URS

RO-2565

February 15, 2005

Mr. Robert Schultz
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-8577

RE: Electronic Report Submission

Dear Mr. Schultz:

The purpose of this letter is to inform you that on behalf of the Atlantic Richfield Company (RM), a BP affiliated company, URS Corporation (URS) will issue all future quarterly monitoring reports (QMR) electronically to the State Water Resources Control Board's GEOTRACKER website (http://www.geotracker.swrcb.ca.gov/). You may access your report directly from this website. If you would prefer to have a PDF copy e-mailed to you or if you would like to continue receiving a paper copy, please contact Rick Murray at (510) 874-1755.

If you have any questions regarding this submission, please call me at (510) 874-3125.

Sincerely,

URS CORPORATION

Rachel Lindvall
QMR Coordinator

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

Atlantic Richfield Company
(a BP affiliated company)

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

March 10, 2005

Re: First Quarter 2005 Groundwater Monitoring Report
ARCO Service Station #0276
10600 MacArthur Boulevard
Oakland, California
URS Project #38487162

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 Engineer

URS

March 10, 2005

Mr. Robert Schultz
Alameda County Environmental Health
1131 Harbor Bay Parkway, Second Floor, Suite 250
Alameda, CA 94502

Re: First Quarter 2005 Groundwater Monitoring Report
ARCO Service Station #0276
10600 MacArthur Boulevard
Oakland, California
URS Project #38487162

Dear Mr. Schultz:

On behalf of Atlantic Richfield Company, a BP-affiliated company, URS Corporation (URS) is submitting the *First Quarter 2005 Groundwater Monitoring Report* for ARCO Service Station #0276, located at 10600 MacArthur Boulevard, Oakland, California.

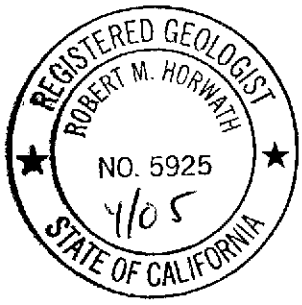
If you have any questions regarding this submission, please call (510) 874-3280.

Sincerely,

URS CORPORATION

Scott Robinson
Project Manager

Robert Horwath, R.G.
Portfolio Manager



Enclosure: First Quarter 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

FIRST QUARTER 2005 GROUNDWATER MONITORING REPORT

ARCO SERVICE STATION #0276
10600 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Prepared for
RM

March 10, 2005

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

38487162

Date: March 10, 2005
Quarter: 1Q 05

RM QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.:	0276	Address:	10600 MacArthur Boulevard, Oakland, California
RM Environmental Business Manager:			Paul Supple
Consulting Co./Contact Person:			URS Corporation / Scott Robinson
Consultant Project No.:			38487162
Primary Agency:			Alameda County Environmental Health (ACEH)

WORK PERFORMED THIS QUARTER (First – 2005):

1. Performed first quarter 2005 groundwater monitoring event on February 3, 2005.
2. Prepared and submitted this First Quarter 2005 Groundwater Monitoring Report.

WORK PROPOSED FOR NEXT QUARTER (Second – 2005):

1. Perform second quarter 2005 groundwater monitoring event.
2. Prepare and submit Second Quarter 2005 Groundwater Monitoring Report.

SITE SUMMARY:

Current Phase of Project:	Groundwater monitoring/sampling
Frequency of Groundwater Sampling:	Quarterly: Wells MW-1 through MW-8, RW-1 and WGR-3.
Frequency of Groundwater Monitoring:	Quarterly (beginning 3Q03)
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	Natural Attenuation
Approximate Depth to Groundwater:	14.29 (MW-2) to 31.48 (MW-6) feet
Groundwater Gradient (direction):	Southwest
Groundwater Gradient (magnitude):	0.003 feet per foot

DISCUSSION:

Gasoline range organics were detected at or above the laboratory reporting limit in six of the ten wells sampled this quarter at concentrations ranging from 51 µg/L (MW-4) to 480 µg/L (MW-2). Benzene, ethylbenzene, and xylenes were detected at or above the laboratory reporting limits in one well (MW-2) at concentrations of 1.7 µg/L, 2.0 µg/L, and 1.4 µg/L, respectively. Methyl tert-butyl ether was detected at or above the laboratory reporting limits in five wells at concentrations ranging from 1.1 µg/L (WGR-3) to 45 µg/L (MW-8). Tert-amyl methyl ether was detected at or above the laboratory reporting limit in four wells at concentrations ranging from 0.54 µg/L (MW-3) to 13 µg/L (MW-2). 1,2 Dichloroethane was detected at or above the laboratory reporting limit in one well at a concentration of 2.7 µg/L (MW-5). Tetrachloroethene (PCE) was detected at or above the laboratory reporting limits in eight of the ten wells sampled at concentrations ranging from 0.59 µg/L (MW-8) to 480 µg/L (MW-5). No other fuel components were detected at or above the laboratory reporting limit in any wells sampled this quarter.

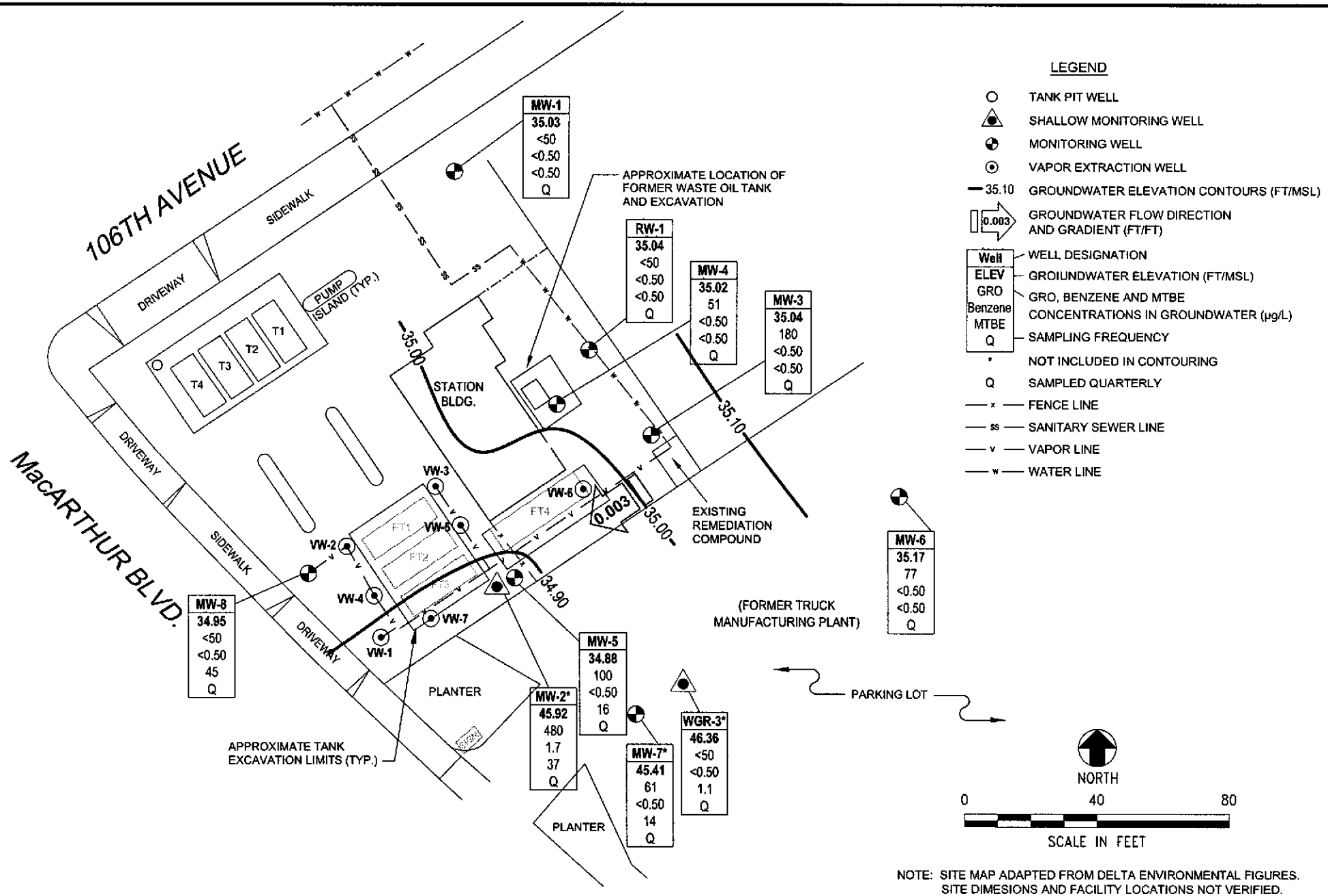
A new global ID has been requested for uploading to Geotracker. This quarter's Geotracker submittal confirmations and error checks will be included in next quarter's report.

RECOMMENDATIONS:
Due to consistent low to non-detect concentrations over the last year, URS recommends the following changes in the groundwater sampling schedules: Quarterly to Annual: MW-1, MW-3, MW-4, WGR-3, and RW-1; Quarterly to Semi-Annual: MW-6 and MW-7.

ATTACHMENTS:

- Figure 1 - Groundwater Elevation Contour and Analytical Summary Map – February 3, 2005
- Table 1 - Groundwater Elevation and Analytical Data
- Table 2 - Fuel Additives Analytical Data
- Table 3 - Groundwater Flow Direction and Gradient
- Attachment A - Field Procedures and Field Data Sheets
- Attachment B - Laboratory Procedures, Certified Analytical Reports, Chain-of-Custody Records
- Attachment C - Historical Groundwater Data

Mar 10, 2005 - 3:54pm
X:\x_env_waste\BP GEM\sites\Scott Robinson\Paul Supple\0276\Monitoring\Qtr. 1, 2005\276-1Q05-GW.dwg



NOTE: SITE MAP ADAPTED FROM DELTA ENVIRONMENTAL FIGURES. SITE DIMESIONS AND FACILITY LOCATIONS NOT VERIFIED.

URS	Project No. 38487162 ARCO Service Station #0276 10600 MacArthur Boulevard Oakland, California	GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP First Quarter 2005 (February 3, 2005)	FIGURE 1

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #0276

10600 Macarthur Blvd., 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	12/17/2000	--		55.92	23.50	28.50	29.16	26.76	5.09	---	---	---	---	--	--	--
	12/28/2001	--		55.92	23.50	28.50	27.38	28.54	8.8	---	---	---	---	--	--	--
	11/27/2002	NP		55.92	23.50	28.50	29.45	26.47	4.2	---	---	---	---	--	2.3	6.7
	7/22/2003	NP		55.92	23.50	28.50	27.58	28.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	6.7
	11/07/2003	NP		55.92	23.50	28.50	30.42	25.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.6
	02/03/2004	NP		55.92	23.50	28.50	38.80	17.12	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	6.8
	05/04/2004	NP	g	61.26	23.50	28.50	26.67	34.59	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	6.6
	08/12/2004	NP		61.26	23.50	28.50	29.49	31.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	6.6
	11/10/2004	NP		61.26	23.50	28.50	30.29	30.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.6
	02/03/2005	**NP**		**61.26**	**23.50**	**28.50**	**26.23**	**35.03**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.89**	**6.5**
MW-2	12/17/2000	--		55.1	15.00	25.00	15.72	39.38	---	---	---	---	---	--	---	---
	12/28/2001	--		55.1	15.00	25.00	27.38	27.72	---	---	---	---	---	--	---	---
	11/27/2002	--		55.1	15.00	25.00	16.35	38.75	---	---	---	---	---	--	---	---
	7/22/2003	--		55.1	15.00	25.00	16.20	38.90	---	---	---	---	---	--	---	---
	11/07/2003	P		55.10	15.00	25.00	18.22	36.88	990	<5.0	<5.0	<5.0	<5.0	110	1.8	6.7
	02/03/2004	P		55.10	15.00	25.00	13.63	41.47	180	<2.5	<2.5	2.6	4.1	55	1.8	6.5
	05/04/2004	P	g	60.21	15.00	25.00	15.76	44.45	290	<2.5	<2.5	<2.5	<2.5	70	0.6	6.3
	08/12/2004	P		60.21	15.00	25.00	17.21	43.00	<250	<2.5	<2.5	3.2	<2.5	49	1.6	6.6
	11/10/2004	P		60.21	15.00	25.00	15.90	44.31	270	<1.0	<1.0	1.6	<1.0	90	0.9	6.2
	02/03/2005	**P**		**60.21**	**15.00**	**25.00**	**14.29**	**45.92**	**480**	**1.7**	**<0.50**	**2.0**	**1.4**	**37**	**1.53**	**6.5**
MW-3	12/17/2000	--		56.55	22.00	27.00	29.78	26.77	158	---	---	---	---	--	--	--
	12/28/2001	--		56.55	22.00	27.00	27.95	28.60	310	20	1.5	13	---	--	--	--
	11/27/2002	NP		56.55	22.00	27.00	30.10	26.45	110	---	---	---	---	--	2.0	7.2
	7/22/2003	NP		56.55	22.00	27.00	28.32	28.23	120	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	5.9
	11/07/2003	NP		56.55	22.00	27.00	30.86	25.69	70	<0.50	<0.50	<0.50	<0.50	<0.50	2.8	6.5
	02/03/2004	NP		56.55	22.00	27.00	27.65	28.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.7
	05/04/2004	NP	g	61.89	22.00	27.00	27.57	34.32	<100	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	6.4
	08/12/2004	NP		61.89	22.00	27.00	30.31	31.58	52	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	6.3
	11/10/2004	NP		61.89	22.00	27.00	31.00	30.89	91	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	6.7
	02/03/2005	**NP**	**i**	**61.89**	**22.00**	**27.00**	**26.85**	**35.04**	**180**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2.25**	**6.5**
MW-4	12/17/2000	--		55.98	25.00	45.00	29.22	26.76	225	---	---	---	---	--	--	--
	12/28/2001	--		55.98	25.00	45.00	27.37	28.61	160	1.2	---	---	---	--	--	--

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #0276

10600 Macarthur Blvd., 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	11/27/2002	NP		55.98	25.00	45.00	29.55	26.43	95	---	---	---	---	--	3.7	6.7
	7/22/2003	NP		55.98	25.00	45.00	27.73	28.25	130	<0.50	<0.50	<0.50	<0.50	<0.50	2.9	6.6
	11/07/2003	NP		55.98	25.00	45.00	30.41	25.57	59	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	6.5
	02/03/2004	NP		55.98	25.00	45.00	27.01	28.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.2	7.1
	05/04/2004	NP	g	61.30	25.00	45.00	26.91	34.39	<100	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	6.5
	08/12/2004	NP		61.30	25.00	45.00	29.76	31.54	58	<0.50	<0.50	<0.50	<0.50	<0.50	2.3	6.4
	11/10/2004	NP		61.30	25.00	45.00	30.40	30.90	69	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	6.6
	02/03/2005	**NP**	**i**	**61.30**	**25.00**	**45.00**	**26.28**	**35.02**	**51**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**3.77**	**6.8**
MW-5	12/17/2000	--		55.43	23.50	31.50	28.82	26.61	1,040	---	---	---	---	--	--	--
	12/28/2001	--		55.43	23.50	31.50	26.91	28.52	3,200	190	2/4/1900	140	1.9/3.2/2.0	--	--	--
	11/27/2002	P		55.43	23.50	31.50	29.15	26.28	110	---	---	---	---	--	1.4	6.4
	7/22/2003	P		55.43	23.50	31.50	27.43	28.00	160	<1.0	<1.0	<1.0	<1.0	110	1.5	6.6
	11/07/2003	P		55.43	23.50	31.50	29.99	25.44	<250	<2.5	<2.5	<2.5	<2.5	120	0.6	6.2
	02/03/2004	P		55.43	23.50	31.50	26.55	28.88	85	<2.5	<2.5	<2.5	<2.5	71	1.7	6.7
	05/04/2004	P	g	60.73	23.50	31.50	26.47	34.26	<250	<2.5	<2.5	<2.5	<2.5	150	0.9	6.2
	08/12/2004	P		60.73	23.50	31.50	29.49	31.24	<250	<2.5	<2.5	<2.5	<2.5	140	1.8	6.3
	11/10/2004	P		60.73	23.50	31.50	30.15	30.58	170	<1.0	<1.0	<1.0	<1.0	150	1.0	6.3
	02/03/2005	**P**		**60.73**	**23.50**	**31.50**	**25.85**	**34.88**	**100**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**16**	**1.65**	**6.5**
MW-6	12/17/2000	--		61.21	37.50	56.00	34.61	26.60	---	---	---	---	---	--	---	---
	12/28/2001	--		61.21	37.50	56.00	32.80	28.41	---	---	---	---	---	--	---	---
	11/27/2002	--		61.21	37.50	56.00	35.00	26.21	---	---	---	---	---	--	---	---
	7/22/2003	--		61.21	37.50	56.00	33.17	28.04	---	---	---	---	---	--	---	---
	11/07/2003	P	d, e	61.21	37.50	56.00	35.70	25.51	<500	<5.0	<5.0	<5.0	<5.0	<5.0	2.7	6.9
	02/03/2004	P		61.21	37.50	56.00	32.17	29.04	84	<2.5	<2.5	<2.5	<2.5	<2.5	1.9	7.0
	05/04/2004	P	g	66.65	37.50	56.00	32.07	34.58	<250	<2.5	<2.5	<2.5	<2.5	<2.5	2.0	6.7
	08/12/2004	P		66.65	37.50	56.00	34.90	31.75	660	<0.50	<0.50	<0.50	<0.50	0.81	1.4	6.9
	11/10/2004	P		66.65	37.50	56.00	35.70	30.95	640	<0.50	<0.50	<0.50	<0.50	0.89	2.6	6.8
	02/03/2005	**P**	**i**	**66.65**	**37.50**	**56.00**	**31.48**	**35.17**	**77**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.73**	**7.0**
MW-7	12/17/2000	--		58.22	17.50	37.50	19.94	38.28	---	---	---	---	---	--	---	---
	12/28/2001	--		58.22	17.50	37.50	17.29	40.93	---	---	---	---	---	--	---	---
	11/27/2002	--		58.22	17.50	37.50	21.30	36.92	---	---	---	---	---	--	---	---
	7/22/2003	--		58.22	17.50	37.50	21.36	36.86	---	---	---	---	---	--	---	---

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #0276

10600 Macarthur Blvd., 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	11/07/2003	P	d	58.22	17.50	37.50	23.76	34.46	3,200	15	<2.5	130	11	53	2.2	6.8
	02/03/2004	P		58.22	17.50	37.50	17.74	40.48	53	<0.50	<0.50	<0.50	0.54	32	1.9	6.4
	02/03/2005	**P**		**63.54**	**17.50**	**37.50**	**18.13**	**45.41**	**61**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**14**	**3.39**	**6.5**
MW-8	12/17/2000	--		53.65	29.00	49.00	27.02	26.63	---	---	---	---	---	--	---	---
	12/28/2001	--		53.65	29.00	49.00	24.99	28.66	---	---	---	---	---	--	---	---
	11/27/2002	--		53.65	29.00	49.00	27.45	26.20	---	---	---	---	---	--	---	---
	7/22/2003	--		53.65	29.00	49.00	25.74	27.91	---	---	---	---	---	--	---	---
	11/07/2003	P		53.65	29.00	49.00	28.27	25.38	<500	<5.0	<5.0	<5.0	<5.0	440	2.6	6.5
	02/03/2004	P	f	53.65	29.00	49.00	24.80	28.85	170	<12	<12	<12	<12	470	3.0	6.7
	05/04/2004	P	g	58.96	29.00	49.00	24.81	34.15	<1,000	<10	<10	<10	<10	700	3.8	6.4
	08/12/2004	P		58.96	29.00	49.00	27.72	31.24	<2,500	<25	<25	<25	<25	400	3.4	6.5
	11/10/2004	P		58.96	29.00	49.00	28.41	30.55	<500	<5.0	<5.0	<5.0	<5.0	480	3.4	6.3
	02/03/2005	**P**		**58.96**	**29.00**	**49.00**	**24.01**	**34.95**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**45**	**1.43**	**6.4**
RW-1	12/17/2000	--		56.32	36.00	51.00	29.57	26.75	---	---	---	---	---	--	---	---
	12/28/2001	--		56.32	36.00	51.00	27.64	28.68	---	---	---	---	---	--	---	---
	11/27/2002	--		56.32	36.00	51.00	29.93	26.39	---	---	---	---	---	--	---	---
	7/22/2003	--		56.32	36.00	51.00	28.09	28.23	---	---	---	---	---	--	---	---
	11/07/2003	P		56.32	36.00	51.00	30.64	25.68	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	7.0
	02/03/2004	P		56.32	36.00	51.00	27.28	29.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.7	7.1
	05/04/2004	P	g	61.65	36.00	51.00	27.16	34.49	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.4	6.8
	08/12/2004	P		61.65	36.00	51.00	30.10	31.55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	7.1
	11/10/2004	P		61.65	36.00	51.00	30.79	30.86	<100	<0.50	<0.50	<0.50	<0.50	<0.50	5.7	6.9
	02/03/2005	**P**		**61.65**	**36.00**	**51.00**	**26.61**	**35.04**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.57**	**7.1**
WGR-3	12/17/2000	--		---	--	--	19.21	---	---	---	---	---	---	--	---	---
	12/28/2001	--	h	---	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/2002	--		---	--	--	20.60	---	---	---	---	---	---	--	---	---
	7/22/2003	--		---	--	--	20.77	---	---	---	---	---	---	--	---	---
	05/04/2004	P	g	63.27	--	--	19.53	43.74	<50	<0.50	<0.50	<0.50	<0.50	11	1.8	6.5
	08/12/2004	P		63.27	--	--	22.20	41.07	<50	<0.50	<0.50	<0.50	<0.50	35	2.0	--
	11/10/2004	P		63.27	--	--	19.98	43.29	<50	<0.50	<0.50	<0.50	<0.50	5.6	0.3	6.3
	02/03/2005	**P**		**63.27**	**--**	**--**	**16.91**	**46.36**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.1**	**2.04**	**6.5**

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #0276
10600 Macarthur Blvd., Oakland, CA

SYMBOLS & ABBREVIATIONS:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above laboratory reporting limit
DO = Dissolved oxygen
DTW = Depth to water in feet below ground surface
ft bgs = feet below ground surface
ft MSL = feet above mean sea level
GRO = Gasoline Range Organics, range C4-C12
GWE = Groundwater elevation measured in feet above mean sea level
mg/L = Milligrams per liter
MTBE = Methyl tert butyl ether
NP = Not Purged
P = Purge
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 = 1,1 DCE; this footnote is no longer applicable
b = 1,2 DCA; this footnote is no longer applicable
c = Chlorobenzene; this footnote is no longer applicable
d = sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was performed past the recommended hold time. Results may still be used for intended purpose.
e = The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits
f = Discrete peak @ C5 for GRO/TPH-g.
g = Site was re-surveyed to NAVD' 88 on January 26, 2004.
h = Well is dry.
i = Hydrocarbon result for GRO partly due to invalid. peak(s) in quant. range.

NOTES:
Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g has been changed to GRO. The resulting data may be impacted by the potential of non-TPHg 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

Groundwater samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE.

pH and DO levels are field measurements.

Table 2

Fuel Additives Analytical Data

ARCO Service Station #0276

10600 Macarthur Blvd., 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)	trans-1,2 DCE (µg/L)	cis-1,2 DCE (µg/L)	VOC (µg/L)	Oxygen (µg/L)	PCE (µg/L)	TCE (µg/L)	Footnotes/ Comments
MW-1	12/17/2000	---	---	--	---	---	---	---	---	--	--	--	--	5.09	--	
	12/28/2001	---	---	--	---	---	---	---	---	--	--	--	--	8.8	--	
	11/27/2002	---	---	--	---	---	---	---	---	--	--	--	--	4.2	--	
	7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	6.0	--	
	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	3.0	--	
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--	--	--	21	--	
	05/04/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	34	--	
	08/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	4.5	--	
	11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	4.9	--	
	02/03/2005	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**58**	**--**	**e**
MW-2	11/07/2003	<1,000	<200	110	<5.0	<5.0	28	--	--	--	--	--	--	<5.0	--	
	02/03/2004	<500	<100	55	<5.0	<5.0	16	<2.5	<2.5	--	--	--	--	<2.5	--	
	05/04/2004	<500	<100	70	<2.5	<2.5	15	<2.5	<2.5	--	--	--	--	<2.5	--	
	08/12/2004	<500	<100	49	<2.5	<2.5	14	<2.5	<2.5	--	--	--	--	<0.50	--	
	11/10/2004	<200	<40	90	<1.0	<1.0	19	<1.0	<1.0	--	--	--	--	<1.0	--	
	02/03/2005	**<100**	**<20**	**37**	**<0.50**	**<0.50**	**13**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**<0.50**	**--**	**e**
MW-3	12/17/2000	---	---	--	---	---	---	---	---	--	--	--	--	158	--	
	12/28/2001	---	---	--	---	---	---	---	---	1.5	13	--	--	310	20	
	11/27/2002	---	---	--	---	---	---	---	---	--	--	--	--	110	--	
	7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	80	--	
	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	80	--	
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--	--	--	110	--	
	05/04/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	110	--	
	08/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	61	--	
	11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	99	--	
	02/03/2005	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**160**	**--**	**e**
MW-4	12/17/2000	---	---	--	---	---	---	---	---	--	--	--	--	225	--	
	12/28/2001	---	---	--	---	---	---	---	---	--	--	--	--	160	1.2	
	11/27/2002	---	---	--	---	---	---	---	---	--	--	--	--	95	--	
	7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	94	--	
	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	68	--	
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--	--	--	83	--	
	05/04/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	81	--	

Table 2

Fuel Additives Analytical Data

ARCO Service Station #0276
10600 Macarthur Blvd., 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)	trans-1,2 DCE (µg/L)	cis-1,2 DCE (µg/L)	VOC (µg/L)	Oxygen (µg/L)	PCE (µg/L)	TCE (µg/L)	Footnotes/ Comments
MW-4	08/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	59	--	
	11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	78	--	
	02/03/2005	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**61**	**--**	**e**
MW-5	12/17/2000	---	---	--	---	---	---	---	---	--	--	--	--	1,040	--	
	12/28/2001	---	---	--	---	---	---	---	---	36	140	1.9, 3.2, 2.0	--	3,200	190	a,b,c
	11/27/2002	---	---	--	---	---	---	---	---	--	--	--	--	110	--	
	7/22/2003	<200	<40	110	1.4	<1.0	3.2	12	<1.0	--	--	--	--	55	--	
	11/07/2003	<500	<100	120	<2.5	<2.5	6.6	--	--	--	--	--	--	42	--	
	02/03/2004	<500	<100	71	<5.0	<5.0	<5.0	12	<2.5	--	--	--	--	130	--	
	05/04/2004	<500	<100	150	<2.5	<2.5	5.9	8.8	<2.5	--	--	--	--	36	--	
	08/12/2004	<500	<100	140	<2.5	<2.5	10	10	<2.5	--	--	--	--	37	--	
	11/10/2004	<200	<40	150	1.1	<1.0	9.5	9.8	<1.0	--	--	--	--	50	--	
	02/03/2005	**<100**	**<20**	**16**	**<0.50**	**<0.50**	**0.54**	**2.7**	**<0.50**	**--**	**--**	**--**	**--**	**480**	**--**	**e**
MW-6	11/07/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	560	--	
	02/03/2004	<500	<100	<2.5	<5.0	<5.0	<5.0	<2.5	<2.5	--	--	--	--	220	--	
	05/04/2004	<500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	--	--	--	--	210	--	
	08/12/2004	<100	<20	0.81	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	750	--	
	11/10/2004	<100	<20	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	530	--	
	02/03/2005	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**85**	**--**	**e**
MW-7	11/07/2003	<500	<100	53	<2.5	<2.5	13	--	--	--	--	--	--	<2.5	--	
	02/03/2004	<100	<20	32	<1.0	<1.0	7.4	<0.50	<0.50	--	--	--	--	0.74	--	
	02/03/2005	**<100**	**<20**	**14**	**<0.50**	**<0.50**	**3.9**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**1.6**	**--**	**e**
MW-8	11/07/2003	<1,000	<200	440	<5.0	<5.0	18	--	--	--	--	--	--	<5.0	--	
	02/03/2004	<2,500	<500	470	<25	<25	<25	<12	<12	--	--	--	--	<12	--	
	05/04/2004	<2,000	<400	700	<10	<10	21	<10	<10	--	--	--	--	12	--	
	08/12/2004	<5,000	<1,000	400	<25	<25	<25	<25	<25	--	--	--	--	1.1	--	
	11/10/2004	<1,000	<200	480	<5.0	<5.0	21	<5.0	<5.0	--	--	--	--	8.9	--	
	02/03/2005	**<100**	**<20**	**45**	**<0.50**	**<0.50**	**1.9**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**0.59**	**--**	**e**
RW-1	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	3.1	--	
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--	--	--	0.76	--	
	05/04/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	1.8	--	

Table 2

Fuel Additives Analytical Data

ARCO Service Station #0276
10600 Macarthur Blvd., 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)	trans-1,2 DCE (µg/L)	cis-1,2 DCE (µg/L)	VOC (µg/L)	Oxygen (µg/L)	PCE (µg/L)	TCE (µg/L)	Footnotes/ Comments
RW-1	08/12/2004	330/<100 d	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	2.9	--	d
	11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	5.2	--	
	02/03/2005	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**1.7**	**--**	e
WGR-3	05/04/2004	<100	<20	11	<0.50	<0.50	2.4	<0.50	<0.50	--	--	--	--	<0.50	--	
	08/12/2004	<100	<20	35	<0.50	<0.50	7.5	<0.50	<0.50	--	--	--	--	<0.50	--	
	11/10/2004	<100	<20	5.6	<0.50	<0.50	1.3	<0.50	<0.50	--	--	--	--	<0.50	--	
	02/03/2005	**<100**	**<20**	**1.1**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**<0.50**	**--**	e

Table 2

Fuel Additives Analytical Data

ARCO Service Station #0276
10600 Macarthur Blvd., Oakland, CA

SYMBOLS & ABBREVIATIONS:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above the laboratory reporting limit.
1,2-DCA = 1,2-Dichloroethane
cis-1,2-DCE = cis-1,2-Dicloroethene
DIPE = Di-isopropyl ether
EDB = 1,2-Dibromoethane
ETBE = Ethyl tert-butyl ether
MTBE = Methyl tert-butyl ether
PCE = Tetrachloroethane
TAME = tert-Amyl methyl ether
TBA = tert-Butyl alcohol
TCE = Trichloroethane
trans-1,2-DCE = trans 1,2-Dichloroethene
VOC = Volatile Organic Compounds
ug/L = Micrograms per Liter

FOOTNOTES:
a = VOC 1,1 DCE detected at a concentration of 1.9 ug/L.
b = VOC 1,2 DCA detected at a concentration of 3.2 ug/L.
c = VOC Chlorobenzene detected at a concentration of 2.0 ug/L.
d = Ethanol was re-analyzed two days out of holding time and was not detected above a laboratory reporting limit of100 ug/L.
e = Calibration verification is within method limits but outside contract limits.

NOTES:
Tetrachloroethene was analyzed using EPA Method 8260B. Samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE.

Table 3

Groundwater Gradient Data

ARCO Service Station #0276
10600 Macarthur Blvd., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
12/17/2000	South-Southeast	0.003
12/28/2001	Southeast	0.002
11/27/2002	South-Southeast	0.003
7/22/2003	South	0.007
11/7/2003	Southwest	0.002
2/3/2004	South-Southwest	0.002
5/4/2004	South-Southwest	0.003
8/12/2004	South	0.004
11/10/2004	Southwest	0.004
2/3/2005	**Southwest**	**0.003**

Source : The data within this table collected prior to November 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 # 050203-WC1 Date 2/3/05 Client VAS@Arco 276

Site 10600 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	MP@
MW-1	2					26.23	38.76		19'
MW-2	4					14.29	25.20		
MW3	2					26.85	38.50		22'
MW-4	2					26.28	47.58		25'
MW-5	4					25.85	46.93		
MW-6	2					31.48	48.39		
MW-7	2					18.13	36.41		
MW-8	4					24.01	42.75		
RW-1	6	Bgauged w/ stinger in well				26.61	48.70		
WGR-3	4					16.91	26.97	V	

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC1	Station # 276
Sampler: WC	Date: 2/3/05
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 38.76	Depth to Water: 26.23
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	radius² * 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: 19'

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.)	* Specified Volumes	= Calculated Volume
NO	purge	___ Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
0759	62.6	6.5	2368	—	clear

Did well dewater? Yes (No)		Gallons actually evacuated: —	
Sampling Time: 0801		Sampling Date: 2/3/05	
Sample I.D.: MW-1		Laboratory: Pace (Sequoia) Other ___	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other: see COC	
D.O. (if req'd): in a cup	Pre-purge:	mg/L	Post-purge: 0.89 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC1	Station # 276
Sampler: WC	Date: 2/3/05
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 25.20	Depth to Water: ~~25.20~~ 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.

13.6 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 40.8 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1232	66.0	6.7	481	14	clear/odor
1235	66.0	6.6	480	28	clear/odor
1238	66.4	6.5	468	41	" / "

Did well dewater? Yes (No)		Gallons actually evacuated: 41	
Sampling Time: 1243		Sampling Date: 2/3/05	
Sample I.D.: MW-2		Laboratory: Pace (Kiemoia) Other ___	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other: See COC	
D.O. (if req'd): Pre-purge:	mg/L	Post-purge:	1.53 mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC 1	Station # 276
Sampler: WC	Date: 2/3/05
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 36.50	Depth to Water: 26.85
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: 22'

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.)	Specified Volumes	Calculated Volume
NO	X PURGE	= ___ Gals.

Time	Temp (°F)	pH	Conductivity (mS or (uS))	Gals. Removed	Observations
0837	60.3	6.5	1213	—	clear

Did well dewater? Yes (No)		Gallons actually evacuated: —	
Sampling Time: 0839		Sampling Date: 2/3/05	
Sample I.D.: MW-3		Laboratory: Pace (Sequoia) Other ___	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other: See COC	
D.O. (if req'd):	Pre-purge: ___ mg/L	Post-purge:	2.25 mg/L
O.R.P. (if req'd):	Pre-purge: ___ mV	Post-purge:	___ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC1	Station # 276
Sampler: WC	Date: 2/3/05
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth:	Depth to Water:
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 / Positive Air Displacement / Electric Submersible / Extraction Pump / Other: _____

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

Top of Screen: 25'

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.)	Specified Volumes	Calculated Volume
no	x purge	= _____ Gals.

Time	Temp (°F)	pH	Conductivity (mS or (uS))	Gals. Removed	Observations
0849	60.9	6.8	685	—	clear

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

Sampling Time: 0851 Sampling Date: 2/3/05

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

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC1	Station # 2676 (WC)
Sampler: WC	Date: 2/3/05
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 46.93	Depth to Water: 25.85
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 / 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.

13.7 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 41.1 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1210	65.0	6.8	1187	14	clear
1213	65.9	6.5	1173	28	clear
1216	66.0	6.5	1186	42	clear

Did well dewater? Yes (No) Gallons actually evacuated: 42

Sampling Time: 1221 Sampling Date: 2/3/05

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

Analyzed for: (TPH-D) BTEX MTBE DRO Other: see COC

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.65	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC1	Station # 267
Sampler: WC	Date:
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 48.39	Depth to Water: 31.48
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	radius² * 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.

2.7 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 8.1 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1150	64.0	6.9	1538	3	cloudy, brown
1153	64.5	6.9	1654	6	cloudy
1156	64.5	7.0	1649	9	"

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Time: 1201 Sampling Date: 2/3/05

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

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC1	Station # 276
Sampler: WC	Date: 2/3/05
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 36.41	Depth to Water: 18.13
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:

2.9 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 8.7 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1108	62.5	6.5	450	3	Dark grey
1114	65.6	6.4	435	6	cloudy grey
1119	66.1	6.5	436	9	cloudy, clearing

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Time: 1124 Sampling Date: 2/3/05

Sample I.D.: MW-7 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:	3.39	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC1	Station # 276
Sampler: WC	Date: 2/3/05
Well I.D.: MW-8	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 42.75	Depth to Water: 24.01
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.

11.5 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 34.5 Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1257	67.9	6.4	611	12	clear/odor
1259	69.7	6.4	612	24	clear/odor
1301	69.9	6.4	657	36	

Did well dewater? Yes (No)			Gallons actually evacuated: 36		
Sampling Time: 1306			Sampling Date: 2/3/05		
Sample I.D.: MW-8			Laboratory: Pace (Sequoia) Other_____		
Analyzed for: (GRO) (BTEX) MTBE DRO			Other: See COC		
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.43	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC1	Station # 276
Sampler: WC	Date: 2/3/05
Well I.D.: RW-1	Well Diameter: 2 3 4 (6) 8 ___
Total Well Depth: 48.70	Depth to Water: 26.61
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.

32.5 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 97.5 Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
0917	60.7	7.0	1443	33	clear/slight odor
0923	62.8	7.1	1584	66	clear/slight odor
0930	63.8	*7.1	1565	98	" / " "

Did well dewater? Yes (No) Gallons actually evacuated: 98

Sampling Time: 0935 Sampling Date: 2/3/05

Sample I.D.: RW-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:	1.57	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050203-WC1	Station # 276
Sampler: WC	Date: 2/3/05
Well I.D.: MW WGR-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 26.97	Depth to Water: 16.91
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 / 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.

6.5 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 19.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (uS))	Gals. Removed	Observations
1041	63.2	6.8	633	7	clear
1042	66.9	6.6	461	14	clear
1043	67.2	6.5	456	20	clear

Did well dewater? Yes (No) Gallons actually evacuated: 20

Sampling Time: 1048 Sampling Date: 2/3/05

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

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.04	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

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:

276
Station #

10600 MacArthur Blvd., Oakland
Station Address

Total Gallons Collected From Groundwater Monitoring Wells:
255 gallons

added equip. rinse water 5 gal

any other adjustments —

TOTAL GALS. RECOVERED 260 gal

loaded onto BTS vehicle # 62

BTS event #	time	date
050203-WC1	1315	2/3/05

signature [signature]

* *

REC'D AT	time	date
Blaine Tech	1700	2/3/05

unloaded by signature [signature]

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
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FAX (408) 782-6308
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17 February, 2005

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

RE: ARCO #0276, Oakland, CA
Work Order: MOB0201

Enclosed are the results of analyses for samples received by the laboratory on 02/04/05 16:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MOB0201-01	Water	02/03/05 08:01	02/04/05 16:15
MW-2	MOB0201-02	Water	02/03/05 12:43	02/04/05 16:15
MW-3	MOB0201-03	Water	02/03/05 08:39	02/04/05 16:15
MW-4	MOB0201-04	Water	02/03/05 08:51	02/04/05 16:15
MW-5	MOB0201-05	Water	02/03/05 12:21	02/04/05 16:15
MW-6	MOB0201-06	Water	02/03/05 12:01	02/04/05 16:15
MW-7	MOB0201-07	Water	02/03/05 11:24	02/04/05 16:15
MW-8	MOB0201-08	Water	02/03/05 13:06	02/04/05 16:15
RW-1	MOB0201-09	Water	02/03/05 09:35	02/04/05 16:15
WGR-3	MOB0201-10	Water	02/03/05 10:48	02/04/05 16:15
TB-276-020305	MOB0201-11	Water	02/03/05 00:00	02/04/05 16:15

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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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MOB0201-01) Water Sampled: 02/03/05 08:01 Received: 02/04/05 16:15									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5B08016	02/08/05	02/09/05	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	"	"	"	"	"	"	IC
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		*114 %*	*60-135*		"	"	"	"	
MW-2 (MOB0201-02) Water Sampled: 02/03/05 12:43 Received: 02/04/05 16:15									
tert-Amyl methyl ether	**13**	0.50	ug/l	1	5B08016	02/08/05	02/09/05	EPA 8260B	
Benzene	**1.7**	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	"	"	"	"	"	"	IC
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**2.0**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**37**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	**1.4**	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**480**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*60-135*		"	"	"	"	

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MOB0201-03) Water Sampled: 02/03/05 08:39 Received: 02/04/05 16:15									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5B08016	02/08/05	02/09/05	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	"	"	"	"	"	"	IC
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)	**180**	50	"	"	"	"	"	"	PV
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*60-135*		"	"	"	"	
MW-4 (MOB0201-04) Water Sampled: 02/03/05 08:51 Received: 02/04/05 16:15									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5B08016	02/08/05	02/09/05	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	"	"	"	"	"	"	IC
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)	**51**	50	"	"	"	"	"	"	PV
Surrogate: 1,2-Dichloroethane-d4		*116 %*	*60-135*		"	"	"	"	

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (MOB0201-05) Water Sampled: 02/03/05 12:21 Received: 02/04/05 16:15									
tert-Amyl methyl ether	**0.54**	0.50	ug/l	1	5B08016	02/08/05	02/09/05	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	**2.7**	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	IC
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**16**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**100**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*60-135*		"	"	"	"	
MW-6 (MOB0201-06) Water Sampled: 02/03/05 12:01 Received: 02/04/05 16:15									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5B08016	02/08/05	02/09/05	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	"	"	"	"	"	"	IC
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)	**77**	50	"	"	"	"	"	"	PV
Surrogate: 1,2-Dichloroethane-d4		*115 %*	*60-135*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (MOB0201-07) Water Sampled: 02/03/05 11:24 Received: 02/04/05 16:15									
tert-Amyl methyl ether	**3.9**	0.50	ug/l	1	5B08016	02/08/05	02/09/05	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	"	"	"	"	"	"	IC
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**14**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**61**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*60-135*		"	"	"	"	
MW-8 (MOB0201-08) Water Sampled: 02/03/05 13:06 Received: 02/04/05 16:15									
tert-Amyl methyl ether	**1.9**	0.50	ug/l	1	5B08016	02/08/05	02/09/05	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	"	"	"	"	"	"	IC
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**45**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*	*60-135*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 (MOB0201-09) Water Sampled: 02/03/05 09:35 Received: 02/04/05 16:15									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5B08016	02/08/05	02/09/05	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	"	"	"	"	"	"	IC
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		*114 %*	*60-135*		"	"	"	"	
WGR-3 (MOB0201-10) Water Sampled: 02/03/05 10:48 Received: 02/04/05 16:15									
tert-Amyl methyl ether	ND	0.50	ug/l	1	5B08016	02/08/05	02/09/05	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	"	"	"	"	"	"	IC
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**1.1**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*60-135*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

EPA 8010 list Volatile Organic Compounds by EPA 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MOB0201-01) Water Sampled: 02/03/05 08:01 Received: 02/04/05 16:15									
Tetrachloroethene	**58**	0.50	ug/l	1	5B08016	02/08/05	02/09/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*113 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*111 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88 %*	*70-120*		"	"	"	"	
MW-2 (MOB0201-02) Water Sampled: 02/03/05 12:43 Received: 02/04/05 16:15									
Tetrachloroethene	ND	0.50	ug/l	1	5B08016	02/08/05	02/09/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*109 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*116 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99 %*	*70-120*		"	"	"	"	
MW-3 (MOB0201-03) Water Sampled: 02/03/05 08:39 Received: 02/04/05 16:15									
Tetrachloroethene	**160**	2.5	ug/l	5	5B14018	02/14/05	02/14/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*103 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*98 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85 %*	*70-120*		"	"	"	"	
MW-4 (MOB0201-04) Water Sampled: 02/03/05 08:51 Received: 02/04/05 16:15									
Tetrachloroethene	**61**	0.50	ug/l	1	5B08016	02/08/05	02/09/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*111 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*116 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*109 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92 %*	*70-120*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

EPA 8010 list Volatile Organic Compounds by EPA 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (MOB0201-05) Water Sampled: 02/03/05 12:21 Received: 02/04/05 16:15									
Tetrachloroethene	**480**	2.5	ug/l	5	5B14018	02/14/05	02/14/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*105 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83 %*	*70-120*		"	"	"	"	
MW-6 (MOB0201-06) Water Sampled: 02/03/05 12:01 Received: 02/04/05 16:15									
Tetrachloroethene	**85**	0.50	ug/l	1	5B08016	02/08/05	02/09/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*118 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*115 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*113 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88 %*	*70-120*		"	"	"	"	
MW-7 (MOB0201-07) Water Sampled: 02/03/05 11:24 Received: 02/04/05 16:15									
Tetrachloroethene	**1.6**	0.50	ug/l	1	5B08016	02/08/05	02/09/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*114 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*112 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*70-120*		"	"	"	"	
MW-8 (MOB0201-08) Water Sampled: 02/03/05 13:06 Received: 02/04/05 16:15									
Tetrachloroethene	**0.59**	0.50	ug/l	1	5B08016	02/08/05	02/09/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*119 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*112 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90 %*	*70-120*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

EPA 8010 list Volatile Organic Compounds by EPA 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 (MOB0201-09) Water Sampled: 02/03/05 09:35 Received: 02/04/05 16:15									
Tetrachloroethene	1.7	0.50	ug/l	1	5B08016	02/08/05	02/09/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*113 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*110 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93 %*	*70-120*		"	"	"	"	
WGR-3 (MOB0201-10) Water Sampled: 02/03/05 10:48 Received: 02/04/05 16:15									
Tetrachloroethene	ND	0.50	ug/l	1	5B08016	02/08/05	02/09/05	EPA 8260B	
Surrogate: Dibromofluoromethane		*111 %*	*65-130*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*60-135*		"	"	"	"	
Surrogate: Toluene-d8		*109 %*	*70-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93 %*	*70-120*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

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 5B08016 - EPA 5030B P/T / EPA 8260B										
Blank (5B08016-BLK1)				Prepared & Analyzed: 02/08/05						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	5.0	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							IC
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	*5.74*		"	*5.00*		*115*	*60-135*			
Laboratory Control Sample (5B08016-BS1)				Prepared & Analyzed: 02/08/05						
tert-Amyl methyl ether	10.4	0.50	ug/l	10.0		104	80-115			
Benzene	10.1	0.50	"	10.0		101	65-115			
tert-Butyl alcohol	43.9	5.0	"	50.0		88	75-150			
Di-isopropyl ether	11.0	0.50	"	10.0		110	75-125			
1,2-Dibromoethane (EDB)	10.7	0.50	"	10.0		107	85-120			
1,2-Dichloroethane	10.9	0.50	"	10.0		109	85-130			
Ethanol	669	100	"	200		334	70-135			IC, HL
Ethyl tert-butyl ether	9.54	0.50	"	10.0		95	75-130			
Ethylbenzene	10.4	0.50	"	10.0		104	75-135			
Methyl tert-butyl ether	8.94	0.50	"	10.0		89	65-125			
Toluene	10.3	0.50	"	10.0		103	85-120			
Xylenes (total)	32.6	0.50	"	30.0		109	85-125			
Surrogate: 1,2-Dichloroethane-d4	*5.67*		"	*5.00*		*113*	*60-135*			

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

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 5B08016 - EPA 5030B P/T / EPA 8260B										
Laboratory Control Sample (5B08016-BS2)				Prepared & Analyzed: 02/08/05						
Benzene	5.74	0.50	ug/l	6.08		94	65-115			
Ethylbenzene	8.40	0.50	"	7.84		107	75-135			
Methyl tert-butyl ether	8.55	0.50	"	9.60		89	65-125			
Toluene	35.1	0.50	"	32.9		107	85-120			
Xylenes (total)	42.7	0.50	"	38.5		111	85-125			
Gasoline Range Organics (C4-C12)	365	50	"	440		83	70-124			
Surrogate: 1,2-Dichloroethane-d4	*5.71*		"	*5.00*		*114*	*60-135*			
Laboratory Control Sample Dup (5B08016-BSD1)				Prepared & Analyzed: 02/08/05						
tert-Amyl methyl ether	10.9	0.50	ug/l	10.0		109	80-115	5	15	
Benzene	10.8	0.50	"	10.0		108	65-115	7	20	
tert-Butyl alcohol	48.2	5.0	"	50.0		96	75-150	9	25	
Di-isopropyl ether	11.0	0.50	"	10.0		110	75-125	0	15	
1,2-Dibromoethane (EDB)	11.1	0.50	"	10.0		111	85-120	4	15	
1,2-Dichloroethane	11.1	0.50	"	10.0		111	85-130	2	20	
Ethanol	698	100	"	200		349	70-135	4	35	IC, HL
Ethyl tert-butyl ether	10.0	0.50	"	10.0		100	75-130	5	25	
Ethylbenzene	10.5	0.50	"	10.0		105	75-135	1	15	
Methyl tert-butyl ether	9.29	0.50	"	10.0		93	65-125	4	20	
Toluene	10.8	0.50	"	10.0		108	85-120	5	20	
Xylenes (total)	32.3	0.50	"	30.0		108	85-125	0.9	20	
Surrogate: 1,2-Dichloroethane-d4	*5.56*		"	*5.00*		*111*	*60-135*			
Matrix Spike (5B08016-MS1)	**Source: MOB0201-04**			Prepared & Analyzed: 02/08/05						
Benzene	6.03	0.50	ug/l	6.08	ND	99	65-115			
Ethylbenzene	8.02	0.50	"	7.84	ND	102	75-135			
Methyl tert-butyl ether	8.31	0.50	"	9.60	ND	87	65-125			
Toluene	36.8	0.50	"	32.9	ND	112	85-120			
Xylenes (total)	41.3	0.50	"	38.5	ND	107	85-125			
Gasoline Range Organics (C4-C12)	427	50	"	440	51	85	70-124			
Surrogate: 1,2-Dichloroethane-d4	*5.55*		"	*5.00*		*111*	*60-135*			

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

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 5B08016 - EPA 5030B P/T / EPA 8260B										
Matrix Spike Dup (5B08016-MSD1)	**Source: MOB0201-04**			Prepared: 02/08/05 Analyzed: 02/09/05						
Benzene	5.49	0.50	ug/l	6.08	ND	90	65-115	9	20	
Ethylbenzene	7.26	0.50	"	7.84	ND	93	75-135	10	15	
Methyl tert-butyl ether	7.44	0.50	"	9.60	ND	78	65-125	11	20	
Toluene	33.2	0.50	"	32.9	ND	101	85-120	10	20	
Xylenes (total)	37.5	0.50	"	38.5	ND	97	85-125	10	20	
Gasoline Range Organics (C4-C12)	392	50	"	440	51	78	70-124	9	20	
Surrogate: 1,2-Dichloroethane-d4	*5.50*		"	*5.00*		*110*	*60-135*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

EPA 8010 list Volatile Organic Compounds by EPA 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5B08016 - EPA 5030B P/T / EPA 8260B										
Blank (5B08016-BLK1)				Prepared & Analyzed: 02/08/05						
Tetrachloroethene	ND	0.50	ug/l							
Surrogate: Dibromofluoromethane	*5.68*		"	*5.00*		*114*	*65-130*			
Surrogate: 1,2-Dichloroethane-d4	*5.74*		"	*5.00*		*115*	*60-135*			
Surrogate: Toluene-d8	*5.52*		"	*5.00*		*110*	*70-120*			
Surrogate: 4-Bromofluorobenzene	*4.36*		"	*5.00*		*87*	*70-120*			
Laboratory Control Sample (5B08016-BS1)				Prepared & Analyzed: 02/08/05						
Tetrachloroethene	10.2	0.50	ug/l	10.0		102	85-125			
Surrogate: Dibromofluoromethane	*5.40*		"	*5.00*		*108*	*65-130*			
Surrogate: 1,2-Dichloroethane-d4	*5.67*		"	*5.00*		*113*	*60-135*			
Surrogate: Toluene-d8	*5.51*		"	*5.00*		*110*	*70-120*			
Surrogate: 4-Bromofluorobenzene	*5.03*		"	*5.00*		*101*	*70-120*			
Laboratory Control Sample Dup (5B08016-BSD1)				Prepared & Analyzed: 02/08/05						
Tetrachloroethene	11.0	0.50	ug/l	10.0		110	85-125	8	15	
Surrogate: Dibromofluoromethane	*5.58*		"	*5.00*		*112*	*65-130*			
Surrogate: 1,2-Dichloroethane-d4	*5.56*		"	*5.00*		*111*	*60-135*			
Surrogate: Toluene-d8	*5.83*		"	*5.00*		*117*	*70-120*			
Surrogate: 4-Bromofluorobenzene	*5.06*		"	*5.00*		*101*	*70-120*			
Batch 5B14018 - EPA 5030B P/T / EPA 8260B										
Blank (5B14018-BLK1)				Prepared & Analyzed: 02/14/05						
Tetrachloroethene	ND	0.50	ug/l							
Surrogate: Dibromofluoromethane	*5.16*		"	*5.00*		*103*	*65-130*			
Surrogate: 1,2-Dichloroethane-d4	*5.75*		"	*5.00*		*115*	*60-135*			
Surrogate: Toluene-d8	*5.02*		"	*5.00*		*100*	*70-120*			
Surrogate: 4-Bromofluorobenzene	*4.35*		"	*5.00*		*87*	*70-120*			

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

EPA 8010 list Volatile Organic Compounds by EPA 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5B14018 - EPA 5030B P/T / EPA 8260B										
Laboratory Control Sample (5B14018-BS1)				Prepared & Analyzed: 02/14/05						
Tetrachloroethene	20.6	0.50	ug/l	20.0		103	85-125			
Surrogate: Dibromofluoromethane	*5.20*		"	*5.00*		*104*	*65-130*			
Surrogate: 1,2-Dichloroethane-d4	*5.77*		"	*5.00*		*115*	*60-135*			
Surrogate: Toluene-d8	*5.31*		"	*5.00*		*106*	*70-120*			
Surrogate: 4-Bromofluorobenzene	*5.02*		"	*5.00*		*100*	*70-120*			
Laboratory Control Sample Dup (5B14018-BSD1)				Prepared & Analyzed: 02/14/05						
Tetrachloroethene	18.2	0.50	ug/l	20.0		91	85-125	12	15	
Surrogate: Dibromofluoromethane	*5.08*		"	*5.00*		*102*	*65-130*			
Surrogate: 1,2-Dichloroethane-d4	*5.67*		"	*5.00*		*113*	*60-135*			
Surrogate: Toluene-d8	*5.27*		"	*5.00*		*105*	*70-120*			
Surrogate: 4-Bromofluorobenzene	*4.90*		"	*5.00*		*98*	*70-120*			

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URS Corporation [Arco]	Project:ARCO #0276, Oakland, CA	MOB0201
1333 Broadway, Suite 800	Project Number:G09JZ-0111	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	02/17/05 12:09

Notes and Definitions

PV	Hydrocarbon result partly due to individ. peak(s) in quant. range
IC	Calib. verif. is within method limits but outside contract limits
HL	Analyte recovery above established limit
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

ATTACHMENT C

HISTORICAL GROUNDWATER DATA

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged Not Purg (P/NP)
MW-1	03-10-95	55.92	26.26	ND	29.66	03-10-95	170	<1	--	<1	--		
MW-1	06-05-95	55.92	25.71	ND	30.21	06-05-95	210	<5	--	<5	--		
MW-1	08-29-95	55.92	28.44	ND	27.48	08-29-95	130	<1	--	<1	--		
MW-1	11-16-95	55.92	30.85	ND	25.07	11-16-95	45	<1	--	<1	--		
MW-1	02-28-96	55.92	24.99	ND	30.93	02-28-96	97	<1	<1	<1	<1		
MW-1	05-28-96	55.92	24.92	ND	31.00	05-28-96	160	<5	<5	<5	--		
MW-1	08-19-96	55.92	28.04	ND	27.88	08-19-96	77	<1	<1	<1	--		
MW-1	11-21-96	55.92	30.19	ND	25.73	11-21-96	30	<1	<1	<1	--		
MW-1	03-26-97	55.92	24.90	ND	31.02	03-26-97	66	<1	<1	<1	--		
MW-1	05-20-97	55.92	26.99	ND	28.93	05-20-97	36	<0.5	<0.5	<0.5	--		
MW-1	08-18-97	55.92	29.98	ND	25.94	08-18-97	11	<0.5	<0.5	<0.5	--		
MW-1	11-17-97	55.92	31.72	ND	24.20	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-1	12-02-99	55.92	Not surveyed			12-02-99	Not surveyed: well was inaccessible						
MW-2	03-10-95	55.10	13.98	ND	41.12	03-11-95	<1	<1	--	<1	--		
MW-2	06-05-95	55.10	15.65	ND	39.45	06-05-95	<1	<1	--	<1	--		
MW-2	08-29-95	55.10	17.14	ND	37.96	08-29-95	<5	<5	--	<5	--		
MW-2	11-16-95	55.10	Not surveyed			11-16-95	Not surveyed: well was inaccessible						
MW-2	02-28-96	55.10	12.46	ND	42.64	02-28-96	<1	<1	<1	<1	--		
MW-2	05-28-96	55.10	15.23	ND	39.87	05-28-96	<1	<1	<1	<1	--		
MW-2	08-19-96	55.10	16.84	ND	38.26	08-21-96	<1	<1	<1	<1	--		
MW-2	11-21-96	55.10	15.44	ND	39.66	11-21-96	<1	<1	<1	<1	--		
MW-2	03-26-97	55.10	15.73	ND	39.37	03-26-97	<10^	<10^	<10^	<10^	--		
MW-2	05-20-97	55.10	16.07	ND	39.03	05-20-97	<1^	<1^	<1^	<1^	--		
MW-2	08-18-97	55.10	17.28	ND	37.82	08-18-97	<5^	<5^	<5^	<5^	--		
MW-2	11-17-97	55.10	16.75	ND	38.35	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-2	12-02-99	55.10	Not surveyed			12-02-99	Not sampled: not on sampling schedule						

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Table 1
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Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged Not Purg (P/NP)
MW-3	03-10-95	56.55	26.74	ND	29.81	03-11-95	1700	<10	--	<10	--		
MW-3	06-05-95	56.55	26.34	ND	30.21	06-05-95	2500	<20	--	<20	--		
MW-3	08-29-95	56.55	29.15	ND	27.40	08-29-95	1600	<20	--	<20	--		
MW-3	11-16-95	56.55	31.50	ND	25.05	11-16-95	1100	<20	--	<20	<20		
MW-3	02-28-96	56.55	25.32	ND	31.23	02-28-96	1100	<10	<10	<10	--		
MW-3	05-28-96	56.55	25.46	ND	31.09	05-28-96	1700	<20	<20	<20	--		
MW-3	08-19-96	56.55	28.71	ND	27.84	08-19-96	1200	<20	<20	<20	--		
MW-3	11-21-96	56.55	30.85	ND	25.70	11-21-96	710	<20^	<20^	<20^	--		
MW-3	03-26-97	56.55	25.36	ND	31.19	03-26-97	710	<40^	<40^	<40^	--		
MW-3	05-20-97	56.55	27.61	ND	28.94	05-20-97	800	<25^	<25^	<25^	--		
MW-3	08-18-97	56.55	30.62	ND	25.93	08-18-97	420	<5^	<5^	<5^	--		
MW-3	11-17-97	56.55	32.40	ND	24.15	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-3	12-02-99	56.55	30.75	ND	25.80	12-02-99	210*	<0.5*	<0.5*	<0.5*	--	0.47	NP
MW-4	03-10-95	55.98	26.22	ND	29.76	03-11-95	2600	<20	--	<20	--		
MW-4	06-05-95	55.98	25.79	ND	30.19	06-05-95	3100	<20	--	<20	--		
MW-4	08-29-95	55.98	28.56	ND	27.42	08-29-95	2900	<20	--	<20	--		
MW-4	11-16-95	55.98	31.00	ND	24.98	11-16-95	2100	<20	--	<20	<20		
MW-4	02-28-96	55.98	24.77	ND	31.21	02-28-96	2400	<20	<20	<20	--		
MW-4	05-28-96	55.98	24.91	ND	31.07	05-28-96	2700	<20	<20	<20	--		
MW-4	08-19-96	55.98	28.17	ND	27.81	08-19-96	2600	<20	<20	<20	--		
MW-4	11-21-96	55.98	30.30	ND	25.68	11-21-96	1100	<20^	<20^	<20^	--		
MW-4	03-26-97	55.98	24.80	ND	31.18	03-26-97	1900	<40^	<40^	<40^	--		
MW-4	05-20-97	55.98	27.03	ND	28.95	05-20-97	1600	<50^	<50^	<50^	--		
MW-4	08-18-97	55.98	30.10	ND	25.88	08-18-97	600	<125^	<125^	--	--		
MW-4	11-17-97	55.98	31.84	ND	24.14	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-4	12-02-99	55.98	30.20	ND	25.78	12-02-99	320*	<0.5*	<0.5*	<0.5*	--	1.03	NP

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Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged/ Not Purged (P/NP)
MW-5	03-10-95	55.43	25.62	ND	29.81	03-10-95	270	<5	--	<5	--		
MW-5	06-05-95	55.43	25.30	ND	30.13	06-05-95	310	<5	--	<5	--		
MW-5	08-29-95	55.43	28.21	ND	27.22	08-29-95	240	<5	--	<5	--		
MW-5	11-16-95	55.43	30.63	ND	24.80	11-16-95	940	<5	--	<5	<5		
MW-5	02-28-96	55.43	24.07	ND	31.36	02-28-96	1100	<10	<10	<10	--		
MW-5,	05-28-96	55.43	24.42	ND	31.01	05-28-96	360	<5	<5	<5	--		
MW-5	08-19-96	55.43	27.82	ND	27.61	08-21-96	150	<1	<1	2	--		
MW-5	11-21-96	55.43	29.92	ND	25.51	11-21-96	1900	<20^	<20^	<20^	--		
MW-5	03-26-97	55.43	24.22	ND	31.21	03-26-97	270	<10^	<10^	<10^	--		
MW-5	05-20-97	55.43	26.60	ND	28.83	05-20-97	290	<5^	<5^	<5^	--		
MW-5	08-18-97	55.43	NR	ND	NR	08-18-97	--	--	--	--	--		
MW-5	11-17-97	55.43	Not surveyed			11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-5	12-02-99	55.43	29.84	ND	25.59	12-02-99	46*	<0.5*	<0.5*	<0.5*	--	0.53	P
MW-6	03-10-95	61.21	31.54	ND	29.67	03-11-95	1300	<20	--	<20	--		
MW-6	06-05-95	61.21	31.15	ND	30.06	06-05-95	2000	<20	--	<20	--		
MW-6	08-29-95	61.21	34.03	ND	27.18	08-29-95	1300	<20	--	<20	--		
MW-6	11-16-95	61.21	36.40	ND	24.81	11-16-95	1300	<20	--	<20	<20		
MW-6	02-28-96	61.21	30.18	ND	31.03	02-28-96	960	<20	<20	<20	--		
MW-6	05-28-96	61.21	30.29	ND	30.92	05-28-96	970	<20	<20	<20	--		
MW-6	08-19-96	61.21	33.54	ND	27.67	08-19-96	820	<20	<20	<20	--		
MW-6	11-21-96	61.21	35.70	ND	25.51	11-21-96	680	<20^	<20^	<20^	--		
MW-6	03-26-97	61.21	30.15	ND	31.06	03-26-97	830	<40^	<40^	<40^	--		
MW-6	05-20-97	61.21	32.40	ND	28.81	05-20-97	270	<5^	<5^	<5^	--		
MW-6	08-18-97	61.21	35.47	ND	25.74	08-18-97	420	<62.5^	<62.5^	--	--		
MW-6	11-17-97	61.21	37.25	ND	23.96	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-6	12-02-99	61.21	35.55	ND	25.66	12-02-99	Not sampled: not on sampling schedule						

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Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged/ Not Purge (P/NP)
MW-7	03-10-95	58.22	17.69	ND^^	40.53	03-11-95	Not sampled: floating product entered the well during purging						
MW-7	06-05-95	58.22	19.68	ND	38.54	06-05-95	<10	<10	--	<10	--		
MW-7	08-29-95	58.22	21.70	ND	36.52	08-29-95	<10	<10	--	<10	--		
MW-7	11-16-95	58.22	23.02	ND	35.20	11-16-95	<20	<20	--	<20	<20		
MW-7	02-28-96	58.22	16.54	ND	41.68	02-28-96	<10	<10	<10	<10	--		
MW-7	05-28-96	58.22	19.29	ND	38.93	05-28-96	<10	<10	<10	<10	--		
MW-7	08-19-96	58.22	21.84	ND	36.38	08-21-96	<1	<1	<1	<1	--		
MW-7	11-21-96	58.22	19.58	ND	38.64	11-21-96	<10^	<10^	<10^	<10^	--		
MW-7	03-26-97	58.22	19.67	ND	38.55	03-26-97	<20^	<20^	<20^	<20^	--		
MW-7	05-20-97	58.22	20.18	ND	38.04	05-20-97	<10^	<10^	<10^	<10^	--		
MW-7	08-18-97	58.22	22.21	ND	36.01	08-18-97	<10^	<10^	<10^	<10^	--		
MW-7	11-17-97	58.22	20.85	ND	37.37	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-7	12-02-99	58.22	20.92	ND	37.30	12-02-99	Not sampled: not on sampling schedule						
MW-8	03-10-95	53.65	23.60	ND	30.05	03-10-95	<1	<1	--	<1	--		
MW-8	06-05-95	53.65	23.48	ND	30.17	06-05-95	<1	<1	--	<1	--		
MW-8	08-29-95	53.65	26.44	ND	27.21	08-29-95	<1	<1	--	<1	--		
MW-8	11-16-95	53.65	28.90	ND	24.75	11-16-95	<1	<1	--	<1	<1		
MW-8	02-28-96	53.65	22.16	ND	31.49	02-28-96	3	<1	<1	<1	--		
MW-8	05-28-96	53.65	22.62	ND	31.03	05-28-96	<1	<1	<1	<1	--		
MW-8	08-19-96	53.65	26.70	ND	26.95	08-21-96	<1	<1	<1	<1	--		
MW-8	11-21-96	53.65	28.16	ND	25.49	11-21-96	7	<1	<1	<1	--		
MW-8	03-26-97	53.65	22.42	ND	31.23	03-26-97	<1	<1	<1	<1	--		
MW-8	05-20-97	53.65	24.84	ND	28.81	05-20-97	<0.5	<0.5	<0.5	<0.5	--		
MW-8	08-18-97	53.65	28.03	ND	25.62	08-18-97	<5	<5	<5	--	--		
MW-8	11-17-97	53.65	29.16	ND	24.49	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-8	12-02-99	53.65	28.07	ND	25.58	12-02-99	Not sampled: not on sampling schedule						

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1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged/ Not Purg (P/NP)
RW-1	03-10-95	56.32	26.48	Sheen	29.84	03-10-95	260	<5	--	<5	--		
RW-1	06-05-95	56.32	26.20	ND	30.12	06-05-95	59	<1	--	<1	--		
RW-1	08-29-95	56.32	28.98	ND	27.34	08-29-95	570	<5	--	<5	--		
RW-1	11-16-95	56.32	31.34	ND	24.98	11-16-95	140	<1	--	<1	<1		
RW-1	02-28-96	56.32	25.12	ND	31.20	02-28-96	6	<1	<1	<1	--		
RW-1	05-28-96	56.32	25.26	ND	31.06	05-28-96	12	<1	<1	<1	--		
RW-1	08-19-96	56.32	28.51	ND	27.81	08-21-96	100	<1	<1	<1	--		
RW-1	11-21-96	56.32	30.65	ND	25.67	11-21-96	190	1	<1	<1	--		
RW-1	03-26-97	56.32	25.15	ND	31.17	03-26-97	6	<1	<1	<1	--		
RW-1	05-20-97	56.32	27.44	ND	28.88	05-20-97	5.3	<0.5	<0.5	<0.5	--		
RW-1	08-18-97	56.32	30.46	ND	25.86	08-18-97	46	<5	<5	--	--		
RW-1	11-17-97	56.32	32.16	ND	24.16	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
RW-1	12-02-99	56.32	30.54	ND	25.78	12-02-99	Not sampled: not on sampling schedule						
WGR-3	03-10-95	NR	15.20	ND	NR	03-11-95	<1	<1	--	<1	--		
WGR-3	06-05-95	NR	19.25	ND	NR	06-05-95	<1	<1	--	<1	--		
WGR-3	08-29-95	NR	21.41	ND	NR	08-29-95	<1	<1	--	<1	--		
WGR-3	11-16-95	NR	22.50	ND	NR	11-16-95	<1	<1	--	<1	<1		
WGR-3	02-28-96	NR	14.90	ND	NR	02-28-96	<1	<1	<1	<1	--		
WGR-3	05-28-96	NR	18.33	ND	NR	05-28-96	<1	<1	<1	<1	--		
WGR-3	08-19-96	NR	21.38	ND	NR	08-19-96	<1	<1	<1	<1	--		
WGR-3	11-21-96	NR	18.70	ND	NR	11-21-96	<1	<1	<1	<1	--		
WGR-3	03-26-97	NR	18.98	ND	NR	03-26-97	<1	<1	<1	<1	--		
WGR-3	05-20-97	NR	19.70	ND	NR	05-20-97	<0.5	<0.5	<0.5	<0.5	--		

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Recreated from electronic data provided by Pinnacle

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Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged/ Not Purged (P/NP)
WGR-3	08-18-97	NR	21.81	ND	NR	08-18-97	<5	<5	<5	--	--		
WGR-3	11-17-97	NR	20.42	ND	NR	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
WGR-3	12-02-99	NR	20.58	ND	NR	12-02-99	Not sampled: not on sampling schedule						

TOC: Top of Casing
ft-MSL: elevation in feet, relative to mean sea level
µg/L: micrograms per liter
ND: none detected
NR: not reported; data not available or not measurable
--: not analyzed or not applicable
*: analyzed by EPA method 8021B
^: method reporting limit was raised due to: (1) high analyte concentration requiring sample dilution, or (2) matrix interference
^^: floating product entered the well during purging
**: For previous historical groundwater elevation and analytical data please refer to *Fourth Quarter 1995 Groundwater Monitoring Results and Remediation System Performance Evaluation Report, Retail Service Station 10600 and 10700 MacArthur Boulevard, Oakland, California, (EMCON, March 22, 1996).*