



Shell Oil Products US

February 26, 2004

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

Alameda County
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Subject: **Former Shell Service Station**
 1230 14th Street
 Oakland, California

Dear Mr. Chan:

Attached for your review and comment is a copy of the *Fourth Quarter 2003 Monitoring Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

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

Sincerely,

Shell Oil Products US

Karen Petryna

Karen Petryna
Sr. Environmental Engineer

C A M B R I A

February 26, 2004

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

Re: **Fourth Quarter 2003 Monitoring Report**
Former Shell Service Station
1230 14th Street
Oakland, California
Incident #97088250
Cambria Project #245-0233-002



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.

REMEDIATION SUMMARY

Groundwater Extraction (GWE): As proposed in the May 23, 2002 *Subsurface Investigation Work Plan*, semi-monthly mobile GWE using MW-5 began on June 11, 2002 in an attempt to reduce hydrocarbon concentrations in groundwater in the suspected source area.

Dual Phase Vapor Extraction (DVE): DVE is the process of applying high vacuum through an airtight well seal to simultaneously extract soil vapors from the vadose zone and enhance GWE from the saturated zone. Cambria substituted semi-monthly DVE for GWE beginning on September 19, 2002. DVE was discontinued on March 4, 2003. Cambria re-started monthly DVE on November 10, 2003.

To date combined GWE and DVE have removed approximately 5.2 pounds of liquid phase hydrocarbons, and DVE has removed approximately 4.7 pounds of vapor phase hydrocarbons from the subsurface.

Cambria
Environmental
Technology, Inc.

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

FOURTH QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled all site wells, measured dissolved oxygen (DO) concentrations, calculated groundwater elevations, and compiled the collected data. Cambria prepared an area vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, with supporting field notes and laboratory reports, is included as Attachment A.

Corrective Action Implementation: From March 17 through 20, 2003, Fast-Tek Engineering Support Services (Fast-Tek) of Point Richmond, California conducted in-situ field testing of hydrogen peroxide injection proposed in Cambria's August 26, 2002 *Subsurface Investigation Report and Corrective Action Plan*, September 12, 2002 *Subsurface Investigation Report and Corrective Action Plan Addendum*, and November 18, 2002 *Subsurface Investigation Report and Corrective Action Plan – Addendum 2*. Fast-Tek injected approximately 3,500 gallons of the proposed 10,000 gallons of 15% hydrogen peroxide into 16 borings at depths ranging from 19.5 to 3.5 feet below grade. As of the July 14, 2003 sampling event, there had been no appreciable observed decrease in hydrocarbon concentrations in groundwater at the site.

Cambria compared the technique used by Fast-Tek to deliver peroxide to the subsurface with the technique used by Rejuvenate Groundbreaking Solutions, Inc. (Rejuvenate) of San Rafael, California. Based on our experience and Rejuvenate's proven success at other sites, the field test proceeded using Rejuvenate. Injection points were installed on September 11, 2003 and a second phase of peroxide injection was conducted from September 22 through 25, 2003. Confirmation groundwater samples were collected on September 29, 2003, and soil and grab groundwater samples were collected on November 7, 2003. These results will be reviewed to determine whether further peroxide treatment would be effective for this site.

ANTICIPATED FIRST QUARTER 2004 ACTIVITIES

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

Corrective Action Implementation: As noted above, Cambria will review the data gathered during and following the September peroxide treatment and determine whether further peroxide treatment is appropriate for this site.

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Barney Chan
February 26, 2004

Dual Phase Vapor Extraction (DVE): Cambria will continue DVE until the results are evaluated.

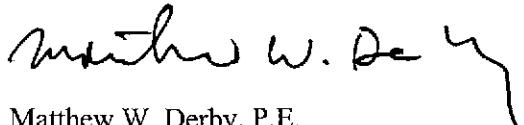
Remediation Report and Verification Sampling Work Plan: Upon completion of the in-situ field test of hydrogen peroxide treatment, Cambria will prepare a report of the field activities and verification sampling.

CLOSING



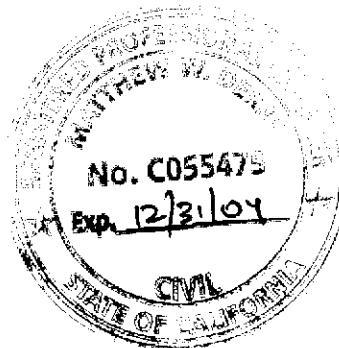
We appreciate the opportunity to work with you on this project. Please call Matt Derby at (510) 420-3332 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc



Matthew W. Derby

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



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

Tables: 1 – Groundwater Extraction – Mass Removal Data
 2 – Vapor Extraction – Mass Removal Data

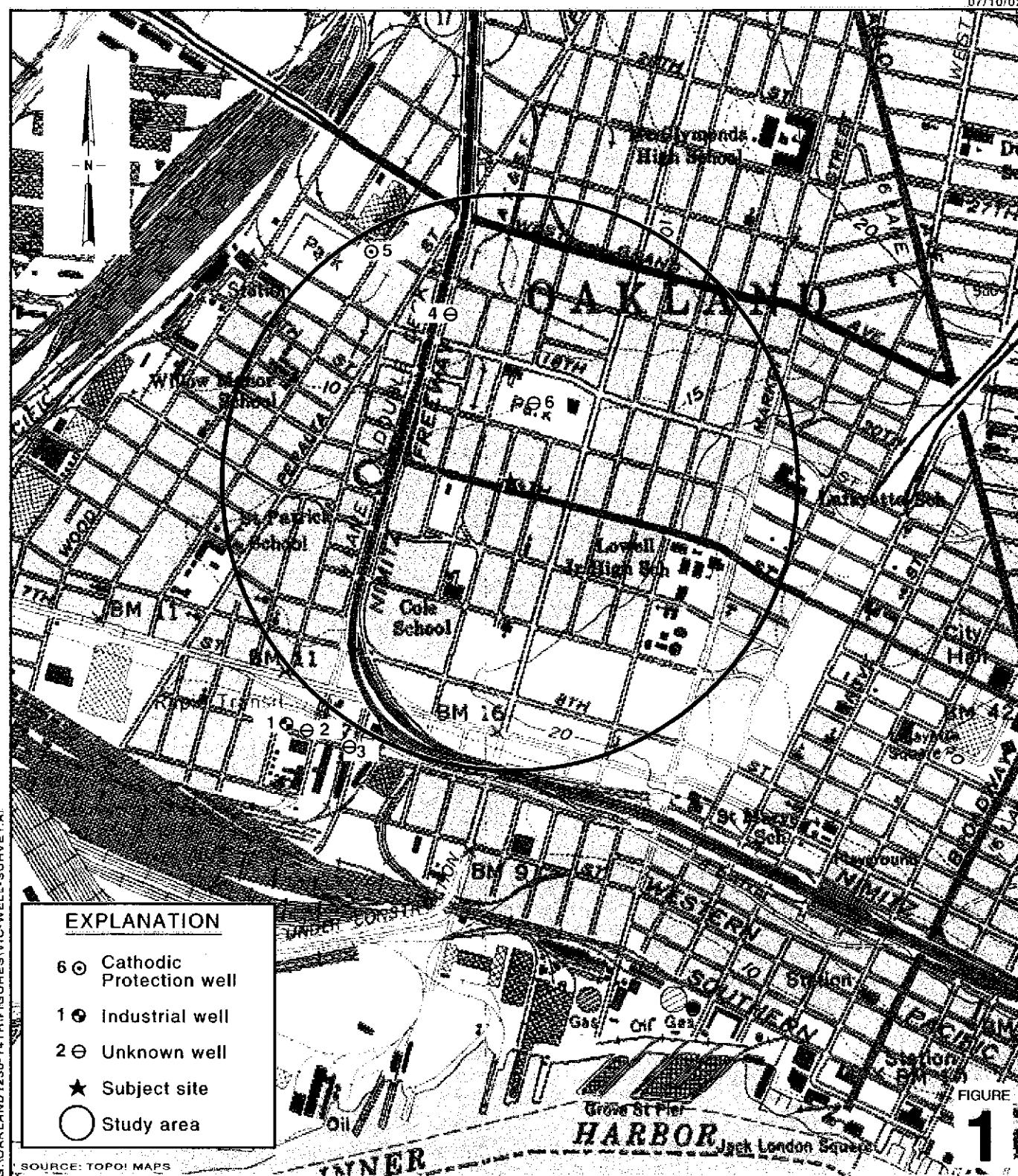
Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Shell Oil Products US – HSE/S&E, 20945 S. Wilmington, Carson, CA 90810
 Tom Saberi, 1045 Airport Boulevard, Suite 12, South San Francisco, CA 94080
 Matthew Dudley, Sedgwick, Detert, Moran, & Arnold, 1 Embarcadero Center,
 16th Floor, San Francisco, CA 94111-3628
 Ms. Ellen Wyrick-Parkinson, 1420 Magnolia Street, Oakland, CA 94607

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**Cambria
Environmental
Technology, Inc.**

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0 1/8 1/4 1/2 1
SCALE : 1" = 1/4 MILE

Former Shell Service Station
 1230 14th Street
 Oakland, California
 Incident #97088250



Vicinity/Area Well Survey Map
 (1/2-Mile Radius)

EXPLANATION

S-18 ● Confirmation soil boring (11/07/03)

P-1 • Peroxide injection port (9/22-25/03)

A-1 ▲ Peroxide injection location (03/17-20/03)

MW-1 ● Monitoring well location

VW/AS-1 ◊ Combination air sparge/soil vapor extraction well

VW/MW-2 ◊ Combination soil vapor extraction well/monitoring well

GP-1 ○ Soil boring location (12/11/00)

* Data anomalous, not used for contouring

→ Groundwater flow direction

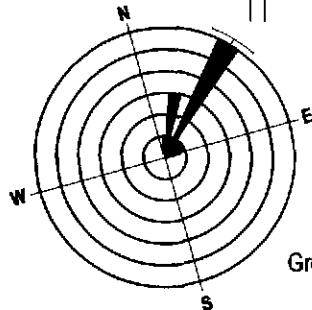
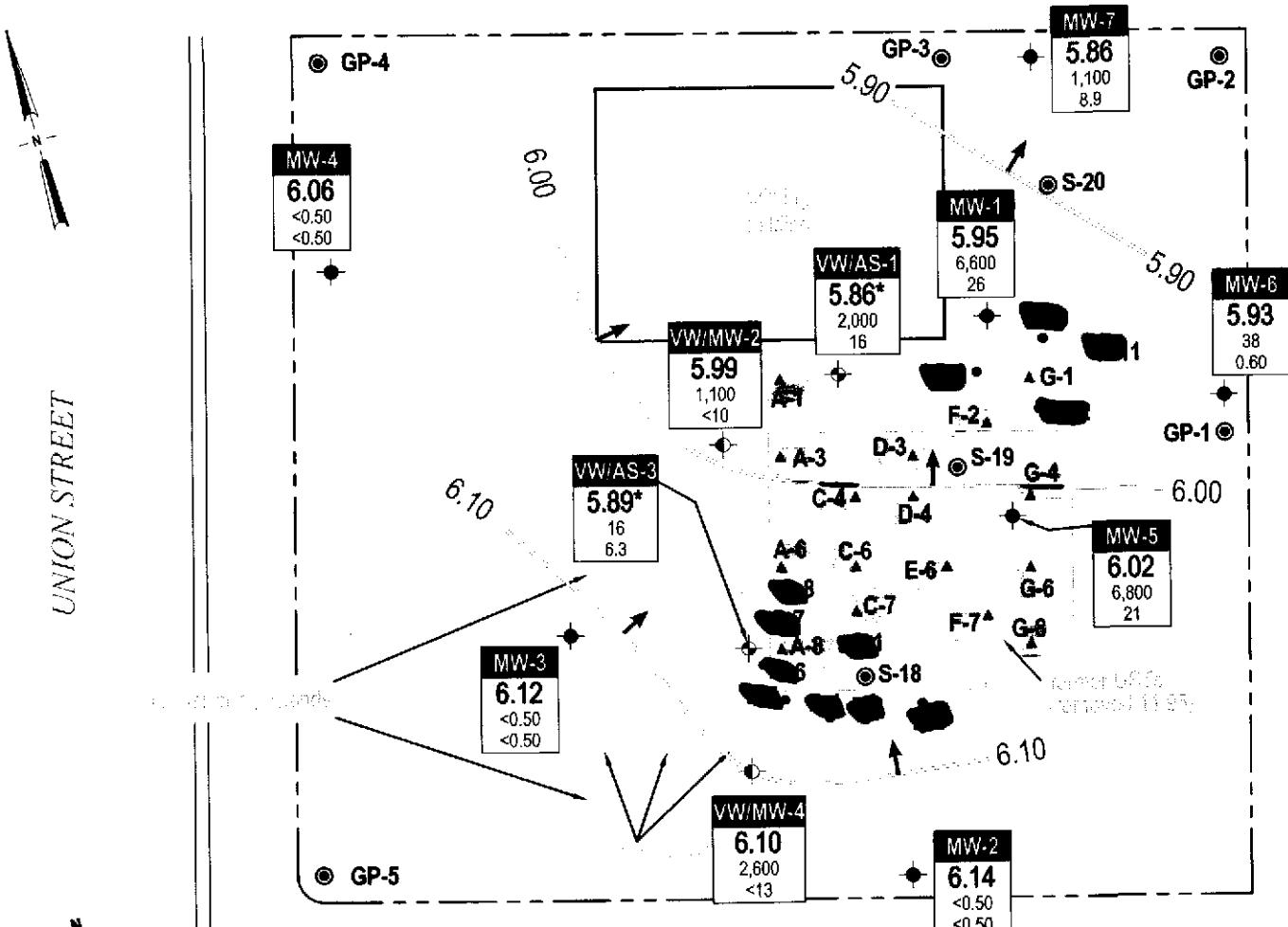
XX.XX Groundwater elevation contour, in feet above mean sea level (msl), approximately located, dashed where inferred



Well designation

Groundwater elevation, in feet above msl

Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260

Groundwater Flow Direction
(3Q00 through 4Q03)**Former Shell Service Station**

1230 14th Street

Oakland, California

Incident #97088250



C A M B R I A

**Groundwater Elevation
Contour Map**

October 29, 2003

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CAMBRIA

**Table 1: Groundwater Extraction - Mass Removal Data - Former Shell Service Station, Incident #97088250,
1230 14th St., Oakland, California**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative		TPPH			Benzene		
			Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene To Date (pounds)
06/11/02	MW-5	300	300	04/17/02	33,000	0.08261	0.08261	3,800	0.00951	0.00951
06/25/02	MW-5	200	500	04/17/02	33,000	0.05507	0.13768	3,800	0.00634	0.01585
07/09/02	MW-5	415	915	04/17/02	33,000	0.11428	0.25196	3,800	0.01316	0.02901
07/23/02	MW-5	300	1,215	04/17/02	33,000	0.08261	0.33457	3,800	0.00951	0.03853
08/06/02	MW-5	300	1,515	04/17/02	33,000	0.08261	0.41718	3,800	0.00951	0.04804
08/20/02	MW-5	185	1,700	04/17/02	33,000	0.05094	0.46812	3,800	0.00587	0.05390
09/03/02	MW-5	151	1,851	04/17/02	33,000	0.04158	0.50970	3,800	0.00479	0.05869
09/19/02	MW-5	400	2,251	04/17/02	33,000	0.11015	0.61984	3,800	0.01268	0.07138
10/01/02	MW-5	375	2,626	04/17/02	33,000	0.10326	0.72311	3,800	0.01189	0.08327
10/17/02	MW-5	150	2,776	04/17/02	33,000	0.04130	0.76441	3,800	0.00476	0.08802
11/01/02	MW-5	327	3,103	04/17/02	33,000	0.09004	0.85445	3,800	0.01037	0.09839
11/15/02	MW-5	200	3,303	11/11/02	100,000	0.16689	1.02134	7,100	0.01185	0.11024
12/03/02	MW-5	200	3,503	11/11/02	100,000	0.16689	1.18823	7,100	0.01185	0.12209
12/31/02	MW-5	391	3,894	11/11/02	100,000	0.32626	1.51449	7,100	0.02316	0.14525
01/17/03	MW-5	463	4,357	11/11/02	100,000	0.38634	1.90084	7,100	0.02743	0.17268
01/29/03	MW-5	2,780	7,137	11/11/02	100,000	2.31973	4.22057	7,100	0.16470	0.33739
02/04/03	MW-5	250	7,387	11/11/02	100,000	0.20861	4.42918	7,100	0.01481	0.35220
02/18/03	MW-5	400	7,787	11/11/02	100,000	0.33377	4.76295	7,100	0.02370	0.37589
03/04/03	MW-5	350	8,137	11/11/02	100,000	0.29205	5.05500	7,100	0.02074	0.39663
11/10/03	MW-5	250	8,387	10/29/03	45,000	0.09387	5.14888	6,800	0.01419	0.41082
12/12/03	MW-5	204	8,591	10/29/03	45,000	0.07660	5.22548	6,800	0.01158	0.42239

CAMBRIA

**Table 1: Groundwater Extraction - Mass Removal Data - Former Shell Service Station, Incident #97088250,
1230 14th St., Oakland, California**

Date Purged	Well ID	Volume (gal)	Cumulative		TPPH			Benzene		
			Pumped	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene To Date (pounds)
Total Gallons Extracted:		8.591			Total Pounds Removed:	5.22548				0.47239
					Total Gallons Removed:	0.85664				0.05786

Abbreviations & Notes:

TPPH = Total purgeable hydrocarbons as gasoline

ppb = Parts per billion

gal = Gallons

Mass removed based on the formula: volume extracted (gal) x concentration ($\mu\text{g}/\text{L}$) x ($\text{g}/10^6\mu\text{g}$) x (pound/453.6g) x (3.785 L/gal)

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

TPPH and benzene analyzed by EPA Method 8260

Concentrations based on most recent groundwater monitoring results

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

Groundwater extracted by vacuum trucks provided by Phillips Services. Water disposed of at a Martinez Refinery.

CAMBRIA

Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #97088250, 1230 14th Street, Oakland, California

Date Purged	Well ID	Interval Hours of Operation (hours)	System Flow Rate (CFM)	Hydrocarbon Concentrations		TPPH		Benzene	
				TPHg	Benzene	TPHg Removal	Cumulative TPHg	Benzene Removal	Cumulative Benzene
						Rate (#/hour)	Removed (#)	Rate (#/hour)	Removed (#)
09/19/02	MW-5	4.00	10.1	150	25	0.020	0.081	0.003	0.012
10/01/02	MW-5	4.00	11.1	2,100	23	0.312	1.327	0.003	0.025
10/17/02	MW-5	4.00	9.3	1,100	20	0.137	1.874	0.002	0.034
11/01/02	MW-5	4.00	10.0	520	8.9	0.070	2.152	0.001	0.038
11/15/02	MW-5	4.00	8.5	1,500	16	0.170	2.834	0.002	0.045
12/03/02	MW-5	4.00	7.7	1,300	15	0.134	3.370	0.001	0.050
12/31/02	MW-5	4.25	10.9	560	13	0.082	3.716	0.002	0.057
01/17/03	MW-5	4.00	9.1	260	14	0.032	3.843	0.002	0.064
01/29/03	MW-5	4.08	13.4	340	12	0.061	4.091	0.002	0.072
02/04/03	MW-5	2.50	NA	190	1.1	0.000	4.091	0.000	0.072
02/18/03	MW-5	4.00	NA	56	0.29	0.000	4.091	0.000	0.072
03/04/03	MW-5	4.00	21.5	31	2.8	0.009	4.127	0.001	0.075
11/10/03	MW-5	4.75	10.3	890	8.2	0.123	4.709	0.001	0.079
12/12/03	MW-5	4.00	13.0	1,200	14	0.209	5.543	0.002	0.088
Total Pounds Removed:				TPHg = 4.709		Benzene = 0.079			

Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #97088250, 1230 14th Street, Oakland, California

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

NA = Not available

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/386f3) 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)

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

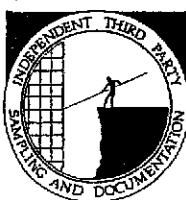
If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.

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

December 3, 2003

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

Fourth Quarter 2003 Groundwater Monitoring at
Former Shell Service Station
1230 14th Street
Oakland, CA

Monitoring performed on October 29, 2003

Groundwater Monitoring Report 031029-MD-1

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

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

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Leon Gearhart
Project Coordinator

LG/jt

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

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

WELL CONCENTRATIONS
Former Shell Service Station
1230 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-1	03/25/1996	37,000	7,400	1,500	720	3,300	<500	NA	18.58	9.53	9.05	NA
MW-1	06/21/1996	35,000	9,900	460	340	3,500	890	NA	18.58	10.72	7.86	NA
MW-1	09/26/1996	19,000	8,200	510	780	790	<250	NA	18.58	12.88	5.70	NA
MW-1	12/19/1996	27,000	120	1,200	1,400	2,800	<100	NA	18.58	12.59	5.99	NA
MW-1	12/19/1996	32,000	12,000	1,300	1,600	3,100	830	NA	18.58	12.59	5.99	NA
MW-1	03/25/1997	39,000	13,000	1,600	840	3,100	730	NA	18.58	11.10	7.48	1.2
MW-1	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.58	12.42	6.16	NA
MW-1	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.58	13.31	5.27	0.8
MW-1	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.58	12.65	5.93	0.3
MW-1	02/19/1998	16,000	5,500	450	500	800	<500	NA	18.58	6.46	12.12	2.4
MW-1	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.58	6.62	11.96	1.2
MW-1	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.58	11.83	6.75	2.8
MW-1	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.58	12.01	6.57	2.6
MW-1	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.58	9.15	9.43	2.2
MW-1	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.58	11.22	7.36	3.8
MW-1	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.58	11.89	6.69	3.0
MW-1	12/27/1999	34,800	8,660	953	956	2,770	<1,000	NA	18.58	13.55	5.03	2.4/2.1
MW-1	01/21/2000	40,600	14,700	1,850	1,210	3,670	<500	NA	18.58	13.42	5.16	2.8
MW-1	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.58	8.11	10.47	0.4
MW-1	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.58	9.78	8.80	3.0/3.4
MW-1	04/18/2000	18,300	8,060	543	528	872	<50.0	NA	18.58	NA	NA	NA
MW-1	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.58	13.11	5.47	5.2
MW-1	10/17/2000	15,800	6,720	435	587	887	351	<66.7	18.58	12.61	5.97	1.2/0.8
MW-1	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.58	12.94	5.64	0.3
MW-1	04/27/2001	1,400	650	28	58	48	NA	<10	18.58	10.73	7.85	1.8/2.1
MW-1	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.58	12.00	6.58	1.8
MW-1	12/06/2001	4,500	1,500	85	160	210	NA	<50	18.58	10.53	8.05	2.5/2.9
MW-1	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.58	9.33	9.25	0.1

WELL CONCENTRATIONS
Former Shell Service Station
1230 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft)	GW Elevation (MSL)	DO Reading (ppm)
MW-1	04/17/2002	230	12	<0.50	4.6	2.5	NA	<5.0	18.58	10.49	8.09	6.3/5.3
MW-1	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.58	11.98	6.60	1.2
MW-1	11/11/2002	12,000	2,600	240	470	640	NA	8.5	18.58	13.00	5.58	0.2/0.2
MW-1	01/16/2003	NA	NA	NA	NA	NA	NA	NA	18.58	9.68	8.90	4.4
MW-1	03/13/2003	820	340	2.7	<2.0	3.2	NA	<20	18.58	10.45	8.13	2.8/0.9
MW-1	04/23/2003	900	550	19	49	49	NA	<50	18.58	10.32	8.26	0.9/0.1
MW-1	05/13/2003	740	510	18	43	46	NA	<50	18.58	10.28	8.30	0.1/0.2
MW-1	06/13/2003	<5,000	1,500	82	180	250	NA	<500	18.58	11.16	7.42	0.3/0.8
MW-1	07/14/2003	5,300	3,400	160	340	420	NA	<20	18.58	11.66	6.92	0.6/0.3
MW-1	09/29/2003	10,000	5,700	400	670	1,000	NA	<50	18.58	12.44	6.14	0.6/0.7
MW-1	10/29/2003	19,000	6,600	560	820	1,300	NA	26	18.58	12.63	5.95	0.6/0.4
MW-2	03/25/1996	<50	<0.50	<0.50	<0.50	<0.50	NA	17.90	8.19	9.71	NA	
MW-2	06/21/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	9.94	7.96	NA
MW-2	09/26/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	12.15	5.75	NA
MW-2	12/19/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	17.90	11.70	6.20	NA
MW-2	03/25/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	9.25	8.65	1.8
MW-2	06/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	11.36	6.54	2.4
MW-2	09/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	12.56	5.34	1.1
MW-2	09/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	12.56	5.34	1.1
MW-2	12/05/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	11.15	6.75	0.7
MW-2	02/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	5.61	12.29	2.7
MW-2	06/08/1998	<50	<0.30	<0.30	<0.30	<0.60	<10	NA	17.90	5.58	12.32	3.2
MW-2	08/25/1998	NA	NA	NA	NA	NA	NA	NA	17.90	10.67	7.23	1.7
MW-2	12/28/1998	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	17.90	11.65	6.25	0.4/0.8
MW-2	03/26/1999	NA	NA	NA	NA	NA	NA	NA	17.90	8.60	9.30	0.7
MW-2	06/30/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	17.90	10.30	7.60	2.3
MW-2	09/30/1999	NA	NA	NA	NA	NA	NA	NA	17.90	10.77	7.13	1.9
MW-2	12/27/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	17.90	12.21	5.69	0.7/0.7

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MW-2	03/07/2000	NA	NA	NA	NA	NA	NA	NA	17.90	7.13	10.77	1.1
MW-2	04/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	17.90	8.35	9.55	1.8/1.8
MW-2	09/21/2000	NA	NA	NA	NA	NA	NA	NA	17.90	11.76	6.14	2.1
MW-2	10/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	17.90	11.80	6.10	0.9/0.6
MW-2	01/09/2001	NA	NA	NA	NA	NA	NA	NA	17.90	12.14	5.76	0.7
MW-2	04/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	17.90	9.85	8.05	1.1/0.9
MW-2	07/03/2001	NA	NA	NA	NA	NA	NA	NA	17.90	11.20	6.70	1.2
MW-2	12/06/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	17.90	10.77	7.13	3.9/2.1
MW-2	01/23/2002	NA	NA	NA	NA	NA	NA	NA	17.90	8.64	9.26	2.5
MW-2	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	17.90	9.61	8.29	3.5/5.2
MW-2	07/18/2002	NA	NA	NA	NA	NA	NA	NA	17.90	11.09	6.81	1.4
MW-2	11/11/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	17.90	12.16	5.74	0.2/0.3
MW-2	01/16/2003	NA	NA	NA	NA	NA	NA	NA	17.90	8.92	8.98	1.7
MW-2	03/13/2003	NA	NA	NA	NA	NA	NA	NA	17.90	9.60	8.30	1.1
MW-2	04/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	17.90	9.48	8.42	0.4/0.2
MW-2	05/13/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	17.90	9.45	8.45	0.5/0.3
MW-2	06/13/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	17.90	10.28	7.62	0.6/0.9
MW-2	07/14/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<0.50	17.90	10.67	7.23	0.5/0.09
MW-2	09/29/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<0.50	17.90	11.58	6.32	1.9/1.3
MW-2	10/29/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<0.50	17.90	11.76	6.14	4.3/0.5

MW-3	03/25/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	8.47	9.71	NA
MW-3	06/21/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	10.40	7.78	NA
MW-3	09/26/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	12.45	5.73	NA
MW-3	12/19/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	18.18	12.14	6.02	NA
MW-3	03/25/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	9.54	8.64	2.2
MW-3	06/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	11.66	6.52	3.6
MW-3	09/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	12.85	5.33	1.1
MW-3	12/05/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	11.44	6.74	0.6

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MW-3	02/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	6.78	11.40	3.6
MW-3	06/08/1998	<50	<0.30	<0.30	<0.30	<0.60	<10	NA	18.18	6.82	11.36	3.8
MW-3	06/08/1998	<50	<0.30	<0.30	<0.30	<0.60	<10	NA	18.18	6.82	11.36	3.8
MW-3	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.18	11.09	7.09	1.2
MW-3	12/28/1998	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	18.18	11.84	6.34	0.9/0.6
MW-3	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.18	8.57	9.61	0.8
MW-3	06/30/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	18.18	10.61	7.57	4.8
MW-3	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.18	11.53	6.65	1.4
MW-3	12/27/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	18.18	12.35	5.83	1.4/2.5
MW-3	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.17	7.36	10.81	5.8
MW-3	04/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	19.3	NA	18.17	8.39	9.78	6.5/5.1
MW-3	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.17	12.01	6.16	3.0
MW-3	10/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	18.17	12.10	6.07	2.0/1.0
MW-3	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.17	12.43	5.74	1.9
MW-3	04/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	18.17	10.10	8.07	2.3/2.4
MW-3	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.17	11.45	6.72	1.4
MW-3	12/06/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.17	11.07	7.10	2.8/3.9
MW-3	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.17	8.89	9.28	3.1
MW-3	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.17	9.92	8.25	3.7/3.2
MW-3	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.17	11.42	6.75	1.6
MW-3	11/11/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.17	12.44	5.73	0.3/0.4
MW-3	01/16/2003	NA	NA	NA	NA	NA	NA	NA	18.17	9.25	8.92	2.1
MW-3	03/13/2003	NA	NA	NA	NA	NA	NA	NA	18.17	9.84	8.33	1.2
MW-3	04/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	18.17	9.71	8.46	0.7/0.2
MW-3	05/13/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	18.17	9.70	8.47	0.6/0.2
MW-3	06/13/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	18.17	10.58	7.59	0.4/1.3
MW-3	07/14/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<0.50	18.17	10.98	7.19	0.4/0.03
MW-3	09/29/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<0.50	18.17	11.84	6.33	1.4/1.1
MW-3	10/29/2003	58 b	<0.50	<0.50	<0.50	<1.0	NA	<0.50	18.17	12.05	6.12	0.8/0.4

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MW-4	03/25/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	9.20	8.81	NA	
MW-4	06/21/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	10.25	7.76	NA	
MW-4	09/26/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	12.29	5.72	NA	
MW-4	12/19/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	18.01	12.47	5.54	NA	
MW-4	03/25/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	9.44	8.57	1.8	
MW-4	06/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	11.57	6.44	6.2	
MW-4 (D)	06/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	11.57	6.44	6.2	
MW-4	09/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	12.75	5.26	2.1	
MW-4	12/05/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	11.37	6.64	1.0	
MW-4 (D)	12/05/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	11.37	6.64	1.0	
MW-4	02/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	5.59	12.42	6.5	
MW-4	06/08/1998	<50	<0.30	<0.30	<0.30	<0.60	<10	NA	18.01	5.65	12.36	2.6	
MW-4	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.01	10.98	7.03	2.4	
MW-4	12/28/1998	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	18.01	11.83	6.18	1.3/1.2	
MW-4	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.01	8.40	9.61	1.9	
MW-4	06/30/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	18.01	10.53	7.48	7.6	
MW-4	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.01	11.03	6.98	2.6	
MW-4	12/27/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	18.01	12.53	5.48	1.9/0.8	
MW-4	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.01	7.00	11.01	6.5	
MW-4	04/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	18.01	8.57	9.44	5.1/5.1	
MW-4	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.01	12.05	5.96	3.0	
MW-4	10/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	18.01	11.96	6.05	5.5/1.2	
MW-4	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.01	12.33	5.68	2.1	
MW-4	04/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	18.01	9.96	8.05	5.3/3.8	
MW-4	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.01	11.35	6.66	4.5	
MW-4	12/06/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.01	10.99	7.02	10.23/6.5	
MW-4	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.01	8.80	9.21	8.8	
MW-4	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.01	9.75	8.26	7.0/5.1

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MW-4	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.01	11.32	6.69	5.3
MW-4	11/11/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.01	12.36	5.65	3.6/2.0
MW-4	01/16/2003	NA	NA	NA	NA	NA	NA	NA	18.01	10.33	7.68	6.5
MW-4	03/13/2003	NA	NA	NA	NA	NA	NA	NA	18.01	10.06	7.95	6.5
MW-4	04/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	18.01	9.57	8.44	5.1/5.7
MW-4	05/13/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	18.01	9.55	8.46	2.0/2.5
MW-4	06/13/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	18.01	10.50	7.51	5.0/5.6
MW-4	07/14/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<0.50	18.01	10.86	7.15	3.9/4.2
MW-4	09/29/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<0.50	18.01	11.74	6.27	1.6/1.4
MW-4	10/29/2003	58 b	<0.50	<0.50	<0.50	<1.0	NA	<0.50	18.01	11.95	6.06	2.4/1.0
MW-5	12/03/2001	NA	NA	NA	NA	NA	NA	NA	18.47	11.86	6.61	NA
MW-5	12/06/2001	31,000	3,000	2,000	1,100	3,000	NA	<50	18.47	11.40	7.07	3.1/3.2
MW-5	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.47	9.24	9.23	0.9
MW-5	04/17/2002	33,000	3,800	2,400	1,300	4,400	NA	<200	18.47	10.35	8.12	5.3/3.8
MW-5	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.47	11.82	6.65	0.8
MW-5	11/11/2002	100,000	7,100	12,000	3,000	17,000	NA	5.1	18.47	12.86	5.61	1.2/1.4
MW-5	01/16/2003	NA	NA	NA	NA	NA	NA	NA	18.47	9.57	8.90	0.0
MW-5	03/13/2003	33,000	2,800	2,200	980	4,600	NA	<100	18.47	10.30	8.17	0.5/0.3
MW-5	04/07/2003	NA	NA	NA	NA	NA	NA	NA	18.47	10.29	8.18	NA
MW-5	04/23/2003	33,000	2,900	3,100	960	5,800	NA	<250	18.47	10.15	8.32	0.1/0.1
MW-5	05/13/2003	30,000	2,600	1,500	850	4,500	NA	<250	18.47	10.12	8.35	0.4/0.3
MW-5	06/13/2003	33,000	3,400	2,300	1,000	4,400	NA	<500	18.47	11.00	7.47	0.3/0.3
MW-5	07/14/2003	41,000	5,100	3,500	1,400	5,100	NA	<50	18.47	11.39	7.08	0.5/0.5
MW-5	09/29/2003	59,000	6,600	4,200	1,500	6,500	NA	<50	18.47	12.24	6.23	0.6/0.5
MW-5	10/29/2003	45,000	6,800	3,500	1,500	6,400	NA	21	18.47	12.45	6.02	0.5/0.3
MW-6	12/03/2001	NA	NA	NA	NA	NA	NA	NA	18.84	12.19	6.65	NA
MW-6	12/06/2001	76	5.7	3.8	1.4	7.0	NA	<5.0	18.84	11.70	7.14	6.3/6.1

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MW-6	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.84	9.57	9.27	8.7
MW-6	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.84	10.73	8.11	9.8/9.1
MW-6	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.84	12.27	6.57	1.7
MW-6	11/11/2002	580	55	<0.50	<0.50	2.8	NA	<5.0	18.84	13.24	5.60	0.3/0.6
MW-6	01/16/2003	NA	NA	NA	NA	NA	NA	NA	18.84	9.89	8.95	6.4
MW-6	03/13/2003	NA	NA	NA	NA	NA	NA	NA	18.84	10.66	8.18	5.5
MW-6	04/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	18.84	10.57	8.27	3.7/4.4
MW-6	05/13/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	18.84	10.56	8.28	3.5/3.0
MW-6	06/13/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	18.84	11.48	7.36	2.7/3.1
MW-6	07/14/2003	230 b	3.4	<0.50	<0.50	<1.0	NA	<0.50	18.84	11.83	7.01	1.8/1.3
MW-6	09/29/2003	910 b	46	<2.5	<2.5	<5.0	NA	<2.5	18.84	12.70	6.14	1.1/1.0
MW-6	10/29/2003	830	38	0.63	<0.50	3.3	NA	0.60	18.84	12.91	5.93	1.2/0.9
MW-7	12/03/2001	NA	NA	NA	NA	NA	NA	NA	19.20	12.66	6.54	NA
MW-7	12/06/2001	1,800	390	<2.0	6.2	<2.0	NA	<20	19.20	12.20	7.00	3.9/3.8
MW-7	01/23/2002	NA	NA	NA	NA	NA	NA	NA	19.20	10.00	9.20	9.4
MW-7	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	19.20	11.21	7.99	8.8/7.3
MW-7	07/18/2002	NA	NA	NA	NA	NA	NA	NA	19.20	12.69	6.51	0.8
MW-7	11/11/2002	3,000	190	<0.50	<0.50	4.3	NA	5.2	19.20	13.69	5.51	0.4/0.8
MW-7	01/16/2003	NA	NA	NA	NA	NA	NA	NA	19.20	10.36	8.84	7.9
MW-7	03/13/2003	NA	NA	NA	NA	NA	NA	NA	19.20	11.16	8.04	5.2
MW-7	04/23/2003	250	48	<0.50	<0.50	<1.0	NA	<5.0	19.20	11.02	8.18	3.2/1.3
MW-7	05/13/2003	1,700	550	<2.5	<2.5	<5.0	NA	<25	19.20	11.00	8.20	2.0/1.5
MW-7	06/13/2003	1,500 b	470	<2.5	<2.5	<5.0	NA	<25	19.20	11.90	7.30	1.8/1.6
MW-7	07/14/2003	1300 b	1,200	<10	<10	<20	NA	<10	19.20	12.29	6.91	0.4/0.2
MW-7	09/29/2003	5,200	1,200	<10	<10	<20	NA	<10	19.20	13.12	6.08	0.9/0.9
MW-7	10/29/2003	4,800	1,100	<5.0	<5.0	<10	NA	8.9	19.20	13.34	5.86	0.4/0.3
VW/MW-2	03/25/1996	13,000	900	920	180	1,500	<250	NA	18.30	9.04	9.26	NA

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VWMW-2	06/21/1996	27,000	4,100	1,100	1,400	3,200	700	NA	18.30	10.48	7.82	NA	
VWMW-2	09/26/1996	27,000	5,300	1,900	980	2,200	<500	NA	18.30	12.52	5.78	NA	
VWMW-2 (D)	09/26/1996	29,000	5,800	2,200	1,100	2,500	<250	NA	18.30	12.52	5.78	NA	
VWMW-2	12/19/1996	50,000	6,200	5,100	1,700	5,600	590	NA	18.30	12.42	5.88	NA	
VWMW-2	03/25/1997	210	5.6	<0.50	0.52	<0.50	14	NA	18.30	9.83	8.47	2.0	
VWMW-2 (D)	03/25/1997	250	1.7	0.58	0.51	<0.50	4.7	NA	18.30	9.83	8.47	2.0	
VWMW-2	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.30	12.43	5.87	NA	
VWMW-2	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.30	12.98	5.32	0.9	
VWMW-2	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.30	12.20	6.10	0.4	
VWMW-2	02/19/1998	<50	1.5	<0.50	<0.50	0.71	<2.5	NA	18.30	5.83	12.47	3.6	
VWMW-2	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.30	5.80	12.50	1.0	
VWMW-2	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.30	11.72	6.58	4.8	
VWMW-2	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.30	11.69	6.61	2.7	
VWMW-2	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.30	8.75	9.55	2.8	
VWMW-2	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.30	10.72	7.58	4.7	
VWMW-2	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.30	12.24	6.06	4.9	
VWMW-2	12/27/1999	13,500	1,330	1,310	490	1,400	<250	NA	18.30	13.92	4.38	2.1/1.9	
VWMW-2	01/21/2000	12,100	2,200	1,080	429	1,120	<250	NA	18.30	13.26	5.04	2.8	
VWMW-2	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.28	7.87	10.41	3.7	
VWMW-2	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.28	9.65	8.63	3.7/4.1	
VWMW-2	04/18/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	18.28	NA	NA	NA	
VWMW-2	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.28	12.75	5.53	6.2	
VWMW-2	10/17/2000	4,070	763	589	214	501	<50.0	NA	18.28	12.21	6.07	0.8/0.7	
VWMW-2	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.28	12.51	5.77	0.7	
VWMW-2	04/27/2001	80	5.7	<0.50	2.7	4.9	NA	<0.50	18.28	10.21	8.07	2.3/2.8	
VWMW-2	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.28	11.60	6.68	0.6	
VWMW-2	12/06/2001	160	1.7	1.0	1.8	4.6	NA	<5.0	18.28	11.15	7.13	3.7/2.3	
VWMW-2	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.28	9.07	9.21	0.5	
VWMW-2	04/17/2002	<50	2.1	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.28	10.11	8.17	4.9/4.4

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VW/MW-2	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.28	11.61	6.67	0.9
VW/MW-2	11/11/2002	15,000	1,300	1,300	680	1,800	NA	<5.0	18.28	12.63	5.65	0.2/0.2
VW/MW-2	01/16/2003	NA	NA	NA	NA	NA	NA	NA	18.28	9.35	8.93	0.4
VW/MW-2	03/13/2003	NA	NA	NA	NA	NA	NA	NA	18.28	10.09	8.19	0.8
VW/MW-2	04/07/2003	NA	NA	NA	NA	NA	NA	NA	18.28	10.09	8.19	NA
VW/MW-2	04/23/2003	1,100	76	29	45	66	NA	<5.0	18.28	9.95	8.33	0.8/0.3
VW/MW-2	05/13/2003	1,200	38	16	16	24	NA	<5.0	18.28	9.90	8.38	0.2/0.2
VW/MW-2	06/13/2003	9,600	1,300	1,100	440	890	NA	<250	18.28	10.80	7.48	0.2/0.5
VW/MW-2	07/14/2003	11,000	1,300	1,800	430	1,500	NA	<5.0	18.28	11.20	7.08	0.5/0.5
VW/MW-2	09/29/2003	12,000	860	980	410	1,100	NA	<10	18.28	12.05	6.23	0.4/0.4
VW/MW-2	10/29/2003	12,000	1,100	940	530	1,200	NA	<10	18.28	12.29	5.99	0.7/0.3
VW/MW-4	03/25/1996	83,000	6,500	7,000	2,000	11,000	<250	NA	18.14	8.45	9.69	NA
VW/MW-4 (D)	03/25/1996	84,000	6,400	7,000	2,100	12,000	<250	NA	18.14	8.45	9.69	NA
VW/MW-4	06/21/1996	110,000	14,000	15,000	3,700	17,000	1,700	NA	18.14	10.38	7.76	NA
VW/MW-4 (D)	06/21/1996	100,000	12,000	12,000	2,900	13,000	<1,000	NA	18.14	10.38	7.76	NA
VW/MW-4	09/26/1996	52,000	13,000	2,700	2,100	3,200	<500	NA	18.14	12.43	5.71	NA
VW/MW-4	12/19/1996	75,000	15,000	6,600	3,000	7,600	<1,250	NA	18.14	11.87	6.27	NA
VW/MW-4	03/25/1997	56,000	4,700	1,500	2,500	6,300	580	NA	18.14	9.60	8.54	2.4
VW/MW-4	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.14	12.36	5.78	NA
VW/MW-4	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.14	12.82	5.32	0.4
VW/MW-4	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.14	12.15	5.99	0.3
VW/MW-4	02/19/1998	4,100	320	40	44	520	<50	NA	18.14	5.85	12.29	1.8
VW/MW-4 (D)	02/19/98	4,300	340	44	47	540	<50	NA	18.14	5.85	12.29	1.8
VW/MW-4	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.14	5.87	12.27	1.8
VW/MW-4	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.14	10.96	7.18	2.5
VW/MW-4	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.14	11.28	6.86	0.9
VW/MW-4	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.14	8.45	9.69	1.9
VW/MW-4	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.14	9.70	8.44	3.6

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VW/MW-4	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.14	11.78	6.36	2.6
VW/MW-4	12/27/1999	33,900	3,740	2,000	1,130	5,090	587	NA	18.14	12.63	5.51	0.4/0.2
VW/MW-4	01/21/2000	13,900	1,560	568	227	1,990	<500	21.0a	18.14	13.07	5.07	1.0
VW/MW-4	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.13	7.82	10.31	0.9
VW/MW-4	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.13	9.18	8.95	1.4/1.9
VW/MW-4	04/18/2000	757	103	8.59	30.8	84.2	<25.0	NA	18.13	NA	NA	NA
VW/MW-4	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.13	12.18	5.95	5.0
VW/MW-4	10/17/2000	8,360	2,060	391	468	1,170	147	NA	18.13	12.03	6.10	0.7/0.8
VW/MW-4	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.13	12.42	5.71	0.9
VW/MW-4	04/27/2001	7,100	2,300	50	460	250	NA	<10	18.13	10.13	8.00	1.0/1.4
VW/MW-4	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.13	11.42	6.71	1.2
VW/MW-4	12/06/2001	7,700	750	90	300	350	NA	<25	18.13	11.02	7.11	2.5/1.9
VW/MW-4	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.13	8.89	9.24	0.4
VW/MW-4	04/17/2002	4,800	760	27	240	150	NA	<25	18.13	9.89	8.24	4.7/5.1
VW/MW-4	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.13	11.37	6.76	0.6
VW/MW-4	11/11/2002	14,000	2,800	480	700	1,300	NA	<100	18.13	12.41	5.72	0.3/0.3
VW/MW-4	01/16/2003	NA	NA	NA	NA	NA	NA	NA	18.13	9.17	8.96	0.8
VW/MW-4	03/13/2003	NA	NA	NA	NA	NA	NA	NA	18.13	9.85	8.28	1.1
VW/MW-4	04/23/2003	2,400	710	28	160	100	NA	<50	18.13	9.74	8.39	0.2/0.05
VW/MW-4	05/13/2003	3,300	720	35	170	160	NA	<50	18.13	9.70	8.43	0.2/0.2
VW/MW-4	06/13/2003	8,200	1,700	220	460	790	NA	<250	18.13	10.55	7.58	0.3/0.3
VW/MW-4	07/14/2003	3,700	900	190	220	540	NA	<10	18.13	10.90	7.23	0.5/0.4
VW/MW-4	09/29/2003	7,500	1,800	300	390	860	NA	<20	18.13	11.83	6.30	0.5/0.6
VW/MW-4	10/29/2003	10,000	2,600	400	510	1,200	NA	<13	18.13	12.03	6.10	0.5/0.4
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VW/AS-1	03/25/1996	NA	NA	NA	NA	NA	NA	NA	18.60	8.98	9.62	NA
VW/AS-1	06/21/1996	NA	NA	NA	NA	NA	NA	NA	18.60	10.95	7.65	NA
VW/AS-1	09/26/1996	NA	NA	NA	NA	NA	NA	NA	18.60	12.98	5.62	NA
VW/AS-1	12/19/1996	NA	NA	NA	NA	NA	NA	NA	18.60	12.67	5.93	NA

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VW/AS-1	03/25/1997	NA	NA	NA	NA	NA	NA	NA	18.60	10.12	8.48	NA
VW/AS-1	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.60	12.34	6.26	NA
VW/AS-1	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.60	13.40	5.20	NA
VW/AS-1	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.60	11.96	6.64	5.2
VW/AS-1	02/19/1998	NA	NA	NA	NA	NA	NA	NA	18.60	6.22	12.38	1.3
VW/AS-1	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.60	6.20	12.40	1.0
VW/AS-1	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.60	11.59	7.01	1.6
VW/AS-1	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.60	11.74	6.86	1.3
VW/AS-1	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.60	9.20	9.40	1.3
VW/AS-1	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.60	11.08	7.52	2.1
VW/AS-1	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.60	11.94	6.66	1.9
VW/AS-1	12/27/1999	8,940	2,000	95.7	1,200	570	606	NA	18.60	11.01	7.59	1.6/1.8
VW/AS-1	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.59	7.35	11.24	NA
VW/AS-1	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.59	9.08	9.51	1.9/2.0
VW/AS-1	04/18/2000	20,800	6,550	1,220	2,270	1,720	<250	NA	18.59	NA	NA	NA
VW/AS-1	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.59	11.98	6.61	2.1
VW/AS-1	10/17/2000	38,400	7,240	5,980	1,960	5,730	534	72.4	18.59	12.62	5.97	2.5/1.0
VW/AS-1	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.59	13.03	5.56	1.9
VW/AS-1	04/27/2001	34,000	8,000	2,100	2,500	2,000	NA	<25	18.59	10.71	7.88	2.9/2.1
VW/AS-1	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.59	12.03	6.56	2.0
VW/AS-1	12/06/2001	6,000	990	35	820	59	NA	<25	18.59	11.63	6.96	1.2/0.8
VW/AS-1	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.59	9.34	9.25	0.9
VW/AS-1	04/17/2002	12,000	2,900	57	1,400	98	NA	<200	18.59	10.41	8.18	3.3/2.9
VW/AS-1	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.59	12.13	6.46	0.3
VW/AS-1	11/11/2002	2,200	340	7.3	250	24	NA	<20	18.59	13.15	5.44	1.2/1.3
VW/AS-1	01/16/2003	NA	NA	NA	NA	NA	NA	NA	18.59	9.73	8.86	2.3
VW/AS-1	03/13/2003	11,000	2,500	55	1,800	170	NA	<100	18.59	10.45	8.14	2.1/1.9
VW/AS-1	04/07/2003	NA	NA	NA	NA	NA	NA	NA	18.59	10.40	8.19	NA
VW/AS-1	04/23/2003	9,500	4,100	200	1,400	200	NA	<250	18.59	10.28	8.31	1.2/0.4

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VW/AS-1	05/13/2003	9,700	2,300	110	1,100	140	NA	<250	18.59	10.26	8.33	0.5/2.0
VW/AS-1	06/13/2003	9,300	2,300	77	820	<100	NA	<500	18.59	11.15	7.44	1.0/0.5
VW/AS-1	07/15/2003	5,500	2,000	230	620	360	NA	20	18.59	11.62	6.97	1.8/1.9
VW/AS-1	09/29/2003	9,600	2,300	100	1,200	670	NA	<20	18.59	12.48	6.11	2.3/3.6
VW/AS-1	10/29/2003	10,000	2,000	39	1,000	370	NA	16	18.59	12.73	5.86	3.3/3.6
VW/AS-3	03/25/1996	NA	NA	NA	NA	NA	NA	NA	18.17	8.50	9.67	NA
VW/AS-3	06/21/1996	NA	NA	NA	NA	NA	NA	NA	18.17	10.42	7.75	NA
VW/AS-3	09/26/1996	NA	NA	NA	NA	NA	NA	NA	18.17	12.49	5.68	NA
VW/AS-3	12/19/1996	NA	NA	NA	NA	NA	NA	NA	18.17	12.28	5.89	NA
VW/AS-3	03/25/1997	NA	NA	NA	NA	NA	NA	NA	18.17	9.61	8.56	NA
VW/AS-3	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.17	11.80	6.37	NA
VW/AS-3	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.17	12.89	5.28	NA
VW/AS-3	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.17	11.38	6.79	1.8
VW/AS-3	02/19/1998	NA	NA	NA	NA	NA	NA	NA	18.17	6.24	11.93	1.3
VW/AS-3	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.17	6.25	11.92	1.2
VW/AS-3	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.17	11.43	6.74	1.3
VW/AS-3	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.17	11.63	6.54	1.7
VW/AS-3	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.17	8.92	9.25	1.5
VW/AS-3	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.17	10.71	7.46	2.5
VW/AS-3	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.17	11.78	6.39	1.5
VW/AS-3	12/27/1999	488	47.9	2.60	16.9	8.50	35.4	NA	18.17	12.57	5.60	1.5/2.1
VW/AS-3	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.14	4.82	13.32	NA
VW/AS-3	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.14	8.69	9.45	2.0/2.4
VW/AS-3	04/18/2000	3,110	871	<5.00	141	56.8	78.2	NA	18.14	NA	NA	NA
VW/AS-3	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.14	11.65	6.49	2.5
VW/AS-3	10/17/2000	7,730	2,700	<50.0	542	344	<250	42.1	18.14	12.13	6.01	1.6/1.0
VW/AS-3	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.14	12.51	5.63	2.2

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Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
VW/AS-3	04/27/2001	14,000	3,900	62	690	560	NA	46	18.14	10.20	7.94	2.8/1.6
VW/AS-3	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.14	11.55	6.59	2.6
VW/AS-3	12/06/2001	5,000	1,200	19	380	320	NA	<50	18.14	11.10	7.04	0.9/1.1
VW/AS-3	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.14	8.93	9.21	1.1
VW/AS-3	04/17/2002	17,000	5,000	<25	1,100	390	NA	<250	18.14	10.00	8.14	3.2/3.2
VW/AS-3	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.14	11.49	6.65	0.4
VW/AS-3	11/11/2002	1,700	290	1.5	150	2.8	NA	<10	18.14	12.43	5.71	1.0/1.1
VW/AS-3	01/16/2003	NA	NA	NA	NA	NA	NA	NA	18.14	9.32	8.82	4.7
VW/AS-3	03/13/2003	NA	NA	NA	NA	NA	NA	NA	18.14	9.88	8.26	2.7
VW/AS-3	04/23/2003	150	47	0.67	8.5	3.2	NA	<5.0	18.14	9.85	8.29	2.1/0.7
VW/AS-3	05/13/2003	440	35	<0.50	1.7	<1.0	NA	<5.0	18.14	9.81	8.33	1.4/1.8
VW/AS-3	06/13/2003	580	71	<2.5	40	<5.0	NA	<25	18.14	10.77	7.37	1.1/0.6
VW/AS-3	07/14/2003	1,100	120	4.9	63	9.3	NA	16	18.14	11.12	7.02	2.0/2.2
VW/AS-3	09/29/2003	160	54	2.2	6.9	8.7	NA	1.1	18.14	12.02	6.12	4.1/1.6
VW/AS-3	10/29/2003	350	16	<0.50	1.1	<1.0	NA	6.3	18.14	12.25	5.89	3.2/1.6

WELL CONCENTRATIONS
Former Shell Service Station
1230 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
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Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to April 27, 2001, analyzed by EPA Method 8015.

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to April 27, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

GW = Groundwater

DO = Dissolved Oxygen

NA = Not applicable

ug/L = Parts per billion

ppm = Parts per million

MSL = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

n/n = Pre-purge/Post-purge DO Readings

Notes:

a = Sample was analyzed outside of the EPA recommended holding time.

b = Hydrocarbon reported does not match the pattern of the laboratory's standard.

Site surveyed November 1, 2001 by Virgil Chavez Land Surveying of Vallejo, California.

Blaine Tech Services, Inc.

November 12, 2003

1680 Rogers Avenue
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 031029-MD1

Project: 97088250

Site: 1230 14th Street, Oakland

Dear Mr. Gearhart,

Attached is our report for your samples received on 10/30/2003 13:12

This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after
12/14/2003 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,
please call me at (925) 484-1919.

You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,



Vincent Vancil
Project Manager

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496



STL

Submission #: 2003-11-0003

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	10/29/2003 13:20	Water	1
MW-2	10/29/2003 10:50	Water	2
MW-3	10/29/2003 10:30	Water	3
MW-4	10/29/2003 10:10	Water	4
MW-5	10/29/2003 14:00	Water	5
MW-6	10/29/2003 11:55	Water	6
MW-7	10/29/2003 12:15	Water	7
VW/MW-2	10/29/2003 13:40	Water	8
VW/MW-4	10/29/2003 12:40	Water	9
VW/AS-1	10/29/2003 13:00	Water	10
VW/AS-3	10/29/2003 11:30	Water	11

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

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Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-1	Lab ID:	2003-11-0003 -1
Sampled:	10/29/2003 13:20	Extracted:	11/6/2003 13:11
Matrix:	Water	QC Batch#:	2003/11/06-1A.68
Analysis Flag: o (See Legend and Note Section)			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	19000	2000	ug/L	40.00	11/06/2003 13:11	
Benzene	6600	20	ug/L	40.00	11/06/2003 13:11	
Toluene	560	20	ug/L	40.00	11/06/2003 13:11	
Ethylbenzene	820	20	ug/L	40.00	11/06/2003 13:11	
Total xylenes	1300	40	ug/L	40.00	11/06/2003 13:11	
Methyl tert-butyl ether (MTBE)	26	20	ug/L	40.00	11/06/2003 13:11	
Surrogate(s)						
1,2-Dichloroethane-d4	104.1	76	%	40.00	11/06/2003 13:11	
Toluene-d8	100.5	78	%	40.00	11/06/2003 13:11	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-2	Lab ID:	2003-11-0003 - 2
Sampled:	10/29/2003 10:50	Extracted:	11/6/2003 13:30
Matrix:	Water	QC Batch#:	2003/11/06-1A.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	11/06/2003 13:30	
Benzene	ND	0.50	ug/L	1.00	11/06/2003 13:30	
Toluene	ND	0.50	ug/L	1.00	11/06/2003 13:30	
Ethylbenzene	ND	0.50	ug/L	1.00	11/06/2003 13:30	
Total xylenes	ND	1.0	ug/L	1.00	11/06/2003 13:30	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	11/06/2003 13:30	
<i>Surrogate(s)</i>						
1,2-Dichloroethane-d4	99.8	76	%	1.00	11/06/2003 13:30	
Toluene-d8	93.0	78	%	1.00	11/06/2003 13:30	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-3	Lab ID:	2003-11-0003 - 3
Sampled:	10/29/2003 10:30	Extracted:	11/6/2003 13:49
Matrix:	Water	QC Batch#:	2003/11/06-1A.68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	58	50	ug/L	1.00	11/06/2003 13:49	g
Benzene	ND	0.50	ug/L	1.00	11/06/2003 13:49	
Toluene	ND	0.50	ug/L	1.00	11/06/2003 13:49	
Ethylbenzene	ND	0.50	ug/L	1.00	11/06/2003 13:49	
Total xylenes	ND	1.0	ug/L	1.00	11/06/2003 13:49	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	11/06/2003 13:49	
Surrogate(s)						
1,2-Dichloroethane-d4	97.6	76	%	1.00	11/06/2003 13:49	
Toluene-d8	97.5	78	%	1.00	11/06/2003 13:49	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

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Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-4	Lab ID:	2003-11-0003-4
Sampled:	10/29/2003 10:10	Extracted:	11/6/2003 14:10
Matrix:	Water	QC Batch#:	200311/06-1A,68

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	58	50	ug/L	1.00	11/06/2003 14:10	g
Benzene	ND	0.50	ug/L	1.00	11/06/2003 14:10	
Toluene	ND	0.50	ug/L	1.00	11/06/2003 14:10	
Ethylbenzene	ND	0.50	ug/L	1.00	11/06/2003 14:10	
Total xylenes	ND	1.0	ug/L	1.00	11/06/2003 14:10	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	11/06/2003 14:10	
<i>Surrogate(s)</i>						
1,2-Dichloroethane-d4	101.2	76	%	1.00	11/06/2003 14:10	
Toluene-d8	96.8	78	%	1.00	11/06/2003 14:10	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

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Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-5	Lab ID:	2003-11-0003-5
Sampled:	10/29/2003 14:00	Extracted:	11/6/2003 14:28
Matrix:	Water	QC Batch#:	2003/11/06-1A.68
Analysis Flag: o (See Legend and Note Section)			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	45000	2000	ug/L	40.00	11/06/2003 14:28	
Benzene	6800	20	ug/L	40.00	11/06/2003 14:28	
Toluene	3500	20	ug/L	40.00	11/06/2003 14:28	
Ethylbenzene	1500	20	ug/L	40.00	11/06/2003 14:28	
Total xylenes	6400	40	ug/L	40.00	11/06/2003 14:28	
Methyl tert-butyl ether (MTBE)	21	20	ug/L	40.00	11/06/2003 14:28	
Surrogate(s)						
1,2-Dichloroethane-d4	104.6	76	%	40.00	11/06/2003 14:28	
Toluene-d8	95.4	78	%	40.00	11/06/2003 14:28	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-6	Lab ID:	2003-11-0003 - 6
Sampled:	10/29/2003 11:55	Extracted:	11/6/2003 22:55
Matrix:	Water	QC Batch#:	2003/11/06-2A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	830	50	ug/L	1.00	11/06/2003 22:55	
Benzene	38	0.50	ug/L	1.00	11/06/2003 22:55	
Toluene	0.53	0.50	ug/L	1.00	11/06/2003 22:55	
Ethylbenzene	ND	0.50	ug/L	1.00	11/06/2003 22:55	
Total xylenes	3.3	1.0	ug/L	1.00	11/06/2003 22:55	
Methyl tert-butyl ether (MTBE)	0.60	0.50	ug/L	1.00	11/06/2003 22:55	
<i>Surrogate(s)</i>						
1,2-Dichloroethane-d4	91.6	76	%	1.00	11/06/2003 22:55	
Toluene-d8	97.6	78	%	1.00	11/06/2003 22:55	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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San Jose, CA 95112-1105

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Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-7	Lab ID:	2003-11-0003 -7
Sampled:	10/29/2003 12:15	Extracted:	11/6/2003 23:17
Matrix:	Water	QC Batch#:	2003/11/06-2A.64
Analysis Flag: o (See Legend and Note Section)			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	4800	500	ug/L	10.00	11/06/2003 23:17	
Benzene	1100	5.0	ug/L	10.00	11/06/2003 23:17	
Toluene	ND	5.0	ug/L	10.00	11/06/2003 23:17	
Ethylbenzene	ND	5.0	ug/L	10.00	11/06/2003 23:17	
Total xylenes	ND	10	ug/L	10.00	11/06/2003 23:17	
Methyl tert-butyl ether (MTBE)	8.9	5.0	ug/L	10.00	11/06/2003 23:17	
Surrogate(s)						
1,2-Dichloroethane-d4	102.8	76	%	10.00	11/06/2003 23:17	
Toluene-d8	94.2	78	%	10.00	11/06/2003 23:17	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	VW/MW-2	Lab ID:	2003-11-0003 - 8
Sampled:	10/29/2003 13:40	Extracted:	11/6/2003 15:24
Matrix:	Water	QC Batch#:	2003/11/06-1A.68
Analysis Flag: o (See Legend and Note Section)			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	12000	1000	ug/L	20.00	11/06/2003 15:24	
Benzene	1100	10	ug/L	20.00	11/06/2003 15:24	
Toluene	940	10	ug/L	20.00	11/06/2003 15:24	
Ethylbenzene	530	10	ug/L	20.00	11/06/2003 15:24	
Total xylenes	1200	20	ug/L	20.00	11/06/2003 15:24	
Methyl tert-butyl ether (MTBE)	ND	10	ug/L	20.00	11/06/2003 15:24	
<i>Surrogate(s)</i>						
1,2-Dichloroethane-d4	102.6	76	%	20.00	11/06/2003 15:24	
Toluene-d8	98.6	78	%	20.00	11/06/2003 15:24	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	VW/MW-4	Lab ID:	2003-11-0003-9
Sampled:	10/29/2003 12:40	Extracted:	11/8/2003 03:42
Matrx:	Water	QC Batch#:	2003/11/07-2A-64
Analysis Flag: o (See Legend and Note Section)			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	10000	1300	ug/L	25.00	11/08/2003 03:42	
Benzene	2600	13	ug/L	25.00	11/08/2003 03:42	
Toluene	400	13	ug/L	25.00	11/08/2003 03:42	
Ethylbenzene	510	13	ug/L	25.00	11/08/2003 03:42	
Total xylenes	1200	25	ug/L	25.00	11/08/2003 03:42	
Methyl tert-butyl ether (MTBE)	ND	13	ug/L	25.00	11/08/2003 03:42	
Surrogate(s)						
1,2-Dichloroethane-d4	98.2	76	%	25.00	11/08/2003 03:42	
Toluene-d8	93.7	78	%	25.00	11/08/2003 03:42	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	VW/AS-1	Lab ID:	2003-11-0003 - 10
Sampled:	10/29/2003 13:00	Extracted:	11/6/2003 19:22
Matrix:	Water	QC Batch#:	2003/11/06-1A.68
Analysis Flag: o (See Legend and Note Section)			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	10000	1300	ug/L	25.00	11/06/2003 19:22	
Benzene	2000	13	ug/L	25.00	11/06/2003 19:22	
Toluene	39	13	ug/L	25.00	11/06/2003 19:22	
Ethylbenzene	1000	13	ug/L	25.00	11/06/2003 19:22	
Total xylenes	370	25	ug/L	25.00	11/06/2003 19:22	
Methyl tert-butyl ether (MTBE)	16	13	ug/L	25.00	11/06/2003 19:22	
Surrogate(s)						
1,2-Dichloroethane-d4	108.1	76	%	25.00	11/06/2003 19:22	
Toluene-d8	96.9	78	%	25.00	11/06/2003 19:22	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	VW/AS-3	Lab ID:	2003-11-0003 - 11
Sampled:	10/29/2003 11:30	Extracted:	11/8/2003 04:04
Matrix:	Water	QC Batch#:	2003/11/07/2A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	350	50	ug/L	1.00	11/08/2003 04:04	
Benzene	16	0.50	ug/L	1.00	11/08/2003 04:04	
Toluene	ND	0.50	ug/L	1.00	11/08/2003 04:04	
Ethylbenzene	1.1	0.50	ug/L	1.00	11/08/2003 04:04	
Total xylenes	ND	1.0	ug/L	1.00	11/08/2003 04:04	
Methyl tert-butyl ether (MTBE)	6.3	0.50	ug/L	1.00	11/08/2003 04:04	
Surrogate(s)						
1,2-Dichloroethane-d4	93.9	76	%	1.00	11/08/2003 04:04	
Toluene-d8	96.6	78	%	1.00	11/08/2003 04:04	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Batch QC Report					
Prep(s): 50308				Test(s): 8260B	
Method Blank	Water			QC Batch #:	2003/11/06-1A-68
MB: 2003/11/06-1A-68-012				Date Extracted:	11/06/2003 10:12

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	11/06/2003 10:12	
Benzene	ND	0.5	ug/L	11/06/2003 10:12	
Toluene	ND	0.5	ug/L	11/06/2003 10:12	
Ethylbenzene	ND	0.5	ug/L	11/06/2003 10:12	
Total xylenes	ND	1.0	ug/L	11/06/2003 10:12	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	11/06/2003 10:12	
Surrogates(s)					
1,2-Dichloroethane-d4	100.0	76-130	%	11/06/2003 10:12	
Toluene-d8	93.0	78-115	%	11/06/2003 10:12	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2003/11/06-2A.64

MB: 2003/11/06-2A.64-049

Date Extracted: 11/06/2003 21:49

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	11/06/2003 21:49	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	11/06/2003 21:49	
Benzene	ND	0.5	ug/L	11/06/2003 21:49	
Toluene	ND	0.5	ug/L	11/06/2003 21:49	
Ethylbenzene	ND	0.5	ug/L	11/06/2003 21:49	
Total xylenes	ND	1.0	ug/L	11/06/2003 21:49	
Surrogates(s)					
1,2-Dichloroethane-d4	93.6	76-130	%	11/06/2003 21:49	
Toluene-d8	96.6	78-115	%	11/06/2003 21:49	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Batch QC Report					
Prep(s)	5030B	Method Blank	Water	Test(s)	8260B
MB:	2003/11/07-2A.64-034			QC Batch #	2003/11/07-2A.64
				Date Extracted:	11/07/2003 22:34
Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	11/07/2003 22:34	
Benzene	ND	0.5	ug/L	11/07/2003 22:34	
Toluene	ND	0.5	ug/L	11/07/2003 22:34	
Ethylbenzene	ND	0.5	ug/L	11/07/2003 22:34	
Total xylenes	ND	1.0	ug/L	11/07/2003 22:34	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	11/07/2003 22:34	
Surrogates(s)					
1,2-Dichloroethane-d4	92.7	76-130	%	11/07/2003 22:34	
Toluene-d8	95.0	78-115	%	11/07/2003 22:34	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Batch QC Report										
Prep(s): 5030B		Test(s): 8260B								
Laboratory Control Spike				Water			QC Batch # 2003/11/06-1A.68			
LCS	2003/11/06-1A.68-035			Extracted: 11/06/2003			Analyzed: 11/06/2003 09:35			
LCSD	2003/11/06-1A.68-034			Extracted: 11/06/2003			Analyzed: 11/06/2003 09:54			
Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD %	Ctrl.Limits % Rec.	RPD	Flags	
	LCS	LCSD		LCS	LCSD				LCS	LCSD
Benzene	20.9	21.5	25	83.6	86.0	2.8	69-129	20		
Toluene	21.3	21.7	25	85.2	86.8	1.9	70-130	20		
Methyl tert-butyl ether (MTBE)	21.4	21.4	25	85.6	85.6	0.0	65-165	20		
<i>Surrogates(s)</i>										
1,2-Dichloroethane-d4	507	495	500	101.4	99.0		76-130			
Toluene-d8	478	481	500	95.6	96.2		78-115			

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Batch QC Report											
Prep(s): 5030B						Test(s): 8260B					
Laboratory Control Spike				Water		QC Batch # 2003/11/06-2A-64					
LCS	2003/11/06-2A-64-005				Extracted: 11/06/2003		Analyzed: 11/06/2003 21:05				
LCSD	2003/11/06-2A-64-027				Extracted: 11/06/2003		Analyzed: 11/06/2003 21:27				
Compound	Conc. ug/L		Exp.Conc.		Recovery %		RPD	Ctrl.Limits %			
	LCS	LCSD			LCS	LCSD	%	Rec.	RPD		
Methyl tert-butyl ether (MTBE)	27.9	28.1	25		111.6	112.4	0.7	65-165	20		
Benzene	27.2	29.8	25		108.8	119.2	9.1	69-129	20		
Toluene	24.9	26.1	25		99.6	104.4	4.7	70-130	20		
<i>Surrogates(s)</i>											
1,2-Dichloroethane-d4	454	454	500		90.8	90.8		76-130			
Toluene-d8	462	477	500		92.4	95.4		78-115			

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Batch QC Report										
Prep(s): 5030B								Test(s): 8260B		
Laboratory Control Spike		Water				QC Batch # 2003/11/07-2A.64				
LCS	2003/11/07-2A.64-050			Extracted: 11/07/2003				Analyzed: 11/07/2003 21:50		
LCSD	2003/11/07-2A.64-012			Extracted: 11/07/2003				Analyzed: 11/07/2003 22:12		
Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	27.2	27.0	25	108.8	108.0	0.7	69-129	20		
Toluene	24.4	25.3	25	97.6	101.2	3.6	70-130	20		
Methyl tert-butyl ether (MTBE)	27.0	28.6	25	108.0	114.4	5.8	65-165	20		
<i>Surrogates(s)</i>										
1,2-Dichloroethane-d4	493	495	500	98.6	99.0		76-130			
Toluene-d8	469	461	500	93.8	92.2		78-115			

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
 San Jose, CA 95112-1105
 Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
 97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Batch QC Report											
Prep(s)	5030B	Test(s)	8260B								
Matrix Spike (MS / MSD)	Water								QC Batch # 2003/11/06-1A.68		
MW-2 >> MS									Lab ID:	2003-11-0003 - 002	
MS: 2003/11/06-1A.68-045	Extracted: 11/06/2003								Analyzed:	11/06/2003 18:45	
MSD: 2003/11/06-1A.68-003	Extracted: 11/06/2003								Dilution:	1.00	
									Analyzed:	11/06/2003 19:03	
									Dilution:	1.00	

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample		ug/L	MS	MSD	RPD	Rec.	RPD	MS
Benzene	23.0	25.0	ND	25	92.0	100.0	8.3	69-129	20		
Toluene	23.0	25.6	ND	25	92.0	102.4	10.7	70-130	20		
Methyl tert-butyl ether	21.6	22.2	ND	25	86.4	88.8	2.7	65-165	20		
<i>Surrogate(s)</i>											
1,2-Dichloroethane-d4	527	514		500	105.4	102.8		76-130			
Toluene-d8	497	498		500	99.4	99.6		78-115			

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 031029-MD1
97088250

Received: 10/30/2003 13:12

Site: 1230 14th Street, Oakland

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

g

Hydrocarbon reported in the gasoline range does not match
our gasoline standard.

STC
79905
SHELL Chain of Custody Record

Last Revision Date: 11/20/2003

Job#655

City, State, Zip:

Shell Project Manager to be invoiced:

<input checked="" type="checkbox"/> SCIENCE & ENGINEERING
<input type="checkbox"/> TECHNICAL SERVICES
<input type="checkbox"/> CRMT-HOUSTON

Karen Petryna

2003.11.003

INCIDENT NUMBER (S&E ONLY)

9 7 0 8 8 2 5 0

DATE:

10/29/03

SAP or CRM NUMBER (TS-CRMT)

PAGE:

1 of 2

COMPANY	100 CODE	SITE ADDRESS (Street and City):	GLOBAL ID
Laine Tech Services	BTSS	1230 14th Street, Oakland	T0600101691
ADDRESS		EDITION DATE (MM/DD/YY):	EDITION
580 Rogers Avenue, San Jose, CA 95112		07/02/03	07/027-A01
PROJECT CONTACT Person(s) or PCN Number:		PHONE NO.:	EMAIL
John Gearhart		510-420-3335	ShellOaklandEDP@cambridge-env.com
PHONE#:	FAX#:	E-MAIL#:	CRMS ONLY
18-573-0555	408-573-7771	JOHN.GEARHART@LAINETECH.COM	
RESPONSE TIME (BUSINESS DAYS):			
<input checked="" type="checkbox"/> 30 DAYS <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS			
<input type="checkbox"/> LA - INVOICE REPORT FORMAT <input type="checkbox"/> LIST AGENCY <input type="checkbox"/> SAME TYPE CONFIRMATION HIGHEST <input type="checkbox"/> HIGHEST per BORING <input type="checkbox"/> ALL <input type="checkbox"/> SPECIAL INSTRUCTIONS OR NOTES: <input type="checkbox"/> CHECK BOX IF EDD IS NOT NEEDED			

Johnathan J. Johnson

REQUESTED ANALYSIS

Field Sample Identification	SAMPLING DATE	TIME	MATRIX	NO. OF CONT.	TPH OIL, Petroleum		TPH SVOCs (Sediment)		TPH SVOCs Extractable (Soil/5m)		TEMPERATURE ON RECEIPT (°C)
					TPH	PPM	TPH	PPM	TPH	PPM	
MW-1	10/29/03	1200	4	3	✓	✓	✓	✓	✓	✓	3.1C
MW-2	10/30		3	1	✓		✓				
MW-3	10/30		3	1	✓		✓				
MW-4	10/30		3	1	✓		✓				
MW-5	10/30		3	1	✓		✓				
MW-6	10/30		3	1	✓		✓				
MW-7	10/30		3	1	✓		✓				
VW/MW-2	10/30		3	1	✓		✓				
JW/MW-4	10/30		3	1	✓		✓				
VW/AS-1	10/30		3	1	✓		✓				

Received by (Signature)	Date	Date
Received by (Signature)	10/30/03	10/30/03
Received by (Signature)	Date	Date
Received by (Signature)	10/30/03	10/30/03

THIS FORM WAS PRINTED FROM THE SHELL PROJECT MANAGER AND FILED AS A RECORD.

STC
Shell Chain of Custody Record

Let me design it if necessary.

ADDRESS:

City, State, Zip:

Shell Project Manager to be invoiced:

- SCIENCE & ENGINEERING
 TECHNICAL SERVICES
 COMM. RELATIONS

Karen Petryna

INCIDENT NUMBER (S&E ONLY)

9 7 0 8 8 2 5 0

SAT or CBMT NUMBER (PSC-CMTE)

DATE: 10/29/03

PAGE: 2 of 2

CLIENT COMPANY:

Jaine Tech Services

CAR SEED

BTS3

SITE ADDRESS (Street and City):

1230 14th Street, Oakland

4001 14th

T0600101691

580 Rogers Avenue, San Jose, CA 95112

RECEIVED CONTACT PERSON'S NAME AND PHONE#

John Gearhart

PHONE#:

408-573-0555

FAX:

408-573-7771

EMAIL:

jg@jainetech.com

TIMEFRAMING TIME (BUSINESS DAYS):

 10 DAYS 5 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS LABORATORIES REPORT FORM #7 LIST AGENCY:HIGHEST MTBE CONFIRMATION: HIGHEST HIGHEST BY BORING ALL SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDO IS NOT NEEDED

SOF DELIVERABLE TO (Recipient Party or Company):

Anni Kraml

BTS3-TRAILER TRUCK

PHONE#:

510-420-3335

EMAIL:

ShellOaklandEDP@cambrria-env.com

BTS#

LAB USE ONLY

Johnathan De Jong

REQUESTED ANALYSIS

FIELD NOTES:

Container/Preservative
or PDI Readings
or Laboratory Notes

TEMPERATURE ON RECEIPT:

Field Sample Identification

SAMPLING
DATE / TIME

MATRIX

NO OF
CONT.

TPH - Gas, Purgeable

BTEX

MTBE (BTS3B - Sons R1)

MTBE (B260B - 0.5ppm R1)

Oxygenates (5) by (B260B)

Ethanol (B260B)

Methanol

TPH - Diesel, Extractable (B0150)

12-002-10-00001

EPA (B260B)

10/30/03 1312

RECEIVED BY (Signature)

RECORDED BY (Signature)

RECORDED BY (Signature)

INSTRUCTION: Please initial next to Green to Pre, Yellow to Post, Red to CSM.

Initials: JG Date: 10/30/03 Time: 1312

Initials: KP Date: 10/30/03 Time: 1616

Initials: NK Date: 10/30/03 Time: 1616

Date Of Sale: 10/30/03/03

WELL GAUGING DATA

Project # 031029-MD Date 10/29/03 Client ShellSite 1230 14th St., Oakland

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TDC	
MW-1	2	odor				12.63	21.17		
MW-2	2					11.76	22.02		
MW-3	2					12.05	18.82		
MW-4	2					11.95	20.05		
* MW-5	4					12.45	19.75		
MW-6	4					12.91	19.68		
MW-7	4					13.34	19.75		
Nw/Mw-2	2					12.29	21.87		
Nw/mw-4	2					12.03	18.45		
Nw/AS-1	1					12.73	19.64		
Nw/AS-3	1					12.25	19.71		
<i>* Gauged w/stinger in well</i>									

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-MW-1	Site: #7088250		
Sampler: John Deoay	Date: 10/29/03		
Well I.D.: MW-1	Well Diameter: ① 3 4 6 8		
Total Well Depth (TD): 21.17	Depth to Water (DTW): 12.63		
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]: 14.34			

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: _____

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

1.4 (Gals.) X 3 = 4.2 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1308	70.1	6.7	1461	7200	1.4	gray, cloudy, gas odor
1310	68.9	6.7	1561	7200	2.8	
1317	67.4	6.7	1560	7200	4.2	

Did well dewater? Yes No Gallons actually evacuated: 4.2

Sampling Date: 10/29/03 Sampling Time: 1320 Depth to Water: 12.03

Sample I.D.: MW-1 Laboratory: STL Other _____

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

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

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

D.O. (if req'd): Pre-purge: 0.6 mg/L Post-purge: 0.4 mg/L

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

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-MW1	Site: #7088250		
Sampler: John De Jong	Date: 10/29/03		
Well I.D.: MW-2	Well Diameter: ② 3 4 6 8		
Total Well Depth (TD): 72.02	Depth to Water (DTW): 11.76		
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]: 13.81			

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra Peristaltic Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: _____

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

1.6 (Gals.) X 3 = 4.8 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1038	69.5	6.2	741	>200	1.6	Cloudy, fog, no odor
1040	70.0	6.1	742	>200	3.2	
1042	69.6	6.2	733	>200	4.8	

Did well dewater?	Yes	No	Gallons actually evacuated: 4.8			
Sampling Date:	10/29/03	Sampling Time:	1050	Depth to Water:	11.89	
Sample I.D.:	MW-2	Laboratory:	STL	Other:		
Analyzed for:	TPH-G	BTEX	MTBE	TPH-D	Other:	
EB I.D. (if applicable):	@	Time	Duplicate I.D. (if applicable):			
Analyzed for:	TPH-G	BTEX	MTBE	TPH-D	Other:	
D.O. (if req'd):	Pre-purge:	4.3	mg/L	Post-purge:	0.5	mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:		mV

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-MW1	Site: 97088250	
Sampler: John De Jong	Date: 10/29/03	
Well I.D.: MW-3	Well Diameter: ② 3 4 6 8	
Total Well Depth (TD): 18.82	Depth to Water (DTW): 12.05	
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]: 13.40		

Purge Method: Bailer	Waterra Peristaltic Extraction Pump	Sampling Method: Bailer																
<input checked="" type="checkbox"/> Disposable Bailer	<input checked="" type="checkbox"/> Positive Air Displacement	<input checked="" type="checkbox"/> Disposable Bailer																
<input checked="" type="checkbox"/> Electric Submersible	<input checked="" type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Extraction Port																
		<input checked="" type="checkbox"/> Dedicated Tubing																
		Other: _____																
$\frac{1.1 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = 3.3 \text{ Gals.}$		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier															
1"	0.04	4"	0.65															
2"	0.16	6"	1.47															
3"	0.37	Other	radius ² * 0.163															

Time	Temp (°F)	pH	Cond (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1015	67.3	6.0	870	>200	1.1	Cloudy, tan, No odor
1018	68.0	5.9	856	>200	2.2	
1020	68.4	5.9	843	>200	3.3	

Did well dewater? Yes No Gallons actually evacuated: 3.3

Sampling Date: 10/29/03 Sampling Time: 1030 Depth to Water: 12.30

Sample I.D.: MW-3 Laboratory: STL Other: _____

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

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

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

D.O. (if req'd): Pre-purge: 0.8 mg/L Post-purge: 0.4 mg/L

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

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-MW1	Site: 97088250		
Sampler: John DeDoog	Date: 10/29/03		
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 _____		
Total Well Depth (TD): 20.05	Depth to Water (DTW): 11.95		
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]: 13.57			

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer <input checked="" type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump <input type="checkbox"/> Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing <input type="checkbox"/> Other _____																
		<table border="1" style="margin-left: auto; margin-right: 0;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier															
1"	0.04	4"	0.65															
2"	0.16	6"	1.47															
3"	0.37	Other	radius ² * 0.163															
$\frac{1.3 \text{ (Gals.)} \times 3}{1 \text{ Case Volume}} = 3.9 \text{ Gals.}$																		

Time	Temp (°F)	pH	Cond. (mS or μs)	Turbidity (NTUs)	Gals. Removed	Observations
958	69.1	7.0	327	>200	1.3	cloudy, tan, no odor
1001	69.6	6.3	338	>200	2.6	
1004	69.7	6.2	379	>200	3.9	

Did well dewater? Yes No Gallons actually evacuated: 3.9

Sampling Date: 10/29/03 Sampling Time: 10:10 Depth to Water: 12.15

Sample I.D.: MW-4 Laboratory: (STL) Other _____

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

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

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

D.O. (if req'd):	Pre-purge:	2.4 mg/L	Post-purge:	1.0 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-M01	Site: 97088250
Sampler: John De Jong	Date: 10/29/03
Well I.D.: MW-5	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 19.75	Depth to Water (DTW): 12.45
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]: 13.9	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible
Waterra
 Peristaltic
 Extraction Pump
Other _____

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

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

4.7 (Gals.) X 3 = 14.1 Gals.
1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1356	69.5	6.6	1703	162	4.7	clear, gas odor (strong!)
			well dewatered (a)		5	DW= 16.91

Did well dewater? Yes No Gallons actually evacuated: 5

Sampling Date: 10/29/03 Sampling Time: 1400 Depth to Water: 16.91 @ Site Departure
Sample I.D.: MW-5 Laboratory: STL Other _____

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

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

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

D.O. (if req'd):	Pre-purge:	0.5 mg/L	Post-purge:	0.3 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-MW1	Site: 97088250
Sampler: John DeLong	Date: 10/29/03
Well I.D.: MW-6	Well Diameter: 2 3 (4) 6 8
Total Well Depth (TD): 19.68	Depth to Water (DTW): 12.91
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]: 14.26	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing																
		Other: _____																
$\frac{4.4 \text{ (Gals.)} \times 3}{\text{1 Case Volume}} = 13.2 \text{ Gals.}$		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>$\text{radius}^2 \times 0.163$</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	$\text{radius}^2 \times 0.163$
Well Diameter	Multiplier	Well Diameter	Multiplier															
1"	0.04	4"	0.65															
2"	0.16	6"	1.47															
3"	0.37	Other	$\text{radius}^2 \times 0.163$															

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1144	67.3	6.7	1024	157	4.5	cloudy, tan, gas odor
1145	66.4	6.6	1008	7200	9	
1146	66.1	6.5	1042	7200	13.5	

Did well dewater? Yes No Gallons actually evacuated: 13.5

Sampling Date: 10/29/03 Sampling Time: 1155 Depth to Water: 14.26

Sample I.D.: MW-6 Laboratory: STL Other: _____

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

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

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

D.O. (if req'd): Pre-purge: 1.2 mg/L Post-purge: 0.9 mg/L

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

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-MW1	Site: 97088250		
Sampler: John DeLong	Date: 10/29/03		
Well I.D.: MW-7	Well Diameter: 2 3 4 6 8		
Total Well Depth (TD): 19.75	Depth to Water (DTW): 13.74		
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]: 14.62			

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible
 Waterra
 Peristaltic
 Extraction Pump
 Other _____

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

4.2 (Gals.) X	3	=	12.6 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	radius ² * 0.163

Time	Temp (°F)	pH	Cond (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1205	65.9	6.6	880	142	4.5	cloudy, gas odor
1206	65.9	6.5	855	140	9	
1207	65.7	6.5	1100	200	13	

Did well dewater? Yes No Gallons actually evacuated: 13

Sampling Date: 10/29/03 Sampling Time: 12:15 Depth to Water: 14.62

Sample I.D.: MW-7 Laboratory: STL Other _____

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

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

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

D.O. (if req'd):	Pre-purge:	0.4 mg/L	Post-purge:	0.3 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-MW1	Site: 97088250	
Sampler: John De Jong	Date: 10/29/03	
Well I.D.: Vw/mw-2	Well Diameter: (2) 3 4 6 8	
Total Well Depth (TD): 21.87	Depth to Water (DTW): 12.29	
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]: 14.21		

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: _____

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

1.5 (Gals.) X 3 = 4.5 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1328	69.0	6.8	1040	7200	1.5	gray, gas odor (Sheen)
1330	68.3	6.7	1058	7200	3	
1332	68.1	6.7	986	7200	4.5	

Did well dewater? Yes Gallons actually evacuated: 4.5

Sampling Date: 10/29/03 Sampling Time: 1340 Depth to Water: 12.95

Sample I.D.: Vw/mw-2 Laboratory: STL Other: _____

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

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

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

D.O. (if req'd): Pre-purge: 0.7 mg/L Post-purge: 0.3 mg/L

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

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-MW1	Site: 97088250
Sampler: John De Jong	Date: 10/29/03
Well I.D.: VW/MW-4	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 1945	Depth to Water (DTW): 12.03
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]: 13.31	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra
 Peristaltic
 Extraction Pump
 Other

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other:

	Well Diameter	Multipier	Well Diameter	Multipier
1 Case Volume	1"	0.04	4"	0.63
(Gals.) X Specified Volumes	2"	0.16	6"	1.47
	3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1221	68.5	6.6	1208	91	1	grayish, strong gas odor.
1222	68.2	6.6	1204	45	2	
1225	68.9	6.6	1213	59	3	

Did well dewater? Yes No Gallons actually evacuated: 3

Sampling Date: 10/29/03 Sampling Time: 1240 Depth to Water: 13.30

Sample I.D.: VW/MW-4 Laboratory: STL Other

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

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

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

D.O. (if req'd): Pre-purge: 0.5 mg/L Post-purge: 0.4 mg/L

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

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-M01	Site: 97088250		
Sampler: John De Jong	Date: 10/29/03		
Well I.D.: UW/AS-1	Well Diameter: 2 3 4 6 8 <input checked="" type="checkbox"/> 1		
Total Well Depth (TD): 19.64	Depth to Water (DTW): 12.73		
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]: 14.11			

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic ~~Disposable Bailer~~
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other 57811 tubing Dedicated Tubing
shutoff valve

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	$\text{radius}^2 * 0.163$

$$\frac{0.3 \text{ (Gals.)}}{1 \text{ Case Volume}} \times \frac{3}{\text{Specified Volumes}} = \frac{0.9}{\text{Calculated Volume}}$$

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1240	67.6	6.7	1376	>200	.3	gray, strong odor!
1242	69.0	6.7	-1372	>200	.6	
1244	68.6	6.8	1377	>200	.9	

Did well dewater? Yes No Gallons actually evacuated: .9

Sampling Date: 10/29/03 Sampling Time: 1300 Depth to Water: 13.21

Sample I.D.: UW/AS-1 Laboratory: STL Other

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

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

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

D.O. (if req'd): Pre-purge: 3.3 mg/L Post-purge: 3.6 mg/L

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

SHELL WELL MONITORING DATA SHEET

BTS #: 031029-M01	Site: 97088250	
Sampler: John DeJong	Date: 10/29/03	
Well I.D.: UW/AS-3	Well Diameter: 2 3 4 6 8 <u>1</u>	
Total Well Depth (TD): 19.71	Depth to Water (DTW): 12.25	
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]: 13.74		

Purge Method:	Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other <u>5/8" tubing w/check valve</u>	Sampling Method:	Bailer Disposable Bailer Extraction Port Dedicated Tubing			
Well Diameter:	1"	2"	3"	Well Diameter:	4"	6"	Radius ² * 0.163
1 Case Volume	.3 (Gals.) X 3 = .9 Gals.	Specified Volumes	Calculated Volume				

Time	Temp (°F)	pH	Cond (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1110	70.8	6.5	1078	49	.3	clear, gas odor
1112	70.1	6.5	1062	38	.6	
1116	70.1	6.5	1038	79	.9	

Did well dewater?	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Gallons actually evacuated: .9		
Sampling Date:	10/29/03	Sampling Time:	1130	Depth to Water:	12.86
Sample I.D.:	UW/AS-3	Laboratory:	STL	Other:	
Analyzed for:	TPH-G <input checked="" type="radio"/>	BTEX <input checked="" type="radio"/>	MTBE <input checked="" type="radio"/>	TPH-D <input type="radio"/>	Other: _____
EB I.D. (if applicable):	@ <input type="radio"/>	Time	Duplicate I.D. (if applicable):		
Analyzed for:	TPH-G <input type="radio"/>	BTEX <input type="radio"/>	MTBE <input type="radio"/>	TPH-D <input type="radio"/>	Other: _____
D.O. (if req'd):	Pre-purge: <input checked="" type="radio"/>	3.2 $\mu\text{g/L}$	Post-purge: <input type="radio"/>	1.6 $\mu\text{g/L}$	
O.R.P. (if req'd):	Pre-purge: <input type="radio"/>	mV	Post-purge: <input type="radio"/>		mV

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