



BP OIL

BP Oil Company
Environmental Remediation Management
295 SW 41st Street
Renton, Washington 98055-4931
(425) 251-0667
Fax No. (425) 251-0736

December 4, 1997

Alameda County Health Care Services Agency
Attention Ms. Eva Chu - Hazardous Materials Specialist
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: Former BP Oil Site No. 11120
6400 Dublin Boulevard
Dublin, CA
StID 2095

- MW-7 w/ 2,000 ppb MTBE ↑
- well MW 4 w/ 7000 ppb MTBE ↑
- ~~Other~~ ^{All} wells have only flow to
- ND conc. of HC/BTEX.
- check GW flow direction from previous qtr
- see if RWGOB will close case or just do Annual for MTBE

Dear Ms. Chu:

This letter transmits a Groundwater Monitoring and Sampling Report, dated 12 November 1997. The report summarizes groundwater chemical data obtained since 1992.

The investigation at this site was performed in 1992 to obtain baseline chemical data in support of BP's plans to withdraw from the California market. At that time, no petroleum release(s) were known or suspected to have occurred. Nevertheless, the data confirmed that a release had occurred, and further investigation required by the Alameda County Health Care Services Agency has been undertaken.

BP sold the site to Tosco, the current operator, during 1994. The underground storage tanks were replaced when the station was razed and rebuilt during 1996. It is my understanding that the UST system has been upgraded to comply with 1998 requirements for leak detection and prevention. You may recall that one of the monitoring wells (MW-1) was rendered inaccessible after the new station building was constructed.

The enclosed groundwater monitoring and sampling report includes laboratory data for samples collected on 16 September 1997. With the exception of well MW-4, you will note that aromatic petroleum hydrocarbons were not detected in any of the samples obtained from the monitoring wells. Benzene was detected in a sample obtained from MW-4 at a concentration of 0.80 ug/l.

MTBE concentration data is now shown in Figure 3, replacing the dissolved oxygen measurements shown in past reports. You should note that estimated MTBE concentrations for samples analyzed during 1993 and 1994 are also shown on Table 1 - Summary of Results of Groundwater Sampling. Prior laboratory documentation is appended to the enclosed report; I have no other information regarding the suspected or confirmed presence of MTBE in groundwater other than the data summarized in this report. It is my understanding that

97 DEC - 09 PM
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PROFESSIONAL

PACE included MTBE in the gasoline standard used to determine the retention time of various gasoline components, however, MTBE was not included in the calibration standards used to calculate sample concentrations. This is why Pace refers to the MTBE concentrations for samples analyzed during 1993 and 1994 as estimates. You will note that MTBE was reported to be present in samples obtained prior to the sale of the site to Tosco in 1994.

Since the tanks have been replaced, aromatic hydrocarbons are essentially below detectable concentrations, and MTBE concentrations appear to have stabilized, we would like to obtain a finding for "no further action" and a letter of "case closure" sometime in the near future. The monitoring wells were sampled yesterday, and -- if the results are consistent with the data previously reported -- it seems that further monitoring is of dubious utility. Please give me a call at (425) 251-0689 to discuss the disposition of this site.

Sincerely,



Scott Hooton
Environmental Remediation Management
BP Exploration & Oil, Inc.

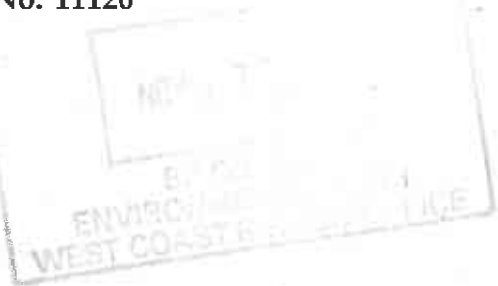
attachment

cc: site file
Tina Berry - Tosco (w/attachment)
Brady Nagle - Alisto

GROUNDWATER MONITORING AND SAMPLING REPORT

**BP Oil Company Service Station No. 11120
6400 Dublin Boulevard
Dublin, California**

Project No. 10-170-05-002



Prepared for:

**BP Oil Company,
Environmental Resources Management
295 S.W. 41st Street
Building 13, Suite N
Renton, Washington**


Prepared by:

**Alisto Engineering Group
1575 Treat Boulevard, Suite 201
Walnut Creek, California**

November 12, 1997



**Brady Nagle
Project Manager**



**Al Sevilla, P.E.
Principal**



5705C-9
ENVIRONMENTAL
REGISTRATION
11-16 AM 6-30/97
PM 9:47



GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11120
6400 Dublin Boulevard
Dublin, California

Project No. 10-170-05-002

November 12, 1997

INTRODUCTION

This report presents the results and findings of the September 16, 1997 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11120, 6400 Dublin Boulevard, Dublin, California. A site vicinity map is shown on Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of the Alameda County Health Care Services Agency and the California Regional Water Quality Control Board, San Francisco Bay Region.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well relative to an arbitrary datum. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

Before sample collection, each well was purged of 3 casing volumes while recording field readings of pH, temperature, electrical conductivity, and dissolved oxygen. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in the well. The samples were transferred from the bailer into laboratory-supplied containers. The water sampling field survey forms are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The results of monitoring and laboratory analysis of the groundwater samples for this and previous quarters are summarized in Table 1. The potentiometric groundwater elevations as interpreted from the results of this monitoring event are shown on Figure 2. The results of groundwater analysis are shown on Figure 3. The laboratory report and chain of custody record are presented in Appendix B.



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-1 (c)	10/27/92	328.96		8.19	320.77		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-1	04/09/93	328.96		4.79	324.17		ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-1	08/25/93	328.96		6.85	322.11		ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-1	11/22/93	328.96		7.38	321.58		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-1	03/07/94	328.96		5.89	323.07		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	4.3	PACE
MW-1	06/09/94	328.96		6.42	322.54		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	8.8	PACE
MW-1	09/12/94	328.96		7.33	321.63		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	7.8	PACE
MW-1	12/20/94	328.96		6.34	322.62		--	--	--	--	--	--	--	--	--
MW-1	03/16/95	328.96		4.37	324.59		ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	ATI
MW-1	06/28/95	328.96		5.35	323.61		--	--	--	--	--	--	--	--	--
MW-1	09/06/95	328.96		6.44	322.52		ND<50	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.4	ATI
MW-1	12/22/95	328.96		6.04	322.92		--	--	--	--	--	--	--	--	--
MW-1	08/20/96	328.96		5.65	323.31		--	--	--	--	--	--	--	--	--
MW-1	08/21/96	328.96		--	--		ND<50	160	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.8	SPL
MW-1	10/31/96	328.96		5.99	322.97		--	--	--	--	--	--	--	--	--
MW-1 (d)	12/02/96	328.96		--	--		--	--	--	--	--	--	--	--	--
MW-2	10/27/92	328.50		7.64	320.86		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-2	04/09/93	328.50		4.12	324.38		ND<50	80	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-2	08/25/93	328.50		6.31	322.19		ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-2	11/22/93	328.50		7.12	321.38		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	PACE
MW-2	03/07/94	328.50		5.60	322.90		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	4.3	PACE
MW-2	06/09/94	328.50		5.91	322.59		ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	8.2	PACE
MW-2	09/12/94	328.50		6.87	321.63		ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	7.5	PACE
MW-2	12/20/94	328.50		5.86	322.64		--	--	--	--	--	--	--	--	--
MW-2	03/16/95	328.50		3.77	324.73		ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.6	ATI
MW-2	03/16/95	328.50		3.77	324.73		ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.6	ATI
MW-2	06/28/95	328.50		4.33	324.17		--	--	--	--	--	--	--	--	--
MW-2	09/06/95	328.50		5.85	322.65		ND<50	210	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.0	ATI
MW-2	12/22/95	328.50		5.50	323.00		--	--	--	--	--	--	--	--	--
MW-2	08/20/96	328.50		5.07	323.43		--	--	--	--	--	--	--	--	--
MW-2	08/21/96	328.50		--	--		ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	7.0	SPL
MW-2	10/31/96	328.50		5.44	323.06		--	--	--	--	--	--	--	--	--
MW-2	12/02/96	328.50		5.50	323.00		--	--	--	--	--	--	--	--	--
MW-2	03/27/97	328.50		4.61	323.89		ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.8	SPL
MW-2	06/03/97	328.50		7.14	321.36		--	--	--	--	--	--	--	--	--
MW-2	09/16/97	328.50		6.10	322.40		ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.2	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-3	10/27/92	329.36	8.43	320.93	210	ND<50	3	0.7	0.9	30	—	—	PACE
MW-3	04/09/93	329.36	4.90	324.46	400	260	6.1	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-3	08/25/93	329.36	7.13	322.23	2000	440	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3300 (e)	—	PACE
MW-3	11/22/93	329.36	7.60	321.76	1800	360	ND<2.5	ND<2.5	ND<2.5	ND<2.5	910 (e)	—	PACE
MW-3	03/07/94	329.36	6.08	323.28	1300	5000	22	4.0	2.2	3.8	7200 (e)	3.7	PACE
MW-3	06/09/94	329.36	6.51	322.85	8500	2600	25	8.3	0.5	15	13000 (e)	7.2	PACE
QC-1 (f)	06/09/94	—	—	—	8800	—	23	6.3	0.5	10	13000 (e)	—	PACE
MW-3	09/12/94	329.36	7.63	321.73	2100	3200	ND<5.0	ND<5.0	8.8	20	3800 (e)	7.3	PACE
QC-1 (f)	09/12/94	—	—	—	1800	—	ND<5.0	ND<5.0	8.0	10	3900 (e)	—	PACE
MW-3	12/20/94	329.36	6.41	322.95	18000	9600	79	28	89	9.3	—	7.3	PACE
QC-1 (f)	12/20/94	—	—	—	17000	—	79	33	80	ND<2.5	—	—	PACE
MW-3	03/16/95	329.36	4.39	324.97	6300	7000	470	ND<5.0	210	9.9	—	5.5	ATI
QC-1 (f)	03/16/95	—	—	—	6300	—	500	ND<5.0	230	13	—	—	ATI
MW-3	06/28/95	329.36	5.50	323.86	9000	3000	(g) ND<10	ND<10	ND<10	ND<20	—	7.4	ATI
QC-1 (f)	06/28/95	—	—	—	8800	—	(g) ND<10	ND<10	ND<10	ND<20	—	—	ATI
MW-3	09/06/95	329.36	6.66	322.70	10000	2800	ND<50	ND<50	ND<50	ND<100	37000	7.1	ATI
QC-1 (f)	09/06/95	—	—	—	9700	—	ND<50	ND<50	ND<50	ND<100	36000	—	ATI
MW-3	12/22/95	329.36	6.31	323.05	9200	2500	ND<50	ND<50	ND<50	ND<100	29000	6.7	ATI
MW-3	06/20/96	329.36	5.87	323.49	—	—	—	—	—	—	—	—	—
MW-3	08/21/96	329.36	—	—	3700	1900	ND<25	ND<50	ND<50	ND<50	4100	6.8	SPL
QC-1 (f)	08/21/96	—	—	—	3500	—	ND<25	ND<50	ND<50	ND<50	4000	—	SPL
MW-3	10/31/96	329.36	6.20	323.16	ND<250	ND<500	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	6.8	SPL
QC-1 (f)	10/31/96	—	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	—
MW-3	12/02/96	329.36	6.27	323.09	ND<250	50	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	6.4	SPL
QC-1 (f)	12/02/96	—	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	—	—
MW-3	03/27/97	329.36	5.39	323.97	470	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	490	6.2	SPL
MW-3	06/03/97	329.36	7.92	321.44	ND<250	100	ND<2.5	ND<5.0	ND<5.0	ND<5.0	84	5.9	SPL
QC-1 (f)	06/03/97	—	—	—	ND<250	—	ND<2.5	ND<5.0	ND<5.0	ND<5.0	74.0	—	—
MW-3	09/16/97	329.36	6.67	322.69	ND<50	330	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	5.5	SPL

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ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-4	10/27/92	329.45		8.61	320.84		2300	190	23	54	50	320	—	—	PACE
MW-4	04/09/93	329.45		5.25	324.20		1600	500	78	3.5	68	1.0	—	—	PACE
MW-4	08/25/88	329.45		7.32	322.13		1800	380	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2100 (e)	—	PACE
QC-1 (f)	08/25/93	—		—	—		1600	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2100 (e)	—	PACE
MW-4	11/22/93	329.45		7.83	321.62		610	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-1 (f)	11/22/93	—		—	—		1700	—	ND<2.5	ND<2.5	ND<2.5	ND<2.5	3500 (e)	—	PACE
MW-4	03/07/94	329.45		6.29	323.16		710	1400	0.5	0.8	ND<0.5	ND<0.5	5900 (e)	3.8	PACE
QC-1 (f)	03/07/94	—		—	—		1600	—	ND<0.5	ND<0.5	1.4	0.6	4200 (e)	—	PACE
MW-4	06/09/94	329.45		6.76	322.69		6400	1800	ND<10	ND<10	ND<10	ND<10	10000 (e)	7.5	PACE
MW-4	09/12/94	329.45		7.83	321.62		2000	2700	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4200 (e)	7.2	PACE
MW-4	12/20/94	329.45		6.68	322.77		9200	2400	ND<5.0	ND<5.0	ND<5.0	ND<5.0	—	6.1	PACE
MW-4	03/16/95	329.45		4.66	324.79		1400	960	140	ND<2.5	58	14	—	5.5	ATI
MW-4	06/28/95	329.45		5.93	323.52		5000	5400 (g)	240	ND<5.0	220	ND<10	—	7.4	ATI
MW-4	09/06/95	329.45		6.83	322.62		4400	4500	ND<13	ND<13	ND<13	ND<25	12000	7.6	ATI
MW-4	12/22/95	329.45		6.42	323.03		3800	4700	15	ND<13	ND<13	ND<25	9200	7.1	ATI
QC-1 (f)	12/22/95	—		—	—		3900	—	16	ND<13	ND<13	ND<25	8600	—	ATI
MW-4	08/20/96	329.45		6.01	323.44		—	—	—	—	—	—	—	—	—
MW-4	08/21/96	329.45		—	—		ND<250	470	ND<12	ND<25	ND<25	ND<25	ND<250	7.7	SPL
MW-4	10/31/96	329.45		6.37	323.08		ND<250	1600	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	7.1	SPL
MW-4	12/02/96	329.45		6.71	322.74		ND<50	13000	ND<5	ND<10	ND<10	ND<10	2200	7.3	SPL
MW-4	03/27/97	329.45		5.70	323.75		8300	1500	44	ND<25	ND<25	ND<25	8000	6.2	SPL
QC-1 (f)	03/27/97	—		—	—		6900	—	51	ND<25	ND<25	ND<25	8500	—	SPL
MW-4	06/03/97	329.45		8.37	321.08		2800	270	62	ND<1.0	ND<1.0	ND<1.0	7000.0	7.1	SPL
MW-4	09/16/97	329.45		6.91	322.54		110	1800	0.80	ND<1.0	ND<1.0	ND<1.0	7700	6.2	SPL
QC-1 (f)	09/16/97	—		—	—		130	—	1.2	ND<1.0	ND<1.0	1.1	7100	—	SPL
MW-5	04/09/93	329.60		5.18	324.42		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-5	08/25/93	329.60		7.28	322.32		ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-5	11/22/93	329.60		7.82	321.78		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
MW-5	03/07/94	329.60		6.27	323.33		ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	5.7	PACE
MW-5	06/09/94	329.60		6.73	322.87		ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	7.7	PACE
MW-5	09/12/94	329.60		7.78	321.82		ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	7.2	PACE
MW-5	12/20/94	329.60		6.63	322.97		—	—	—	—	—	—	—	—	—
MW-5	03/16/95	329.60		4.65	324.95		ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	4.9	ATI
MW-5	06/28/95	329.60		5.69	323.91		—	—	—	—	—	—	—	—	—
MW-5	09/06/95	329.60		6.82	322.78		ND<50	200	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.3	ATI
MW-5	12/22/95	329.60		6.40	323.20		—	—	—	—	—	—	—	—	—
MW-5	08/20/96	329.60		5.98	323.62		—	—	—	—	—	—	—	—	—
MW-5	08/21/96	329.60		—	—		ND<50	ND<50	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<10	6.9	SPL
MW-5	10/31/96	329.60		6.29	323.31		—	—	—	—	—	—	—	—	—
MW-5	12/02/96	329.60		6.37	323.23		—	—	—	—	—	—	—	—	—
MW-5	03/27/97	329.60		5.33	324.27		ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.8	SPL
MW-5	06/03/97	329.60		8.00	321.60		—	—	—	—	—	—	—	—	—
MW-5	09/16/97	329.60		6.89	322.71		ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	27	5.4	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-6	04/09/93	329.55		5.37	324.18		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	08/25/93	329.55		7.42	322.13		ND<50	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	11/22/93	329.55		7.93	321.62		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	03/07/94	329.55		6.25	323.30		ND<50	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	4.2	PACE
MW-6	06/09/94	329.55		6.85	322.70		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	7.0	PACE
MW-6	09/12/94	329.55		7.91	321.64		ND<50	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	6.7	PACE
MW-6	12/20/94	329.55		6.82	322.73		---	---	---	---	---	---	---	---	---
MW-6	03/16/95	329.55		4.78	324.77		ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	6.1	ATI
MW-6	06/28/95	329.55		5.97	323.58		---	---	---	---	---	---	---	---	---
MW-6	09/06/95	329.55		6.94	322.61		ND<50	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.2	ATI
MW-6	12/22/95	329.55		6.53	323.02		---	---	---	---	---	---	---	---	---
MW-6	08/20/96	329.55		6.18	323.37		---	---	---	---	---	---	---	---	---
MW-6	08/21/96	329.55		---	---		ND<50	120	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
MW-6	10/31/96	329.55		6.52	323.03		---	---	---	---	---	---	---	---	---
MW-6	12/02/96	329.55		6.55	323.00		---	---	---	---	---	---	---	---	---
MW-6	03/27/97	329.55		5.50	324.05		ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.3	SPL
MW-6	06/03/97	329.55		8.19	321.36		---	---	---	---	---	---	---	---	---
MW-6	09/16/97	329.55		6.95	322.60		ND<250	680	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	5.5	SPL
MW-7	04/09/93	329.49		5.36	324.13		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	08/25/93	329.49		7.44	322.05		ND<50	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	11/22/93	329.49		7.92	321.57		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	03/07/94	329.49		6.20	323.29		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	3.7	PACE
MW-7	06/09/94	329.49		6.89	322.60		ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	6.8	PACE
MW-7	09/12/94	329.49		7.87	321.62		ND<50	50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	6.8	PACE
MW-7	12/20/94	329.49		6.77	322.72		ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	6.5	PACE
MW-7	03/16/95	329.49		4.77	324.72		ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	5.9	ATI
MW-7	06/28/95	329.49		5.94	323.55		ND<50	320	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	7.8	ATI
MW-7	09/06/95	329.49		6.98	322.51		ND<50	240	ND<0.50	ND<0.50	ND<0.50	ND<1.0	8.5	7.5	ATI
MW-7	12/22/95	329.49		6.65	322.84		ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	7.2	6.9	ATI
MW-7	08/20/96	329.49		6.22	323.27		---	---	---	---	---	---	---	---	---
MW-7	08/21/96	329.49		---	---		ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
MW-7	10/31/96	329.49		6.56	322.93		ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	86	6.8	SPL
MW-7	12/02/96	329.49		6.13	323.36		ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	59	7.3	SPL
MW-7	03/27/97	329.49		5.08	324.41		ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.6	SPL
MW-7	06/03/97	329.49		7.80	321.69		---	650	ND<0.5	ND<1.0	ND<1.0	ND<1.0	630	6.8	SPL
MW-7	09/16/97	329.49		6.50	322.99		---	120	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2200	6.0	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	(b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
QC-2 (h)	08/25/93	---		---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (h)	11/22/93	---		---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (h)	03/07/94	---		---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (h)	06/09/94	---		---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (h)	09/12/94	---		---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (h)	12/20/94	---		---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (h)	03/16/95	---		---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (h)	06/28/95	---		---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (h)	09/06/95	---		---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (h)	12/22/95	---		---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI

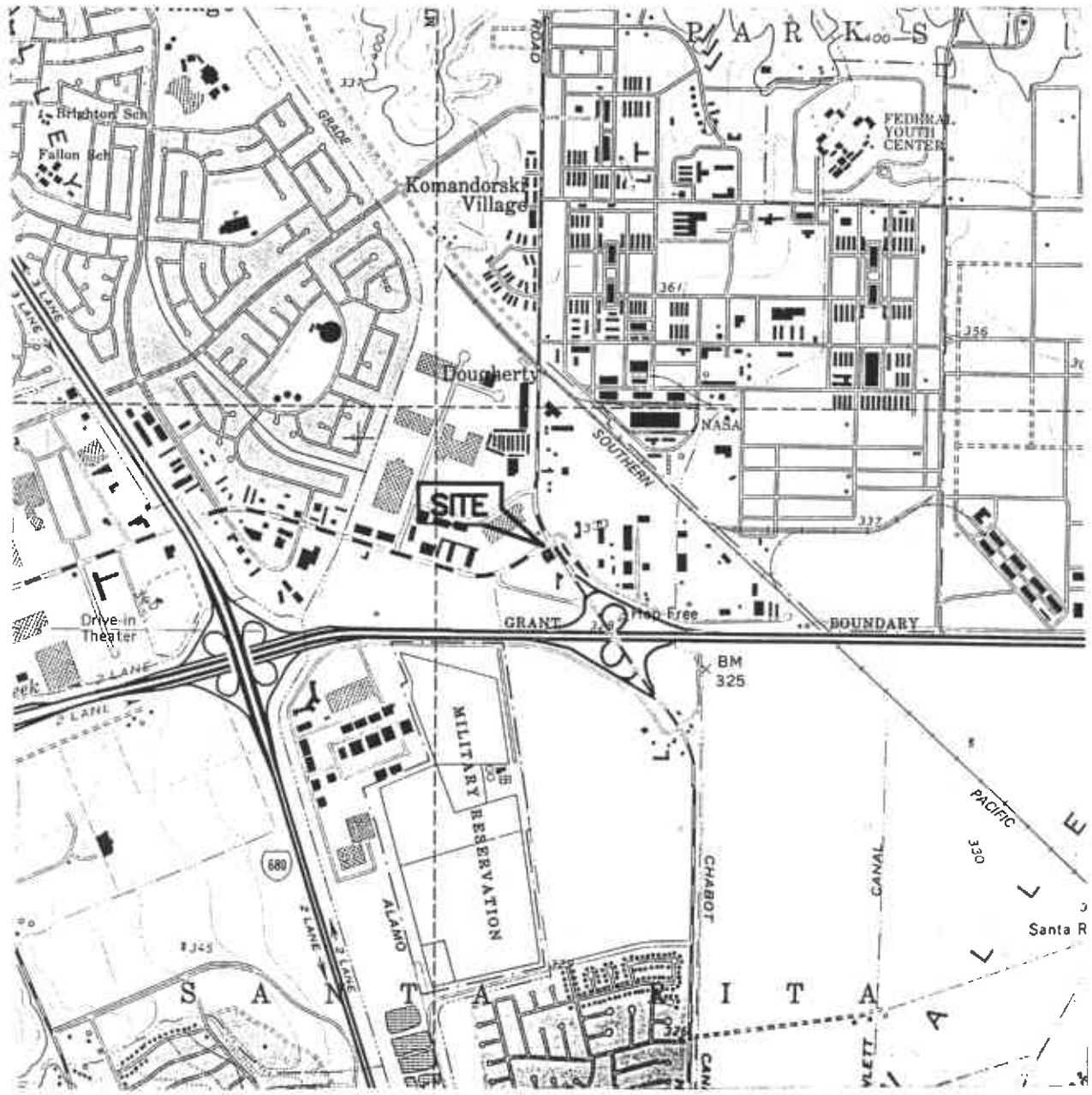
ABBREVIATIONS:

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
 DO Dissolved oxygen
 ug/l Micrograms per liter
 ppm Parts per million
 ND Not detected above reported detection limit
 --- Not analyzed/applicable/measured
 PACE Pace, Inc.
 ATI Analytical Technologies, Inc.
 SPL Southern Petroleum Laboratories

NOTES:

- (a) Top of casing elevations surveyed to an arbitrary datum.
 (b) Groundwater elevations relative to an arbitrary datum.
 (c) Analysis did not detect total oil and grease and halogenated volatile organic compounds above reported detection limits.
 (d) Well inaccessible.
 (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-170-05-001.
 (f) Blind duplicate.
 (g) MTBE peak. Refer to documentation for this data in Appendix C of Alisto report 10-170-05-001.
 (h) Travel blank.

FL0110-170170-5-2.WQ2



SOURCE:
 USGS MAP, DUBLIN QUADRANGLE,
 CALIFORNIA, 7.5 MINUTE SERIES, 1961.
 PHOTOREVISED 1980.

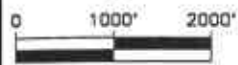
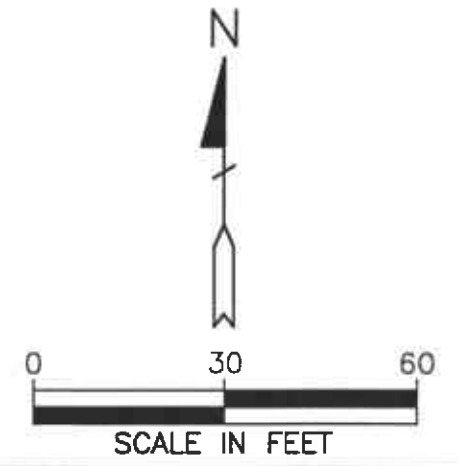
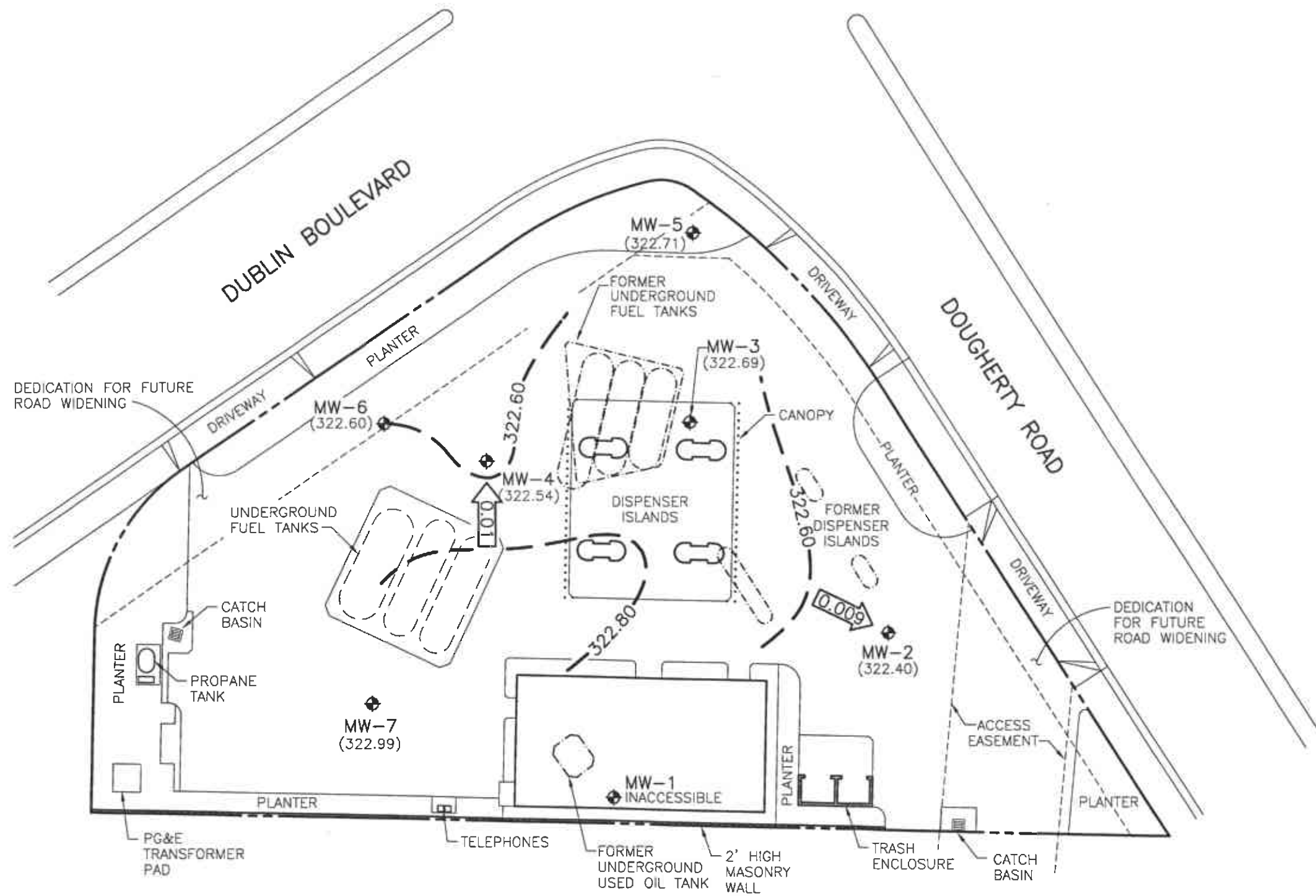


FIGURE 1
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA
PROJECT NO. 10-170

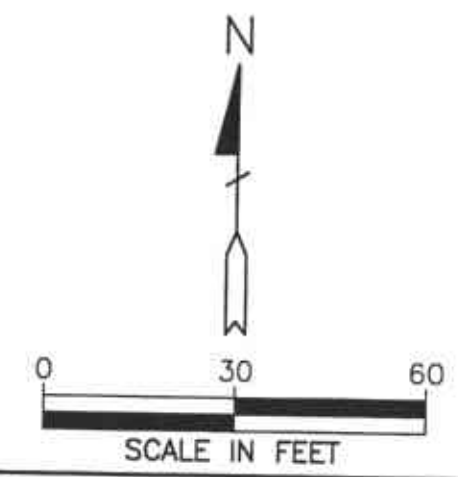


ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - (322.54) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 322.60 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL - 0.20 FOOT)
 - ← 0.01 → CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
 SEPTEMBER 16, 1997
 BP OIL SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD
 DUBLIN, CALIFORNIA
 PROJECT NO. 10-170



LEGEND

- ◆ GROUNDWATER MONITORING WELL
- TPH-G
B
T
E
X
CONCENTRATION OF CONSTITUENTS
IN MICROGRAMS PER LITER
- TPH-D
MTBE
TOTAL PETROLEUM
HYDROCARBONS AS GASOLINE
- B
T
E
X
BENZENE
TOLUENE
ETHYLBENZENE
TOTAL XYLENES
- TPH-D
MTBE
TOTAL PETROLEUM
HYDROCARBONS AS DIESEL
METHYL TERT BUTYL ETHER
- ND
NOT DETECTED ABOVE REPORTED
DETECTION LIMIT
- ←0.01
CALCULATED GROUNDWATER
GRADIENT DIRECTION AND
MAGNITUDE IN FOOT PER FOOT

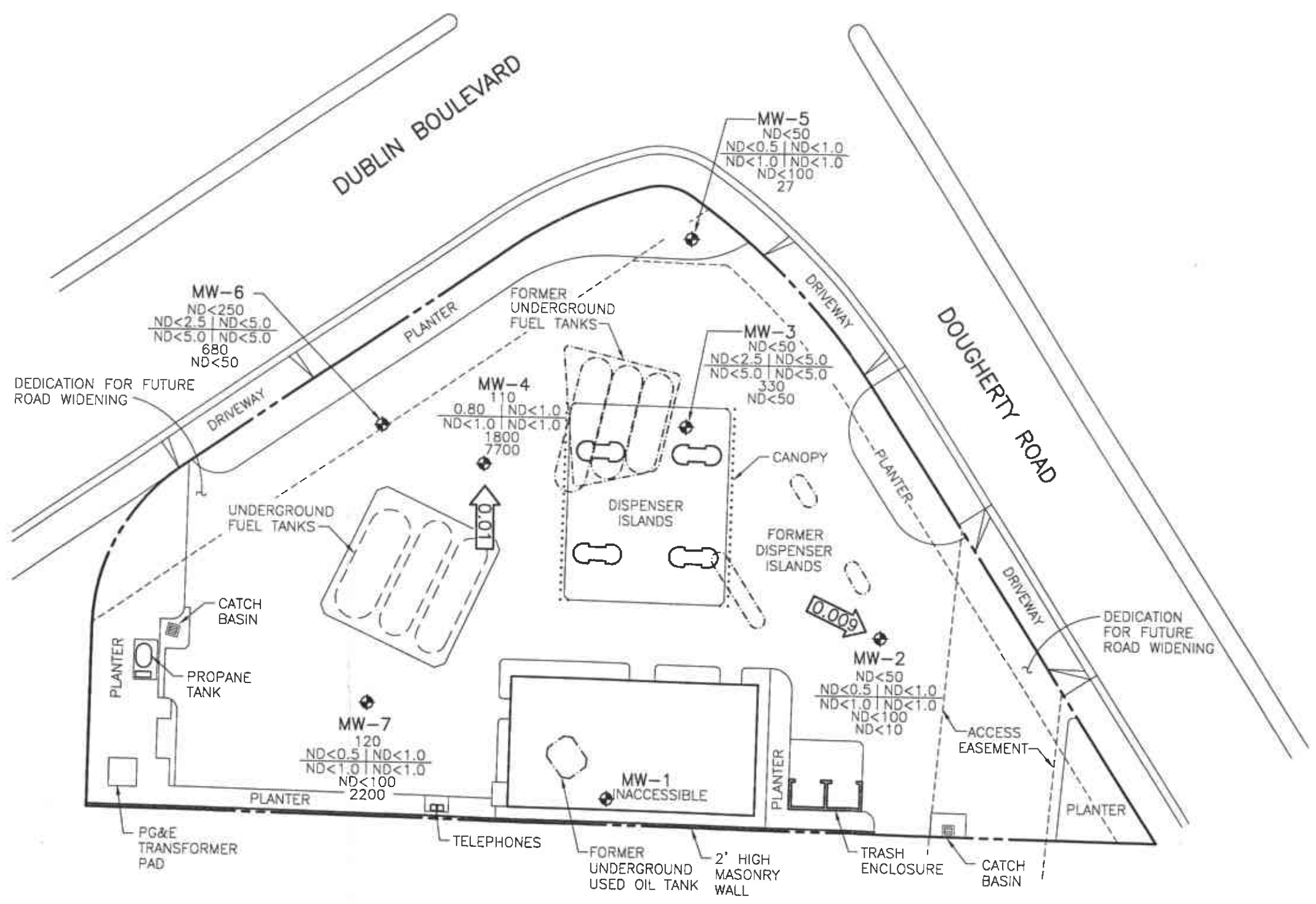


FIGURE 3
CONCENTRATIONS OF PETROLEUM
HYDROCARBONS IN GROUNDWATER
SEPTEMBER 16, 1997
 BP OIL SERVICE STATION NO. 11120
 6400 DUBLIN BOULEVARD
 DUBLIN, CALIFORNIA
 PROJECT NO. 10-170

10/10/97-ALDWC 10-31-97 RRM 1-35

APPENDIX A
WATER SAMPLING FIELD SURVEY FORMS

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Project No.

10-170-05-002 *Yms*

Date:

9/16/97

Address

6400 Dublin Blvd

Day: MTWTHF

Contract No.

H177101

City: Dublin

Station No.

BP 11120

Sampler:

LB

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS:
MW-1	—	2"	—	—	—	—	Cannot locate
MW-2	S-3	2"	25.00	6.10	⊘	1022	
MW-3	S-4	2"	20.00	6.67	⊘	1030	
MW-4	S-6	2"	20.00	6.91	⊘	1034	QC-1 (S-7) Casing is Bent Causing slight obstruction
MW-5	S-2	2"	25.00	6.89	⊘	1017	
MW-6	S-1	4"	25.00	6.95	⊘	1010	
MW-7	S-5	2"	20.25	6.50	⊘	1032	

FIELD INSTRUMENT CALIBRATION DATA

pH METER Jan 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y) N TIME 1042 WEATHER Clear
 D.O. METER Jan ZERO d.O. SOLUTION _____ BAROMETRIC PRESSURE 760 TEMP 74
 CONDUCTIVITY METER Jan 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER X
 LEAK DETECTOR: _____ ALARM MODE Y NON ALARM MODE _____

Well ID	Depth to Water	Diam	Cap/Lock	Product	Depl	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	Other	
MW-6	6.95	4"	Replaced	⊘	Y	(N)	12	1101	77.6	7.97	1.27 μ S	5.5		
Total Depth - Water Level =							x Well Vol. Factor =	x#vol. to Purge		Purge Vol.				
25.00 - 6.95 = 18.05							x 0.65 = 11.73	x 3 = 35.19	36	1137	73.9	7.71	1.31 μ S	5.5
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port														
Comments: <u>Need Casing Cut & Lock & Cap Replaced</u>														
													TIME/SAMPLE ID	
													1170	

- EPA 601 _____
- TPH-G/BTEX _____
- TPH Diesel _____
- TOG 5520 _____

Well ID	Depth to Water	Diam	Cap/Lock	Product	Depl	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	Other	
MW-5	6.89	2"	Replaced	⊘	Y	(N)	3	1152	76.8	7.87	1.31 μ S	5.7		
Total Depth - Water Level =							x Well Vol. Factor =	x#vol. to Purge		Purge Vol.				
25.00 - 6.89 = 18.11							x 0.16 = 2.90	x 3 = 8.70	9	1206	74.0	7.72	1.41 μ S	5.4
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port														
Comments: <u>Need Locking Cap & Lock</u>														
													TIME/SAMPLE ID	
													1215	

- EPA 601 _____
- TPH-G/BTEX _____
- TPH Diesel _____
- TOG 5520 _____

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Project No. 10-170-05-001

Address 6400 Dublin Blvd.

Contract No. H177101

Station No. BP 11120

Date: 9/16/97

Day: M T W T H F

City: Dublin

Sampler: LCB

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-2	6.10	2"	Replace	Ø	Y (N)	3	1227	77.1	7.97	1.21µs	5.1	<input type="radio"/> EPA 601
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.						2		76.7	7.83	1.30µs		<input checked="" type="radio"/> TPH-G/BTEX
25.00 - 6.10 = 18.90 x .16 = 3.02 x 3 = 9.06						10	1242	74.3	7.83	1.27µs	5.2	<input checked="" type="radio"/> TPH Diesel
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="radio"/> TOG 5520
Comments: Needs Cap & Lock												TIME/SAMPLE ID
											1247	
MW-3	6.67	2"	Replace	Ø	Y (N)	2	1336	76.4	7.93	1.27µs	5.3	<input type="radio"/> EPA 601
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.						4		74.7	7.83	1.37µs		<input checked="" type="radio"/> TPH-G/BTEX
20.00 - 6.67 = 13.33 x .16 = 2.13 x 3 = 6.39						7	1347	74.2	7.79	1.44µs	5.5	<input checked="" type="radio"/> TPH Diesel
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="radio"/> TOG 5520
Comments: Needs Cap & Lock												TIME/SAMPLE ID
											1350	
MW-7	6.50	2"	replace	Ø	Y (N)	2	1407	75.6	7.72	1.42µs	6.1	<input type="radio"/> EPA 601
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.						4		74.1	7.60	1.67µs		<input checked="" type="radio"/> TPH-G/BTEX
20.25 - 6.50 = 13.75 x .16 = 2.20 x 3 = 6.60						7	1417	73.7	7.50	1.77µs	6.0	<input checked="" type="radio"/> TPH Diesel
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="radio"/> TOG 5520
Comments: needs lock & cap												TIME/SAMPLE ID
											1421	
MW-4	6.91	2"	replace	Ø	Y (N)	2	1433	74.9	7.97	1.30µs	6.2	<input type="radio"/> EPA 601
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.						4		73.1	7.63	1.49µs		<input checked="" type="radio"/> TPH-G/BTEX
20.00 - 6.91 = 13.09 x .16 = 2.09 x 3 = 6.27						7	1447	72.0	7.58	1.52µs	6.2	<input checked="" type="radio"/> TPH Diesel
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="radio"/> TOG 5520
Comments: (20-1(S-7)F run this well)												TIME/SAMPLE ID
											1452	
					Y N							<input type="radio"/> EPA 601
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.												<input type="radio"/> TPH-G/BTEX
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> OSys Port												<input type="radio"/> TPH Diesel
Comments:												<input type="radio"/> TOG 5520
											TIME/SAMPLE ID	

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

September 30, 1997

Mr. Scott Hooton
BP OIL COMPANY
295 SW 41st St, Bldg 13, Ste N
Renton, WA 98055

The following report contains analytical results for samples received at Southern Petroleum Laboratories (SPL) on September 19, 1997. The samples were assigned to Certificate of Analysis No.(s) 9709967 and analyzed for all parameters as listed on the chain of custody.

There were no analytical problems encountered with this group of samples and all quality control data was within acceptance limits.

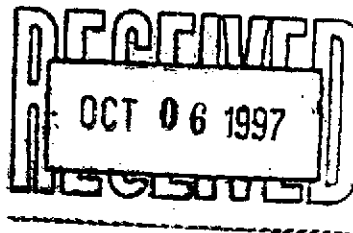
If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

A handwritten signature in cursive script, appearing to read 'Brett VanDelinder', written over a horizontal line.

Brett VanDelinder
Project Manager





HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number 97-09-967

Approved for Release by:



Brett VanDelinder, Project Manager

10-1-97
Date:

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-01

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-1

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

PARAMETER	ANALYTICAL DATA		DETECTION LIMIT	UNITS
	RESULTS			
MTBE	ND		50 P	µg/L
Benzene	ND		2.5 P	µg/L
Toluene	ND		5.0 P	µg/L
Ethylbenzene	ND		5.0 P	µg/L
Total Xylene	ND		5.0 P	µg/L
Surrogate		% Recovery		
1,4-Difluorobenzene		100		
4-Bromofluorobenzene		100		
Method 8020A*** Analyzed by: HS Date: 09/27/97				
Total Petroleum Hydrocarbons-Gasoline	ND		0.25 P	mg/L
Surrogate		% Recovery		
1,4-Difluorobenzene		100		
4-Bromofluorobenzene		100		
California LUFT Manual Analyzed by: HS Date: 09/27/97 04:09:00				
Total Petroleum Hydrocarbons-Diesel	0.68		0.1 P	mg/L
Surrogate		% Recovery		

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Sample contains petroleum hydrocarbons from C12-C24 that do not resemble a diesel pattern.(C10-C24) RR

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-01

BP Oil Company
295 SW 41st St, Bldg 13, Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.#
H177101, COC#085837
DATE: 09/30/97

PROJECT: #11120, NA
SITE: Dublin, CA.
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-1

PROJECT NO: 10-170-5-1
MATRIX: WATER
DATE SAMPLED: 09/16/97
DATE RECEIVED: 09/19/97

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
n-Pentacosane	Modified 8015A - Diesel *** Analyzed by: RR Date: 09/25/97 01:54:00	86		
Liquid-liquid extraction	Method 3510B *** Analyzed by: AM Date: 09/23/97 08:00:00	09/23/97		

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Sample contains petroleum hydrocarbons from C12-C24
that do not resemble a diesel pattern. (C10-C24) RR

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-02

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-2

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	27	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L

Surrogate

% Recovery

1,4-Difluorobenzene

97

4-Bromofluorobenzene

103

Method 8020A***

Analyzed by: AA

Date: 09/27/97

Total Petroleum Hydrocarbons-Gasoline

ND

0.05 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene

100

4-Bromofluorobenzene

97

California LUFT Manual

Analyzed by: HS

Date: 09/27/97 02:29:00

Total Petroleum Hydrocarbons-Diesel

ND

0.1 P

mg/L

Surrogate

% Recovery

n-Pentacosane

72

Modified 8015A - Diesel ***

Analyzed by: RR

Date: 09/24/97 09:20:00

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-02

BP Oil Company
295 SW 41st St, Bldg 13, Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.#
H177101, COC#085837
DATE: 09/30/97

PROJECT: #11120, NA
SITE: Dublin, CA.
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-2

PROJECT NO: 10-170-5-1
MATRIX: WATER
DATE SAMPLED: 09/16/97
DATE RECEIVED: 09/19/97

PARAMETER	ANALYTICAL DATA		DETECTION LIMIT	UNITS
	RESULTS			
Liquid-liquid extraction Method 3510B *** Analyzed by: AM Date: 09/23/97 08:00:00	09/23/97			

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-03

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-3

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L

Surrogate % Recovery
 1,4-Difluorobenzene 97
 4-Bromofluorobenzene 103

Method 8020A***
 Analyzed by: AA
 Date: 09/27/97

Total Petroleum Hydrocarbons-Gasoline ND 0.05 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 100
 4-Bromofluorobenzene 100

California LUFT Manual
 Analyzed by: HS
 Date: 09/27/97 03:02:00

Total Petroleum Hydrocarbons-Diesel ND 0.1 P mg/L

Surrogate % Recovery
 n-Pentacosane 72

Modified 8015A - Diesel ***
 Analyzed by: RR
 Date: 09/24/97 10:05:00

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-03

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-3

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
Liquid-liquid extraction Method 3510B *** Analyzed by: AM Date: 09/23/97 08:00:00		09/23/97		

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-04

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-4

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	50 P	µg/L
Benzene	ND	2.5 P	µg/L
Toluene	ND	5.0 P	µg/L
Ethylbenzene	ND	5.0 P	µg/L
Total Xylene	ND	5.0 P	µg/L

Surrogate	% Recovery
1,4-Difluorobenzene	100
4-Bromofluorobenzene	100

Method 8020A***
 Analyzed by: AA
 Date: 09/27/97

Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
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Surrogate	% Recovery
1,4-Difluorobenzene	100
4-Bromofluorobenzene	93

California LUFT Manual
 Analyzed by: HS
 Date: 09/28/97 02:55:00

Total Petroleum Hydrocarbons-Diesel	0.33	0.1 P	mg/L
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Surrogate	% Recovery
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ND - Not detected.

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Sample contains petroleum hydrocarbons from C14-C24 that do not resemble a diesel pattern. (C10-C24) RR

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-04

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-4

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
n-Pentacosane		76		
Modified 8015A - Diesel ***				
Analyzed by: RR				
Date: 09/25/97 11:38:00				
Liquid-liquid extraction		09/23/97		
Method 3510B ***				
Analyzed by: AM				
Date: 09/23/97 08:00:00				

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Sample contains petroleum hydrocarbons from C14-C24 that do not resemble a diesel pattern. (C10-C24) RR

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-05

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-5

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	2200	100 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L

Surrogate % Recovery
 1,4-Difluorobenzene 103
 4-Bromofluorobenzene 103

Method 8020A***
 Analyzed by: HS
 Date: 09/28/97

Total Petroleum Hydrocarbons-Gasoline 0.12 0.05 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 100
 4-Bromofluorobenzene 97

California LUFT Manual
 Analyzed by: HS
 Date: 09/28/97 12:42:00

Total Petroleum Hydrocarbons-Diesel ND 0.1 P mg/L

Surrogate % Recovery
 n-Pentacosane 74

Modified 8015A - Diesel ***
 Analyzed by: RR
 Date: 09/24/97 11:35:00

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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 8880 INTERCHANGE DRIVE
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 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-05

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-5

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

PARAMETER	ANALYTICAL DATA			UNITS
	RESULTS	DETECTION LIMIT		
Liquid-liquid extraction Method 3510B *** Analyzed by: AM Date: 09/23/97 08:00:00	09/23/97			

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-06

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-6

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

PARAMETER	ANALYTICAL DATA		RESULTS	DETECTION LIMIT	UNITS
MTBE			7700	500 P	µg/L
Benzene			0.80	0.5 P	µg/L
Toluene			ND	1.0 P	µg/L
Ethylbenzene			ND	1.0 P	µg/L
Total Xylene			ND	1.0 P	µg/L
Surrogate		% Recovery			
1,4-Difluorobenzene		100			
4-Bromofluorobenzene		100			
Method 8020A***					
Analyzed by: fab					
Date: 09/29/97					
Total Petroleum Hydrocarbons-Gasoline			0.11	0.05 P	mg/L
Surrogate		% Recovery			
1,4-Difluorobenzene		100			
4-Bromofluorobenzene		93			
California LUFT Manual					
Analyzed by: HS					
Date: 09/28/97 03:29:00					
Total Petroleum Hydrocarbons-Diesel			1.8	0.1 P	mg/L
Surrogate		% Recovery			

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Sample contains petroleum hydrocarbons from C10-C24 that do not resemble a diesel pattern.(C10-C24) RR

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-06

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-6

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
n-Pentacosane	Modified 8015A - Diesel *** Analyzed by: RR Date: 09/25/97 12:24:00	90		
Liquid-liquid extraction	Method 3510B *** Analyzed by: AM Date: 09/23/97 08:00:00	09/23/97		

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

COMMENTS: Sample contains petroleum hydrocarbons from C10-C24 that do not resemble a diesel pattern.(C10-C24) RR

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9709967-07

BP Oil Company
 295 SW 41st St, Bldg 13, Ste N
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 H177101, COC#085837
 DATE: 09/30/97

PROJECT: #11120, NA
 SITE: Dublin, CA.
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-7

PROJECT NO: 10-170-5-1
 MATRIX: WATER
 DATE SAMPLED: 09/16/97
 DATE RECEIVED: 09/19/97

PARAMETER	ANALYTICAL DATA			UNITS
	RESULTS	DETECTION LIMIT		
MTBE				
Benzene	7100	500 P		µg/L
Toluene	1.2	0.5 P		µg/L
Ethylbenzene	ND	1.0 P		µg/L
Total Xylene	ND	1.0 P		µg/L
	1.1	1.0 P		µg/L
Surrogate				
1,4-Difluorobenzene	% Recovery			
4-Bromofluorobenzene	100			
Method 8020A***	97			
Analyzed by: fab				
Date: 09/29/97				
Total Petroleum Hydrocarbons-Gasoline	0.13	0.05 P		mg/L
Surrogate				
1,4-Difluorobenzene	% Recovery			
4-Bromofluorobenzene	100			
California LUFT Manual	93			
Analyzed by: HS				
Date: 09/28/97 04:02:00				

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION



SURROGATE RECOVERY SUMMARY
09/30/97 10:30:31

PAGE 1
HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

AMOUNT CONC. RECOVERY
ADDED MEASURED

LIMITS

Method 8020A***
WORK ORDER: 9709967-06A

BATCH#:HP_N970927053700
CLIENT SAMPLE ID:S-6

1,4-Difluorobenzene	30	30	100	70-	131
4-Bromofluorobenzene	30	30	100	43-	135

Method 8020A***
WORK ORDER: 9709967-07A

BATCH#:HP_N970927053700
CLIENT SAMPLE ID:S-7

1,4-Difluorobenzene	30	30	100	70-	131
4-Bromofluorobenzene	30	29	97	43-	135

Method 8020A***
WORK ORDER: Method Blank

BATCH#:HP_N970927053700
CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	29	29.2	70-	131
4-Bromofluorobenzene	30	29	29.4	43-	135

Method 8020A***
WORK ORDER: LCS

BATCH#:HP_N970927053700
CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	31	103	70-	131
4-Bromofluorobenzene	30	30	100	43-	135

Method 8020A***
WORK ORDER: Matrix Spike

BATCH#:HP_N970927053700
CLIENT SAMPLE ID:9709973-13A

1,4-DIFLUOROBENZENE	30	31	103	70-	131
4-BROMOFLUOROBENZENE	30	31	103	43-	135

Method 8020A***
WORK ORDER: Matrix Spike Dup.

BATCH#:HP_N970927053700
CLIENT SAMPLE ID:9709973-13A

1,4-Difluorobenzene	30	30	100	70-	131
4-Bromofluorobenzene	30	30	100	43-	135

California LUFT Manual
WORK ORDER: 9709967-04A

BATCH#:HP_N970927053710
CLIENT SAMPLE ID:S-4

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	28	93	44-	153

California LUFT Manual
WORK ORDER: 9709967-05A

BATCH#:HP_N970927053710
CLIENT SAMPLE ID:S-5

1,4-Difluorobenzene	30	30	100	62-	144
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SURROGATE RECOVERY SUMMARY
09/30/97 10:30:31

PAGE 2
HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

AMOUNT CONC. RECOVERY
ADDED MEASURED

LIMITS

4-Bromofluorobenzene	30	29	97	44-	153
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California LUFT Manual
WORK ORDER: 9709967-06A

BATCH#:HP_N970927053710
CLIENT SAMPLE ID:S-6

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	28	93	44-	153

California LUFT Manual
WORK ORDER: 9709967-07A

BATCH#:HP_N970927053710
CLIENT SAMPLE ID:S-7

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	28	93	44-	153

California LUFT Manual
WORK ORDER: Method Blank

BATCH#:HP_N970927053710
CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	31	30.8	62-	144
4-Bromofluorobenzene	30	28	28.3	44-	153

California LUFT Manual
WORK ORDER: Matrix Spike

BATCH#:HP_N970927053710
CLIENT SAMPLE ID:9709990-01A

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	29	97	44-	153

California LUFT Manual
WORK ORDER: Matrix Spike Dup.

BATCH#:HP_N970927053710
CLIENT SAMPLE ID:9709990-01A

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	29	97	44-	153

Method 8020A***
WORK ORDER: 9709967-01A

BATCH#:HP_N970927085200
CLIENT SAMPLE ID:S-1

1,4-Difluorobenzene	30	30.0000	100	70-	131
4-Bromofluorobenzene	30	30.0000	100	43-	135

Method 8020A***
WORK ORDER: 9709967-01A

BATCH#:HP_N970927085200
CLIENT SAMPLE ID:S-1

1,4-Difluorobenzene	30	30.0000	100	70-	131
4-Bromofluorobenzene	30	30.0000	100	43-	135



AMOUNT CONC. RECOVERY
ADDED MEASURED

Method 8020A ***

BATCH#:HP_N970927085200

WORK ORDER: 9709967-02A

CLIENT SAMPLE ID:S-2

1,4-Difluorobenzene	30	29	97	70-	131
4-Bromofluorobenzene	30	31	103	43-	135

Method 8020A***

BATCH#:HP_N970927085200

WORK ORDER: 9709967-03A

CLIENT SAMPLE ID:S-3

1,4-Difluorobenzene	30	29	97	70-	131
4-Bromofluorobenzene	30	31	103	43-	135

Method 8020A***

BATCH#:HP_N970927085200

WORK ORDER: 9709967-04A

CLIENT SAMPLE ID:S-4

1,4-Difluorobenzene	30	30.0000	100	70-	131
4-Bromofluorobenzene	30	30.0000	100	43-	135

Method 8020A***

BATCH#:HP_N970927085200

WORK ORDER: 9709967-05A

CLIENT SAMPLE ID:S-5

1,4-Difluorobenzene	30	31	103	70-	131
4-Bromofluorobenzene	30	31	103	43-	135

Method 8020A ***

BATCH#:HP_N970927085200

WORK ORDER: Method Blank

CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	29	29.4	74-	131
4-Bromofluorobenzene	30	31	30.7	43-	135

Method 8020A ***

BATCH#:HP_N970927085200

WORK ORDER: LCS

CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	31	103	70-	131
4-Bromofluorobenzene	30	31	103	43-	135

Method 8020A ***

BATCH#:HP_N970927085200

WORK ORDER: Matrix Spike

CLIENT SAMPLE ID:9709967-02A

1,4-DIFLUOROBENZENE	30	30	100	70-	131
4-BROMOFLUOROBENZENE	30	31	103	43-	135

Method 8020A ***

BATCH#:HP_N970927085200

WORK ORDER: Matrix Spike Dup.

CLIENT SAMPLE ID:9709967-02A

1,4-Difluorobenzene	30	30	100	70-	131
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AMOUNT CONC. RECOVERY
ADDED MEASURED

LIMITS

4-Bromofluorobenzene	30	30	100	43-	135
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California LUFT Manual
WORK ORDER: 9709967-01A

BATCH#:HP_N970927085210
CLIENT SAMPLE ID:S-1

1,4-Difluorobenzene	30	30.0000	100	62-	144
4-Bromofluorobenzene	30	30.0000	100	44-	153

California LUFT Manual
WORK ORDER: 9709967-02A

BATCH#:HP_N970927085210
CLIENT SAMPLE ID:S-2

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	29	97	44-	153

California LUFT Manual
WORK ORDER: 9709967-03A

BATCH#:HP_N970927085210
CLIENT SAMPLE ID:S-3

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	30	100	44-	153

California LUFT Manual
WORK ORDER: Method Blank

BATCH#:HP_N970927085210
CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	30	29.6	62-	144
4-Bromofluorobenzene	30	29	28.6	44-	153

California LUFT Manual
WORK ORDER: Matrix Spike

BATCH#:HP_N970927085210
CLIENT SAMPLE ID:9709967-03A

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	30	100	44-	153

California LUFT Manual
WORK ORDER: Matrix Spike Dup.

BATCH#:HP_N970927085210
CLIENT SAMPLE ID:9709967-03A

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	30	100	44-	153

Method 8020A***
WORK ORDER: Method Blank

BATCH#:HP_N970928144710
CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	29	29.2	70-	131
4-Bromofluorobenzene	30	29	28.9	43-	135



AMOUNT CONC. RECOVERY
ADDED MEASURED

LIMITS

Method 8020A***
WORK ORDER: LCS

BATCH#:HP_N970928144710

CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	30	100	70-	131
4-Bromofluorobenzene	30	30	100	43-	135

Method 8020A***
WORK ORDER: Matrix Spike

BATCH#:HP_N970928144710

CLIENT SAMPLE ID:9709973-07A

1,4-DIFLUOROBENZENE	30	30	100	70-	131
4-BROMOFLUOROBENZENE	30	31	103	43-	135

Method 8020A***
WORK ORDER: Matrix Spike Dup.

BATCH#:HP_N970928144710

CLIENT SAMPLE ID:9709973-07A

1,4-Difluorobenzene	30	30	100	70-	131
4-Bromofluorobenzene	30	30	100	43-	135

California LUFT Manual
WORK ORDER: Method Blank

BATCH#:HP_N970928152010

CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	30	29.6	62-	144
4-Bromofluorobenzene	30	28	27.7	44-	153

California LUFT Manual
WORK ORDER: Matrix Spike

BATCH#:HP_N970928152010

CLIENT SAMPLE ID:9709990-02A

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	29	97	44-	153

California LUFT Manual
WORK ORDER: Matrix Spike Dup.

BATCH#:HP_N970928152010

CLIENT SAMPLE ID:9709990-02A

1,4-Difluorobenzene	30	30	100	62-	144
4-Bromofluorobenzene	30	29	97	44-	153

Method 8020A***
WORK ORDER: Method Blank

BATCH#:HP_N970929122700

CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	29	97	70-	131
4-Bromofluorobenzene	30	29	97	43-	135

Method 8020A***
WORK ORDER: LCS

BATCH#:HP_N970929122700

CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	31	103	70-	131
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AMOUNT CONC. RECOVERY
ADDED MEASURED

LIMITS

4-Bromofluorobenzene	30	30	100	43- 135
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Method 8020A***

BATCH#:HP_N970929122700

WORK ORDER: Matrix Spike

CLIENT SAMPLE ID:9709B22-02A

1,4-DIFLUOROBENZENE	30	29	97	70- 131
4-BROMOFLUOROBENZENE	30	30	100	43- 135

Method 8020A***

BATCH#:HP_N970929122700

WORK ORDER: Matrix Spike Dup.

CLIENT SAMPLE ID:9709B22-02A

1,4-Difluorobenzene	30	29	97	70- 131
4-Bromofluorobenzene	30	30	100	43- 135

Modified 8015A - Diesel ***

BATCH#:HP_V970924061900

WORK ORDER: 9709967-01B

CLIENT SAMPLE ID:S-1

n-Pentacosane	50	43	86	50- 150
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Modified 8015A - Diesel ***

BATCH#:HP_V970924061900

WORK ORDER: 9709967-02B

CLIENT SAMPLE ID:S-2

n-Pentacosane	50	36	72	50- 150
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Modified 8015A - Diesel ***

BATCH#:HP_V970924061900

WORK ORDER: 9709967-03B

CLIENT SAMPLE ID:S-3

n-Pentacosane	50	36	72	50- 150
---------------	----	----	----	---------

Modified 8015A - Diesel ***

BATCH#:HP_V970924061900

WORK ORDER: 9709967-04B

CLIENT SAMPLE ID:S-4

n-Pentacosane	50	38	76	50- 150
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Modified 8015A - Diesel ***

BATCH#:HP_V970924061900

WORK ORDER: 9709967-05B

CLIENT SAMPLE ID:S-5

n-Pentacosane	50	37	74	50- 150
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Modified 8015A - Diesel ***

BATCH#:HP_V970924061900

WORK ORDER: 9709967-06B

CLIENT SAMPLE ID:S-6

n-Pentacosane	50	45	90	50- 150
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SURROGATE RECOVERY SUMMARY
09/30/97 10:30:31

PAGE 7
HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

AMOUNT CONC. RECOVERY
ADDED MEASURED

Modified 8015A - Diesel *** BATCH#:HP_V970924061900
WORK ORDER: Method Blank CLIENT SAMPLE ID:

n-Pentacosane	50	36	72	50- 150
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Modified 8015A - Diesel *** BATCH#:HP_V970924061900
WORK ORDER: Matrix Spike CLIENT SAMPLE ID:970923SFBS

n-Pentacosane	50	38	76	50- 150
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- « = Recovery outside of control limits
- * = Methods for Chemical Analysis of Water & Wastes, 1983, EPA
- ** = Standard Methods for Examination of Water & Wastewater, 17th
- *** = Test Methods for Evaluating Solid Waste, EPA SW846, 3rd



** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020/602

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous
Units: µg/L

Batch Id: HP_N970927085200

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	50	100	63 - 120
Benzene	ND	50	55	110	62 - 121
Toluene	ND	50	56	112	66 - 136
EthylBenzene	ND	50	56	112	70 - 136
O Xylene	ND	50	56	112	74 - 134
M & P Xylene	ND	100	110	110	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
MTBE	27	20	46	95.0	44	85.0	11.1	20	39 - 150
BENZENE	ND	20	22	110	20	100	9.52	25	39 - 150
TOLUENE	ND	20	22	110	21	105	4.65	26	56 - 134
ETHYLBENZENE	ND	20	22	110	22	110	0	38	61 - 128
O XYLENE	ND	20	23	115	21	105	9.09	29	40 - 130
M & P XYLENE	ND	40	46	115	43	108	6.28	20	43 - 152

Analyst: AA

Sequence Date: 09/26/97

SPL ID of sample spiked: 9709967-02A ✓

Sample File ID: N_17937.TX0

Method Blank File ID:

Blank Spike File ID: N_17927.TX0

Matrix Spike File ID: N_17929.TX0

Matrix Spike Duplicate File ID: N_17930.TX0

* = Values Outside QC Range. « = Data outside Method Specification Limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical Data (3rd Q '95)

(***) = Source: SPL-Houston Historical Data (2nd Q '95)

SAMPLES IN BATCH(SPL ID):

9709906-01A 9709893-02A 9709967-05A 9709967-01A
 9709967-04A 9709973-01A 9709973-02A 9709973-03A
 9709973-04A 9709973-05A 9709973-06A 9709893-01A
 9709967-01A 9709893-04A 9709967-02A 9709967-03A
 9709893-03A



** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous
Units: µg/L

Batch Id: HP_N970928144710

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	43	86.0	20 - 110
Benzene	ND	50	49	98.0	62 - 121
Toluene	ND	50	50	100	66 - 136
Ethyl_Benzene	ND	50	51	102	70 - 136
O-Xylene	ND	50	51	102	74 - 134
M and P Xylene	ND	100	100	100	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
MTBE	ND	20	20	100	22	110	9.52	20	39 - 150
BENZENE	ND	20	25	125	26	130	3.92	25	39 - 150
TOLUENE	ND	20	25	125	25	125	0	26	56 - 134
ETHYL_BENZENE	ND	20	25	125	26	130 *	3.92	38	61 - 128
O-XYLENE	ND	20	25	125	26	130	3.92	29	40 - 130
M AND P XYLENE	ND	40	50	125	52	130	3.92	20	43 - 152

Analyst: HS

Sequence Date: 09/28/97

SPL ID of sample spiked: 9709973-07A

Sample File ID: N_71008.TX0

Method Blank File ID:

Blank Spike File ID: N_71001.TX0

Matrix Spike File ID: N_71003.TX0

Matrix Spike Duplicate File ID: N_71004.TX0

* = Values Outside QC Range. « = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = | (<4> - <5>) | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical Data (4th Q '95)

(***) = Source: SPL-Houston Historical Data (3rd Q '96)

SAMPLES IN BATCH(SPL ID):

9709973-11A 9709992-04A 9709973-12A 9709992-05A
 9709992-06A 9709C09-06A 9709C09-10A 9709C09-11A
 9709C09-12A 9709C09-03A 9709C09-05A 9709C09-08A
 9709C09-09A 9709B52-01A 9709973-07A 9709990-02A
 9709967-05A



** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous
Units: µg/L

Batch Id: HP_N970929122700

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	37	74.0	20 - 110
Benzene	ND	50	50.1	100	62 - 121
Toluene	ND	50	51.3	103	66 - 136
Ethyl_Benzene	ND	50	51.8	104	70 - 136
O-Xylene	ND	50	49.5	99.0	74 - 134
M and P Xylene	ND	100	100.5	100	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
MTBE	11	20	29	90.0	29	90.0	0	20	39 - 150
BENZENE	ND	20	20	100	20	100	0	25	39 - 150
TOLUENE	ND	20	21	105	21	105	0	26	56 - 134
ETHYL_BENZENE	ND	20	20	100	21	105	4.88	38	61 - 128
O-XYLENE	ND	20	20	100	21	105	4.88	29	40 - 130
M AND P XYLENE	ND	40	41	102	42	105	2.90	20	43 - 152

Analyst: fab

Sequence Date: 09/29/97

SPL ID of sample spiked: 9709B22-02A

Sample File ID: N_71056.TX0

Method Blank File ID:

Blank Spike File ID: N_71034.TX0

Matrix Spike File ID: N_71050.TX0

Matrix Spike Duplicate File ID: N_71051.TX0

* = Values Outside QC Range. « = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical Data (4th Q '95)

(***) = Source: SPL-Houston Historical Data (3rd Q '96)

SAMPLES IN BATCH(SPL ID):

9709992-06A 9709B29-01A 9709B29-02A 9709B29-03A
 9709981-06A 9709B22-02A 9709982-02A 9709981-03A
 9709B29-05A 9709981-02A 9709B29-04A 9709981-01A
 9709B22-01A 9709B30-01A 9709973-11A 9709967-06A
 9709967-07A 9709992-07A



** SPL BATCH QUALITY CONTROL REPORT **
CA LUFT

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous
Units: mg/L

Batch Id: HP_N970927085210

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Petroleum Hydrocarbons-Gas	ND	1.0	1.05	105	64 - 131

MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
PETROLEUM HYDROCARBONS-GAS	ND	0.9	0.89	98.9	0.87	96.7	2.25	36	36 - 160

Analyst: AA

Sequence Date: 09/26/97

SPL ID of sample spiked: 9709967-03A

Sample File ID: NN17957.TX0

Method Blank File ID:

Blank Spike File ID: NN17931.TX0

Matrix Spike File ID: NN17933.TX0

Matrix Spike Duplicate File ID: NN17934.TX0

* = Values Outside QC Range. « = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = | (<4> - <5>) | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL Historical Limits

(***) = Source: SPL Historical Limits (1st Q. '97)

SAMPLES IN BATCH(SPL ID):

9709906-01A 9709893-02A 9709973-01A 9709973-02A
 9709973-03A 9709973-04A 9709973-05A 9709973-06A
 9709967-02A 9709967-03A 9709893-01A 9709967-01A
 9709893-04A 9709893-03A



** SPL BATCH QUALITY CONTROL REPORT **
CA LUFT

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous
Units: mg/L

Batch Id: HP_N970927053710

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank	Spike	QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Petroleum Hydrocarbons-Gas	ND	1.0	0.87	87.0	64 - 131

MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
PETROLEUM HYDROCARBONS-GAS	ND	0.9	1.12	124	1.36	151	19.6	36	36 - 160

Analyst: HS

Sequence Date: 09/27/97

SPL ID of sample spiked: 9709990-01A

Sample File ID: NNI7972.TX0

Method Blank File ID:

Blank Spike File ID: NNI7965.TX0

Matrix Spike File ID: NNI7968.TX0

Matrix Spike Duplicate File ID: NNI7969.TX0

* = Values Outside QC Range. « = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = $[(<1> - <2>) / <3>] \times 100$

LCS % Recovery = $(<1> / <3>) \times 100$

Relative Percent Difference = $| (<4> - <5>) | / [(<4> + <5>) \times 0.5] \times 100$

(**) = Source: SPL Historical Limits

(***) = Source: SPL Historical Limits (1st Q. '97)

SAMPLES IN BATCH(SPL ID):

9709973-08A 9709973-09A 9709967-04A 9709967-06A
 9709967-07A 9709973-10A 9709992-01A 9709992-02A
 9709992-03A 9709992-05A 9709992-07A 9709990-02A
 9709990-03A 9709973-13A 9709990-01A 9709967-05A
 9709973-07A



Matrix: Aqueous
 Units: mg/L

Batch Id: HP_V970924061900

B L A N K S P I K E S

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(**) (Advisory)	
			Result	Recovery	Result	Recovery		RPD Max.	Recovery Range
			<1>	<4>	<1>	<5>			
DIESEL	ND	5.0	3.8	76.0	3.9	78.0	2.60	43	60 - 139

Analyst: RR
 Sequence Date: 09/24/97
 Method Blank File ID:
 Sample File ID:
 Blank Spike File ID: V_I7373.TX0
 Matrix Spike File ID:
 Matrix Spike Duplicate File ID:

* = Values Outside QC Range. « = Data outside Method Specification limits.
 NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
 ND = Not Detected/Below Detection Limit
 $\% \text{ Recovery} = [(<1> - <2>) / <3>] \times 100$
 $\text{Relative Percent Difference} = [(<4> - <5>) / [(<4> + <5>) \times 0.5]] \times 100$
 (**) = Source: SPL-Houston Historical Data (2nd Q '97)

SAMPLES IN BATCH(SPL ID):

9709967-06B 9709967-01B 9709967-02B 9709967-03B
 9709967-05B 9709814-01D 9709814-02D 9709967-04B

CHAIN OF CUSTODY
AND
SAMPLE RECEIPT CHECKLIST



9709967

CHAIN OF CUSTODY

No. 085837

Page 1 of 1

CONSULTANT'S NAME Alisto Engineering		CONSULTANT'S ADDRESS 1575 Trent Blvd #201, W.C. Ca 94598	
BP SITE NUMBER 11120	BP SITE / FACILITY ADDRESS Dublin, Ca		CONSULTANT PROJECT NUMBER 10-139- 10-170-5-
CONSULTANT PROJECT MANGER Brady Nagle	PHONE NUMBER (510) 295-1650	FAX NUMBER 295-1823	CONSULTANT CONTRACT NUMBER H177101
BP CONTACT Scott Houston	BP ADDRESS Renton, WA	PHONE NUMBER -	FAX NO. -
LAB CONTACT SPL	LABORATORY ADDRESS Texas	PHONE NUMBER -	FAX NO. -
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)	RUSH REQUESTED OF (Print Consultant Contact Name)	DATE/TIME 9/17/97	SHIPMENT DATE 9/17/97
			SHIPMENT METHOD Fed Ex

TAT: 24 Hours 48 Hours 72 Hours Standard 7 or 14 Days

ANALYSIS REQUIRED

AIRBILL NUMBER
3848471546

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	LAB SAMPLE #	TPH-1 TPH-2 TPH-3 TPH-4 TPH-5 TPH-6 TPH-7 TPH-8 TPH-9 TPH-10	TPH-11 TPH-12 TPH-13 TPH-14 TPH-15 TPH-16 TPH-17 TPH-18 TPH-19 TPH-20	COMMENTS
				NO.	TYPE (VOL.)					
S-1	9/16/97		W	4	Acc			X	X	
S-2	↓		↓	↓	↓			↓	↓	
S-3	↓		↓	↓	↓			↓	↓	
S-4	↓		↓	↓	↓			↓	↓	
S-5	↓		↓	↓	↓			↓	↓	
S-6	↓		↓	↓	↓			↓	↓	
S-7	↓		↓	↓	↓			↓	↓	

SAMPLED BY (Please Print Name)			SAMPLED BY (Signature)			ADDITIONAL COMMENTS		
RELINQUISHED BY / AFFILIATION (Print Name / Signature)		DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)		DATE	TIME	
<i>[Signature]</i>		9/17/97	0800	<i>Patricia Lyette</i>		9/17/97	0805	
<i>Patricia Lyette</i>		9/17/97	1520	<i>[Signature]</i>		9/19/97	1000	

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 9/19/97	Time: 1750
----------------------------------------------------------------------------	-------------------------------------------------------------------------

SPL Sample ID:

9709967

		<u>Yes</u>	<u>No</u>
1	Chain-of-Custody (COC) form is present.	<input checked="" type="checkbox"/>	
2	COC is properly completed.	<input checked="" type="checkbox"/>	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	<input checked="" type="checkbox"/>	
5	If yes, custody seals are intact.	<input checked="" type="checkbox"/>	
6	All samples are tagged or labeled.	<input checked="" type="checkbox"/>	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	<input checked="" type="checkbox"/>	
9	Temperature of samples upon arrival:		4c
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	3848471546
		Other:	
11	Method of sample disposal:	SPL Disposal	<input checked="" type="checkbox"/>
		HOLD	
		Return to Client	

Name: Julia Estel	Date: 9/19/97
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**BP EXPLORATION & OIL, INC.
ENVIRONMENTAL REMEDIATION MANAGEMENT
DATA REVIEW CHECKLIST**

BP Site Number: 11120
 ERM Contact: H177101
 Sampling Date: 09/16/97
 Matrix Description: Water
 Date Final Report Received: 10/06/97
 Laboratory & Location: SPL, Houston, Texas

	Yes	No	N/A
1. Is BP contract release number consistent with analytical report?	<u>Y</u>	_____	_____
2. Was report submitted within the specified timeframe?	<u>X</u>	_____	_____
3. Does report agree with the COC?	<u>X</u>	_____	_____
4. Are units consistent with the given matrix?	<u>Y</u>	_____	_____
5. Were any target analytes/compounds detected in blanks (i.e., trip or equipment)?	<u>Y</u>	_____	<u>X</u>
6. Are duplicate water samples within <u>32</u> %?	_____	_____	_____
7. Are holding times met?	<u>Y</u>	_____	_____
8. Are surrogates within limits using laboratory criteria?	<u>Y</u>	_____	_____
9. Are MS/MSD acceptable using laboratory criteria?	<u>see below</u>	_____	_____
10. Are LCS results acceptable using laboratory criteria?	<u>Y</u>	_____	_____

Notes: MSD recovery for ethylbenzene value outside QC range

Data Validation Completed by: Brady Nagle
 (signature): *Brady Nagle*
 Date: 11/6/97