RO 456

Alameda County

Environmental Health

September 10, 2003

Mr. Don Hwang
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-8577

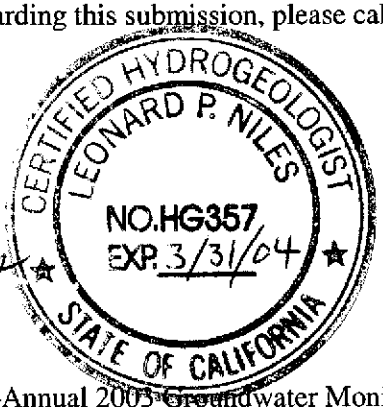
Re: Second Semi-Annual 2003 Groundwater Monitoring Report
Former BP Service Station #11102
100 MacArthur Boulevard
Oakland, California
URS Project #38486458

Dear Mr. Hwang:

On behalf of the Group Environmental Management Company (a BP affiliated company), URS Corporation (URS) is submitting the *Second Semi-Annual 2003 Groundwater Monitoring Report* for BP Service Station #11102, located at 100 MacArthur Boulevard, Oakland, California.

If you have any questions regarding this submission, please call (510) 874–1720.

Sincerely,
URS CORPORATION



Leonard P. Niles
Leonard P. Niles, R.G., C.Hg.
Project Manager

Enclosure: Second Semi-Annual 2003 Groundwater Monitoring Report

cc: Paul Supple, ARCO (electronic copy uploaded to ENFOS)
Liz Sewell, ConocoPhillips, 76 Broadway, Sacramento, CA 95818
Chris Jimmerson, Delta Environmental Consultants, 3164 Gold Camp Drive, Suite 200, Rancho Cordova, California 95670-6021

URS Corporation
500 12th Street, Suite 200
Oakland, CA 94607-4014
Tel: 510.893.3600
Fax: 510.874.3268

REPORT

SECOND SEMI-ANNUAL 2003 GROUNDWATER MONITORING

FORMER BP SERVICE STATION #11102
100 MACARTHUR BOULEVARD,
OAKLAND, CALIFORNIA

Prepared for
BP GEM

September 10, 2003

URS Corporation
500 12th Street, Suite 200
Oakland, California 94607

38486458

Date: September 10, 2002

Quarter: 3Q 03

BP SEMI-ANNUAL GROUNDWATER MONITORING REPORT

Facility No.:	11102	Address:	100 MacArthur Boulevard, Oakland, CA
BP Environmental Engineer:			Paul Supple
Consulting Co./Contact Person:			URS Corporation/ Leonard Niles
Consultant Project No.:			38486458
Primary Agency/Case #:			Alameda County Department of Environmental Health (ACDEH)/Case #RO0000456

WORK PERFORMED THIS PERIOD (Third Quarter – 2003):

1. Performed second semi-annual groundwater monitoring event on July 14, 2003.
2. Prepared and submitted second semi-annual 2003 groundwater monitoring report.

WORK PROPOSED FOR NEXT PERIOD (Fourth Quarter – 2003):

1. Prepare and submit a workplan for onsite & offsite subsurface investigation to further delineate the hydrocarbon plume.
2. Prepare and submit fourth quarter status report
3. Perform subsurface investigation pending agency approval of the workplan.
4. Prepare and submit subsurface investigation report..

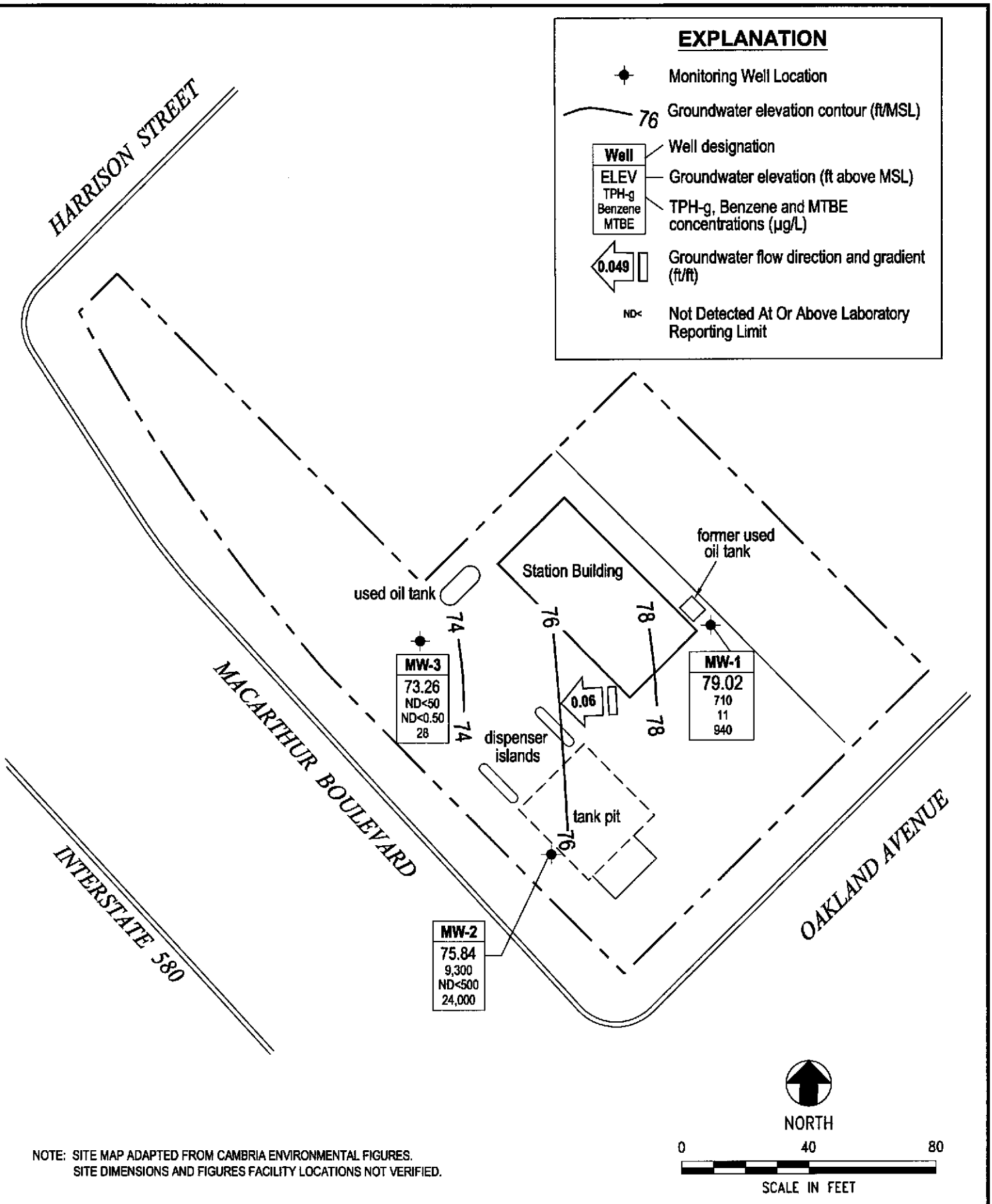
Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	Wells MW-1 through MW-3 semiannually (1st and 3rd quarters)
Frequency of Groundwater Monitoring:	Semiannual
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	None currently
Approximate Depth to Groundwater:	11.18 (MW-1) to 13.76 (MW-3) feet
Groundwater Gradient (direction):	West
Groundwater Gradient (magnitude):	0.06 feet per foot

DISCUSSION:

Groundwater samples were analyzed by EPA method 8260B for BTEX and fuel oxygenates and by EPA method 8015B for TPH-g. TPH-g was detected in two of the three wells sampled this quarter at concentrations of 710 µg/L (MW-1) and 9,300 µg/L (MW-2). Benzene was detected in one of the three wells sampled at a concentration of 11 µg/L. MTBE was detected in all three wells at concentrations of 28 µg/L (MW-3), 940 µg/L (MW-1), and 24,000 µg/L (MW-2). TBA was detected only in MW-1 at a concentration of 2,700 µg/L. A workplan for a subsurface investigation is being prepared per the ACDEH letter July 18, 2001 to further define the downgradient extent of fuel hydrocarbons. The number and location of borings is to be determined.

ATTACHMENTS:

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – July 14, 2003
- Table 1 – Groundwater Elevation and Analytical Data
- Chart 1 – Concentration and Water Level Trends, Well MW-1
- Chart 2 – Concentration and Water Level Trends, Well MW-2
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment C – EDCC Report and EDF/Geowell Submittal Confirmation



NOTE: SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES.
SITE DIMENSIONS AND FIGURES FACILITY LOCATIONS NOT VERIFIED.

X:\x_env_waste\BP GEM\Sites\RM\Horwath\BP Heritage\11102\Reports\Monitoring\Qtr.3.2003\GWEC-AS_7-14.dwg, 09/08/2003 03:25:14 PM, fjaweya0

URS	Project No. 38486458 Former BP Service Station #11102 100 MacArthur Boulevard Oakland, California	GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP Second Semi-Annual 2003 (July 14, 2003)	FIGURE 1

Table 1
Groundwater Elevation and Analytical Data

Former BP Service Station #11102
100 MacArthur Boulevard
Oakland, CA

WELL ID		DATE OF SAMPLING/ MONITORING	TOC (Feet)	(a)	DEPTH TO WATER (Feet)	GWE (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)		TOG (ug/l)	1,1-DCA (ug/l)	1,2-DCA (ug/l)	HVOC's (ug/l)		DO (ppm)	LAB
MW-1		11/04/89	90.20		13.21	76.99		ND<500	ND<50	3.4	0.6	ND<0.3	ND<0.3	---		ND<5000	---	0.9	---		---	SAL
		11/11/89			13.32	76.88		---	---	---	---	---	---	---		---	---	---	---		---	---
		04/03/90			12.46	77.74		820	---	64	1.9	23	34	---		---	---	---	---		---	ANA
		07/30/90			12.92	77.28		190	ND<50	11	ND<5.0	ND<5.0	ND<5.0	---		ND<5000	---	ND	---		---	ANA
		11/20/90			14.08	76.12		50	79	2.4	ND<0.3	ND<0.3	ND<0.3	---		ND<5000	---	4.0	---		---	SAL
		03/01/91			13.61	76.59		ND<100	ND<1000	0.9	ND<0.3	ND<0.3	0.3	---		14000	---	ND	---		---	SAL
		08/19/91			15.74	74.46		370	ND<50	35	0.73	6.4	5.6	---		ND<5000	---	1.4	---		---	SEQ
		11/13/91			14.08	76.12		60	ND<50	0.68	ND<0.3	ND<0.3	ND<0.3	---		ND<5000	---	1.0	---		---	SEQ
		02/24/92			12.52	77.68		140	100	3.9	0.66	1.2	3.8	---		ND<5000	---	1.7	---		---	SEQ
		05/19/92			11.8	78.40		4200	910	440	21	250	37	---		ND<5000	---	ND	---		---	SEQ
		06/17/92			12.01	78.19		4000	560	350	14	150	17	---		ND<5000	---	ND	---		---	SEQ
		07/22/92			12.42	77.78		4000	---	ND<5.0	19	210	61	---		---	---	---	---		---	ANA
		08/14/92			12.75	77.45		2400	1700	330	20	150	47	---		ND<5000	---	ND<2.5	---		---	SEQ
		11/11/92			13.69	76.51		260	92	30	3.4	7.6	6.8	---		ND<5000	---	ND<2.5	---		---	ANA
		06/07/93			10.93	79.27		3400	440	98	11	21	7.6	---		---	6.2	0.9	---		---	PACE
	(c)	06/07/93			---	---		3700	---	120	12	26	9.5	---		---	---	---	---		---	PACE
		12/02/93			12.72	77.48		1100	120	8.3	3.6	0.6	1.5	---		ND<5000	2.6	1.8	---		---	PACE
		06/22/94			11.81	78.39		2100	ND<50	32	3.8	2.2	17	4000	(d)	ND<5000	2.3	3.3	---		3.2	PACE
	(c)	06/22/94			---	---		2100	---	30	3.2	2.0	15	2000	(d)	---	---	---	---		---	PACE
		01/10/95			10.97	79.23		ND<500	420	120	ND<5	ND<5	ND<10	---		---	ND<1	1	---		3.9	ATI
	(c)	01/10/95			---	---		ND<500	---	120	ND<5	5	ND<10	---		---	---	---	---		---	ATI
		06/21/95			9.38	80.82		4700	1300	16	ND<5.0	ND<5.0	ND<10	---		2900	2.0	0.38	0.6	(e)	6.7	ATI
	(c)	06/21/95			---	---		3600	---	ND<13	ND<5.0	ND<5.0	ND<10	---		---	---	---	---		---	ATI
		12/27/95			11.55	78.65		430	2100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	1200		640	0.67	ND<0.20	---		6.3	ATI
		06/13/96			9.28	80.92		3200	920	51	ND<12	ND<12	ND<12	4000		2000	---	---	---		6.3	SPL
		12/04/96			11.91	78.29		1400	280	6.2	ND<5	ND<5	ND<5	2600		2000	ND<5.0	ND<5.0	6.0	(f)	6.7	SPL
		06/10/97			8.97	81.23		7900	1700	12	ND<10	ND<10	ND<10	15000		ND<5	ND<250	ND<250	ND		6.0	SPL
	(c)	06/10/97			---	---		7700	---	14	ND<25	ND<25	ND<25	13000		---	---	---	---		---	SPL
		12/12/97			11.37	78.83		440	760	8.8	ND<1.0	2.6	9.4	6700		1200	ND<1.0	ND<1.0	ND		5.5	SPL
		06/18/98			8.02	82.18		7500	2900	ND<2.5	ND<5.0	ND<5.0	ND<5.0	5600		ND<5	ND<5.0	ND<5.0	ND		4.9	SPL
		03/09/99			9.80	80.40		32000	---	100	16	72	110	49000		---	---	---	---		---	SPL
		09/28/99			10.78	79.42		1000	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	730		---	ND<1.0	ND<1.0	ND<1.0		---	SPL
		10/14/99			10.84	79.36		---	660	---	---	---	---	---		---	---	---	---		---	SPL
		03/27/00			9.83	80.37		4300	---	160	19	37	43	28000		---	---	ND<500	---		---	PACE
		09/28/00			11.33	78.87		2700	---	10	2.6	1.1	2.7	28000		---	---	---	---		---	PACE
		03/08/01			10.96	79.24		8200	---	23.5	6.09	5.23	8.97	11600		---	---	---	---		---	PACE
		09/21/01			12.07	78.13		6000	---	37.9	ND<0.5	ND<0.5	ND<1.5	7370		---	---	---	---		---	PACE
		02/28/02			10.48	79.72		6400	---	60.8	ND<5.0	6.43	ND<10	7750		---	---	---	---		---	PACE
		09/06/02*			11.20	79.00		1400	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6000		---	---	---	---		---	SEQ
		02/19/03	(h)		11.29	78.91		ND<10000	---	ND<100	110	ND<100	ND<100	4,500		---	---	---	---		---	SEQ
		07/14/03			**11.18**	**79.02**		**710**	**---**	**11**	**ND<10**	**ND<10**	**ND<10**	**940**		**---**	**---**	**---**	**---**		**---**	**SEQ**

Table 1
Groundwater Elevation and Analytical Data

Former BP Service Station #11102
100 MacArthur Boulevard
Oakland, CA

WELL ID		DATE OF SAMPLING/ MONITORING		TOC (Feet)	(a)	DEPTH TO WATER (Feet)	GWE (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)		TOG (ug/l)	1,1-DCA (ug/l)	1,2-DCA (ug/l)	HVOC's (ug/l)	DO (ppm)	LAB
MW-2		11/04/89		87.91		15.84	72.07		ND<500	---	6.5	ND<0.3	ND<0.3	ND<0.3	---		---	---	---	---	---	SAL
		11/11/89				14.75	73.16		---	---	---	---	---	---	---		---	---	---	---	---	---
		04/03/90				15.25	72.66		ND<500	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	---	---	ANA
		07/30/90				15.59	72.32		61	---	6.5	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	---	---	ANA
		11/20/90				17.81	70.10		ND<50	---	0.3	ND<0.3	ND<0.3	ND<0.3	---		---	---	---	---	---	SAL
		03/01/91				17.11	70.80		ND<100	---	0.4	ND<0.3	ND<0.3	ND<0.3	---		---	---	4.0	---	---	SAL
		08/19/91				17.97	69.94		ND<30	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---		---	---	---	---	---	SEQ
		11/13/91				16.76	71.15		38	---	0.32	ND<0.3	ND<0.3	ND<0.3	---		---	---	---	---	---	SEQ
		02/24/92				15.07	72.84		ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.58	---		---	---	16	---	---	SEQ
		05/19/92				14.7	73.21		ND<50	---	0.55	ND<0.5	ND<0.5	ND<0.5	---		---	---	---	---	---	SEQ
		07/22/92				15.6	72.31		90	---	1.3	0.6	0.9	1.9	---		---	---	---	---	---	ANA
		08/14/92				15.88	72.03		---	---	---	---	---	---	---		---	---	---	---	---	---
		11/11/92				16.19	71.72		52	---	2.8	ND<0.5	ND<0.5	0.9	---		---	---	---	---	---	ANA
	(c)	11/11/92				---	---		65	---	3.2	ND<0.5	ND<0.5	1.0	---		---	---	---	---	---	ANA
		06/07/93				14.42	73.49		1200	---	14	2.8	1.9	1.7	---		---	---	---	---	---	PACE
		12/02/93				14.94	---		790	---	3.4	0.5	10	ND<0.5	3700	(d)	---	---	---	---	---	PACE
	(c)	12/02/93				---	---		2100	---	32	3.8	2.2	17	3700	(d)	---	2.3	---	---	---	PACE
		06/22/94				14.25	73.66		110	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	120	(d)	---	---	---	---	3.9	PACE
		01/10/95				13.64	74.27		ND<50	---	ND<0.5	ND<0.5	0.6	1	---		---	---	---	---	4.3	ATI
		06/21/95				11.66	76.25		4700	---	ND<10	ND<10	ND<10	ND<20	---		---	---	---	---	7.8	ATI
		12/27/95				13.11	74.80		6100	---	ND<25	ND<25	ND<25	ND<50	20000		---	---	---	---	6.7	ATI
	(c)	12/27/95				---	---		6300	---	ND<25	ND<25	ND<25	ND<50	19000		---	---	---	---	---	ATI
		06/13/96				10.86	77.05		8300	---	ND<2.5	ND<2.5	ND<2.5	ND<2.5	13000		---	---	---	---	6.5	SPL
	(c)	06/13/96				---	---		8700	---	ND<5	ND<5	ND<5	ND<5	13000		---	---	---	---	---	SPL
		12/04/96				13.03	74.88		5900	---	ND<2.5	ND<5	ND<5	ND<5	11000		---	---	---	---	6.3	SPL
	(c)	12/04/96				---	---		5900	---	ND<2.5	ND<5	ND<5	ND<5	11000		---	---	---	---	---	SPL
		06/10/97				10.04	77.87		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	---	---	---	5.8	SPL
		12/12/97				12.44	75.47		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	---	---	---	5.7	SPL
		06/18/98				8.89	79.02		50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	---	---	---	5.3	SPL
	(c)	06/18/98				---	---		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10		---	---	---	---	---	SPL
		03/09/99				10.20	77.71		15000	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	23000		---	---	---	---	---	SPL
		09/28/99				11.81	76.10		36000	---	ND<5.0	12	7.0	26	35000		---	ND<5.0	7.7	ND<5.0	---	SPL
		10/14/99				10.27	77.64		---	100	---	---	---	---	---		---	---	---	---	---	SPL
		03/27/00				9.98	77.93		1300	---	ND<0.5	ND<0.5	0.51	ND<0.5	5800		---	---	ND<100	---	---	PACE
		09/28/00				11.40	76.51		1600	---	1.8	1.7	0.54	2.2	15000		---	---	---	---	---	PACE
		03/08/01				11.16	76.75		20000	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	29100		---	---	---	---	---	PACE
		09/21/01				11.65	76.26		5000	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	6110		---	---	---	---	---	PACE
		02/28/02				9.86	78.05		3200	---	35.1	ND<0.5	ND<0.5	ND<1.0	4620		---	---	---	---	---	PACE
		09/06/02*				12.32	75.59		1900	---	ND<10	ND<10	ND<10	ND<10	15000		---	---	---	---	---	SEQ
		02/19/03	(h)			11.63	76.28		45000	---	ND<250	ND<250	ND<250	ND<250	32000		---	---	---	---	---	SEQ
		07/14/03				**12.07**	**75.84**		**9300**	**---**	**ND<500**	**ND<500**	**ND<500**	**ND<500**	**24000**		**---**	**---**	**---**	**---**	**---**	**SEQ**

Table 1
Groundwater Elevation and Analytical Data

Former BP Service Station #11102
100 MacArthur Boulevard
Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	(a) DEPTH TO WATER (Feet)	GWE (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)	TOG (ug/l)	1,1-DCA (ug/l)	1,2-DCA (ug/l)	HVOC's (ug/l)	DO (ppm)	LAB
MW-3	11/04/89	87.02	15.4	71.62	ND<500	—	ND<0.3	ND<0.3	ND<0.3	ND<0.3	—	—	—	—	—	—	SAL
	11/11/89		14.1	72.92	---	—	—	---	---	---	---	—	—	---	---	---	---
	04/03/90		13.90	73.12	ND<100	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	—	—	---	---	---	ANA
	07/30/90		13.77	73.25	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	ND<5000	—	---	---	---	ANA
	11/20/90		14.67	72.35	ND<50	—	0.3	0.8	0.4	1.5	---	—	—	---	---	---	SAL
	03/01/91		15.22	71.80	ND<100	—	0.4	ND<0.3	ND<0.3	ND<0.3	---	---	—	ND	---	---	SAL
	08/19/91		13.15	73.87	ND<30	—	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	—	---	---	---	SEQ
	11/13/91		15.66	71.36	ND<30	—	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	—	---	---	---	SEQ
	02/24/92		15.01	72.01	ND<50	—	0.65	1.4	0.66	4.4	---	---	—	ND	---	---	SEQ
	05/19/92		15.52	71.50	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	—	—	---	---	---	SEQ
	07/22/92		15.63	71.39	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	ND<5000	---	ND<0.50	---	---	ANA
	08/14/92		13.57	73.45	—	—	—	---	---	---	---	---	---	---	---	---	---
	11/11/92		14.13	72.89	ND<50	—	ND<0.5	0.7	ND<0.5	1.3	—	---	—	---	---	---	ANA
	06/07/93		12.13	74.89	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	—	---	---	---	PACE
	12/02/93		13.29	73.73	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	—	---	---	---	PACE
	06/22/94		12.78	74.24	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	—	---	---	2.9	PACE
	01/10/95		12.01	75.01	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	—	1	---	3.8	ATI
	06/21/95		11.57	75.45	ND<50	—	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	—	---	---	7.4	ATI
	12/27/95		13.47	73.55	ND<50	—	ND<0.50	ND<0.50	ND<0.50	ND<1.0	5.7	---	—	---	---	7.3	ATI
	06/13/96		11.22	75.80	60	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	---	—	---	---	6.8	SPL
	12/04/96		13.28	73.74	ND<50	—	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	—	---	---	6.7	SPL
	06/10/97		10.22	76.80	ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	—	---	---	6.1	SPL
	12/12/97		12.61	74.41	ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	—	---	---	5.6	SPL
	(c) 12/12/97		---	---	ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	—	---	---	---	SPL
	06/18/98		9.07	77.95	50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	—	---	---	5.3	SPL
	06/18/98		12.80	74.22	---	—	---	---	---	---	---	—	—	---	---	---	---
	09/28/99		13.76	73.26	—	—	—	---	---	---	—	—	—	—	---	---	---
	03/27/00		13.77	73.25	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	—	—	---	---	---	PACE
	09/28/00		11.28	75.74	ND<50	—	ND<0.5	7.4	ND<0.5	1.3	2.0	—	—	---	---	---	PACE
	03/08/01		11.75	75.27	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	60.4	—	—	---	---	---	PACE
	09/21/01		11.33	75.69	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<1.5	8.18	—	—	---	---	---	PACE
	02/28/02		10.86	76.16	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<1.0	25.5	—	—	---	---	---	PACE
	09/06/02*		12.73	74.29	ND<50	—	1.2	ND<0.5	ND<0.5	1.0	16	---	—	---	---	---	SEQ
	02/19/03 (h)		11.72	75.30	ND<500	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	110	---	---	---	---	---	SEQ
	07/14/03		**13.76**	**73.26**	**ND<50**	**---**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**0.67**	**28**	**---**	**---**	**---**	**---**	**---**	**SEQ**

Table 1
Groundwater Elevation and Analytical Data

Former BP Service Station #11102
100 MacArthur Boulevard
Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet) (a)	DEPTH TO WATER (Feet)	GWE (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)	TOG (ug/l)	1,1-DCA (ug/l)	1,2-DCA (ug/l)	HVOC's (ug/l)	DO (ppm)	LAB
QC-2 (g)	11/11/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	ANA
QC-2 (g)	06/07/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
QC-2 (g)	12/02/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
QC-2 (g)	06/22/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
QC-2 (g)	01/10/95	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	---	---	---	---	ATI
QC-2 (g)	06/21/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	---	ATI
QC-2 (g)	12/27/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	---	---	ATI
QC-2 (g)	06/13/96	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	---	---	---	---	---	SPL

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
TOG	Total oil and grease
1,1-DCA	1,1-Dichloroethane
1,2-DCA	1,2-Dichloroethane
1,2-DBA	1,2-Dibromoethane
HVOC's	Halogenated volatile organic compounds
MTBE	Methyl tert butyl ether
DIPE	Di-Isopropyl Ether
ETBE	Ethyl t-Butyl Ether
TAME	t-Amyl Methyl Ether
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
ND	Not detected above reported detection limit
---	Not analyzed/measured/applicable
SAL	Superior Analytical Laboratory
ANA	Anametrix, Inc.
SEQ	Sequoia Analytical Laboratory
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

(a) Top of casing elevations surveyed to the nearest 0.01 foot above mean sea level.

(b) Groundwater elevations in feet above mean sea level.

(c) Blind duplicate.

(d) A copy of the documentation for this data is included in Appendix C of Alisto report 10-076-06-002.

(e) Tetrachloroethene.

(f) Trans-1,2-Dichloroethene

(g) Travel blank.

(h) TPH, BTEX, and MTBE analyzed by EPA Method 8260B beginning on 1st Quarter Sampling event (2/19/03)

(i) Discrete peak @ C6-C7.

* The data within this table collected prior to June 2002 was provided to URS by BP Group Environmental Company and their previous consultants. URS has not verified the accuracy of this information.

Table 2
Fuel Oxygenates Analytical Data
Former BP Service Station #11102
100 MacArthur Boulevard
Oakland, CA

Well ID	DATE OF SAMPLING/ MONITORING	Ethanol (ug/L)	TBA (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)
MW-1	**7/14/03**	**ND<2000**	**2700**	**940**	**ND<20**	**ND<20**	**ND<20**
MW-2	**7/14/03**	**ND<100000**	**ND<20000**	**24000**	**ND<1000**	**ND<1000**	**ND<1000**
MW-3	**7/14/03**	**ND<100**	**ND<20**	**28**	**ND<1.0**	**ND<1.0**	**ND<1.0**

ABBREVIATIONS:

ug/L	Micrograms per liter
ND	Not detected above laboratory detection limit
TBA	tert-Butyl Alcohol
MTBE	Methyl tert butyl ether
DIPE	Di-Isopropyl Ether
ETBE	Ethyl t-Butyl Ether
TAME	t-Amyl Methyl Ether

Concentration and Water Level Trends
Well MW-1

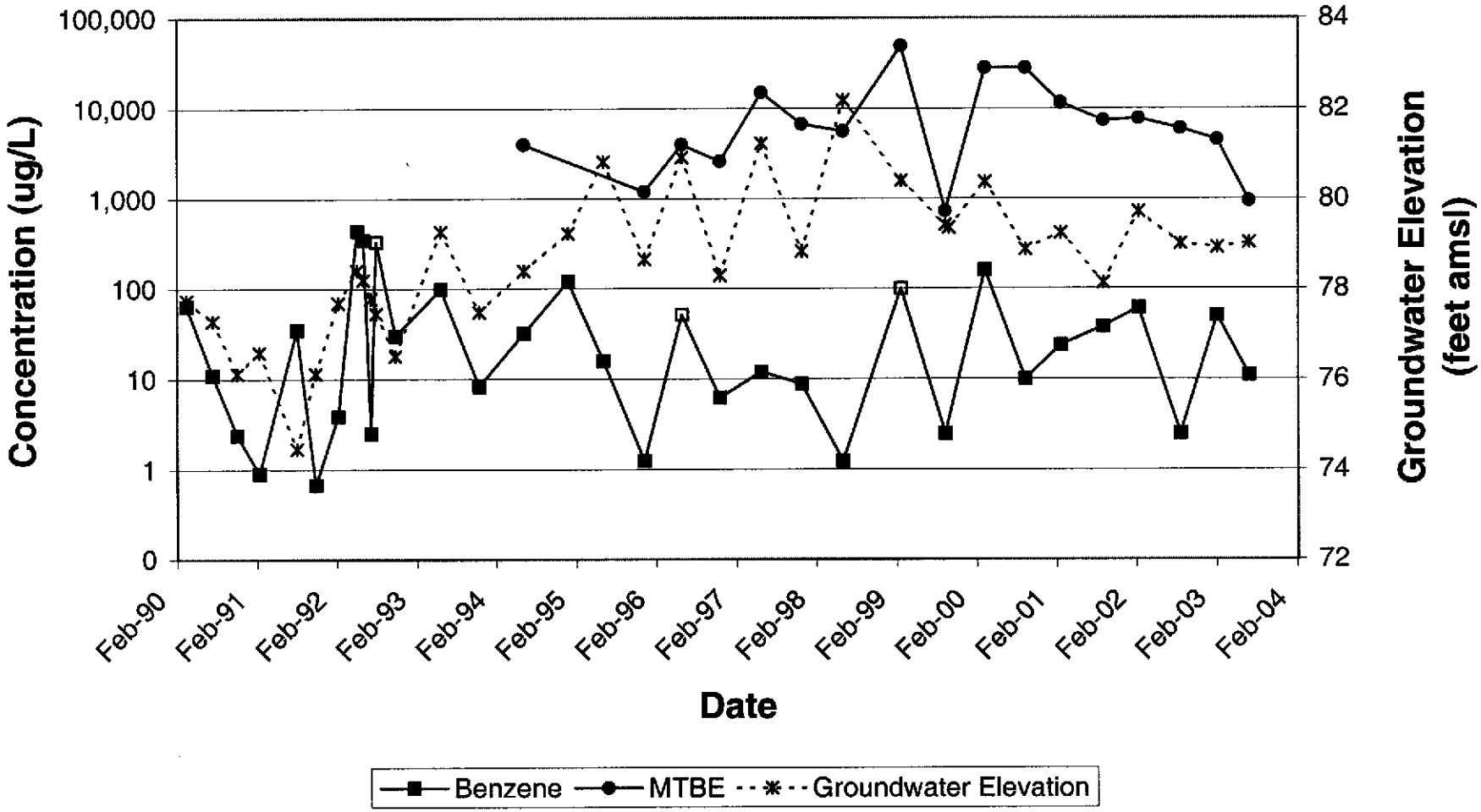


Chart 1

Concentration and Water Level Trends
Well MW-2

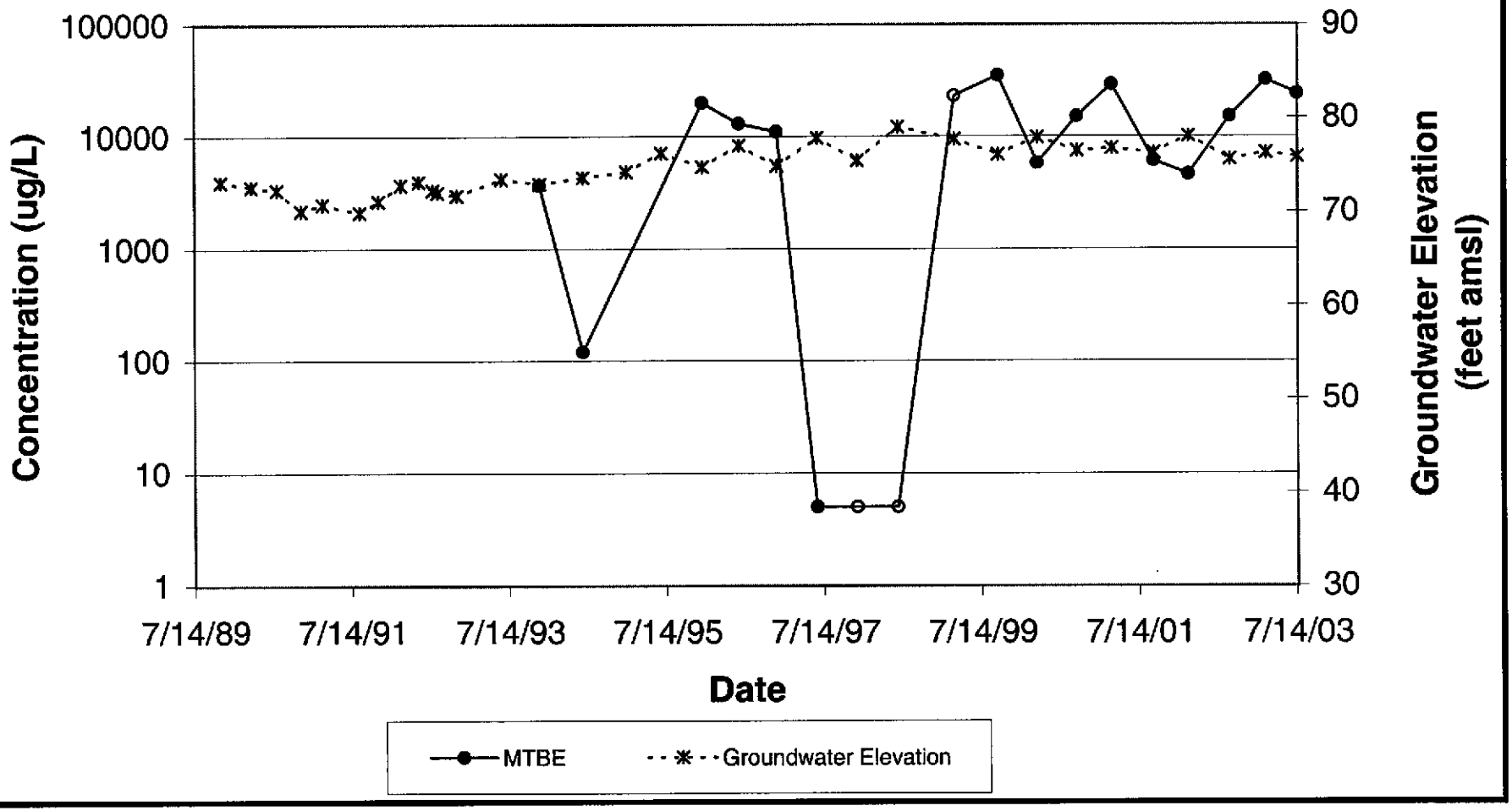


Chart 2

ATTACHMENT A

FIELD PROCEDURES AND FIELD DATA SHEETS

FIELD PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

WELL GAUGING DATA

Project # 030714-SS3 Date 7/14/03 Client BP 11102

Site 100 MACARTHUR BLVD. OAKLAND

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	4					11.18	32.01		
MW-2	4					12.07	32.43	↓	
MW-3	4					13.76	32.55	↓	

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030714-SS3	Station # 11102
Sampler: SCOTT	Date: 7-14-03
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 32.01	Depth to Water: 11.18
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / Disposable Bailer / Middleburg / (Electric Submersible) / Extraction Pump / Other: ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: ____

Top of Screen: ____ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

13.5 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 40.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1429	69.4	6.5	684	13.5	CLEAR
1432	68.5	6.6	750	27.0	"
1435	68.6	6.6	763	40.5	TURBID

Did well dewater? Yes (No) Gallons actually evacuated: 40.5

Sampling Time: 1438 Sampling Date: 7/14/03

Sample I.D.: MW-1 Laboratory: Pace (Sequoia) Other ____

Analyzed for: (TPH-G BTEX) MTBE TPH-D Other: OXYS + ETHANOL (8260)

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

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030714-SS3	Station # 11102
Sampler: SCOTT	Date: 7-14-03
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 32.43	Depth to Water: 12.07
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

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

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: _____

Top of Screen: _____ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

13.2 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 39.6 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1416	71.2	6.4	824	13.2	CLEAR
1419	70.5	6.5	737	26.5	PURGED
WELL	DEWATERED @		26.5 gal.		DTW = 29.90
1445	70.1	7.0	1487	———	DTW = 26.00 @ SITE DEPART

Did well dewater? (Yes) No Gallons actually evacuated: 26.5

Sampling Time: 1445 Sampling Date: 7/14/03

Sample I.D.: MW-2 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (TPH-G BTEX) MTBE TPH-D Other: OXY'S + ETHANOL (8260)

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

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030714-553	Station # 11102
Sampler: SOOCH	Date: 7-14-03
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 32.55	Depth to Water: 13.76
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Middleburg / (Electric Submersible) / Extraction Pump / Other: ___

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: ___

Top of Screen: ___

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

12.2 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 36.6 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1359	72.3	6.7	679	12.5	clear
1404	71.5	6.7	631	25.0	"
1407	71.4	6.8	681	37.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 37.5

Sampling Time: 1409 Sampling Date: 7/14/03

Sample I.D.: MW-3 Laboratory: Pace (Sequoia) Other ___

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: OXY'S + ETHANOL (8260)

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

ATTACHMENT B

LABORATORY PROCEDURES, CERTIFIED ANALYTICAL REPORTS, AND CHAIN-OF-CUSTODY RECORDS

LABORATORY PROCEDURES

Laboratory Procedures

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by Group Environmental Management Company have been reviewed and verified by that laboratory.

Sequoia
Analytical

885 Jarvis Drive
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1 August, 2003

Leonard Niles
URS Corporation [Arco]
500 12th Street, Suite 100
Oakland, CA 94607

RE: BP Heritage #11102, Oakland, CA
Work Order: MMG0376

Enclosed are the results of analyses for samples received by the laboratory on 07/15/03 11:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tim Costello For Theresa Allen
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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URS Corporation [Arco]	Project: BP Heritage #11102, Oakland, CA	MMG0376
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Leonard Niles	08/01/03 12:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MMG0376-01	Water	07/14/03 14:38	07/15/03 11:00
MW-2	MMG0376-02	Water	07/14/03 14:45	07/15/03 11:00
MW-3	MMG0376-03	Water	07/14/03 14:09	07/15/03 11:00

There were no custody seals that were received with this project.

Sequoia Analytical

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URS Corporation [Arco]	Project: BP Heritage #11102, Oakland, CA	MMG0376
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Leonard Niles	08/01/03 12:27

Total Petroleum Hydrocarbons as Gasoline by EPA 8015B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMG0376-01) Water	**Sampled: 07/14/03 14:38**	**Received: 07/15/03 11:00**							
Gasoline Range Organics	**710**	50	ug/l	1	3070539	07/25/03	07/25/03	EPA 8015B-VOA	HC-19
Surrogate: 4-Bromofluorobenzene		*100 %*	*65-135*		"	"	"	"	
MW-2 (MMG0376-02) Water	**Sampled: 07/14/03 14:45**	**Received: 07/15/03 11:00**							
Gasoline Range Organics	**9300**	250	ug/l	5	3070539	07/25/03	07/25/03	EPA 8015B-VOA	HC-19a
Surrogate: 4-Bromofluorobenzene		*95 %*	*65-135*		"	"	"	"	
MW-3 (MMG0376-03) Water	**Sampled: 07/14/03 14:09**	**Received: 07/15/03 11:00**							
Gasoline Range Organics	ND	50	ug/l	1	3070539	07/25/03	07/25/03	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		*96 %*	*65-135*		"	"	"	"	

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URS Corporation [Arco]	Project: BP Heritage #11102, Oakland, CA	MMG0376
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Leonard Niles	08/01/03 12:27

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMG0376-01) Water Sampled: 07/14/03 14:38 Received: 07/15/03 11:00									
Tert-amyl methyl ether	ND	20	ug/l	20	3070565	07/25/03	07/25/03	EPA 8260B	
Benzene	**11**	10	"	"	"	"	"	"	
Tert-butyl alcohol	**2700**	400	"	"	"	"	"	"	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethanol	ND	2000	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**940**	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*103 %*		*84-122*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95 %*		*74-135*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*84-119*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97 %*		*86-119*	"	"	"	"	
MW-2 (MMG0376-02) Water Sampled: 07/14/03 14:45 Received: 07/15/03 11:00									
Tert-amyl methyl ether	ND	1000	ug/l	1000	3070565	07/25/03	07/25/03	EPA 8260B	
Benzene	ND	500	"	"	"	"	"	"	
Tert-butyl alcohol	ND	20000	"	"	"	"	"	"	
Di-isopropyl ether	ND	1000	"	"	"	"	"	"	
Ethanol	ND	100000	"	"	"	"	"	"	
Ethylbenzene	ND	500	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1000	"	"	"	"	"	"	
Methyl tert-butyl ether	**24000**	500	"	"	"	"	"	"	
Toluene	ND	500	"	"	"	"	"	"	
Xylenes (total)	ND	500	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*100 %*		*84-122*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93 %*		*74-135*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*84-119*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91 %*		*86-119*	"	"	"	"	

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URS Corporation [Arco]	Project: BP Heritage #11102, Oakland, CA	MMG0376
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Leonard Niles	08/01/03 12:27

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MMG0376-03) Water Sampled: 07/14/03 14:09 Received: 07/15/03 11:00									
Tert-amyl methyl ether	ND	1.0	ug/l	1	3070565	07/25/03	07/26/03	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**28**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	**0.67**	0.50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*	*84-122*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98 %*	*74-135*		"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*84-119*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92 %*	*86-119*		"	"	"	"	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
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FAX (408) 782-6308
www.sequoialabs.com

URS Corporation [Arco]	Project: BP Heritage #11102, Oakland, CA	MMG0376
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Leonard Niles	08/01/03 12:27

Total Petroleum Hydrocarbons as Gasoline by EPA 8015B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070539 - EPA 5030, waters										
Blank (3070539-BLK1)				Prepared & Analyzed: 07/25/03						
Gasoline Range Organics	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	*281*		"	*300*		*94*	*65-135*			
Laboratory Control Sample (3070539-BS1)				Prepared & Analyzed: 07/25/03						
Gasoline Range Organics	2270	50	ug/l	2750		83	65-135			
Surrogate: 4-Bromofluorobenzene	*295*		"	*300*		*98*	*65-135*			
Matrix Spike (3070539-MS1)	**Source: P307454-01**			Prepared & Analyzed: 07/25/03						
Gasoline Range Organics	2200	50	ug/l	2750	ND	80	65-135			
Surrogate: 4-Bromofluorobenzene	*289*		"	*300*		*96*	*65-135*			
Matrix Spike Dup (3070539-MSD1)	**Source: P307454-01**			Prepared & Analyzed: 07/25/03						
Gasoline Range Organics	2200	50	ug/l	2750	ND	80	65-135	0	20	
Surrogate: 4-Bromofluorobenzene	*290*		"	*300*		*97*	*65-135*			

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500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Leonard Niles	08/01/03 12:27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070565 - EPA 5030 waters										
Blank (3070565-BLK1)				Prepared & Analyzed: 07/25/03						
Tert-amyl methyl ether	ND	1.0	ug/l							
Benzene	ND	0.50	"							
Tert-butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	1.0	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethylbenzene	ND	0.50	"							
Ethyl tert-butyl ether	ND	1.0	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Surrogate: Dibromofluoromethane	*4.79*		"	*4.50*		*106*	*84-122*			
Surrogate: 1,2-Dichloroethane-d4	*4.18*		"	*4.50*		*93*	*74-135*			
Surrogate: Toluene-d8	*4.64*		"	*4.50*		*103*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*4.19*		"	*4.50*		*93*	*86-119*			
Laboratory Control Sample (3070565-BS1)				Prepared & Analyzed: 07/25/03						
Tert-amyl methyl ether	4.93	1.0	ug/l	5.00		99	70-116			
Benzene	5.25	0.50	"	5.00		105	81-118			
Tert-butyl alcohol	118	20	"	100		118	62-142			
Di-isopropyl ether	5.14	1.0	"	5.00		103	71-121			
1,2-Dibromoethane (EDB)	5.22	0.50	"	5.00		104	92-117			
1,2-Dichloroethane	5.09	0.50	"	5.00		102	79-126			
Ethyl tert-butyl ether	4.90	1.0	"	5.00		98	71-110			
Methyl tert-butyl ether	5.03	0.50	"	5.00		101	77-123			
Toluene	5.54	0.50	"	5.00		111	84-119			
Surrogate: Dibromofluoromethane	*5.13*		"	*4.50*		*114*	*84-122*			
Surrogate: 1,2-Dichloroethane-d4	*4.50*		"	*4.50*		*100*	*74-135*			
Surrogate: Toluene-d8	*4.65*		"	*4.50*		*103*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*4.93*		"	*4.50*		*110*	*86-119*			

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URS Corporation [Arco]	Project: BP Heritage #11102, Oakland, CA	MMG0376
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Leonard Niles	08/01/03 12:27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070565 - EPA 5030 waters										
Laboratory Control Sample Dup (3070565-BSD1)				Prepared & Analyzed: 07/25/03						
Tert-amyl methyl ether	4.78	1.0	ug/l	5.00		96	70-116	3	20	
Benzene	5.09	0.50	"	5.00		102	81-118	3	20	
Tert-butyl alcohol	101	20	"	100		101	62-142	16	20	
Di-isopropyl ether	4.67	1.0	"	5.00		93	71-121	10	20	
1,2-Dibromoethane (EDB)	5.16	0.50	"	5.00		103	92-117	1	20	
1,2-Dichloroethane	4.80	0.50	"	5.00		96	79-126	6	20	
Ethyl tert-butyl ether	4.52	1.0	"	5.00		90	71-110	8	20	
Methyl tert-butyl ether	4.54	0.50	"	5.00		91	77-123	10	20	
Toluene	5.50	0.50	"	5.00		110	84-119	0.7	20	
Surrogate: Dibromofluoromethane	*4.70*		"	*4.50*		*104*	*84-122*			
Surrogate: 1,2-Dichloroethane-d4	*4.24*		"	*4.50*		*94*	*74-135*			
Surrogate: Toluene-d8	*4.78*		"	*4.50*		*106*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*4.92*		"	*4.50*		*109*	*86-119*			

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Oakland CA, 94607	Project Manager: Leonard Niles	08/01/03 12:27

Notes and Definitions

HC-19	Discrete peak @ C-5 and C-6.
HC-19a	Discrete peak @ C-5.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

ATTACHMENT C

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

08/13/03

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	BP Heritage #11102, Oakla
Work Order Number:	MMG0376
Global ID:	T0600100908
Lab Report Number:	MMG0376080120031227

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
MMG03760801200 31227	MW-1	MMG037601	W	CS	8260+OX	SW5030	07/14/03	07/25/03	07/25/03	3070565	1	SEQP
MMG03760801200 31227	MW-1	MMG037601	W	CS	SW8021F	SW5030	07/14/03	07/25/03	07/25/03	3070539	1	SEQP
MMG03760801200 31227	MW-2	MMG037602	W	CS	8260+OX	SW5030	07/14/03	07/25/03	07/25/03	3070565	1	SEQP
MMG03760801200 31227	MW-2	MMG037602	W	CS	SW8021F	SW5030	07/14/03	07/25/03	07/25/03	3070539	1	SEQP
MMG03760801200 31227	MW-3	MMG037603	W	CS	8260+OX	SW5030	07/14/03	07/25/03	07/26/03	3070565	1	SEQP
MMG03760801200 31227	MW-3	MMG037603	W	CS	SW8021F	SW5030	07/14/03	07/25/03	07/25/03	3070539	1	SEQP
		P30745401	W	NC	SW8021F	SW5030	/ /	07/25/03	07/25/03	3070539	1	SEQP
		3070539BS1	WQ	BS1	SW8021F	SW5030	/ /	07/25/03	07/25/03	3070539	1	SEQP
		3070539BLK1	WQ	LB1	SW8021F	SW5030	/ /	07/25/03	07/25/03	3070539	1	SEQP
		3070539MS1	W	MS1	SW8021F	SW5030	/ /	07/25/03	07/25/03	3070539	1	SEQP
		3070539MSD1	W	SD1	SW8021F	SW5030	/ /	07/25/03	07/25/03	3070539	1	SEQP
		3070565BSD1	WQ	BD1	8260+OX	SW5030	/ /	07/25/03	07/25/03	3070565	1	SEQP
		3070565BS1	WQ	BS1	8260+OX	SW5030	/ /	07/25/03	07/25/03	3070565	1	SEQP
		3070565BLK1	WQ	LB1	8260+OX	SW5030	/ /	07/25/03	07/25/03	3070565	1	SEQP

EDFSAMP: Error Summary Log

08/13/03

Error type	Logcode	Projname	Npdlwo	Sampid	Matrix
There are no errors in this data file					

EDFTEST: Error Summary Log

08/13/03

Error type	Labsampid	Qccode	Anmcode	Exmcode	Anadate	Run number
There are no errors in this data file					/ /	0

EDFRES: Error Summary Log

08/13/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3070539MS1	MS1	W	SW8021F	PR	07/25/03	1	BR4FBZ
Warning: extra parameter	3070539MSD1	SD1	W	SW8021F	PR	07/25/03	1	BR4FBZ
Warning: extra parameter	MMG037601	CS	W	8260+OX	PR	07/25/03	1	XYLENES
Warning: extra parameter	MMG037601	CS	W	SW8021F	PR	07/25/03	1	BR4FBZ
Warning: extra parameter	MMG037602	CS	W	8260+OX	PR	07/25/03	1	XYLENES
Warning: extra parameter	MMG037602	CS	W	SW8021F	PR	07/25/03	1	BR4FBZ
Warning: extra parameter	MMG037603	CS	W	8260+OX	PR	07/26/03	1	XYLENES
Warning: extra parameter	MMG037603	CS	W	SW8021F	PR	07/25/03	1	BR4FBZ
Warning: extra parameter	P30745401	NC	W	SW8021F	PR	07/25/03	1	BR4FBZ
Warning: extra parameter	3070539BLK1	LB1	WQ	SW8021F	PR	07/25/03	1	BR4FBZ
Warning: extra parameter	3070539BS1	BS1	WQ	SW8021F	PR	07/25/03	1	BR4FBZ
Warning: extra parameter	3070565BLK1	LB1	WQ	8260+OX	PR	07/25/03	1	XYLENES

EDFQC: Error Summary Log

08/13/03

Error type	Lablotctl	Anmcode	Parlabel	Qccode	Labqcid
There are no errors in this data files					

EDFCL: Error Summary Log

08/13/03

Error type	Clrevdate	Anmcode	Exmcode	Parlabel	Clcode
There are no errors in this data file	/ /				

AB2886 Electronic Delivery

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Your EDF file has been succcessfully uploaded!

Confirmation Number: 8945187509
Date/Time of Submittal: 8/13/2003 4:43:36 PM
Facility Global ID: T0600100908
Facility Name: BP
Submittal Title: Second SA Monitoring Report 2003
Submittal Type: GW Monitoring Report

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Processing is complete. No errors were found!
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Submittal Title:	**Second SA 2003 Geowell**
Submittal Date/Time:	**8/13/2003 4:55:08 PM**
Confirmation Number:	**1014877140**

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