

# BP Amoco



Scott T. Hooton  
Team Leader

ENVIRONMENTAL PROTECTION  
BP Amoco Oil Corporation  
295 SW 41<sup>st</sup> Street  
Bldg 13, Suite N  
Renton, WA 98055  
425/251-0689  
425/251-0736 FAX

00 MAY 11 PM 3:41

May 5, 2000

Alameda County Health Care Services Agency  
Attention Mr. Amir K. Gholami - REHS  
1131 Harbor Bay Parkway, STE 250  
Alameda, CA 94502-6677

780

RE: Former BP Oil Site No. 11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

Dear Mr. Gholami:

This transmits the *First Quarter 2000 Groundwater Monitoring* report prepared on behalf of BP by Blaine Tech Services. The report summarizes chemical data obtained since 1992, including results associated with samples obtained on 29 February 2000.

The enclosed report shows that aromatic petroleum hydrocarbons and TPHg was not detected in samples obtained from wells MW-7, MW-5, and MW-6 on 29 February 2000. The highest MTBE concentrations are associated with samples obtained from well MW-4 (1,200 ug/l). Please contact me at (425) 251-0689 if you have questions.

Sincerely,

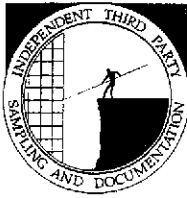
  
Scott Hooton

Copy forwarded to  
10/31/2000  
AG

attachment

cc: site file  
David Camille - Tosco (w/attachment)  
Khaled Rahman - Cambria (w/attachment)

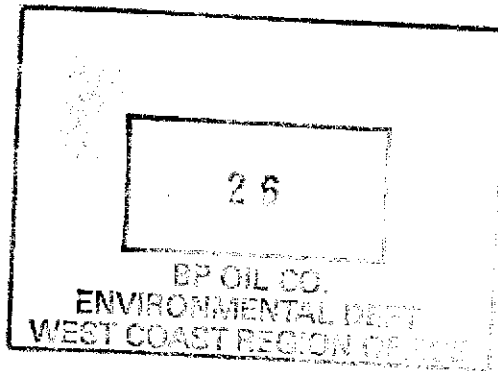
BLAINE  
TECH SERVICES INC.



1680 ROGERS AVENUE  
SAN JOSE, CA 95112-1105  
(408) 573-7771 FAX  
(408) 573-0555 PHONE  
CONTRACTOR'S LICENSE #746684  
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April 25, 2000

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



### 1st Quarter 2000 Monitoring at 11107

First Quarter 2000 Groundwater Monitoring  
BP Service Station Number 11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

Monitoring Performed on February 29, 2000

*As per memo  
to 7/23/2000  
(Signature)*

### Groundwater Sampling Report 000229-S-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.

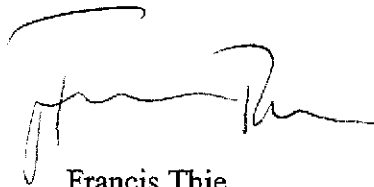
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The **Professional Engineering Appendix** contains a **Groundwater Elevation Map** and a **Dissolved Petroleum Hydrocarbon Concentration Map**.

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,

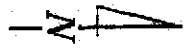
A handwritten signature in black ink, appearing to read 'Francis Thie', written over a horizontal line.

Francis Thie  
Vice President

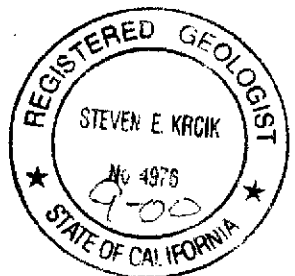
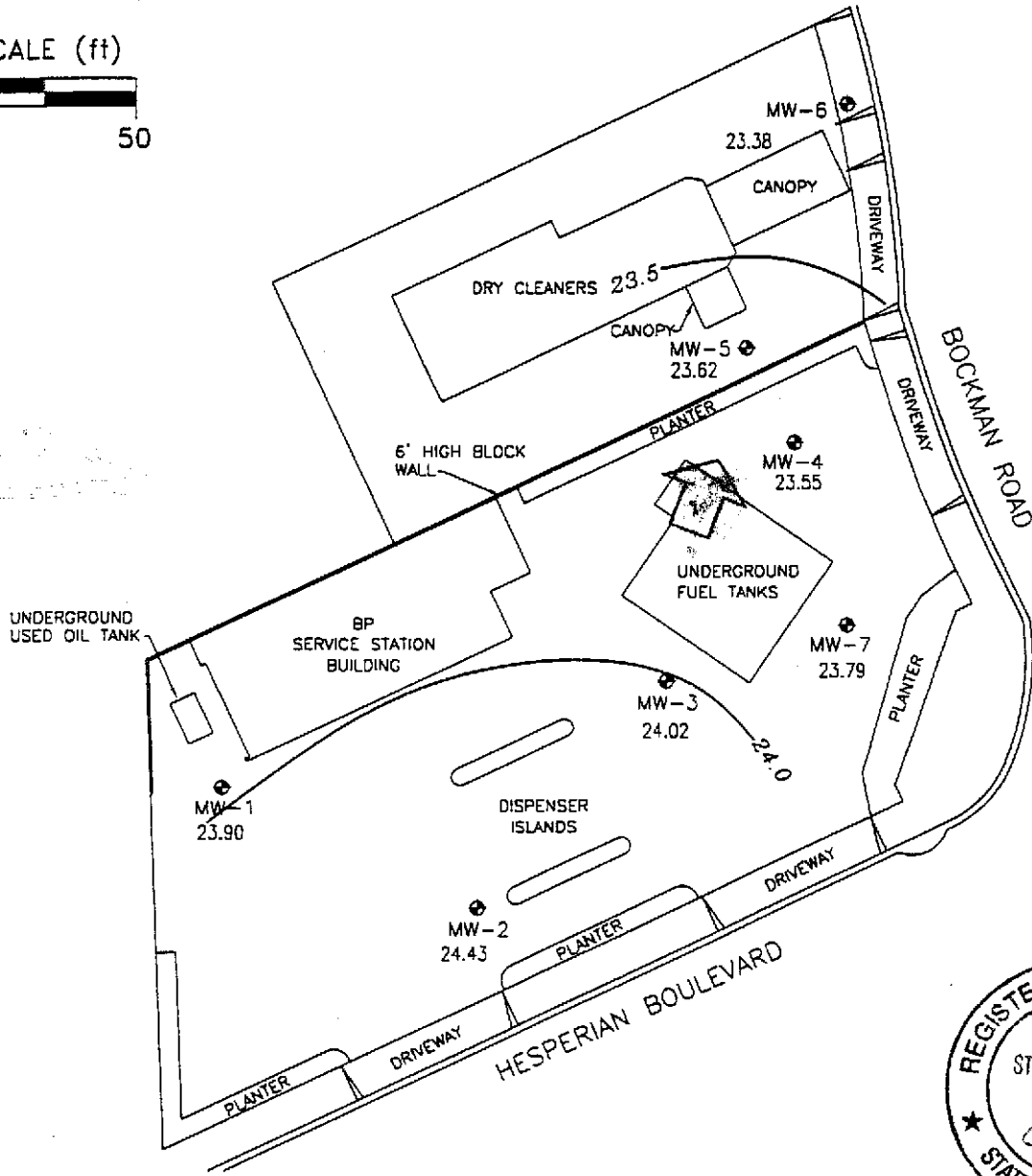
FPT/cm

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

# **Professional Engineering Appendix**




SCALE (ft)

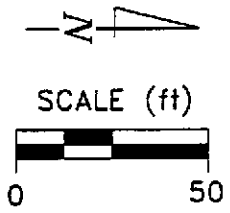


**EXPLANATION**

- ⊕ GROUNDWATER MONITORING WELL
- 24.43 GROUNDWATER ELEVATION (FT, MSL)
- 23.5 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.006

Ref. 111107brn.dwg  
Basemap from Alisto Engineering Group

PREPARED BY  engineering contracting firm	BP Service Station No. 1107 18501 Hesperian Boulevard San Lorenzo, California	FIGURE: 1
	GROUNDWATER ELEVATION CONTOUR MAP, FEBRUARY 29, 2000	PROJECT: DAC04

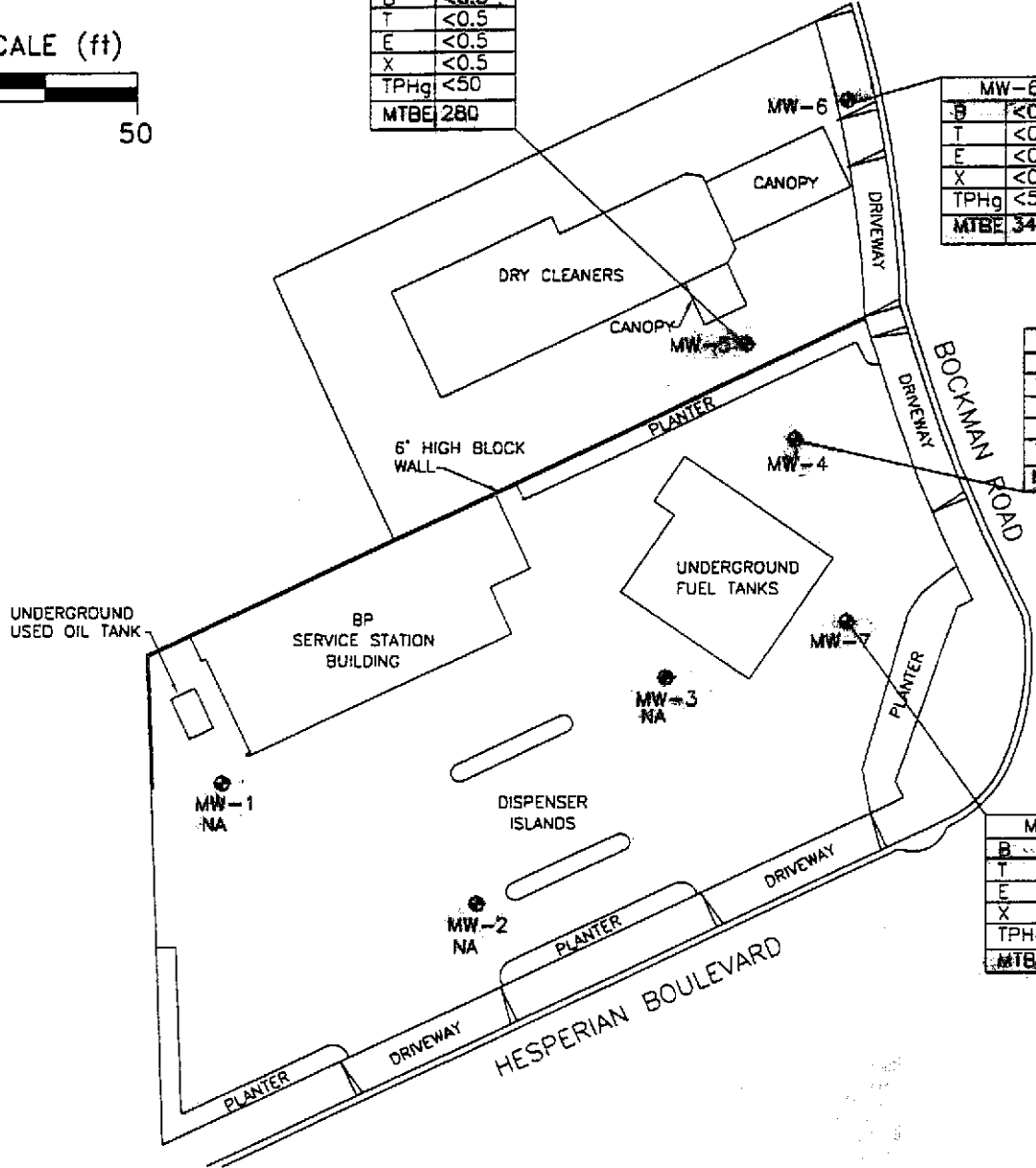


MW-5	
B	<0.5
T	<0.5
E	<0.5
X	<0.5
TPHg	<50
MTBE	280

MW-6	
B	<0.5
T	<0.5
E	<0.5
X	<0.5
TPHg	<50
MTBE	340

MW-4	
B	2.0
T	<0.5
E	0.77
X	2.8
TPHg	78
MTBE	1200

MW-7	
B	<0.5
T	<0.5
E	<0.5
X	<0.5
TPHg	<50
MTBE	7.0



**EXPLANATION**

- ⊙ GROUNDWATER MONITORING WELL
- TPHg TOTAL PETROLEUM HYDROCARBON CALCULATED AS GASOLINE IN PARTS PER BILLION (ppb)
- B BENZENE, ppb
- T TOLUENE, ppb
- E ETHYLBENZENE, ppb
- X XYLENE, ppb
- MTBE METHYL-TERT-BUTYL-ETHER, ppb
- MTBE\* MTBE BY 8260
- NA DATA NOT AVAILABLE

Ref. 111107btex.dwg  
Basemap from Alista Engineering Group

PREPARED BY <b>RRM</b> engineering contracting firm	<b>BP Service Station No. 11107</b> 18501 Hesperian Boulevard San Lorenzo, California <hr/> <b>HYDROCARBON CONCENTRATION MAP,</b> <b>FEBRUARY 29, 2000</b>	<b>FIGURE:</b> <b>2</b> <b>PROJECT:</b> DAC04
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# **Table of Well Data and Analytical Results**

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (b) (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	1,1,1-TCA (ug/l)	PCE (ug/l)	DO (ppm)	LAB
MW-1	11/04/92	41.07	20.78	20.29	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	2.8	ND	---	PACE
QC-1	(c) 11/04/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-1	02/24/94	41.07	20.70	20.37	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	1.5	0.9	---	PACE
MW-1	05/12/94	41.07	18.12	22.95	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	1.0	ND<0.5	7	PACE
MW-1	09/09/94	41.07	21.74	19.33	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	ND<0.5	ND<0.5	2.3	PACE
MW-1	11/03/94	41.07	20.01	21.06	ND<50	50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	ND<0.5	ND<0.5	4.3	PACE
MW-1	03/01/95	41.07	17.44	23.63	ND<50	ND<500	ND<0.5	ND<0.50	ND<0.50	ND<1.0	---	420	0.54	0.3	2.3	ATI
MW-1	06/06/95	41.07	17.55	23.52	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	09/01/95	41.07	18.19	22.88	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	60	---	---	8.8	ATI
MW-1	11/29/95	41.07	18.84	22.23	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	03/23/96	41.07	16.97	24.10	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	9.6	SPL
MW-1	09/05/96	41.07	17.74	23.33	110	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	3.6	SPL
MW-1	03/11/97	41.07	17.62	23.45	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	5.2	SPL
MW-1	12/08/97	41.07	16.30	24.77	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	---
MW-1	07/08/98	41.07	16.66	24.41	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	12/07/98	41.07	17.80	23.27	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	01/19/99	41.07	17.18	23.89	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	04/23/99	41.07	17.40	23.67	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	07/20/99	41.07	17.76	23.31	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/29/00	41.07	17.17	23.90	---	---	---	---	---	---	---	---	---	---	---	---



Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	1,1,1-TCA (ug/l)	PCE (ug/l)	DO (ppm)	LAB
MW-2	11/04/92	40.56	20.16	20.40	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-2	02/24/94	40.56	20.12	20.44	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-2	05/12/94	40.56	17.49	23.07	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	7.4	PACE
MW-2	09/09/94	40.56	21.12	19.44	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	2.1	PACE
MW-2	11/03/94	40.56	19.36	21.20	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	4.2	PACE
MW-2	03/01/95	40.56	16.83	23.73	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	2.2	ATI
MW-2	06/06/95	40.56	16.96	23.60	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	09/01/95	40.56	17.54	23.02	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	7.9	ATI
MW-2	11/29/95	40.56	18.19	22.37	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	03/23/96	40.56	16.35	24.21	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	8.5	SPL
MW-2	09/05/96	40.56	17.55	23.01	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	3.2	SPL
MW-2	03/11/97	40.56	16.95	23.61	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	2.9	SPL
MW-2	12/08/97	40.56	16.01	24.55	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	3.0	SPL
MW-2	07/08/98	40.56	16.41	24.15	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	12/07/98	40.56	17.15	23.41	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	01/19/99	40.56	17.15	23.41	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	04/23/99	40.56	16.89	23.67	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	07/20/99	40.56	17.25	23.31	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	12/30/99	40.56	17.44	23.12	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	02/29/00	40.56	16.13	24.43	---	---	---	---	---	---	---	---	---	---	---	---

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (b) (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	1,1,1-TCA (ug/l)	PCE (ug/l)	DO (ppm)	LAB
MW-3	11/04/92	40.45	20.23	20.22	760	---	3.7	15	1.9	57	---	---	---	---	---	PACE
MW-3	02/24/94	40.45	20.24	20.21	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-3	05/12/94	40.45	17.61	22.84	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	7.3	PACE
MW-3	09/09/94	40.45	21.22	19.23	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	2	PACE
MW-3	11/03/94	40.45	19.48	20.97	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	3.6	PACE
MW-3	03/01/95	40.45	17.08	23.37	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	1.9	ATI
MW-3	06/06/95	40.45	17.21	23.24	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/01/95	40.45	17.69	22.76	200	---	2.7	33	7.2	43	ND<5.0	---	---	---	7.8	ATI
MW-3	09/01/95	40.45	18.29	22.16	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/23/96	40.45	16.59	23.86	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	7.3	SPL
MW-3	09/05/96	40.45	17.71	22.74	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	3.2	SPL
MW-3	03/11/97	40.45	17.17	23.28	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	1.5	SPL
MW-3	12/08/97	40.45	16.12	24.33	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	1.9	SPL
MW-3	07/08/98	40.45	16.40	24.05	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/07/98	40.45	17.32	23.13	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/19/99	40.45	17.30	23.15	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	04/23/99	40.45	17.07	23.38	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/20/99	40.45	17.47	22.98	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/30/99	40.45	17.60	22.85	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/29/00	40.45	16.43	24.02	---	---	---	---	---	---	---	---	---	---	---	---

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (b) (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MIBE (ug/l)	TOG (ug/l)	1,1,1-TCA (ug/l)	PCE (ug/l)	DO (ppm)	LAB
MW-4	11/04/92	39.24	19.18	20.06	900	---	150	4.1	0.8	53	---	---	---	---	---	PACE
MW-4	02/24/94	39.24	19.22	20.02	240	---	110	3.8	1.8	11	1400 (d)	---	---	---	---	PACE
QC-1 (c)	02/24/94	---	---	---	310	---	95	5.3	2.2	17	1500 (d)	---	---	---	---	PACE
MW-4	05/12/94	39.24	16.62	22.62	ND<50	---	2.2	1.0	ND<0.5	ND<0.5	860 (d)	---	---	---	7.3	PACE
QC-1 (c)	05/12/94	---	---	---	430	---	2.6	1.3	ND<0.5	ND<0.5	780 (d)	---	---	---	---	PACE
MW-4	09/09/94	39.24	20.27	18.97	240	---	9.1	1.3	0.6	2.5	---	---	---	---	2.2	PACE
QC-1 (c)	09/09/94	---	---	---	57	---	1.7	ND<0.5	ND<0.5	0.5	---	---	---	---	---	PACE
MW-4	11/03/94	39.24	18.46	20.78	250	---	3.1	2.8	1.0	3.3	---	---	---	---	3.2	PACE
QC-1 (c)	11/03/94	---	---	---	110	---	2.4	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-4	03/01/95	39.24	16.15	23.09	8900	---	1800	26	450	400	---	---	---	---	2.0	ATI
QC-1 (c)	03/01/95	---	---	---	7600	---	1700	25	410	370	---	---	---	---	---	ATI
MW-4	06/06/95	39.24	16.28	22.96	3100	---	(e) 530	25	170	85	---	---	---	---	---	ATI
QC-1 (c)	06/06/95	---	---	---	3000	---	530	27	170	92	---	---	---	---	---	ATI
MW-4 (f)	09/01/95	39.24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	11/29/95	39.24	17.31	21.93	ND<50	---	1.8	ND<0.50	ND<0.50	ND<1.0	440	---	---	---	3.2	ATI
QC-1 (c)	11/29/95	---	---	---	ND<50	---	1.5	ND<0.50	ND<0.50	ND<1.0	490	---	---	---	---	ATI
MW-4	03/23/96	39.24	15.74	23.50	2700	---	480	ND<25	180	176	13000	---	---	---	7.8	SPL
MW-4	09/05/96	39.24	16.75	22.49	1100	---	ND<12	ND<25	ND<25	ND<25	3200	---	---	---	4.0	SPL
MW-4	03/11/97	39.24	16.10	23.14	2400	---	46	ND<10	66	106	3400	---	---	---	4.0	SPL
MW-4	12/08/97	39.24	15.96	23.28	590	---	11	ND<1.0	ND<1.0	ND<1.0	1200	---	---	---	4.4	SPL
QC-1 (c)	12/08/97	---	---	---	620	---	11	ND<1.0	ND<1.0	ND<1.0	1100	---	---	---	---	SPL
MW-4	07/08/98	39.24	16.28	22.96	1700	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1200	---	---	---	3.9	SPL
QC-1 (c)	07/08/98	---	---	---	1600	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1100	---	---	---	---	SPL
MW-4	12/07/98	39.24	16.47	22.77	530	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	680/910 (h)	---	---	---	---	SPL
MW-4	01/19/99	39.24	16.40	22.84	570	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	660	---	---	---	---	SPL
MW-4	04/23/99	39.24	16.17	23.07	ND<50	---	ND<1.0	ND<1.0	1.8	1.3	1100/810 (h)	---	---	---	---	SPL
MW-4	07/20/99	39.24	16.39	22.85	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	480	---	---	---	---	SPL
MW-4	12/30/99	39.24	16.56	22.68	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	410	---	---	---	---	PACE
MW-4	02/29/00	39.24	15.69	23.55	78 (i)	---	2.0	ND<0.5	0.77	2.8	1200	---	---	---	---	PACE

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	1,1,1-TCA (ug/l)	PCE (ug/l)	DO (ppm)	LAB
MW-5	06/06/95	39.07	16.16	22.91	1100	---	(e) 42	ND<2.5	15	4.0	---	---	---	---	---	ATI
MW-5	09/01/95	39.07	16.63	22.44	1600	---	55	ND<2.5	15	8.0	1200	---	---	---	7.4	ATI
QC-1 (c)	09/01/95	---	---	---	1200	---	64	ND<2.5	14	3.1	---	---	---	---	---	ATI
MW-5	11/29/95	39.07	17.19	21.88	2300	---	140	4.0	36	11	1500	---	---	---	4.1	ATI
MW-5	03/23/96	39.07	15.54	23.53	90	---	2.8	ND<1	ND<1	ND<1	1500	---	---	---	7.5	SPL
MW-5	09/05/96	39.07	16.72	22.35	2300	---	5.1	ND<1.0	ND<1.0	ND<1.0	3300	---	---	---	3.2	SPL
QC-1 (c)	09/05/96	---	---	---	2000	---	4.9	ND<1.0	ND<1.0	ND<1.0	2900	---	---	---	---	SPL
MW-5	03/11/97	39.07	16.12	22.95	470	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	580	---	---	---	3.0	SPL
QC-1 (c)	03/11/97	---	---	---	460	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	540	---	---	---	---	SPL
MW-5	12/08/97	39.07	15.85	23.22	370	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	840	---	---	---	3.0	SPL
MW-5	07/08/98	39.07	16.11	22.96	430	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	330	---	---	---	2.5	SPL
MW-5	12/07/98	39.07	16.27	22.80	220	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	290/410 (h)	---	---	---	---	SPL
MW-5	01/19/99	39.07	16.31	22.76	490	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	490/440 (h)	---	---	---	---	SPL
MW-5	04/23/99	39.07	16.00	23.07	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	310/210 (h)	---	---	---	---	SPL
MW-5	07/20/99	39.07	16.36	22.71	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	470	---	---	---	---	SPL
MW-5	12/30/99	39.07	16.53	22.54	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	550	---	---	---	---	PACE
MW-5	02/29/00	39.07	15.45	23.62	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	280	---	---	---	---	PACE
MW-6	03/01/95	38.46	15.66	22.80	270	---	11	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	1.6	ATI
MW-6	06/06/95	38.46	15.82	22.64	220	---	(e) 2.3	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	ATI
MW-6	09/01/95	38.46	16.25	22.21	780	---	ND<2.5	ND<2.5	ND<2.5	ND<5.0	2800	---	---	---	7.5	ATI
MW-6	11/29/95	38.46	16.80	21.66	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	1100	---	---	---	3.9	ATI
MW-6	03/23/96	38.46	15.27	23.19	50	---	ND<0.5	ND<1	ND<1	ND<1	910	---	---	---	8.0	SPL
MW-6	09/05/96	38.46	16.30	22.16	4400	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	7400	---	---	---	3.0	SPL
MW-6	03/11/97	38.46	15.75	22.71	1100	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	2000	---	---	---	3.1	SPL
MW-6	12/08/97	38.46	15.51	22.95	150	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	140	---	---	---	3.4	SPL
MW-6	07/08/98	38.46	15.78	22.68	370	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	250	---	---	---	3.6	SPL
MW-6	12/07/98	38.46	15.95	22.51	440	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	630/820 (h)	---	---	---	---	---
MW-6	01/19/99	38.46	15.97	22.49	950	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	950/810 (h)	---	---	---	---	SPL
MW-6	04/23/99	38.46	15.74	22.72	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	310/220 (h)	---	---	---	---	SPL
MW-6	07/20/99	38.46	16.12	22.34	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1300	---	---	---	---	SPL
MW-6	12/30/99	38.46	16.16	22.30	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	360	---	---	---	---	PACE
MW-6	02/29/00	38.46	15.08	23.38	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	340	---	---	---	---	PACE

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (b) (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	1,1,1-TCA (ug/l)	PCE (ug/l)	DO (ppm)	LAB
MW-7	03/01/95	39.50	16.21	23.29	1400	---	14	ND<1.0	14	27	---	---	---	---	1.8	ATI
MW-7	06/06/95	39.50	16.34	23.16	540	---	(e) 5.5	ND<0.50	15	1.1	---	---	---	---	---	ATI
MW-7	09/01/95	39.50	16.74	22.76	190	---	2.8	ND<0.50	5.0	ND<1.0	10	---	---	---	7.5	ATI
MW-7	11/29/95	39.50	17.33	22.17	230	---	31	ND<0.50	3.8	1.9	ND<5.0	---	---	---	4.6	ATI
MW-7	03/23/96	39.50	15.86	23.64	ND<50	---	5.0	ND<1	ND<1	ND<1	330	---	---	---	7.2	SPL
QC-1 (c)	03/23/96	---	---	---	60	---	7.6	ND<1	ND<1	ND<1	360	---	---	---	---	SPL
MW-7	09/05/96	39.50	16.80	22.70	200	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	430	---	---	---	3.1	SPL
MW-7	03/11/97	39.50	18.32	21.18	120	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	140	---	---	---	4.7	SPL
MW-7	12/08/97	39.50	16.02	23.48	240	---	0.8	ND<1.0	ND<1.0	ND<1.0	200	---	---	---	5.2	SPL
MW-7	07/08/98	39.50	16.32	23.18	270	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	170	---	---	---	4.8	SPL
MW-7	12/07/98	39.50	16.43	23.07	100	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	120	---	---	---	---	SPL
MW-7	01/19/99	39.50	16.41	23.09	80	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	80	---	---	---	---	SPL
MW-7	04/23/99	39.50	16.21	23.29	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	20	---	---	---	---	SPL
MW-7	07/20/99	39.50	16.54	22.96	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	24	---	---	---	---	SPL
MW-7	12/30/99	39.50	16.65	22.85	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	---	---	---	---	PACE
MW-7	02/29/00	39.50	15.71	23.79	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.0	---	---	---	---	PACE
QC-2 (g)	11/04/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
QC-2 (g)	11/04/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
QC-2 (g)	03/01/95	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.0	---	---	---	---	---	PACE
QC-2 (g)	05/12/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
QC-2 (g)	09/09/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
QC-2 (g)	11/03/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
QC-2 (g)	06/06/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	ATI
QC-2 (g)	09/01/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	---	ATI
QC-2 (g)	11/29/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	---	ATI
QC-2 (g)	03/23/96	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	---	SPL

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	1,2-DCA by 8010 (ug/l)	EDB by 8010 (ug/l)	1,2-DCA by 8260 (ug/l)	EDB by 8260 (ug/l)	MTBE by 8260 (ug/l)	DIPE by 8260 (ug/l)	ETBE by 8260 (ug/l)	TBA by 8260 (ug/l)	TAME by 8260 (ug/l)
MW-4	07/20/99	ND<1.0	ND<1.0	ND<1.0	ND<1.0	590	ND<10	ND<5.0	ND<500	ND<5.0
MW-4	12/30/99	---	---	ND<5.0	ND<5.0	280	ND<5.0	ND<5.0	---	ND<5.0
MW-4	02/29/00	---	---	ND<20	ND<20	870	ND<20	ND<20	---	ND<20
MW-5	07/20/99	---	---	---	---	490	ND<10	ND<10	ND<500	ND<10
MW-5	12/30/99	---	---	---	---	470	ND<10	ND<10	---	ND<10
MW-5	02/29/00	---	---	ND<5.0	ND<5.0	190	ND<5.0	ND<5.0	---	ND<5.0
MW-6	07/20/99	---	---	---	---	1400	ND<10	ND<10	ND<500	ND<10
MW-6	12/30/99	---	---	---	---	300	ND<5.0	ND<5.0	---	ND<5.0
MW-6	02/29/00	---	---	ND<5.0	ND<5.0	240	ND<5.0	ND<5.0	---	ND<5.0

Table 1 - Summary of Results of Groundwater Sampling

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
TOG	Total oil and grease
1,1,1-TCA	1,1,1-Trichloroethane
PCE	Tetrachloroethene
1,2-DCA	1,2-Dichloroethane
EDB	1,2-Dibromoethane
DIPE	Di-isopropyl Ether
ETBE	tert-Butyl Ethyl Ether
TBA	t-Butyl Alcohol
TAME	tert-Amyl Methyl Ether
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
ND	Not detected above reported detection limit
---	Not measured/analyzed/applicable
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

- (a) Top of casing elevations surveyed relative to an established benchmark with an elevation of 39.95 feet above mean sea level.
- (b) Groundwater elevations in feet above mean sea level.
- (c) Blind duplicate.
- (d) A copy of the documentation for this data is included in Appendix C of Alisto report 10-060-07-001.
- (e) MTBE peak present. See documentation in Appendix C of Alisto report 10-060-07-001.
- (f) Well inaccessible.
- (g) Travel blank.
- (h) MTBE by 8020/8260
- (i) Gasoline does not include MTBE.

# Analytical Appendix



March 13, 2000

Mr. MORGAN HARGRAVE  
BLAINE TECH SERVICES, INC.  
1680 ROGERS AVE.  
SAN JOSE, CA 95112

RE: Pace Project Number: 6038943  
Client Project ID: BP 11107

Dear Mr. HARGRAVE:

Enclosed are the results of analyses for sample(s) received by the laboratory on March 3, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lily Bayati  
Project Manager

Enclosures

## REPORT OF LABORATORY ANALYSIS

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DATE: 03/13/00  
PAGE: 1

BLAINE TECH SERVICES, INC.  
1680 ROGERS AVE.  
SAN JOSE, CA 95112

Pace Project Number: 6038943  
Client Project ID: BP 11107

Attn: Mr. MORGAN HARGRAVE  
Phone: (408)573-0555 x218

Solid results are reported on a wet weight basis

---

Pace Sample No:	603290263	Date Collected:	02/29/00	Matrix:	Water
Client Sample ID:	A	Date Received:	03/03/00		

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Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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Long Beach Laboratory

GAS BTEX by 8015, Water	Method: EPA 8015/8020 Modif	Prep Method: EPA 8015/8020 Modif
Gasoline	78 ug/l 50	03/03/00 VN 1
Benzene	2.0 ug/l 0.5	03/03/00 VN 71-43-2
Toluene	ND ug/l 0.5	03/03/00 VN 108-88-3
Ethylbenzene	0.77 ug/l 0.5	03/03/00 VN 100-41-4
Methyl-tert-butyl Ether	1200 ug/l 75	03/03/00 VN 1634-04-4
Xylene (Total)	2.8 ug/l 0.5	03/03/00 VN 1330-20-7
a.a.a-Trifluorotoluene (S)	115 %	03/03/00 VN 2164-17-2

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DATE: 03/13/00

PAGE: 2

Pace Project Number: 6038943  
Client Project ID: BP 11107

Pace Sample No: 603290271 Date Collected: 02/29/00 Matrix: Water  
Client Sample ID: B Date Received: 03/03/00

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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Long Beach Laboratory

GAS BTEX by 8015, Water		Method: EPA 8015/8020 Modif			Prep Method: EPA 8015/8020 Modif		
Gasoline	ND	ug/l	50	03/03/00	VN		2
Benzene	ND	ug/l	0.5	03/03/00	VN	71-43-2	
Toluene	ND	ug/l	0.5	03/03/00	VN	108-88-3	
Ethylbenzene	ND	ug/l	0.5	03/03/00	VN	100-41-4	
Methyl-tert-butyl Ether	280	ug/l	75	03/03/00	VN	1634-04-4	
Xylene (Total)	ND	ug/l	0.5	03/03/00	VN	1330-20-7	
a,a,a-Trifluorotoluene (S)	112	%		03/03/00	VN	2164-17-2	

GC/MS VOCs by 8260		Method: EPA 8260			Prep Method: EPA 8260		
1,2-Dichloroethane	ND	ug/l	5	03/08/00	RG	107-06-2	
1,2-Dibromoethane	ND	ug/l	5	03/08/00	RG	106-93-4	
Methyl-tert-butyl Ether	190	ug/l	5	03/08/00	RG	1634-04-4	
Diisopropyl ether (DIPE)	ND	ug/l	5	03/08/00	RG	108-20-3	
Ethyl-tert-butyl ether(ETBE)	ND	ug/l	5	03/08/00	RG	637-92-3	
tert-Amyl Methyl ether(TAME)	ND	ug/l	5	03/08/00	RG	994-05-8	
Dibromofluoromethane (S)	92	%		03/08/00	RG	1868-53-7	
Toluene-d8 (S)	94	%		03/08/00	RG	2037-26-5	
4-Bromofluorobenzene (S)	122	%		03/08/00	RG	460-00-4	

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DATE: 03/13/00  
PAGE: 3

Pace Project Number: 6038943  
Client Project ID: BP 11107

Pace Sample No: 603290289 Date Collected: 02/29/00 Matrix: Water  
Client Sample ID: C Date Received: 03/03/00

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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Long Beach Laboratory

GAS BTEX by 8015, Water		Method: EPA 8015/8020 Modif			Prep Method: EPA 8015/8020 Modif		
Gasoline	ND	ug/l	50	03/03/00	VN		2
Benzene	ND	ug/l	0.5	03/03/00	VN	71-43-2	
Toluene	ND	ug/l	0.5	03/03/00	VN	108-88-3	
Ethylbenzene	ND	ug/l	0.5	03/03/00	VN	100-41-4	
Methyl-tert-butyl Ether	340	ug/l	75	03/03/00	VN	1634-04-4	
Xylene (Total)	ND	ug/l	0.5	03/03/00	VN	1330-20-7	
a,a,a-Trifluorotoluene (S)	116	%		03/03/00	VN	2164-17-2	

GC/MS VOCs by 8260		Method: EPA 8260			Prep Method: EPA 8260		
1,2-Dichloroethane	ND	ug/l	5	03/08/00	RG	107-06-2	
1,2-Dibromoethane	ND	ug/l	5	03/08/00	RG	106-93-4	
Methyl-tert-butyl Ether	240	ug/l	5	03/08/00	RG	1634-04-4	
Diisopropyl ether (DIPE)	ND	ug/l	5	03/08/00	RG	108-20-3	
Ethyl-tert-butyl ether(ETBE)	ND	ug/l	5	03/08/00	RG	637-92-3	
tert-Amyl Methyl ether(TAME)	ND	ug/l	5	03/08/00	RG	994-05-8	
Dibromofluoromethane (S)	91	%		03/08/00	RG	1868-53-7	
Toluene-d8 (S)	95	%		03/08/00	RG	2037-26-5	
4-Bromofluorobenzene (S)	124	%		03/08/00	RG	460-00-4	

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PAGE: 4

Pace Project Number: 6038943  
Client Project ID: BP 11107

Pace Sample No: 603290297 Date Collected: 02/29/00 Matrix: Water  
Client Sample ID: D Date Received: 03/03/00

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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Long Beach Laboratory

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
GAS BTEX by 8015. Water Method: EPA 8015/8020 Modif Prep Method: EPA 8015/8020 Modif							
Gasoline	ND	ug/l	50	03/03/00	VN		
Benzene	ND	ug/l	0.5	03/03/00	VN	71-43-2	
Toluene	ND	ug/l	0.5	03/03/00	VN	108-88-3	
Ethylbenzene	ND	ug/l	0.5	03/03/00	VN	100-41-4	
Methyl-tert-butyl Ether	7.0	ug/l	0.5	03/03/00	VN	1634-04-4	
Xylene (Total)	ND	ug/l	0.5	03/03/00	VN	1330-20-7	
a,a,a-Trifluorotoluene (S)	113	%		03/03/00	VN	2164-17-2	

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DATE: 03/13/00

PAGE: 5

Pace Project Number: 6038943

Client Project ID: BP 11107

Pace Sample No: 603290354 Date Collected: 02/29/00 Matrix: Water  
Client Sample ID: A Date Received: 03/03/00

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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Long Beach Laboratory

GC/MS VOCs by 8260

Method: EPA 8260

Prep Method: EPA 8260

1,2-Dichloroethane	ND	ug/l	20	03/08/00	RG	107-06-2	
1,2-Dibromoethane	ND	ug/l	20	03/08/00	RG	106-93-4	
Methyl-tert-butyl Ether	870	ug/l	20	03/08/00	RG	1634-04-4	
Diisopropyl ether (DIPE)	ND	ug/l	20	03/08/00	RG	108-20-3	
Ethyl-tert-butyl ether(ETBE)	ND	ug/l	20	03/08/00	RG	637-92-3	
tert-Amyl Methyl ether(TAME)	ND	ug/l	20	03/08/00	RG	994-05-8	
Dibromofluoromethane (S)	92	%		03/08/00	RG	1868-53-7	
Toluene-d8 (S)	94	%		03/08/00	RG	2037-26-5	
4-Bromofluorobenzene (S)	122	%		03/08/00	RG	460-00-4	

## REPORT OF LABORATORY ANALYSIS

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DATE: 03/13/00

PAGE: 6

Pace Project Number: 6038943

Client Project ID: BP 11107

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PARAMETER FOOTNOTES

ND Not Detected  
NC Not Calculable  
PRL Pace Reporting Limit  
(S) Surrogate  
[1] This gasoline does not include MTBE  
[2] Solvent Peak Present

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

DATE: 03/13/00  
PAGE: 7

BLAINE TECH SERVICES, INC.  
1680 ROGERS AVE.  
SAN JOSE, CA 95112

Pace Project Number: 6038943  
Client Project ID: BP 11107

Attn: Mr. MORGAN HARGRAVE  
Phone: (408)573-0555 x218

QC Batch ID: 79219                                      QC Batch Method: EPA 8015/8020 Modif  
Analysis Method: EPA 8015/8020 Modif              Analysis Description: GAS BTEX by 8015, Water  
Associated Pace Samples:                      603290263      603290271      603290289      603290297

METHOD BLANK: 603291170  
Associated Pace Samples:

Parameter	Units	Method Blank		Footnotes
		603290263	603290271	
Gasoline	ug/l	ND	12	
Benzene	ug/l	ND	0.05	
Toluene	ug/l	ND	0.05	
Ethylbenzene	ug/l	ND	0.05	
Methyl-tert-butyl Ether	ug/l	ND	0.05	
Xylene (Total)	ug/l	ND	0.05	
a,a,a-Trifluorotoluene (S)	%	111		

Parameter	Units	LABORATORY CONTROL SAMPLE & LCSD: 603291188      603291196		Spike % Rec	LCSD Result	Spike		Footnotes
		Spike Conc.	LCS Result			Dup % Rec	RPD	
Gasoline	ug/l	40	40.00	100	40.70	102	2	
Benzene	ug/l	6.667	7.260	109	7.250	109	0	
Toluene	ug/l	6.667	7.150	107	7.250	109	2	
Ethylbenzene	ug/l	6.667	7.230	108	7.280	109	1	
Methyl-tert-butyl Ether	ug/l	6.667	7.200	108	7.320	110	2	
a,a,a-Trifluorotoluene (S)				113		112		

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

DATE: 03/13/00

PAGE: 9

Pace Project Number: 6038943

Client Project ID: BP 11107

LABORATORY CONTROL SAMPLE: 603307091

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Toluene-d8 (S)				99	
4-Bromofluorobenzene (S)				101	

## REPORT OF LABORATORY ANALYSIS

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DATE: 03/13/00  
PAGE: 10

Pace Project Number: 6038943  
Client Project ID: BP 11107

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QUALITY CONTROL DATA PARAMETER FOOTNOTES

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

- ND Not Detected
- NC Not Calculable
- PRL Pace Reporting Limit
- RPD Relative Percent Difference
- (S) Surrogate

**REPORT OF LABORATORY ANALYSIS**

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CHAIN OF CUSTODY

16087A

6038943...  
Page 1 of 1

CONSULTANT'S NAME Blaine Tech Services, Inc.		CONSULTANT'S ADDRESS 1680 Rogers Ave., San Jose CA 95112	
BP SITE NUMBER 11107	BP SITE / FACILITY ADDRESS 18501 Hesperian, San Lorenzo		CONSULTANT PROJECT NUMBER 000279 - S1
CONSULTANT PROJECT MANAGER Morgan Hargrave		PHONE NUMBER (408) 573-0555 x 218	FAX NUMBER (408) 573-7771
BP CONTACT Scott Hooton	BP ADDRESS 295 SW 41st Street, Suite N, Renton WA		PHONE NUMBER (425) 251-0689
LAB CONTACT Pace - Lily Bayati	LABORATORY ADDRESS 3970 Gilman Street, Long Beach, CA		PHONE NUMBER (562) 498-9515
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)	RUSH REQUESTED OF (Print Consultant Contact Name)	DATE/TIME	SHIPMENT DATE
			SHIPMENT METHOD

TAT:  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 (8260)	1,2 DCA + EDB (8010)								COMMENTS	
				NO.	TYPE (VOL)	LAB SAMPLE #													
A	2/29/00	9:05	W	9	HCL		X		X										
B	↓	9:45	↓	6	↓		X		X										
C	↓	10:20	↓	6	↓		X		X										
D	↓	11:00	↓	3	↓		X												

SAMPLED BY (Please Print Name) STEPHAN WHISENHURT			SAMPLED BY (Signature)				ADDITIONAL COMMENTS	
RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)	DATE	TIME			
CHRISTINE LILLIE / Christine Lillie	3/2/00	13:35	NOEY TONG / Noey Tong	3/2/00	10:40			

# **Field Data Sheets**

# WELL GAUGING DATA

Project # 000229-51 Date 2/29/00 Client BP

Site 18501 Hesperian Blvd.

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-4	2	A				15.69	24.95	TOC
MW-5	2	B				15.45	22.35	
MW-6	2	C				15.08	24.68	
MW-7	2	D				15.71	24.15	
MW-1	2					17.17	30.41	
MW-2	2					16.13	24.68	
MW-3	2					16.43	24.75	✓

## BP WELL MONITORING DATA SHEET

Project #: <u>000229-51</u>	Station # <u>11107</u>
Sampler: <u>Stephan</u>	Date: <u>2/29/00</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>24.95</u>	Depth to Water: <u>15.69</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 <sup>2</sup> * 0.163

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

<u>1.48</u>	x	<u>3</u>	=	<u>4.44</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
847	63.7	6.9	872.9	2	
855	66.3	6.9	872.6	4	
900	66.2	7.2	870.2	6	

Did well dewater? Yes  No

Gallons actually evacuated: 6

Sampling Time: 905      Sampling Date: 2/29/00

Sample I.D. (Blind): A      Laboratory: Pace Other: \_\_\_\_\_

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: DCA/EDS by 8010  
Organates by 8260

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>000229-51</u>	Station #: <u>1107</u>
Sampler: <u>Stephan</u>	Date: <u>2/29/00</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>22.35</u>	Depth to Water: <u>15.45</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 <sup>2</sup> * 0.163

Purge Method: <u>Bailer</u> <u>Disposable Bailer</u> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> Extraction Port Other: _____
--	---

<u>1.10</u>	x	<u>3</u>	=	<u>3.31</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
930	64.1	6.9	424.5	1.10	Turbid
935	65.6	6.9	492.4	2.20	
940	66.1	6.9	526.7	3.30	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>3.30</u>
Sampling Time: <u>945</u>	Sampling Date: <u>2/29/00</u>
Sample I.D. (Blind): <u>B</u>	Laboratory: <u>Pace</u> Other _____
Analyzed for: <u>TPH-G BTEX MTBE</u> TPH-D Other: <u>OXYGENATES BY 8260</u>	
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 #: 000229-51	Station #: 11107
Sampler: Stephan	Date: 2/29/00
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8
Total Well Depth: 24.68	Depth to Water: 15.08
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 <sup>2</sup> * 0.163

Purge Method: Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

<u>1.53</u>	x	<u>3</u>	=	<u>4.60</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1007	63.9	6.9	866.3	2	Turbid
1012	65.6	7.1	870.7	4	
1016	65.8	7.0	872.3	6	

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

Sampling Time: 1020 Sampling Date: 2/29/00

Sample I.D. (Blind): C Laboratory: (Pace) Other: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Oxygenates by 8260

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>000229-51</u>	Station #: <u>11107</u>
Sampler: <u>Stephan</u>	Date: <u>2/29/00</u>
Well I.D.: <u>MW-7</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>24.15</u>	Depth to Water: <u>15.71</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> <u>Grade</u>	D.O. Meter (if req'd): YSI <u>HACH</u>

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

Purge Method: <u>Bailer</u> <u>Disposable Bailer</u> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> Extraction Port Other: _____
--	---

<u>1.35</u>	x	<u>3</u>	=	<u>4.05</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1045</u>	<u>65.2</u>	<u>6.7</u>	<u>814.3</u>	<u>1.35</u>	<u>Turbid</u>
<u>1050</u>	<u>67.4</u>	<u>6.7</u>	<u>826.4</u>	<u>2.70</u>	
<u>1055</u>	<u>67.5</u>	<u>6.8</u>	<u>831.7</u>	<u>4.05</u>	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>4.05</u>	
Sampling Time: <u>1100</u>	Sampling Date: <u>2/29/00</u>	
Sample I.D. (Blind): <u>D</u>	Laboratory: <u>Pace</u> Other: _____	
Analyzed for: <u>TPH-G BTEX MTBE</u> 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