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DW

Atlantic Richfield Company
(a BP affiliated company)

P.O. Box 6549
Moraga, California 94570
Phone: (925) 299-8891
Fax: (925) 299-8872

September 12, 2005

Re: Annual Groundwater Monitoring Report
ARCO Service Station #6148
5131 Shattuck Avenue
Oakland, California
ACEH Case #3626

I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Submitted by:

Paul Supple
Environmental Business Manager

URS

September 12, 2005

Ms. Donna Drogos
Alameda County Environmental Health (ACEH)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Annual 2005 Groundwater Monitoring Report
ARCO Service Station #6148
5131 Shattuck Avenue
Oakland, California
ACEH Case #3626

Dear Ms. Drogos:

On behalf of Atlantic Richfield Company, a BP affiliated company, URS Corporation (URS) is submitting the *Annual 2005 Groundwater Monitoring Report* for the ARCO Service Station #6148, located at 5131 Shattuck Avenue, Oakland, California.

A Soil Investigation for Site Closure Report was submitted to ACEH on June 1, 2004.

If you have any questions regarding this submission, please call (510) 874-3280.

Sincerely,

URS CORPORATION

PROFESSIONAL GEOLOGIST
SCOTT E. ROBINSON
No. 7829
STATE OF CALIFORNIA

Scott Robinson, P.G.
Project Manager

Enclosure: Annual 2005 Groundwater Monitoring Report

cc: Mr. Paul Supple, Atlantic Richfield Company (RM), electronic copy uploaded to ENFOS

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612-1924
Tel: 510.893.3600
Fax: 510.874.3268

REPORT

ANNUAL 2005 GROUNDWATER MONITORING REPORT

ARCO SERVICE STATION #6148
5131 SHATTUCK AVENUE
OAKLAND, CALIFORNIA

Prepared for
RM

September 12, 2005

URS
URS Corporation
1333 Broadway, Suite 800
Oakland, California 94612

Date: September 12, 2005

Quarter: 3Q 05

ANNUAL 2005 GROUNDWATER MONITORING REPORT

Facility No.:	6148	Address:	5131 Shattuck Avenue, Oakland, California
RM Environmental Business Manager:			Paul Supple
Consulting Co./Contact Person:			URS Corporation / Scott Robinson
Primary Agency:			Alameda County Environmental Health (ACEH)
ACEH Case #:			3626

WORK PERFORMED THIS QUARTER (Third – 2005):

1. Performed the third quarter 2005 groundwater monitoring event on August 10, 2005.
2. Prepared and submitted this Annual 2005 Groundwater Monitoring Report.

WORK PROPOSED FOR NEXT QUARTER (Fourth – 2005):

1. Prepare and submit the Fourth Quarter 2005 Quarterly Status Report.

SITE SUMMARY:

Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	Annually (3rd Quarter): MW-1 to MW-7
Frequency of Groundwater Monitoring:	Annually
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	None
Previous Remediation Techniques	Soil Vapor Extraction (Shut down 1st quarter 1999), Air-Sparge and Air-Bubbling Systems
Bulk Soil Removed to Date:	560 cubic yards
Approximate Depth to Groundwater:	14.29 (MW-6) to 17.76 (MW-1) feet
Groundwater Gradient (direction):	Southwest
Groundwater Gradient (magnitude):	0.02 feet per foot

DISCUSSION:

Gasoline range organics were detected at or above laboratory reporting limit in three of the seven wells sampled this quarter at a concentration ranging from 53 micrograms per liter (µg/L) (MW-6) to 740 µg/L (MW-5). Benzene was detected at or above laboratory reporting limit in one well at a concentration of 1.8 µg/L (MW-2). Toluene was detected at or above laboratory reporting limit in three wells at concentrations ranging from 0.50 µg/L (MW-4) to 1.2 µg/L (MW-6). Xylenes were detected at or above laboratory reporting limit in two wells at concentrations of 1.1 µg/L (MW-4) and 2.6 µg/L (MW-6). Methyl-tert-butyl ether was detected at or above laboratory reporting limit in three wells at concentrations ranging from 0.62 µg/L (MW-1) to 2.5 µg/L (MW-5). No other fuel components were detected at or above their respective laboratory reporting limits during this sampling event.

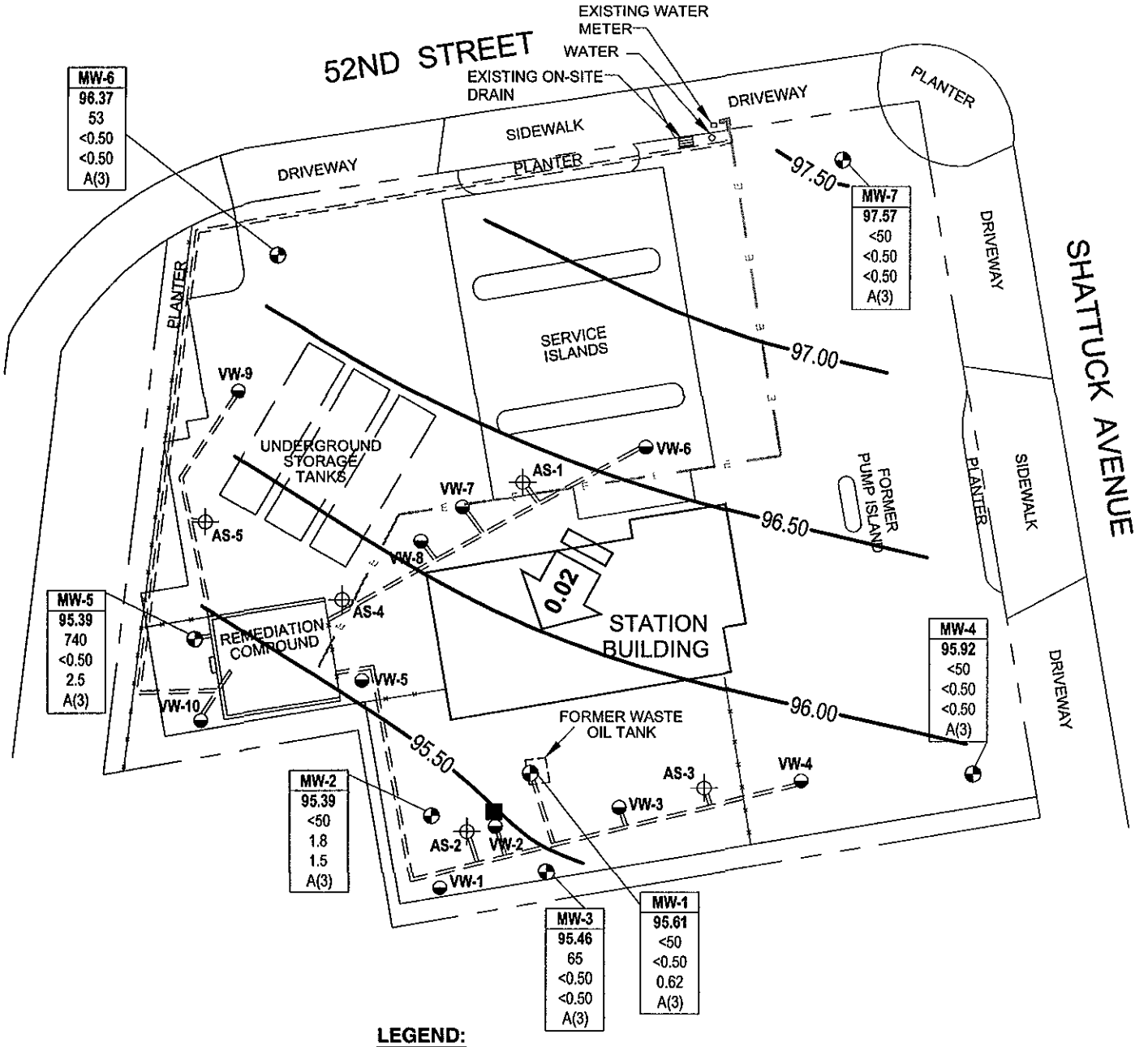
RECOMMENDATIONS:

URS submitted a Soil Investigation for Site Closure on June 1, 2004. In that report, URS recommended closure of this site at the end of 2004.

As URS previously recommended, the sampling frequency at the site will be reduced to an annual schedule unless the regulator indicates otherwise. The first annual sampling occurred in this quarter.

ATTACHMENTS:

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – August 10, 2005
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Fuel Additives Analytical Data
- Table 3 – Groundwater Gradient Data
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment C – Historical Groundwater Data
- Attachment D – Error Check Reports and EDF/Geowell Submittal Confirmations



LEGEND:

- MONITORING WELL
- AIR SPARGING WELL
- SOIL VAPOR EXTRACTION WELL
- DESTROYED WELL
- ELECTRICAL LINE
- FENCING
- REMEDIATION PIPING
- 0.02 GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)
- 96.00 GROUNDWATER ELEVATION CONTOUR (FT/MSL)

Well	WELL DESIGNATION
ELEV	GROUNDWATER ELEVATION (FT ABOVE MSL)
GRO Benzene MTBE	CONCENTRATION OF GRO, BENZENE AND MTBE IN GROUNDWATER (µg/L)
Q/A/SA	SAMPLING FREQUENCY
A(3)	SAMPLED ANNUALLY, 3RD QUARTER
Q	SAMPLED QUARTERLY
SA(1,3)	SAMPLED SEMI-ANNUALLY, 1ST & 3RD QUARTERS
<	NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS
NS	NOT SAMPLED

NORTH

0 30 60

SCALE IN FEET

NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

URS

Project No. 38487190

ARCO Service Station #6148
5131 Shattuck Avenue
Oakland, California

GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP
Third Quarter 2005 (August 10, 2005)

FIGURE 1

Sep 09, 2005 - 4:29pm
X:\x_env_waste\BP GEM\sites\Scott Robinson\Paul Supple\6148\Monitoring\2005 Qtr. 3\Drawings\6148-3Q05-GW.dwg

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #6148
5131 Shattuck Ave., Oakland, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-1	6/21/2000	--		107.80	13.00	26.00	17.49	90.31	<50	<0.5	<0.5	<0.5	<1.0	<3.0	--	--
	9/20/2000	--		107.80	13.00	26.00	17.64	90.16	<50	<0.5	0.677	<0.5	0.969	<2.5	--	--
	12/22/2000	--		107.80	13.00	26.00	16.87	90.93	186	5.38	0.522	9.52	30.2	8.91	--	--
	3/26/2001	--		107.80	13.00	26.00	16.60	91.20	<50	<0.5	<0.5	<0.5	<0.5	9.1	--	--
	5/30/2001	--		107.80	13.00	26.00	17.10	90.70	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	9/23/2001	--		107.80	13.00	26.00	17.53	90.27	<50	<0.5	<0.5	<0.5	<0.5	6.7	--	--
	12/28/2001	--		107.80	13.00	26.00	15.57	92.23	<50	2.7	<0.5	<0.5	<0.5	20	--	--
	3/21/2002	--		107.80	13.00	26.00	15.57	92.23	--	--	--	--	--	--	--	--
	4/17/2002	--		107.80	13.00	26.00	16.25	91.55	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	8/19/2002	--		107.80	13.00	26.00	17.69	90.11	<50	<0.5	<0.5	<0.5	<0.5	<2.5	2.0	7.1
	11/27/2002	--		107.80	13.00	26.00	17.45	90.35	<50	<0.50	1.8	0.65	3.5	1.7	1.0	6.3
	2/5/2003	--	d	107.80	13.00	26.00	16.93	90.87	<50	<0.50	<0.50	<0.50	<0.50	1.1	1.2	7.3
	5/13/2003	--		107.80	13.00	26.00	16.95	90.85	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	6.5
	7/31/2003	--		107.80	13.00	26.00	17.74	90.06	<50	<0.50	<0.50	<0.50	<0.50	0.55	1.2	6
	12/17/2003	NP		107.80	13.00	26.00	17.03	90.77	<50	<0.50	<0.50	<0.50	<0.50	2.5	2.0	6.5
	05/05/2004	NP		113.37	13.00	26.00	17.28	96.09	<50	<0.50	<0.50	<0.50	<0.50	0.60	2.60	6.4
	08/25/2004	NP		113.37	13.00	26.00	17.72	95.65	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.20	6.9
	11/29/2004	NP		113.37	13.00	26.00	17.45	95.92	<50	<0.50	<0.50	<0.50	<0.50	0.62	0.92	6.8
	01/31/2005	NP		113.37	13.00	26.00	16.67	96.70	<50	<0.50	<0.50	<0.50	<0.50	0.59	1.63	6.1
	05/09/2005	NP		113.37	13.00	26.00	16.77	96.60	<50	<0.50	<0.50	<0.50	<0.50	0.55	1.03	6.7
	08/10/2005	**NP**		**113.37**	**13.00**	**26.00**	**17.76**	**95.61**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.62**	**0.90**	**7.0**
MW-2	6/21/2000	--		107.28	14.00	26.00	17.19	90.09	69	<0.5	<0.5	<0.5	<1.0	12	---	--
	9/20/2000	--		107.28	14.00	26.00	17.31	89.97	<50	0.964	<0.5	<0.5	<.05	5.05	---	--
	12/22/2000	--		107.28	14.00	26.00	16.58	90.70	2,140	174	60.2	118	438	123	---	--
	3/26/2001	--		107.28	14.00	26.00	16.45	90.83	8,490	333	148	495	1,660	<250	---	--
	5/30/2001	--		107.28	14.00	26.00	16.83	90.45	4,700	200	71	260	780	43	---	--
	9/23/2001	--		107.28	14.00	26.00	17.30	89.98	160	5.9	1.8	0.8	41	14	---	--
	12/28/2001	--		107.28	14.00	26.00	15.38	91.90	1,800	54	<5.0	<5.0	240	30	---	--
	3/21/2002	--		107.28	14.00	26.00	15.36	91.92	--	--	--	--	--	--	--	--
	4/17/2002	--		107.28	14.00	26.00	16.01	91.27	<50	<0.5	<0.5	<0.5	<0.5	10	--	--
	8/19/2002	--	a	107.28	14.00	26.00	17.53	89.75	170	22	0.92	14	26	<2.5	3.0	6.9
	11/27/2002	--		107.28	14.00	26.00	17.21	90.07	340	22	0.68	13	26	<0.50	1.6	6.6
	2/5/2003	--	d	107.28	14.00	26.00	16.72	90.56	83	2.7	<0.50	0.97	15	4.3	0.7	7.0

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #6148

5131 Shattuck Ave., Oakland, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-2	05/13/2003	NP	f	107.28	14.00	26.00	16.72	90.56	<50	0.91	<0.50	<0.50	0.6	2.8	0.7	6.5
	7/31/2003	--		107.28	14.00	26.00	17.51	89.77	<50	<0.50	<0.50	<0.50	<0.50	2.0	7.1	6.7
	12/17/2003	NP		107.28	14.00	26.00	16.78	90.50	51	1.0	<0.50	<0.50	<0.50	2.4	8.10	7.1
	02/13/2004	NP	e	112.87	14.00	26.00	16.63	96.24	50	0.70	<0.50	0.54	0.90	1.6	5.60	6.7
	05/05/2004	NP		112.87	14.00	26.00	17.04	95.83	<50	<0.50	<0.50	<0.50	<0.50	0.99	4.30	6.9
	08/25/2004	NP		112.87	14.00	26.00	17.55	95.32	<50	<0.50	<0.50	<0.50	<0.50	0.63	7.50	6.6
	11/29/2004	NP		112.87	14.00	26.00	17.24	95.63	85	10	<0.50	4.6	1.0	0.55	1.41	6.9
	01/31/2005	NP		112.87	14.00	26.00	16.48	96.39	<50	<0.50	<0.50	<0.50	<0.50	1.2	0.76	6.1
	05/09/2005	NP		112.87	14.00	26.00	16.52	96.35	<50	0.68	<0.50	<0.50	<0.50	1.8	0.70	6.6
	08/10/2005	**NP**		**112.87**	**14.00**	**26.00**	**17.48**	**95.39**	**<50**	**1.8**	**<0.50**	**<0.50**	**<0.50**	**1.5**	**0.62**	**6.7**
MW-3	6/21/2000	--		107.61	14.00	26.00	17.52	90.09	200	<0.5	<0.5	<0.5	2.1	24	--	--
	9/20/2000	--		107.61	14.00	26.00	17.61	90.00	<50	<0.5	<0.5	<0.5	<0.5	20	--	--
	12/22/2000	--		107.61	14.00	26.00	16.85	90.76	227	4.73	1.06	2.58	5.22	27.3	--	--
	3/26/2001	--		107.61	14.00	26.00	16.79	90.82	287	6.29	1.58	6.47	12.1	24.2	--	--
	5/30/2001	--		107.61	14.00	26.00	17.11	90.50	500	10	<0.5	7.00	16	20	--	--
	9/23/2001	--		107.61	14.00	26.00	17.57	90.04	400	6.4	0.74	<0.5	0.62	22	--	--
	12/28/2001	--		107.61	14.00	26.00	15.41	92.20	270	2.5	2.4	<0.5	2.3	9.2	--	--
	3/21/2002	--		107.61	14.00	26.00	15.58	92.03	--	--	--	--	--	--	--	--
	4/17/2002	--		107.61	14.00	26.00	16.25	91.36	360	2.5	0.72	<0.5	<0.5	12	--	--
	8/19/2002	--	b	107.61	14.00	26.00	17.66	89.95	750	11	2.1	<0.5	2.4	14	1.4	6.8
	11/27/2002	--		107.61	14.00	26.00	17.69	89.92	470	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	6.6
	2/5/2003	--	d	107.61	14.00	26.00	16.82	90.79	<50	<0.50	<0.50	<0.50	<0.50	2.4	1.3	6.6
	5/13/2003	--		107.61	14.00	26.00	17.12	90.49	300	<0.50	<0.50	<0.50	<0.50	2.2	1.4	6.7
	7/31/2003	--		107.61	14.00	26.00	17.72	89.89	320	<0.50	<0.50	<0.50	<0.50	2.1	1.4	6.8
	12/17/2003	NP		107.61	14.00	26.00	16.95	90.66	340	0.51	<0.50	<0.50	<0.50	4.8	1.30	6.7
	02/13/2004	NP	e	113.05	14.00	26.00	16.77	96.28	<50	<0.50	<0.50	<0.50	<0.50	3.1	2.10	7.1
	05/05/2004	NP		113.05	14.00	26.00	17.22	95.83	<50	<0.50	<0.50	<0.50	<0.50	1.3	1.20	6.9
	08/25/2004	NP		113.05	14.00	26.00	17.66	95.39	<50	<0.50	<0.50	<0.50	<0.50	3.3	1.20	7.1
	11/29/2004	NP		113.05	14.00	26.00	17.47	95.58	110	<0.50	<0.50	<0.50	<0.50	1.4	1.0	6.9
	01/31/2005	NP		113.05	14.00	26.00	16.16	96.89	<50	<0.50	<0.50	<0.50	<0.50	2.0	0.87	6.2
	05/09/2005	NP		113.05	14.00	26.00	16.64	96.41	50	<0.50	<0.50	<0.50	<0.50	0.80	0.83	6.7
	08/10/2005	**NP**		**113.05**	**14.00**	**26.00**	**17.59**	**95.46**	**65**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.82**	**6.7**
MW-4	6/21/2000	--		106.71	11.50	26.50	16.00	90.71	1,400	5.3	7.3	36	85	4	--	--

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #6148

5131 Shattuck Ave., Oakland, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-4	9/20/2000	--		106.71	11.50	26.50	16.03	90.68	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	12/22/2000	--		106.71	11.50	26.50	--	--	--	--	--	--	--	--	--	--
	3/26/2001	--		106.71	11.50	26.50	15.05	91.66	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	5/30/2001	--		106.71	11.50	26.50	15.62	91.09	--	--	--	--	--	--	--	--
	9/23/2001	--		106.71	11.50	26.50	16.07	90.64	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	12/28/2001	--		106.71	11.50	26.50	13.68	93.03	--	--	--	--	--	--	--	--
	3/21/2002	--		106.71	11.50	26.50	14.04	92.67	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	4/17/2002	--		106.71	11.50	26.50	14.78	91.93	--	--	--	--	--	--	--	--
	8/19/2002	--		106.71	11.50	26.50	16.18	90.53	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1.4	6.8
	11/27/2002	--		106.71	11.50	26.50	15.89	90.82	--	--	--	--	--	--	--	--
	2/5/2003	--	d	106.71	11.50	26.50	15.40	91.31	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	6.6
	5/13/2003	--		106.71	11.50	26.50	15.42	91.29	--	--	--	--	--	--	--	--
	7/31/2003	--		106.71	11.50	26.50	16.23	90.48	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	6.4
	12/17/2003	--		106.71	11.50	26.50	15.57	91.14	--	--	--	--	--	--	--	--
	02/13/2004	P	e	112.15	11.50	26.50	15.30	96.85	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.10	6.3
	05/05/2004	--		112.15	11.50	26.50	15.69	96.46	--	--	--	--	--	--	--	--
	08/25/2004	P		112.15	11.50	26.50	16.07	96.08	<50	<0.50	<0.50	<0.50	0.51	<0.50	1.60	6.4
	11/29/2004	--		112.15	11.50	26.50	15.86	96.29	--	--	--	--	--	--	--	--
	01/31/2005	P		112.15	11.50	26.50	15.17	96.98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.61	6.2
	05/09/2005	--		112.15	11.50	26.50	15.25	96.90	--	--	--	--	--	--	--	--
	08/10/2005	**P**		**112.15**	**11.50**	**26.50**	**16.23**	**95.92**	**<50**	**<0.50**	**0.50**	**<0.50**	**1.1**	**<0.50**	**0.68**	**6.5**
MW-5	3/26/2000	--		106.60	10.00	25.00	15.45	91.15	767	12.4	<5.0	<5.0	<5.0	163	--	--
	6/21/2000	--		106.60	10.00	25.00	16.52	90.08	67	<0.5	<0.5	<0.5	<1.0	10	--	--
	9/20/2000	--		106.60	10.00	25.00	16.34	90.26	<50	<0.5	<0.5	<0.5	<0.5	3.48	--	--
	12/22/2000	--		106.60	10.00	25.00	15.58	91.02	341	11.5	2.53	4.02	6.25	146	--	--
	5/30/2001	--		106.60	10.00	25.00	15.77	90.83	110	2.3	<0.5	<0.5	0.81	72	--	--
	9/23/2001	--		106.60	10.00	25.00	16.16	90.44	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	12/28/2001	--		106.60	10.00	25.00	14.09	92.51	240	2.8	1.9	<0.5	2.6	48	--	--
	3/21/2002	--		106.60	10.00	25.00	14.43	92.17	--	<0.5	<0.5	<0.5	<0.5	--	--	--
	4/17/2002	--		106.60	10.00	25.00	14.96	91.64	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	8/19/2002	--	c	106.60	10.00	25.00	16.34	90.26	--	--	--	--	--	--	--	--
	11/27/2002	--	c	106.60	10.00	25.00	--	--	--	--	--	--	--	--	--	--
	2/5/2003	--	c , d	106.60	10.00	25.00	--	--	--	--	--	--	--	--	--	--

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #6148

5131 Shattuck Ave., Oakland, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-5	5/13/2003	NP	f	106.60	10.00	25.00	15.43	91.17	<50	<0.50	<0.50	<0.50	<0.50	15	1.4	6.2
	7/31/2003	--		106.60	10.00	25.00	16.47	90.13	<50	<0.50	<0.50	<0.50	<0.50	1.2	14.1	8.1
	12/17/2003	NP		106.60	10.00	25.00	15.99	90.61	<50	<0.50	<0.50	<0.50	<0.50	1.8	15.40	8.5
	02/13/2004	NP	e	112.04	10.00	25.00	15.90	96.14	<50	<0.50	<0.50	<0.50	<0.50	2.6	11.10	7.0
	05/05/2004	NP		112.04	10.00	25.00	16.28	95.76	51	<0.50	<0.50	<0.50	<0.50	1.2	0.80	7.2
	08/25/2004	NP		112.04	10.00	25.00	16.67	95.37	<50	<0.50	<0.50	<0.50	<0.50	1.1	10.50	--
	11/29/2004	NP		112.04	10.00	25.00	16.37	95.67	<50	<0.50	<0.50	<0.50	<0.50	0.61	1.0	7.0
	01/31/2005	NP		112.04	10.00	25.00	15.73	96.31	<50	<0.50	<0.50	<0.50	<0.50	0.86	1.63	6.3
	05/09/2005	NP		112.04	10.00	25.00	15.90	96.14	<50	<0.50	<0.50	<0.50	<0.50	0.60	1.12	7.2
	08/10/2005	**NP**		**112.04**	**10.00**	**25.00**	**16.65**	**95.39**	**740**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2.5**	**--**	**7.3**
MW-6	6/21/2000	--		105.13	12.00	27.00	13.91	91.22	--	--	--	--	--	--	--	--
	9/20/2000	--		105.13	12.00	27.00	14.03	91.10	--	--	--	--	--	--	--	--
	12/22/2000	--		105.13	12.00	27.00	--	--	--	--	--	--	--	--	--	--
	3/26/2001	--		105.13	12.00	27.00	12.59	92.54	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	5/30/2001	--		105.13	12.00	27.00	13.40	91.73	--	--	--	--	--	--	--	--
	9/23/2001	--		105.13	12.00	27.00	13.49	91.64	--	--	--	--	--	--	--	--
	12/28/2001	--		105.13	12.00	27.00	12.07	93.06	--	--	--	--	--	--	--	--
	3/21/2002	--		105.13	12.00	27.00	11.79	93.34	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	4/17/2002	--		105.13	12.00	27.00	12.45	92.68	--	--	--	--	--	--	--	--
	8/19/2002	--		105.13	12.00	27.00	13.96	91.17	<50	<0.5	<0.5	<0.5	<0.5	<2.5	2.8	6.9
	11/27/2002	--		105.13	12.00	27.00	14.07	91.06	--	--	--	--	--	--	--	--
	2/5/2003	--	d	105.13	12.00	27.00	13.55	91.58	--	--	--	--	--	--	--	--
	5/13/2003	--		105.13	12.00	27.00	13.57	91.56	--	--	--	--	--	--	--	--
	7/31/2003	--		105.13	12.00	27.00	14.18	90.95	67	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	6.5
	12/17/2003	--		105.13	12.00	27.00	14.12	91.01	--	--	--	--	--	--	--	--
	02/13/2004	--	e	110.66	12.00	27.00	13.51	97.15	--	--	--	--	--	--	--	--
	05/05/2004	--		110.66	12.00	27.00	13.95	96.71	--	--	--	--	--	--	--	--
	08/25/2004	P		110.66	12.00	27.00	14.42	96.24	55	<0.50	0.98	<0.50	1.5	<0.50	3.60	6.7
	11/29/2004	--		110.66	12.00	27.00	14.20	96.46	--	--	--	--	--	--	--	--
	01/31/2005	--		110.66	12.00	27.00	13.33	97.33	--	--	--	--	--	--	--	--
	05/09/2005	--		110.66	12.00	27.00	13.45	97.21	--	--	--	--	--	--	--	--
	08/10/2005	**P**		**110.66**	**12.00**	**27.00**	**14.29**	**96.37**	**53**	**<0.50**	**1.2**	**<0.50**	**2.6**	**<0.50**	**2.63**	**6.5**
MW-7	6/21/2000	--		107.05	12.00	27.00	14.57	92.48	--	--	--	--	--	--	--	--

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #6148
5131 Shattuck Ave., Oakland, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-7	9/20/2000	--		107.05	12.00	27.00	14.58	92.47	--	--	--	--	--	--	--	--
	12/22/2000	--		107.05	12.00	27.00	13.21	93.84	--	--	--	--	--	--	--	--
	3/26/2001	--		107.05	12.00	27.00	13.18	93.87	71.4	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	5/30/2001	--		107.05	12.00	27.00	13.80	93.25	--	--	--	--	--	--	--	--
	9/23/2001	--		107.05	12.00	27.00	14.27	92.78	--	--	--	--	--	--	--	--
	12/28/2001	--		107.05	12.00	27.00	12.24	94.81	--	--	--	--	--	--	--	--
	3/21/2002	--		107.05	12.00	27.00	12.16	94.89	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
	4/17/2002	--		107.05	12.00	27.00	13.08	93.97	--	--	--	--	--	--	--	--
	8/19/2002	--		107.05	12.00	27.00	14.73	92.32	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1.4	6.7
	11/27/2002	--		107.05	12.00	27.00	14.76	92.29	--	--	--	--	--	--	--	--
	2/5/2003	--	d	107.05	12.00	27.00	14.07	92.98	--	--	--	--	--	--	--	--
	5/13/2003	--		107.05	12.00	27.00	14.00	93.05	--	--	--	--	--	--	--	--
	7/31/2003	--		107.05	12.00	27.00	14.00	92.17	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	6.4
	12/17/2003	--		107.05	12.00	27.00	14.10	92.95	--	--	--	--	--	--	--	--
	02/13/2004	--	e	112.59	12.00	27.00	13.91	98.68	--	--	--	--	--	--	--	--
	05/05/2004	--		112.59	12.00	27.00	14.60	97.99	--	--	--	--	--	--	--	--
	08/25/2004	P		112.59	12.00	27.00	15.25	97.34	<50	<0.50	0.53	<0.50	0.91	<0.50	1.20	6.4
	11/29/2004	--		112.59	12.00	27.00	15.00	97.59	--	--	--	--	--	--	--	--
	01/31/2005	--		112.59	12.00	27.00	13.69	98.90	--	--	--	--	--	--	--	--
	05/09/2005	--		112.59	12.00	27.00	13.79	98.80	--	--	--	--	--	--	--	--
	08/10/2005	**P**		**112.59**	**12.00**	**27.00**	**15.02**	**97.57**	**<50**	**<0.50**	**0.51**	**<0.50**	**<0.50**	**<0.50**	**1.45**	**6.4**

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #6148
5131 Shattuck Ave., Oakland, CA

SYMBOLS AND ABBREVIATIONS:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above specified laboratory reporting limit
DO = Dissolved Oxygen
DTW = Depth to water in feet below ground surface
ft bgs = feet below ground surface
GWE = Groundwater measured in feet above mean sea level
GRO = Gasoline Range Organics
mg/L = Milligrams per liter or parts per million (ppm)
MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted (Prior to 2/5/03)
NP = Well not purged prior to sampling
P = Well purged prior to sampling
TOC = Top of casing measured in feet above mean sea level
TPH-g = Total Petroleum Hydrocarbons as Gasoline
ug/L = Micrograms per liter

FOOTNOTES:
a = Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel (TPHg/GRO).
b = Chromatogram Pattern: Gasoline C6-C10 (TPHg/GRO).
c = Well MW-5 not sampled due to ORC sock wedged in well.
d = TPH-g, BTEX, and MTBE analyzed by EPA meathod 8260B beginning on 1st quarter sampling event (2/5/03).
e = Wells surveyed to NAVD'88 datum on January 29, 2004.
f = During this monitoring event, the oxygen releasing compounds (ORC) were replaced for this well.

NOTES:
Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential inclusion of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported. Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

The values for pH and DO were obtained from field measurements.

The data within this table collected prior to August 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

The top and bottom of screen depths for wells MW-1, MW-2 and MW-3 were obtained from EMCON O&M sampling sheets not from well logs.

Table 2

Fuel Additives Analytical Data

ARCO Service Station #6148
5131 Shattuck Ave., Oakland, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Footnotes/ Comments
MW-1	2/5/2003	<40	<20	1.1	<0.50	<0.50	<0.50	--	--	
	5/13/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
	7/31/2003	<100	<20	0.55	<0.50	<0.50	<0.50	<0.50	<0.50	
	12/17/2003	<100	<20	2.5	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/05/2004	<100	<20	0.60	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/25/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
	11/29/2004	<100	<20	0.62	<0.50	<0.50	<0.50	<0.50	<0.50	
	01/31/2005	<100	<20	0.59	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/09/2005	<100	<20	0.55	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/10/2005	**<100**	**<20**	**0.62**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-2	2/5/2003	<40	<20	4.3	<0.50	<0.50	<0.50	--	--	
	5/13/2003	<100	<20	2.8	<0.50	<0.50	<0.50	--	--	
	7/31/2003	<100	<20	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	
	12/17/2003	<100	<20	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	
	02/13/2004	<100	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/05/2004	<100	<20	0.99	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/25/2004	<100	<20	0.63	<0.50	<0.50	<0.50	<0.50	<0.50	
	11/29/2004	<100	<20	0.55	<0.50	<0.50	<0.50	<0.50	<0.50	
	01/31/2005	<100	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/09/2005	<100	<20	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/10/2005	**<100**	**<20**	**1.5**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-3	2/5/2003	<40	<20	2.4	<0.50	<0.50	<0.50	--	--	
	5/13/2003	<100	<20	2.2	<0.50	<0.50	<0.50	--	--	
	7/31/2003	<100	<20	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
	12/17/2003	<100	<20	4.8	<0.50	<0.50	<0.50	<0.50	<0.50	
	02/13/2004	<100	<20	3.1	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/05/2004	<100	<20	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/25/2004	<100	<20	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	
	11/29/2004	<100	<20	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	
	01/31/2005	<100	<20	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/09/2005	<100	<20	0.80	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/10/2005	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-4	7/31/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2

Fuel Additives Analytical Data

ARCO Service Station #6148
5131 Shattuck Ave., Oakland, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Footnotes/ Comments
MW-4	02/13/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/25/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	01/31/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/10/2005	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-5	5/13/2003	<100	<20	15	<0.50	<0.50	1.1	--	--	
	7/31/2003	<100	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
	12/17/2003	<100	<20	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	
	02/13/2004	<100	<20	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/05/2004	<100	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/25/2004	<100	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	
	11/29/2004	<100	<20	0.61	<0.50	<0.50	<0.50	<0.50	<0.50	
	01/31/2005	<100	<20	0.86	<0.50	<0.50	<0.50	<0.50	<0.50	
	05/09/2005	<100	<20	0.60	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/10/2005	**<100**	**<20**	**2.5**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-6	7/31/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/25/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/10/2005	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-7	7/31/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/25/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/10/2005	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

Table 2

Fuel Additives Analytical Data

ARCO Service Station #6148
5131 Shattuck Ave., Oakland, CA

SYMBOLS AND ABBREVIATIONS:
< = Not detected at or above the specified laboratory reporting limit
– = Not available/analyzed/applicable
DIPE = Di-isopropyl ether
EDB = 1,2-Dibromoethane
ETBE = Ethyl tert butyl ether
MTBE = Methyl tert-butyl ether
1,2-DCA = 1,2-Dichloroethane
TAME = tert-Amyl methyl ether
TBA = tert-Butyl alcohol
ug/L = micrograms per liter

FOOTNOTES:
a = This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose.

Table 3

Groundwater Gradient Data

ARCO Service Station #6148
5131 Shattuck Ave., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
6/21/2000	South-Southwest	0.016
9/20/2000	South-Southwest	0.017
12/22/2000	South-Southwest	0.022
3/26/2001	South-Southwest	0.02
5/30/2001	South-Southwest	0.02
9/23/2001	South-Southwest	0.019
12/28/2001	Southwest	0.019
3/21/2002	Southwest	0.019
4/17/2002	Southwest	0.017
8/19/2002	Southwest	0.016
11/27/2002	Southwest	0.015
2/5/2003	Southwest	0.017
5/13/2003	Southwest	0.013
7/31/2003	Southwest	0.014
2/13/2004	Southwesst	0.016
5/5/2004	Southwest	0.016
8/25/2004	Southwest	0.013
11/29/2004	Southwest	0.013
1/31/2005	Southwest	0.02
5/9/2005	Southwest	0.02
8/10/2005	**Southwest**	**0.02**

Source: The data within this table collected prior to August 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

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 # 050810-WC-2 Date 8/10/05 Client BP@6148

Site 5131 Shattuck Ave., 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	NP@
MW-1	4					17.76	25.48		11.5'
MW-2	4					17.48	25.63		12'
MW-3	4					17.59	~~25~~ 25.62		10'
MW-4	4			DTW = 16.23	DTB = 26.07	~~14.29~~	~~26.65~~		purge
MW-5	4					16.65	19.47		12'
MW-6	4			DTW = 14.29	DTB = 26.65	~~16.65~~	~~19.47~~		purge
MW-7	4					15.02	27.00	V	purge

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050810-WC-2	Station # 6148
Sampler: WC	Date: 8/10/05
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 25.48	Depth to Water: 17.76
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 / Positive Air Displacement / Electric Submersible / Extraction Pump / Other: _____

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

Top of Screen: 11.5

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

_____ (1 Case Volume (Gals.)) X _____ (Specified Volumes) = _____ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1258	72.8	7.0	485	—	clear

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

Sampling Time: 1300 Sampling Date: 8/10/05

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

Analyzed for: (GRO) (BTEX) MTBE DRO Other: See COC

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.90	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: ~~MW~~ we 050610-WC-2	Station # 6148
Sampler: we	Date: 6/10/05
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 25.63	Depth to Water: 17.48
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 / ~~Positive Air Displacement~~ / ~~Electric Submersible~~ / Extraction Pump / Other: ___

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

Top of Screen: 12'

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

___ (1 Case Volume (Gals.)) X ___ (Specified Volumes) = ___ (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or ~~uS~~)	Gals. Removed	Observations
1305	71.7	6.7	433	—	clear

Did well dewater? Yes (No)		Gallons actually evacuated: —	
Sampling Time: 1307		Sampling Date:	
Sample I.D.: MW-2		Laboratory: Pace ~~Sequoia~~ Other ___	
Analyzed for: (TPH-G) (BTEX) MTBE DRO		Other: see COC	
D.O. (if req'd):	Pre-purge: ___ mg/L	Post-purge: 0.62 mg/L	
O.R.P. (if req'd):	Pre-purge: ___ mV	Post-purge: ___ mV	

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050810-WC-1	Station # 6148
Sampler: WC	Date: 8/10/05
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 25.62	Depth to Water: 17.59
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 / Positive Air Displacement / Electric Submersible / Extraction Pump / Other: _____

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

Top of Screen: 10'

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

_____ (1 Case Volume (Gals.)) X _____ (Specified Volumes) = _____ (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1313	71.8	6.7	585	—	clear

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

Sampling Time: 1315 Sampling Date: 8/10/05

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

Analyzed for: (GRO) (BTEX) MTBE DRO Other: See SOW

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.82 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050610-WC-2	Station # G148
Sampler: WC	Date: 8/10/05
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 26.07	Depth to Water: 16.23
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 / Positive Air Displacement / 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.

6.4 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 19.2 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1331	77.1	6.46	560	7	Clear
1332	75.5	6.5	472	13	↓
1333	74.8	6.5	452	20	↓

Did well dewater? Yes (No)		Gallons actually evacuated: 20	
Sampling Time: 1336		Sampling Date: 8/10/05	
Sample I.D.: MW-4		Laboratory: Pace (Sequoia) Other ____	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other: See COC	
D.O. (if req'd): Pre-purge:	mg/L	Post-purge:	0.68 mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050810-WC-2	Station # 6148
Sampler: WC	Date: 8/10/05
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 19.47	Depth to Water: 16.65
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 / Positive Air Displacement / Electric Submersible / Extraction Pump / Other: ___

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

Top of Screen: 12

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

___ (1 Case Volume (Gals.)) X (five) (Specified Volumes) = ___ (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1216	70.7	7.3	749	—	

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

Sampling Time: 1218 Sampling Date: 8/10/05

Sample I.D.: MW-5 Laboratory: Pace (Sequoia) Other ___

Analyzed for: (GRO) (BTEX) MTBE DRO Other: See COC

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 #: 050810-WC-1	Station # 6148
Sampler: WC	Date:
Well I.D.: MW-6	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 26.65	Depth to Water: 14.29
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 / Positive Air Displacement / 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.

8.0	x	3	=	24 Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1417	73.2	6.9	435	8	
1418	72.7	6.6	436	16	
1419	72.2	6.5	438	24	

Did well dewater? Yes (No)		Gallons actually evacuated: 24	
Sampling Time: 1423		Sampling Date: 8/10/05	
Sample I.D.: MW-6		Laboratory: Pace (Sequoia) Other _____	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other: See COC	
D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge): 2.63 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050810-WC-2	Station # 6148
Sampler: WC	Date: 8/10/05
Well I.D.: MW-7	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 27.00	Depth to Water: 15.02
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 / Positive Air Displacement / 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.

7.8 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 23.4 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1351	72.7	6.7	417	8	clear
1352	72.5	6.4	417	16	↓
1353	72.4	6.4	409	24	↓

Did well dewater? Yes (No)		Gallons actually evacuated: 24	
Sampling Time: 1357		Sampling Date: 8/10/05	
Sample I.D.: MW-7		Laboratory: Pace (Sequoia) Other _____	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other: see COC	
D.O. (if req'd): Pre-purge:	mg/L	Post-purge:	1.45 mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

Chain of Custody Record

Page 1 of 1

Project Name: Analytical for QMR sampling

BP BU/AR Region/Enfos Segment: BP > Americas > West Coast > Retail > WCBU > CA > Central > 6148 > HistoricalBL

State or Lead Regulatory Agency: California Regional Water Quality Control Board - San Fr

Requested Due Date (mm/dd/yy): 10 Day TAT

On-site Time:	1200	Temp:	75 °F
Off-site Time:	1500	Temp:	78 °F
Sky Conditions:	Clear		
Meteorological Events:	—		
Wind Speed:	5-10 mph	Direction:	E

Lab Name: Sequoia	BP/AR Facility No.: 6148	Consultant/Contractor: URS
Address: 885 Jarvis Drive	BP/AR Facility Address: 5131 Shattuck Ave., Oakland, CA 94609	Address: 1333 Broadway, Suite 800
Morgan Hill, CA 95037	Site Lat/Long: 37.837591 / -122.264	Oakland, CA 94612
Lab PM: Lisa Race / Jamshid Kekobad	California Global ID No.: T0600100103	Consultant/Contractor Project No.: 38487040
Tele/Fax: 408.782.8156 / 408.782.6308	Enfos Project No.: G0C2J-0004	Consultant/Contractor PM: Scott Robinson
BP/AR PM Contact: Paul Supple	Provision or RCOP: Provision	Tele/Fax: 510.874.3280 / 510.874.3268
Address: P.O. Box 6549	Phase/WBS: 04 - Mon/Remed by Natural Attenuation	Report Type & QC Level: Level 1 with EDF
Moraga, CA 94570	Sub Phase/Task: 03 - Analytical	E-mail EDD To: Donna_Cosper@urscorp.com
Tele/Fax: 925.299.8891 / 925.299.8872	Cost Element: 05 - Subcontracted Costs	Invoice to: Atlantic Richfield Company

Lab Bottle Order No: 6148

Item No.	Sample Description	Time	Date	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air	Laboratory No.	No. of Containers	Preservative: Unpreserved	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: HCl	Preservative: Methanol	Requested Analysis: GRO / BTEX (8260)	Requested Analysis: MTBE, TAME, ETBE, DIPE, TBA (8260)	Requested Analysis: EDB, 1,2-DCA (8260)	Requested Analysis: Ethanol (8260)	Sample Point Lat/Long and Comments
1	MW-1	1300	8/10/05		X			3				X		X	X	X	X	
2	MW-2	1307	"		"			"				"		X	X	X	X	
3	MW-3	1315												X	X	X	X	
4	MW-4	1338												X	X	X	X	
5	MW-5	1218												X	X	X	X	
6	MW-6	1423	"		"			"				"		X	X	X	X	
7	MW-7	1357	"		"			2				"		X	X	X	X	
8	TB-6148-08102005	—	"		"			2				"						on hold
9																		
10																		

Sampler's Name:	Will Crow	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	Blaine Tech	Will Crow	8/10/05	16:15	Sample Custodian	8/10/05	16:15
Shipment Date:		Sample Custody	8/10/05	17:56		8/10/05	16:58
Shipment Method:							
Shipment Tracking No:							

Special Instructions:

Custody Seals In Place Yes X No ____ Temp Blank Yes X No ____ Cooler Temperature on Receipt ____ °F/C Trip Blank Yes X No ____

Distribution: White Copy - Laboratory / Yellow Copy - BP/Atlantic Richfield Co. / Pink Copy - Consultant/Contractor

BP GEM OIL COMPANY TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING** FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

6148

Station #

5131 Shattuck Ave, Oakland

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

68 Gallons

added equip. rinse water 2 gal.

any other adjustments 2"

TOTAL GALS. RECOVERED 70 gal.

loaded onto BTS vehicle # 22

BTS event # 050810-WC-2

time

date 8/10/05

signature Will Crow

* *

REC'D AT Blaine Tech

time

date 8/10/05

unloaded by signature Will Crow

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 RM have been reviewed and verified by that laboratory.

Sequoia
Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

26 August, 2005

Scott Robinson
URS Corporation [Arco]
1333 Broadway, Suite 800
Oakland, CA 94612

RE: ARCO #6148,Oakland, CA
Work Order: MOH0651

Enclosed are the results of analyses for samples received by the laboratory on 08/10/05 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kekobad

Jamshid Kekobad
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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Morgan Hill, CA 95037
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URS Corporation [Arco]	Project:ARCO #6148,Oakland, CA	MOH0651
1333 Broadway, Suite 800	Project Number:G0C2J-0004	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	08/26/05 11:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MOH0651-01	Water	08/10/05 13:00	08/10/05 18:00
MW-2	MOH0651-02	Water	08/10/05 13:07	08/10/05 18:00
MW-3	MOH0651-03	Water	08/10/05 13:15	08/10/05 18:00
MW-4	MOH0651-04	Water	08/10/05 13:38	08/10/05 18:00
MW-5	MOH0651-05	Water	08/10/05 12:18	08/10/05 18:00
MW-6	MOH0651-06	Water	08/10/05 14:23	08/10/05 18:00
MW-7	MOH0651-07	Water	08/10/05 13:57	08/10/05 18:00
TB-6148-08102005	MOH0651-08	Water	08/10/05 00:00	08/10/05 18:00

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with intact custody seals.

Sequoia Analytical

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Morgan Hill, CA 95037
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www.sequoialabs.com

URS Corporation [Arco]	Project:ARCO #6148,Oakland, CA	MOH0651
1333 Broadway, Suite 800	Project Number:G0C2J-0004	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	08/26/05 11:31

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MOH0651-01) Water Sampled: 08/10/05 13:00 Received: 08/10/05 18:00									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5H22016	08/22/05	08/23/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.62**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95 %*	*60-135*		"	"	"	"	
MW-2 (MOH0651-02) Water Sampled: 08/10/05 13:07 Received: 08/10/05 18:00									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5H22016	08/22/05	08/23/05	EPA 8260B	
Benzene	**1.8**	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**1.5**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*60-135*		"	"	"	"	

Sequoia Analytical

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

URS Corporation [Arco]	Project:ARCO #6148,Oakland, CA	MOH0651
1333 Broadway, Suite 800	Project Number:G0C2J-0004	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	08/26/05 11:31

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MOH0651-03) Water Sampled: 08/10/05 13:15 Received: 08/10/05 18:00									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5H22016	08/22/05	08/23/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**65**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96 %*	*60-135*		"	"	"	"	
MW-4 (MOH0651-04) Water Sampled: 08/10/05 13:38 Received: 08/10/05 18:00									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5H22016	08/22/05	08/23/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	**0.50**	0.50	"	"	"	"	"	"	
Xylenes (total)	**1.1**	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98 %*	*60-135*		"	"	"	"	

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #6148,Oakland, CA	MOH0651
1333 Broadway, Suite 800	Project Number:G0C2J-0004	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	08/26/05 11:31

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (MOH0651-05) Water Sampled: 08/10/05 12:18 Received: 08/10/05 18:00									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5H22016	08/22/05	08/23/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**2.5**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**740**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98 %*	*60-135*		"	"	"	"	
MW-6 (MOH0651-06) Water Sampled: 08/10/05 14:23 Received: 08/10/05 18:00									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5H22016	08/22/05	08/23/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	**1.2**	0.50	"	"	"	"	"	"	
Xylenes (total)	**2.6**	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**53**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98 %*	*60-135*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #6148,Oakland, CA	MOH0651
1333 Broadway, Suite 800	Project Number:G0C2J-0004	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	08/26/05 11:31

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (MOH0651-07) Water Sampled: 08/10/05 13:57 Received: 08/10/05 18:00									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5H22016	08/22/05	08/23/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	**0.51**	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96 %*	*60-135*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #6148,Oakland, CA	MOH0651
1333 Broadway, Suite 800	Project Number:G0C2J-0004	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	08/26/05 11:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5H22016 - EPA 5030B P/T / EPA 8260B										
Blank (5H22016-BLK1)				Prepared & Analyzed: 08/22/05						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	6.07	5.0	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*2.32*		"	*2.50*		*93*	*60-135*			
Blank (5H22016-BLK2)				Prepared & Analyzed: 08/22/05						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*2.39*		"	*2.50*		*96*	*60-135*			

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URS Corporation [Arco]	Project:ARCO #6148,Oakland, CA	MOH0651
1333 Broadway, Suite 800	Project Number:G0C2J-0004	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	08/26/05 11:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5H22016 - EPA 5030B P/T / EPA 8260B										
Laboratory Control Sample (5H22016-BS2)				Prepared & Analyzed: 08/22/05						
tert-Amyl methyl ether	16.7	0.50	ug/l	15.0		111	80-115			
Benzene	4.95	0.50	"	5.16		96	65-115			
tert-Butyl alcohol	154	20	"	143		108	75-150			
Di-isopropyl ether	15.0	0.50	"	15.1		99	75-125			
1,2-Dibromoethane (EDB)	17.3	0.50	"	14.8		117	85-120			
1,2-Dichloroethane	15.5	0.50	"	14.7		105	85-130			
Ethanol	173	100	"	141		123	70-135			
Ethyl tert-butyl ether	16.5	0.50	"	15.0		110	75-130			
Ethylbenzene	7.32	0.50	"	7.54		97	75-135			
Methyl tert-butyl ether	8.15	0.50	"	7.02		116	65-125			
Toluene	33 9	0 50	"	37.2		91	85-120			
Xylenes (total)	41.3	0.50	"	41.4		100	85-125			
Gasoline Range Organics (C4-C12)	483	50	"	440		110	70-124			
Surrogate: 1,2-Dichloroethane-d4	*2.24*		"	*2.50*		*90*	*60-135*			
Matrix Spike (5H22016-MS1)	**Source: MOH0674-05**			Prepared & Analyzed: 08/22/05						
tert-Amyl methyl ether	181	5.0	ug/l	150	ND	121	80-115			LM
Benzene	56.3	5.0	"	51.6	ND	109	65-115			
tert-Butyl alcohol	1650	200	"	1430	ND	115	75-120			
Di-isopropyl ether	168	5.0	"	151	ND	111	75-125			
1,2-Dibromoethane (EDB)	188	5.0	"	148	ND	127	85-120			LM
1,2-Dichloroethane	175	5.0	"	147	ND	119	85-130			
Ethanol	1820	1000	"	1410	ND	129	70-135			
Ethyl tert-butyl ether	178	5.0	"	150	ND	119	75-130			
Ethylbenzene	82.3	5.0	"	75.4	ND	109	75-135			
Methyl tert-butyl ether	71.2	5.0	"	70.2	ND	101	65-125			
Toluene	380	5.0	"	372	ND	102	85-120			
Xylenes (total)	474	5.0	"	414	ND	114	85-125			
Gasoline Range Organics (C4-C12)	5940	500	"	4400	570	122	70-124			
Surrogate: 1,2-Dichloroethane-d4	*2.34*		"	*2.50*		*94*	*60-135*			

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URS Corporation [Arco]	Project:ARCO #6148,Oakland, CA	MOH0651
1333 Broadway, Suite 800	Project Number:G0C2J-0004	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	08/26/05 11:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5H22016 - EPA 5030B P/T / EPA 8260B										
Matrix Spike Dup (5H22016-MSD1)	**Source: MOH0674-05**			Prepared: 08/22/05		Analyzed: 08/23/05				
tert-Amyl methyl ether	180	5.0	ug/l	150	ND	120	80-115	0.6	15	LM
Benzene	54.8	5.0	"	51.6	ND	106	65-115	3	20	
tert-Butyl alcohol	1700	200	"	1430	ND	119	75-120	3	25	
Di-isopropyl ether	165	5.0	"	151	ND	109	75-125	2	15	
1,2-Dibromoethane (EDB)	186	5.0	"	148	ND	126	85-120	1	15	LM
1,2-Dichloroethane	172	5.0	"	147	ND	117	85-130	2	20	
Ethanol	1840	1000	"	1410	ND	130	70-135	1	35	
Ethyl tert-butyl ether	178	5.0	"	150	ND	119	75-130	0	25	
Ethylbenzene	80.0	5.0	"	75.4	ND	106	75-135	3	15	
Methyl tert-butyl ether	72.0	5.0	"	70.2	ND	103	65-125	1	20	
Toluene	369	5.0	"	372	ND	99	85-120	3	20	
Xylenes (total)	454	5.0	"	414	ND	110	85-125	4	20	
Gasoline Range Organics (C4-C12)	5740	500	"	4400	570	118	70-124	3	20	
Surrogate: 1,2-Dichloroethane-d4	*2.36*		"	*2.50*		*94*	*60-135*			

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URS Corporation [Arco]	Project:ARCO #6148,Oakland, CA	MOH0651
1333 Broadway, Suite 800	Project Number:G0C2J-0004	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	08/26/05 11:31

Notes and Definitions

LM	MS and/or MSD above acceptance limits. See Blank Spike(LCS).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

Project Name: Analytical for QMR sampling

BP BU/AR Region/Enfos Segment: BP > Americas > West Coast > Retail > WCBU > CA > Central > 6148 > HistoricalBL

State or Lead Regulatory Agency: California Regional Water Quality Control Board - San Fra

Requested Due Date (mm/dd/yy): 10 Day TAT

On-site Time: 1200	Temp: 75 °F
Off-site Time: 1500	Temp: 78 °F
Sky Conditions: clear	
Meteorological Events: –	
Wind Speed: 5-10 mph	Direction: E

Lab Name: Sequoia	BP/AR Facility No.: 6148	Consultant/Contractor: URS
Address: 885 Jarvis Drive	BP/AR Facility Address: 5131 Shattuck Ave., Oakland, CA 94609	Address: 1333 Broadway, Suite 800
Morgan Hill, CA 95037	Site Lat/Long: 37.837591 / -122.264	Oakland, CA 94612
Lab PM: Lisa Race / Jamshid Kekobad	California Global ID No.: T0600100103	Consultant/Contractor Project No.: 38487040
Tele/Fax: 408.782.8156 / 408.782.6308	Enfos Project No.: G0C2J-0004	Consultant/Contractor PM: Scott Robinson
BP/AR PM Contact: Paul Supple	Provision or RCOP: Provision	Tele/Fax: 510.874.3280 / 510.874.3268
Address: P.O. Box 6549	Phase/WBS: 04 - Mon/Remed by Natural Attenuation	Report Type & QC Level: Level 1 with EDF
Moraga, CA 94570	Sub Phase/Task: 03 - Analytical	E-mail EDD To: Donna_Cosper@urscorp.com
Tele/Fax: 925.299.8891 / 925.299.8872	Cost Element: 05 - Subcontracted Costs	Invoice to: Atlantic Richfield Company

Lab Bottle Order No: 6148

MOH 0651

Item No.	Sample Description	Time	Date	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air	Laboratory No.	No. of Containers	Preservative: Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analysis: GRO / BTEX (8260)	MTBE, TAME, ETBE DIPE, TBA (8260)	EDB, 1,2-DCA (8260)	Ethanol (8260)	Sample Point Lat/Long and Comments
1	MW-1	1300	8/10/05		X		01	3				X			X	X	X	X	
2	MW-2	1307	↓		↓		02	↓				↓			X	X	X	X	
3	MW-3	1315	↓		↓		03	↓				↓			X	X	X	X	
4	MW-4	1338	↓		↓		04	↓				↓			X	X	X	X	
5	MW-5	1218	↓		↓		05	↓				↓			X	X	X	X	
6	MW-6	1423	↓		↓		06	↓				↓			X	X	X	X	
7	MW-7	1357	↓		↓		07	↓				↓			X	X	X	X	
8	TB-6148-08102005	—	↓		↓		08	2				↓							On hold
9																			
10																			

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Will Crow	Will Crow	8/10/05	1615	Cynthia [illegible] / Sample Custodian	8/10/05	1615
Sampler's Company: Blaine Tech	[illegible] Sample Custodian	8/10/05	1756	[illegible]	8/10/05	1655
Shipment Date:	[illegible]	8/10	1800	[illegible]	8/10/05	1800
Shipment Method:						
Shipment Tracking No:						

Special Instructions:

Custody Seals In Place Yes ✓ No   Temp Blank Yes ✓ No   Cooler Temperature on Receipt 5.0 °F/C   Trip Blank Yes ✓ No

Distribution: White Copy - Laboratory / Yellow Copy - BP/Atlantic Richfield Co. / Pink Copy - Consultant/Contractor

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP
REC. BY (PRINT) E. Fallin
WORKORDER: 1401L0651

DATE REC'D AT LAB: 8-10-05
TIME REC'D AT LAB: 1800
DATE LOGGED IN: 8-13-05

For Regulatory Purposes?
DRINKING WATER YES / (NO)
WASTE WATER YES / (NO)

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	(Present) / Absent (Intact) / Broken*	01		MW-1	VOA (3)	HCl	—	L	8/4/05	
2. Chain-of-Custody	(Present) / Absent*	02		MW-2	↓	↓	↓	↓	↓	
3. Traffic Reports or Packing List:	Present / (Absent)	03		MW-3						
4. Airbill:	Airbill / Sticker (Present) / Absent	04		MW-4						
		05		MW-5						
5. Airbill #:	—	06		MW-6						
6. Sample Labels:	(Present) / Absent	07		MW-7	↓					
7. Sample IDs:	(Listed) / Not Listed on Chain-of-Custody	08		TB-6148-080205	VOA (2)	↓	↓	↓	↓	
8. Sample Condition:	(Intact) / Broken* / Leaking*									
9. Does information on chain-of-custody, traffic reports and sample labels agree?	(Yes) / No*									
10. Sample received within hold time?	(Yes) / No*									
11. Adequate sample volume received?	(Yes) / No*									
12. Proper preservatives used?	(Yes) / No*									
13. (Trip) Blank / (Temp) Blank Received? (circle which, if yes)	(Yes) / No*									
14. Read Temp:	5.0°C									
Corrected Temp:	5.0°C									
Is corrected temp 4 +/-2°C?	(Yes) / No**									

(Acceptance range for samples requiring thermal pres.)

**Exception (if any): METALS / DFF ON ICB or Problem COC

EBF 8/10/05

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

ATTACHMENT C

HISTORICAL GROUNDWATER DATA

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present**

ARCO Service Station 6148
5131 Shattuck Avenue, Oakland, California

Well Number	Date Gauged/ Sampled	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TRPH (mg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-1	03-20-95	108.03	15.75	ND	92.28	830	140	5	41	110	--	--		
MW-1	06-06-95	108.03	17.68	ND	90.35	210	30	<0.5	7.3	16	--	--		
MW-1	08-24-95	107.80	17.45	ND	90.35	Not sampled: well was inaccessible due to construction								
MW-1	11-16-95	107.80	17.64	ND	90.16	<50	5.6	<0.5	1.4	1.2	55	--		
MW-1	02-27-96	107.80	15.21	ND	92.59	1,400	240	88	44	110	200	--		
MW-1	05-15-96	107.80	17.53	ND	90.27	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-1	08-14-96	107.80	17.15	ND	90.65	98	18	<0.5	1.9	1	45	--		
MW-1	11-11-96	107.80	17.78	ND	90.02	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-1	03-25-97	107.80	17.68	ND	90.12	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	05-15-97	107.80	17.91	ND	89.89	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-1	10-26-97	107.80	18.85	ND	88.95	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	11-10-97	107.80	18.10	ND	89.70	<50	<0.5	<0.5	<0.5	<0.5	4	--		
MW-1	02-13-98	107.80	13.15	ND	94.65	<100	8.4	<1	<1	14	130	--		
MW-1	05-12-98	107.80	12.30	ND	95.50	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	07-28-98	107.80	17.04	ND	90.76	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	10-28-98	107.80	18.10	ND	89.70	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-1	02-12-99	107.80	15.84	ND	91.96	72	<0.5	<0.5	<0.5	<0.5	23	--		
MW-1	06-03-99	107.80	17.62	ND	90.18	890	53	1.5	12	2.8	250	--	1.44	NP
MW-1	10-26-99	107.80	16.92	ND	90.88	<50	<0.5	<0.5	<0.5	<1	9	--	9.58	NP
MW-2	03-20-95	107.43	15.50	ND#	91.93	Not sampled: floating product entered well during purging								
MW-2	06-06-95	107.43	17.43	ND	90.00	1,200	60	21	35	140	--	--		
MW-2	08-24-95	107.28	17.22	ND	90.06	Not sampled: well was inaccessible due to construction								
MW-2	11-16-95	107.28	17.36	ND	89.92	360	45	1.3	7.1	7.5	210	--		
MW-2	02-27-96	107.28	14.82	ND	92.46	8,900	1,400	980	150	550	940	--		
MW-2	05-15-96	107.28	17.40	ND	89.88	480	82	48	8	48	87	--		
MW-2	08-14-96	107.28	17.00	ND	90.28	130	22	4	2	9	120	--		

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present**

ARCO Service Station 6148
5131 Shattuck Avenue, Oakland, California

Well Number	Date Gauged/ Sampled	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TRPH (mg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-2	11-11-96	107.28	17.55	ND	89.73	1,200	150	120	21	160	110	--		
MW-2	03-25-97	107.28	17.32	ND	89.96	670	23	58	13	120	28	--		
MW-2	05-15-97	107.28	17.61	ND	89.67	<50	<0.5	<0.5	<0.5	<0.5	23	--		
MW-2	10-26-97	107.28	18.43	ND	88.85	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-2	11-10-97	107.28	17.84	ND	89.44	<100	<1	<1	<1	1	74	--		
MW-2	02-13-98	107.28	12.75	ND	94.53	220	9.5	3.9	3.7	48	84	--		
MW-2	05-12-98	107.28	17.02	ND	90.26	3,900	210	280	86	910	35	--		
MW-2	07-28-98	107.28	17.30	ND	89.98	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-2	10-28-98	107.28	17.80	ND	89.48	170	17	<0.5	1.7	5.0	24	--		
MW-2	02-12-99	107.28	15.55	ND	91.73	12,000	620	95	490	2,200	270	--		
MW-2	06-03-99	107.28	17.31	ND	89.97	<50	<0.5	<0.5	<0.5	1.1	8	--	2.53	NP
MW-2	10-26-99	107.28	16.58	ND	90.70	<50	1.0	<0.5	<0.5	3	<3	--	8.17	NP
MW-3	03-20-95	107.77	15.60	ND	92.17	29,000	880	190	760	2,000	--	16		
MW-3	06-06-95	107.77	17.54	ND	90.23	22,000	450	54	380	1,300	--	7.1		
MW-3	08-24-95	107.61	17.42	ND	90.19	Not sampled: well was inaccessible due to construction								
MW-3	11-16-95	107.61	17.58	ND	90.03	13,000	210	<20	320	1,000	790	8.3		
MW-3	02-27-96	107.61	15.03	ND	92.58	9,700	94	15	290	720	430	10		
MW-3	05-15-96	107.61	17.35	ND	90.26	5,600	66	12	37	67	230	--		
MW-3	08-14-96	107.61	17.10	ND	90.51	830	17	<1*	8	7	110	--		
MW-3	11-11-96	107.61	17.73	ND	89.88	500	28	3	12	13	150	--		
MW-3	03-25-97	107.61	17.99	ND	89.62	<50	<0.5	<0.5	<0.5	<0.5	94	--		
MW-3	05-15-97	107.61	17.84	ND	89.77	<50	<0.5	<0.5	<0.5	<0.5	65	--		
MW-3	10-26-97	107.61	18.50	ND	89.11	220	4	<1	<1	<1	160	--		
MW-3	11-10-97	107.61	18.00	ND	89.61	350	8	<2	3	3	230	--		
MW-3	02-13-98	107.61	13.00	ND	94.61	<50	1.3	<0.5	<0.5	1	21	--		
MW-3	05-12-98	107.61	17.20	ND	90.41	120	<0.5	<0.5	<0.5	<0.9	71	--		

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents
1995 - Present**

ARCO Service Station 6148
5131 Shattuck Avenue, Oakland, California

Well Number	Date Gauged/ Sampled	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TRPH (mg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-3	07-28-98	107.61	17.46	ND	90.15	<50	1.4	<0.5	<0.5	<0.5	52	--		
MW-3	10-28-98	107.61	18.00	ND	89.61	170	<0.5	<0.5	<0.5	0.7	35	--		
MW-3	02-12-99	107.61	15.76	ND	91.85	120	2.0	0.6	<0.5	1.3	37	--		
MW-3	06-03-99	107.61	Well inaccessible: Surveyed well VW-1 as an altemative											
MW-3	10-26-99	107.61	16.69	ND	90.92	630	14	0.7	13	2	38	--	1.24	NP
MW-4	03-20-95	106.58	13.85	ND	92.73	88	1	<0.5	<0.5	0.7	--	--		
MW-4	06-06-95	106.58	15.70	ND	90.88	<50	<0.5	<0.5	<0.5	<0.5	--	--		
MW-4	08-24-95	106.71	15.86	ND	90.85	Not sampled: well was inaccessible due to construction								
MW-4	11-16-95	106.71	16.10	ND	90.61	<50	<0.5	<0.5	<0.5	<0.5	6	--		
MW-4	02-27-96	106.71	13.72	ND	92.99	<50	<0.5	<0.5	<0.5	<0.5	10	--		
MW-4	05-15-96	106.71	15.90	ND	90.81	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	08-14-96	106.71	15.68	ND	91.03	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	11-11-96	106.71	16.19	ND	90.52	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	03-25-97	106.71	16.10	ND	90.61	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	05-15-97	106.71	16.38	ND	90.33	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	10-26-97	106.71	17.78	ND	88.93	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	11-10-97	106.71	16.43	ND	90.28	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	02-13-98	106.71	13.05	ND	93.66	<50	1.3	0.7	<0.5	2.3	19	--		
MW-4	05-12-98	106.71	15.69	ND	91.02	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	07-28-98	106.71	15.93	ND	90.78	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	10-28-98	106.71	16.40	ND	90.31	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	02-12-99	106.71	14.13	ND	92.58	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-4	06-03-99	106.71	16.00	ND	90.71	Not sampled: well sampled semi-annually, during the first and third quarter								
MW-4	10-26-99	106.71	15.76	ND	90.95	Not sampled: well sampled semi-annually, during the first and third qtr.							1.72	
MW-5	03-20-95	106.68	14.92	ND	91.76	21,000	6,900	450	800	1,300	--	--		

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5131 Shattuck Avenue, Oakland, California

Well Number	Date Gauged/ Sampled	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TRPH (mg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-5	06-06-95	106.68	16.61	ND	90.07	6,500	1,700	<20	120	69	--	--		
MW-5	08-24-95	106.60	16.47	ND	90.13	Not sampled: well was inaccessible due to construction								
MW-5	11-16-95	106.60	16.69	ND	89.91	1,800	470	<5	17	5	1,000	--		
MW-5	02-27-96	106.60	14.35	ND	92.25	10,000	1,000	71	690	1,000	440/450*	--		
MW-5	05-15-96	106.60	16.58	ND	90.02	3,400	350	6	72	20	220	--		
MW-5	08-14-96	106.60	17.26	ND	89.34	2,100	130	2.7	47	4.7	220	--		
MW-5	11-11-96	106.60	16.62	ND	89.98	1,200	31	1	8	2	130	--		
MW-5	03-25-97	106.60	16.38	ND	90.22	<50	<0.5	<0.5	<0.5	<0.5	5	--		
MW-5	05-15-97	106.60	16.54	ND	90.06	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-5	10-26-97	106.60	17.60	ND	89.00	<50	<0.5	<0.5	<0.5	<0.5	7	--		
MW-5	11-10-97	106.60	16.78	ND	89.82	<50	<0.5	<0.5	<0.5	<0.5	24	--		
MW-5	02-13-98	106.60	12.21	ND	94.39	11,200	51	<10	<10	<10	2,000	--		
MW-5	05-12-98	106.60	NR	ND	NR	Not sampled: well inaccessible								
MW-5	07-28-98	106.60	16.47	ND	90.13	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-5	10-28-98	106.60	16.80	ND	89.80	<50	0.8	<0.5	<0.5	<0.5	99	--		
MW-5	02-12-99	106.60	14.88	ND	91.72	<1,000	<10	<10	<10	<10	1,100	--		
MW-5	06-03-99	106.60	16.65	ND	89.95	290	10	<0.5	<0.5	0.6	200	--	2.45	NP
MW-5	10-26-99	106.60	16.10	ND	90.50	<50	<0.5	<0.5	<0.5	<1	11	--	NM	NP
MW-6	03-20-95	105.16	12.13	ND	93.03	<50	<0.5	<0.5	<0.5	<0.5	--	--		
MW-6	06-06-95	105.16	13.95	ND	91.21	<50	<0.5	<0.5	<0.5	<0.5	--	--		
MW-6	08-24-95	105.13	14.07	ND	91.06	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-6	11-16-95	105.13	14.34	ND	90.79	<60	<0.5	<0.5	<0.5	<0.5	--	--		
MW-6	02-27-96	105.13	12.00	ND	93.13	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-6	05-15-96	105.13	14.10	ND	91.03	Not sampled: well sampled annually, during the first quarter								
MW-6	08-14-96	105.13	13.70	ND	91.43	Not sampled: well sampled annually, during the first quarter								
MW-6	11-11-96	105.13	14.11	ND	91.02	Not sampled: well sampled annually, during the first quarter								

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5131 Shattuck Avenue, Oakland, California

Well Number	Date Gauged/ Sampled	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TRPH (mg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-6	03-25-97	105.13	14.15	ND	90.98	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-6	05-15-97	105.13	14.44	ND	90.69	Not sampled: well sampled annually, during the first quarter								
MW-6	10-26-97	105.13	16.02	ND	89.11	Not sampled: well sampled annually, during the first quarter								
MW-6	11-10-97	105.13	14.52	ND	90.61	Not sampled: well sampled annually, during the first quarter								
MW-6	02-13-98	105.13	10.06	ND	95.07	<50	<0.5	<0.5	<0.5	<0.5	8	--		
MW-6	05-12-98	105.13	13.75	ND	91.38	Not sampled: well sampled annually, during the first quarter								
MW-6	07-28-98	105.13	14.06	ND	91.07	Not sampled: well sampled annually, during the first quarter								
MW-6	10-28-98	105.13	14.71	ND	90.42	Not sampled: well sampled annually, during the first quarter								
MW-6	02-12-99	105.13	12.22	ND	92.91	<100	<1	<1	<1	<1	110	--		
MW-6	06-03-99	105.13	13.95	ND	91.18	Not sampled: well sampled annually, during the first quarter								
MW-6	10-26-99	105.13	14.06	ND	91.07	Not sampled: well sampled annually, during the first quarter							3.94	
MW-7	03-20-95	107.08	12.32	ND	94.76	<50	<0.5	<0.5	<0.5	<0.5	--	--		
MW-7	06-06-95	107.08	14.59	ND	92.49	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-7	08-24-95	107.05	14.64	ND	92.41	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	11-16-95	107.05	15.30	ND	91.75	Not sampled: well sampled semi-annually, during the first and third quarters								
MW-7	02-27-96	107.05	12.24	ND	94.81	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	05-15-96	107.05	14.65	ND	92.40	Not sampled: well sampled annually, during the first quarter								
MW-7	08-14-96	107.05	14.35	ND	92.70	Not sampled: well sampled annually, during the first quarter								
MW-7	11-11-96	107.05	14.92	ND	92.13	Not sampled: well sampled annually, during the first quarter								
MW-7	03-25-97	107.05	14.80	ND	92.25	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	05-15-97	107.05	15.27	ND	91.78	Not sampled, well sampled annually, during the first quarter								
MW-7	10-26-97	107.05	16.68	ND	90.37	Not sampled: well sampled annually, during the first quarter								
MW-7	11-10-97	107.05	15.37	ND	91.68	Not sampled: well sampled annually, during the first quarter								
MW-7	02-13-98	107.05	10.80	ND	96.25	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	05-12-98	107.05	14.32	ND	92.73	Not sampled: well sampled annually, during the first quarter								
MW-7	07-28-98	107.05	14.79	ND	92.26	Not sampled: well sampled annually, during the first quarter								

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5131 Shattuck Avenue, Oakland, California

Well Number	Date Gauged/ Sampled	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TRPH (mg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
MW-7	10-28-98	107.05	15.57	ND	91.48.	Not sampled: well sampled annually, during the first quarter								
MW-7	02-12-99	107.05	12.46	ND	94.59	<50	<0.5	<0.5	<0.5	<0.5	<3	--		
MW-7	06-03-99	107.05	14.53	ND	92.52	Not sampled: well sampled annually, during the first quarter								
MW-7	10-26-99	107.05	14.74	ND	92.31	Not sampled: well sampled annually, during the first quarter							1.97	
VW-1	06-03-99	NR	17.51	ND	NR	420	2.3	0.6	2.0	2.2	74	--	1.28	P

ft-MSL: elevation in feet, relative to mean sea level
TPH: total petroleum hydrocarbons as gasoline, California DHS LUFT Method
BTEX: Benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 10/26/99)
MTBE: Methyl tert-butyl ether by EPA method 8021B. (EPA method 8020 prior to 10/26/99).
TRPH: total recoverable petroleum hydrocarbons
µg/L: micrograms per liter
mg/L: milligrams per liter
NR: not reported; data not available
ND: none detected
#: floating product entered the well during purging
--: not analyzed or not applicable
*: confirmed by EPA 8240
**: For previous historical groundwater elevation and analytical data please refer to *Fourth Quarter 1995 Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, ARCO Service Station 6148, Oakland, California,* (EMCON, March 4, 1996).

ATTACHMENT D

ERROR CHECK REPORTS AND EDF/GEOWELL SUBMITTAL CONFIRMATIONS

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ARCO # 06148
5131 SHATTUCK AVE
OAKLAND, CA 94609

Regional Board - Case #: 01-0111
SAN FRANCISCO BAY RWQCB (REGION 2) - **(BG)**
Local Agency (lead agency) - Case #: 3626
ALAMEDA COUNTY LOP - **(RWS)**

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	7
# FIELD POINTS WITH DETECTIONS	7
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	1
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	8260FA
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- 8260FA REQUIRES DBFM TO BE TESTED	
- 8260FA REQUIRES BR4FBZ TO BE TESTED	
- 8260FA REQUIRES BZMED8 TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	1
LAB BLANK DETECTIONS	1
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y

- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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5131 SHATTUCK AVE
OAKLAND, CA 94609

Regional Board - Case #: 01-0111
SAN FRANCISCO BAY RWQCB (REGION 2) - **(BG)**
Local Agency (lead agency) - Case #: 3626
ALAMEDA COUNTY LOP - **(RWS)**

CONF #	TITLE	QUARTER
6600645542	3Q 2005 QMR EDF BP/ARCO 6148	Q3 2005

SUBMITTED BY	SUBMIT DATE	STATUS
Srijesh Thapa	9/1/2005	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	7
# FIELD POINTS WITH DETECTIONS	7
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	1
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	8260FA
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- 8260FA REQUIRES DBFM TO BE TESTED	
- 8260FA REQUIRES BR4FBZ TO BE TESTED	
- 8260FA REQUIRES BZMED8 TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	1
LAB BLANK DETECTIONS	1
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

Logged in as URSCORP-OAKLAND (CONTRACTOR) CONTACT SITE ADMINISTRATOR.