



Scott T. Hooton  
Portfolio Manager

**BP Oil Company  
Midwest Environmental Services  
295 SW 41<sup>st</sup> Street  
Bldg. 13, Suite N  
Renton, WA 98055**

**Switchboard: 425/251-0667  
Central Fax: 425/251-0736**

August 23, 2001

Mr. Scott Seery  
Alameda County Health Care Services  
Agency  
1131 Harbor Bay Parkway, Room 250  
Alameda, CA 94502-6577

Re: Former BP Oil site No. 11105  
3159 Castro Valley Boulevard  
Castro Valley, CA

Direct: 425/251-0689  
Cell: 206/919-5029  
hootonst@bp.com  
www.bp.com

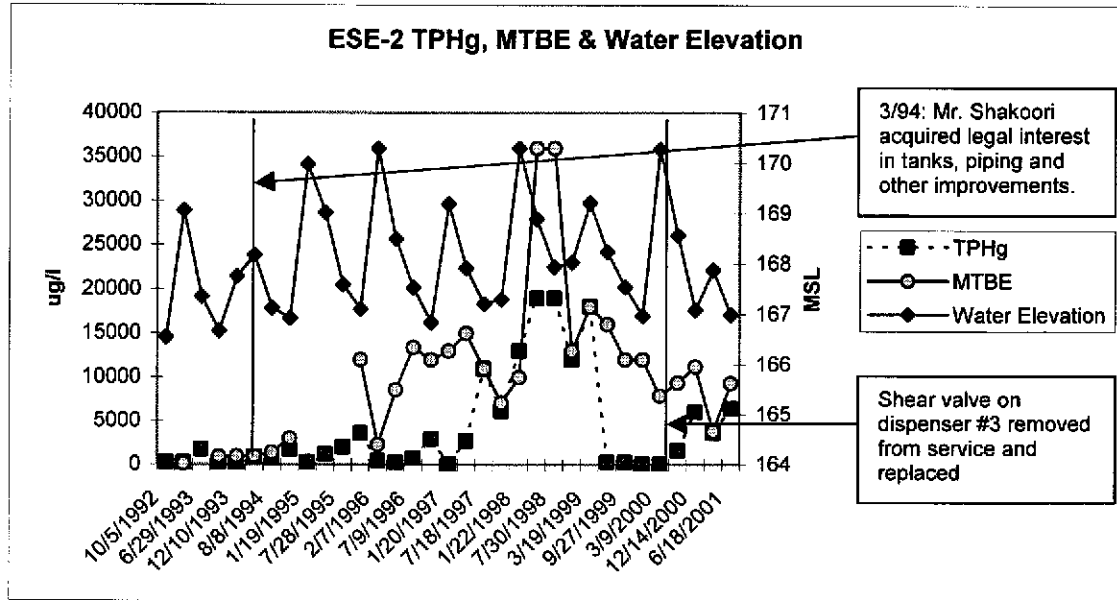
Dear Mr. Seery:

Enclosed find the 2 August 2001 *First Quarter 2001 Groundwater Monitoring* report prepared by Blaine Tech Services on behalf of BP. The report summarizes monitoring data obtained since 1992, including the results for samples recently obtained on 18 June 2001.

It is noted that petroleum hydrocarbons were reported to be present in the soil and groundwater at this site at the time the property was sold during 1994. After the sale, concentrations of certain gasoline constituents began to increase. This development prompted BP to raise concerns that petroleum releases had occurred subsequent to BP's operation of the facility.

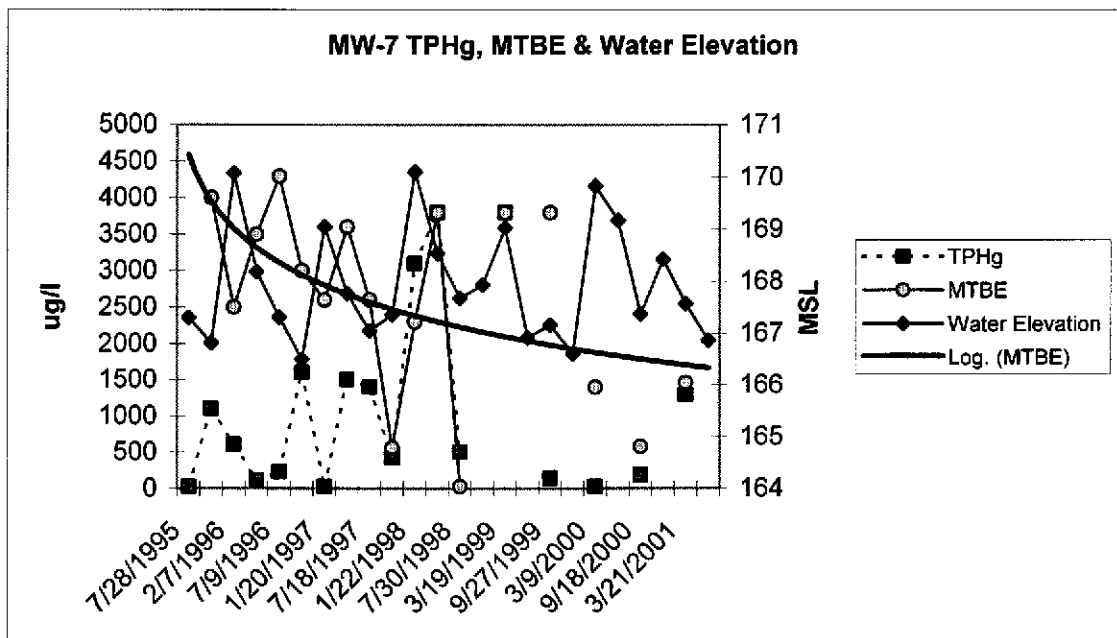
On 2 May 2000, a shear valve associated with Dispenser Number 3 was observed to be leaking during a piping test. The line was taken out of service until the shear valve was replaced. Alameda County Health Care Services Agency representatives reported the release and an Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report was filed

The results associated with groundwater samples collected on 18 June 2001 show that aromatic petroleum hydrocarbons were detected in two of the three wells; the highest benzene concentration is associated with well ESE-1 (152 µg/l). MTBE was detected in samples obtained from all of the wells, with the highest concentration associated with well ESE-2. Water elevation data, together with MTBE and TPHg concentration data for well ESE-2 is depicted below.



These data show declining concentrations of MTBE since the highest concentrations were detected during mid-1998.

Well MW-7 is located offsite and monitors groundwater downgradient of the underground storage tanks. Water elevation, TPHg and MTBE concentration data is shown below.



These data also show declining concentrations. Taken together, the concentration data for wells ESE-2 and MW-7 indicate that the source of rising MTBE concentrations detected in mid-1998 has been mitigated.

BP plans to continue groundwater monitoring at this time so that additional concentration data may be obtained to document expected reductions in MTBE concentrations in future.

We are also working with Mr. Shakoori to determine eligibility requirements for the underground storage tank cleanup fund.

Please contact me at (425) 251-0689 if you have any questions or concerns regarding this submittal.

Sincerely,

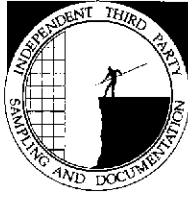


Scott Hooton

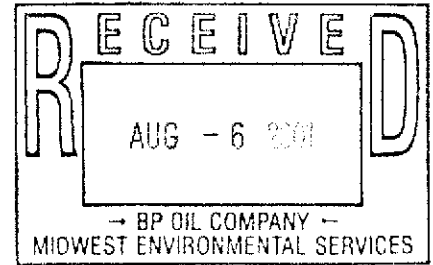
Attachment

cc: site file  
A. Fagorala - RWQCB-SFBR  
Mr. Azim Shakoori, Castro Valley Chevron, 3519 Castro Valley Boulevard, Castro Valley, CA 94546 (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  
www.blainetech.com



August 2, 2001

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

### 2nd Quarter 2001 Monitoring at 11105

Second Quarter 2001 Groundwater Monitoring at  
BP Service Station Number 11105  
3519 Castro Valley Blvd.  
Castro Valley, CA

Monitoring Performed on June 18, 2001

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### Groundwater Sampling Report 010618-J-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 table also contains new groundwater elevation calculations taken from the computer plotted gradient map, which is located in the **Professional Engineering 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,

Francis Thie  
Vice President

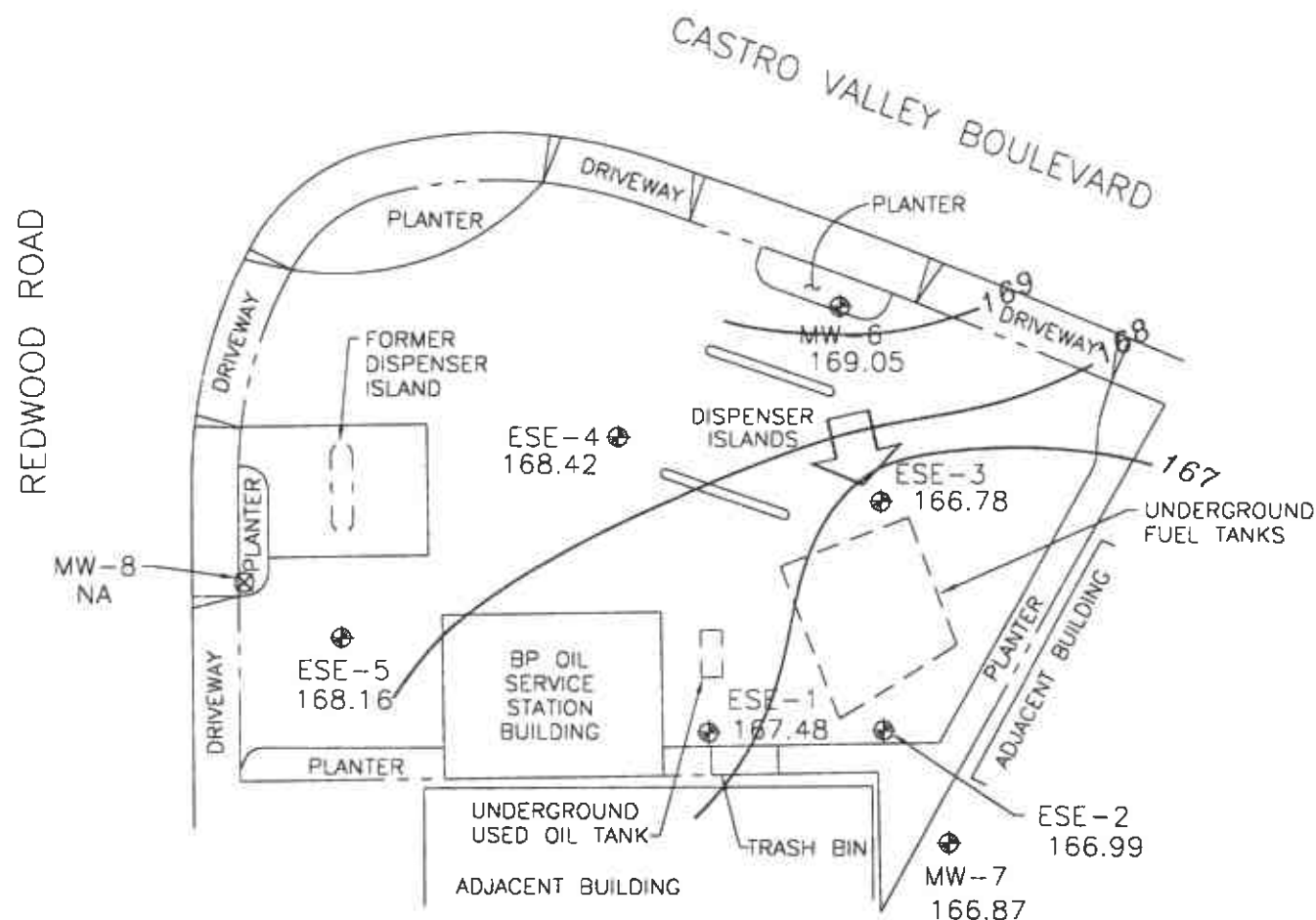
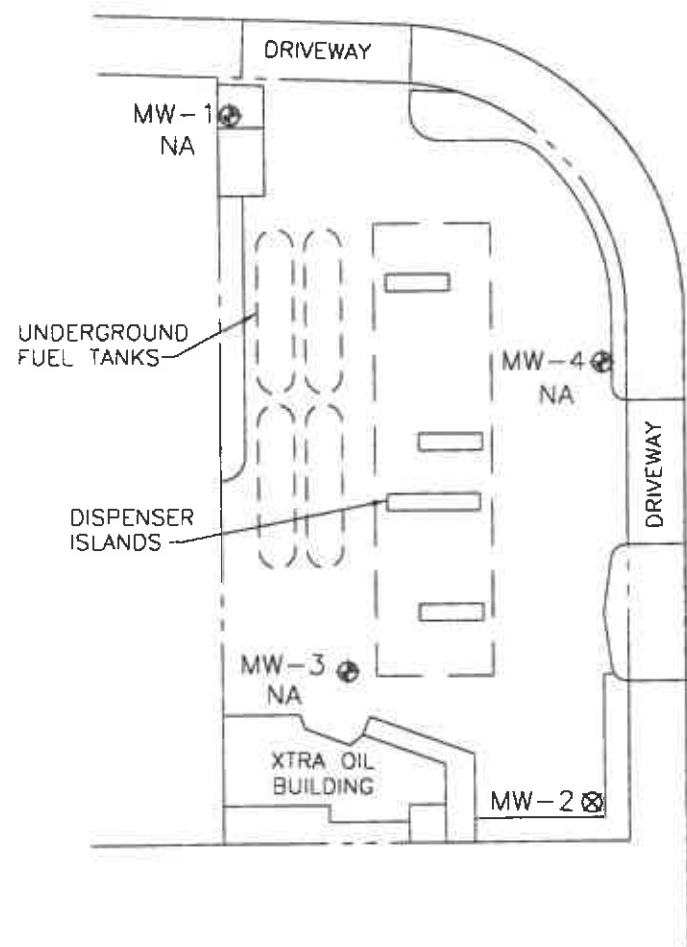
FPT/ks

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

# **Professional Engineering Appendix**



SCALE IN FEET



- EXPLANATION**
- ⊕ GROUNDWATER MONITORING WELL
  - ⊗ DESTROYED WELL
  - 166.87 GROUNDWATER ELEVATION (FT. MSL)
  - 169 — GROUNDWATER ELEVATION CONTOUR (FT. MSL)
  - NA DATA NOT AVAILABLE
  - ⇩ APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.01



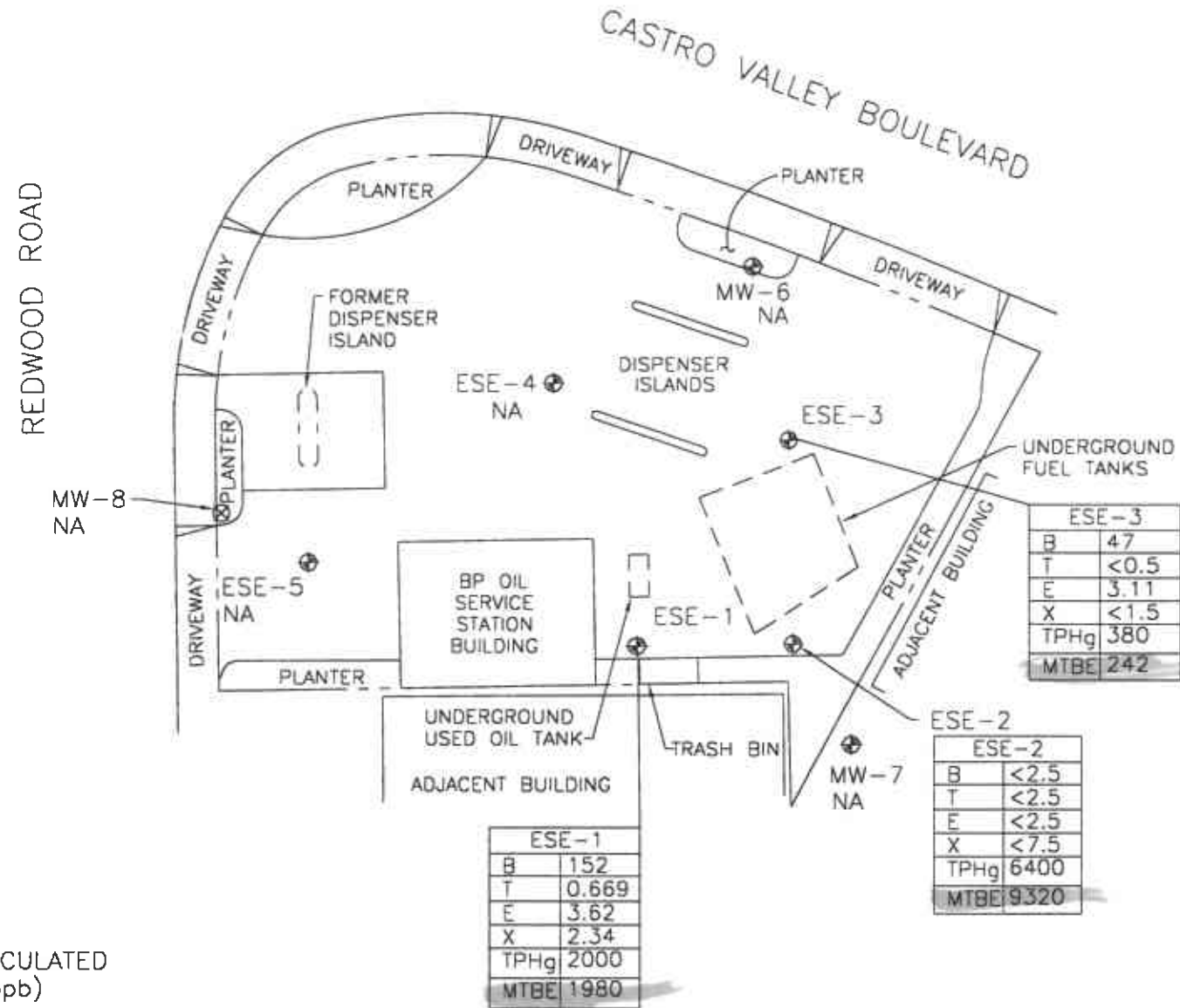
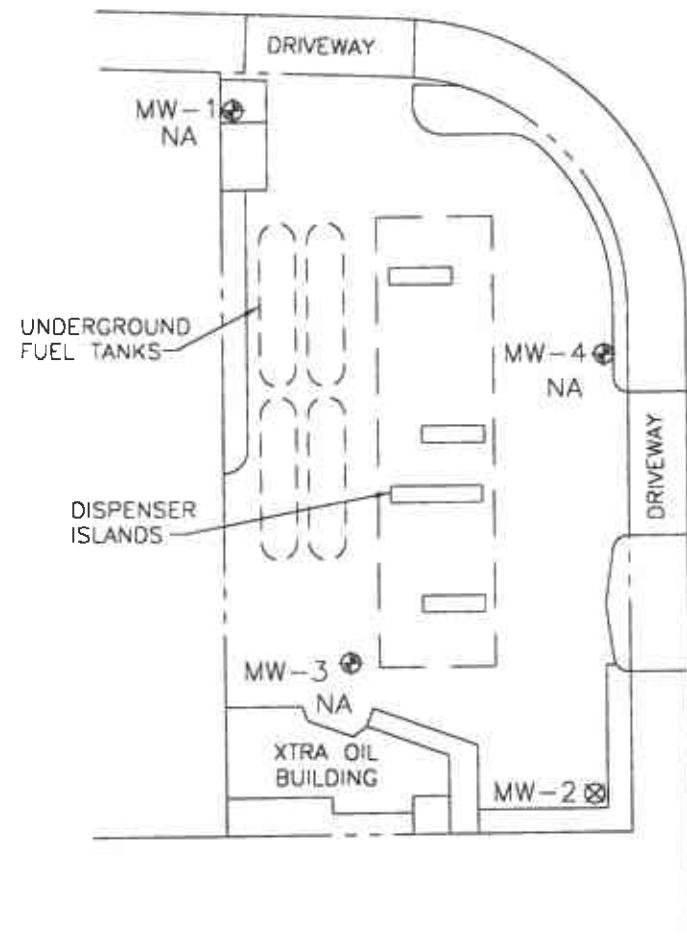
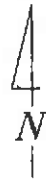
PREPARED BY

**RRM**  
engineering contracting firm

GROUNDWATER ELEVATION CONTOUR MAP,  
JUNE 18, 2001

BP Oil Service Station No. 11105  
3519 Castro Valley Boulevard  
Castro Valley, California

FIGURE:  
**1**  
PROJECT:  
DAC04



- EXPLANATION**
- ⊕ GROUNDWATER MONITORING WELL
  - ⊗ DESTROYED 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
  - NA DATA NOT AVAILABLE

PREPARED BY  engineering contracting firm	<b>HYDROCARBON CONCENTRATION MAP,</b> JUNE 18, 2001	FIGURE: <b>2</b> PROJECT: DAC04
	<b>BP Oil Service Station No. 1105</b> 3519 Castro Valley Boulevard Castro Valley, California	



# **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)	DO (ppm)	LAB	
ESE-1 (c)	10/05/92	177.69	11.22	166.47	2100	370	150	17	110	---	(l)	---	PACE
ESE-1D (d)	10/05/92	---	---	---	2300	370	160	16	110	---	(l)	---	PACE
ESE-1	04/01/93	177.69	8.79	168.90	5900	1500	410	110	390	---	(l)	---	PACE
ESE-1	06/29/93	177.69	10.34	167.35	7600	2900	390	130	460	---	(l)	---	PACE
ESE-1	09/23/93	177.69	10.91	166.78	2000	490	40	20	56	600	(e)(l)	---	PACE
QC-1 (d)	09/23/93	---	---	---	1500	420	39	19	56	550	(e)(l)	---	PACE
ESE-1	12/10/93	177.69	9.93	167.76	1800	480	42	19	66	921	(e)(l)	3.2	PACE
QC-1 (d)	12/10/93	---	---	---	1500	380	38	17	55	770	(e)(l)	---	PACE
ESE-1	02/17/94	177.69	9.64	168.05	1900	380	48	24	80	585	(e)(l)	---	PACE
QC-1 (d)	02/17/94	---	---	---	2200	430	42	19	65	491	(e)(l)	---	PACE
ESE-1	08/08/94	177.69	11.72	165.97	2100	450	46	16	50	760	(e)	5.1	PACE
ESE-1	10/12/94	177.69	10.48	167.21	760	240	16	51	39	230	(e)	3.5	PACE
ESE-1	01/19/95	177.69	7.77	169.92	840	600	120	22	58	---	---	8.0	ATI
ESE-1	05/02/95	177.69	8.69	169.00	2000	640	67	24	98	---	---	8.5	ATI
ESE-1	07/28/95	177.69	10.12	167.57	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	7.9	ATI
ESE-1	11/17/95	177.69	10.57	167.12	200	3.4	ND<1.0	1	ND<2.0	600	---	7.7	ATI
ESE-1	02/07/96	177.69	7.41	170.28	750	370	23	21	64	680	---	2.5	SPL
ESE-1	04/23/96	177.69	9.12	168.57	310	100	ND<1	ND<1	ND<1	1500	---	6.3	SPL
ESE-1	07/09/96	177.69	10.12	167.57	730	230	74	13	63	750	---	2.9	SPL
ESE-1	10/10/96	177.69	10.80	166.89	420	26	1.6	7.3	12	430	---	7.4	SPL
ESE-1	01/20/97	177.69	8.52	169.17	660	290	4.2	13	36	450	---	5.9	SPL
ESE-1	04/25/97	177.69	9.77	167.92	410	ND<0.5	ND<1.0	ND<1.0	ND<1.0	580	---	5.3	SPL
ESE-1	07/18/97	177.69	10.55	167.14	420	ND<0.5	ND<1.0	ND<1.0	ND<1.0	370	---	5.0	SPL
ESE-1	10/27/97	177.69	10.36	167.33	300	56	ND<1.0	6.5	ND<1.0	220	---	4.8	SPL
ESE-1	01/22/98	177.69	7.52	170.17	4200	440	9	15	17.7	1300	---	4.2	SPL
ESE-1	04/23/98	177.69	8.80	168.89	15000	3400	190	910	900	4900	---	4.2	SPL
QC-1	04/23/98	---	---	---	15000	2800	140	730	730	4400	---	---	SPL
ESE-1	07/29/98	177.69	9.73	167.96	---	---	---	---	---	---	---	---	---
ESE-1	07/30/98	---	---	---	15000	ND<2.5	ND<5.0	ND<5.0	ND<5.0	15000	---	4.0	SPL
ESE-1	12/17/98	177.69	9.51	168.18	2400	73	1.0	2.8	4.6	2000/2500*	---	---	SPL
ESE-1	03/19/99	177.69	8.65	169.04	4700	58	ND<1.0	ND>1.0	ND<1.0	4700	---	---	SPL
ESE-1	06/23/99	177.69	10.51	167.18	600	170	ND<1.0	7.2	5.0	3900	---	---	SPL
ESE-1	09/27/99	177.69	10.32	167.37	920	200	ND<25	ND<25	ND<25	4900	---	---	SPL
ESE-1	12/09/99	177.69	10.24	167.45	460	130	1.2	5.2	1.5	5100	---	---	PACE
ESE-1	03/09/00	177.69	7.72	169.97	3000 (j)	1300	120	80	140	7300	---	---	PACE
ESE-1	06/08/00	177.69	9.40	168.29	2900	540	9.7	20	17	5200	---	---	PACE
ESE-1	09/18/00	177.69	10.05	167.64	890	3.4	ND<0.5	1.4	ND<0.5	2800	---	---	PACE
ESE-1	12/14/00	177.69	8.20	169.49	1600	11.1	ND<0.5	ND<0.5	ND<0.5	2730	---	---	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)	DO (ppm)	LAB
ESE-1	03/21/01	177.69	9.75	167.94	5700	2.28	ND<0.5	0.51	ND<1.5	6810	---	PACE
ESE-1	06/18/01	177.69	10.21	167.48	2000	152	0.669	3.62	2.34	1980	---	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)	DO (ppm)	LAB
ESE-2	10/05/92	178.23	11.68	166.55	300	5.4	16	3.9	45	---	(l)	PACE
ESE-2	04/01/93	178.23	9.17	169.06	240	27	ND<0.5	17	2.6	123	(e)(l)	PACE
ESE-2	06/29/93	178.23	10.88	167.35	1700	260	24	110	23	---	(l)	PACE
QC-1 (d)	06/29/93	---	---	---	1300	240	17	110	25	---	(l)	PACE
ESE-2	09/23/93	178.23	11.56	166.67	240	3.1	0.5	0.6	2.5	643	(e)(l)	PACE
ESE-2	12/10/93	178.23	10.48	167.75	250	2.4	2.4	1.5	11	940	(e)(l)	PACE
ESE-2	02/17/94	178.23	10.06	168.17	900	ND<0.5	ND<0.5	ND<0.5	ND<0.5	930	(e)(l)	PACE
ESE-2	08/08/94	178.23	11.11	167.12	750	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1400	(e)	PACE
ESE-2	10/12/94	178.23	11.31	166.92	1700	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3000	(e)	PACE
ESE-2	01/19/95	178.23	8.25	169.98	300	2	0.9	0.7	1	---	8.1	ATI
ESE-2	05/02/95	178.23	9.21	169.02	1200	4	ND<2.5	ND<2.5	ND<5.0	---	8.4	ATI
ESE-2	07/28/95	178.23	10.64	167.59	2000	ND<2.5	ND<2.5	ND<2.5	ND<5.0	---	7.7	ATI
ESE-2	11/17/95	178.23	11.13	167.10	3600	ND<25	ND<25	ND<25	ND<50	12000	7.4	ATI
QC-1 (d)	11/17/95	---	---	---	3400	ND<25	ND<25	ND<25	ND<50	12000	---	ATI
ESE-2	02/07/96	178.23	7.94	170.29	450	ND<0.5	ND<1	ND<1	ND<1	2300	1.8	SPL
ESE-2	04/23/96	178.23	9.73	168.50	260	0.9	ND<1	ND<1	ND<1	8600	7.2	SPL
ESE-2	07/09/96	178.23	10.70	167.53	780	ND<2.5	ND<5	ND<5	ND<5	13393	3.0	SPL
ESE-2	10/10/96	178.23	11.39	166.84	2900	ND<0.5	ND<1.0	ND<1.0	ND<1.0	12000	7.0	SPL
ESE-2	01/20/97	178.23	9.04	169.19	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	13000	6.2	SPL
ESE-2	04/25/97	178.23	10.31	167.92	2700	ND<0.5	ND<1.0	ND<1.0	ND<1.0	15000	5.9	SPL
ESE-2	07/18/97	178.23	11.02	167.21	11000	ND<5	ND<10	ND<10	ND<10	11000	5.0	SPL
ESE-2	10/27/97	178.23	10.93	167.30	6100	ND<2.5	ND<5.0	ND<5.0	ND<5.0	7100	4.8	SPL
QC-1 (d)	10/27/97	---	---	---	6600	ND<2.5	ND<5.0	ND<5.0	ND<5.0	7400	---	SPL
ESE-2	01/22/98	178.23	7.93	170.30	13000	ND<0.5	ND<1.0	ND<1.0	ND<1.0	10000	4.6	SPL
QC-1 (d)	01/22/98	---	---	---	13000	ND<0.5	ND<1.0	ND<1.0	ND<1.0	10000	---	SPL
ESE-2	04/23/98	178.23	9.34	168.89	19000	ND<5	ND<10	ND<10	ND<10	36000	4.2	SPL
ESE-2	07/29/98	178.23	10.29	167.94	---	---	---	---	---	---	---	---
ESE-2	07/30/98	---	---	---	19000	ND<5	ND<10	ND<10	ND<10	36000	4.2	SPL
ESE-2	12/17/98	178.23	10.20	168.03	12000	ND<5.0	ND<5.0	ND<5.0	ND<5.0	13000/17000*	---	SPL
ESE-2	03/19/99	178.23	9.02	169.21	18000	160	ND<1.0	ND<1.0	ND<1.0	18000	---	SPL
ESE-2	06/23/99	178.23	9.99	168.24	280	ND<1.0	ND<1.0	ND<1.0	ND<1.0	16000	---	SPL
ESE-2	09/27/99	178.23	10.69	167.54	ND<500	ND<25	ND<25	ND<25	ND<25	12000	---	SPL
ESE-2	12/09/99	178.23	11.26	166.97	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.6	12000	---	PACE
ESE-2	03/09/00	178.23	7.95	170.28	ND<50	1.6	ND<0.5	ND<0.5	ND<0.5	7900	---	PACE
ESE-2	06/08/00	178.23	9.66	168.57	1600	ND<0.5	0.73	ND<0.5	2.2	9400	---	PACE
ESE-2 (k)	09/18/00	178.23	---	---	---	---	---	---	---	---	---	---
ESE-2	12/14/00	178.23	11.15	167.08	6000	0.75	ND<0.5	ND<0.5	ND<0.5	11200	---	PACE
ESE-2	03/21/01	178.23	10.35	167.88	6900	786	45.7	37.7	71.5	3790	---	PACE
ESE-2	06/18/01	178.23	11.24	166.99	6400	ND<2.5	ND<2.5	ND<2.5	ND<7.5	9320	---	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)	DO (ppm)	LAB	
ESE-3	10/05/92	178.20	10.58	167.62	430	57	31	3.6	34	---	(l)	---	PACE
ESE-3	04/01/93	178.20	8.14	170.06	2400	460	220	74	210	---	(l)	---	PACE
ESE-3	06/29/93	178.20	9.72	168.48	280	56	14	15	13	---	(l)	---	PACE
ESE-3	09/23/93	178.20	10.46	167.74	72	13	3.5	1.7	4.1	---	(l)	---	PACE
ESE-3	12/10/93	178.20	9.30	168.90	270	71	32	6.1	33	---	(l)	2.7	PACE
ESE-3	02/17/94	178.20	8.97	169.23	520	140	10	20	33	5.74	(l)	---	PACE
ESE-3	08/08/94	178.20	10.02	168.18	ND<50	8.8	1.6	1.6	2.3	ND<5.0	(l)	6.2	PACE
ESE-3	10/12/94	178.20	10.32	167.88	470	190	6.4	15	18	ND<5.0	(l)	3.5	PACE
ESE-3	01/19/95	178.20	7.40	170.80	330	260	27	21	20	---	---	6.7	ATI
ESE-3	05/02/95	178.20	8.26	169.94	530	180	30	23	44	---	---	8.6	ATI
ESE-3	07/28/95	178.20	9.54	168.66	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	8.8	ATI
ESE-3	11/17/95	178.20	10.04	168.16	ND<50	1.7	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	7.3	ATI
ESE-3	02/07/96	178.20	7.08	171.12	ND<50	8.6	ND<1	ND<1	ND<1	ND<10	---	3.9	SPL
ESE-3	04/23/96	178.20	8.79	169.41	ND<50	7.6	ND<1	ND<1	ND<1	65	---	6.9	SPL
ESE-3	07/09/96	178.20	10.09	168.11	ND<50	12	3.9	2	3.9	26	---	3.4	SPL
ESE-3	10/10/96	178.20	10.48	167.72	---	---	---	---	---	---	---	---	---
ESE-3	10/11/96	178.20	---	---	260	140	ND<1.0	ND<1.0	2.6	ND<10	---	7.2	SPL
ESE-3	01/20/97	178.20	8.65	169.55	ND<50	1.5	1.7	ND<1.0	ND<1.0	14	---	5.7	SPL
ESE-3	04/25/97	178.20	10.02	168.18	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	14	---	5.4	SPL
ESE-3	07/18/97	178.20	10.66	167.54	10000	1400	1400	300	1280	ND<250	---	5.2	SPL
ESE-3	10/27/97	178.20	9.83	168.37	ND<250	ND<2.5	ND<5.0	ND<5.0	36	ND<50	---	5.0	SPL
ESE-3	01/22/98	178.20	7.06	171.14	130	ND<0.5	ND<1.0	ND<1.0	ND<1.0	120	---	4.3	SPL
ESE-3	04/23/98	178.20	8.44	169.76	4800	560	ND<10	15	ND<10	4000	---	3.9	SPL
ESE-3	07/29/98	178.20	9.27	168.93	---	---	---	---	---	---	---	---	---
ESE-3	07/30/98	---	---	---	1800	6.2	ND<5.0	ND<5.0	ND<5.0	1700	---	4.1	SPL
ESE-3	12/17/98	178.20	9.15	169.05	600	54	ND<1.0	2.1	4.9	340/480*	---	---	SPL
ESE-3	03/19/99	178.20	8.14	170.06	2000	260	4.4	13	28	870	---	---	SPL
ESE-3	06/23/99	178.20	9.44	168.76	290	91	ND<1.0	8.3	16	240	---	---	SPL
ESE-3	09/27/99	178.20	9.69	168.51	130	35	ND<1.0	2.7	3.8	100	---	---	SPL
ESE-3	12/09/99	178.20	10.99	167.21	380	84	1.7	8.7	6.3	160	---	---	PACE
ESE-3	03/09/00	178.20	7.12	171.08	950	190	4.6	39	62	350	---	---	PACE
ESE-3	06/08/00	178.20	10.92	167.28	300	37	ND<0.5	2.3	1.3	400	---	---	PACE
ESE-3	09/18/00	178.20	11.12	167.08	920	140	1.3	15	4.8	170	---	---	PACE
ESE-3	12/14/00	178.20	9.70	168.50	320	64	ND<0.5	6.24	1.76	201	---	---	PACE
ESE-3	03/21/01	178.20	10.07	168.13	680	80.5	0.546	21.1	18.2	398	---	---	PACE
ESE-3	06/18/01	178.20	11.42	166.78	380	47	ND<0.5	3.11	ND<1.5	242	---	---	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)	DO (ppm)	LAB
ESE-4	10/05/92	177.73	10.33	167.40	98	7.2	1.3	1.1	6.1	---	(l)	PACE
ESE-4	04/01/93	177.73	7.88	169.85	550	93	20	23	33	---	(l)	PACE
ESE-4	06/29/93	177.66	(f) 8.33	169.33	150	23	0.6	5.4	0.5	54	(e)(l)	PACE
ESE-4	09/23/93	177.66	10.05	167.61	110	14	1.7	3.2	4.6	---	(l)	PACE
ESE-4	12/10/93	177.66	8.95	168.71	110	21	7.2	4.2	10	28.75	(l)	PACE
ESE-4	02/17/94	177.66	8.65	169.01	210	26	1.2	4.7	11	113	(e)(l)	PACE
ESE-4	08/08/94	177.66	9.76	167.90	76	9.6	ND<0.5	2	ND<0.5	62	(e)	PACE
ESE-4	10/12/94	177.66	9.62	168.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	44	(e)	PACE
ESE-4	01/19/95	177.66	6.97	170.69	140	56	14	24	23	---	6.9	ATI
ESE-4	05/02/95	177.66	7.85	169.81	130	21	2.8	8.6	8.2	---	9.1	ATI
ESE-4	07/28/95	177.66	9.20	168.46	ND<50	ND<0.5	ND<0.50	ND<0.50	ND<1.0	---	8.1	ATI
ESE-4	11/17/95	177.66	9.68	167.98	ND<50	ND<0.5	0.6	ND<0.50	ND<1.0	18	5.7	ATI
ESE-4	02/07/96	177.66	6.59	171.07	100	2.6	ND<1	1.6	4.1	42	2.0	SPL
ESE-4	04/23/96	177.66	8.30	169.36	160	37	15	16	31	43	5.4	SPL
ESE-4	07/09/96	177.66	9.21	168.45	60	17	1.5	6.8	11.6	27	3.9	SPL
ESE-4	10/10/96	177.66	9.97	167.69	---	---	---	---	---	---	---	---
ESE-4	10/11/96	177.66	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	18	5.5	SPL
ESE-4	01/20/97	177.66	7.68	169.98	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	130	4.9	SPL
ESE-4	04/25/97	177.66	9.15	168.51	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.3	SPL
ESE-4	07/18/97	177.66	9.71	167.95	ND<50	15	ND<10	ND<10	ND<10	ND<100	4.5	SPL
ESE-4	10/27/97	177.66	9.38	168.28	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.9	SPL
ESE-4	01/22/97	177.66	6.59	171.07	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.3	SPL
ESE-4	04/23/98	177.66	7.90	169.76	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.0	SPL
ESE-4	07/29/98	177.66	8.96	168.70	---	---	---	---	---	---	---	---
ESE-4	07/30/98	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.2	SPL
ESE-4	12/17/98	177.66	8.32	169.34	---	---	---	---	---	---	---	---
ESE-4	03/19/99	177.66	7.71	169.95	---	---	---	---	---	---	---	---
ESE-4	06/23/99	177.66	8.78	168.88	---	---	---	---	---	---	---	---
ESE-4	09/27/99	177.66	9.27	168.39	---	---	---	---	---	---	---	---
ESE-4	12/09/99	177.66	9.21	168.45	---	---	---	---	---	---	---	---
ESE-4	03/09/00	177.66	6.82	170.84	---	---	---	---	---	---	---	---
ESE-4	06/08/00	177.66	8.72	168.94	---	---	---	---	---	---	---	---
ESE-4	09/18/00	177.66	9.02	168.64	---	---	---	---	---	---	---	---
ESE-4	12/14/00	177.66	8.61	169.05	---	---	---	---	---	---	---	---
ESE-4	03/21/01	177.66	8.61	169.05	---	---	---	---	---	---	---	---
ESE-4	06/18/01	177.66	9.24	168.42	---	---	---	---	---	---	---	---

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)	DO (ppm)	LAB	
ESE-5	10/05/92	176.08	9.22	166.86	1300	200	3.8	1.2	18	---	(l)	---	PACE
ESE-5	04/01/93	176.08	7.02	169.06	13000	2200	26	730	1000	---	(l)	---	PACE
QC-1 (d)	04/01/93	---	---	---	13000	2500	25	740	1100	---	(l)	---	PACE
ESE-5	06/29/93	176.08	10.21	165.87	7600	1500	9.3	170	100	---	(l)	---	PACE
ESE-5	09/23/93	176.08	10.64	165.44	560	19	1.2	0.9	1.8	---	(l)	---	PACE
ESE-5	12/10/93	176.08	9.42	166.66	1700	300	3	76	110	14.07	(l)	2.5	PACE
ESE-5	02/07/94	176.08	9.35	166.73	3500	640	7.8	90	130	45.13	(l)	---	PACE
ESE-5	08/08/94	176.08	8.76	167.32	2600	210	4.6	9.4	4.4	33	(e)	5.8	PACE
QC-1 (d)	08/08/94	---	---	---	2500	230	4.6	13	4.8	32	(e)	---	PACE
ESE-5	10/12/94	176.08	8.95	167.13	5600	560	9.5	75	21	79.2	(l)	3.6	PACE
QC-1 (d)	10/12/94	---	---	---	6000	550	10	78	22	77	(e)	---	PACE
ESE-5	01/19/95	176.08	5.40	170.68	1900	620	ND<5	95	15	---	---	7.6	ATI
QC-1 (d)	01/19/95	---	---	---	1600	620	ND<5	93	17	---	---	---	ATI
ESE-5	05/02/95	176.08	6.48	169.60	5700	1100	ND<10	180	58	---	---	8.2	ATI
QC-1 (d)	05/02/95	---	---	---	5300	1100	ND<10	180	58	---	---	---	ATI
ESE-5	07/28/95	176.08	7.97	168.11	520	15	ND<0.50	1.7	1.3	---	---	8.2	ATI
QC-1 (d)	07/28/95	---	---	---	460	7.2	ND<0.50	1.9	1.5	---	---	---	ATI
ESE-5	11/17/95	176.08	8.39	167.69	850	39	1.8	7.6	2.7	24	---	6.3	ATI
ESE-5	02/07/96	176.08	4.71	171.37	4100	670	6	190	140	ND<50	---	1.5	SPL
ESE-5	04/23/96	176.08	7.35	168.73	3000	570	ND<5	79	100	84	---	6.5	SPL
ESE-5	07/09/96	176.08	9.40	166.68	620	150	1.7	9.3	6.4	25	---	3.7	SPL
ESE-5	10/10/96	176.08	9.04	167.04	1100	29	ND<5.0	ND<5.0	ND<5.0	ND<50	---	6.3	SPL
QC-1 (d)	10/10/96	---	---	---	1100	31	ND<5.0	ND<5.0	ND<5.0	ND<50	---	---	SPL
ESE-5	01/20/97	176.08	5.82	170.26	2100	980	ND<25	280	80	ND<250	---	5.4	SPL
QC-1 (d)	01/20/97	---	---	---	2700	910	8.8	280	84	180	---	---	SPL
ESE-5	04/25/97	176.08	7.24	168.84	---	---	---	---	---	---	---	---	---
ESE-5	04/28/97	176.08	---	---	ND<250	7.9	ND<5.0	ND<5.0	ND<5.0	ND<50	---	4.9	SPL
ESE-5	07/18/97	176.08	7.86	168.22	1200	ND<5	ND<10	ND<10	ND<10	ND<100	---	5.0	SPL
QC-1 (d)	07/18/97	---	---	---	630	31	ND<5.0	ND<5.0	ND<5.0	130	---	---	SPL
ESE-5	10/27/97	176.08	7.91	168.17	ND<250	5.4	ND<5.0	ND<5.0	ND<5.0	ND<50	---	5.2	SPL
ESE-5	01/22/98	176.08	4.64	171.44	170	7.7	ND<1.0	ND<1.0	ND<1.0	130	---	4.6	SPL
ESE-5	04/23/98	176.08	6.31	169.77	720	79	ND<5.0	9.0	ND<5.0	180	---	4.6	SPL
ESE-5	07/29/98	176.08	7.43	168.65	---	---	---	---	---	---	---	---	---
ESE-5	07/30/98	---	---	---	840	9.8	ND<1.0	4.0	ND<1.0	710	---	4.3	SPL
ESE-5	12/17/98	176.08	7.05	169.03	---	---	---	---	---	---	---	---	---
ESE-5	03/19/99	176.08	5.00	171.08	ND<250	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	---	---	SPL
ESE-5	06/23/99	176.08	7.77	168.31	---	---	---	---	---	---	---	---	SPL
ESE-5	09/27/99	176.08	8.11	167.97	450	10	ND<5.0	6.3	ND<5.0	220	---	---	SPL
ESE-5	12/09/99	176.08	7.66	168.42	---	---	---	---	---	---	---	---	---

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)	DO (ppm)	LAB
ESE-5	03/09/00	176.08	5.08	171.00	1700	170	2.5	45	6.4	140	---	PACE
ESE-5	06/08/00	176.08	7.36	168.72	---	---	---	---	---	---	---	---
ESE-5	09/18/00	176.08	7.71	168.37	130	0.65	ND<0.5	0.71	ND<0.5	51	---	PACE
ESE-5	12/14/00	176.08	2.36	173.72	---	---	---	---	---	---	---	---
ESE-5	03/21/01	176.08	7.42	168.66	1000	10.3	ND<2.5	11	ND<7.5	70.8	---	PACE
ESE-5	06/18/01	176.08	7.92	168.16	---	---	---	---	---	---	---	---



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)	DO (ppm)	LAB
MW-6	07/28/95	179.24	10.00	169.24	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.1	ATI
MW-6	11/17/95	179.24	10.44	168.80	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	6.8	ATI
MW-6	02/07/96	179.24	7.68	171.56	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	2.4	SPL
MW-6	04/23/96	179.24	9.33	169.91	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	6.6	SPL
MW-6	07/09/96	179.24	10.10	169.14	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	2.7	SPL
MW-6	10/10/96	179.24	11.00	168.24	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.9	SPL
MW-6	01/20/97	179.24	8.70	170.54	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.5	SPL
MW-6	04/25/97	179.24	10.16	169.08	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.1	SPL
MW-6	07/18/97	179.24	10.66	168.58	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.8	SPL
MW-6	10/27/97	179.24	10.25	168.99	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.8	SPL
MW-6	01/22/98	179.24	7.76	171.48	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.0	SPL
MW-6	04/23/98	179.24	9.10	170.14	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.2	SPL
MW-6	07/29/98	179.24	10.40	168.84	---	---	---	---	---	---	---	---
MW-6	07/30/98	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.8	SPL
MW-6	12/17/98	179.24	9.40	169.84	---	---	---	---	---	---	---	---
MW-6	03/19/99	179.24	9.10	170.14	---	---	---	---	---	---	---	---
MW-6	06/23/99	179.24	9.79	169.45	---	---	---	---	---	---	---	---
MW-6	09/27/99	179.24	10.10	169.14	---	---	---	---	---	---	---	---
MW-6	12/09/99	179.24	9.97	169.27	---	---	---	---	---	---	---	---
MW-6	03/09/00	179.24	8.56	170.68	---	---	---	---	---	---	---	---
MW-6	06/08/00	179.24	9.11	170.13	---	---	---	---	---	---	---	---
MW-6	09/18/00	179.24	9.77	169.47	---	---	---	---	---	---	---	---
MW-6	12/14/00	179.24	9.17	170.07	---	---	---	---	---	---	---	---
MW-6	03/21/01	179.24	9.82	169.42	---	---	---	---	---	---	---	---
MW-6	06/18/01	179.24	10.19	169.05	---	---	---	---	---	---	---	---

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)	DO (ppm)	LAB
MW-7	07/28/95	176.55	9.25	167.30	ND<50	0.54 (g)	0.54	ND<0.50	ND<1.0	---	7.1	ATI
MW-7	11/17/95	176.55	9.73	166.82	1100	ND<10	ND<10	ND<10	ND<20	4000	6.3	ATI
MW-7	02/07/96	176.55	6.48	170.07	610	ND<0.5	ND<1	ND<1	ND<1	2500	4.1	SPL
QC-1 (d)	02/07/96	---	---	---	280	ND<0.5	ND<1	ND<1	ND<1	2600	---	SPL
MW-7	04/23/96	176.55	8.37	168.18	110	ND<0.5	ND<1	ND<1	ND<1	3500	6.4	SPL
QC-1 (d)	04/23/96	---	---	---	230	ND<0.5	ND<1	ND<1	ND<1	3500	---	SPL
MW-7	07/09/96	176.55	9.24	167.31	230	ND<0.5	ND<1	ND<1	ND<1	4296	3.1	SPL
QC-1 (d)	07/09/96	---	---	---	220	ND<0.5	ND<1	ND<1	ND<1	4400	---	SPL
MW-7	10/10/96	176.55	10.05	166.50	---	---	---	---	---	---	---	---
MW-7	10/11/96	176.55	---	---	1600	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3000	6.9	SPL
MW-7	01/20/97	176.55	7.51	169.04	ND<50	0.63	1	ND<1.0	ND<1.0	2600	5.7	SPL
MW-7	04/25/97	176.55	8.79	167.76	---	---	---	---	---	---	---	---
MW-7	04/28/97	176.55	---	---	1500	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3600	5.1	SPL
QC-1 (d)	04/28/97	---	---	---	7700	3500	ND<25	74	37	ND<250	---	SPL
MW-7	07/18/97	176.55	9.50	167.05	1400	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2600	5.2	SPL
MW-7	10/27/97	176.55	9.19	167.36	420	ND<0.5	ND<1.0	ND<1.0	ND<1.0	560	4.9	SPL
MW-7	01/22/98	176.55	6.45	170.10	3100	ND<0.5	ND<1.0	ND<1.0	1.4	2300	4.2	SPL
MW-7	04/23/98	176.55	8.02	168.53	3800	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3800	3.9	SPL
MW-7	07/29/98	176.55	8.88	167.67	---	---	---	---	---	---	---	---
MW-7	07/30/98	---	---	---	500	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.1	SPL
QC-1 (d)	07/30/98	---	---	---	4700	ND<12	ND<25	ND<25	ND<25	4700	---	SPL
MW-7	12/17/98	176.55	8.62	167.93	---	---	---	---	---	---	---	---
MW-7	03/19/99	176.55	7.52	169.03	3800	ND<1.0	ND<1.0	ND<1.0	ND<1.0	3800	---	SPL
MW-7	06/23/99	176.55	9.63	166.92	---	---	---	---	---	---	---	---
MW-7	09/27/99	176.55	9.39	167.16	140	ND<10	ND<10	ND<10	ND<10	3800	---	SPL
MW-7	12/09/99	176.55	9.94	166.61	---	---	---	---	---	---	---	---
MW-7	03/09/00	176.55	6.72	169.83	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1400	---	PACE
MW-7	06/08/00	176.55	7.38	169.17	---	---	---	---	---	---	---	---
MW-7	09/18/00	176.55	9.18	167.37	190	ND<0.5	ND<0.5	ND<0.5	ND<0.5	580	---	PACE
MW-7	12/14/00	176.55	8.13	168.42	---	---	---	---	---	---	---	---
MW-7	03/21/01	176.55	8.98	167.57	1300	ND<0.5	ND<0.5	ND<0.5	ND<1.5	1460	---	PACE
MW-7	06/18/01	176.55	9.68	166.87	---	---	---	---	---	---	---	---

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)	DO (ppm)	LAB
MW-8	07/28/95	176.34	7.80	168.54	1100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	---	7.2	ATI
MW-8	11/17/95	176.34	8.29	168.05	8300	75	5.3	670	240	140	7.0	ATI
MW-8	02/07/96	176.34	4.99	171.35	2300	33	ND<10	190	216	ND<100	1.7	SPL
MW-8	04/23/96	176.34	6.09	170.25	2000	390	ND<20	150	26	ND<250	5.1	SPL
MW-8 (h)	07/09/96	---	---	---	---	---	---	---	---	---	---	---
QC-2 (i)	04/01/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(l) ---	PACE
QC-2 (i)	06/29/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(l) ---	PACE
QC-2 (i)	09/23/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(l) ---	PACE
QC-2 (i)	12/10/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(l) ---	PACE
QC-2 (i)	02/17/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	08/08/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	10/12/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (i)	01/19/95	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	ATI
QC-2 (i)	05/02/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	07/28/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (i)	11/17/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (i)	02/07/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2 (i)	04/23/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2 (i)	07/09/96	---	---	---	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
DO	Dissolved oxygen
ug/L	Micrograms per liter
ppm	Parts per million
ND	Not detected above reported detection limit
---	Not applicable/available/measured/analyzed
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

- (a) Top of casing elevations surveyed relative to mean sea level.
- (b) Groundwater elevations in feet relative to mean sea level.
- (c) Additional analysis of the sample collected from ESE-1 on 10/5/92 detected 96 ug/L total petroleum hydrocarbons as diesel and 1.8 ug/L 1,2-dichloroethane.
- (d) Blind duplicate.
- (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-138-09-004.
- (f) Top of casing lowered by 0.07 foot after the monitoring event on 4/01/93.
- (g) Sample result may be falsely elevated due to matrix interference.
- (h) Well destroyed.
- (i) Travel blank.
- (j) Gasoline does not include MTBE.
- (k) Well Inaccessible.
- (l) A copy of the documentation for this data can be found in Blaine Tech Services report 010618-J-1. MTBE data for the September 28, 1992, September 29, 1992, October 5, 1992, and April 1, 1993 sampling events have been destroyed. No chromatograms could be located for MTBE data from wells sampled on June 29, 1993; wells ESE-1, ESE-3, ESE-4, ESE-5, and the Trip Blank, sampled on September 23, 1993; and wells ESE-1, ESE-2, and ESE-3, sampled on December 10, 1993.
- (\*) MTBE by EPA 8020/8260.

# Analytical Appendix



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

July 02, 2001

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

RE: Lab Project Number: 8521967  
Client Project ID: BP Site#11105

Dear Ms. Magyar:

Enclosed are the analytical results for sample(s) received by the laboratory on June 21, 2001. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paula Kirtley  
Project Manager

Enclosures

## **REPORT OF LABORATORY ANALYSIS**

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

Lab Project Number: 8521967  
Client Project ID: BP Site#11105

Attn: Ms. Cindy Magyar  
Phone:

Lab Sample No: 851698548      Project Sample Number: 8521967-001      Date Collected: 06/18/01 08:20  
Client Sample ID: A (11105)      Matrix: Water      Date Received: 06/21/01 09:00

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
------------	---------	-------	-----	----------	----------	---------	------	--------	-------

GC Volatiles

GAS by Mod 8015. Water		Method: EPA 8015 Modified			Prep Method: EPA 8015 Modified				
Gasoline Range Organics	380	ug/l	50.	1.0	06/26/01 06:33	LJAS			
1,4-Difluorobenzene (S)	99	%		1.0	06/26/01 06:33	LJAS			
4-Bromofluorobenzene (S)	91	%		1.0	06/26/01 06:33	LJAS	460-00-4		
SW8021 Aromatics. Water		Method: EPA 8021			Prep Method: See analytical meth				
Benzene	47.0	ug/l	0.500	1.0	06/26/01 23:56	LJAS	71-43-2		
Ethylbenzene	3.11	ug/l	0.500	1.0	06/26/01 23:56	LJAS	100-41-4		
Toluene	ND	ug/l	0.500	1.0	06/26/01 23:56	LJAS	108-88-3		
Xylene (Total)	ND	ug/l	1.50	1.0	06/26/01 23:56	LJAS	1330-20-7		
Methyl-tert-butyl ether	242.	ug/l	0.500	1.0	06/26/01 23:56	LJAS	1634-04-4		
1,4-Difluorobenzene (S)	104	%		1.0	06/26/01 23:56	LJAS			
4-Bromofluorobenzene (S)	100	%		1.0	06/26/01 23:56	LJAS	460-00-4		

Date: 07/02/01

Page: 1

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

Lab Project Number: 8521967  
 Client Project ID: BP Site#11105

Lab Sample No: 851698549      Project Sample Number: 8521967-002      Date Collected: 06/18/01 08:45  
 Client Sample ID: B (11105)      Matrix: Water      Date Received: 06/21/01 09:00

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
------------	---------	-------	-----	----------	----------	---------	------	--------	-------

GC Volatiles

GAS by Mod 8015, Water		Method: EPA 8015 Modified		Prep Method: EPA 8015 Modified					
Gasoline Range Organics	2000	ug/l	50.	1.0	06/26/01 07:30	LJAS			
1,4-Difluorobenzene (S)	115	%		1.0	06/26/01 07:30	LJAS			
4-Bromofluorobenzene (S)	90	%		1.0	06/26/01 07:30	LJAS	460-00-4		
SW8021 Aromatics, Water		Method: EPA 8021		Prep Method: See analytical meth					
Benzene	152.	ug/l	0.500	1.0	06/27/01 00:16	LJAS	71-43-2		
Ethylbenzene	3.62	ug/l	0.500	1.0	06/27/01 00:16	LJAS	100-41-4		
Toluene	0.669	ug/l	0.500	1.0	06/27/01 00:16	LJAS	108-88-3		
Xylene (Total)	2.34	ug/l	1.50	1.0	06/27/01 00:16	LJAS	1330-20-7		
Methyl-tert-butyl ether	1980	ug/l	5.00	10.0	06/27/01 00:16	LJAS	1634-04-4		
1,4-Difluorobenzene (S)	108	%		1.0	06/27/01 00:16	LJAS			
4-Bromofluorobenzene	101	%		1.0	06/27/01 00:16	LJAS	460-00-4		

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Lab Project Number: 8521967  
Client Project ID: 8P Site#11105

Lab Sample No: 851698550      Project Sample Number: 8521967-003      Date Collected: 06/18/01 09:10  
Client Sample ID: C (11105)      Matrix: Water      Date Received: 06/21/01 09:00

Parameters	Results	Units	PRL	Dilution	Analyzed	Analyst	CAS#	Ftnote	Limit
------------	---------	-------	-----	----------	----------	---------	------	--------	-------

GC Volatiles

GAS by Mod 8015, Water		Method: EPA 8015 Modified		Prep Method: EPA 8015 Modified	
Gasoline Range Organics	6400	ug/l	250	5.0	06/29/01 02:21 LJAS
1,4-Difluorobenzene (S)	91	%		1.0	06/29/01 02:21 LJAS
4-Bromofluorobenzene (S)	88	%		1.0	06/29/01 02:21 LJAS 460-00-4

SW8021 Aromatics, Water		Method: EPA 8021		Prep Method: See analytical meth	
Benzene	ND	ug/l	2.50	5.0	06/29/01 02:21 LJAS 71-43-2
Ethylbenzene	ND	ug/l	2.50	5.0	06/29/01 02:21 LJAS 100-41-4
Toluene	ND	ug/l	2.50	5.0	06/29/01 02:21 LJAS 108-88-3
Xylene (Total)	ND	ug/l	7.50	5.0	06/29/01 02:21 LJAS 1330-20-7
Methyl-tert-butyl ether	9320	ug/l	25.0	50.0	06/29/01 02:21 LJAS 1634-04-4
1,4-Difluorobenzene (S)	101	%		1.0	06/29/01 02:21 LJAS
4-Bromofluorobenzene (S)	98	%		1.0	06/29/01 02:21 LJAS 460-00-4

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

Lab Project Number: 8521967  
Client Project ID: BP Site#11105

---

PARAMETER FOOTNOTES

ND Not Detected  
NC Not Calculable  
PRL Pace Reporting Limit  
(S) Surrogate

Date: 07/02/01

Page: 4

## **REPORT OF LABORATORY ANALYSIS**

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Lab Project Number: 8521967  
Client Project ID: BP Site#11105

LABORATORY CONTROL SAMPLE: 851699455

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Methyl-tert-butyl ether	ug/l	50	51.66	103	
1,4-Difluorobenzene (S)				100	
4-Bromofluorobenzene (S)				101	

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

QUALITY CONTROL DATA

Lab Project Number: 8521967  
Client Project ID: BP Site#11105

LABORATORY CONTROL SAMPLE: 851699751

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Methyl-tert-butyl ether	ug/l	50	52.18	104	
1,4-Difluorobenzene (S)				102	
4-Bromofluorobenzene (S)				100	

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**Pace Analytical Services, Inc.**

900 Gemini Avenue

Houston, TX 77058

Phone: 281.488.1810

Fax: 281.488.4661

Lab Project Number: 8521967

Client Project ID: BP Site#11105

---

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

Date: 07/02/01

Page: 11

## **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 11105	BP SITE / FACILITY ADDRESS 3519 Castro Valley Blvd., Castro Valley			CONSULTANT PROJECT NUMBER <b>010618-51</b>	
CONSULTANT PROJECT MANAGER Scott Boor		PHONE NUMBER (408) 573-0555 x 223	FAX NUMBER (408) 573-7771		CONSULTANT CONTRACT NUMBER <b>J587918</b>
BP CONTACT Scott Hooton	BP ADDRESS 295 SW 41st Street, Suite N, Renton WA		PHONE NUMBER (425) 251-0689	FAX NO. (425) 251-0736	
LAB 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
					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-O (8015M)	FUEL OXYGENATES (8200)	1,2 DCA + EDB (8010)									COMMENTS		
				NO.	TYPE (VOL)	LAB SAMPLE #															
A -	6-18-01	0820	water	3	40ml	HCL	X													851698548	
B -	↓	0845	↓	↓	↓	↓	X														49
C -	↓	0910	↓	↓	↓	↓	X														50

SAMPLED BY (Please Print Name) <b>J. Kerns</b>			SAMPLED BY (Signature) <i>[Signature]</i> fr: Josh Kerns			ADDITIONAL COMMENTS		
RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)	DATE	TIME			
<i>J. Kerns</i> / <i>[Signature]</i>	6/20/01	1505	AIRBORNE EXPRESS <i>[Signature]</i>	6/20/01	1505			
			<i>[Signature]</i>	6/21/01	0900			

# Field Data Sheets

SAMPLE DATE	SAMPLE SOURCE	Field ID#	LAB ID#	ANALYSIS DATE	PRICE
<del>9/23/93</del>	ESE-3	ESE-3	700160758	10/1/93	4309245:
	ESE-4	ESE-4	700160766	10/1/93	4309245:
	ESE-5	ESE-5	700160774	10/1/93	"
<del>12/10/93</del>	ESE-3	ESE-3	700215706	12/22/93	43121652:
	ESE-4	ESE-4	700215714	12/22/93	
	ESE-5	ESE-5	700215722	12/22/93	
2/17/94	ESE-3	ESE-3	700251478	2/25/94	44022250:
	ESE-4	ESE-4	<del>700</del> 251486	2/25/94	" "
* 8/8/94	ESE-3	S-3	700369908	8/15/94	70036990
10/12/94	ESE-3	S-2	700423406	10/18/94	441013510
	ESE-5	S-5	700423430	10/18/94	" "

↓  
12/10  
↓  
2/17/94

↓

Hooton # 11105  
2/2



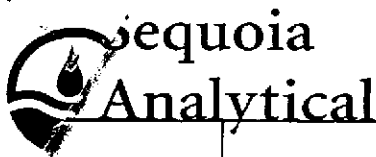
Scott Hooton  
 BP Oil  
 295 SW 41st St.  
 Renton, WA 98055

28-Nov-00

## EPA 8020 Chromatogram Review

Site - 11105

Pace Sample #	Matrix / Units	Sample ID	Date		Inst.	MTBE
			Sampled	Date Run		
70 0105480	Water / ug/L	ESE-1	6/29/93	7/6/93	*	*
70 0105498	Water / ug/L	ESE-2	6/29/93	7/6/93	*	*
70 0105501	Water / ug/L	ESE-3	6/29/93	7/6/93	*	*
70 0105510	Water / ug/L	ESE-4	6/29/93	7/7/93	*	*
70 0105528	Water / ug/L	ESE-5	6/29/93	7/7/93	*	*
70 0105536	Water / ug/L	ESE/QC-1	6/29/93	7/13/93	*	*
70 0105544	Water / ug/L	QC-2	6/29/93	7/7/93	*	*
70 0160723	Water / ug/L	QC-2	9/23/93	10/1/93	*	*
70 0160731	Water / ug/L	ESE-1	9/23/93	10/1/93	*	*
70 0160740	Water / ug/L	ESE-2	9/23/93	10/1/93	70-Q-2	643
70 0160758	Water / ug/L	ESE-3	9/23/93	10/1/93	*	*
70 0160766	Water / ug/L	ESE-4	9/23/93	10/1/93	*	*
70 0160774	Water / ug/L	ESE-5	9/23/93	10/1/93	*	*
70 0160782	Water / ug/L	ESE/QC-1	9/23/93	10/1/93	*	*
70 0215676	Water / ug/L	ESE/QC-1	12/10/93	12/22/93	*	*
70 0215684	Water / ug/L	ESE-1	12/10/93	12/22/93	*	*
70 0215692	Water / ug/L	ESE-2	12/10/93	12/22/93	*	*
70 0215706	Water / ug/L	ESE-3	12/10/93	12/22/93	*	*
70 0215714	Water / ug/L	ESE-4	12/10/93	12/22/93	70-Q-6	28.75
70 0215722	Water / ug/L	ESE-5	12/10/93	12/22/93	70-Q-6	14.07
70 0216303	Water / ug/L	QC-2	12/10/93	12/23/93	70-Q-8	<5.0
80 0251346	Water / ug/L	ESE/QC-1	2/17/94	2/25/94	70-Q-8	491 **
70 0251354	Water / ug/L	ESE-1	2/17/94	2/25/94	70-Q-8	585 **
70 0251435	Water / ug/L	ESE-2	2/17/94	2/25/94	70-Q-8	930 **
70 0251478	Water / ug/L	ESE-3	2/17/94	2/25/94	70-Q-8	5.74
70 0251486	Water / ug/L	ESE-4	2/17/94	2/25/94	70-Q-8	113
70 0251494	Water / ug/L	ESE-5	2/17/94	2/25/94	70-Q-8	45.13
70 0369886	Water / ug/L	S-1	8/8/94	8/15/94	70-Q-1	1392 **
70 0369894	Water / ug/L	S-2	8/8/94	8/16/94	70-Q-2	68.84
70 0369908	Water / ug/L	S-3	8/8/94	8/15/94	70-Q-2	<5.0
70 0369916	Water / ug/L	S-4	8/8/94	8/16/94	70-Q-1	764
70 0369924	Water / ug/L	S-5	8/8/94	8/16/94	70-Q-1	<50
70 0369932	Water / ug/L	S-6	8/8/94	8/16/94	70-Q-1	<50
70 0369940	Water / ug/L	S-7	8/8/94	8/15/94	70-Q-1	<5.0
70 0423392	Water / ug/L	S-1	10/12/94	10/18/94	70-Q-1	43.94
70 0423406	Water / ug/L	S-2	10/12/94	10/18/94	70-Q-1	<5.0



1455 McDowell Blvd. North, Ste. D  
Petaluma, CA 94954  
(707) 792-1865  
FAX (707) 792-0342  
www.sequoialabs.com

Pace Sample #	Matrix / Units	Sample ID	Date		Inst.	MTBE
			Sampled	Date Run		
70 0423414	Water / ug/L	S-3	10/12/94	10/18/94	70-Q-1	3046 **
70 0423422	Water / ug/L	S-4	10/12/94	10/18/94	70-Q-1	225
70 0423430	Water / ug/L	S-5	10/12/94	10/18/94	70-Q-1	79.2
70 0423449	Water / ug/L	S-6	10/12/94	10/18/94	70-Q-1	76.9
70 0423457	Water / ug/L	S-7	10/12/94	10/18/94	70-Q-1	<5.0

The data for the following sampling events has been destroyed:

September 28, 1992

September 29, 1992

October 5, 1992

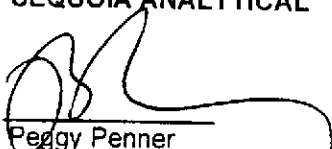
April 1, 1993

\* No chromatograms could be located for these samples.

\*\* The MTBE result is above the calibration range.

For all samples above, the MTBE results were quantitated against an actual MTBE standard. However, the results should still be considered estimated because the instrument may not have been calibrated for MTBE at the time of analysis and the identification of MTBE was not confirmed.

SEQUOIA ANALYTICAL

  
Peggy Penner  
Laboratory Director

## WELL GAUGING DATA

Project # 010618-J1 Date 6-18-01 Client Equiva

Site 3519 Castro Blvd. Valley Blvd. Castro Valley CA.

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
ESE-1	B					10.21	29.23	TOC
ESE-2	C					11.24	27.04	}
ESE-3	A					11.42	29.70	
ESE-4						9.24	22.85	
ESE-5						7.92	23.71	
MW-6						10.19	29.39	
MW-7						9.68	28.77	

## BP WELL MONITORING DATA SHEET

Project #: <u>010618-J1</u>	Station # <u>11105</u>
Sampler: <u>JIC</u>	Date: <u>6-18-01</u>
Well I.D.: <u>ESE-1</u>	Well Diameter: 2 3 4 6 8 <u>    </u>
Total Well Depth: <u>10.21</u>	Depth to Water: <u>29.23</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      Other: \_\_\_\_\_

Extraction Pump

Other: \_\_\_\_\_

<u>3</u>	X	<u>3</u>	=	<u>9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>0821</u>	<u>67.2</u>	<u>7.6</u>	<u>949</u>	<u>3</u>	
<u>0836</u>	<u>67.0</u>	<u>7.4</u>	<u>945</u>	<u>6</u>	
<u>0840</u>	<u>67.0</u>	<u>7.2</u>	<u>946</u>	<u>9</u>	

Did well dewater? Yes  No  Gallons actually evacuated: 9

Sampling Time: 0845 Sampling Date: 6-18-01

Sample I.D. (Blind): B 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 #: <u>010618-J1</u>	Station # <u>11105</u>
Sampler: <u>JIC</u>	Date: <u>6-18-01</u>
Well I.D.: <u>ESE-2</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: <u>11.24</u>	Depth to Water: <u>27.04</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: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer ✓ <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer ✓ <input type="checkbox"/> Extraction Port Other: _____
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<u>2.5</u>	X	<u>3</u>	=	<u>7.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>0857</u>	<u>65.7</u>	<u>7.5</u>	<u>1015</u>	<u>2.5</u>	
<u>0900</u>	<u>65.2</u>	<u>7.4</u>	<u>1022</u>	<u>5.0</u>	
<u>0907</u>	<u>65.1</u>	<u>7.2</u>	<u>1012</u>	<u>7.5</u>	

Did well dewater? Yes   No Gallons actually evacuated: 7.5

Sampling Time: 0910 Sampling Date: 6-18-01

Sample I.D. (Blind): C 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