



Atlantic Richfield Company
(a BP affiliated company)

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



Alameda County
APR 18 2003
Environmental Health

March 25, 2003

Re: First Quarter 2003 Groundwater Monitoring Report
BP Station #5387
20200 Hesperian Blvd.
Hayward, CA.

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



March 25, 2003

Mr. Amir Gholami
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Alameda County
APR 18 2003
Environmental Health

**Re: First Quarter 2003 Groundwater Monitoring Report
ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, California
URS Project #38486130**

Dear Mr. Gholami:

On behalf of Atlantic Richfield Company (ARCO – an affiliated company of the Group Environmental Management Company), URS Corporation (URS) is submitting the *First Quarter 2003 Groundwater Monitoring Report* for ARCO Service Station #5387, located at 20200 Hesperian Boulevard, Hayward, California.

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

Sincerely,

URS CORPORATION

Scott Robinson
Project Manager

David A. Bero, P.G., R.G.
Senior Geologist



Enclosure: First Quarter 2003 Groundwater Monitoring Report

cc: Mr. Paul Supple, ARCO, PO Box 6549, Moraga, CA 94570

R E P O R T

**FIRST QUARTER 2003
GROUNDWATER MONITORING**

**ARCO SERVICE STATION #5387
2020 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA**

Prepared for
Atlantic Richfield Company

March 25, 2003

URS

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

38486130

Date: March 25, 2003

Quarter: 1Q 03

ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Former Facility No.: 5387 Address: 20200 Hesperian Boulevard, Hayward, California
ARCO Environmental Engineer: Paul Supple
Consulting Co./Contact Person: URS Corporation / Scott Robinson
Consultant Project No.: 38486130
Primary Agency: Alameda County Health Care Services Agency (ACHCSA)

WORK PERFORMED THIS QUARTER (First – 2003):

1. Performed first quarter groundwater monitoring event on February 11, 2003.
2. Prepared and submitted fourth quarter 2002 groundwater monitoring report.
3. Prepared and submitted first quarter 2003 groundwater monitoring report.

WORK PROPOSED FOR NEXT QUARTER (Second – 2003):

1. Perform second quarter 2003 groundwater monitoring event.
2. Prepare and submit second quarter 2003 groundwater monitoring report.

Current Phase of Project: GW monitoring/sampling
Frequency of Groundwater Sampling: Wells MW-1 through MW-3, A-4 through A-10, AR-1 and AR-2 quarterly
Frequency of Groundwater Monitoring: Quarterly
Is Free Product (FP) Present On-Site: No
Current Remediation Techniques: Natural Attenuation
Approximate Depth to Groundwater: 8.85 ft (MW-3) to 12.35 ft (A-7)
Groundwater Gradient: West
0.007 feet per foot

DISCUSSION:

Beginning this quarter, all groundwater samples were analyzed by EPA method 8260B for TPH-g, BTEX, and fuel oxygenates. TPH-g was detected in three of the twelve wells sampled this quarter at concentration ranging from 54 µg/L (A-7) to 1,100 µg/L (MW-2). Benzene was not detected in any of the wells. MTBE was detected in eight wells at concentrations ranging from 0.53 µg/L in well A-4 to 76 µg/L in well MW-1.

This site is currently not available for URS in the Geotracker system. Once access is granted, monitoring data for this quarter will be uploaded.

RECOMMENDATIONS:

Based on consistently low or non-detectable hydrocarbon concentrations for over 2 years, URS recommends reducing the sampling frequency in wells A-4, A-5, A-7, A-8, A-9, and AR-1 from quarterly to semi-annually. In addition, URS recommends reducing the sampling frequency from quarterly to annually in wells MW-3, A-6, A-10, and AR-2, based on the above criteria and the well locations with respect to other wells in the monitoring network.

ATTACHMENTS:

- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Fuel Oxygenate Analytical Data
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – February 11, 2003
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports and Chain-of-Custody Records

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as					
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
AR-1	09/14/92	38.11	15.21	22.90	820	67	ND<1.0	8.8	6.7	---
	11/12/92		15.36	22.75	140	66	ND<0.5	4.3	3.7	---
	02/11/93		12.81	25.30	360	190	ND<2.5	8.6	ND<2.5	---
	04/14/93		11.77	26.34	420	240	5.2	30	8.7	---
	08/12/93		13.55	24.56	370	150	ND<2	11	ND<2	---
	10/26/93		13.98	24.13	240	98	ND<2	11	ND<2	---
	02/17/94	37.46	12.15	25.31	4,700	1,100	ND<10	140	26	---
	05/03/94		12.03	25.43	620	130	1.3	48	4.3	---
	08/17/94	37.33	12.92	24.41	3,600	630	ND<5	200	12	---
	11/18/94		12.41	24.92	12,100	720	6.1	337	15	---
	09/26/95	37.46	11.34	26.12	ND	8.3	ND	ND	ND	---
	12/06/95		11.87	25.59	120	20	ND	20	0.6	---
	02/14/96		10.48	26.98	ND	ND	ND	ND	0.52	---
	10/29/96		11.80	25.66	ND	ND	0.99	ND	ND	---
	01/29/97		11.25	26.21	ND<50	0.41	ND<0.3	ND<0.3	ND<0.3	ND<20
	04/30/97		12.24	25.22	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97		10.80	26.66	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	10/22/97		11.90	25.56	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	01/28/98		11.20	26.26	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98		12.20	25.26	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	07/08/98		9.10	28.36	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	10/22/98		9.80	27.66	270	2.1	ND<0.3	3.6	ND<0.5	190
	01/13/99		10.10	27.36	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
04/29/99		11.35	26.11	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	
01/15/02		---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	1.1	2.9	
04/24/02		---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.6*	
09/23/02	P		11.26	26.20	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	20.2
12/09/02	P		11.35	26.11	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	26.6
02/11/03 ^o	P		9.91	27.55	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.7

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH				Total Xylenes (µg/L)	MTBE (µg/L)	
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)			
AR-2	03/30/93	38.39	11.53	26.86	390	4.1	1.6	ND<0.5	47	---	
	04/14/93		11.87	26.52	310	18	ND<0.5	0.67	36	---	
	08/12/93		13.59	24.80	130	16	ND<0.5	1.7	0.57	---	
	10/26/93		14.25	24.14	110	15	ND<0.5	1.8	ND<0.5	---	
	02/17/94		12.76	25.22	130	2.9	ND<0.5	15	0.8	---	
	05/03/94		12.60	25.38	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	
	08/17/94	38.18	13.86	24.32	3,000	140	140	220	91	---	
	11/18/94		13.33	24.85	623	10.5	10.5	27.9	8.0	---	
	09/26/95	37.98	11.67	26.31	ND	ND	ND	ND	ND	---	
	12/06/95		12.32	25.66	320	12	12	23	2.1	---	
	02/14/96			10.74	27.24	ND	ND	ND	ND	0.76	---
	10/29/96			11.95	26.03	ND	ND	ND	ND	ND	---
	01/29/97			11.35	26.63	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/30/97			12.15	25.83	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97			11.20	26.78	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	10/22/97			12.14	25.84	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	01/28/98			10.05	27.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98			12.10	25.88	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	07/08/98			9.50	28.48	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	10/22/98			10.45	27.53	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
01/13/99			10.50	27.48	ND<50	ND<0.3	0.40	ND<0.3	0.53	ND<20	
04/29/99			11.48	26.50	ND<50	ND<0.3	ND<0.3	ND<0.3	0.82	ND<5	
01/15/02			---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	
04/24/02			---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	39*	
09/23/02	P		12.22	25.76	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	4.43	
12/09/02	P		12.30	25.68	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	
02/11/03*	P		10.80	27.18	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.75	

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH						
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	
MW-1	08/08/86	38.36	11.25	27.11	7,040	132	8.7	439	230	---	
	12/24/91		16.12	22.24	2,200	190	8.5	6.9	2.6	---	
	03/10/92		13.34	25.02	2,800	270	29	56	39	---	
	06/09/92		14.12	24.24	2,900	960	27	99	63	---	
	09/14/92		15.34	23.02	2,600	450	ND<5.0	45	21	---	
	11/12/92		15.46	22.90	1,600	310	7.2	22	8.9	---	
	02/11/93		11.95	26.41	4,000	510	47	200	91	---	
	04/14/93		11.65	26.71	1,700	260	20	100	70	---	
	08/12/93		12.93	25.43	830	60	3.8	39	3.6	---	
	10/26/93		14.13	24.23	8,800	140	ND<10	41	ND<10	---	
	02/17/94		37.26	11.86	25.40	1,200	130	12	54	58	---
	05/03/94			11.58	25.68	---	---	---	---	---	---
	08/17/94		37.33	12.78	24.55	3,900	86	5.1	78	9.4	---
	11/18/94			12.31	25.02	6,350	112	8.4	107	35	---
	09/26/95	37.26	11.26	26.00	ND	ND	ND	ND	ND	---	
	12/06/95		12.16	25.10	4,100	0.86	0.46	0.38	0.92	---	
	02/14/96		8.53	28.73	ND	ND	0.56	ND	0.82	---	
	10/29/96		10.23	27.03	130	ND	ND	ND	ND	---	
	01/29/97		8.15	29.11	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
	04/30/97		8.05	29.21	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	
	07/31/97		10.50	26.76	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
	10/22/97		11.15	26.11	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
	01/28/98		4.95	32.31	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
	04/22/98		8.10	29.16	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
	07/08/98		8.02	29.24	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	40	
	10/22/98		9.70	27.56	230	0.43	1.9	0.99	0.99	33	
	01/13/99		9.60	27.66	ND<50	0.43	ND<0.3	ND<0.3	ND<0.5	ND<20	
	04/29/99		8.05	29.21	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	^31/17	
	01/15/02		---	---	ND<50	ND<0.05	ND<0.5	ND<0.5	ND<0.5	21	
	04/24/02		---	---	160	1.5	ND<0.50	ND<0.50	ND<0.50	770*	
	09/23/02	(a)		NM	NM	NS	NS	NS	NS	NS	
12/09/02	P		11.22	26.04	998	ND<0.50	ND<0.50	ND<0.50	1.37 (b)	855(d)/ 1310*	
02/11/03*	P		9.70	27.56	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	76	

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as					
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-2	08/08/86	38.58	11.62	26.96	1,910	20.1	2.8	1.8	---	---
	12/24/91		16.50	22.08	23,000	1,500	1,100	480	1,400	---
	03/10/92		13.50	25.08	210,000	44,000	3,900	1,700	5,800	---
	06/09/92		14.52	24.06	33,000	2,300	370	780	2,600	---
	09/14/92		15.78	22.80	16,000	3,700	10	470	1,000	---
	11/12/92		15.98	22.60	16,000	3,800	86	470	910	---
	02/11/93		12.27	26.31	27,000	3,500	720	1,600	380	---
	04/14/93		12.01	26.57	27,000	3,500	220	2,200	5,100	---
	08/12/93		13.81	24.77	16,000	1,600	27	1,300	1,200	---
	10/26/93		14.53	24.05	12,000	1,200	ND<25	510	330	---
	02/17/94		12.81	25.77	15,000	1,800	21	850	540	---
	05/03/94		12.63	25.95	---	---	---	---	---	---
	08/17/94		37.99	13.69	24.30	14,000	850	13	640	270
	11/18/94	38.06	13.18	24.88	14,900	640	3.4	532	156	---
	09/26/95	37.99	12.23	25.76	5,100	40	25	2.5	18	---
	12/06/95		12.82	25.17	810	34	23	11	11	---
	02/14/96		10.87	27.12	420	0.75	0.54	0.64	0.53	---
	10/29/96		12.95	25.04	670	1.7	1.3	0.6	0.8	---
	01/29/97		11.15	26.84	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/30/97		11.09	26.90	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97		11.70	26.29	330	ND<0.3	0.58	0.53	ND<0.5	ND<20
	10/22/97		11.05	26.94	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	01/28/98		9.50	28.49	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98		11.15	26.84	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	07/08/98		10.20	27.79	78	ND<0.3	ND<0.3	ND<0.3	ND<0.5	97
	10/22/98		11.10	26.89	270	0.37	2.0	0.91	0.73	26
	01/13/99		11.10	26.89	650	5.8	1.0	1.4	1.1	ND<20
04/29/99		11.05	26.94	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	^23/16	
01/15/02		---	---	---	1,200	15	4.5	ND<0.5	ND<0.5	190
04/24/02		---	---	---	1,300	18	ND<10	ND<10	ND<10	170*
09/23/02	P		12.15	25.84	1,440	11.2	0.730	ND<0.500	ND<1.50	228
12/09/02	P		12.20	25.79	1,770	8.08	0.694	2.47	3.79 (b)	529(d)/ 902*
02/11/03*	P		10.79	27.20	1,100	ND<0.50	ND<0.50	ND<0.50	0.53	71

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as					
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-3	08/08/86	37.77	10.61	27.16	7,450	510	549	409	1,380	---
	12/24/91		15.60	22.17	6,800	450	10	610	45	---
	03/10/92		12.90	24.87	11,000	2,500	75	400	560	---
	06/09/92		13.80	24.17	16,000	2,000	69	1,300	2,600	---
	09/14/92		14.78	22.99	14,000	630	ND<50	1,500	2,400	---
	11/12/92		14.92	22.85	7,400	400	ND<25	860	330	---
	02/11/93		11.65	26.12	8,600	580	ND<20	710	300	---
	04/14/93		11.16	26.61	6,900	300	8.8	580	99	---
	08/12/93		12.82	24.95	3,400	56	ND<5	190	ND<5	---
	10/26/93		13.60	24.17	2,900	42	ND<10	76	ND<10	---
	02/17/94	36.80	11.53	25.27	3,100	160	ND<10	36	8.6	---
	05/03/94		11.36	25.44	2,300	44	ND<2.5	8.0	ND<2.5	---
	08/17/94	36.87	12.38	24.49	1,900	7.0	ND<9.5	4.4	ND<5	---
	11/18/94		11.93	24.94	909	1.1	ND<0.5	0.9	4.0	---
	09/26/95	36.80	10.96	25.84	410	1.3	1.9	2.3	3.3	---
	12/06/95		11.56	25.24	---	0.9	4.6	3.0	4.3	---
	02/14/96		7.47	29.33	99	ND	0.49	0.46	ND	---
	10/29/96		9.80	27.00	250	0.7	0.6	ND	ND	---
	01/29/97		7.50	29.30	170	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/30/97		12.10	24.70	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97		9.90	26.90	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	10/22/97		12.10	24.70	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	01/28/98		7.50	29.30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98		12.30	24.50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	07/08/98		8.30	28.50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	10/22/98		9.10	27.70	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	01/13/99		9.50	27.30	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
04/29/99		5.93	30.87	ND<50	ND<0.3	0.35	ND<0.3	ND<0.5	ND<5	
01/15/02		---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	7.9	
04/24/02		---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
09/23/02	P		10.30	26.50	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500
12/09/02	P		10.38	26.42	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00
02/11/03*	P		8.85	27.95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH					
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
A-4	03/06/91	39.46	13.22	26.24	34,000	11,000	870	2,500	2,100	---
	12/24/91	39.86	17.60	22.26	1,900	29	1.9	25	29	---
	03/10/92		14.76	25.10	7,400	37	ND<0.60	11	73	---
	06/09/92		15.63	24.23	4,500	3.2	1.5	37	16	---
	09/14/92		16.83	23.03	1,300	ND<2.5	2.5	61	6.8	---
	11/12/92		16.97	22.89	610	7.2	0.98	34	0.97	---
	02/11/93		13.43	26.43	740	2.4	ND<0.5	5.0	3.5	---
	04/14/93		13.06	26.80	380	ND<0.5	ND<0.5	10	1.6	---
	08/12/93		14.94	24.92	1,200	0.93	ND<0.5	0.91	ND<0.5	---
	10/26/93		15.52	24.34	160	ND<0.5	ND<0.5	1.0	ND<0.5	---
	02/17/94	39.46	14.02	25.44	320	0.5	ND<0.5	28	0.9	---
	05/03/94		13.85	25.61	130	ND<0.5	ND<0.5	1.1	ND<0.5	---
	08/17/94	39.53	14.95	39.53	62	34.58	ND<0.5	ND<0.5	ND<0.5	---
	11/18/94		14.46	25.07	98	1.3	0.6	ND<0.5	ND<0.5	---
	12/06/95		13.82	25.71	ND	0.6	ND	ND	ND	---
	02/14/96		11.24	28.29	ND	ND	2.3	ND	0.71	---
	10/29/96		13.50	26.03	140	ND	ND	ND	ND	---
	01/29/97		12.65	26.88	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/30/97		13.97	25.56	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97		12.70	26.83	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	10/22/97		13.95	25.58	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	01/28/98		11.90	27.63	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98		13.92	25.61	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	07/08/98		10.80	28.73	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	10/22/98		12.60	26.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	01/13/99		12.60	26.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/29/99		12.61	26.92	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
01/15/02		---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.2
04/24/02		---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*
09/23/02	(a)		NM	NM	NS	NS	NS	NS	NS	NS
12/09/02	P		13.36	26.17	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00
02/11/03*	P		11.82	27.71	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.53

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH				Total Xylenes (µg/L)	MTBE (µg/L)
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)		
A-5	12/24/91	38.94	16.85	22.09	1,600	21	ND<0.30	32	52	---
	03/10/92		13.83	25.11	1,000	1.6	ND<0.30	43	100	---
	06/09/92		14.91	24.03	680	34	ND<1.5	14	16	---
	09/14/92		16.14	22.80	770	12	ND<0.30	51	65	---
	11/12/92		16.35	22.59	520	3.0	ND<2.5	29	36	---
	02/11/93		13.21	25.73	150	1.6	0.96	5.1	1.5	---
	04/14/93		12.97	25.97	190	5.4	ND<0.5	1.5	0.97	---
	08/12/93		14.12	24.82	230	1.7	ND<0.5	5.3	0.94	---
	10/26/93		14.72	24.22	190	2.8	ND<0.5	5.5	2.0	---
	02/17/94	38.47	13.20	25.27	340	ND<0.5	ND<0.5	13	2.9	---
	05/03/94		13.08	25.39	170	1.4	ND<0.5	4.0	1.9	---
	08/17/94	38.54	14.18	24.36	270	0.6	ND<0.5	7.3	1.1	---
	11/18/94		13.73	24.81	338	---	ND<0.5	4.6	ND<0.5	---
	09/26/95	38.47	12.44	26.03	ND	0.63	1.1	ND	1.2	---
	12/06/95		12.92	25.55	ND	ND	ND	ND	ND	---
	02/14/96		10.76	27.71	ND	ND	2.0	ND	1.1	---
	10/29/96		12.35	26.12	ND	ND	ND	ND	ND	---
	01/29/97		10.85	27.62	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/30/97		13.56	24.91	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97		11.80	26.67	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
10/22/97		12.20	26.27	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
01/28/98		10.12	28.35	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
04/22/98		13.50	24.97	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
07/08/98		10.20	28.27	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	
10/22/98		11.50	26.97	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	
01/13/99		10.15	28.32	ND<50	0.32	0.38	ND<0.3	ND<0.5	ND<20	
04/29/99		11.50	26.97	ND<50	ND<0.3	ND<0.3	ND<0.3	0.58	ND<5	
01/15/02		---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.0
04/24/02		---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.2*
09/23/02	P		12.55	25.92	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	1.30
12/09/02	P		12.60	25.87	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00
02/11/03*	P		11.37	27.10	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.97

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH					MTBE (µg/L)
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	
A-6	12/24/91	39.07	16.88	22.19	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---
	03/10/92		13.73	25.34	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---
	06/09/92		14.95	24.12	ND<30	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---
	09/14/92		16.20	22.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	11/12/92		16.35	22.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	02/11/93		13.04	26.03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	04/14/93		12.23	26.84	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	08/12/93		14.18	24.89	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	10/26/93		14.85	24.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	05/03/94		13.66	25.41	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	08/17/94	38.78	14.34	24.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	11/18/94		13.76	25.02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	09/26/95		12.56	26.22	ND	ND	ND	ND	ND	---
	12/06/95		13.18	25.60	ND	ND	ND	ND	ND	---
	02/14/96		12.46	26.32	ND	ND	ND	ND	ND	---
	10/29/96		12.40	26.38	50	ND	ND	ND	ND	---
	01/29/97		13.85	24.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/30/97		12.49	26.29	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97		12.10	26.68	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	10/22/97		15.20	23.58	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	01/28/98		13.80	24.98	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98		12.45	26.33	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	07/08/98		10.30	28.48	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	10/22/98		11.10	27.68	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	01/13/99		10.40	28.38	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/29/99		13.80	24.98	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	01/15/02		---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	5.7
04/24/02		---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
09/23/02	P		12.61	26.17	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500
12/09/02	P		12.67	26.11	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00
02/11/03*	P		11.21	27.57	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as					
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
A-7	12/24/91	39.95	18.11	21.84	10,000	88	16	170	610	---
	03/10/92		15.30	24.65	320	9.3	0.54	8.8	34	---
	06/09/92		16.12	23.83	340	11	1.1	8.9	26	---
	09/14/92		17.35	22.60	510	12	ND<2.0	30	51	---
	11/12/92		17.47	22.48	760	17	0.83	50	73	---
	02/11/93		13.80	26.15	260	20	1.0	11	21	---
	04/14/93		13.60	26.35	1,300	89	2.1	48	87	---
	08/12/93		15.54	24.41	360	9.0	ND<0.50	13	9.0	---
	10/26/93		16.28	23.67	99	1.7	ND<0.50	4.0	3.0	---
	02/17/94	39.38	14.44	24.94	1,300	38	ND<1	35	25	---
	05/03/94		14.34	25.04	330	8.1	ND<0.5	7.8	3.7	---
	08/17/94	39.45	15.40	24.05	350	2.2	ND<0.5	9.6	3.6	---
	11/18/94		14.95	24.50	412	1.3	ND<0.5	6.2	2	---
	09/26/95	39.38	13.92	25.46	ND	ND	ND	ND	ND	---
	12/06/95		14.42	24.96	ND	ND	ND	ND	ND	---
	02/14/96		12.38	27.00	ND	ND	1.1	ND	0.59	---
	10/29/96		12.33	27.05	ND	ND	ND	ND	ND	---
	01/29/97		13.10	26.28	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/30/97		11.70	27.68	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97		13.25	26.13	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	10/22/97		14.42	24.96	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	01/28/98		13.00	26.38	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98		11.65	27.73	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	07/08/98		11.20	28.18	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	10/22/98		13.75	25.63	51	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	01/13/99		14.45	24.93	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/29/99		13.74	25.64	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
01/15/02		---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.8	
04/24/02		---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	7.2*	
09/23/02	P		13.78	25.60	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.50	3.48
12/09/02	P		13.97	25.41	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00
02/11/03*	P		12.35	27.03	54	ND<0.50	ND<0.50	ND<0.50	ND<0.50	21

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH				Total Xylenes (µg/L)	MTBE (µg/L)
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)		
A-8	09/14/92	37.23	14.19	23.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	11/12/92		14.35	22.88	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	02/11/93		11.25	25.98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	04/14/93		12.33	24.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	08/12/93		12.41	24.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	10/26/93		13.02	24.21	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	02/17/94	36.76	11.47	25.29	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	05/03/94		11.35	25.41	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	08/17/94	36.84	12.34	24.50	ND<50	ND<0.5	1.7	ND<0.5	1.4	---
	11/18/94		11.90	24.94	ND<50	1.0	ND<0.5	ND<0.5	ND<0.5	---
	09/26/95	36.76	10.94	25.82	ND<50	ND	ND	ND	ND	---
	12/06/95		11.42	25.34	ND<50	ND	ND	ND	ND	---
	02/14/96		8.80	27.96	ND<50	ND	0.48	ND	ND	---
	10/29/96		11.30	25.46	ND<50	ND	ND	ND	ND	---
	01/29/97		7.60	29.16	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/30/97		10.54	26.22	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97		11.20	25.56	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	10/22/97		12.14	24.62	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	01/28/98		4.43	32.33	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98		10.55	26.21	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
07/08/98		9.07	27.69	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	
10/22/98		12.12	24.64	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	
01/13/99		9.60	27.16	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
04/29/99		9.08	27.68	ND<50	ND<0.3	ND<0.3	ND<0.3	1.5	ND<5	
01/15/02		---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.6
04/24/02		---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*
09/23/02	P		10.75	26.01	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500
12/09/02	P		10.81	25.95	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00
02/11/03*	P		9.90	26.86	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as					MTBE (µg/L)
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	
A-9	09/14/92	38.71	16.12	22.59	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	11/12/92		16.29	22.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	02/11/93		12.31	26.40	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	04/14/93		12.01	26.70	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	08/12/93		13.90	24.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	10/26/93		14.86	23.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	02/17/94	38.19	12.99	25.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	08/17/94		14.03	24.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	11/18/94	37.24	13.44	23.80	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	09/26/95		12.43	25.81	ND<50	ND<0.5	ND	ND	ND	---
	12/06/95	38.19	13.14	25.05	ND<50	ND<0.5	ND	ND	ND	---
	02/14/96		9.05	29.14	ND<50	ND	1.8	0.49	0.82	---
	10/29/96		12.85	25.34	ND<50	ND	ND	ND	ND	---
	01/29/97		9.02	29.17	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/30/97		12.05	26.14	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50
	07/31/97		12.18	26.01	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	10/22/97		7.45	30.74	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	01/28/98		21.25	16.94	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98		12.10	26.09	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	07/08/98		10.40	27.79	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
10/22/98		1.55	24.64	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	
01/13/99		12.05	26.14	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	
04/29/99		7.43	30.76	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	
01/15/02		---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	4.3	
04/24/02		---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*
09/23/02	P		12.35	25.84	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.50	ND<0.500
12/09/02	P		12.37	25.82	ND<50	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00
02/11/03*	P		10.97	27.22	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as					
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
A-10	12/07/92	38.94	16.81	22.13	660	30	ND<2.5	ND<2.5	ND<2.5	---
	02/11/93		13.15	25.79	210	ND<0.5	0.97	ND<0.5	ND<0.5	---
	04/14/93		12.19	26.75	770	ND<0.5	3.0	0.76	1.9	---
	08/12/93		14.87	24.07	390	ND<0.5	ND<0.5	ND<0.5	0.84	---
	10/26/93		15.65	23.29	290	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	02/17/94	38.66	14.16	24.50	52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	05/03/94		14.00	24.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	08/17/94	38.72	15.08	23.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	11/18/94		14.68	24.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---
	09/26/95	38.66	13.58	25.08	ND	ND	ND	ND	ND	---
	12/06/95		14.24	24.42	ND	ND	ND	ND	ND	---
	02/14/96		6.70	31.96	ND	ND	ND	ND	ND	---
	10/29/96		14.10	24.56	ND	ND	ND	ND	1.1	---
	01/29/97		11.20	24.46	ND<50	0.41	4.8	0.6	4.4	37
	04/30/97		12.66	26.00	ND<20	0.40	4.2	0.5	3.8	50
	07/31/97		13.20	25.46	ND<50	w	ND<0.3	ND<0.3	ND<0.5	ND<20
	04/22/98		12.60	26.06	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
	07/08/98		8.08	30.58	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	10/22/98		11.15	27.51	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5
	01/13/99		9.60	29.06	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20
04/29/99		11.15	27.51	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<5	
01/15/02		---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	
04/24/02		NM	NM	NS	NS	NS	NS	NS	NS	
09/23/02		DRY	DRY	NS	NS	NS	NS	NS	NS	
12/19/02	P		12.75	25.91	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5 (c)
02/11/03*	P		12.21	26.45	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.9

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

TPH	= Total Petroleum Hydrocarbons analyzed using EPA Method 8015B Modified
MTBE	= Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted
ND <	= Not Detected
NM	= Not Measured
NS	= Not Sampled
P	= Purge
NP	= No Purge
" --- "	= Not analyzed/Not available
µg/L	= Micrograms per liter
*	= Analyzed by EPA Method 8260B.
^	= Analytical results as measured by EPA Methods 8020 / 8260.
(a)	= well inaccessible
(b)	= The analyte concentration may be artificially elevated due to coeluting compounds or components.
(c)	= The closing calibration was outside acceptance limits by 2%. This should be considered in evaluating the results. The average % difference for all analytes met the 15% requirement and the QC suggests that the calibration linearity is not a factor.
(d)	= Estimated value. The reported value exceeds the calibration range of the analysis.
(e)	=TPH-g, BTEX, and MTBE analyzed by EPA method 8260 B beginning first quarter monitoring event (2/11/03)
Source	=The data in this table prior to September 2002 was provided to URS by Group Environmental Management Company and its previous consultants. URS has not verified the accuracy of this data

Table 2
Groundwater Flow Direction and Gradient

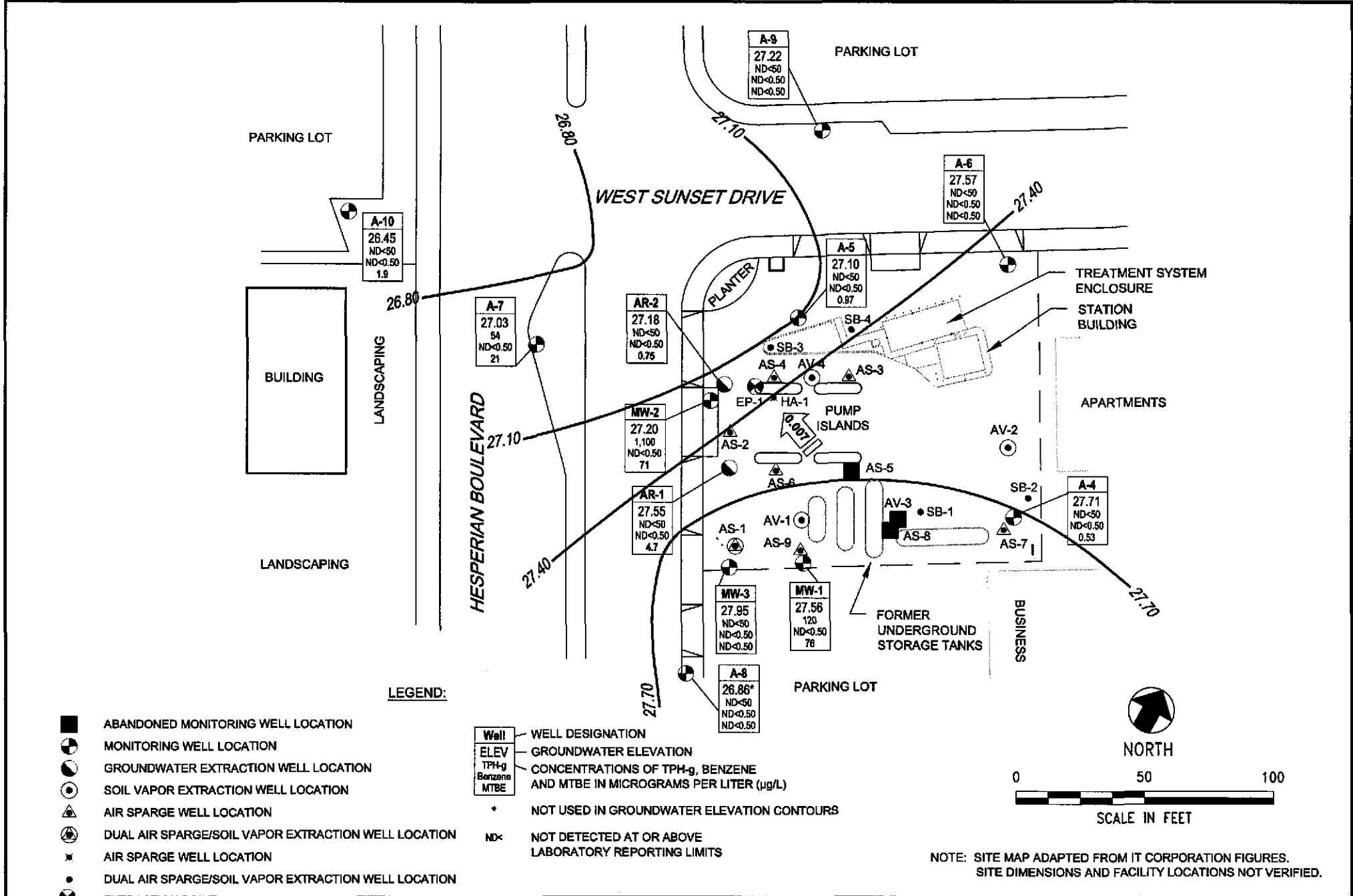
ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
04/24/02	-	-
09/23/02	West	0.004
12/09/02	West	0.003
02/11/03	West	0.007

Table 3
Fuel Oxygenate Analytical Data
 ARCO Service Station #5387
 20200 Hesperian Blvd
 Hayward, California

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
MW-1	02/11/03	ND<100	ND<20	76	ND<0.50	ND<0.50	ND<0.50
MW-2	02/11/03	ND<100	ND<20	71	ND<0.50	ND<0.50	13
MW-3	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-4	02/11/03	ND<100	ND<20	0.53	ND<0.50	ND<0.50	ND<0.50
A-5	02/11/03	ND<100	ND<20	0.97	ND<0.50	ND<0.50	ND<0.50
A-6	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-7	02/11/03	ND<100	ND<20	21	ND<0.50	6.5	ND<0.50
A-8	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-9	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-10	02/11/03	ND<100	ND<20	1.9	ND<0.50	ND<0.50	ND<0.50
AR-1	02/11/03	ND<100	ND<20	4.7	ND<0.50	ND<0.50	ND<0.50
AR-2	02/11/03	ND<100	ND<20	0.75	ND<0.50	ND<0.50	ND<0.50

Note = All fuel oxygenate compounds analyzed using EPA Method 8260B
 TBA = tert-Butyl alcohol
 MTBE = Methyl tert-butyl ether
 DIPE = Di-isopropyl ether
 ETBE = Ethyl tert butyl ether
 TAME = tert-Amyl methyl ether
 µg/L = micrograms per liter
 ND< = Less than laboratory reporting limit
 NA = Data not available, not analyzed, or not applicable
 NS = Not Sampled



	Project No. 38486130 ARCO Service Station 5387 2020 Hesperian Boulevard Hayward, California	GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP First Quarter 2003 (February 11, 2003)	FIGURE 1
	SCALE IN FEET 0 50 100		

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 TeflonTM 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 # 030211-SS | Date 2/11/03 | Client ARCO #5387

Site 202000 HESPERIAN BLVD. HAYWARD, CA.

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-1	2					9.70	28.40	
MW-2	2					10.79	29.50	
MW-3	2					8.85	28.25	
A-4	3					11.82	34.51	
A-5	3					11.37	29.85	
A-6	3					11.21	34.70	
A-7	3					12.35	35.00	
A-8	2					9.90	33.85	
A-9	2					10.97	33.70	
A-10	2					12.21	34.00	
AR-1	6					9.91	33.70	
AR-2	6					10.80	35.20	

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>SOOCH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u> </u>
Total Well Depth: <u>28.40</u>	Depth to Water: <u>9.70</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</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: Bailer
Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump
 Other: _____

Sampling Method: Bailer
Disposable Bailer
 Extraction Port
 Other: _____

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

<u>3</u>	X	<u>3</u>	=	<u>9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

BAILED
15 gal.
from well
NO LOG

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1107	62.6	6.7	1072	3	TURBID
1111	63.5	6.7	1076	6	"
1115	63.4	6.7	1076	9	"

Did well dewater? Yes No

Gallons actually evacuated: 9

Sampling Time: 1118 Sampling Date: 2/11/03

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

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.6	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>S00CH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>29.50</u>	Depth to Water: <u>10.79</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</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: <u>Bailer</u> <u>(Disposable Bailer)</u> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> <u>(Disposable Bailer)</u> 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>3</u>	X	<u>3</u>	=	<u>9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

PAILED H₂O
NO LOCK

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
<u>1229</u>	<u>65.9</u>	<u>6.7</u>	<u>1030</u>	<u>3</u>	<u>TURBID / GAS ODOR</u>
<u>1233</u>	<u>65.9</u>	<u>6.7</u>	<u>1032</u>	<u>6</u>	" "
<u>1237</u>	<u>65.8</u>	<u>6.8</u>	<u>1021</u>	<u>9</u>	" "

Did well dewater? Yes <u>(No)</u>	Gallons actually evacuated: <u>9</u>
Sampling Time: <u>1240</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>MW-2</u>	Laboratory: Pace <u>(Sequoia)</u> Other _____
Analyzed for: <u>(TPH-G BTEX)</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>(1.2)</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>0302-11-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>S00C#</u>	Date: <u>2/11/03</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>28.75</u>	Depth to Water: <u>8.85</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</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: <u>Bailer</u> <u>(Disposable Bailer)</u> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> <u>(Disposable Bailer)</u> 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>3</u>	X	<u>3</u>	=	<u>9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

NO LOCK
UNDERWAY CASE

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1135	64.3	6.7	1038	3	MURBID
1139	65.0	6.7	1015	6	"
1143	65.2	6.7	989	9	"

Did well dewater? Yes <u>(No)</u>	Gallons actually evacuated: <u>9</u>
Sampling Time: <u>1146</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>MW-3</u>	Laboratory: Pace <u>(Sequoia)</u> Other _____
Analyzed for: <u>(TPH-G BTEX)</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>(1.6)</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>500CH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>A-4</u>	Well Diameter: 2 <u>(3)</u> 4 6 8 <u> </u>
Total Well Depth: <u>34.51</u>	Depth to Water: <u>11.82</u>
Depth to Free Product: <u> </u>	Thickness of Free Product (feet): <u> </u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

Purge Method: <u>Bailer</u>	Sampling Method: <u>Bailer</u>
<u>Disposable Bailer</u>	<u>Disposable Bailer</u>
<u>Middleburg</u>	<u>Extraction Port</u>
<u>Electric Submersible</u>	Other: <u> </u>
<u>Extraction Pump</u>	
Other: <u> </u>	

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>8.5</u>	X	<u>3</u>	=	<u>25.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

*no lock
DAMAGED
TAGS + BOLT.*

Time	Temp (°F)	pH	Conductivity (mS or <u>AS</u>)	Gals. Removed	Observations
1334	64.2	6.6	973	8.5	<u>CLEAR</u>
1336	64.5	6.6	970	17.0	"
1338	64.8	6.6	959	25.5	"

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>25.5</u>
Sampling Time: <u>1342</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>A-4</u>	Laboratory: Pace <u>Sequoia</u> Other <u> </u>

Analyzed for: <u>TPH-G BTEX</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>
D.O. (if req'd): Pre-purge: <u> </u> mg/L Post-purge: <u>1.8</u> mg/L
O.R.P. (if req'd): Pre-purge: <u> </u> mV Post-purge: <u> </u> mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-SS1</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>S00CH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>A-5</u>	Well Diameter: 2 <u>(3)</u> 4 6 8 _____
Total Well Depth: <u>29.85</u>	Depth to Water: <u>11.37</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</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: <u>Bailer</u>	Sampling Method: <u>Bailer</u>
<u>Disposable Bailer</u>	<u>Disposable Bailer</u>
<u>Middleburg</u>	Extraction Port
<u>Electric Submersible</u>	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>1</u>	X	<u>3</u>	=	<u>21</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

NO LOG

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1300	65.3	6.8	1027	7	<u>TURBID</u>
1302	65.6	6.7	1023	14	"
1304	65.7	6.7	1028	21	"

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>21</u>
Sampling Time: <u>1308</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>A-5</u>	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>TPH-G BTEX</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>1.2</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>S00CH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>A-6</u>	Well Diameter: 2 <u>(3)</u> 4 6 8 <u> </u>
Total Well Depth: <u>34.70</u>	Depth to Water: <u>11.21</u>
Depth to Free Product: <u> </u>	Thickness of Free Product (feet): <u> </u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</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: <u>Bailer</u>	Sampling Method: <u>Bailer</u>
<u>Disposable Bailer</u>	<u>Disposable Bailer</u>
<u>Middleburg</u>	Extraction Port
<u>Electric Submersible</u>	Other: <u> </u>
Extraction Pump	
Other: <u> </u>	

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>6.7</u>	x	<u>3</u>	=	<u>26.1</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

no leak

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1316	64.3	6.8	760	9	TURBID
1318	64.4	6.7	742	18	"
1320	64.4	6.7	732	27	"

Did well dewater? Yes <u>No</u>	Gallons actually evacuated: <u>27</u>
Sampling Time: <u>1325</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>A-6</u>	Laboratory: Pace <u>Sequoia</u> Other <u> </u>

Analyzed for: <u>TPH-G BTEX</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>		
D.O. (if req'd):	Pre-purge: <u> </u> mg/L	Post-purge: <u>2.0</u> mg/L
O.R.P. (if req'd):	Pre-purge: <u> </u> mV	Post-purge: <u> </u> mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>SOC#</u>	Date: <u>2/11/03</u>
Well I.D.: <u>A-1</u>	Well Diameter: 2 <u>(3)</u> 4 6 8 _____
Total Well Depth: <u>35.00</u>	Depth to Water: <u>12.35</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</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: <u>Bailer</u>	Sampling Method: <u>Bailer</u>
<u>Disposable Bailer</u>	<u>Disposable Bailer</u>
<u>Middleburg</u>	<u>Extraction Port</u>
<u>Electric Submersible</u>	Other: _____
<u>Extraction Pump</u>	
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>8.5</u>	X	<u>3</u>	=	<u>25.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
<u>928</u>	<u>64.4</u>	<u>6.2</u>	<u>1275</u>	<u>8.5</u>	<u>TURBID</u>
<u>930</u>	<u>65.5</u>	<u>6.2</u>	<u>1127</u>	<u>17.0</u>	<u>CLEAR</u>
<u>932</u>	<u>65.4</u>	<u>6.3</u>	<u>1105</u>	<u>25.5</u>	"
<u>934</u>	<u>65.5</u>	<u>6.3</u>	<u>1109</u>	<u>34.0</u>	"

Did well dewater? Yes <u>(No)</u>	Gallons actually evacuated: <u>34</u>
Sampling Time: <u>939</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>A-1</u>	Laboratory: Pace <u>Sequoia</u> Other _____

Analyzed for: <u>TPH-G BTEX</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>		
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: <u>1.7</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>0302-11-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>S00CH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>A-8</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>33.85</u>	Depth to Water: <u>9.90</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</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: Bailer
(Disposable Bailer)
 Middleburg
 Electric Submersible
 Extraction Pump
 Other: _____

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

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

<u>4</u>	X	<u>3</u>	=	<u>12</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>(µS)</u>)	Gals. Removed	Observations
<u>955</u>	<u>63.0</u>	<u>6.6</u>	<u>985</u>	<u>4</u>	<u>TURBID</u>
<u>1000</u>	<u>63.8</u>	<u>6.6</u>	<u>987</u>	<u>8</u>	"
<u>1005</u>	<u>64.2</u>	<u>6.5</u>	<u>1056</u>	<u>12</u>	"

Did well dewater? Yes <u>(No)</u>	Gallons actually evacuated: <u>12</u>
Sampling Time: <u>1008</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>A-8</u>	Laboratory: Pace <u>(Sequoia)</u> Other _____
Analyzed for: <u>(TPH-G BTEX)</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>(1.4)</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>500CH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>A-9</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u> </u>
Total Well Depth: <u>33.70</u>	Depth to Water: <u>10.97</u>
Depth to Free Product: <u> </u>	Thickness of Free Product (feet): <u> </u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSL</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: <u>Bailer</u> <u>Disposable Bailer</u> Middleburg Electric Submersible Extraction Pump Other: <u> </u>	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> Extraction Port Other: <u> </u>
--	---

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>3.6</u>	x	<u>3</u>	=	<u>10.8</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1355	63.7	6.7	692	3.6	TWPB:0
1359	63.9	6.6	655	7.2	"
1403	64.2	6.7	642	11.0	"

Did well dewater? Yes <u>No</u>	Gallons actually evacuated: <u>11</u>	
Sampling Time: <u>1405</u>	Sampling Date: <u>2/11/03</u>	
Sample I.D.: <u>A-9</u>	Laboratory: Pace <u>Sequoia</u> Other <u> </u>	
Analyzed for: <u>TPH-G BTEX</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>		
D.O. (if req'd):	Pre-purge: <u> </u> mg/L	Post-purge: <u>3.0</u> mg/L
O.R.P. (if req'd):	Pre-purge: <u> </u> mV	Post-purge: <u> </u> mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>500CH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>A-10</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>34.00</u>	Depth to Water: <u>12.21</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</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: <u>Bailer</u> <u>Disposable Bailer</u> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> 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>3.5</u>	X	<u>3</u>	=	<u>10.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1023	64.3	6.7	1118	3.5	TURBID
1027	65.0	6.7	1089	7.0	"
1031	65.1	6.7	1057	10.5	"

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>10.5</u>
Sampling Time: <u>1034</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>A-10</u>	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>TPH-G BTEX</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>1.3</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>SOOCH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>AR-1</u>	Well Diameter: 2 3 4 <u>(6)</u> 8
Total Well Depth: <u>33.70</u>	Depth to Water: <u>9.91</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSL</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: <u>Bailer</u> Disposable Bailer Middleburg <u>Electric Submersible</u> Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> 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>35</u>	X	<u>3</u>	=	<u>105</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1157	65.6	6.9	1078	35	TURBID
1204	65.9	6.8	1072	70	ALMOST CLEAR
1211	67.3	6.7	1063	105	CLEAR

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>105</u>
Sampling Time: <u>1215</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>AR-1</u>	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>TPH-G BTEX</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>1.2</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030211-551</u>	Station # <u>ARCO # 5387</u>
Sampler: <u>500CH</u>	Date: <u>2/11/03</u>
Well I.D.: <u>AR-2</u>	Well Diameter: 2 3 4 <u>(6)</u> 8
Total Well Depth: <u>35.20</u>	Depth to Water: <u>10.80</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</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: <u>Bailer</u>	Sampling Method: <u>Bailer</u>
<u>Disposable Bailer</u>	<u>Disposable Bailer</u>
<u>Middleburg</u>	Extraction Port
<u>Electric Submersible</u>	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>36</u>	X	<u>3</u>	=	<u>108</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

NO LOCK

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1230	66.9	6.8	1069	36	<u>CLEAR</u>
1237	67.0	6.8	1078	72	"
1244	66.6	6.9	1095	108	"

Did well dewater? Yes <u>No</u>	Gallons actually evacuated: <u>108</u>
Sampling Time: <u>1249</u>	Sampling Date: <u>2/11/03</u>
Sample I.D.: <u>AR-2</u>	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>TPH-G BTEX</u> MTBE TPH-D Other: <u>OXY'S + ETHANOL BY 8260</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>1.8</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

WELLHEAD INSPECTION CHECKLIST

Client ARCO # 5347 Date 2/11/03
 Site Address 20200 HESPERIAN BLVD. HAYWARD, CA.
 Job Number 030211-SS1 Technician Sooch

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1		X			NO LOCK			
MW-2		X			"			
MW-3					"	X		
A-4					"	X		
A-5					"			
A-6					"			
A-7	X							
A-8	X							
A-9	X							
A-10	X							
AR-1	X				NO LOCK			
AR-2					NO LOCK			

NOTES: MW-3: UNEVEN CASING
A-4: DAMAGED TADS + BOLTS

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 PLAINE 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:

ARCO # 5387
Station #

20200 HESPERIAN BLVD. HAYWARD
Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

added equip. any other
rinse water _____ adjustments _____

TOTAL GALS. RECOVERED 350 loaded onto
BTS vehicle # 48

BTS event # time date
030211-551 1430 2/11/03

signature 

REC'D AT time date

unloaded by
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 Group Environmental Management Company have been reviewed and verified by that laboratory.



24 March, 2003

Scott Robinson
URS Corporation
500 12th Street, Suite 100
Oakland, CA 94607

RE: ARCO #5387, Hayward, Ca
Sequoia Work Order: MMB0417

Enclosed are the results of analyses for samples received by the laboratory on 02/12/03 14:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt
Project Manager

CA ELAP Certificate #1210

URS Corporation
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #5387, Hayward, Ca
Project Number: ARCO #5387, Hayward, CA
Project Manager: Scott Robinson

MMB0417
Reported:
03/24/03 15:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MMB0417-01	Water	02/11/03 11:18	02/12/03 14:35
MW-2	MMB0417-02	Water	02/11/03 12:40	02/12/03 14:35
MW-3	MMB0417-03	Water	02/11/03 11:46	02/12/03 14:35
A-4	MMB0417-04	Water	02/11/03 13:42	02/12/03 14:35
A-5	MMB0417-05	Water	02/11/03 13:08	02/12/03 14:35
A-6	MMB0417-06	Water	02/11/03 13:25	02/12/03 14:35
A-7	MMB0417-07	Water	02/11/03 09:39	02/12/03 14:35
A-8	MMB0417-08	Water	02/11/03 10:08	02/12/03 14:35
A-9	MMB0417-09	Water	02/11/03 14:05	02/12/03 14:35
A-10	MMB0417-10	Water	02/11/03 10:34	02/12/03 14:35
AR-1	MMB0417-11	Water	02/11/03 12:15	02/12/03 14:35
AR-2	MMB0417-12	Water	02/11/03 12:49	02/12/03 14:35

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



URS Corporation
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #5387, Hayward, Ca
Project Number: ARCO #5387, Hayward, CA
Project Manager: Scott Robinson

MMB0417
Reported:
03/24/03 15:36

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMB0417-01) Water Sampled: 02/11/03 11:18 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B24019	02/24/03	02/24/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	76	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	120	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		78-129	"	"	"	"	
MW-2 (MMB0417-02) Water Sampled: 02/11/03 12:40 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B24019	02/24/03	02/24/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	71	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	13	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	0.53	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	1100	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %		78-129	"	"	"	"	

URS Corporation
 500 12th Street, Suite 100
 Oakland CA, 94607

 Project: ARCO #5387, Hayward, Ca
 Project Number: ARCO #5387, Hayward, CA
 Project Manager: Scott Robinson

 MMB0417
 Reported:
 03/24/03 15:36

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MMB0417-03) Water Sampled: 02/11/03 11:46 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B24019	02/24/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
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	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		78-129	"	"	"	"	
A-4 (MMB0417-04) Water Sampled: 02/11/03 13:42 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B25004	02/25/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	0.53	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		110 %		78-129	"	"	"	"	



URS Corporation
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #5387, Hayward, Ca
Project Number: ARCO #5387, Hayward, CA
Project Manager: Scott Robinson

MMB0417
Reported:
03/24/03 15:36

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-5 (MMB0417-05) Water Sampled: 02/11/03 13:08 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B25004	02/25/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	0.97	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		114 %	78-129	"	"	"	"	"	
A-6 (MMB0417-06) Water Sampled: 02/11/03 13:25 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B25004	02/25/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
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	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %	78-129	"	"	"	"	"	



URS Corporation
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #5387, Hayward, Ca
Project Number: ARCO #5387, Hayward, CA
Project Manager: Scott Robinson

MMB0417
Reported:
03/24/03 15:36

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-7 (MMB0417-07) Water Sampled: 02/11/03 09:39 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B25004	02/25/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	21	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	6.5	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	54	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %		78-129	"	"	"	"	
A-8 (MMB0417-08) Water Sampled: 02/11/03 10:08 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B25004	02/25/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
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	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %		78-129	"	"	"	"	

URS Corporation
 500 12th Street, Suite 100
 Oakland CA, 94607

 Project: ARCO #5387, Hayward, Ca
 Project Number: ARCO #5387, Hayward, CA
 Project Manager: Scott Robinson

 MMB0417
 Reported:
 03/24/03 15:36

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-9 (MMB0417-09) Water Sampled: 02/11/03 14:05 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B25004	02/25/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
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	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %		78-129	"	"	"	"	
A-10 (MMB0417-10) Water Sampled: 02/11/03 10:34 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B25004	02/25/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	1.9	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %		78-129	"	"	"	"	

URS Corporation
 500 12th Street, Suite 100
 Oakland CA, 94607

 Project: ARCO #5387, Hayward, Ca
 Project Number: ARCO #5387, Hayward, CA
 Project Manager: Scott Robinson

 MMB0417
 Reported:
 03/24/03 15:36

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AR-1 (MMB0417-11) Water Sampled: 02/11/03 12:15 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B25004	02/25/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	4.7	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		110 %		78-129	"	"	"	"	
AR-2 (MMB0417-12) Water Sampled: 02/11/03 12:49 Received: 02/12/03 14:35									
Ethanol	ND	100	ug/l	1	3B25004	02/25/03	02/25/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	0.75	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		113 %		78-129	"	"	"	"	

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.



URS Corporation
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #5387, Hayward, Ca
Project Number: ARCO #5387, Hayward, CA
Project Manager: Scott Robinson

MMB0417
Reported:
03/24/03 15:36

**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 3B24019 - EPA 5030B P/T

Blank (3B24019-BLK1)

Prepared & Analyzed: 02/24/03

Ethanol	ND	40	ug/l							
tert-Butyl alcohol	ND	20	"							
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 (C6-C10)	ND	50	"							

Surrogate: 1,2-Dichloroethane-d4 5.23 " 5.00 105 78-129

Blank (3B24019-BLK2)

Prepared: 02/24/03 Analyzed: 02/25/03

Ethanol	ND	40	ug/l							
tert-Butyl alcohol	ND	20	"							
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 (C6-C10)	ND	50	"							

Surrogate: 1,2-Dichloroethane-d4 5.52 " 5.00 110 78-129

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.



URS Corporation
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #5387, Hayward, Ca
Project Number: ARCO #5387, Hayward, CA
Project Manager: Scott Robinson

MMB0417
Reported:
03/24/03 15:36

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 3B24019 - EPA 5030B P/T

Laboratory Control Sample (3B24019-BS1)

Prepared & Analyzed: 02/24/03

Methyl tert-butyl ether	10.3	0.50	ug/l	10.0		103	63-137			
Benzene	10.1	0.50	"	10.0		101	78-124			
Toluene	10.3	0.50	"	10.0		103	78-129			

Surrogate: 1,2-Dichloroethane-d4	5.38		"	5.00		108	78-129			
----------------------------------	------	--	---	------	--	-----	--------	--	--	--

Laboratory Control Sample (3B24019-BS2)

Prepared & Analyzed: 02/24/03

Methyl tert-butyl ether	8.67	0.50	ug/l	9.04		95.9	63-137			
Benzene	5.58	0.50	"	5.44		103	78-124			
Toluene	34.6	0.50	"	32.8		105	78-129			
Gasoline Range Organics (C6-C10)	449	50	"	440		102	70-113			

Surrogate: 1,2-Dichloroethane-d4	5.47		"	5.00		109	78-129			
----------------------------------	------	--	---	------	--	-----	--------	--	--	--

Matrix Spike (3B24019-MS1)

Source: MMB0321-03

Prepared: 02/24/03

Analyzed: 02/25/03

Methyl tert-butyl ether	2800	100	ug/l	1810	1100	93.9	0-200			
Benzene	1190	100	"	1090	16	108	78-124			
Toluene	7240	100	"	6560	ND	110	78-129			
Gasoline Range Organics (C6-C10)	101000	10000	"	88000	ND	115	70-113			QM-07

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

Matrix Spike Dup (3B24019-MSD1)

Source: MMB0321-03

Prepared & Analyzed: 02/24/03

Methyl tert-butyl ether	2880	100	ug/l	1810	1100	98.3	0-200	2.82	200	
Benzene	1180	100	"	1090	16	107	78-124	0.844	12	
Toluene	7280	100	"	6560	ND	111	78-129	0.551	10	
Gasoline Range Organics (C6-C10)	91400	10000	"	88000	ND	104	70-113	9.98	9	QR-07

Surrogate: 1,2-Dichloroethane-d4	5.34		"	5.00		107	78-129			
----------------------------------	------	--	---	------	--	-----	--------	--	--	--

Batch 3B25004 - EPA 5030B P/T

Blank (3B25004-BLK1)

Prepared & Analyzed: 02/25/03

Ethanol	ND	40	ug/l							
tert-Butyl alcohol	ND	20	"							

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

URS Corporation 500 12th Street, Suite 100 Oakland CA, 94607	Project: ARCO #5387, Hayward, Ca Project Number: ARCO #5387, Hayward, CA Project Manager: Scott Robinson	MMB0417 Reported: 03/24/03 15:36
--	--	--

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 3B25004 - EPA 5030B P/T
Blank (3B25004-BLK1)

Prepared & Analyzed: 02/25/03

Methyl tert-butyl ether	ND	0.50	ug/l							
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 (C6-C10)	ND	50	"							

<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.36		"	5.00		107	78-129			
---	------	--	---	------	--	-----	--------	--	--	--

Laboratory Control Sample (3B25004-BS1)

Prepared & Analyzed: 02/25/03

Methyl tert-butyl ether	10.7	0.50	ug/l	10.0		107	63-137			
Benzene	10.8	0.50	"	10.0		108	78-124			
Toluene	11.2	0.50	"	10.0		112	78-129			

<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.32		"	5.00		106	78-129			
---	------	--	---	------	--	-----	--------	--	--	--

Laboratory Control Sample (3B25004-BS2)

Prepared & Analyzed: 02/25/03

Methyl tert-butyl ether	8.38	0.50	ug/l	9.04		92.7	63-137			
Benzene	5.46	0.50	"	5.44		100	78-124			
Toluene	37.4	0.50	"	32.8		114	78-129			
Gasoline Range Organics (C6-C10)	457	50	"	440		104	70-113			

<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.27		"	5.00		105	78-129			
---	------	--	---	------	--	-----	--------	--	--	--

Matrix Spike (3B25004-MS1)

Source: MMB0442-01

Prepared & Analyzed: 02/25/03

Methyl tert-butyl ether	14900	250	ug/l	4520	9100	128	0-200			
Benzene	3990	250	"	2720	780	118	78-124			
Toluene	21400	250	"	16400	2600	115	78-129			
Gasoline Range Organics (C6-C10)	303000	25000	"	220000	64000	109	70-113			

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.



URS Corporation
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #5387, Hayward, Ca
Project Number: ARCO #5387, Hayward, CA
Project Manager: Scott Robinson

MMB0417
Reported:
03/24/03 15:36

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	----------------	-----	--------------	-------

Batch 3B25004 - EPA 5030B P/T

Matrix Spike (3B25004-MS1)

Source: MMB0442-01 Prepared & Analyzed: 02/25/03

Surrogate: 1,2-Dichloroethane-d4 5.45 ug/l 5.00 109 78-129

Matrix Spike Dup (3B25004-MSD1)

Source: MMB0442-01 Prepared & Analyzed: 02/25/03

Methyl tert-butyl ether	14200	250	ug/l	4520	9100	113	0-200	4.81	200
Benzene	3860	250	"	2720	780	113	78-124	3.31	12
Toluene	21100	250	"	16400	2600	113	78-129	1.41	10
Gasoline Range Organics (C6-C10)	300000	25000	"	220000	64000	107	70-113	0.995	9

Surrogate: 1,2-Dichloroethane-d4 5.32 " 5.00 106 78-129



URS Corporation
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #5387, Hayward, Ca
Project Number: ARCO #5387, Hayward, CA
Project Manager: Scott Robinson

MMB0417
Reported:
03/24/03 15:36

Notes and Definitions

- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QR-07 The RPD was outside control limits. The results may still be useful for their intended purpose.
- 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 ARCO # 5387 030211SSJ
 BP BU/GEM CO Portfolio: _____
 BP Laboratory Contract Number: _____

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Date: 2/11/03 Requested Due Date (mm/dd/yy) _____

MMB0417

Send To:	BP/GEM Facility No.:	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 20200 Hesperian Blvd. HAYWARD, CA	Address: 500 12th St., Ste. 200
Lab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. ARCO 5387	Oakland, CA 94609-4014
	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #:	Consultant/Contractor Project No.: J5-00005387.01 00427
Lab PM: Latonya Pelt	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-1735/510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: Send EDF Reports	Tele/Fax:	Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Account No.:		BP/GEM Work Release No: INTRM-50591

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)	TPH -D (8015)	MTR (8021)	MINE, TAME, BIBE DIPE, TBA (8260)	1,2-DCA & EDB (8260)		
1	MW-1	1118	X				01	3				X			X				
2	NW-2	1240					02					X			X				
3	MW-3	1146					03					X			X				
4	A-4	1542					04					X			X				
5	A-5	1308					05					X			X				
6	A-6	1525					06					X			X				
7	A-7	0839					07					X			X				
8	A-8	1008					08					X			X				
9	A-9	1405					09					X			X				
10	A-10	1034					10					X			X				

Sampler's Name: <u>BLAINE TEST</u>	Relinquished By / Affiliation:	Date:	Time:	Accepted By / Affiliation:	Date:	Time:
Sampler's Company: <u>BLAINE TEST</u>		<u>2/11/03</u>	<u>1206</u>		<u>2/12/03</u>	<u>1206</u>
Shipment Date:		<u>2/12/03</u>	<u>1435</u>		<u>2/12/03</u>	<u>1435</u>
Shipment Method:						
Shipment Tracking No.:						

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

Seals In Place Yes No Temperature Blank Yes No Cooler Temperature on Receipt FIC Trip Blank Yes No

Distribution: White Copy - Laboratory / Yellow Copy - BP/GEM / Pink Copy - Consultant/Contractor



Chain of Custody Record

Project Name ARCO # 5387 080211-SS1
 BP BU/GEM CO Portfolio: _____
 BP Laboratory Contract Number: _____

Date: 2/11/03

Requested Due Date (mm/dd/yy) _____ MMB0417

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Send To:	BP/GEM Facility No.:	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 20200 Hesperian Blvd, HAYWARD, CA	Address: 500 12th St., Ste. 200
Lab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. ARCO 5387	Oakland, CA 94609-4014
	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #:	Consultant/Contractor Project No.: J5-00005387.01 00427
Lab PM: Latonya Pelt	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-1735/510-874-3288
Tele/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: Send EDF Reports		Invoice to: Consultant/Contractor or BP/GEM (circle one)
BP/GEM Account No.:	Tele/Fax:	BP/GEM Work Release No: INTRIM -50591

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)	TPH-D (8015)	MIBK (8021)	MIBK, XANOL, ETBE (8022)	DIPS, THA (8260)	1,2-DCA & EDB (8260)				
1	✓ AP-1	1215	X				11	3					X				X					
2	✓ AP-2	1219	X				12	3					X				X					
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Sampler's Name: <u>SUCKEON SUNG</u>	Relinquished By / Affiliation: _____	Date: <u>2/12/03</u>	Time: <u>1206</u>	Accepted By / Affiliation: _____	Date: <u>2/12/03</u>	Time: <u>1206</u>
Sampler's Company: <u>BUANE TEST</u>	_____	Date: <u>2/12/03</u>	Time: <u>1435</u>	_____	Date: <u>2/12/03</u>	Time: <u>1435</u>
Shipment Date:						
Shipment Method:						
Shipment Tracking No.:						
Special Instructions: Address Invoice to BP/GEM but send to URS for approval						

Seals In Place Yes No Temperature Blank Yes No Cooler Temperature on Receipt °F/C Trip Blank Yes No

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS
 REC. BY (PRINT) EB
 WORKORDER: MMB047

DATE Received at Lab: 2-12-03
 TIME Received at Lab: 1435
 LOGIN DATE: 2-16-03

Drinking water for regulatory purposes: YES NO
 Wastewater for regulatory purposes: YES NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	#	CLIENT ID	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <input checked="" type="checkbox"/> Absent Intact / Broken*	01		M10-1	3 WTR HLL	L	2-11-03	
	02		3				
2. Chain-of-Custody Present / <input checked="" type="checkbox"/> Absent*	03		3				
3. Traffic Reports or Packing List: Present / <input checked="" type="checkbox"/> Absent	04		A-4				
	05		8				
4. Airbill: Airbill / Sticker Present / <input checked="" type="checkbox"/> Absent	06		6				
	07		7				
5. Airbill #:	08		8				
6. Sample Labels: Present / <input checked="" type="checkbox"/> Absent	09		9				
7. Sample IDs: Listed / Not Listed on Chain-of-Custody	10		10				
	11		AR-1				
8. Sample Condition: Intact / Broken* / Leaking*	12		AR-2				
9. Does information on custody reports, traffic reports and sample labels agree? Yes / <input checked="" type="checkbox"/> No*							
10. Sample received within hold time: Yes / <input checked="" type="checkbox"/> No*							
11. Proper Preservatives used: Yes / <input checked="" type="checkbox"/> No*							
12. Temp Rec. at Lab: Is temp 4 +/- 2°C? Yes / <input checked="" type="checkbox"/> No**							
(Acceptance range for samples requiring thermal ptes.)							
**Exception (if any): Metals / DFF on ice? / DFF no ice? or Problem COC							

***If Circled, contact Project Manager and attach record of resolution.**