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# C A M B R I A

July 15, 2005

Mr. Jerry Wickham  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Alameda County  
JUL 19 2005  
Environmental Health

Re: **Second Quarter 2005 Status Report**  
Shell-branded Service Station  
1601 Webster Street  
Alameda, California  
Incident # 97564701  
SAP Code 135032  
ACHCSA # 13-503



Dear Mr. Wickham:

Cambria Environmental Technology, Inc. (Cambria) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) in accordance with the quarterly reporting requirements of 23 CCR 2652d.

## SITE LOCATION AND DESCRIPTION

The subject property is an operating Shell-branded service station located on the northwest corner of Webster Street and Lincoln Avenue in Alameda, California (Figure 1). The station layout includes three underground storage tanks (USTs), a former waste oil UST, two current dispensers and two former dispensers islands, a station building, and a kiosk (Figure 2). The local topography is flat with a site elevation at approximately 13 feet above mean sea level. The site is surrounded by a mix of commercial and residential development.

## SECOND QUARTER 2005 ACTIVITIES

Periodic groundwater extraction (GWE) and sampling from TBW-N continued on a monthly basis. Onyx Industrial performed monthly batch GWE events on April 6 and May 2, 2005. Blaine performed monthly gauging and sampling on April 12 and May 13, 2005. No SPH was observed in TBW-N during any of these events. The groundwater samples from TBW-N were analyzed for TPHg, BTEX, MTBE, di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and ethyl tert butyl ether (ETBE), ethylene dibromide (EDB), 1,2-dichloroethane (1,2-DCA), and ethanol. A copy of Blaine's monitoring report, including laboratory reports, is included in Appendix A.

Cambria  
Environmental  
Technology, Inc.

270 Perkins Street  
Sonoma, CA 95476  
Tel (707) 935-4850  
Fax (707) 935-6649

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To date, an estimated volume of 1,982.1 gallons of separate-phase hydrocarbons (SPH) were recovered as separate-phase liquid. As of the end of May 2005, an estimated mass of 116.0 pounds (an equivalent volume of 18.6 gallons) of dissolved TPHg was recovered in water. The analytical results for TBW-N are presented in the Blaine's data table in Appendix A. Cambria's water removal data and estimates of SPH and dissolved-phase product recovery are summarized in Table 1. Figure 3 graphically illustrates the SPH thickness, volume of recovered groundwater and TPHg concentrations versus time. Figure 4 graphically illustrates the volume of recovered groundwater and benzene concentrations versus time. Figure 5 graphically illustrates the volume of recovered groundwater and MTBE concentrations versus time.



## **ANTICIPATED THIRD QUARTER 2005 ACTIVITIES**

The periodic GWE will continue and Blaine will continue the monthly gauging and sampling of TBW-N. Cambria will prepare a status report documenting the activities.

As requested by the Alameda County Health Care Services Agency in correspondence dated May 13, 2005, a work plan for subsurface investigation will be submitted by July 15, 2005, under separate cover.

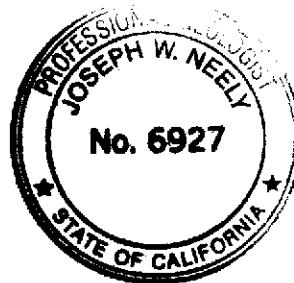
# C A M B R I A

## CLOSING

If you have any questions regarding this submittal, please call Ana Friel at (707) 268-3812.

Sincerely,  
**Cambria Environmental Technology, Inc.**

*M. M. C*  
for Karen Newton  
Staff Engineer  
*J. Neely*  
for Ana Friel  
Senior Project Geologist  
PG 6452



### Attachments

Table 1. Groundwater and Product Removal Data

- Figure 1. Vicinity/Sensitive Receptor Survey Map
- Figure 2. Site Plan/Historical Sample Location Map
- Figure 3. GWE Pumping Volume, SPH Thickness, and TPHg Concentration
- Figure 4. GWE Pumping Volume, and Benzene Concentration
- Figure 5. GWE Pumping Volume, and MTBE Concentration

### Appendix A. Blaine Services Inc. First Quarter 2005 Groundwater Monitoring Report

cc: Mr. Denis Brown, Shell Oil Products US  
Mr. Thomas H. Kosel, ConocoPhillips Risk Management & Remediation, 76  
Broadway, Sacramento, CA 95818  
Mr. James C. Kirschner, ATC Associates, Inc., 6602 Owens Drive, Suite 100,  
Pleasanton, CA 94588 (consultant for ConocoPhillips)

Table 1. Groundwater and Product Removal Data - Shell Service Station, Incident # 97564701, 1601 Webster Street, Alameda, California.

Date	Total Volume Hauled (gal)	Cumulative Volume (gal)	Measured Product Thickness in Vacuum Truck (feet)	Dissolved TPHg Conc. (ppm or mg/L)	Estimated pounds TPHg removed in Dissolved Phase (lbs)	Estimated Volume of Product Removed as SPH (gal)	Estimated Volume of Product Removed as dissolved phase (gal)	Comments
								FUEL RELEASE ESTIMATE: UST gaging by SJ Weaver on 8/18 read 71.5 inches = 8,340 gallons, per tank chart. On 8/19 gaging by SJ Weaver read 55 inches = 6,256 gallons, per tank chart. Net est. Loss = 8,340-6,256 = 2,084 gallons.
8/19/2004	2,168	2,168	NM	120	2.17	NM	0.36	Pumped from well into open Baker tank. Then tank emptied by PSC vacuum truck. Water not sampled - TPHg concentration estimated from 9/20/04 concentration as a "maximum" reasonable estimate.
8/19/2004	2,535	4,703	NM	120	2.54	915	0.42	Pumped from well into open Baker tank. Also pumped directly into Vacuum Truck. Then open Baker tank emptied by PSC. Water not sampled - TPHg concentration estimated from 9/20/04 concentration as a "maximum" reasonable estimate.
8/20/2004	0	4,703	NM	120	0.00	--	0.00	Pumped into closed Baker tank - none hauled.
8/21/2004	4,369	9,072	NM	120	4.37	50	0.72	Pumped into closed Baker tank, then began emptying closed tank by vacuum truck. Estimated SPH volume from similar data. Water not sampled - TPHg concentration estimated from 9/20/04 concentration as a "maximum" reasonable estimate.
8/21/2004	3,654	12,726	0.67	120	3.66	773	0.60	From closed Baker tank and well. Volumes based on verbal report - missing bills of lading. Water not sampled - TPHg concentration estimated from 9/20/04 concentration as a "maximum" reasonable estimate.
8/21/2004	2,091	14,817	0.04	120	2.09	57	0.34	From well and baker tank. Volumes based on verbal report - missing bills of lading
8/22/2004	319	15,136	NM	120	0.32	NM	0.05	Baker Tank cleaning water. Water not sampled - TPHg concentration estimated from 9/20/04 concentration as a "maximum" reasonable estimate.
8/22/2004	2,285	17,421	0.11	120	2.29	150	0.38	Water not sampled - TPHg concentration estimated from 9/20/04 concentration as a "maximum" reasonable estimate.
8/23/2004	1,947	19,368	0.01	120	1.95	13	0.32	Water not sampled - TPHg concentration estimated from 9/20/04 concentration as a "maximum" reasonable estimate.
8/24/2004	1,013	20,381	0.01	120	1.01	12	0.17	Water not sampled - TPHg concentration estimated from 9/20/04 concentration as a "maximum" reasonable estimate.
8/25/2004	4,026	24,407	NM	120	4.03	NM	0.66	Water not sampled - TPHg concentration estimated from 9/20/04 concentration as a "maximum" reasonable estimate.
8/26/2004	3,839	28,246	NM	82	2.63	NM	0.43	
8/27/2004	3,882	32,128	NM	82	2.66	NM	0.44	
8/28/2004	2,770	34,898	NM	100	2.31	NM	0.38	
8/29/2004	3,834	38,732	NM	100	3.20	NM	0.53	
8/30/2004	3,376	42,108	NM	91	2.56	12	0.42	Half UST cleaning water and half groundwater from well. SPH amount estimated from 0.02' SPH in UST gaged on 8/21/04.
8/31/2004	3,249	45,357	NM	91	2.47	NM	0.41	
9/1/2004	3,832	49,189	NM	110	3.52	NM	0.58	
9/2/2004	2,151	51,340	NM	110	1.97	NM	0.32	
9/3/2004	3,136	54,476	NM	99	2.59	NM	0.43	
9/4/2004	3,671	58,147	NM	99	3.03	NM	0.50	
9/5/2004	3,395	61,542	NM	66	1.87	NM	0.31	
9/6/2004	2,948	64,490	NM	66	1.62	NM	0.27	
9/7/2004	3,285	67,775	NM	66	1.81	NM	0.30	
9/8/2004	3,128	70,903	NM	66	1.72	NM	0.28	
9/9/2004	3,902	74,805	NM	67	2.18	NM	0.36	water from TBW-N, TBW-S, & TBW-E
9/10/2004	2,989	77,794	NM	67	1.67	NM	0.27	water from TBW-N, TBW-S, & TBW-E
9/13/2004	2,807	80,601	NM	61	1.43	NM	0.23	70-barrel truck
9/20/2004	4,266	84,867	NM	120	4.27	NM	0.70	
9/28/2004	4,691	89,558	NM	99	3.88	NM	0.64	
10/4/2004	4,050	93,608	NM	80	2.70	NM	0.44	
10/11/2004	3,121	96,729	NM	57	1.48	NM	0.24	
10/18/2004	3,597	100,326	NM	68	2.04	NM	0.34	
10/25/2004	4,127	104,453	NM	81	2.79	NM		2,641 additional gallons from tank cleaning were disposed of on 10/25/04
11/1/2004	5,047	109,500	NM	86	3.62	NM	0.59	
11/8/2004	2,178	111,678	NM	100	1.82	NM	0.30	
11/16/2004	4,391	116,569	NM	83	3.39	NM	0.56	concentration based on 11/23/04 sample
11/29/2004	4,531	121,100	NM	160	6.05	NM	0.99	concentration based on 11/30/04 sample
12/13/2004	5,208	126,308	NM	120	5.21	NM	0.86	concentration based on 12/15/04 sample
12/27/2004	4,800	131,108	NM	100	4.01	NM	0.66	concentration based on 12/27/04 sample
1/17/2005	3,580	134,688	NM	86	2.57	NM	0.42	concentration based on 1/17/05 sample
2/7/2005	2,389	137,077	NM	97	1.93	NM	0.32	concentration based on 2/4/05 sample
3/8/2005	4,843	141,920	NM	94	3.80	NM	0.62	concentration based on 3/3/05 sample
4/6/2005	4,711	146,631	NM	27	1.06	NM	0.17	concentration based on 4/12/05 sample
5/2/2005	4,706	151,337	NM	42	1.65	NM	0.27	concentration based on 5/13/05 sample

**TOTALS**

151,337

(gallons)  
Total  
Estimated  
Volume of  
Liquid  
Removed

116.0

(pounds) Total  
estimated  
mass based on  
dissolved  
TPHg  
concentrations

1,982.1

(gallons) Total  
Estimated  
Volume  
accounted for  
as liquid SPH

18.6

(gallons) Total  
estimated  
equivalent  
volume based  
on dissolved  
TPHg  
concentrations**NOTES:**

Mass removal values are approximate only.

Pounds of TPHg removal based on the calculation: (TPHg concentration (ppm)) x gallons pumped x (8.3x10<sup>-6</sup> (liters/gal) x pounds/mg))

lbs = pounds

gal = gallons

ppm = parts per million

estimate value based on visual assessment



### Shell-branded Service Station

1601 Webster Street

Alameda, California

Incident #97437680



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### Vicinity/Sensitive Receptor Survey Map

(200, 500, and 1,000 Ft., and 1/2 Mile Radii)

**Site Plan/Historical Sample Location Map**



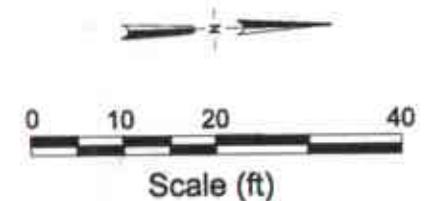
**Shell-branded Service Station**  
1601 Webster Street  
Alameda, California  
Incident No. 97584701

**FIGURE 2**

05/10/05

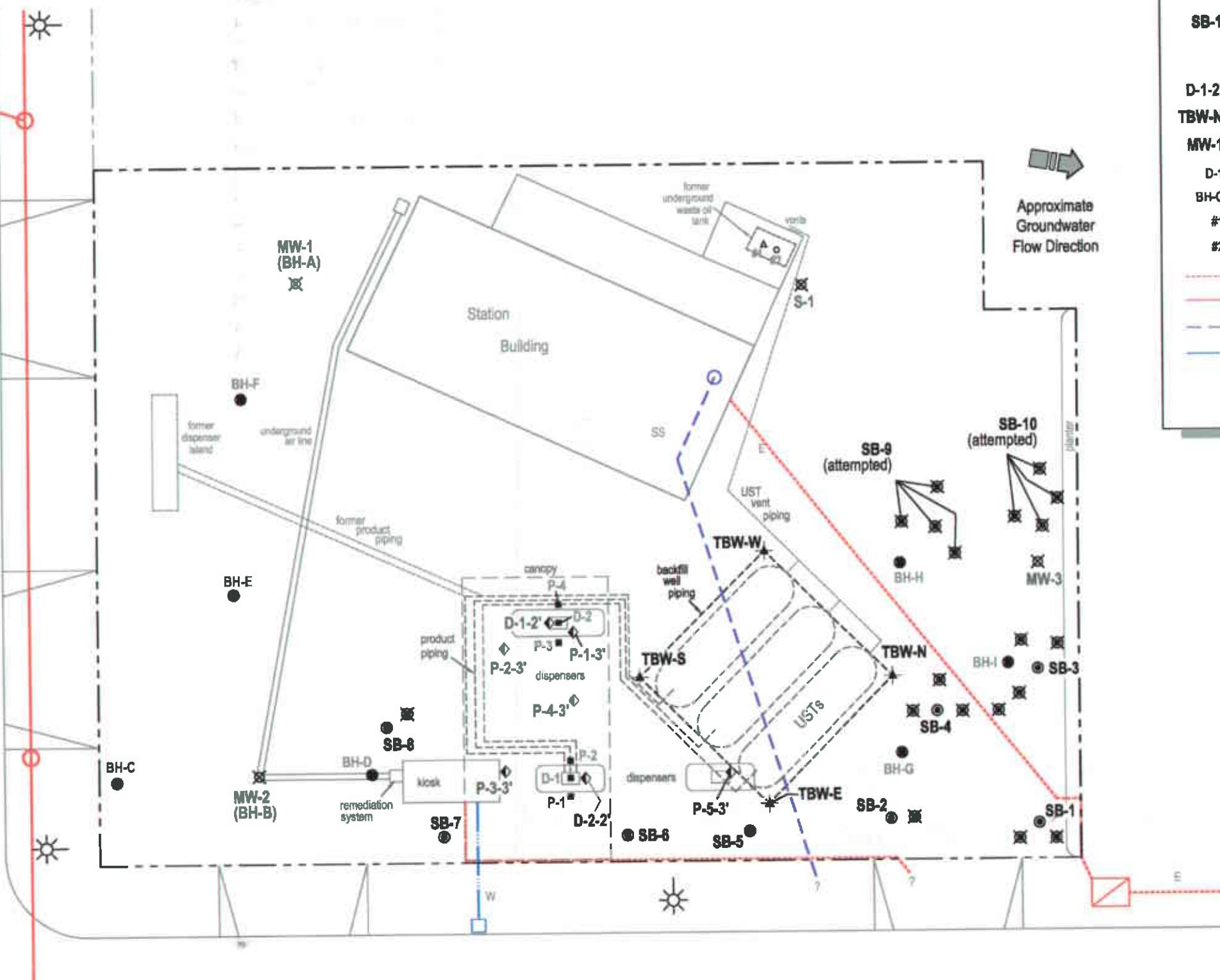
**EXPLANATION**

- SB-1 ● Soil boring location (11/30/04, 12/1-2/04)
- Attempted soil boring location (11/30, 12/1-2/04), not completed due to refusal
- D-1-2' ◆ Soil sample location (8/10/04)
- TBW-N ▲ Tank backfill well location
- MW-1 ☒ Destroyed monitoring well location
- D-1 ■ Soil sample location (WA, 1997)
- BH-C ● Soil boring location (WA, 10/92)
- #1 ▲ Soil sample location (Blaine, 6/87)
- #2 ◦ Grab water sample location (Blaine, 6/87)
- Electrical line (E)
- Overhead electrical line (OE)
- - - Sanitary sewer line (SS)
- Water line (W)
- Power pole
- \* Street light



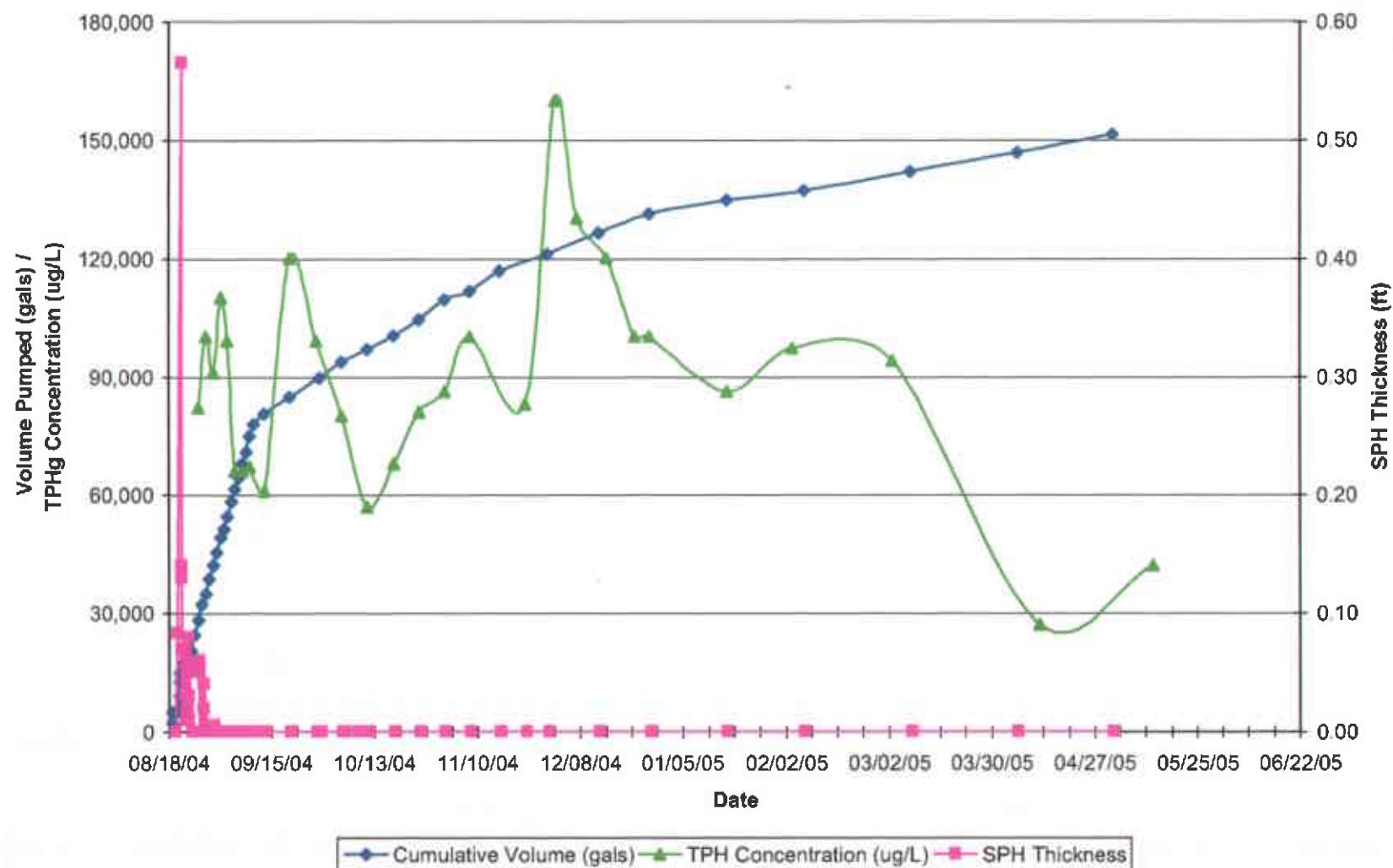
LINCOLN AVENUE

WEBSTER STREET



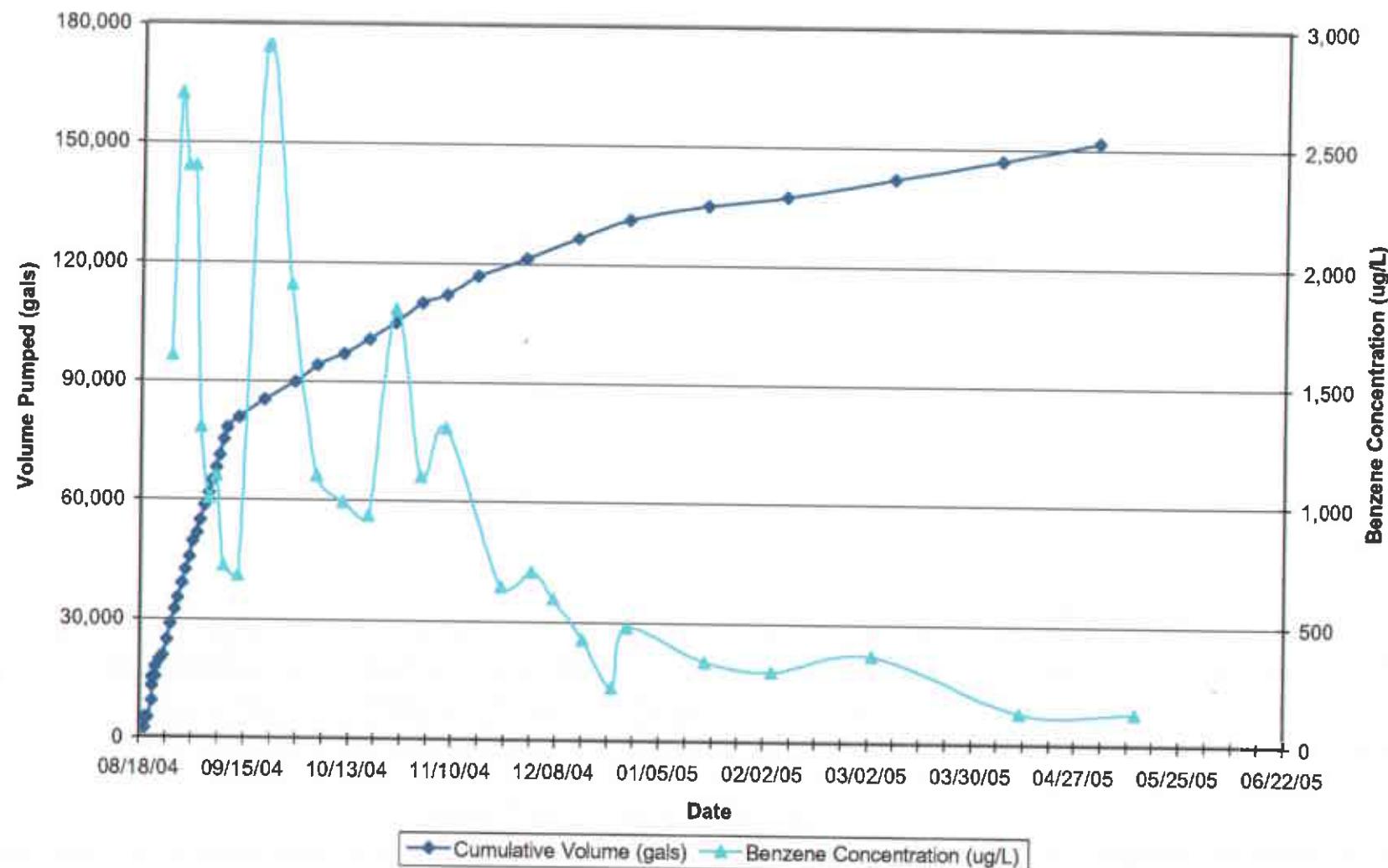
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Figure 3 - Shell 1601 Webster St, Alameda  
Groundwater Pumping Volume, SPH Thickness,  
and TPHg Concentration



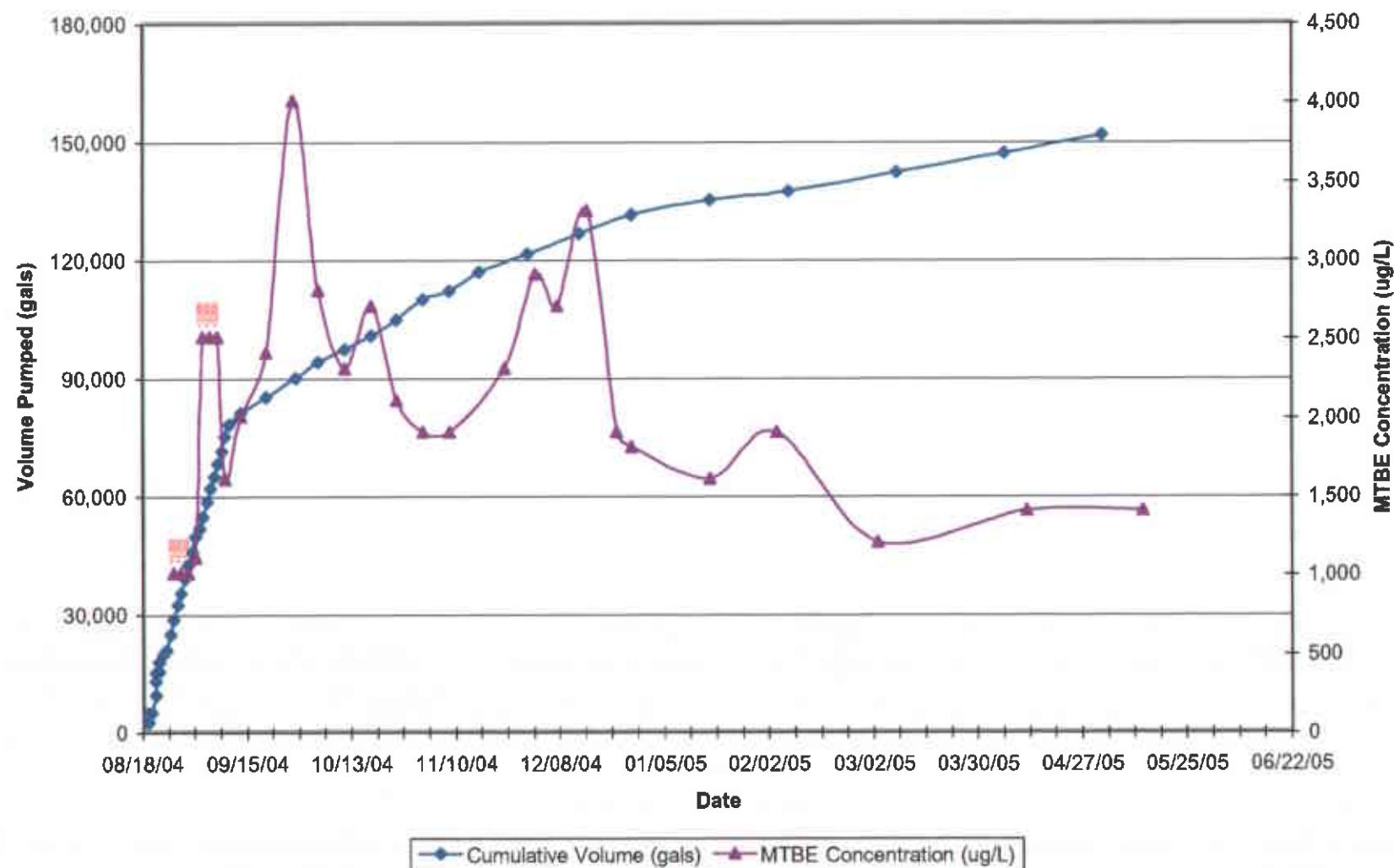
**Figure 4 - Shell 1601 Webster St, Alameda  
Groundwater Pumping Volume,  
and Benzene Concentration**

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**Figure 5 - Shell 1601 Webster St, Alameda  
Groundwater Pumping Volume,  
and MTBE Concentration**

CAMBRIA



**Appendix A**

**Blaine Tech Services, Inc.**  
**Groundwater Monitoring Report**

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**BLAINE**  
**TECH SERVICES INC.**

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**GROUNDWATER SAMPLING SPECIALISTS**  
SINCE 1985

June 8, 2005

Denis Brown  
Shell Oil Products US  
20945 South Wilmington Avenue  
Carson, CA 90810

Second Quarter 2005 Groundwater Monitoring at  
Shell-branded Service Station  
1601 Webster Street  
Alameda, CA

Monitoring performed on April 12 and May 13, 2005

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**Groundwater Monitoring Report 050513-MT-2**

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.

**SAN JOSE**

1680 ROGERS AVENUE SAN JOSE, CA 95112-1106

**SACRAMENTO**

(408) 573-0885

**LOS ANGELES**

FAX (408) 573-7771 LIC. 746684

**SAN DIEGO**

[www.blainetech.com](http://www.blainetech.com)

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/ks

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

cc: Ana Friel  
Cambria Environmental Technology, Inc.  
P.O. Box 259  
Sonoma, CA 95476-0259

**WELL CONCENTRATIONS**  
**Shell Service Station**  
**1601 Webster Street**  
**Alameda, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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TBW-E	11/23/2004	NA	6.31	NA													
TBW-E	12/01/2004	NA	7.01	NA													
TBW-E	12/07/2004	NA	6.32	NA													
TBW-E	12/15/2004	NA	6.55	NA													
TBW-E	12/23/2004	NA	5.95	NA													
TBW-E	12/27/2004	NA	8.47	NA													

TBW-N	11/23/2004	83,000	640	27,000	1,700	20,000	2,300	<400	<400	<400	1,300	<10,000	<100	<100	NA	5.64	NA
TBW-N	12/01/2004	160,000	700	31,000	2,300	24,000	2,900	<400	<400	<400	1,200	<10,000	<100	<100	NA	6.35	NA
TBW-N	12/07/2004	130,000	590	29,000	2,300	24,000	2,700	<400	<400	<400	1,300	<10,000	<100	<100	NA	5.65	NA
TBW-N	12/15/2004	120,000	420	26,000	2,000	22,000	3,300	<400	<400	<400	<1,000	<10,000	<100	<100	NA	5.85	NA
TBW-N	12/23/2004	100,000	220	23,000	1,900	20,000	1,900	<400	<400	<400	<1,000	<10,000	<100	<100	NA	5.30	NA
TBW-N	12/27/2004	110,000	470	26,000	2,300	22,000	1,800	<400	<400	<400	<1,000	<10,000	<100	<100	NA	7.80	NA
TBW-N	01/17/2005	86,000	330	22,000	2,200	21,000	1,600	<400	<400	<400	1,600	<10,000	<100	<100	NA	6.59	NA
TBW-N	02/04/2005	97,000	290	23,000	1,800	20,000	1,900	<400	<400	<400	<1,000	<10,000	<100	<100	NA	4.50	NA
TBW-N	03/02/2005	94,000	360	24,000	2,000	19,000	1,200	<400	<400	<400	<1,000	<10,000	<100	<100	NA	4.11	NA
TBW-N	04/12/2005	27,000	130	9,300	1,100	8,700	1,400	<100	<100	<20	390	<2,500	<25	<25	NA	4.08	NA
TBW-N	05/13/2005	42,000	130	8,700	1,500	12,000	1,400	<100	<100	<100	440	<2,500	<25	<25	NA	4.45	NA

TBW-S	11/23/2004	NA	6.18	NA													
TBW-S	12/01/2004	NA	6.87	NA													
TBW-S	12/07/2004	NA	6.15	NA													
TBW-S	12/15/2004	NA	6.38	NA													
TBW-S	12/23/2004	NA	5.81	NA													
TBW-S	12/27/2004	NA	8.35	NA													

TBW-W	11/23/2004	NA	6.14	NA													
TBW-W	12/01/2004	NA	6.86	NA													

**WELL CONCENTRATIONS**  
**Shell Service Station**  
**1601 Webster Street**  
**Alameda, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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TBW-W	12/07/2004	NA	6.13	NA													
TBW-W	12/15/2004	NA	6.37	NA													
TBW-W	12/23/2004	NA	5.79	NA													
TBW-W	12/27/2004	NA	8.32	NA													

**Abbreviations:**

TPPH = Total petroleum hydrocarbons as gasoline by modified EPA Method 8260B.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B.

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether, analyzed by EPA Method 8260B

ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B

TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B

TBA = Tertiary butyl alcohol or tertiary butanol, analyzed by EPA Method 8260B

1,2-DCA = 1,2-Dichloroethane, analyzed by EPA Method 8260B

EDB = Ethylene Dibromide, analyzed by EPA Method 8260B

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

NA = Not applicable

**Notes:**

Ethanol analyzed by EPA Method 8260B.

**Blaine Tech Services, Inc.**

April 29, 2005

1680 Rogers Avenue  
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 050412-SS3

Project: 97564701

Site: 1601 Webster St., Alameda

Dear Mr. Gearhart,

Attached is our report for your samples received on 04/13/2005 14:23

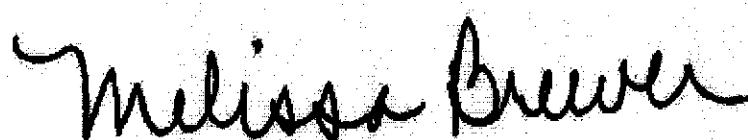
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 05/28/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,

You can also contact me via email. My email address is: [mbrewer@stl-inc.com](mailto:mbrewer@stl-inc.com)

Sincerely,



Melissa Brewer  
Project Manager

**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) 573-7771Project: 050412-SS3  
97564701

Received: 04/13/2005 14:23

Site: 1601 Webster St., Alameda

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab
TBW-N	04/12/2005 14:05	Water	1

**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: 050412-SS3  
97564701

Received: 04/13/2005 14:23

Site: 1601 Webster St., Alameda

Prep(s):	5030B	Test(s):	8260B
Sample ID:	TEW-N	Lab ID:	2005-04-0406
Sampled:	04/13/2005 14:05	Extracted:	04/25/2005 20:54
Matrix:	Water	QC Batch#:	2005/04/26-2A-69 2005/04/26-2C-08
Analysis Flag: L2 pH: <2 ( See Legend and Note Section )			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	27000	500	ug/L	10.00	04/26/2005 17:47	
Benzene	130	25	ug/L	50.00	04/26/2005 20:54	
Toluene	9300	25	ug/L	50.00	04/26/2005 20:54	
Ethylbenzene	1100	25	ug/L	50.00	04/26/2005 20:54	
Total xylenes	8700	50	ug/L	50.00	04/26/2005 20:54	
tert-Butyl alcohol (TBA)	390	250	ug/L	50.00	04/26/2005 20:54	
Methyl tert-butyl ether (MTBE)	1400	25	ug/L	50.00	04/26/2005 20:54	
Di-isopropyl Ether (DIPE)	ND	100	ug/L	50.00	04/26/2005 20:54	
Ethyl tert-butyl ether (ETBE)	ND	100	ug/L	50.00	04/26/2005 20:54	
tert-Amyl methyl ether (TAME)	ND	20	ug/L	10.00	04/26/2005 17:47	
1,2-DCA	ND	25	ug/L	50.00	04/26/2005 20:54	
EDB	ND	25	ug/L	50.00	04/26/2005 20:54	
Ethanol	ND	2500	ug/L	50.00	04/26/2005 20:54	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	99.3	73-130	%	10.00	04/26/2005 17:47	
1,2-Dichloroethane-d4	102.9	73-130	%	50.00	04/26/2005 20:54	
Toluene-d8	114.2	81-114	%	50.00	04/26/2005 20:54	
Toluene-d8	102.2	81-114	%	10.00	04/26/2005 17:47	S7

## 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: 050412-SS3  
97564701

Received: 04/13/2005 14:23

Site: 1601 Webster St., Alameda

Project: 050412-SS3		Sample Description		Test (8) 8260B	
Method: Blanks		Water		Cle Batch # 2005/04/26-A-63	
MB: 2005/04/26-2A-69-045				Date Entered: 04/26/2005 17:45	
Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	04/26/2005 17:45	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	04/26/2005 17:45	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/26/2005 17:45	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	04/26/2005 17:45	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	04/26/2005 17:45	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	04/26/2005 17:45	
1,2-DCA	ND	0.5	ug/L	04/26/2005 17:45	
EDB	ND	0.5	ug/L	04/26/2005 17:45	
Benzene	ND	0.5	ug/L	04/26/2005 17:45	
Toluene	ND	0.5	ug/L	04/26/2005 17:45	
Ethylbenzene	ND	0.5	ug/L	04/26/2005 17:45	
Total xylenes	ND	1.0	ug/L	04/26/2005 17:45	
Ethanol	ND	50	ug/L	04/26/2005 17:45	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	109.0	73-130	%	04/26/2005 17:45	
Toluene-d8	113.6	81-114	%	04/26/2005 17:45	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	04/26/2005 17:45	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	04/26/2005 17:45	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/26/2005 17:45	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	04/26/2005 17:45	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	04/26/2005 17:45	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	04/26/2005 17:45	
1,2-DCA	ND	0.5	ug/L	04/26/2005 17:45	
EDB	ND	0.5	ug/L	04/26/2005 17:45	
Benzene	ND	0.5	ug/L	04/26/2005 17:45	
Toluene	ND	0.5	ug/L	04/26/2005 17:45	
Ethylbenzene	ND	0.5	ug/L	04/26/2005 17:45	
Total xylenes	ND	1.0	ug/L	04/26/2005 17:45	
Ethanol	ND	50	ug/L	04/26/2005 17:45	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	109.0	73-130	%	04/26/2005 17:45	
Toluene-d8	113.6	81-114	%	04/26/2005 17:45	

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

04/29/2005 15:53

## 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: 050412-SS3  
97564701

Received: 04/13/2005 14:23

Site: 1601 Webster St., Alameda

Batch QC Report					
Prep/C	Method/Blank	Sample	Test/C	Date Extracted	QC Batch #
050412-SS3	Method Blank	Water	8260B	04/26/2005 17:09	QC B-106 #2005/04/26/2C-68

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	04/26/2005 17:09	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	04/26/2005 17:09	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/26/2005 17:09	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	04/26/2005 17:09	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	04/26/2005 17:09	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	04/26/2005 17:09	
1,2-DCA	ND	0.5	ug/L	04/26/2005 17:09	
EDB	ND	0.5	ug/L	04/26/2005 17:09	
Benzene	ND	0.5	ug/L	04/26/2005 17:09	
Toluene	ND	0.5	ug/L	04/26/2005 17:09	
Ethylbenzene	ND	0.5	ug/L	04/26/2005 17:09	
Total xylenes	ND	1.0	ug/L	04/26/2005 17:09	
Ethanol	ND	50	ug/L	04/26/2005 17:09	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	98.6	73-130	%	04/26/2005 17:09	
Toluene-d8	95.6	81-114	%	04/26/2005 17:09	

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

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue  
San Jose, CA 95112-1105  
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Project: 050412-SS3  
97564701

Received: 04/13/2005 14:23

Site: 1601 Webster St., Alameda

Batch QC Report									
Prep(s): 5030B								QC (S): 8260B	
Laboratory Control Spike		Water						QC Batch #: 2005/04/26-2A-69	
LCS		Extracted: 04/26/2005		Analyzed: 04/26/2005 17:23					
LCSD									
Compound	Conc. ug/L		Exp.Conc.		Recovery %		RPD	Ctrl.Limits %	
	LCS	LCSD			LCS	LCSD	%	Rec.	RPD
Methyl tert-butyl ether (MTBE)	28.0		25		112.0			65-165	20
Benzene	26.9		25		107.6			69-129	20
Toluene	29.5		25		118.0			70-130	20
<b>Surrogates(s)</b>									
1,2-Dichloroethane-d4	548		500		109.6			73-130	
Toluene-d8	532		500		106.4			81-114	

Compound	Conc.	ug/L	Exp.Conc.	Recovery %	RPD	Ctrl.Limits %	Flags			
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	28.0		25	112.0			65-165	20		
Benzene	26.9		25	107.6			69-129	20		
Toluene	29.5		25	118.0			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	548		500	109.6			73-130			
Toluene-d8	532		500	106.4			81-114			

**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: 050412-SS3  
97564701

Received: 04/13/2005 14:23

Site: 1601 Webster St., Alameda

Batch QC Report		Prep(s): 8260B		Test(s): 8260B	
Laboratory Control Spike		Water		QC Batch #: 2005/04/26-2C.68	
LCS	2005/04/26-2C.68-051	Extracted: 04/26/2005		Analyzed: 04/26/2005-16:51	
LCSD					

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	20.6		25	82.4			65-165	20		
Benzene	20.5		25	82.0			69-129	20		
Toluene	22.7		25	90.8			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	447		500	89.4			73-130			
Toluene-d8	490		500	98.0			81-114			

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

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

Project: 050412-SS3  
97564701

Received: 04/13/2005 14:23

Site: 1601 Webster St., Alameda

Batch QC Report																				
Project: 050412-SS3			Matrix: Spikes (MS/MSD)			Water			QC Batch #: 2005/04/26-2A-69											
MS/MSD			Extraced: 04/13/2005			Extracted: 04/26/2005			Analyzed: 04/26/2005											
MSD			Extraced: 04/13/2005			Extracted: 04/26/2005			Analyzed: 04/26/2005											
MSD			Extraced: 04/13/2005			Extracted: 04/26/2005			Analyzed: 04/26/2005											
Dilution: 1:100																				
Analytical: 1.00																				

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample		ug/L	MS	MSD	RPD	Rec.	RPD	MS
Methyl tert-butyl ether	27.9	23.7	ND	25	111.6	94.8	16.3	65-165	20		
Benzene	26.7	27.9	ND	25	106.8	111.6	4.4	69-129	20		
Toluene	30.3	30.6	ND	25	121.2	122.4	1.0	70-130	20		
<i>Surrogate(s)</i>											
1,2-Dichloroethane-d4	491	446		500	98.2	89.2		73-130			
Toluene-d8	543	551		500	108.6	110.2		81-114			

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

04/29/2005 15:53

## 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: 050412-SS3  
97564701

Received: 04/13/2005 14:23

Site: 1601 Webster St., Alameda

Batch GC Report									
Prep ID: 5030B		Matrix Spike (MS / MSD)		Water		GC Batch # 2005/04/26-2G-68			
MS/MSD						LiquID	2005-04-0504 - 004		
MS	2005/04/26-2G-68-043			Extracted: 04/26/2005		Analyzed	04/26/2005 14:18		
MSD	2005/04/26-2G-68-006			Extracted: 04/26/2005		Dilution	-1.00		
						Analyzed	04/26/2005 21:06		
						Dilution	-1.00		

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample		ug/L	MS	MSD	RPD	Rec.	RPD	MS
Methyl tert-butyl ether	22.4	24.2	ND	25	89.6	96.8	7.7	65-165	20		
Benzene	22.8	23.2	ND	25	91.2	92.8	1.7	69-129	20		
Toluene	25.3	25.2	ND	25	101.2	100.8	0.4	70-130	20		
<i>Surrogate(s)</i>											
1,2-Dichloroethane-d4	477	500		500	95.4	100.0		73-130			
Toluene-d8	504	500		500	100.8	100.0		81-114			

**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: 050412-SS3  
97564701

Received: 04/13/2005 14:23

Site: 1601 Webster St., Alameda

**Report Data, Specimen and Notes****Analysis Flag**

L2

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

**Result Flag**

S7

Surrogate recoveries higher than acceptance limits.

LAB: STL

## **SHELL Chain Of Custody Record**

114102

#### Latin American History

八

City, State, Zip:

**Shell Project Manager to be involved**

Dennis Brown

A horizontal checklist with three items. The first item has a checked box and the text "SCIENCE & TECHNOLOGY". The second item has an unchecked box and the text "TECHNICAL SERVICES". The third item has an unchecked box and the text "COURT MONITORING".

2005-04-0406

DATE: 4/12/05

**Blaine Tech Services, Inc.**

May 24, 2005

1680 Rogers Avenue  
San Jose, CA 95112-1105  
Attn.: Leon Gearhart  
Project#: BTS#050513-MT2  
Project: 97564701  
Site: 1601 Webster St., Alameda

Dear Mr.Gearhart,

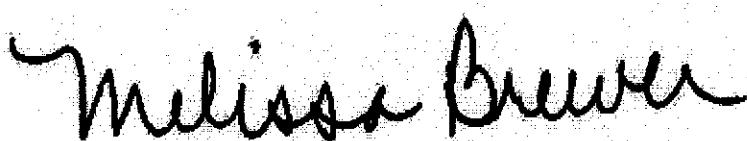
Attached is our report for your samples received on 05/13/2005 15:25.  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after  
06/27/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,

You can also contact me via email. My email address is: [mbrewer@stl-inc.com](mailto:mbrewer@stl-inc.com)

Sincerely,



Melissa Brewer  
Project Manager

**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: BTS#050513-MT2  
97564701

Received: 05/13/2005 15:25

Site: 1601 Webster St., Alameda

**Samples Reported**

Sample Name	Date Sampled	Matrix	Label #
TBW-N	05/13/2005 13:10	Water	1

**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: BTS#050513-MT2  
97564701

Received: 05/13/2005 15:25

Site: 1601 Webster St., Alameda

Prep(s):	8260B-A	Test(s):	8260B
Sample ID:	TBW-N	Lab ID:	2005-05-0456-A
Sampled:	05/13/2005 13:10	Extracted:	5/21/2005 04:20
Matrix:	Water	GC Batch#:	2005/05/20/5A-G2
Analysis Flag: L2 - (See Legend and Note Sections)			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	42000	2500	ug/L	50.00	05/21/2005 04:20	
Benzene	130	25	ug/L	50.00	05/21/2005 04:20	
Toluene	8700	25	ug/L	50.00	05/21/2005 04:20	
Ethylbenzene	1500	25	ug/L	50.00	05/21/2005 04:20	
Total xylenes	12000	50	ug/L	50.00	05/21/2005 04:20	
tert-Butyl alcohol (TBA)	440	250	ug/L	50.00	05/21/2005 04:20	
Methyl tert-butyl ether (MTBE)	1400	25	ug/L	50.00	05/21/2005 04:20	
Di-isopropyl Ether (DIPE)	ND	100	ug/L	50.00	05/21/2005 04:20	
Ethyl tert-butyl ether (ETBE)	ND	100	ug/L	50.00	05/21/2005 04:20	
tert-Amyl methyl ether (TAME)	ND	100	ug/L	50.00	05/21/2005 04:20	
1,2-DCA	ND	25	ug/L	50.00	05/21/2005 04:20	
EDB	ND	25	ug/L	50.00	05/21/2005 04:20	
Ethanol	ND	2500	ug/L	50.00	05/21/2005 04:20	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	112.9	73-130	%	50.00	05/21/2005 04:20	
Toluene-d8	103.1	81-114	%	50.00	05/21/2005 04:20	

## 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: BTS#050513-MT2  
97564701

Received: 05/13/2005 15:25

Site: 1601 Webster St., Alameda

Batch Job Report					
Proprietary	Test ID	Method	Sample	Date	Comments
Proprietary	Test ID: 8260B				
Method Blank			Water		O/C Batch / 2005/05/20-2A-62
MTBE	2005/05/20-2A-62-042			Dated extracted 05/20/2005 18:42	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	05/20/2005 18:42	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	05/20/2005 18:42	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/20/2005 18:42	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	05/20/2005 18:42	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	05/20/2005 18:42	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	05/20/2005 18:42	
1,2-DCA	ND	0.5	ug/L	05/20/2005 18:42	
EDB	ND	0.5	ug/L	05/20/2005 18:42	
Benzene	ND	0.5	ug/L	05/20/2005 18:42	
Toluene	ND	0.5	ug/L	05/20/2005 18:42	
Ethylbenzene	ND	0.5	ug/L	05/20/2005 18:42	
Total xylenes	ND	1.0	ug/L	05/20/2005 18:42	
Ethanol	ND	50	ug/L	05/20/2005 18:42	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	109.6	73-130	%	05/20/2005 18:42	
Toluene-d8	100.8	81-114	%	05/20/2005 18:42	

**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: BTS#050513-MT2  
97564701

Received: 05/13/2005 15:25

Site: 1601 Webster St., Alameda

Batch QC Report		Test(s): 8260B	
Prep(s): 5030B			
Laboratory Control Spike		Water	QC Batch #: 2005/05/20-2A-62
LCS	2005/05/20-2A-62-016	Extracted: 05/20/2005	Analyzed: 05/20/2005 18:16
LCSD			

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	20.5		25	82.0			65-165	20		
Benzene	22.7		25	90.8			69-129	20		
Toluene	25.4		25	101.6			70-130	20		
<i>Surrogates(s)</i>										
1,2-Dichloroethane-d4	494		500	98.8			73-130			
Toluene-d8	522		500	104.4			81-114			

## 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: BTS#050513-MT2  
97564701

Received: 05/13/2005 15:25

Site: 1601 Webster St., Alameda

BATCH QC Report											
Prep(s)	Matrix-Spike (MS / MSD)			Water			GC-Batch #2005/05/20-2A-62			Test(s) 8260B	
MS/MSD	MS	MSD	Sample	Extracted	Lab ID	Analyst	Dilution	Analyst	Date	Comments	
MS	2005/05/20-2A-62-057			05/20/2005	2005-05-0456-008	2005/05/20-2A-62-057	1:100	Analyst 2005-05-0456-008	05/20/2005 10:57	1:100	
MSD	2005/05/20-2A-62-028			Extracted 05/20/2005	2005-05-0456-028	Analyst 2005-05-0456-028	1:100	Analyst 2005-05-0456-028	05/20/2005 21:23	1:100	

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	20.1	22.0	ND	25	80.4	88.0	9.0	65-165	20		
Benzene	23.9	23.2	ND	25	95.6	92.8	3.0	69-129	20		
Toluene	24.4	24.6	ND	25	97.6	98.4	0.8	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	480	496		500	96.0	99.2		73-130			
Toluene-d8	505	482		500	101.0	96.4		81-114			

**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: BTS#050513-MT2  
97564701

Received: 05/13/2005 15:25

Site: 1601 Webster St., Alameda

**Results and Notes****Analysis Flag**

L2

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

LAP: 57

## **SHELL Chain Of Custody Record**

11512

Last identification (if necessary)

— 1 —

Chapman 2011