Recd 6/9/95

1,1

BP OIL

June 1, 1995

BP Oil Company
Environmental Resources Management
Building 13, Suite N
295 SW 41st Street
Renton, Washington 98055-4931
(206) 251-0667

Increase in benzene concentration in (Mar 1995) MW3 and MW-4 - possibly due to increase GW elevation - No wells screened from 14-19' in "confined" aquifer. So why the increase in [ ]?

Note: SS from borings only collected from 5.5 and 10.5' - But USTs Bottom pistol at 14-15'

Need tank closure report for USTs removed in 1991 - No USTs removed in 1985 by Mobil - No reports available

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

RE: BP OIL FACILITY #11120
6400 Dublin Blvd
Dublin, CA

Dear Ms Chu:

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED May 9, 1995** for the above referenced facility.

If you should have any questions regarding this site, I may be reached at (206) 251-0689.

Wait for next qtr. if [ ] still higher; could be a new problem

Respectfully,

Scott T. Hooton
Environmental Resources Management

STH:mu msword\ERM11120

cc: Mr. Eddy So, CRWQCB San Francisco Bay Region, 2101 Webster Street , Suite 500, Oakland CA 94612

Mr Gary Pischke,Hydro Environmental Technologies Inc., 2363 Mariner Square Drive, Suite 243, Alameda CA 94501

Mr. Brady Nagle, Alisto Engineering Group, 1575 Treat Blvd, Ste 201, Walnut Creek, CA 94598

Mr. Larry Silva, TOSCO Northwest Co, 601 Union Street, Suite 2500, Seattle, WA 98101

Site File

0,4

BP OIL

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

September 11, 1998

Ref for poss. closure

Alameda County Heath 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

Dear Ms. Chu:

Following up our telephone conversation of 9 February 1998, this transmits a Groundwater Monitoring and Sampling Report, dated 2 September 1998.

You will recall that you asked BP to sample this site one more time during the month of June. At that time, you asked for verification of MTBE concentration data by mass spectrometry (Methods 8240 or 8260) to confirm MTBE data reported by gas chromatography (Method 8020).

The results show that MTBE was reported by Method 8020. These data, however, were not corroborated by mass spectrometry. On that basis, we believe that "case closure" and "no further action" determinations by the Alameda County Health Care Services Agency are appropriate.

I would appreciate receiving a letter of concurrence at your earliest convenience so that I may make the arrangements necessary to destroy all of the monitoring wells at this site. Please give me a call at (425) 251-0689 if you have questions.

Sincerely,

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

attachment

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

SEP 17 '98 PM 2:52

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-170-05-004

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

September 2, 1998

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-170-05-004

September 2, 1998

INTRODUCTION

This report presents the results and findings of the June 26, 1998 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 results of laboratory analysis of selected samples for oxygenated ether compounds using EPA Method 8260. 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 (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	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-1 (d)	06/26/98	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
MW-2	12/03/97	328.50	6.22	322.28	---	---	---	---	---	---	---	---	---
MW-2	06/26/98	328.50	4.86	323.64	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	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 (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	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	08/20/96	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
MW-3	12/03/97	329.36	6.81	322.55	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
QC-1 (f)	12/03/97	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
MW-3	06/26/98	329.36	5.08	324.28	ND<250	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.8	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 (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)		B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)		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		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-4		12/03/97	329.45	7.16	322.29	ND<50	ND<200		ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		6.0	SPL
MW-4		06/26/98	329.45	5.15	324.30	520	—		0.52	ND<1.0	ND<1.0	ND<1.0	1100		5.3	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
MW-5		12/03/97	329.60	6.99	322.61	—	---		---	---	---	---	---		---	---
MW-5		06/26/98	329.60	5.11	324.49	ND<50	---		ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		4.7	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 (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	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-6	12/03/97	329.55	7.22	322.33	---	---	---	---	---	---	---	---	---
MW-6	06/26/98	329.55	5.20	324.35	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	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<100	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<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2200	6.0	SPL
MW-7	12/03/97	329.49	6.66	322.83	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
MW-7 (h)	06/26/98	329.49	4.96	324.53	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.1	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 (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
QC-2 (i)	08/25/93	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (i)	11/22/93	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (i)	03/07/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (i)	06/09/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (i)	09/12/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (i)	12/20/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	PACE
QC-2 (i)	03/16/95	—	—	—	ND<50	—	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	—	ATI
QC-2 (i)	06/28/95	—	—	—	ND<50	—	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	—	ATI
QC-2 (i)	09/06/95	—	—	—	ND<50	—	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	—	ATI
QC-2 (i)	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) Analysis did not detect volatile organic compounds above reported detection limits.

(i) Travel blank.

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TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING FOR EPA METHOD 8260 ANALYSIS
BP OIL COMPANY SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

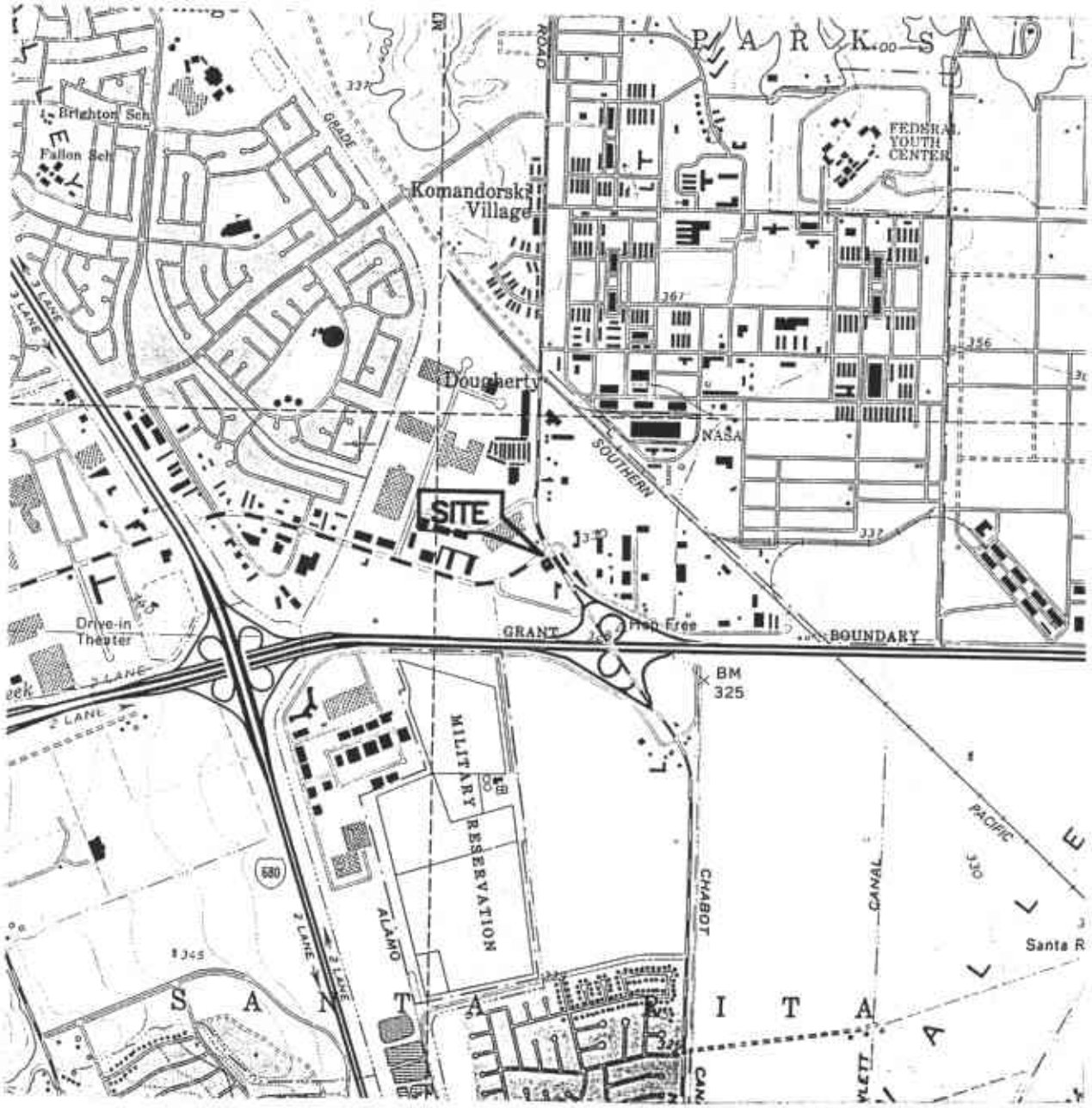
ALISTO PROJECT NO. 10-170

WELL ID	DATE OF SAMPLING/ MONITORING	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DIPE (ug/l)	ETBE (ug/l)	TBA (ug/l)	TAME (ug/l)	LAB
MW-4	06/26/98	ND<5	ND<5	ND<5	ND<5	ND<10	ND<10	ND<10	ND<500	ND<10	SPL
MW-7	06/26/98	ND<5	ND<5	ND<5	ND<5	ND<10	ND<10	ND<10	ND<500	ND<10	SPL

ABBREVIATIONS:

B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
DIPE	Di-isopropyl ether
ETBE	Ethyl t-butyl ether
TBA	t-butyl ether
TAME	tert-amyl methyl ether
ug/l	Micrograms per liter
ND	Not detected above reported detection limit
SPL	Southern Petroleum Laboratories

F:\01\10-170\10-170EC.WQ2



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

N

0 1000' 2000'

QUADRANGLE LOCATION

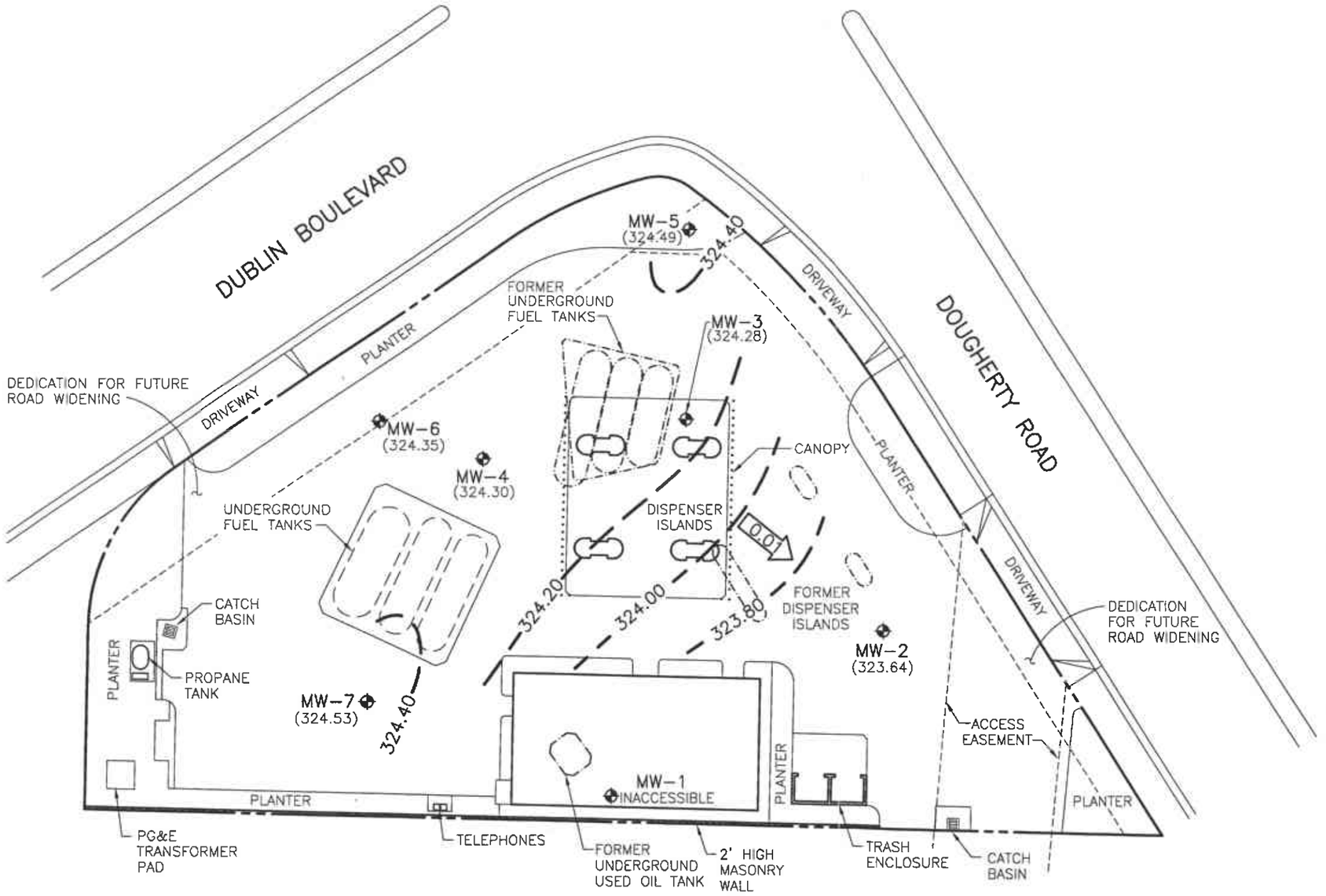
FIGURE 1

SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

PROJECT NO. 10-170

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA



N

0 30 60

SCALE IN FEET

LEGEND

- ◆ GROUNDWATER MONITORING WELL
- (323.64) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 323.80 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

NOTE:
Potentiometric groundwater elevation contours were generated with Quicksurf using the Kriging method with a spherical variogram on a triangulated grid surface.

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

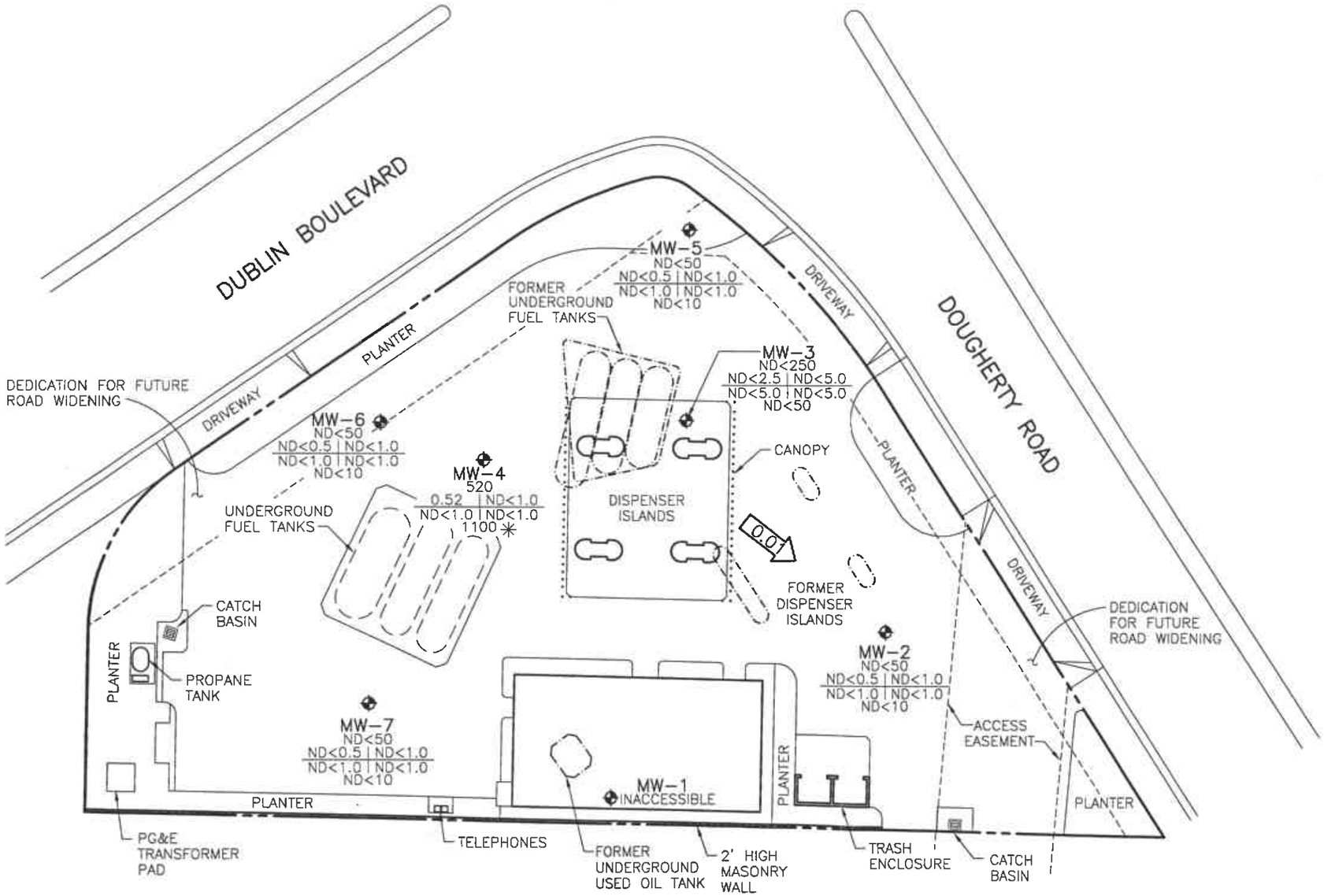
JUNE 26, 1998

BP OIL SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

PROJECT NO. 10–170

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

101700-2.DWG 8-19-98 TMI 1=30



N

0 30 60

SCALE IN FEET

LEGEND

◆	GROUNDWATER MONITORING WELL
TPH-G / B | T / E | X / MTBE	CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
MTBE	METHYL TERT BUTYL ETHER
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
0.01	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT
*	MTBE WAS NOT DETECTED WHEN ANALYZED USING EPA METHOD 8260

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

JUNE 26, 1998

BP OIL SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

PROJECT NO. 10-170

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10170C-1.DWG 9-2-98 TM 1=30

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

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

Field Report / Sampling Data Sheet

Project No. 10-170-05-004 Date: 6/26/98

Address 6400 Dublin Blvd Day: M T W TH (F)

Contract No. H177101A City: Dublin

Station No. BP 11120 Sampler: L CR

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS: Operating as BP
MW-1	NS	2"	—	—	—	—	Cannot locate
MW-2	S-1	2"	25.00	Ø	Ø	1117	4.86' (DTW) Replace Cap Next Round
MW-3	S-2	2"	20.00			1124	5.08' (DTW)
MW-4	S-6	2"	20.00			1140	5.15' (DTW) Casing Bent & Too High
MW-5	S-3	2"	25.00			1130	5.11' (DTW)
MW-6	S-5	4"	25.00			1136	5.20' (DTW) Casing Bent & Too High
MW-7	S-4	2"	20.25			1133	4.96' (DTW)

FIELD INSTRUMENT CALIBRATION DATA

pH METER Ion 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y) N TIME 1010 WEATHER Clear

D.O. METER Ion ZERO d.O. SOLUTION _____ BAROMETRIC PRESSURE 760 TEMP 68

CONDUCTIVITY METER _____ 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER X

LEAK DETECTOR : _____ ALARM MODE X NON ALARM MODE

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-2	4.86	2"	Replace	Ø	Y (N)	3	1201	67.3	7.56	1.21ms	4.4
						6		66.4	7.43	1.37ms	
						10	1210	66.0	7.38	1.43ms	4.6

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

25.00 - 4.86 = 20.14 X .16 = 3.22 X 3 = 9.66

Purge Method: (X)Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

O EPA 601 ____

(X) TPH-G/BTEX ____

O TPH Diesel ____

O TOG 5520 ____

TIME/SAMPLE ID: 1214

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-3	5.08	2"	OK	Ø	Y (N)	3	1227	66.8	7.89	1.33ms	4.6
						5		65.9	7.62	1.47ms	
						7	1235	65.4	7.56	1.51ms	4.8

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

20.00 - 5.08 = 14.92 X .16 = 2.38 X 3 = 7.14

Purge Method: (X)Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

O EPA 601 ____

(X) TPH-G/BTEX ____

O TPH Diesel ____

O TOG 5520 ____

TIME/SAMPLE ID: 1240

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. 10-170-05-004 Date: 6/26/98
Address 6400 Dublin Blvd. Day: M T W TH (F)
Contract No. H177101A City: Dublin
Station No. BP 11120 Sampler: L CB

MW-5 — Well ID: MW-5 | Depth to Water: 5.11 | Diam: 2" | Cap/Lock: OK | Product Depth: Ø | Iridescence: Y (N)

Total Depth - Water Level= 25.00 - 5.11 = 19.89 x Well Vol. Factor= .16 = 3.18 x #vol. to Purge= 3 = PurgeVol. 9.54

Purge Method: (X)Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
3	1246	68.3	7.82	1.17 ms	4.7
7		67.1	7.61	1.36 ms	
10	1255	66.6	7.52	1.44 ms	4.7

(X) EPA 601 ___ (X) TPH-G/BTEX ___ ( ) TPH Diesel ___ ( ) TOG 5520 ___

TIME/SAMPLE ID: 1258

MW-7 — Well ID: MW-7 | Depth to Water: 4.96 | Diam: 2" | Cap/Lock: OK | Product Depth: Ø | Iridescence: Y (N)

Total Depth - Water Level= 20.25 - 4.96 = 15.29 x Well Vol. Factor= .16 = 2.45 x #vol. to Purge= 3 = PurgeVol. 7.35

Purge Method: (X)Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
3	1305	69.6	7.93	1.31 ms	5.1
5		68.6	7.69	1.47 ms	
8	1313	67.7	7.60	1.54 ms	5.1

(X) EPA 601 ___ (X) TPH-G/BTEX ___ ( ) TPH Diesel ___ ( ) TOG 5520 ___

TIME/SAMPLE ID: 1320

MW-6 — Well ID: MW-6 | Depth to Water: 5.20 | Diam: 4" | Cap/Lock: Replaced | Product Depth: Ø | Iridescence: Y (N)

Total Depth - Water Level= 25.00 - 5.20 = 19.80 x Well Vol. Factor= .65 = 12.87 x #vol. to Purge= 3 = PurgeVol. 38.61

Purge Method: (X)Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments: Replace Cap Next Round

Gal.	Time	Temp °F	pH	E.C.	D.O.
13	1326	67.7	7.77	1.27 ms	4.2
26		67.0	7.55	1.56 ms	
39	1347	66.3	7.47	1.63 ms	4.6

(X) EPA 601 ___ (X) TPH-G/BTEX ___ ( ) TPH Diesel ___ ( ) TOG 5520 ___

TIME/SAMPLE ID: 1355

MW-4 — Well ID: MW-4 | Depth to Water: 5.15 | Diam: 2" | Cap/Lock: Replaced | Product Depth: Ø | Iridescence: Y (N)

Total Depth - Water Level= 20.00 - 5.15 = 14.85 x Well Vol. Factor= .16 = 2.38 x #vol. to Purge= 3 = PurgeVol. 7.14

Purge Method: (X)Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments: (X-1 (S-7) from this well)

Gal.	Time	Temp °F	pH	E.C.	D.O.
3	1402	66.7	7.73	1.30 ms	5.1
5		65.3	7.60	1.57 ms	
8	1410	65.0	7.52	1.57 ms	5.3

(X) EPA 601 ___ (X) TPH-G/BTEX ___ ( ) TPH Diesel ___ ( ) TOG 5520 ___

TIME/SAMPLE ID: 1412

Well ID — Depth to Water — Diam — Cap/Lock — Product Depth — Iridescence: Y N

Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge= PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.

( ) EPA 601 ___ ( ) TPH-G/BTEX ___ ( ) TPH Diesel ___ ( ) 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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-06-E19

Approved for Release by:

Joel Grice, Senior Organic Project Manager

Date: 7/13/98

Greg Grandits
Laboratory Director

Cynthia Schreiner
Quality Assurance Officer

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

Certificate of Analysis No. H9-9806E19-01

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

P.O.# H177101, COC#098637
DATE: 07/11/98

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

PROJECT NO: 10-170-5-4
MATRIX: WATER
DATE SAMPLED: 06/26/98
DATE RECEIVED: 06/30/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 P	ug/L
Toluene	ND	1.0 P	ug/L
Ethylbenzene	ND	1.0 P	ug/L
Total Xylene	ND	1.0 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	70		
Method 8020A***			
Analyzed by: AA/			
Date: 07/08/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	73		
California LUFT Manual for Gasoline			
Analyzed by: AA/			
Date: 07/08/98 06:30:00			

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.
SPL California License # 1903

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

Certificate of Analysis No. H9-9806E19-02

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

P.O.# H177101, COC#098637
DATE: 07/11/98

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

PROJECT NO: 10-170-5-4
MATRIX: WATER
DATE SAMPLED: 06/26/98
DATE RECEIVED: 06/30/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	50 P	ug/L
Benzene	ND	2.5 P	ug/L
Toluene	ND	5.0 P	ug/L
Ethylbenzene	ND	5.0 P	ug/L
Total Xylene	ND	5.0 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	80		
Method 8020A***			
Analyzed by: AA/ Date: 07/08/98			
Gasoline Range Organics	ND	0.25 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	87		
California LUFT Manual for Gasoline			
Analyzed by: AA/ Date: 07/08/98 09:07:00			

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.

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

Certificate of Analysis No. H9-9806E19-03

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

P.O.# H177101, COC#098637
DATE: 07/11/98

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

PROJECT NO: 10-170-5-4
MATRIX: WATER
DATE SAMPLED: 06/26/98
DATE RECEIVED: 06/30/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 P	ug/L
Toluene	ND	1.0 P	ug/L
Ethylbenzene	ND	1.0 P	ug/L
Total Xylene	ND	1.0 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	70		
Method 8020A***			
Analyzed by: AA/ Date: 07/08/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	73		
California LUFT Manual for Gasoline			
Analyzed by: AA/ Date: 07/08/98 06:56:00			

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

Certificate of Analysis No. H9-9806E19-04

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

P.O.# H177101, COC#098637
DATE: 07/11/98

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

PROJECT NO: 10-170-5-4
MATRIX: WATER
DATE SAMPLED: 06/26/98
DATE RECEIVED: 06/30/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 P	ug/L
Toluene	ND	1.0 P	ug/L
Ethylbenzene	ND	1.0 P	ug/L
Total Xylene	ND	1.0 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	67		
Method 8020A***			
Analyzed by: AA/			
Date: 07/08/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	67		
California LUFT Manual for Gasoline			
Analyzed by: AA/			
Date: 07/08/98 19:22:00			

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

Certificate of Analysis No. H9-9806E19-04

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

P.O.# H177101, COC#098637
07/11/98

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

PROJECT NO: 10-170-5-4
MATRIX: WATER
DATE SAMPLED: 06/26/98
DATE RECEIVED: 06/30/98

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Toluene	ND	5	ug/L
Xylenes (total)	ND	5	ug/L
Methyl t-Butyl Ether	ND	10	ug/L
t-Butyl Alcohol	ND	500	ug/L
Di-Isopropyl Ether	ND	10	ug/L
tert-Amyl Methyl Ether	ND	10	ug/L
Ethyl t-Butyl Ether	ND	10	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	96	76	114
Toluene-d8	50 ug/L	92	88	110
4-Bromofluorobenzene	50 ug/L	96	86	115

ANALYZED BY: JC
DATE/TIME: 07/02/98 10:44:00
METHOD: 8260 Water, Volatile Organics
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

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. H9-9806E19-05

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

P.O.# H177101, COC#098637
DATE: 07/11/98

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

PROJECT NO: 10-170-5-4
MATRIX: WATER
DATE SAMPLED: 06/26/98
DATE RECEIVED: 06/30/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	ug/L
Benzene	ND	0.5 P	ug/L
Toluene	ND	1.0 P	ug/L
Ethylbenzene	ND	1.0 P	ug/L
Total Xylene	ND	1.0 P	ug/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	67		
Method 8020A***			
Analyzed by: AA/			
Date: 07/08/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	67		
California LUFT Manual for Gasoline			
Analyzed by: AA/			
Date: 07/08/98 19:49:00			

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.
SPL California License # 1903

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

Certificate of Analysis No. H9-9806E19-06

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

P.O.# H177101, COC#098637
DATE: 07/11/98

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

PROJECT NO: 10-170-5-4
MATRIX: WATER
DATE SAMPLED: 06/26/98
DATE RECEIVED: 06/30/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	1100	100 P	ug/L
Benzene	0.52	0.5 P	ug/L
Toluene	ND	1.0 P	ug/L
Ethylbenzene	ND	1.0 P	ug/L
Total Xylene	ND	1.0 P	ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	97		
Method 8020A***			
Analyzed by: LJ			
Date: 07/09/98			
Gasoline Range Organics	0.52	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	80		
4-Bromofluorobenzene	60		
California LUFT Manual for Gasoline			
Analyzed by: AA/			
Date: 07/08/98 08:14:00			

(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. H9-9806E19-06

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

P.O.# H177101, COC#098637
07/11/98

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

PROJECT NO: 10-170-5-4
MATRIX: WATER
DATE SAMPLED: 06/26/98
DATE RECEIVED: 06/30/98

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Toluene	ND	5	ug/L
Xylenes (total)	ND	5	ug/L
Methyl t-Butyl Ether	ND	10	ug/L
t-Butyl Alcohol	ND	500	ug/L
Di-Isopropyl Ether	ND	10	ug/L
tert-Amyl Methyl Ether	ND	10	ug/L
Ethyl t-Butyl Ether	ND	10	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	100	76	114
Toluene-d8	50 ug/L	92	88	110
4-Bromofluorobenzene	50 ug/L	98	86	115

ANALYZED BY: JC
DATE/TIME: 07/02/98 10:20:00
METHOD: 8260 Water, Volatile Organics
NOTES: * - Practical Quantitation Limit
ND - Not Detected
NA - Not Analyzed

COMMENTS:

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. H9-9806E19-07

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

P.O.# H177101, COC#098637
DATE: 07/11/98

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

PROJECT NO: 10-170-5-4
MATRIX: WATER
DATE SAMPLED: 06/26/98
DATE RECEIVED: 06/30/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	1200	50 P	ug/L
Benzene	ND	2.5 P	ug/L
Toluene	ND	5.0 P	ug/L
Ethylbenzene	ND	5.0 P	ug/L
Total Xylene	ND	5.0 P	ug/L
Surrogate	**% Recovery**		
4-Bromofluorobenzene	93		
Method 8020A***			
Analyzed by: LJ			
Date: 07/09/98			
Gasoline Range Organics	0.39	0.25 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	80		
4-Bromofluorobenzene	55		
California LUFT Manual for Gasoline			
Analyzed by: AA/			
Date: 07/08/98 08:41:00			

(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.

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SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Contract:

Lab Code: Case No.: 9806E48 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: CT-OUTLET

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	52	104	61-145
Trichloroethene	50	0	52	104	71-120
Benzene	50	0	44	88	76-127
Toluene	50	0	40	80	76-125
Chlorobenzene	50	0	40	80	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	52	104	0	14	61-145
Trichloroethene	50	52	104	0	14	71-120
Benzene	50	44	88	0	11	76-127
Toluene	50	40	80	0	13	76-125
Chlorobenzene	50	41	82	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

SPL Houston Labs

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS
Level: LOW
Data Type: MS DATA
SpikeList File: 8260_water.spk
Sublist File: 8260.sub
Method File: /var/chem/n.i/n980702.b/n8260w.m
Misc Info: N183W1//N183CW1

Client SDG: n980702
Fraction: VOA

Operator: JC
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
8 1,1-Dichloroethene	50	61	122.00	61-145
29 Trichloroethene	50	56	112.00	71-120
25 Benzene	50	47	94.00	76-127
37 Toluene	50	43	86.00	76-125
45 Chlorobenzene	50	43	86.00	75-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 21 1,2-Dichloroethane	50	47	94.00	76-114
$ 36 Toluene-d8	50	46	92.00	88-110
$ 56 Bromofluorobenzene	50	49	98.00	86-115

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

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: N980702122720

Reported on: 07/07/98 16:55
Analyzed on: 07/02/98 08:18
Analyst: JC

METHOD 8260/8240 N183B01

Compound	Result	Detection Limit	Units
Benzene	ND	5	ug/L
Toluene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
Methyl t-Butyl Ether	ND	10	ug/L
t-Butyl Alcohol	ND	500	ug/L
Di-Isopropyl Ether	ND	10	ug/L
tert-Amyl Methyl Ether	ND	10	ug/L
Ethyl t-Butyl Ether	ND	10	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	94	76-114	% Recovery
Toluene-d8	90	88-110	% Recovery
Bromofluorobenzene	98	86-115	% Recovery

Samples in Batch 9806E19-04 9806E19-06

Notes

ND - Not detected.

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

** SPL BATCH QUALITY CONTROL REPORT **
Method 8020A***

Batch Id: VARE980708112500

Units: ug/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	44	88.0	72 - 128
Benzene	ND	50	53	106	61 - 129
Toluene	ND	50	52	104	65 - 125
EthylBenzene	ND	50	52	104	70 - 118
O Xylene	ND	50	49	98.0	72 - 117
M & P Xylene	ND	100	110	110	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	20	12	60.0	28	140	80.0 *	20	39 - 150
BENZENE	ND	20	16	80.0	17	85.0	6.06	21	32 - 164
TOLUENE	ND	20	17	85.0	18	90.0	5.71	20	38 - 159
ETHYLBENZENE	ND	20	18	90.0	18	90.0	0	19	52 - 142
O XYLENE	ND	20	16	80.0	17	85.0	6.06	18	53 - 143
M & P XYLENE	ND	40	34	85.0	37	92.5	8.45	17	53 - 144

Analyst: AA/
Sequence Date: 07/08/98
SPL ID of sample spiked: 9806E19-01A
Sample File ID: E_G1086.TX0
Method Blank File ID:
Blank Spike File ID: E_G1081.TX0
Matrix Spike File ID: E_G1082.TX0
Matrix Spike Duplicate File ID: E_G1083.TX0

* = Values outside QC Range due to Matrix Interference (except RPD)
« = 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 (1ST Q '97)
(***) = Source: SPL-Houston Historical Data (1ST Q '97)

SAMPLES IN BATCH(SPL ID):

9806E19-06A 9806E19-02A 9807220-01A 9807220-02A
9807220-03A 9807220-05A 9807221-01A 9807221-02A
9806E19-01A 9806E19-03A 9806E19-04A 9806E19-05A

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

** SPL BATCH QUALITY CONTROL REPORT **
Method 8020A***

Batch Id: VARD980709111600

Matrix: Aqueous
Units: ug/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	100	81	81.0	72 - 128
Benzene	ND	100	93	93.0	61 - 119
Toluene	ND	100	95	95.0	65 - 125
EthylBenzene	ND	100	93	93.0	70 - 118
O Xylene	ND	100	93	93.0	72 - 117
M & P Xylene	ND	200	190	95.0	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	100	99	99.0	100	100	1.01	20	39 - 150
BENZENE	ND	100	88	88.0	97	97.0	9.73	21	32 - 164
TOLUENE	ND	100	88	88.0	96	96.0	8.70	20	38 - 159
ETHYLBENZENE	ND	100	88	88.0	97	97.0	9.73	19	52 - 142
O XYLENE	ND	100	92	92.0	100	100	8.33	18	53 - 143
M & P XYLENE	ND	200	180	90.0	190	95.0	5.41	17	53 - 144

Analyst: LJ/
Sequence Date: 07/09/98
SPL ID of sample spiked: 9807272-06A
Sample File ID: D_G1083.TX0
Method Blank File ID:
Blank Spike File ID: D_G1070.TX0
Matrix Spike File ID: D_G1102.TX0
Matrix Spike Duplicate File ID: D_G1103.TX0

* = Values outside QC Range due to Matrix Interference (except RPD)
« = 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 (1ST Q '97)
(***) = Source: SPL-Houston Historical Data (1ST Q '97)

SAMPLES IN BATCH(SPL ID): 9807272-06A 9806E19-07A 9806E19-06A

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

** SPL BATCH QUALITY CONTROL REPORT **

California LUFT Manual for Gasoline

Batch Id: VARE980708080001

Units: mg/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Range Organics	ND	1.0	0.83	83.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE RANGE ORGANICS	ND	0.90	0.81	90.0	0.67	74.4	19.0	36	36 - 160

Analyst: AA/

Sequence Date: 07/08/98

SPL ID of sample spiked: 9806C90-10C

Sample File ID: EEG1075.TX0

Method Blank File ID:

Blank Spike File ID: EEG1070.TX0

Matrix Spike File ID: EEG1072.TX0

Matrix Spike Duplicate File ID: EEG1073.TX0

* = Values outside QC Range due to Matrix Interference (except RPD)

« = 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 (1st Q '97)

(***) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH(SPL ID):

9806E19-05A 9806E19-06A 9806E19-07A 9806E19-02A
9807220-01A 9807220-02A 9807220-03A 9807220-05A
9807221-01A 9807221-02A 9807221-03A 9807221-04A
9807221-05A 9806E19-01A 9806E19-03A 9806E19-04A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
6-30-98	1000

SPL Sample ID: 9806E19

		Yes	No
1	Chain-of-Custody (COC) form is present.	✓	
2	COC is properly completed.	✓	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	✓	
5	If yes, custody seals are intact.	✓	
6	All samples are tagged or labeled.	✓	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	✓	
9	Temperature of samples upon arrival:	4 C	
10	Method of sample delivery to SPL: — SPL Delivery		
	Client Delivery		
	FedEx Delivery (airbill #)	805188475471	
	Other:		
11	Method of sample disposal: — SPL Disposal	✓	
	HOLD		
	Return to Client		

Name:	Date:
[signature]	6-30-98

9806E19

CHAIN OF CUSTODY

No. 098637

Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering	CONSULTANT'S ADDRESS: 1575 Treat Blvd #201, W.C., Ca 94598		
BP SITE NUMBER: 1120	BP SITE / FACILITY ADDRESS: Dublin, Ca		CONSULTANT PROJECT NUMBER: 10-170-5-4
CONSULTANT PROJECT MANGER: Brady Nagle	PHONE NUMBER: (510) 295-1650	FAX NUMBER: 295-1823	CONSULTANT CONTRACT NUMBER: A177101
BP CONTACT: Scott Hooton	BP ADDRESS: Renton, W.A	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	SHIPMENT DATE: 6/29/98	SHIPMENT METHOD: Fed Ex

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

AIRBILL NUMBER: 805188475471

ANALYSIS REQUIRED

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	TPH-G 8015	MTBE 8020	TBA 8260	DIPE 8260	ETBE 8260	TAME 8260	MTBE 8260	BTEX 8260			COMMENTS
S-1	6/26/98		W	3	HCL		X	X									
S-2																	
S-3																	
S-4									X	X	X	X	X	X			
S-5																	
S-6									X	X	X	X	X	X			
S-7																	
																	4c

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
P. Yelton	6/29/98	0830	P. Yelton	6/29/98	0830
P. Yelton	6/29/98	1600			
			Randy Turnell	6-30-98	1000

CLV-16722-A (2/97)
PKG/50

DISTRIBUTION: WHITE - ORIGINAL (WITH DATA) YELLOW - BP PINK - LAB BLUE - CONSULTANT FIELD STAFF

BP EXPLORATION & OIL, INC.
ENVIRONMENTAL RESOURCE MANAGEMENT
DATA REVIEW CHECKLIST

BP Site Number:	11120
ERM Contact:	H177101
Sampling Date:	6/26/98
Matrix Description:	Water
Date Final Report Received:	6/16/98
Laboratory & Location:	SPL, Houston, Texas

		Yes	No	N/A
1.	Is BP contract release number consistent with analytical report?	X		
2.	Was report submitted within the specified timeframe?	X		
3.	Does report agree with the COC?	X		
4.	Are units consistent with the given matrix?	X		
5.	Were any target analytes/compounds detected in blanks (i.e., trip or equipment)?			X
6.	Are duplicate water samples within 30%?	X		
7.	Are holding times met?	X		
8.	Are surrogates within limits using laboratory criteria?	X		
9.	Are MS/MSD acceptable using laboratory criteria?	See Below		
10.	Are LCS results acceptable using laboratory criteria?	X		

MS/MSD relative % difference value for one matrix spike value for MTBE was outside the QC range due to matrix interference. MS/MSD limits are advisory only; as stated in SW-846, Section 8.7 to 8.8, if the MS/MSD results fall outside the advisable ranges, a laboratory control samples (LCS) must be analyzed and fall within those ranges. LCS results are within quality control limits.

Data Validation Completed by: Brady Nagle

(signature): _____

Date: 8/2/98