

C A M B R I A

MAY 03 2002

April 30, 2002

Ms. eva chu
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

Re: **First Quarter 2002 Groundwater Monitoring Report**
BP Oil Site No. 11104
1716 Webster Street
Alameda, California
Cambria Project No. 852-1739



Dear Ms. chu:

On behalf of BP Oil Company, Cambria Environmental Technology, Inc. has prepared this *First Quarter 2002 Groundwater Monitoring Report* for the above referenced site. This report summarizes chemical data collected since 1992 including analytical results associated with samples recently collected on February 4, 2002.

Water level and analytical results for this monitoring event are summarized in Figure 1 and on Table 1 of Appendix A. Based on the contoured elevations for the site and an adjacent Chevron-branded site, water generally flowed northward with local radial flow away from the underground storage tanks. During this monitoring event, only well MW-1 reported more than 100 micrograms per liter ($\mu\text{g/L}$) of benzene, with a concentration of 176 $\mu\text{g/L}$. Only well MW-1 reported more than 1,000 $\mu\text{g/L}$ of methyl tert butyl ether (MTBE), with a concentration of 2,470 $\mu\text{g/L}$.

Benzene and MTBE concentrations and water level trends for wells MW-1 and RW-1 are shown in Figure 2 and Figure 3. Analytical results below method reporting limits are plotted at one half the detection limit (open symbol).

Oakland, CA
San Ramon, CA
Sonoma, CA

**Cambria
Environmental
Technology, Inc.**

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

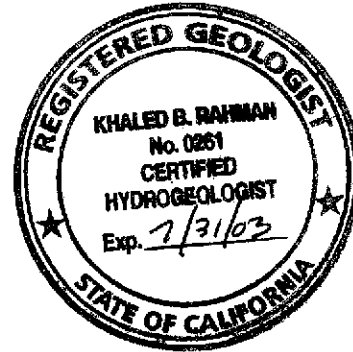
C A M B R I A

We appreciate the opportunity to work with you on this project. If you have any questions or comments, please don't hesitate to call me at (510) 450-1985.

Sincerely,
Cambria Environmental Technology, Inc.



Khaled Rahman, R.G., C.H.G.
Associate Geologist



Attachments

- Figure 1 – Groundwater Elevation Contour Map
- Figure 2 – Concentration and Water Level Trends – Well MW-1
- Figure 3 – Concentration and Water Level Trends – Well RW-1

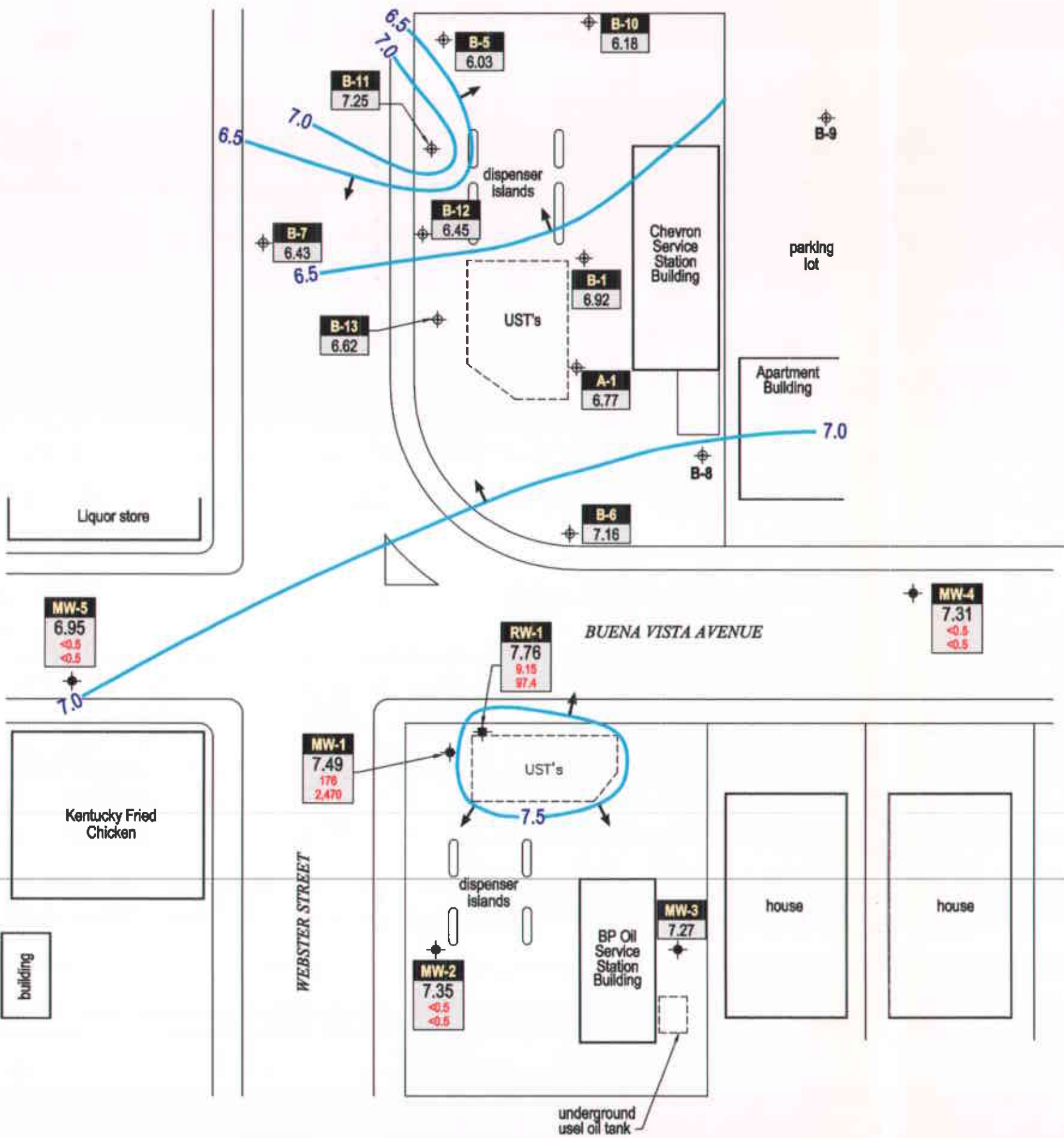
- Appendix A – Blaine Tech Services, Inc., 1st Quarter 2002 Monitoring at 11104

cc: Scott Hooton, BP Oil Company, Environmental Resources Management, 295 SW 41st Street, Building 13, Suite N, Renton, Washington 98055-4931 (1 original)
Dave Camille, Tosco Marketing Company, 2000 Crow Canyon Place, Suite 400, San Ramon, California 95118-3686 (1 copy)

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FIGURES



EXPLANATION

- MW-1 Monitoring well location
- RW-1 Groundwater recovery well
- B-1 Chevron Monitoring well location
- Groundwater flow direction. Approximate horizontal hydraulic gradient = xxx
- xx.xx Groundwater elevation contour, in feet above mean sea level (msl), dashed where inferred

Well	Well designation
ELEV	Groundwater elevation (msl)
Benzene	Benzene and MTBE concentrations are in micrograms per liter (µg/L)
MTBE	

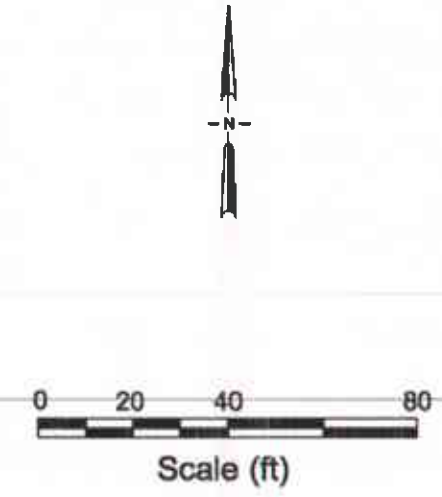
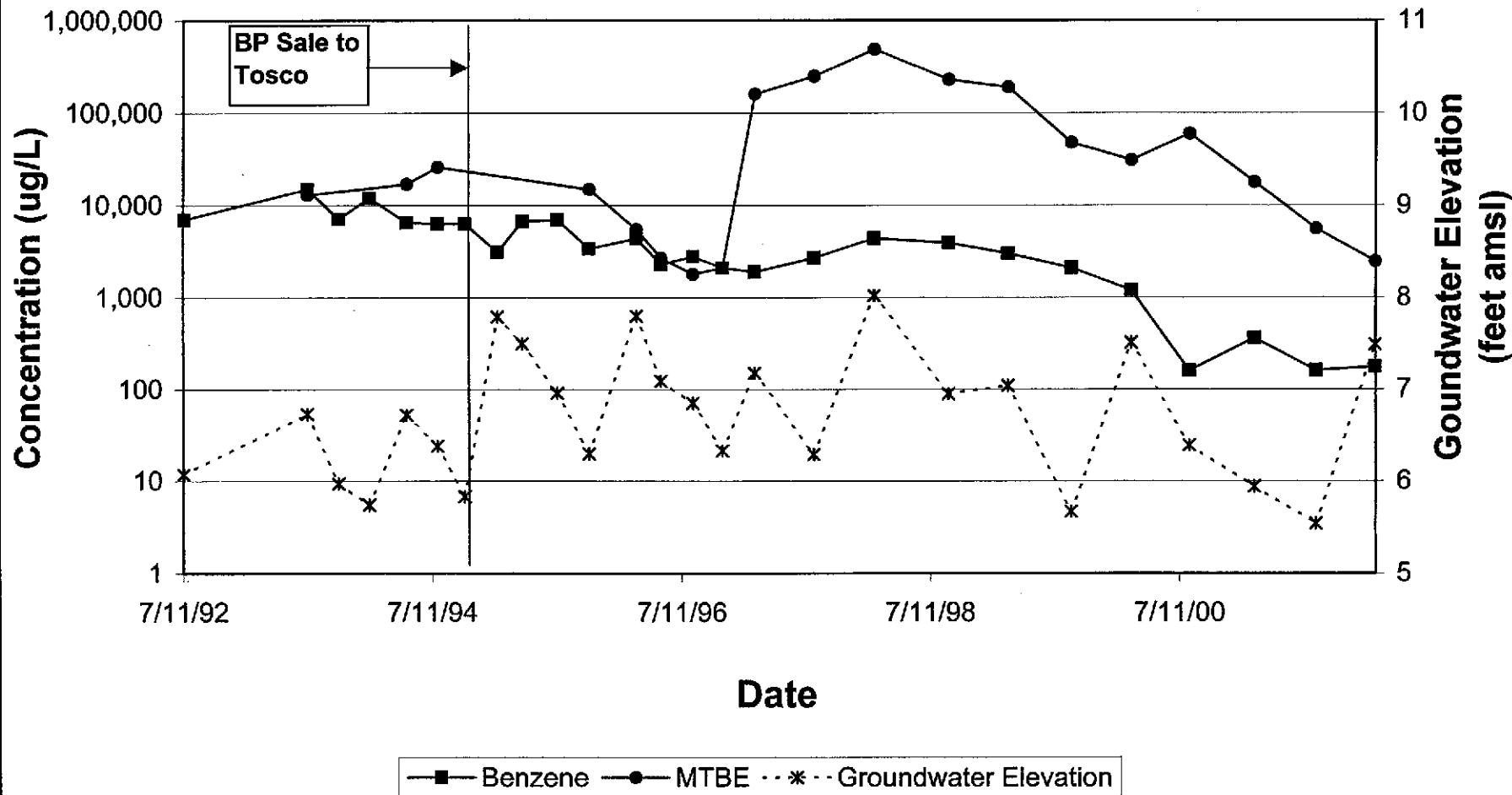


FIGURE
1

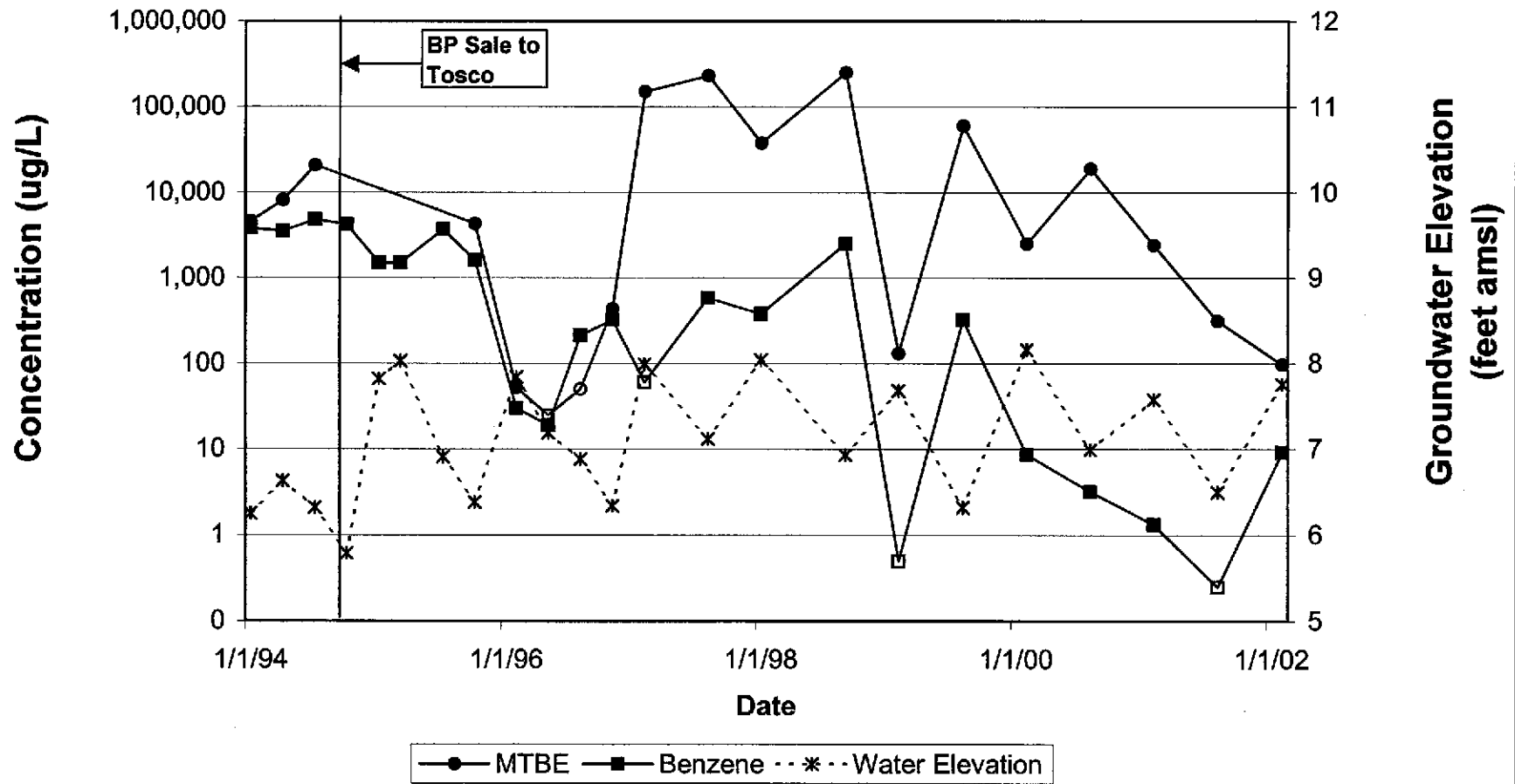
H:\BP11104\ALAMEDA\FIGURE1104-1002.DWG

Concentration and Water Level Trends Well MW-1



BP Oil Site No. 11104
1716 Webster Street
Alameda, California

Concentration and Water Level Trends Well RW-1



BP Oil Site No. 11104
1716 Webster Street
Alameda, California

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APPENDIX A

Blaine Tech Services, Inc.
1st Quarter 2002 Monitoring



Pace Analytical™

www.pacelabs.com

Pace Analytical Services, Inc.
900 Gemini Avenue
Houston, TX 77058
Phone: 281.488.1810
Fax: 281.488.4661

February 13, 2002

Ms. Cindy Magyar
Blaine Tech Services, Inc.
1680 Rogers Ave.
San Jose, CA 95112

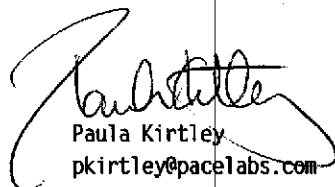
RE: Lab Project Number: 8525858
Client Project ID: BP Site# 11104

Dear Ms. Magyar:

Enclosed are the analytical results for sample(s) received by the laboratory on February 6, 2002. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,



Paula Kirtley
pkirtley@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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Pace Analytical Services, Inc.
 900 Gemini Avenue
 Houston, TX 77058
 Phone: 281.488.1810
 Fax: 281.488.4661

Blaine Tech Services, Inc.
 1680 Rogers Ave.
 San Jose, CA 95112

Lab Project Number: 8525858
 Client Project ID: BP Site# 11104

Attn: Ms. Cindy Magyar
 Phone:

Lab Sample No: 851737681 Project Sample Number: 8525858-001 Date Collected: 02/04/02 10:55
 Client Sample ID: MW-1 Matrix: Water Date Received: 02/06/02 08:50

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limi
GC Volatiles								
GAS by Mod 8015, Water Prep/Method: EPA 8015 Modified / EPA 8015 Modified								
Gasoline Range Organics	17000	ug/l	1200	25.0	02/12/02 11:57	WRIC		
1,4-Difluorobenzene (S)	95	%		1.0	02/12/02 11:57	WRIC		
4-Bromofluorobenzene (S)	85	%		1.0	02/12/02 11:57	WRIC	460-00-4	
SW8021 Aromatics, Water Prep/Method: See analytical method / EPA 8021								
Benzene	176.	ug/l	12.5	25.0	02/12/02 11:57	WRIC	71-43-2	
Ethylbenzene	538.	ug/l	12.5	25.0	02/12/02 11:57	WRIC	100-41-4	
Toluene	57.9	ug/l	12.5	25.0	02/12/02 11:57	WRIC	108-88-3	
Xylene (Total)	1670	ug/l	25.0	25.0	02/12/02 11:57	WRIC	1330-20-7	
Methyl-tert-butyl ether	2470	ug/l	12.5	25.0	02/12/02 11:57	WRIC	1634-04-4	
1,4-Difluorobenzene (S)	105	%		1.0	02/12/02 11:57	WRIC		
4-Bromofluorobenzene (S)	99	%		1.0	02/12/02 11:57	WRIC	460-00-4	

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 8525858
 Client Project ID: BP Site# 11104

Lab Sample No: 851737682	Project Sample Number: 8525858-002	Date Collected: 02/04/02 10:35
Client Sample ID: MW-2	Matrix: Water	Date Received: 02/06/02 08:50

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg	Limit
GC Volatiles									
GAS by Mod 8015, Water									
Prep/Method: EPA 8015 Modified / EPA 8015 Modified									
Gasoline Range Organics	ND	ug/l	50.	1.0	02/12/02 10:37	WRIC			
1,4-Difluorobenzene (S)	84	%		1.0	02/12/02 10:37	WRIC			
4-Bromofluorobenzene (S)	81	%		1.0	02/12/02 10:37	WRIC	460-00-4		
SW8021 Aromatics, Water									
Prep/Method: See analytical method / EPA 8021									
Benzene	ND	ug/l	0.500	1.0	02/12/02 10:37	WRIC	71-43-2		
Ethylbenzene	ND	ug/l	0.500	1.0	02/12/02 10:37	WRIC	100-41-4		
Toluene	ND	ug/l	0.500	1.0	02/12/02 10:37	WRIC	108-88-3		
Xylene (Total)	ND	ug/l	1.00	1.0	02/12/02 10:37	WRIC	1330-20-7		
Methyl-tert-butyl ether	ND	ug/l	0.500	1.0	02/12/02 10:37	WRIC	1634-04-4		
1,4-Difluorobenzene (S)	100	%		1.0	02/12/02 10:37	WRIC			
4-Bromofluorobenzene (S)	97	%		1.0	02/12/02 10:37	WRIC	460-00-4		

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 8525858
Client Project ID: BP Site# 11104

Lab Sample No: 851737683 Project Sample Number: 8525858-003 Date Collected: 02/04/02 09:55
Client Sample ID: MW-4 Matrix: Water Date Received: 02/06/02 08:50

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Fnote	Reg Limi
GC Volatiles								
GAS by Mod 8015, Water Prep/Method: EPA 8015 Modified / EPA 8015 Modified								
Gasoline Range Organics	ND	ug/l	50.	1.0	02/12/02 10:57	WRIC		
1,4-Difluorobenzene (S)	85	%		1.0	02/12/02 10:57	WRIC		
4-Bromofluorobenzene (S)	81	%		1.0	02/12/02 10:57	WRIC	460-00-4	
SW8021 Aromatics, Water Prep/Method: See analytical method / EPA 8021								
Benzene	ND	ug/l	0.500	1.0	02/12/02 10:57	WRIC	71-43-2	
Ethylbenzene	ND	ug/l	0.500	1.0	02/12/02 10:57	WRIC	100-41-4	
Toluene	ND	ug/l	0.500	1.0	02/12/02 10:57	WRIC	108-88-3	
Xylene (Total)	ND	ug/l	1.00	1.0	02/12/02 10:57	WRIC	1330-20-7	
Methyl-tert-butyl ether	ND	ug/l	0.500	1.0	02/12/02 10:57	WRIC	1634-04-4	
1,4-Difluorobenzene (S)	100	%		1.0	02/12/02 10:57	WRIC		
4-Bromofluorobenzene (S)	96	%		1.0	02/12/02 10:57	WRIC	460-00-4	

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 8525858
Client Project ID: BP Site# 11104

Lab Sample No: 851737684 Project Sample Number: 8525858-004 Date Collected: 02/04/02 10:20
Client Sample ID: MW-5 Matrix: Water Date Received: 02/06/02 08:50

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Limi
GC Volatiles								
GAS by Mod 8015, Water	Prep/Method: EPA 8015 Modified / EPA 8015 Modified							
Gasoline Range Organics	ND	ug/l	50.	1.0	02/12/02 11:17	WRIC		
1,4-Difluorobenzene (S)	84	%		1.0	02/12/02 11:17	WRIC		
4-Bromofluorobenzene (S)	81	%		1.0	02/12/02 11:17	WRIC	460-00-4	
SW8021 Aromatics, Water	Prep/Method: See analytical method / EPA 8021							
Benzene	ND	ug/l	0.500	1.0	02/12/02 11:17	WRIC	71-43-2	
Ethylbenzene	ND	ug/l	0.500	1.0	02/12/02 11:17	WRIC	100-41-4	
Toluene	ND	ug/l	0.500	1.0	02/12/02 11:17	WRIC	108-88-3	
Xylene (Total)	ND	ug/l	1.00	1.0	02/12/02 11:17	WRIC	1330-20-7	
Methyl-tert-butyl ether	ND	ug/l	0.500	1.0	02/12/02 11:17	WRIC	1634-04-4	
1,4-Difluorobenzene (S)	99	%		1.0	02/12/02 11:17	WRIC		
4-Bromofluorobenzene (S)	96	%		1.0	02/12/02 11:17	WRIC	460-00-4	

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 8525858
Client Project ID: BP Site# 11104

Lab Sample No: 851737685 Project Sample Number: 8525858-005 Date Collected: 02/04/02 11:15
Client Sample ID: RW-1 Matrix: Water Date Received: 02/06/02 08:50

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg	Limi
GC Volatiles									
GAS by Mod 8015, Water Prep/Method: EPA 8015 Modified / EPA 8015 Modified									
Gasoline Range Organics	570	ug/l	50.	1.0	02/12/02 12:17	WRIC			
1,4-Difluorobenzene (S)	86	%		1.0	02/12/02 12:17	WRIC			
4-Bromofluorobenzene (S)	85	%		1.0	02/12/02 12:17	WRIC	460-00-4		
SW8021 Aromatics, Water Prep/Method: See analytical method / EPA 8021									
Benzene	9.15	ug/l	0.500	1.0	02/12/02 12:17	WRIC	71-43-2		
Ethylbenzene	19.2	ug/l	0.500	1.0	02/12/02 12:17	WRIC	100-41-4		
Toluene	0.874	ug/l	0.500	1.0	02/12/02 12:17	WRIC	108-88-3		
Xylene (Total)	83.8	ug/l	1.00	1.0	02/12/02 12:17	WRIC	1330-20-7		
Methyl-tert-butyl ether	97.4	ug/l	0.500	1.0	02/12/02 12:17	WRIC	1634-04-4		
1,4-Difluorobenzene (S)	103	%		1.0	02/12/02 12:17	WRIC			
4-Bromofluorobenzene (S)	101	%		1.0	02/12/02 12:17	WRIC	460-00-4		

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 8525858
Client Project ID: BP Site# 11104

PARAMETER FOOTNOTES

- ND Not detected at or above adjusted reporting limit
- NC Not Calculable
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- (S) Surrogate

Date: 02/13/02

Page: 6

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 8525858
Client Project ID: BP Site# 11104

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 851738620 851738621

Parameter	Units	851737682	Spike	MS	MSD	MS	MSD	RPD	Footnotes
		Result	Conc.	Result	Result	% Rec	% Rec		
Methyl-tert-butyl ether	ug/l	0	50.00	41.14	41.89	82	84	2	
1,4-Difluorobenzene (S)						100	101		
4-Bromofluorobenzene (S)						99	99		

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 8525858

Client Project ID: BP Site# 11104

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)

MS(D) Matrix Spike (Duplicate)

DUP Sample Duplicate

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

RPD Relative Percent Difference

(S) Surrogate

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY

CONSULTANT'S NAME Blaine Tech Services, Inc.		CONSULTANT'S ADDRESS 1680 Rogers Ave., San Jose CA 95112			
BP SITE NUMBER 11104	GLOBAL ID T0600101651	BP SITE / FACILITY ADDRESS 1716 Webster St., Alameda			CONSULTANT PROJECT NUMBER 020204-A-1
CONSULTANT PROJECT MANAGER Cindy Magyar		PHONE NUMBER (408) 573-0555 x 221	FAX NUMBER (408) 573-7771		CONSULTANT CONTRACT NUMBER J966553
BP CONTACT Scott Hooton		BP ADDRESS 295 SW 41st Street, Suite N, Renton WA	PHONE NUMBER (425) 251-0689	FAX NO. (425) 251-0736	
AB CONTACT Pace - Paula Kirtley		LABORATORY ADDRESS 900 Gemini Ave., Houston, TX 77058	PHONE NUMBER (281) 488-1810	FAX NO. (281) 488-4661	
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)		RUSH REQUESTED OF (Print Consultant Contact Name)		DATE/TIME	SHIPMENT DATE

AT: 24 HOURS 48 HOURS 72 HOURS Standard 7 or 14 Days

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	TPH-G + BTEX / MTBE (8015M)	TPH-D (8015M)	FUEL OXYGENATES (8280)	1,2 DCA + EDB (8010)									COMMENTS		
				NO.	TYPE (VOL)	LAB SAMPLE #															
Mw-1	2-4-02	10:55	GW	3	40ml 10A		X													851737681	
Mw-2	↓	10:35	↓	↓	↓		X														682
Mw-4	↓	9:55	↓	↓	↓		X														683
Mw-5	↓	10:20	↓	↓	↓		X														684
Rw-1	↓	11:15	↓	↓	↓		X														685

SAMPLED BY (Please Print Name) Albert Warner				SAMPLED BY (Signature) <i>Albert Warner</i>				ADDITIONAL COMMENTS Temp 2.0°C			
RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)	DATE	TIME						
Albert Warner <i>Arbonne</i>	2-5-02	10:20	AIRBORNE EXPRESS	2/5/02	1400						
	2/6/02	8:50	D. Guice / Pace	2-6-02	8:50						

Field Data Sheets



**MONITORING WELL
OBSERVATION SUMMARY SHEET**

CHEVRON #: 9-0290

G-R JOB #: 385880

LOCATION: 1802 Webster St.

DATE: 2.4.02

CITY: Alameda, CA

TIME: _____

Well ID	Total Depth	Depth to Water	Product Thickness	TOB or TOC	Comments VOL. PURGED		
A-1	11.09	4.79	0	TOC	28.0		
B-1	15.65	5.20	↓	↓	5.0		
B-5	17.83	4.15			7.0		
B-6	18.12	4.81			7.0		
B-7	12.98	4.11			4.5		
B-10	16.03	5.24			3.0		
B-11	14.03	4.73			5.0		
B-12	15.70	4.71			6.0		
B-13	13.64	4.55			5.0		
							70.5 TOTAL

Comments: _____

Sampler: FT

Assistant: _____

BP WELL MONITORING DATA SHEET

Project #: 020704-AM-1	Station #: 11104
Sampler: AM	Date: 2-4-02
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8
Total Well Depth: 15.82	Depth to Water: 4.49
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: Bailer Sampling Method: Bailer
Disposable Bailer Disposable Bailer
 Middleburg Extraction Port
 Electric Submersible
 Extraction Pump Other: _____
 Other: _____

1.46	x	3	=	5.4	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
10:46	60.4	6.6	580	2	sweet / cloudy
10:46	60.6	6.7	610	4	dark / sweet odor
10:50	60.5	6.6	620	6	" "

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Time: 10:55 Sampling Date: 2-4-02

Sample I.D. (Blind): MW-1 Laboratory: Page Other: _____

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

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

BP WELL MONITORING DATA SHEET

Project #: <u>020704-AM-1</u>	Station # <u>11104</u>
Sampler: <u>AM</u>	Date: <u>2-4-02</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>15.69</u>	Depth to Water: <u>5.63</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:

Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Other: _____

Other: _____

<u>1.6</u>	x	<u>3</u>	=	<u>4.8</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>10:28</u>	<u>61.6</u>	<u>6.6</u>	<u>612</u>	<u>2</u>	<u>light brown</u>
<u>10:31</u>	<u>63.9</u>	<u>6.6</u>	<u>664</u>	<u>4</u>	<u>" "</u>
<u>10:34</u>	<u>63.6</u>	<u>6.6</u>	<u>662</u>	<u>6</u>	<u>" "</u>

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Time: 10:35 Sampling Date: 2-4-02

Sample I.D. (Blind): MW-2 Laboratory: Page Other: _____

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

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

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

BP WELL MONITORING DATA SHEET

Project #: <u>020204-AM-1</u>	Station # <u>11104</u>
Sampler: <u>RAM</u>	Date: <u>2-4-02</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>14.66</u>	Depth to Water: <u>4.48</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method: Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump
 Other: _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Other: _____

<u>1.6</u>	x	<u>3</u>	=	<u>4.8</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>9:46</u>	<u>58.6</u>	<u>6.0</u>	<u>675</u>	<u>2</u>	<u>cloudy</u>
<u>9:50</u>	<u>59.7</u>	<u>6.1</u>	<u>464</u>	<u>4</u>	<u>" "</u>
<u>9:51</u>	<u>59.9</u>	<u>6.3</u>	<u>422</u>	<u>6</u>	<u>" "</u>

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Time: 9:55 Sampling Date: 2-4-02

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

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

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

BP WELL MONITORING DATA SHEET

Project #: <u>020704-AM-1</u>	Station # <u>11104</u>
Sampler: <u>APM</u>	Date: <u>2-4-02</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>14.60</u>	Depth to Water: <u>4.63</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:

- Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump

Sampling Method:

- Bailer
 Disposable Bailer
 Extraction Port

Other: _____

Other: _____

<u>1.5</u>	x	<u>3</u>	=	<u>4.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
10:10	54.5	7.0	274	2	blower
10:12	59.0	6.9	204	4	" "
10:14	59.4	6.8	185	6	" "

Did well dewater? Yes No Gallons actually evacuated: 46

Sampling Time: 10:20 Sampling Date: 2-4-02

Sample I.D. (Blind): MW-5 Laboratory: Pace Other: _____

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

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

BP WELL MONITORING DATA SHEET

Project #: 020704-AM-1	Station #: 11104
Sampler: A.M.	Date:
Well I.D.: RW-1	Well Diameter: (2) 3 4 (6) 8
Total Well Depth: 22.35	Depth to Water: 4.06
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:

Bailer
 ~~Disposable Bailer~~
 Middleburg
 Electric Submersible
 Extraction Pump

Sampling Method:

Bailer
 Disposable Bailer
 Extraction Port

Other: _____

Other: _____

<u>26.6</u>	\times	<u>3</u>	$=$	<u>80.4</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
11:06	59.6	6.5	323	27	cloudy
11:09	60.5	6.2	276	54	" "
11:10	61.5	6.6	252	81	

Did well dewater? Yes No Gallons actually evacuated: 81

Sampling Time: 11:15 Sampling Date: 2-4-02

Sample I.D. (Blind): RW-1 Laboratory: Pace Other: _____

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

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

BLAINE
TECH SERVICES, INC.



1680 ROGERS AVENUE
SAN JOSE, CA 95112-1105
(408) 573-7771 FAX
(408) 573-0555 PHONE
CONTRACTOR'S LICENSE #746684
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February 26, 2002

Scott Hooton
BP Oil Company
295 SW 41st Street, Bldg. 13, Suite N
Renton, WA 98055-4931

1st Quarter 2002 Monitoring at 11104

First Quarter 2002 Groundwater Monitoring
BP Service Station Number 11104
1716 Webster Street
Alameda, CA

Monitoring Performed on February 4, 2002

Groundwater Sampling Report 020204-AM-1

This report covers the routine monitoring of groundwater wells at this BP facility. Blaine Tech Services, Inc.'s work at the site includes inspection, gauging, evacuation, purgewater containment, sample collection and sample handling 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, the appropriate calculated purge volume, elapsed evacuation time, total volume of water removed, and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater is, likewise, collected and transported to Seaport Petroleum Corporation for disposal.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**.

At a minimum, Blaine Tech Services, Inc. field personnel are certified upon 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. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read 'Francis Thie', with a stylized flourish at the end.

Francis Thie
Vice President

FPT/mb

Cc: Khaled B. Rahman
Cambria Environmental Technology, Inc.
6262 Hollis Street
Emeryville, CA 94608

attachments: Cumulative Table of Well Data and Analytical Results
Analytical Appendix
Field Data Sheets

Table of Well Data and Analytical Results

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TDS (mg/L)	DO (ppm)	LAB
MW-1	07/21/92	11.98	5.91	6.07	34000	7000	1700	2500	6900	---	---	---	---
MW-1	10/20/92	11.98	6.66	5.32	---	---	---	---	---	---	---	---	---
MW-1	03/05/93	11.98	4.56	7.42	---	---	---	---	---	---	---	---	---
MW-1	04/01/93	11.98	4.57	7.41	---	---	---	---	---	---	---	---	---
MW-1	07/09/93	11.98	5.25	6.73	77000	15000	1400	2100	7400	11919	(c)(k)	---	PACE
QC-1 (d)	07/09/93	---	---	---	79000	16000	1500	2200	7700	12952	(c)(k)	---	PACE
MW-1	10/08/93	11.98	6.01	5.97	42000	7100	270	2700	4700	---	(k)	---	PACE
MW-1	01/06/94	11.98	6.24	5.74	45000	12000	4300	3000	6700	---	(k)	---	PACE
MW-1	04/26/94	11.98	5.26	6.72	39000	6500	500	1800	1200	16663	(c)(k)	6.3	PACE
MW-1	07/25/94	11.98	5.60	6.38	38000	6300	240	1500	1100	26428	(c)(k)	1.7	PACE
MW-1	10/13/94	11.98	6.15	5.83	25000	6300	130	1300	830	---	(k)	2.3	PACE
QC-1 (d)	10/13/94	---	---	---	25000	7300	120	1200	740	---	(k)	---	PACE
MW-1	01/17/95	11.98	4.19	7.79	7800	3100	1100	460	850	---	---	7.9	ATI
QC-1 (d)	01/17/95	---	---	---	8400	3100	1200	470	1000	---	---	---	ATI
MW-1	03/31/95	11.98	4.48	7.50	37000	6700	6900	1200	4500	---	---	6.4	ATI
QC-1 (d)	03/31/95	---	---	---	40000	6900	7300	1300	5000	---	---	---	ATI
MW-1	05/01/95	11.98	4.39	7.59	---	---	---	---	---	---	---	---	---
MW-1	07/12/95	11.98	5.02	6.96	29000	7000	300	1500	3900	---	---	7.2	ATI
QC-1 (d)	07/12/95	---	---	---	29000	6600	380	1500	3900	---	---	---	ATI
MW-1	10/12/95	11.98	5.68	6.30	20000	3400	310	1100	3000	15000	---	6.3	ATI
QC-1 (d)	10/12/95	---	---	---	20000	3500	310	1100	3000	14000	---	---	ATI
MW-1	02/27/96	11.98	4.18	7.80	18000	4400	2900	860	2380	5500	472	7.9	SPL
MW-1	05/08/96	11.98	4.89	7.09	---	---	---	---	---	---	---	---	---
MW-1	05/09/96	11.98	---	---	14000	2300	1900	540	3340	2700	---	6.1	SPL
MW-1	08/09/96	11.98	5.13	6.85	---	---	---	---	---	---	---	---	---
MW-1	08/12/96	11.98	---	---	13000	2800	190	1300	3040	1800	---	7.1	SPL
MW-1	11/07/96	11.98	5.65	6.33	12000	2100	35	ND<25	ND<25	2100	---	7.2	SPL
MW-1	02/10/97	11.98	4.80	7.18	180000	1900	ND<500	ND<500	ND<500	160000	---	6.8	SPL
QC-1 (d)	02/10/97	---	---	---	180000	2100	ND<500	ND<500	ND<500	160000	---	---	SPL
MW-1	08/04/97	11.98	5.69	6.29	14000	2700	ND<50	1200	1220	250000	---	7.2	SPL
QC-1 (d)	08/04/97	---	---	---	ND<25000	2600	ND<50	1200	1100	260000	---	---	SPL
MW-1	01/27/98	11.98	3.96	8.02	390000	4400	4300	1600	2890	490000	---	6.4	SPL
MW-1	09/02/98	11.98	5.03	6.95	230000	3900	ND<50	1900	1000	230000	---	6.3	SPL
MW-1	02/24/99	11.98	4.94	7.04	82000	3000	520	2600	3200	190000/200000	(h)	---	SPL
MW-1	08/30/99	11.98	6.31	5.67	11000	2100	ND<25	1800	580	48000	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TDS (mg/L) (ppm)	DO	LAB
MW-1	02/21/00	11.98	4.47	7.51	12000 (i)	1200	250	930	1800	31000	--	--	PACE
MW-1	08/08/00	11.98	5.59	6.39	4500	160	2.8	76	88	60000	--	--	PACE
MW-1	02/12/01	11.98	6.04	5.94	14000	363	ND<12.5	108	293	18000	--	--	PACE
MW-1	08/13/01	11.98	6.44	5.54	14000	161	17.1	255	545	5590	--	--	PACE
MW-1	02/04/02	11.98	4.49	7.49	17000	176	57.9	538	1670	2470	--	--	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TDS (mg/L)	DO (ppm)	LAB
MW-2	07/21/92	12.98	6.44	6.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
MW-2	10/20/92	12.98	7.39	5.59	---	---	---	---	---	---	---	---	---
MW-2	03/05/93	12.98	4.91	8.07	---	---	---	---	---	---	---	---	---
MW-2	04/01/93	12.98	4.92	8.06	---	---	---	---	---	---	---	---	---
MW-2	07/09/93	12.98	5.60	7.38	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-2	10/08/93	12.98	6.50	6.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
QC-1 (d)	10/08/93	12.98	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-2	01/06/94	12.98	6.25	6.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-2	04/26/94	12.98	5.73	7.25	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k)	7.5	PACE
MW-2	07/25/94	12.98	6.07	6.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11.59	(k)	2.4	PACE
MW-2	10/13/94	12.98	6.80	6.18	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	2.4	PACE
MW-2	01/17/95	12.98	5.10	7.88	---	---	---	---	---	---	---	---	---
MW-2	03/31/95	12.98	4.69	8.29	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	7.3	ATI
MW-2	05/01/95	12.98	5.23	7.75	---	---	---	---	---	---	---	---	---
MW-2	07/12/95	12.98	5.40	7.58	---	---	---	---	---	---	---	---	---
MW-2	10/12/95	12.98	6.06	6.92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	6.9	ATI
MW-2	02/27/96	12.98	4.66	8.32	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	412	8.7	SPL
MW-2	05/08/96	12.98	5.28	7.70	---	---	---	---	---	---	---	---	---
MW-2	08/09/96	12.98	5.59	7.39	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	7.8	SPL
MW-2	11/07/96	12.98	6.11	6.87	---	---	---	---	---	---	---	---	---
MW-2	02/10/97	12.98	5.26	7.72	---	---	---	---	---	---	---	---	---
MW-2	08/04/97	12.98	6.14	6.84	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	6.5	SPL
MW-2	01/27/98	12.98	4.42	8.56	---	---	---	---	---	---	---	---	---
MW-2	09/02/98	12.98	5.47	7.51	100	0.56	3.6	ND<1.0	3.0	110	---	6.9	SPL
MW-2	02/24/99	12.98	5.12	7.86	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	8.2	---	---	SPL
MW-2	08/30/99	12.98	6.60	6.38	---	---	---	---	---	---	---	---	---
MW-2	02/21/00	12.98	4.64	8.34	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.72	---	---	PACE
MW-2	02/12/01	12.98	5.13	7.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	02/04/02	12.98	5.63	7.35	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	---	---	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TDS (mg/L)	DO (ppm)	LAB
MW-3 (e)	07/21/92	13.38	7.07	6.31	ND<50	0.95	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
MW-3	10/20/92	13.38	8.06	5.32	---	---	---	---	---	---	---	---	---
MW-3	03/05/93	13.38	5.16	8.22	---	---	---	---	---	---	---	---	---
MW-3	04/01/93	13.38	5.25	8.13	---	---	---	---	---	---	---	---	---
MW-3	07/09/93	13.38	5.80	7.58	ND<50	0.6	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-3	10/08/93	13.38	7.17	6.21	ND<50	0.6	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-3	01/06/94	13.38	6.94	6.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-3	04/26/94	13.38	6.18	7.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k)	3.1	PACE
MW-3	07/25/94	13.38	6.67	6.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k)	2.2	PACE
MW-3	10/13/94	13.38	7.43	5.95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	2.1	PACE
MW-3	01/17/95	13.38	5.07	8.31	---	---	---	---	---	---	---	---	---
MW-3	03/31/95	13.38	4.03	9.35	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	6.6	ATI
MW-3	05/01/95	13.38	4.94	8.44	---	---	---	---	---	---	---	---	---
MW-3	07/12/95	13.38	5.80	7.58	---	---	---	---	---	---	---	---	---
MW-3	10/12/95	13.38	6.64	6.74	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	6.4	ATI
MW-3	02/27/96	13.38	4.75	8.63	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	316	8.5	SPL
MW-3	05/08/96	13.38	5.86	7.52	---	---	---	---	---	---	---	---	---
MW-3	08/09/96	13.38	5.70	7.68	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	7.9	SPL
MW-3	11/07/96	13.38	6.21	7.17	---	---	---	---	---	---	---	---	---
MW-3	02/10/97	13.38	5.14	8.24	---	---	---	---	---	---	---	---	---
MW-3	08/04/97	13.38	6.01	7.37	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	6.6	SPL
MW-3	01/27/98	13.38	4.30	9.08	---	---	---	---	---	---	---	---	---
MW-3	09/02/98	13.38	5.80	7.58	ND<50	ND<0.5	2.2	ND<1.0	ND<1.0	ND<10	---	6.6	SPL
MW-3	02/24/99	13.38	4.34	9.04	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	---	---	SPL
MW-3	08/30/99	13.38	6.59	6.79	---	---	---	---	---	---	---	---	---
MW-3	02/21/00	13.38	4.56	8.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-3 (j)	02/12/01	13.38	4.98	8.40	---	---	---	---	---	---	---	---	---
MW-3 (j)	02/04/02	13.38	6.11	7.27	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TDS (mg/L)	DO (ppm)	LAB
MW-4	03/05/93	11.80	4.81	6.99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
MW-4	04/01/93	11.80	4.80	7.00	---	---	---	---	---	---	---	---	---
MW-4	07/09/93	11.80	5.54	6.26	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-4	10/08/93	11.80	6.28	5.52	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-4	01/06/94	11.80	5.82	5.98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k)	---	PACE
MW-4	04/26/94	11.80	5.50	6.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k)	7.4	PACE
MW-4	07/25/94	11.80	5.83	5.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k)	7.2	PACE
MW-4	10/13/94	11.80	6.26	5.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	6.7	PACE
MW-4	01/17/95	11.80	4.19	7.61	---	---	---	---	---	---	---	---	---
MW-4	03/31/95	11.80	3.96	7.84	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	7.1	ATI
MW-4	05/01/95	11.80	4.49	7.31	---	---	---	---	---	---	---	---	---
MW-4	07/12/95	11.80	5.16	6.64	---	---	---	---	---	---	---	---	---
MW-4	10/12/95	11.80	5.80	6.00	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	6.9	ATI
MW-4	02/27/96	11.80	4.22	7.58	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	256	8.9	SPL
MW-4	05/08/96	11.80	5.00	6.80	---	---	---	---	---	---	---	---	---
MW-4	08/09/96	11.80	5.13	6.67	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	8.5	SPL
MW-4	11/07/96	11.80	5.65	6.15	---	---	---	---	---	---	---	---	---
MW-4	02/10/97	11.80	4.81	6.99	---	---	---	---	---	---	---	---	---
MW-4	08/04/97	11.80	5.72	6.08	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	6.4	SPL
MW-4	01/27/98	11.80	4.06	7.74	---	---	---	---	---	---	---	---	---
MW-4	09/02/98	11.80	4.89	6.91	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	5.8	SPL
MW-4	02/24/99	11.80	3.89	7.91	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	---	---	SPL
MW-4	08/30/99	11.80	5.62	6.18	---	---	---	---	---	---	---	---	---
MW-4	02/21/00	11.80	4.00	7.80	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.66	---	---	PACE
MW-4	02/12/01	11.80	4.93	6.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.982	---	---	PACE
MW-4	02/04/02	11.80	4.49	7.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	---	---	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TDS (mg/L)	DO (ppm)	LAB
MW-5	04/01/93	11.62	4.77	6.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
MW-5	07/09/93	11.62	5.40	6.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-5	10/08/93	11.62	5.87	5.75	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	---	PACE
MW-5	01/06/94	11.62	5.75	5.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k)	---	PACE
MW-5	04/26/94	11.62	5.49	6.13	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k)	7.1	PACE
MW-5	07/25/94	11.62	5.69	5.93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k)	6.6	PACE
MW-5	10/13/94	11.62	6.03	5.59	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k)	3.0	PACE
MW-5	01/17/95	11.62	4.74	6.88	---	---	---	---	---	---	---	---	---
MW-5	03/31/95	11.62	4.58	7.04	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	7.1	ATI
MW-5	05/01/95	11.62	4.79	6.83	---	---	---	---	---	---	---	---	---
MW-5	07/12/95	11.62	5.32	6.30	---	---	---	---	---	---	---	---	---
MW-5	10/12/95	11.62	5.70	5.92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	6.7	ATI
MW-5 (f)	02/27/96	11.62	---	---	---	---	---	---	---	---	---	---	---
MW-5	05/08/96	11.62	4.91	6.71	---	---	---	---	---	---	---	---	---
MW-5	08/09/96	11.62	5.01	6.61	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	7.7	SPL
MW-5	11/07/96	11.62	5.54	6.08	---	---	---	---	---	---	---	---	---
MW-5	02/10/97	11.62	4.66	6.96	---	---	---	---	---	---	---	---	---
MW-5	08/04/97	11.62	5.51	6.11	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	6.9	SPL
MW-5	01/27/98	11.62	4.01	7.61	---	---	---	---	---	---	---	---	---
MW-5	09/02/98	11.62	5.17	6.45	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	6.4	SPL
MW-5	02/24/99	11.62	4.52	7.10	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	---	---	SPL
MW-5	08/30/99	11.62	6.02	5.60	---	---	---	---	---	---	---	---	---
MW-5	02/21/00	11.62	4.62	7.00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	02/12/01	11.62	4.80	6.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	02/04/02	11.62	4.63	6.99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	---	---	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TDS (mg/L)	DO (ppm)	LAB
RW-1	01/06/94	11.84	5.59	6.25	23000	3800	210	840	2100	4663	(c)(k)	--	PACE
QC-1 (d)	01/06/94	--	--	--	24000	3700	210	830	2000	4562	(c)(k)	--	PACE
RW-1	04/26/94	11.84	5.21	6.63	24000	3500	120	800	1700	8145	(c)(k)	6.4	PACE
QC-1 (d)	04/26/94	--	--	--	22000	3300	110	700	1700	6909	(c)(k)	--	PACE
RW-1	07/25/94	11.84	5.52	6.32	31000	4800	290	1100	1700	ND<5.0	(c)(k)	5.5	PACE
QC-1 (d)	07/25/94	--	--	--	28000	4400	240	960	1400	20608	(c)(k)	--	PACE
RW-1	10/13/94	11.84	6.05	5.79	20000	4200	46	990	440	--	(k)	6.8	PACE
RW-1	01/17/95	11.84	4.02	7.82	9600	1500	65	300	2700	--	--	7.7	ATI
RW-1	03/31/95	11.84	3.81	8.03	16000	1500	780	370	2000	--	--	7.8	ATI
RW-1	05/01/95	11.84	4.21	7.63	--	--	--	--	--	--	--	--	--
RW-1	07/12/95	11.84	4.93	6.91	22000	3700	150	950	2800	--	--	7.2	ATI
RW-1	10/12/95	11.84	5.46	6.38	30000	1600	1500	1700	8500	4300	--	7.0	ATI
RW-1	02/27/96	11.84	4.00	7.84	1800	30	24	41	440	52	194	7.7	SPL
QC-1 (d)	02/27/96	--	--	--	1600	30	23	38	420	50	--	--	SPL
RW-1	05/08/96	11.84	4.65	7.19	--	--	--	--	--	--	--	--	--
RW-1	05/09/96	11.84	--	--	3200	19	19	97	800	ND<50	--	7.1	SPL
QC-1 (d)	05/09/96	--	--	--	2900	15	15	78	700	ND<50	--	--	SPL
RW-1	08/09/96	11.84	4.96	6.88	--	--	--	--	--	--	--	--	--
RW-1	08/12/96	11.84	--	--	6900	210	270	390	1920	ND<100	--	7.9	SPL
QC-1 (d)	08/12/96	--	--	--	8200	270	330	450	2330	ND<100	--	--	SPL
RW-1	11/07/96	11.84	5.50	6.34	6100	320	45	ND<10	ND<10	430	--	6.9	SPL
QC-1 (d)	11/07/96	--	--	--	6800	360	45	ND<10	ND<10	500	--	--	SPL
RW-1	02/10/97	11.84	3.85	7.99	170000	ND<120	ND<250	ND<250	ND<250	150000	--	6.7	SPL
RW-1	08/04/97	11.84	4.72	7.12	ND<25000	580	450	630	3700	230000	--	6.9	SPL
RW-1	01/27/98	11.84	3.80	8.04	52000	380	330	490	2970	38000	--	6.1	SPL
QC-1 (d)	01/27/98	--	--	--	51000	380	300	480	2980	36000	--	--	SPL
RW-1	09/02/98	11.84	4.91	6.93	260000	2500	56	1400	3070	250000	--	6.6	SPL
QC-1 (d)	09/02/98	--	--	--	280000	2400	ND<50	1400	3170	270000	--	--	SPL
RW-1	02/24/99	11.84	4.16	7.68	120	ND<1.0	ND<1.0	1.5	13	130/140	(h)	--	SPL
RW-1	08/30/99	11.84	5.52	6.32	3100	320	ND<25	120	28	60000	--	--	SPL
RW-1	02/21/00	11.84	3.68	8.16	340 (i)	8.6	1.8	11	66	2500	--	--	PACE
RW-1	08/08/00	11.84	4.85	6.99	1600	3.2	ND<0.5	0.82	1.2	19000	--	--	PACE
RW-1	02/12/01	11.84	4.26	7.58	1500	1.33	ND<0.5	ND<0.5	5.69	2420	--	--	PACE
RW-1	08/13/01	11.84	5.34	6.50	290	ND<0.5	ND<0.5	ND<0.5	ND<1.5	314	--	--	PACE
RW-1	02/04/02	11.84	4.08	7.76	570	9.15	0.874	19.2	83.8	97.4	--	--	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TDS (mg/L)	DO (ppm)	LAB
QC-2	(g) 07/09/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k) ---	---	PACE
QC-2	(g) 10/08/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k) ---	---	PACE
QC-2	(g) 01/06/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k) ---	---	PACE
QC-2	(g) 04/26/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k) ---	---	PACE
QC-2	(g) 07/25/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(k) ---	---	PACE
QC-2	(g) 10/13/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(k) ---	---	PACE
QC-2	(g) 01/17/95	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	---	ATI
QC-2	(g) 03/31/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
QC-2	(g) 07/12/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
QC-2	(g) 10/12/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	ATI
QC-2	(g) 02/27/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	SPL
QC-2	(g) 05/09/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
TDS	Total dissolved solids
DO	Dissolved oxygen
ug/L	Micrograms per liter
mg/L	Milligrams per liter
ppm	Parts per million
---	Not applicable/available/analyzed/measured
ND	Not detected above reported detection limit
PACE	Pace Analytical Services, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

- (a)
- (b) Groundwater elevations in feet above mean sea level.
- (c) A copy of the documentation for this data is included in Appendix C of Alisto report 10-155-07-001.
- (d) Blind duplicate.
- (e) Sample also analyzed for cadmium, nickel, chromium, lead, and zinc.
None were detected above the reported detection limit.
- (f) Well inaccessible.
- (g) Travel blank.
- (h) MTBE by EPA Methods 8020/8260.
- (i) Gasoline does not include MTBE.
- (j) Unable to sample.
- (k) A copy of the documentation for this data can be found in Baline Tech Services report 010813-N-2.

*TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF MONITORING	CASING ELEVATION (Feet) (a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet) (b)
A-1	05/01/95	11.56	5.80	0.60	6.21
A-1	05/08/96	11.56	5.49	0.28	6.28
A-1	08/23/96	11.56	6.43	0.22	5.30
A-1	02/10/97	11.56	4.45	0.17	7.24
A-1	08/05/97	11.56	5.96	0.10	5.68
A-1	02/04/98	11.56	3.20	0.04	8.39
A-1	02/24/99	11.56	4.41	0.60	7.60
A-1	08/30/99	11.56	6.04	—	5.52
A-1	02/21/00	11.56	4.23	0.08	7.39
A-1	08/08/00	11.56	5.53	0.13	6.13
A-1	02/12/01	11.56	4.71	—	6.85
A-1	08/13/01	11.56	5.89	0.03	5.69
A-1	02/04/02	11.56	4.79	—	6.77
B-1	02/15/95	12.12	5.37	—	6.75
B-1	05/01/95	12.12	5.12	—	7.00
B-1	05/08/96	12.12	4.80	—	7.32
B-1	08/23/96	12.12	5.54	—	6.58
B-1	02/10/97	12.12	4.59	—	7.53
B-1	08/05/97	12.12	6.44	—	5.68
B-1	02/04/98	12.12	3.01	—	9.11
B-1	02/24/99	12.12	4.29	—	7.83
B-1	08/30/99	12.12	6.21	—	5.91
B-1	02/21/00	12.12	4.59	—	7.53
B-1	08/08/00	12.12	5.9	—	6.22
B-1	02/12/01	12.12	5.41	—	6.71
B-1	08/13/01	12.12	6.35	—	5.77
B-1	02/04/02	12.12	5.20	—	6.92
B-5	02/15/95	10.18	4.15	—	6.03
B-5	05/01/95	10.18	4.43	—	5.75
B-5	05/08/96	10.18	4.40	—	5.78
B-5	08/23/96	10.18	4.99	—	5.19
B-5	02/10/97	10.18	3.63	—	6.55
B-5	08/05/97	10.18	4.89	—	5.29
B-5	02/04/98	10.18	2.53	—	7.65
B-5	02/24/99	10.18	3.39	—	6.79
B-5	08/30/99	10.18	5.16	—	5.02
B-5	02/21/00	10.18	3.51	—	6.67
B-5	08/08/00	10.18	4.63	—	5.55
B-5	02/12/01	10.18	4.05	—	6.13
B-5	08/13/01	10.18	5.04	—	5.14
B-5	02/04/02	10.18	4.15	—	6.03

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	(b)
B-6	02/15/95	11.97		4.70	---	7.27	
B-6	05/01/95	11.97		5.03	---	6.94	
B-6	05/08/96	11.97		5.23	---	6.74	
B-6	08/23/96	11.97		6.05	---	5.92	
B-6	02/10/97	11.97		4.37	---	7.60	
B-6	08/05/97	11.97		5.75	---	6.22	
B-6	02/04/98	11.97		2.71	---	9.26	
B-6	02/24/99	11.97		4.18	---	7.79	
B-6	08/30/99	11.97		5.91	---	6.06	
B-6	02/21/00	11.97		4.46	---	7.51	
B-6	08/08/00	11.97		5.42	---	6.55	
B-6	02/12/01	11.97		5.32	---	6.65	
B-6	08/13/01	11.97		5.92	---	6.05	
B-6	02/04/02	11.97		4.81	---	7.16	
B-7	02/15/95	10.54		4.22	---	6.32	
B-7	05/01/95	10.54		4.50	---	6.04	
B-7	08/23/96	10.54		---	---	---	
B-7	02/10/97	10.54		---	---	---	
B-7	08/05/97	10.54		---	---	---	
B-7	02/04/98	10.54		---	---	---	
B-7	02/24/99	10.54		3.30	---	7.24	
B-7	08/30/99	10.54		5.29	---	5.25	
B-7	02/21/00	10.54		4.00	---	6.54	
B-7	08/08/00	10.54		4.49	---	6.05	
B-7	02/12/01	10.54		4.37	---	6.17	
B-7	08/13/01	10.54		4.93	---	5.61	
B-7	02/04/02	10.54		4.11	---	6.43	
B-8	02/15/95	11.99		4.72	---	7.27	
B-8	05/01/95	11.99		5.00	---	6.99	
B-8	08/23/96	11.99		---	---	---	
B-8	02/10/97	11.99		---	---	---	
B-8	08/05/97	11.99		---	---	---	
B-8	02/04/98	11.99		---	---	---	
B-8	02/24/99	11.99		4.23	---	7.76	
B-9	02/15/95	10.70		3.61	---	7.09	
B-9	05/01/95	10.70		4.29	---	6.41	
B-9	08/23/96	10.70		---	---	---	
B-9	02/10/97	10.70		---	---	---	
B-9	08/05/97	10.70		---	---	---	
B-9	02/04/98	10.70		---	---	---	
B-10	05/08/96	11.42		5.55	---	5.87	
B-10	08/23/96	11.42		6.19	---	5.23	
B-10	02/10/97	11.42		4.58	---	6.84	
B-10	08/05/97	11.42		6.30	---	5.12	
B-10	02/04/98	11.42		2.89	---	8.53	
B-10	02/24/99	11.42		4.23	---	7.19	
B-10	08/30/99	11.42		6.36	---	5.06	
B-10	02/21/00	11.42		4.35	---	7.07	
B-10	08/08/00	11.42		Dry	---	Dry	
B-10	02/12/01	11.42		5.33	---	6.09	
B-10	08/13/01	11.42		Dry	---	Dry	
B-10	02/04/02	11.42		5.24	---	6.18	

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF MONITORING	CASING ELEVATION (Feet) (a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet) (b)
B-11	05/08/96	11.98	5.00	---	6.98
B-11	08/23/96	11.98	5.61	---	6.37
B-11	02/10/97	11.98	4.07	---	7.91
B-11	08/05/97	11.98	5.60	---	6.38
B-11	02/04/98	11.98	2.59	---	9.39
B-11	02/24/99	11.98	4.19	---	7.79
B-11	08/30/99	11.98	5.80	---	6.18
B-11	02/21/00	11.98	4.21	---	7.77
B-11	08/08/00	11.98	5.19	---	6.79
B-11	02/12/01	11.98	4.74	---	7.24
B-11	08/13/01	11.98	5.65	---	6.33
B-11	02/04/02	11.98	4.73	---	7.25
B-12	05/08/96	11.16	5.08	---	6.08
B-12	08/23/96	11.16	5.65	---	5.51
B-12	02/10/97	11.16	4.11	---	7.05
B-12	08/05/97	11.16	5.61	---	5.55
B-12	02/04/98	11.16	2.63	---	8.53
B-12	02/24/99	11.16	4.00	---	7.16
B-12	08/30/99	11.16	5.84	---	5.32
B-12	02/21/00	11.16	4.31	---	6.85
B-12	08/08/00	11.16	5.15	---	6.01
B-12	02/12/01	11.16	4.89	---	6.27
B-12	08/13/01	11.16	5.64	---	5.52
B-12	02/04/02	11.16	4.71	---	6.45
B-13	05/08/96	11.17	4.97	---	6.20
B-13	08/23/96	11.17	5.63	---	5.54
B-13	02/10/97	11.17	4.12	---	7.05
B-13	08/05/97	11.17	5.65	---	5.52
B-13	02/04/98	11.17	2.69	---	8.48
B-13	02/24/99	11.17	4.03	---	7.14
B-13	08/30/99	11.17	5.74	---	5.43
B-13	02/21/00	11.17	4.24	---	6.93
B-13	08/08/00	11.17	4.99	---	6.18
B-13	02/12/01	11.17	4.76	---	6.41
B-13	08/13/01	11.17	5.55	---	5.62
B-13	02/04/02	11.17	4.55	---	6.62

NOTES:

- (a) Top of casing elevations surveyed relative to 1929 NGVD. Measured in feet above mean sea level.
- (b) Groundwater elevations assuming a specific gravity of 0.75 for separate-phase product.
- Not measured.

Analytical Appendix