: (Kiff) SPL Other_____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	1.2 mg/L	(Post-purge):	1.1	mg/L
O.R.P. (if req'd):	(Pre-purge):	-92 mV	(Post-purge):	-119	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 02-1017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-8	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 9.88	Depth to Water (DTW): 4.53
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]: 5.60	

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

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

1 Case Volume		Specified Volumes		Calculated Volume
3.5	(Gals.) X	3	=	10.5 Gals.

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
1300	71.0	7.9	812	21	3.5	clear / very mild odor
Dewatered					6	DTW 8.19
1333	68.					DTW 7.71
1355	69.6	7.1	1068	9	~	

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

Sampling Date: 10-17-02 Sampling Time: 1355 Depth to Water:

Sample I.D.: MW-8 Laboratory: (Kiff) SPL Other ___

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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

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

D.O. (if req'd):	(Pre-purge):	3.3 mg/L	(Post-purge):	2.2	mg/L
O.R.P. (if req'd):	(Pre-purge):	-99 mV	(Post-purge):	-42	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 02-1017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-9	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 10.76	Depth to Water (DTW): 4.92
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]: 6.09	

Purge Method: Bailer, Disposable Bailer, (Middleburg), (Electric Submersible), Waterra, Peristaltic, Extraction Pump, Other____

Sampling Method: (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
1257	68.1	6.9	2791	79	4	Odor, Yellow
1302	68.4	6.9	2732	63	8	" , "
1307	68.3	6.9	2730	59	11.5	" , "

Did well dewater? Yes (No) Gallons actually evacuated: 11.5

Sampling Date: 10-17-02 Sampling Time: 1320 Depth to Water: 6.00

Sample I.D.: MW-9 Laboratory: (Kiff) SPL Other____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	1.0 mg/L	(Post-purge):	1.2	mg/L
O.R.P. (if req'd):	(Pre-purge):	-100 mV	(Post-purge):	-140	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 02-1017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-10	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 10.03	Depth to Water (DTW): 5.27
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]: 6.22	

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

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

3.1 (Gals.) X	3	=	9.3 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
1320	75.6	6.9	2980	20	3	clear yellow mild odor
Dewatered					5	DTW 9.34
1410	71.3	6.7	2000	44	—	DTW=9.20 Yellow

Did well dewater? (Yes) ~~No~~ Gallons actually evacuated: 5

Sampling Date: 10-17-02 Sampling Time: 1410 Depth to Water: 9.20

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

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	0.8 mg/L	(Post-purge):	1.2	mg/L
O.R.P. (if req'd):	(Pre-purge):	-56 mV	(Post-purge):	-40	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 02017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-11	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 13.86	Depth to Water (DTW): 7.95
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) Pre, (Disposable Bailer) Post, 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
1005	67.5	7.1	15.9	14	3.75	clear
Dewatered					6	DTW 11.81
1010	66.6	7.9	18.4	89	—	SAMPLED IMMED. DUE TO TRAFFIC

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

Sampling Date: 10-17-02 Sampling Time: 1010 Depth to Water: TRAFFIC WELL DTW 11.81

Sample I.D.: ~~MW-10~~ MW-11 Laboratory: (Kiff) SPL Other____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	1.3 mg/L	(Post-purge):	1.0	mg/L
O.R.P. (if req'd):	(Pre-purge):	67 mV	(Post-purge):	-57	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 021017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-12	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 14.41	Depth to Water (DTW): 5.11
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.97	

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

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

6.0 (Gals.) X 3 = 18.0 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
1105	67.3	7.4	2332	27	6	clear
1106	68.2	7.3	1393	13	12	"
Dewatered					15	DTW 12.40
1110	66.9	7.4	2421	432	—	SAMPLED EARLY. DUE TO TRAFFIC

Did well dewater? (Yes) No Gallons actually evacuated: 15

Sampling Date: 10-17-02 Sampling Time: 1110 Depth to Water: 12.40 TRAFFIC WAIT

Sample I.D.: MW-12 Laboratory: (Kiff) SPL Other_____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	1.8 mg/L	(Post-purge):	1.5 mg/L	
O.R.P. (if req'd):	(Pre-purge):	-20 mV	(Post-purge):	10 mV	

SHELL WELL MONITORING DATA SHEET

BTS #: 021017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: MW-13	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 14.65	Depth to Water (DTW): 6.73
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) Pre, (Disposable Bailer) Post, Extraction Port, Dedicated Tubing, Other: ____

5.1 (Gals.) X	3	=	15.3 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 (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1040	67.8	7.1	6092	13	5	clear
Dewatered					9	DTW 11.63
1045	66.9	7.9	6298	51	—	SAMPLE IMMED. DUE TO TRAFFIC

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

Sampling Date: 10-17-02 Sampling Time: 1045 Depth to Water: 11.63 TRAFFIC WAS

Sample I.D.: MW-13 Laboratory: (Kiff) SPL Other ____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	1.4 mg/L	(Post-purge):	0.9	mg/L
O.R.P. (if req'd):	(Pre-purge):	-94 mV	(Post-purge):	-42	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 021017-MT1	Site: 98995749
Sampler: M. Toll	Date: 10-17-02
Well I.D.: VEW-5	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 9.54	Depth to Water (DTW): 3.55
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.75	

Purge Method: Bailer; Disposable Bailer; Middleburg; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other 5/8 Tube & CheckVALVE

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

2.2 (Gals.) X	3	=	6.6 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 (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1053	73.0	8.3	1874	>1000	2.25	Brown
1057	72.4	8.2	1862	>1000	4.5	"
1059	72.1	8.1	1860	>1000	6.75	"

Did well dewater? Yes (No) Gallons actually evacuated: 10.75

Sampling Date: 10-17-02 Sampling Time: 1110 Depth to Water: 4.70

Sample I.D.: VEW-5 Laboratory: (Kiff) SPL Other ___

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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:	1.1 mg/L	Post-purge:	1.0	mg/L
O.R.P. (if req'd):	Pre-purge:	-107 mV	Post-purge:	-126	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 021017-MT1	Site: 9899579
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: VEW-6	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 9.94	Depth to Water (DTW): 4.33
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]: 5.45	

Purge Method: Bailer; Disposable Bailer; Middleburg; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other 5/8 Tube w/ Check Valve

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

2.1 (Gals.) X	3	=	6.3 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
1120	71.2	8.9	3010	>1000	2.25	Dark Brown, odor
1126	71.0	8.8	3033	>1000	4.5	" "
1129	71.0	8.9	3051	>1000	6.5	" "

Did well dewater? Yes (No) Gallons actually evacuated: 6.5

Sampling Date: 10-17-02 Sampling Time: 1140 Depth to Water: 5.39

Sample I.D.: VEW-6 Laboratory: (Kiff) SPL Other ___

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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):	0.9 mg/L	(Post-purge):	1.3	mg/L
O.R.P. (if req'd):	(Pre-purge):	-170 mV	(Post-purge):	-226	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 02-1017-MT1	Site: 9895749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: VEW-7	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 9.76	Depth to Water (DTW): 4.93
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]: 5.90	

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

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

1.8 (Gals.) X 3 = 5.4 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
10:15	72.9	7.9	3856	3856	1.8	Black, Sulphur odor
10:18	73.5	8.2	3770	>1000	3.6	" "
10:20	73.1	8.1	3752	>1000	5.5	

Did well dewater? Yes (No) Gallons actually evacuated: 5.5

Sampling Date: 10-17-02 Sampling Time: 1030 Depth to Water: 5.31

Sample I.D.: VEW-7 Laboratory: (Kiff) SPL Other ___

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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

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

D.O. (if req'd):	(Pre-purge):	3.0 mg/L	(Post-purge):	1.9	mg/L
O.R.P. (if req'd):	(Pre-purge):	-226 mV	(Post-purge):	-184	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 021017-MT1	Site: 98995749
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: AS-1	Well Diameter: 2 3 4 6 8 1"
Total Well Depth (TD): 14.78	Depth to Water (DTW): DRY
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:_____

_____(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
	NO WATER To Purge & Sample					

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 10-17-02 Sampling Time: Depth to Water:

Sample I.D.: Laboratory: (Kiff) SPL Other_____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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 #: 021017-MT1	Site: 9899574A
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: AS-2	Well Diameter: 2 3 4 6 8 1"
Total Well Depth (TD): 15.00	Depth to Water (DTW): DRY
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:_____

_____(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
	No water to purge & Sample					

Did well dewater? Yes No — Gallons actually evacuated:

Sampling Date: 10-17-02 — Sampling Time: — Depth to Water:

Sample I.D.: — Laboratory: (Kiff) SPL Other_____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) — Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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 #: 02-1017-MT1	Site: 9899574
Sampler: M. Toll, B. Alcorn	Date: 10-17-02
Well I.D.: A3-3	Well Diameter: 2 3 4 6 8 (1")
Total Well Depth (TD): 14.91	Depth to Water (DTW): 14.78
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:_____

_____(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
	Insufficient H_2O to Purge & Sample					

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 10-17-02 Sampling Time: Depth to Water:

Sample I.D.: Laboratory: (Kiff) SPL Other_____

Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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

ATTACHMENT B

AS/SVE System Vapor Monitoring Data

O&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: JR Date: 10/1/02
Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142
Project #243-0734-003

VAPOR EXTRACTION / BIOSPARGE SYSTEM

General Parameters	ARRIVAL		DEPART	
Time:	10:30		2:30	
System Operation	ON	(on/off)	ON	(on/off)
KWH Reading:	9203	(KWH)	9214	(KWH)
Hour Meter Reading:	2239.3	(hours)	2243.3	(hours)
Air Compressor Operation:	✓	(ok)	✓	(ok)
Air Compressor Pressure:	140	(psi)	140	(psi)
Change AC Oil:	N	(y/n)		
Blower Op:	✓	(ok)	✓	(ok)
Blower Vacuum:	*Broken Gauge	(inHg)	*Broken Gauge	(inHg)
Storage Tank H2O Level:	5	(% full)		
KO H2O Level:	25	(% full)	25	(% full)
Transfer Pump Op:	✓	(ok)	✓	(ok)

AC Press Reg. 50psi

* Gauges on order

Container Clean:	Y (y/n)	Vaults Secured:	Y (y/n)	
Electrical Panel Secured:	Y (y/n)	Container Secured:	Y (y/n)	

Well Field and Operational Data:

Well (id)	Status (on/off)	Pressure (psi/inH2O)	Flow (cfm)	OVA (ppm)	DTW (fbg)	Notes:
~~VEW~~ AS	ON	19.5 in H2O	5.6 ft³/min	362 NA	3.55 NA	
AS-1	off / ON	19.0	1.5 SCFM	NA	N/A	
AS-2	off / ON	12.5	1.5 SCFM	NA	N/A	
AS-3	ON	* -0	1.5 SCFM	NA	N/A	* Gauge not reading / broken
VE-5	ON	19.3 in H2O	12.5 ft³/min	429	3.10	
VE-6	ON	19.6 in H2O	5.6 ft³/min	151	4.02	
VE-7	ON	19.6 in H2O	8.1 ft³/min	37	4.47	
INF*	ON	19.7 in H2O	32.0 ft³/min	340	NA	
MID*	ON	.1 in H2O	—	0-.2	NA	
EFF*	ON	0 in H2O	13.9 ft³/min	-0	NA	

* monthly PID monitoring required under Bay Area Air Quality Management District Permit to Operate # 3356
Breakthrough defined as the detection at is outlet of the higher of the following:
a. 10% of the inlet stream concentration to the carbon vessel
b. 10 ppmv measured as C6

Note: **Complete new form for every site visit. Attach Daily Field Reports for non-routine items. Attach copy of COC.**

\\SERVER\SHELL\OAKLAND 285 HEGENBERGER\O&M\OM FIELD DATA SHEET.DOC

O&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: JR Date: 10/15/02
Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142
Project #243-0734-003

VAPOR EXTRACTION / BIOSPARGE SYSTEM

General Parameters	ARRIVAL		DEPART	
Time:	12:30		3:15	
System Operation	ON	(on/off)	ON	(on/off)
KWH Reading:	10358	(KWH)	10357	(KWH)
Hour Meter Reading:	2587.4	(hours)	2580.1	(hours)
Air Compressor Operation:	✓	(ok)	✓	(ok)
Air Compressor Pressure:	140	(psi)	135	(psi)
Change AC Oil:	N	(y/n)		
Blower Op:	✓	(ok)	✓	(ok)
Blower Vacuum:	* Broken gauge	(inHg)	* Broken gauge	(inHg)
Storage Tank H2O Level:	5	(% full)		
KO H2O Level:	25	(% full)	25	(% full)
Transfer Pump Op:	✓	(ok)	✓	(ok)
Container Clean:	Y	(y/n)	Vaults Secured:	Y (y/n)
Electrical Panel Secured:	Y	(y/n)	Container Secured:	Y (y/n)

AC Press. Reg. 50psi

Well Field and Operational Data:

Well (id)	Status (on/off)	Pressure (psi/inH2O)	Flow (cfm)	OVA (ppm)	DTW (fbg)	Notes:
VE-1 AS	ON	20.5 in H2O	9.5 ft³/min	120 NA	3.12 NA	
AS-1		10.0	1.5 SCFM	NA	N/A	
AS-2		8.0	1.5 "	NA	N/A	
AS-3		* Not Reading	1.5 "	NA	N/A	
VE-5		21.7 in H2O	13.5 ft³/min	79	2.82	
VE-6		20.5 in H2O	8.95 ft³/min	14	4.17	
VE-7		20.5 in H2O	14.6 ft³/min	20	4.70	
INF*		21.0 in H2O	18.5 ft³/min	C6	NA	
MID*		.1 in H2O	—	-0-	NA	
EFF*		-0-	9.75 ft³/min	-0-	NA	

* monthly PID monitoring required under Bay Area Air Quality Managerment District Permit to Operate # 3356
Breakthrough defined as the detection at is outlet of the higher of the following:

a. 10% of the inlet stream concentration to the carbon vessel
b. 10 ppmv measured as C6

Note: **Complete new form for every site visit. Attach Daily Field Reports for non-routine items. Attach copy of COC.**

O&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: JR. Date: 10/29/02
Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142
Project #243-0734-003

VAPOR EXTRACTION / BIOSPARGE SYSTEM

General Parameters	ARRIVAL		DEPART	
Time:	11:15		1:45	
System Operation	ON	(on/off)	ON	(on/off)
KWH Reading:	11427	(KWH)	11435	(KWH)
Hour Meter Reading:	2913.2	(hours)	2915.6	(hours)
Air Compressor Operation:	✓	(ok)	✓	(ok)
Air Compressor Pressure:	150	(psi)	145	(psi)
Change AC Oil:	N	(y/n)		
Blower Op:	✓	(ok)	✓	(ok)
Blower Vacuum:	* Broken	(inHg)	* On order	(inHg)
Storage Tank H2O Level:	5	(% full)		
KO H2O Level:	75	(% full)	25	(% full)
Transfer Pump Op:	✓	(ok)	✓	(ok)
Container Clean:	Y	(y/n)	Vaults Secured:	Y (y/n)
Electrical Panel Secured:	Y	(y/n)	Container Secured:	Y (y/n)

Well Field and Operational Data:

Well (id)	Status (on/off)	Pressure (psi/inH2O)	Flow (cfm)	OVA (ppm)	DTW (fbg)	Notes:
VEW/AS	ON	20.5" H_2O	5.5 ft^3/min	NA 136	NA 3.15	
AS-1	↓	10 psi	1.5 SCFM	NA	N/A	
AS-2		7 psi	1.5 "	NA	N/A	
AS-3		5 psi *	1.5 "	NA	N/A	* Replace w/ new press. gauge
VE-5		21.2 in H_2O	13.5 ft^3/min	59	3.16	
VE-6		20.8 in H_2O	5.4 ft^3/min	.3-.5	4.15	
VE-7		20.6 in H_2O	8.5 ft^3/min	29	5.70	
INF*		21.2 in H_2O	34.5 ft^3/min	52	NA	
MID*		.1 in H_2O		0	NA	
EFF*	↓	0	9.95 ft^3/min	0	NA	

* monthly PID monitoring required under Bay Area Air Quality Management District Permit to Operate # 3356
Breakthrough defined as the detection at is outlet of the higher of the following:

a. 10% of the inlet stream concentration to the carbon vessel
b. 10 ppmv measured as C6

Note: **Complete new form for every site visit. Attach Daily Field Reports for non-routine items. Attach copy of COC.**

O&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: JR. Date: 11/11/02
Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142
Project #243-0734-003

VAPOR EXTRACTION / BIOSPARGE SYSTEM

General Parameters	ARRIVAL		DEPART		
Time:	11:00		3:00		AC Press. Reg. 50psi
System Operation	ON	(on/off)	ON	(on/off)	
KWH Reading:	12455	(KWH)	12465	(KWH)	
Hour Meter Reading:	* 3007.7	(hours)	* 3007.7	(hours)	* Hour meter not working.
Air Compressor Operation:	✓	(ok)	✓	(ok)	
Air Compressor Pressure:	145	(psi)	140	(psi)	
Change AC Oil:	Y	(y/n)			
Blower Op:	✓	(ok)	✓	(ok)	
Blower Vacuum:	* 40.5	(in H2O)	* 40.5	(in H2O)	* Replace gauge w/ brass sample port. Took reading w/ Dwyer Meter.
Storage Tank H2O Level:	5-10%	(% full)			
KO H2O Level:	5%	(% full)	5%	(% full)	
Transfer Pump Op:	✓	(ok)	✓	(ok)	
Container Clean:	Y	(y/n)	Vaults Secured:	Y	(y/n)
Electrical Panel Secured:	Y	(y/n)	Container Secured:	Y	(y/n)

Well Field and Operational Data:

Well (id)	Status (on/off)	Pressure (psi/inH2O)	Flow (cfm)	OVA (ppm)	DTW (fbg)	Notes:
AS	ON	21.9" H2O	9.85 ft³/min	NA 3.4	NA 2.40	
AS-1	↓	10 psi	1.5 SCFM	NA	N/A	
AS-2		7 psi	1.5 "	NA	N/A	
AS-3		5 psi	1.5 "	NA	N/A	
VE-5		21.9" H2O	16.5 ft³/min	-0-	2.35	
VE-6		21.9" H2O	9.90 ft³/min	-0-	3.90	
VE-7		21.9" H2O	19.5 ft³/min	-0-	3.87	
INF*		21.9" H2O	39.5 ft³/min	-0-	NA	
MID*		.1" H2O	/	-0-	NA	
EFF*	↓	-0-	4.30 ft³/min	-0-	NA	

* monthly PID monitoring required under Bay Area Air Quality Management District Permit to Operate # 3356
Breakthrough defined as the detection at is outlet of the higher of the following:

a. 10% of the inlet stream concentration to the carbon vessel
b. 10 ppmv measured as C6

Note: **Complete new form for every site visit. Attach Daily Field Reports for non-routine items. Attach copy of COC.**

O&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: JR Date: 11-26-02
Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142
Project #243-0734-003

VAPOR EXTRACTION / BIOSPARGE SYSTEM

General Parameters	ARRIVAL		DEPART	
Time:	11:30		2:00	
System Operation	ON	(on/off)	ON	(on/off)
KWH Reading:	13630	(KWH)	13636	(KWH)
Hour Meter Reading:	* 3009.7	(hours)	* 3009.7	(hours)
Air Compressor Operation:	✓	(ok)	off *	(ok)
Air Compressor Pressure:	125	(psi)	140	(psi)
Change AC Oil:	N	(y/n)		
Blower Op:	✓	(ok)	✓	(ok)
Blower Vacuum:	40.8	(inHg) H_2O	40.8	(inHg) H_2O
Storage Tank H2O Level:	5-10	(% full)		
KO H2O Level:	5	(% full)	5	(% full)
Transfer Pump Op:	✓	(ok)	✓	(ok)

AC. Press Reg. 50psi

* Hour meter on order.

* Turned off AC. Comp.

Container Clean:	Y (y/n)	Vaults Secured:	Y (y/n)
Electrical Panel Secured:	Y (y/n)	Container Secured:	Y (y/n)

Well Field and Operational Data:

Well (id)	Status (on/off)	Pressure (psi/inH2O)	Flow (cfm)	OVA (ppm)	DTW (fbg)	Notes:
VBW 1 AS	ON	21.8	11.3 ft³/min	NA .8	NA 2.70	
AS-1	/ off	10 / 0	1.5 SCFM / 0	NA	@ 14.69 Total Depth (No water)	
AS-2	/ off	7 / 0	1.5 " / 0	NA	14.89 Total Depth (No water)	
AS-3	/ off	5 / 0	1.5 " / 0	NA	14.80 Total Depth (No water)	
VE-5		21.8	7.85 ft³/min	0 .1	4.24	
VE-6		21.8	3.85	0	4.06	
VE-7		21.8	9.30	0	4.33	
INF*		21.8	25.5	0	NA	
MID*		0		0 .3	NA	
EFF*	↓	0	3.85	0	NA	

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