

March 15, 2004

Alameda County
MAR 29 2004
Environmental Health

Mr. Don Hwang
Alameda County Health Care Services
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

**Re: First Quarter 2004 Groundwater Monitoring Report
ARCO Service Station #0374
6407 Telegraph Avenue
Oakland, California
URS Project #38486703**

Dear Mr. Hwang:

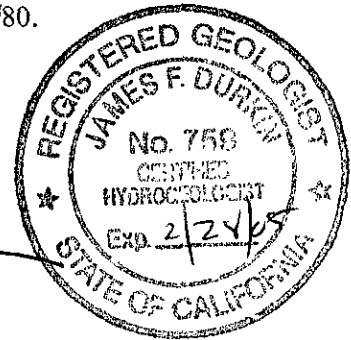
On behalf of Atlantic Richfield Company (ARCO – a BP affiliated company), URS Corporation (URS) is submitting the *First Quarter 2004 Groundwater Monitoring Report* for ARCO Service Station #0374, located at 6407 Telegraph Avenue, Oakland, California.

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

Sincerely,

URS CORPORATION

Scott Robinson
Project Manager

James F. Durkin, C.Hg.
Senior Geologist

Enclosure: First Quarter 2004 Groundwater Monitoring Report

cc: Mr. Chuck Headlee, California Regional Water Quality Control Board 1515
Clay Street, Suite 1400 Oakland, CA 94612
Mr. Paul Supple, ARCO, (electronic copy uploaded to ENFOS)



Atlantic Richfield Company
(a BP affiliated company)

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



Alameda County
MAR 29 2004
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RE: First Quarter 2004 Groundwater Monitoring Report
ARCO Service Station #0374
6407 Telegraph Avenue
Oakland, California
URS Project #38486703

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

R E P O R T

**FIRST QUARTER 2004
GROUNDWATER MONITORING**

ARCO SERVICE STATION #0374
6407 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

Prepared for
Atlantic Richfield Company

March 15, 2004

URS

URS Corporation
1333 Broadway, Suite 800
Oakland, California 94612

38486703

Date: March 15, 2004
Quarter: 1Q 04

ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 0374 Address: 6407 Telegraph Avenue, Oakland CA
ARCO Environmental Business Manager: Paul Supple
Consulting Co./Contact Person: URS Corporation / Scott Robinson
Consultant Project No.: 38486703
Primary Agency Alameda County Health Care Services Agency (ACHCSA)

WORK PERFORMED THIS QUARTER (First – 2004):

1. Performed first quarter groundwater monitoring event on February 2, 2004.
2. Prepared and submitted first quarter 2004 groundwater monitoring report.
3. Resurveyed wells on January 27, 2004.

WORK PROPOSED FOR NEXT QUARTER (Second– 2004):

1. Perform second quarter 2004 groundwater monitoring event.
2. Prepare and submit second quarter 2004 groundwater monitoring report.

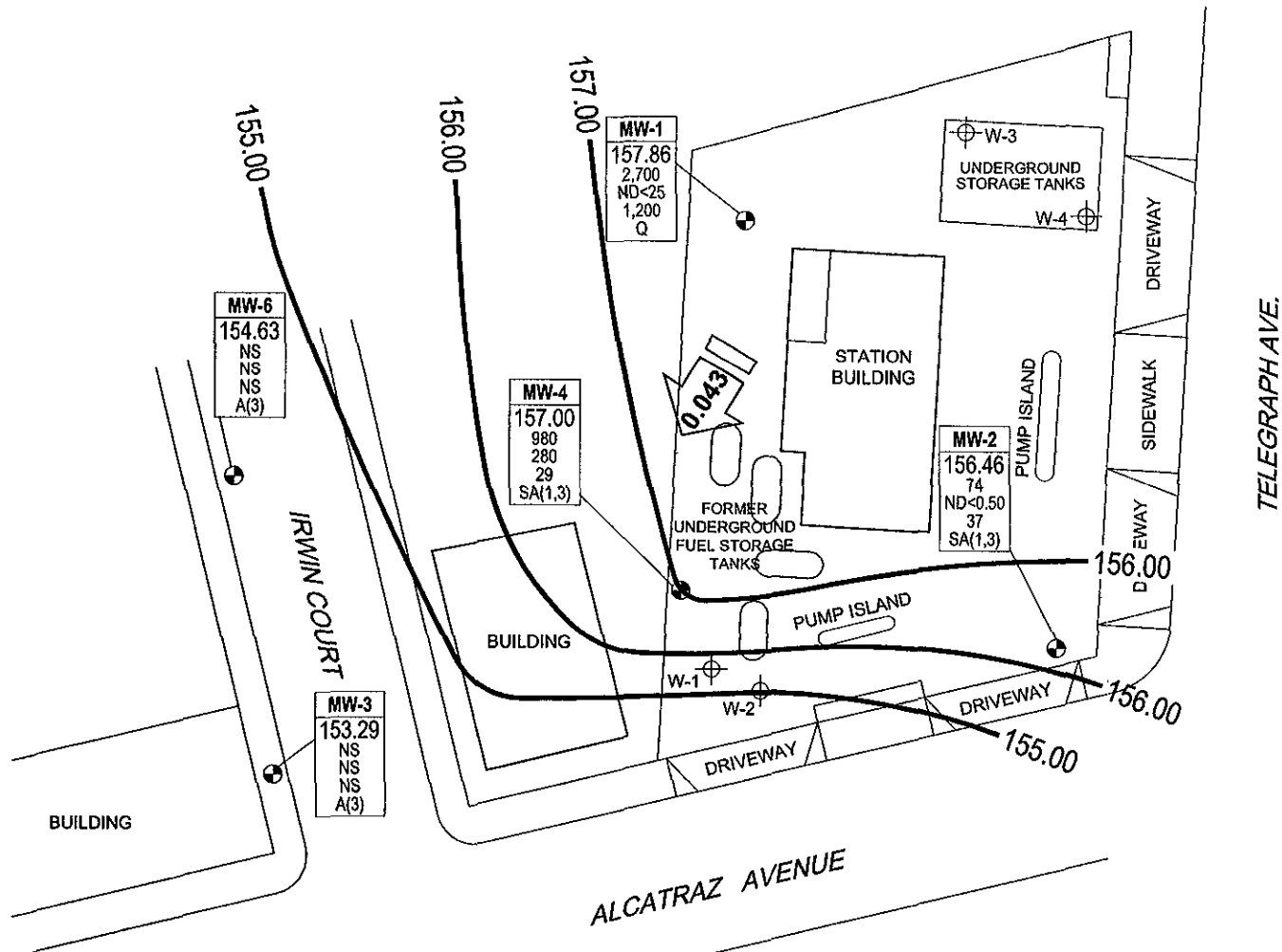
Current Phase of Project: GW monitoring/sampling
Frequency of Groundwater Sampling: Quarterly: MW-1
Semi-Annually (1st & 3rd quarters): MW-2, MW-4
Annually (3rd quarter): MW-3, MW-5, MW-6
Frequency of Groundwater Monitoring: Quarterly
Is Free Product (FP) Present On-Site: No
Current Remediation Techniques: ORC Socks (MW-4 and MW-5)
Approximate Depth to Groundwater: 4.78 (MW-6) to 7.00 (MW-2) feet
Groundwater Gradient (direction): Southwest
Groundwater Gradient (magnitude): 0.043 feet per foot

DISCUSSION:

GRO/TPH-g was detected above laboratory reporting limits in all three of the wells sampled this quarter at concentrations ranging from 74 µg/L (MW-2) to 2,700 µg/L (MW-1). Benzene was detected above laboratory reporting limits in one well at a concentration of 280 µg/L (MW-4). MTBE was detected above laboratory reporting limits in all three of the wells sampled at concentrations ranging from 29 µg/L (MW-4) to 1200 µg/L (MW-1). TAME, Benzene, Toluene, Ethylbenzene, and Xylenes (total) were detected in one well (MW-4) at concentrations of: 2.6 µg/L, 280 µg/L, 21 µg/L, 29 µg/L, and 38 µg/L, respectively.

ATTACHMENTS:

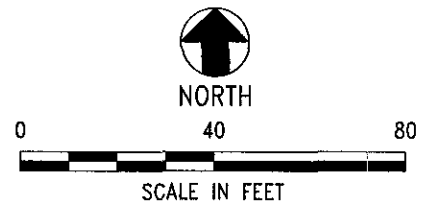
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – February 2, 2004
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Fuel Oxygenate Analytical Data
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment C – EDCC Report and EDF/Geowell Submittal Confirmation
- Attachment D – Well Survey Data



MW-5*
NA
NS
NS
NS
A(3)

LEGEND

- MONITORING WELL
- TANK PIT MONITORING WELL
- Well** WELL DESIGNATION
- ELEV** GROUNDWATER ELEVATION
- GRO** GRO, BENZENE & MTBE CONCENTRATIONS IN GROUNDWATER (µg/L)
- MTBE**
- Q/A/SA** SAMPLING FREQUENCY
- A(3) SAMPLED ANNUALLY, 3RD QUARTER
- NA NOT ANALYZED
- ND< NOT DETECTED AT OR ABOVE LABORATORY LIMITS
- NS NOT SAMPLED
- Q SAMPLED QUARTERLY
- SA(1,3) SAMPLED ANNUALLY, 1ST & 3RD QUARTERS
- APPROXIMATE GROUNDWATER FLOW AND DIRECTION (FT/FT)
- 155.00 GROUNDWATER ELEVATION CONTOUR (FT/MSL)



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

Please note that beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list. Total Petroleum Hydrocarbons as Gasoline (TPHg) has been changed to Gasoline Range Organics (GRO). The resulting data may be impacted by the potential inclusion of non-TPHg analytes within the requested fuel range resulting in a higher concentration being reported.



Project No. 38486703
ARCO Service Station #0374
 6407 Telegraph Avenue
 Oakland, California

GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP
First Quarter 2004 (February 2, 2004)

FIGURE
1

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #0374
6407 Telegraph Avenue
Oakland, California

Well Number	Date Sampled	TOC (ft msl)	Well Depth (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen ^c (mg/L)	pH Level ^c
MW-1	06/20/00	158.91	26.30	7.0	NA	6.86	152.05	NS	NS	NS	NS	NS	NS	NM	NM
	09/28/00					7.50	151.41	NS	NS	NS	NS	NS	NS	NM	NM
	12/17/00					7.49	151.42	NS	NS	NS	NS	NS	NS	NM	NM
	03/23/01					5.90	153.01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2,710	NA	NA
	06/21/01					7.45	151.46	NS	NS	NS	NS	NS	NS	NM	NM
	09/23/01					8.46	150.45	NS	NS	NS	NS	NS	NS	NM	NM
	12/31/01					5.50	153.41	NS	NS	NS	NS	NS	NS	NM	NM
	03/21/02					4.71	154.20	ND<5,000	ND<50	ND<50	ND<50	ND<50	2,000	NA	NA
	04/17/02					5.54	153.37	NS	NS	NS	NS	NS	NS	NM	NM
	08/12/02					7.77	151.14	NS	NS	NS	NS	NS	NS	NM	NM
	12/06/02					7.65	151.26	NS	NS	NS	NS	NS	NS	NM	NM
	01/29/03 ^b					5.88	153.03	NS	NS	NS	NS	NS	NS	NM	NM
	05/23/03					5.62	153.29	ND<10,000	ND<100	ND<100	ND<100	ND<100	1,600	1.3	7.1
	09/04/03					7.85	151.06	NS	NS	NS	NS	NS	NS	NM	NM
	11/20/03					8.17	150.74	1,600	ND<10	ND<10	ND<10	ND<10	1,500	1.7	6.7
02/02/04	164.57					6.71	157.86	2,700	ND<25	ND<25	ND<25	ND<25	1,200	1.0	9.0
MW-2	06/20/00	157.92	25.90	7.0	NA	7.67	150.25	NS	NS	NS	NS	NS	NS	NM	NM
	09/28/00					8.51	149.41	NS	NS	NS	NS	NS	NS	NM	NM
	12/17/00					8.14	149.78	NS	NS	NS	NS	NS	NS	NM	NM
	03/23/01					7.21	150.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	06/21/01					7.99	149.93	NS	NS	NS	NS	NS	NS	NM	NM
	09/23/01					8.52	149.4	NS	NS	NS	NS	NS	NS	NM	NM
	12/31/01					6.01	151.91	NS	NS	NS	NS	NS	NS	NM	NM
	03/21/02					5.95	151.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	45	NA	NA
	04/17/02					6.45	151.47	NS	NS	NS	NS	NS	NS	NM	NM
	08/12/02					8.08	149.84	NS	NS	NS	NS	NS	NS	NM	NM
	12/06/02					8.29	149.63	NS	NS	NS	NS	NS	NS	NM	NM
	01/29/03 ^b					7.22	150.70	NS	NS	NS	NS	NS	NS	NM	NM
	05/23/03					6.85	151.07	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	55	1.4	7.2
	09/04/03					7.94	149.98	NS	NS	NS	NS	NS	NS	NM	NM
	11/20/03					8.05	149.87	NS	NS	NS	NS	NS	NS	NM	NM
02/02/04	163.46					7.00	156.46	74	ND<0.50	ND<0.50	ND<0.50	ND<0.50	37	1.1	8.9

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #0374
6407 Telegraph Avenue
Oakland, California

Well Number	Date Sampled	TOC (ft msl)	Well Depth (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen ^c (mg/L)	pH Level ^c
MW-3	06/20/00	153.64	26.50	7.0	NA	6.42	147.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<10	NA	NA
	09/28/00					7.31	146.33	NS	NS	NS	NS	NS	NS	NM	NM
	12/17/00					6.45	147.19	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/23/01					6.01	147.63	NS	NS	NS	NS	NS	NS	NM	NM
	06/21/01					6.80	146.84	110	5.5	ND<0.5	5.4	4.1	2.5	NA	NA
	09/23/01					7.32	146.32	NS	NS	NS	NS	NS	NS	NM	NM
	12/31/01					4.48	149.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.9	NA	NA
	03/21/02					4.36	149.28	NS	NS	NS	NS	NS	NS	NM	NM
	04/17/02					5.31	148.33	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.7	NA	NA
	08/12/02					7.00	146.64	NS	NS	NS	NS	NS	NS	NM	NM
	12/06/02					7.32	146.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.2	1.4	6.7
	01/29/03 ^b					6.07	147.57	NS	NS	NS	NS	NS	NS	NM	NM
	05/23/03					6.45	147.19	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.6	0.9	7.7
	09/04/03 ^d					6.93	146.71	NS	NS	NS	NS	NS	NS	NM	NM
	11/20/03 ^d					7.04	146.60	NS	NS	NS	NS	NS	NS	NM	NM
02/02/04		159.21				5.92	153.29	NS	NS	NS	NS	NS	NS	NM	NM
MW-4	06/20/00	156.53	26.50	7.0	NA	7.50	149.03	20,000	5,100	440	1,000	1,700	ND<250	NA	NA
	09/28/00					8.20	148.33	NS	NS	NS	NS	NS	NS	NM	NM
	12/17/00					8.11	148.42	4,320	1,240	ND<20	27.2	249	ND<100	NA	NA
	03/23/01					6.69	149.84	NS	NS	NS	NS	NS	NS	NM	NM
	06/21/01					8.01	148.52	2,800	470	16	19	160	130	NA	NA
	09/23/01					8.91	147.62	NS	NS	NS	NS	NS	NS	NM	NM
	12/31/01					4.42	152.11	4,600	1,500	100	160	210	160	NA	NA
	03/21/02					4.98	151.55	NS	NS	NS	NS	NS	NS	NM	NM
	04/17/02					6.23	150.30	7,100	2,200	110	290	450	ND<250	NA	NA
	08/12/02					8.24	148.29	NS	NS	NS	NS	NS	NS	NM	NM
	12/06/02					8.42	148.11	1,500 ^a	410	6.8	20	29	43	1.1	6.7
	01/29/03 ^b					7.20	149.33	NS	NS	NS	NS	NS	NS	NM	NM
	05/23/03					7.18	149.35	ND<5,000	1,300	89	210	260	ND<50	1.4	6.9
	09/04/2003 ^d					8.15	148.38	NS	NS	NS	NS	NS	NS	NM	NM
	11/20/2003 ^d					8.73	147.80	NS	NS	NS	NS	NS	NS	NM	NM
02/02/2004^d		163.25				6.25	157.00	980	280	21	29	38	29	1.4	10.6

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #0374
6407 Telegraph Avenue
Oakland, California

Well Number	Date Sampled	TOC (ft msl)	Well Depth (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen ^c (mg/L)	pH Level ^c
MW-5	06/20/00	151.33	22.70	10.0	NA	7.84	143.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<10	NA	NA
	09/28/00					8.37	142.96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	12/17/00					8.36	142.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/23/01					7.55	143.78	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	06/21/01					8.20	143.13	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	09/23/01					8.68	142.65	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	12/31/01					7.57	143.76	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/21/02					6.12	145.21	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.2	NA	NA
	04/17/02					6.61	144.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	08/12/02					8.14	143.19	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	4.1	7.6
	12/06/02					8.65	142.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	1.1	6.8
	01/29/03 ^b					7.22	144.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0	6.6
	05/23/03					7.31	144.02	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	6.6
	09/04/03					9.50	141.83	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.2	6.7
	11/20/03					8.31	143.02	NS	NS	NS	NS	NS	NS	NM	NM
02/02/04 ^d	NA					6.92	NA	NS	NS	NS	NS	NS	NS	NM	NM
MW-6	06/20/00	153.84	14.50	5.0	NA	4.79	149.05	NS	NS	NS	NS	NS	NS	NM	NM
	09/28/00					5.39	148.45	NS	NS	NS	NS	NS	NS	NM	NM
	12/17/00					4.71	149.13	NS	NS	NS	NS	NS	NS	NM	NM
	03/23/01					4.69	149.15	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	06/21/01					5.22	148.62	NS	NS	NS	NS	NS	NS	NM	NM
	09/23/01					5.40	148.44	NS	NS	NS	NS	NS	NS	NM	NM
	12/31/01					3.95	149.89	NS	NS	NS	NS	NS	NS	NM	NM
	03/21/02					2.94	150.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.2	NA	NA
	04/17/02					5.11	148.73	NS	NS	NS	NS	NS	NS	NM	NM
	08/12/02					5.23	148.61	NS	NS	NS	NS	NS	NS	NM	NM
	12/06/02					5.29	148.55	NS	NS	NS	NS	NS	NS	NM	NM
	01/29/03 ^b					4.79	149.05	NS	NS	NS	NS	NS	NS	NM	NM
	05/23/03					4.31	149.53	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.4	1.0	6.7
	09/04/03 ^c					NM	NM	NS	NS	NS	NS	NS	NS	NM	NM
	11/20/03					6.31	147.53	NS	NS	NS	NS	NS	NS	NM	NM
02/02/04	159.41					4.78	154.63	NS	NS	NS	NS	NS	NS	NM	NM

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #0374
6407 Telegraph Avenue
Oakland, California

Note: Beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list. Total Petroleum Hydrocarbons as Gasoline (TPH-g) has been changed to Gasoline Range Organics (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.

ft = Feet

mg/L = Milligram per liter

µg/L = Micrograms per liter

MSA = Mean Sea Level

MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted (prior to 01/29/03)

NA = Not Available

ND< = Not detected at or above the laboratory reporting limit.

NM = Not measured

NS = Not sampled

TOC = Top of Casing

TPH = Total Petroleum Hydrocarbons

a = Chromatogram Pattern: Gasoline C6-C10

b = Beginning this quarter, groundwater samples were analyzed by EPA method 8260B for TPH-g, BTEX, and fuel oxygenates.

c = Dissolved oxygen and pH level are field measurements.

d = Wells gauged with ORC sock in well.

e = Well inaccessible

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

**Table 2
Groundwater Flow Direction and Gradient**

ARCO Service Station #0374
6407 Telegraph Avenue
Oakland, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
1/31/1996	Southwest	0.04
4/10/1996	Southwest	0.04
7/16/1996	Southwest	0.03
10/14/1996	Southwest	0.03
3/27/1997	Southwest	0.04
5/27/1997	Southwest	0.03
8/12/1997	Southwest	0.04
11/17/1997	Southwest	0.03
3/16/1998	Southwest	0.03
5/12/1998	Southwest	0.04
07/27/98	Southwest	0.04
10/15/98	Southwest	0.02
02/18/99	Southwest	0.05
05/24/99	Southwest	0.03
08/27/99	Southwest	0.03
10/26/99	Southwest	0.03
02/03/00	Southwest	0.047
06/20/00	Southwest	0.035
09/28/00	Southwest	0.034
12/17/00	Southwest	0.032
03/23/01	Southwest	0.034
06/21/01	Southwest	0.032
09/23/01	Southwest	0.029
12/31/01	Southwest	0.043
03/21/02	Southwest	0.038
04/17/02	Southwest	0.031
08/12/02	Southwest	0.032
12/06/02	Southwest	0.020
01/29/03	Southwest	0.027
05/23/03	Southwest	0.039
09/04/03	Southwest	0.033
11/20/03	Southwest	0.029
02/02/04	Southwest	0.043

Note:

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

Table 3
Fuel Oxygenate Analytical Data

ARCO Service Station #0374
6407 Telegraph Avenue
Oakland, California

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)
MW-1	05/23/03	ND<20,000	ND<4,000	1,600	ND<100	ND<100	ND<100	NA	NA
	11/20/03	ND<2,000 (a)	ND<400	1,500	ND<10	ND<10	ND<10	NA	NA
	02/02/04	ND<5,000	ND<1,000	1,200	ND<25	ND<25	ND<25	ND<25	ND<25
MW-2	05/23/03	ND<100	ND<20	55	ND<0.50	ND<0.50	0.53	NA	NA
	02/02/04	ND<100	ND<20	37	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-3	05/23/03	ND<100	ND<20	1.6	ND<0.50	ND<0.50	ND<0.50	NA	NA
MW-4	05/23/03	ND<10,000	ND<2,000	ND<50	ND<50	ND<50	ND<50	NA	NA
	02/02/04	ND<500	ND<100	29	ND<2.5	ND<2.5	2.6	ND<2.5	ND<2.5
MW-5	01/29/03	ND<40	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	05/23/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	09/04/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-6	05/23/03	ND<100	ND<20	9.4	ND<0.50	ND<0.50	ND<0.50	NA	NA

Note: All fuel oxygenate compounds analyzed using EPA Method 8260B

1,2-DCA = 1,2-Dichloroethane
DIPE = Di-isopropyl ether
EDB = 1,2-Dibromoethane
ETBE = Ethyl tert butyl ether
MTBE = Methyl tert-butyl ether
NA = Not analyzed
ND< = Not detected at or above the laboratory reporting limit
TAME = tert-Amyl methyl ether
TBA = tert-Butyl alcohol
µg/L = micrograms per liter
(a) =The continuing calibration verification was outside of client contractual limits, however, it was within method acceptance limits. The data should still be useful for its intended purpose.

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.

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>040202-MT2</u>	Station # <u>374</u>
Sampler: <u>M. TOLL</u>	Date: <u>2-2-04</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>26.70</u>	Depth to Water: <u>6.71</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>VSL</u> 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:	Sampling Method:
<input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input checked="" type="checkbox"/> Electric Submersible Extraction Pump Other: _____	<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> 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.

<u>13</u>	X	<u>3</u>	=	<u>39</u>	Gals.
I Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
<u>1323</u>	<u>63.4</u>	<u>9.4</u>	<u>1004</u>	<u>13</u>	
<u>1326</u>	<u>64.0</u>	<u>9.1</u>	<u>1000</u>	<u>26</u>	
<u>1329</u>	<u>63.9</u>	<u>9.0</u>	<u>996</u>	<u>39</u>	

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Gallons actually evacuated: <u>39</u>
Sampling Time: <u>1335</u>	Sampling Date: <u>2-2-04</u>
Sample I.D.: <u>MW-1</u>	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>TRI-G</u> <u>BTEX</u> MTBE TPH-D Other: <u>Oxy's & Ethanol, 1,2 DCA, FDR (8-200)</u>	
D.O. (if req'd):	Pre-purge: _____ ^{mg/L} Post-purge: <u>1.0</u> ^{mg/L}
O.R.P. (if req'd):	Pre-purge: _____ mV Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>U40202 - MT2</u>	Station # <u>374</u>
Sampler: <u>M. TOLL</u>	Date: <u>2-2-04</u>
Well I.D.: <u>UW-2</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>20.35</u>	Depth to Water: <u>7.00</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> 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 Sampling Method: Bailer
 Disposable Bailer Disposable Bailer
 Positive Air Displacement Extraction Port
 Electric Submersible Other: _____
 Extraction Pump

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.

<u>12.6</u>	x	<u>3</u>	=	<u>37.8</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
<u>1259</u>	<u>100.4</u>	<u>9.7</u>	<u>637</u>	<u>12.6</u>	
<u>1303</u>	<u>100.1</u>	<u>9.0</u>	<u>642</u>	<u>25.2</u>	
<u>1306</u>	<u>100.0</u>	<u>8.9</u>	<u>647</u>	<u>37.8</u>	

Did well dewater? Yes No Gallons actually evacuated: 37.8

Sampling Time: 1300 Sampling Date: 2-2-04

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

Analyzed for: TRH-G BTEX MTBE TPH-D Other: Dxy's & Ethanol, 1,2 DCA & FDR (8260)

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.1 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>040202-MT2</u>	Station # <u>374</u>
Sampler: <u>M. TOLL</u>	Date: <u>2-2-04</u>
Well I.D.: <u>1W-4</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 _____
Total Well Depth: <u>212.85</u>	Depth to Water: <u>16.25</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> 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 Sampling Method: Bailer

Disposable Bailer Disposable Bailer

Positive Air Displacement Extraction Port

Electric Submersible Other: _____

Extraction Pump

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.

<u>13.4</u>	x	<u>3</u>	=	<u>40.2</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
<u>1338</u>	<u>103.7</u>	<u>10.9</u>	<u>1794</u>	<u>13.4</u>	<u>odor</u>
<u>1341</u>	<u>103.4</u>	<u>10.8</u>	<u>1799</u>	<u>26.8</u>	"
<u>1345</u>	<u>103.2</u>	<u>10.10</u>	<u>1803</u>	<u>40.2</u>	"

Did well dewater? Yes No Gallons actually evacuated: 40.2

Sampling Time: 1350 Sampling Date: 2-2-04

Sample I.D.: 1W-4 Laboratory: Pace (Sequoia) Other _____

Analyzed for: TRIG BTEX MTBE TPH-D Other: Oxy's & Ethanol, 1,2 DCA & FDR (8.200)

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
			<u>1.4</u>	
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:

374

Station #

6407 Telegraph, Oakland, CA

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

107

added equip.
rinse water

3

any other
adjustments

**TOTAL GALS.
RECOVERED**

110

loaded onto
BTS vehicle #

55

BTS event #

time

date

DA0202-MT2

1400

2/2/04

signature

[Signature]

REC'D AT

time

date

BTS

2/2/04

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 Atlantic Richfield Company have been reviewed and verified by that laboratory.



17 February, 2004

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

RE: ARCO #0374, Oakland, CA
Work Order: MNB0096

Enclosed are the results of analyses for samples received by the laboratory on 02/03/04 12:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210



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

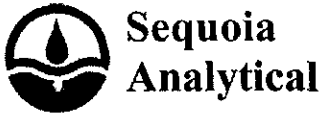
Project: ARCO #0374, Oakland, CA
Project Number: INTRIM-50419
Project Manager: Scott Robinson

MNB0096
Reported:
02/17/04 12:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MNB0096-01	Water	02/02/04 13:35	02/03/04 12:30
MW-2	MNB0096-02	Water	02/02/04 13:10	02/03/04 12:30
MW-4	MNB0096-03	Water	02/02/04 13:50	02/03/04 12:30

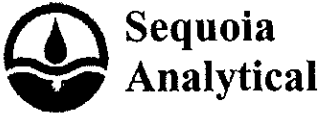
These samples were received with broken custody seals.



URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #0374, Oakland, CA Project Number: INTRIM-50419 Project Manager: Scott Robinson	MNB0096 Reported: 02/17/04 12:27
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Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNB0096-01) Water Sampled: 02/02/04 13:35 Received: 02/03/04 12:30									
Ethanol	ND	5000	ug/l	50	4B10005	02/10/04	02/11/04	EPA 8260B	
tert-Butyl alcohol	ND	1000	"	"	"	"	"	"	
Methyl tert-butyl ether	1200	25	"	"	"	"	"	"	
Di-isopropyl ether	ND	25	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	25	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	25	"	"	"	"	"	"	
1,2-Dichloroethane	ND	25	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	25	"	"	"	"	"	"	
Benzene	ND	25	"	"	"	"	"	"	
Toluene	ND	25	"	"	"	"	"	"	
Ethylbenzene	ND	25	"	"	"	"	"	"	
Xylenes (total)	ND	25	"	"	"	"	"	"	
Gasoline Range Organics	2700	2500	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %		78-129	"	"	"	"	
MW-2 (MNB0096-02) Water Sampled: 02/02/04 13:10 Received: 02/03/04 12:30									
Ethanol	ND	100	ug/l	1	4B10005	02/10/04	02/11/04	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	37	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics	74	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %		78-129	"	"	"	"	



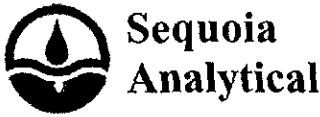
URS Corporation [Arco]
 1333 Broadway, Suite 800
 Oakland CA, 94612

Project: ARCO #0374, Oakland, CA
 Project Number: INTRIM-50419
 Project Manager: Scott Robinson

MNB0096
 Reported:
 02/17/04 12:27

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

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-4 (MNB0096-03) Water Sampled: 02/02/04 13:50 Received: 02/03/04 12:30										
Ethanol	ND	500		ug/l	5	4B10005	02/10/04	02/11/04	EPA 8260B	
tert-Butyl alcohol	ND	100		"	"	"	"	"	"	
Methyl tert-butyl ether	29	2.5		"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5		"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5		"	"	"	"	"	"	
tert-Amyl methyl ether	2.6	2.5		"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.5		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.5		"	"	"	"	"	"	
Benzene	280	2.5		"	"	"	"	"	"	
Toluene	21	2.5		"	"	"	"	"	"	
Ethylbenzene	29	2.5		"	"	"	"	"	"	
Xylenes (total)	38	2.5		"	"	"	"	"	"	
Gasoline Range Organics	980	250		"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>			105 %		78-129	"	"	"	"	



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

Project: ARCO #0374, Oakland, CA
 Project Number: INTRIM-50419
 Project Manager: Scott Robinson

MNB0096
 Reported:
 02/17/04 12:27

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
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Batch 4B10005 - EPA 5030B P/T

Blank (4B10005-BLK1)

Prepared & Analyzed: 02/10/04

Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	5.0	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics	ND	50	"							

Surrogate: 1,2-Dichloroethane-d4 5.28 " 5.00 106 78-129

Laboratory Control Sample (4B10005-BS1)

Prepared & Analyzed: 02/10/04

Ethanol	206	100	ug/l	200		103	31-143			
tert-Butyl alcohol	50.5	5.0	"	50.0		101	56-131			
Methyl tert-butyl ether	10.7	0.50	"	10.0		107	63-137			
Di-isopropyl ether	10.6	0.50	"	10.0		106	76-130			
Ethyl tert-butyl ether	11.0	0.50	"	10.0		110	81-121			
tert-Amyl methyl ether	10.4	0.50	"	10.0		104	82-140			
1,2-Dichloroethane	10.6	0.50	"	10.0		106	77-136			
1,2-Dibromoethane (EDB)	10.3	0.50	"	10.0		103	77-132			
Benzene	9.74	0.50	"	10.0		97.4	69-124			
Toluene	9.62	0.50	"	10.0		96.2	78-129			
Ethylbenzene	8.94	0.50	"	10.0		89.4	84-132			
Xylenes (total)	25.7	0.50	"	30.0		85.7	83-137			

Surrogate: 1,2-Dichloroethane-d4 5.07 " 5.00 101 78-129

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

 Project: ARCO #0374, Oakland, CA
 Project Number: INTRIM-50419
 Project Manager: Scott Robinson

 MNB0096
 Reported:
 02/17/04 12:27

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
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Batch 4B10005 - EPA 5030B P/T
Laboratory Control Sample (4B10005-BS2)

Prepared & Analyzed: 02/10/04

Methyl tert-butyl ether	8.67	0.50	ug/l	9.92		87.4	63-137			
Benzene	5.02	0.50	"	6.40		78.4	69-124			
Toluene	33.8	0.50	"	29.7		114	78-129			
Ethylbenzene	7.16	0.50	"	6.96		103	84-132			
Xylenes (total)	34.6	0.50	"	33.7		103	83-137			
Gasoline Range Organics	418	50	"	440		95.0	70-124			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.45</i>		<i>"</i>	<i>5.00</i>		<i>109</i>	<i>78-129</i>			

Laboratory Control Sample Dup (4B10005-BSD1)

Prepared & Analyzed: 02/10/04

Ethanol	249	100	ug/l	200		124	31-143	18.9	20	
tert-Butyl alcohol	51.0	5.0	"	50.0		102	56-131	0.985	20	
Methyl tert-butyl ether	11.0	0.50	"	10.0		110	63-137	2.76	20	
Di-isopropyl ether	10.9	0.50	"	10.0		109	76-130	2.79	20	
Ethyl tert-butyl ether	11.2	0.50	"	10.0		112	81-121	1.80	20	
tert-Amyl methyl ether	10.9	0.50	"	10.0		109	82-140	4.69	20	
1,2-Dichloroethane	10.9	0.50	"	10.0		109	77-136	2.79	20	
1,2-Dibromoethane (EDB)	11.0	0.50	"	10.0		110	77-132	6.57	20	
Benzene	10.3	0.50	"	10.0		103	69-124	5.59	20	
Toluene	10.1	0.50	"	10.0		101	78-129	4.87	20	
Ethylbenzene	8.94	0.50	"	10.0		89.4	84-132	0.00	20	
Xylenes (total)	25.8	0.50	"	30.0		86.0	83-137	0.388	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.36</i>		<i>"</i>	<i>5.00</i>		<i>107</i>	<i>78-129</i>			

Laboratory Control Sample Dup (4B10005-BSD2)

Prepared & Analyzed: 02/10/04

Methyl tert-butyl ether	8.08	0.50	ug/l	9.92		81.5	63-137	7.04	20	
Benzene	4.79	0.50	"	6.40		74.8	69-124	4.69	20	
Toluene	32.6	0.50	"	29.7		110	78-129	3.61	20	
Ethylbenzene	6.67	0.50	"	6.96		95.8	84-132	7.09	20	
Xylenes (total)	32.1	0.50	"	33.7		95.3	83-137	7.50	20	
Gasoline Range Organics	396	50	"	440		90.0	70-124	5.41	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.42</i>		<i>"</i>	<i>5.00</i>		<i>108</i>	<i>78-129</i>			



URS Corporation (Arco)
1333 Broadway, Suite 800
Oakland CA, 94612

Project: ARCO #0374, Oakland, CA
Project Number: INTRIM-50419
Project Manager: Scott Robinson

MNB0096
Reported:
02/17/04 12:27

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference



Chain of Custody Record

Project Name 374 GWM
 BP BU/GEM CO Portfolio Retail 374
 BP Laboratory Contract Number: Atlantic Richfield Company

Date: 2-2-04

Requested Due Date (mm/dd/yyyy) 14 DAY DAT new 2/3/04

On-site Time: <u>1230</u>	Temp: <u>55°</u>
Off-site Time:	Temp:
Sky Conditions: <u>Cloudy</u>	
Meteorological Events: <u>WIND</u>	
Wind Speed:	Direction:

Send To:	BP/GEM Facility No.: <u>ARCO 374</u>	Consultant/Contractor: <u>URS</u>
Lab Name: <u>SEQUOIA</u>	BP/GEM Facility Address: <u>6407 TELEGRAPH AVE, OAKLAND, CA</u>	Address: <u>500 12th St., Ste. 200</u>
Lab Address: <u>885 Jarvis Dr.</u>	Site ID No.: <u>ARCO 374</u>	<u>Oakland, CA 94609-4014</u>
<u>Morgan Hill, CA 95037</u>	Site Lat/Long:	e-mail BDD: <u>domna.cospcr@URSCorp.com</u>
	California Global ID #: <u>T0600100106</u>	Consultant/Contractor Project No.: <u>I5-00000374.01 00427</u>
Lab PM Theresa Allen	BP/GEM PM Contact: <u>PAUL SUPPLE</u>	Consultant Tele/Fax: <u>510-893-3600/510-874-3268</u>
Tele/Fax: <u>408-776-9600/408-782-6308</u>	Address: <u>P.O. Box 6549</u>	Consultant/Contractor PM: <u>Scott Robinson</u>
Report Type & QC Level: <u>1 Send EDF Reports</u>	<u>Moraga, CA 94570</u>	Invoice to: <u>Consultant/Contractor of BP/GEM</u> (Circle one)
BP/GEM Account No.:	Tele/Fax: <u>925-299-8891/925-299-8872</u>	BP/GEM Work Release No: <u>INTRIM -50419</u>

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Requested Analysis							Sample Point Lat/Long and Comments				
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	TPH-G/BTEX (8015/8021-8260)	TPH-D (8015)	MTBE (8021)	MTBE (8260)	MTBE, TAME, ETBE DIPN, TBA (8260)	1,2-DCA & EDB (8260)	Ethanol (8260)					
1	✓ MW-1	1335		X			01	3						X				X						
2	✓ MW-2	1310		X			02	3						X				X						
3	✓ MW-4	1350		X			03	3						X				X						
4																								
5																								
6																								
7																								
8																								
9																								
10																								

Sampler's Name: <u>Updared DJI</u>	Relinquished By / Affiliation: <u>Paul Supple</u>	Date: <u>2/3/04</u>	Time: <u>1029</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>2/3/04</u>	Time: <u>1230</u>
Sampler's Company: <u>Blaine Tech Services</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Address Invoice to BP/GEM but send to URS for approval

body Seals In Place Yes ✓ No Temperature Blank Yes No Cooler Temperature on Receipt 2 OR/C Trip Blank Yes No

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP
 REC. BY (PRINT) JL
 WORKORDER: MNB 0096

DATE REC'D AT LAB: 2/3/04
 TIME REC'D AT LAB: 1230
 DATE LOGGED IN: 2/4/04

DRINKING WATER for
 regulatory purposes: YES / NO
 WASTE WATER for
 regulatory purposes: YES / NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) <u>Present / Absent</u> <u>Day</u> Intact / Broken*			MW-1	(3) Yarn	HCL	L	2/2/04	
2. Chain-of-Custody <u>Present / Absent*</u>			L-2	L	L	L	L	
3. Traffic Reports or Packing List: Present / Absent*			L-4					
4. Airbill: Airbill / Sticker Present / Absent*								
5. Airbill #:								
6. Sample Labels: Present / Absent								
7. Sample IDs: Listed / Not Listed on Chain-of-Custody								
8. Sample Condition: Intact / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? <input checked="" type="radio"/> Yes / No*								
10. Sample received within hold time: <input checked="" type="radio"/> Yes / No*								
11. Adequate sample volume received? <input checked="" type="radio"/> Yes / No*								
12. Proper Preservatives used: <input checked="" type="radio"/> Yes / No*								
13. Temp Rec. at Lab: <u>2°C</u> Is temp $4 \pm 2^\circ\text{C}$? <input checked="" type="radio"/> Yes / No**								

2/3/04 JL

(Acceptance range for samples requiring thermal pres.)
 **Exception (if any): METALS / DIFF ON ICE or Problem COC

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

ATTACHMENT C

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

02/17/04

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #0374, Oakland, CA
Work Order Number:	MNB0096
Global ID:	T0600100106
Lab Report Number:	MNB0096021720041227

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Labiocfl	Run	Sub
MNB00960217200 41227	MW-1	MNB009601	W	CS	8260TPH	SW5030B	02/02/04	02/10/04	02/11/04	4B10005	1	
MNB00960217200 41227	MW-2	MNB009602	W	CS	8260TPH	SW5030B	02/02/04	02/10/04	02/11/04	4B10005	1	
MNB00960217200 41227	MW-4	MNB009603	W	CS	8260TPH	SW5030B	02/02/04	02/10/04	02/11/04	4B10005	1	
		4B10005BSD1	WQ	BD1	8260TPH	SW5030B	//	02/10/04	02/10/04	4B10005	1	
		4B10005BSD2	WQ	BD2	8260TPH	SW5030B	//	02/10/04	02/10/04	4B10005	1	
		4B10005BS1	WQ	BS1	8260TPH	SW5030B	//	02/10/04	02/10/04	4B10005	1	
		4B10005BS2	WQ	BS2	8260TPH	SW5030B	//	02/10/04	02/10/04	4B10005	1	
		4B10005BLK1	WQ	LB1	8260TPH	SW5030B	//	02/10/04	02/10/04	4B10005	1	

PCL XL error

Warning: IllegalMediaSource

EDFSAMP: Error Summary Log

02/17/04

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

EDFTEST: Error Summary Log

02/17/04

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

EDFRES: Error Summary Log

02/17/04

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

EDFQC: Error Summary Log

02/17/04

Error type	Lablotctf	Anmcode	Parlabel	Qccode	Labqid
There are no errors in this data files					

EDFCL: Error Summary Log

02/17/04

Error type	Clevdate	Anmcode	Exmcode	Parlabel	Cicode
There are no errors in this data file	//				

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Confirmation Number: 3789555847

Date/Time of Submittal: 2/17/2004 1:59:25 PM

Facility Global ID: T0600100106

Facility Name: ARCO

Submittal Title: 1Q04-monitoring Report for site 374

Submittal Type: GW Monitoring Report

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ATTACHMENT D

WELL SURVEY DATA

BP/ARCO Survey Sheet

Site: 374

Well ID	X-coord (NAD'83)	Y-coord (NAD'83)	Top of Casing (NAVD'88)	Top of Lid (NAVD'88)	Ground Surface (NAVD'88)	Comments
W-1	-122.2609214	37.8505524	164.57	164.78	164.78	
W-2	-122.2607028	37.8502651	163.46	163.77	163.77	
W-3						
W-4	-122.2609913	37.8503285	162.47	163.25	163.25	
W-5	-122.2614929	37.8500020		157.39	157.39	Unable to access casing.
W-6	-122.2613073	37.8502241	159.21	159.48	159.48	
W-7	-122.2613251	37.8504110	159.41	159.85	159.85	
W-8	-122.2609682	37.8502682	161.37	162.21	162.21	
W-9	-122.2609313	37.8502656	161.93	162.88	162.88	
W-10	-122.2607500	37.8506186	165.39	165.74	165.74	
W-11	-122.2606669	37.8504884	164.50	165.16	165.16	

GLOBAL ID	FIELD_PT_NAME	FIELD_PT CLASS	XY SURVEY DATE	LATITUDE	LONGITUDE	XY METHOD	XY DATUM	XY ACC VAL	XY SURVEY ORG	GPS EQUIP TYPE	XY SURVEY DESC	SITE
CP10	BM		1/27/2004	37.8502892	-122.2607114	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
CP11	BM		1/27/2004	37.8505817	-122.2606457	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
CP12	BM		1/27/2004	37.8501803	-122.2612027	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MWW-4	MW		1/27/2004	37.8504884	-122.2606669	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MWW-3	MW		1/27/2004	37.8506186	-122.2607500	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MW-1	MW		1/27/2004	37.8505524	-122.2609214	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MW-4	MW		1/27/2004	37.8503285	-122.2609913	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MWW-1	MW		1/27/2004	37.8502682	-122.2609682	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MWW-2	MW		1/27/2004	37.8502656	-122.2609313	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MW-2	MW		1/27/2004	37.8502651	-122.2607028	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MW-3	MW		1/27/2004	37.8502241	-122.2613073	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MW-6	MW		1/27/2004	37.8504110	-122.2613251	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374
MW-5	MW		1/27/2004	37.8500020	-122.2614929	CGPS	NAD83	0.02	URS	T48	0.0000000	BP374

GLOBAL_ID	FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION ft	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER_HT	ELEV_DESC	SITE
CP10		1/27/2004	164.237	CGPS	88	0.02	URS	0.000	0	BP374
CP11		1/27/2004	165.523	CGPS	88	0.02	URS	0.000	0	BP374
CP12		1/27/2004	159.428	CGPS	88	0.02	URS	0.000	0	BP374
MWW-4		1/27/2004	164.496	CGPS	88	0.02	URS	-0.660	4"PVC	BP374
MWW-3		1/27/2004	165.393	CGPS	88	0.02	URS	-0.350	4"PVC	BP374
MW-1		1/27/2004	164.567	CGPS	88	0.02	URS	-0.210	4"PVC	BP374
MW-4		1/27/2004	162.466	CGPS	88	0.02	URS	-0.780	4"PVC	BP374
MWW-1		1/27/2004	161.369	CGPS	88	0.02	URS	-0.840	4"PVC	BP374
MWW-2		1/27/2004	161.931	CGPS	88	0.02	URS	-0.950	4"PVC	BP374
MW-2		1/27/2004	163.464	CGPS	88	0.02	URS	-0.310	4"PVC	BP374
MW-3		1/27/2004	159.213	CGPS	88	0.02	URS	-0.270	4"PVC	BP374
MW-6		1/27/2004	159.414	CGPS	88	0.02	URS	-0.440	4"PVC	BP374
MW-5		1/27/2004	157.389	CGPS	88	0.02	URS	0.000	0	BP374
* Unable to access casing for MW-5; elevation shown is top of lid/paving.										

Number	Latitude dec.	Longitude dec.	shot elevation-ft	Raw desc	Feature	Desc	diff. To casing	casing elev -ft	casing type
10	37.8502892	-122.2607114	164.237	CP10	PK/SHNR			164.237	
11	37.8505817	-122.2606457	165.523	CP11	PK/SHNR			165.523	
12	37.8501803	-122.2612027	159.428	CP12	PK/SHNR			159.428	
101	37.8504884	-122.2606669	165.156	MWW-4	LID/CONC		-0.660	164.496	4"PVC
102	37.8506186	-122.26075	165.743	MWW-3	LID/CONC		-0.350	165.393	4"PVC
103	37.8505524	-122.2609214	164.777	MW-1	LID/PAVING		-0.210	164.567	4"PVC
113	37.8503285	-122.2609913	163.246	MW-4	LID/GROUND		-0.780	162.466	4"PVC
114	37.8502682	-122.2609682	162.209	MWW-1	LID/PAVING		-0.840	161.369	4"PVC
115	37.8502656	-122.2609313	162.881	MWW-2	LID/PAVING		-0.950	161.931	4"PVC
116	37.8502651	-122.2607028	163.774	MW-2	LID/PAVING		-0.310	163.464	4"PVC
138	37.8502241	-122.2613073	159.483	MW-3	LID/CONC		-0.270	159.213	4"PVC
139	37.850411	-122.2613251	159.854	MW-6	LID/PAVING		-0.440	159.414	4"PVC
140	37.850002	-122.2614929	157.389	MW-5	LID/PAVING			157.389	

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