

Alameda County
FEB 11 2003
Environmental Health

January 28, 2003

Ms. Eya Chu ^{BC}
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**Re: Third Quarter 2002 Groundwater Monitoring Report
ARCO Service Station #2169
889 West Grand Avenue
Oakland, California 94607
URS Project #38465940**

Dear Ms. Chu:

On behalf of Atlantic Richfield Company (ARCO-an affiliated company of the Group Environmental Management Company), URS Corporation (URS) is submitting the *Third Quarter 2002 Groundwater Monitoring Report* for ARCO Service Station #2169, located at 889 West Grand Avenue, Oakland, California.

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

Sincerely,

URS CORPORATION

Scott Robinson

Scott Robinson
Project Manager



Amy Breckenridge, P.E.
Portfolio Manager

Enclosure: Third Quarter 2002 Groundwater Monitoring Report

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

ARCO Products Company

4 Centerpointe Drive
La Palma, California 90623-1066
Telephone 714 670 5300

Mailing Address: P.O. Box 6549
Moraga, California 94549



January 31, 2003

Re: ARCO Station # 2169 • 889 West Grand Avenue • Oakland, CA
Third Quarter 2002 Quarterly Monitoring Report

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

Submitted by:

A handwritten signature in black ink, appearing to read "Paul Supple". The signature is fluid and cursive.

Paul Supple
Environmental Engineer

R E P O R T

**THIRD QUARTER 2002
GROUNDWATER MONITORING**

ARCO SERVICE STATION # 2169
889 WEST GRAND AVENUE
OAKLAND, CALIFORNIA

Prepared for
Atlantic Richfield Company

January 28, 2003

URS

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

38465940



Date: January 28, 2003

Quarter: 3Q 02

ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 2169 Address: 889 West Grand Avenue, Oakland, California
Atlantic Richfield Co. Environmental Engineer: Paul Supple
Consulting Co./Contact Person: URS Corporation/ Scott Robinson
Consultant Project No.: 38465940
Primary Agency: ACHCSA

WORK PERFORMED THIS QUARTER (Third – 2002):

1. Performed third quarter 2002 monitoring event.
2. Prepared second quarter 2002 groundwater monitoring report.

WORK PROPOSED FOR NEXT QUARTER (Fourth – 2002):

1. Perform fourth quarter 2002 groundwater monitoring event.
2. Prepare third quarter 2002 groundwater monitoring report.

Current Phase of Project	<u>GW monitoring/sampling</u>
Frequency of Groundwater Sampling:	<u>Annual (1st Quarter): A-3, A-4</u> <u>Semi-annual (1st/3rd Quarter): A-2, AR-1, AR-2</u> <u>Quarterly: A-1, A-5, A-6, ADR-1, ADR-2</u>
Frequency of Groundwater Monitoring:	<u>Quarterly</u>
Is Free Product (FP) Present On-Site:	<u>No</u>
FP Recovered this Quarter:	<u>None</u>
Cumulative FP Recovered to Date:	<u>4.8 gallons, wells ADR-1 and ADR-2</u>
Bulk Soil Removed This Quarter:	<u>None</u>
Bulk Soil Removed to Date:	<u>2,196 cubic yards of TPH impacted soil</u>
Current Remediation Techniques:	<u>Natural Attenuation</u>
Approximate Depth to Groundwater:	<u>10.41 (A-5) to 12.27 (A-3) feet</u>
Groundwater Gradient (direction)	<u>West</u>
Groundwater Gradient (magnitude)	<u>0.003 feet per foot</u>

DISCUSSION:

TPH-g was detected in four of the eight wells sampled this quarter at concentrations ranging from 170 µg/L (A-1) to 1,300 µg/L (ADR-2). Benzene was detected in 5 wells at concentrations ranging from 1.1 µg/L (ADR-1) to 170 µg/L (ADR-2). MTBE was detected in two wells at concentrations of 4.9 µg/L (A-1) and 75 µg/L (A-6). The groundwater flow direction was to the west at a calculated hydraulic gradient of 0.003 feet per foot.

The soil vapor extraction (SVE) system was not in operation this quarter. Previous SVE system analytical and monitoring data are shown in Tables 3 and 4.



ATTACHMENTS:

- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – SVE System Analytical Results
- Table 4 – SVE System Monitoring Table
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – August 14, 2002
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment C – Historic Groundwater Data
- Attachment D – EDCC Report and EDF/Geowell Submittal Confirmation

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #2169
889 West Grand Avenue
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
AR-1	06/26/00	15.61	11.59	4.02	NA	NA	NA	NA	NA	NA
	07/20/00		12.06	3.55	<50	<0.5	<0.5	<0.5	<1.0	6
	09/19/00		11.89	3.72	<50	<0.5	<0.5	<0.5	<1.0	<3
	12/26/00		11.95	3.66	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/20/01 ^a		NM	NM	NS	NS	NS	NS	NS	NS
	06/12/01		11.87	3.74	<50	<0.5	<0.5	<0.5	<0.5	17
	09/23/01		12.42	3.19	NS	NS	NS	NS	NS	NS
	12/28/01		7.62	7.99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/21/02		9.37	6.24	NS	NS	NS	NS	NS	NS
	04/17/02		10.43	5.18	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	08/14/02		12.08	3.53	<50	<0.5	<0.5	<0.5	1.3	<2.5
AR-2	06/26/00	15.28	11.79	3.49	NA	NA	NA	NA	NA	NA
	07/20/00		12.07	3.21	<50	<0.5	<0.5	<0.5	<1.0	<3
	09/19/00		12.08	3.2	<50	<0.5	<0.5	<0.5	<1.0	<3
	12/26/00		11.95	3.33	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/20/01		10.50	4.78	NS	NS	NS	NS	NS	NS
	06/12/01		11.73	3.55	<50	<0.5	<0.5	<0.5	<0.5	82
	09/23/01		12.43	2.85	NS	NS	NS	NS	NS	NS
	12/28/01		8.60	6.68	<50	<0.5	<0.5	<0.5	<0.5	30
	03/21/02		9.49	5.79	NS	NS	NS	NS	NS	NS
	04/17/02		10.37	4.91	<50	<0.5	<0.5	<0.5	<0.5	3.2
	08/14/02		12.13	3.15	<50	<0.5	<0.5	<0.5	<0.5	<2.5
ADR-1	06/26/00	13.95	10.55	3.40	NA	NA	NA	NA	NA	NA
	07/20/00		10.85	3.10	180	29	<0.5	0.8	<1.0	22
	09/19/00		11.08	2.87	120	7.4	<0.5	1.2	<1.0	22
	12/26/00		10.93	3.02	<50	1.29	<0.5	<0.5	<0.5	14.7
	03/20/01		9.32	4.63	225	23.4	<0.5	8.71	4.13	10.8
	06/12/01		10.65	3.30	250	23	0.5	13	4.2	7.5
	09/23/01		11.25	2.70	<50	1.4	<0.5	<0.5	0.57	2.8
	12/28/01		8.43	5.52	250	16	<0.5	1.2	4.1	6.8
	03/21/02		8.27	5.68	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	04/17/02		9.17	4.78	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	08/14/02		11.88	2.07	<50	1.1	<0.5	<0.5	<0.5	<2.5

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Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
ADR-2	06/26/00	14.64	11.22	3.42	NA	NA	NA	NA	NA	NA
	07/20/00		11.60	3.04	12,000	410	2.5	540	720	23
	09/19/00		11.81	2.83	1,400	530	5	680	740	34
	12/26/00		11.52	3.12	901	26.6	<5.0	21.4	32.5	32.8
	03/20/01		10.10	4.54	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen
	06/12/01		11.41	3.23	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen
	09/23/01		11.98	2.66	5300	370	<5.0	550	96	60
	12/28/01		9.48	5.16	2,600	190	<5.0	160	29	61
	03/21/02		9.1	5.54	180	6	<0.5	4.5	3.2	15
	04/17/02		9.93	4.71	730	86	<0.5	13	<0.5	<25
	08/14/02		12.09	2.55	1,300^b	170	<10	100	47	<50
A-1	06/26/00	14.16	10.75	3.41	NA	NA	NA	NA	NA	NA
	07/20/00		11.01	3.15	3,900	1,100	28	12	46	25
	09/19/00		11.26	2.90	4,800	2,400	27	20	57	32
	12/26/00		10.96	3.20	429	104	2.85	12.2	9.91	18.7
	03/20/01		9.59	4.57	<500	13.9	7.12	13.9	23.2	<25
	06/12/01		10.83	3.33	140	2.2	<0.5	8.7	9.2	25
	09/23/01		11.43	2.73	<50	<0.50	<0.50	<0.50	<0.50	4.5
	12/28/01		8.66	5.50	930	250.0	7.6	21	13	<25
	03/21/02		8.43	5.73	<50	<0.5	<0.5	<0.5	1.2	<2.5
	04/17/02		9.36	4.80	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	08/14/02		11.12	3.04	170^b	8.4	<0.5	<0.5	1.4	4.9
A-2	06/26/00	14.55	11.27	3.28	NA	NA	NA	NA	NA	NA
	07/20/00		11.52	3.03	<50	<0.5	<0.5	<0.5	<1.0	<3
	09/19/00		11.63	2.92	NS	NS	NS	NS	NS	NS
	12/26/00		11.44	3.11	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/20/01		10.08	4.47	NS	NS	NS	NS	NS	NS
	06/12/01		11.35	3.2	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	09/23/01		11.92	2.63	NS	NS	NS	NS	NS	NS
	12/28/01		9.31	5.24	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/21/02		9.05	5.5	NS	NS	NS	NS	NS	NS
	04/17/02		9.88	4.67	52	<0.5	<0.5	<0.5	<0.5	26
	08/14/02		11.62	2.93	<50	<0.5	<0.5	<0.5	1.2^c	<2.5

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #2169
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Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
A-3	06/26/00	15.75	11.98	3.77	NS	NS	NS	NS	NS	NS
	07/20/00		12.21	3.54	NS	NS	NS	NS	NS	NS
	09/19/00		12.50	3.25	NS	NS	NS	NS	NS	NS
	12/26/00		12.17	3.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/20/01		10.70	5.05	NS	NS	NS	NS	NS	NS
	06/12/01		12.09	3.66	NS	NS	NS	NS	NS	NS
	09/23/01		12.65	3.1	NS	NS	NS	NS	NS	NS
	12/28/01		9.94	5.81	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/21/02		9.69	6.06	NS	NS	NS	NS	NS	NS
	04/17/02		10.61	5.14	NS	NS	NS	NS	NS	NS
	08/14/02		12.27	3.48	NS	NS	NS	NS	NS	NS
A-4	06/26/00	15.25	10.99	4.26	NS	NS	NS	NS	NS	NS
	07/20/00		11.16	4.09	NS	NS	NS	NS	NS	NS
	09/19/00		11.97	3.28	NS	NS	NS	NS	NS	NS
	12/26/00		11.19	4.06	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/20/01		9.81	5.44	NS	NS	NS	NS	NS	NS
	06/12/01		11.12	4.13	NS	NS	NS	NS	NS	NS
	09/23/01		11.63	3.62	NS	NS	NS	NS	NS	NS
	12/28/01		8.41	6.84	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	03/21/02		8.63	6.62	NS	NS	NS	NS	NS	NS
	04/17/02		9.68	5.57	NS	NS	NS	NS	NS	NS
	08/14/02		11.31	3.94	NS	NS	NS	NS	NS	NS
A-5	06/26/00	13.51	10.04	3.47	NA	NA	NA	NA	NA	NA
	07/20/00		10.31	3.20	730	140	11	<0.5	8.9	3
	09/19/00		10.55	2.96	160	13	<0.5	2.8	1.9	<3
	12/26/00		10.37	3.14	8,120	465	108	659	1,450	<250
	03/20/01		8.81	4.70	7,990	1,110	473	611	1,580	<250
	06/12/01		10.13	3.38	450	91	18	35	95	<5.0
	09/23/01		10.80	2.71	110	20	<0.5	5.0	5.0	2.7
	12/28/01		8.17	5.34	320	24	2	20	27	5
	03/21/02		7.78	5.73	2,500	420	85	130	350	31
	04/17/02		8.68	4.83	1,300	190	36	67	210	<25
	08/14/02		10.41	3.10	840^b	150	<5.0	68	41	<25

**Table 1
Groundwater Elevation and Analytical Data**

ARCO Service Station #2169
889 West Grand Avenue
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
A-6	06/26/00	13.51	10.09	3.42	NA	NA	NA	NA	NA	NA
	07/20/00		10.91	2.60	170	<0.5	<0.5	0.6	2.0	6
	09/19/00		11.27	2.24	<50	<0.5	<0.5	<0.5	<1.0	6
	12/26/00		10.65	2.86	56.2	<0.5	<0.5	<0.5	<0.5	8.17
	03/20/01		8.72	4.79	216	<0.5	<0.5	<0.5	1.8	19.9
	06/12/01		10.80	2.71	80	0.62	<0.5	<0.5	<0.5	15
	09/23/01		10.79	2.72	450	1.7	1.9	2.3	3.3	53
	12/28/01		8.05	5.46	270	0.98	3.5	0.77	1.4	26
	03/21/02		7.83	5.68	130	<0.5	<0.5	<0.5	<0.5	19
	04/17/02		8.73	4.78	<50	<0.5	<0.5	<0.5	<0.5	16
	08/14/02		10.43	3.08	980^b	4.8	2.6	2.0	4.9	75

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted

mg/L = Micrograms per liter

NM = Not measured

NC = Not calculated

NA = Not analyzed

NS = Not sampled

< = Not detected at or above specified laboratory method detection limit

a = Well was covered by stockpiled soil and not accessible

b = Chromatogram Pattern: Gasoline C6-C10

c = Primary and confirmation results varied by greater than 40% RPD. The values may still be useful for their intended purpose

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

Table 2
Groundwater Flow Direction and Gradient

ARCO Service Station #2169
 889 West Grand Avenue
 Oakland, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
07/20/00	Northwest	0.004
09/19/00	West-Northwest	0.003
12/26/00	Northwest	0.004
03/20/01	Northwest	0.003
06/12/01	Northwest	0.004
09/23/01	Northwest	0.004
12/28/01	Variable	Variable
03/21/02	Northwest	0.004
04/17/02	Northwest	0.003
08/14/02	West	0.003

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

Table 3
SVE System Analytical Results

ARCO Service Station #2169
889 West Grand Avenue
Oakland, California

Sample I.D.	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl-benzene (ppmv)	Total Xylenes (ppmv)	Purgeable Hydrocarbons (ppmv)	Methane (ppmv)
Influent	09/20/00	5.56	1.0	<0.12	0.88	246	47,000
Effluent	09/20/00	<0.016	<0.013	<0.012	<0.012	<2.4	5,700
Influent	10/23/00	<0.016	<0.013	<0.012	0.104	27.7	NA
Effluent	10/23/00	<0.016	<0.013	<0.012	<0.012	<2.4	NA
Influent	11/07/00	NA	NA	NA	NA	NA	>10,000 ^a
Effluent	11/17/01	NA	NA	NA	NA	NA	>10,000 ^a
Influent	12/26/00	NA	NA	NA	NA	NA	NM
Effluent	12/26/00	NA	NA	NA	NA	NA	NM
Influent	01/18/01	NA	NA	NA	NA	NA	1,200 ^a
Effluent	01/18/01	NA	NA	NA	NA	NA	1,200 ^a
Influent	02/06/01	NA	NA	NA	NA	NA	1,100 ^a
Effluent	02/06/01	NA	NA	NA	NA	NA	1,100 ^a
Influent	3/20/2001 ^b	NA	NA	NA	NA	NA	NM
Effluent	3/20/2001 ^b	NA	NA	NA	NA	NA	NM
Influent	04/26/01	0.0340	<0.013	<0.012	0.038	2.92	11,000
Effluent	04/26/01	<0.016	<0.013	<0.012	<0.012	<2.8	4,800
Influent	05/30/01	NA	NA	NA	NA	NA	>10,000 ^a
Effluent	05/30/01	NA	NA	NA	NA	NA	>10,000 ^a
Influent	06/12/01	NA	NA	NA	NA	NA	>10,000 ^a
Effluent	06/12/01	NA	NA	NA	NA	NA	>10,000 ^a
Influent	07/11/01	NA	NA	NA	NA	NA	>10,000 ^a
Effluent	07/11/01	NA	NA	NA	NA	NA	>10,000 ^a
Influent	08/01/01	NA	NA	NA	NA	NA	>10,000 ^a
Effluent	08/01/01	NA	NA	NA	NA	NA	>10,000 ^a
Influent	09/18/01	NA	NA	NA	NA	NA	>10,000 ^a
Effluent	09/18/01	NA	NA	NA	NA	NA	>10,000 ^a
Influent Total	10/02/01	1.6	0.45	0.092	0.29	51	27,000
Influent Cat	10/02/01	0.41	0.14	<0.012	0.08	15	23,000
Effluent	10/02/01	<0.016	<0.013	<0.012	<0.012	<2.8	11,000

Table 3
SVE System Analytical Results

ARCO Service Station #2169
889 West Grand Avenue
Oakland, California

Sample I.D.	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl-benzene (ppmv)	Total Xylenes (ppmv)	Purgeable Hydrocarbons (ppmv)	Methane (ppmv)
Influent Total	11/06/01	<0.16	0.31	0.12	<0.12	140	>10,000 ^a
Influent Cat	11/06/01	<0.16	<0.13	<0.12	<0.12	37	>10,000 ^a
Effluent	11/06/01	<0.016	<0.013	<0.012	<0.012	4.1	12 ^a
Influent Total	12/04/01	0.023	0.014	<0.012	<0.012	<2.8	1,000 ^a
Influent Cat	12/04/01	<0.016	<0.013	<0.012	<0.012	<2.8	3,200 ^a
Effluent	12/04/01	<0.016	<0.013	<0.012	<0.012	<2.8	550 ^a

ppmv = parts per million by volume

NS = Not sampled

NA = Not analyzed

NM = Not measured

^a Methane reading from field flame ionization detector reading

^b System down due to site construction activities

Table 4
SVE System Monitoring Table

Arco Service Station #2169
889 West Grand Avenue
Oakland, California

Date Sampled	Total Inlet Flow Rate (ft ³ /min)	Stack Flow Rate (ft ³ /min)	Hour Meter Reading	Change in Hours of Operation	TPHg Influent (ppmv)	TPHg Effluent (ppmv)	Benzene Influent (ppmv)	Benzene Effluent (ppmv)	TPHg Extraction Rate (lbs/day)	TPHg Mass Emission (lbs/day)	Benzene Extraction Rate (lbs/day)	Benzene Emission Rate (lbs/day)	Cumulative Volume of Processed Air (cubic feet)	Period TPHg Extraction (lbs)	Cumulative TPHg Extraction (lbs)
12/01/99	43	72	10,700	673	180	<5.0	0.2	<0.1	2.48	<0.12	0.003	<0.002	0.00 E+00	NC	9,010
09/20/00	175	204	11,062	362	246	<2.4	5.56	<0.016	13.74	<0.16	0.012	<0.001	4.42 E+06	122.3	9,132
10/23/00	183	212	11,062	0	27.7	<2.4	<0.016	<0.016	1.62	<0.16	<0.0008	<0.001	4.42 E+06	0	9,132
11/07/00	121	152	11,420	358	NS	NS	NS	NS	NC	NC	NC	NC	7.69 E+06	12.10	9,144
12/26/00 ^a	0	0	11,420	0	NS	NS	NS	NS	NC	NC	NC	NC	7.69 E+06	NC	9,144
01/18/01	228	257	11,421	1	0 ^b	0 ^b	NS	NS	0 ^b	0 ^b	NC	NC	7.71 E+06	0	9,144
02/06/01	228	257	11,422	1	0 ^b	0 ^b	NS	NS	0 ^b	0 ^b	NC	NC	7.72 E+06	0	9,144
03/20/01 ^c	0	0	11,422	0	NS	NS	NS	NS	NC	NC	NC	NC	7.72 E+06	0	9,144
04/26/01	175	204	11,423	1	2.92	<2.8	0.034	<0.016	0.16	<0.18	0.0017	<0.001	7.74 E+06	0	9,144
05/30/01	175	204	11,423	0	0 ^b	0 ^b	NS	NS	0 ^b	0 ^b	NC	NC	7.74 E+06	0	9,144
06/12/01	175	204	11,423	0	0 ^b	0 ^b	NS	NS	0 ^b	0 ^b	NC	NC	7.74 E+06	0	9,144
07/11/01	191	220	11,423	0	0 ^b	0 ^b	NS	NS	0 ^b	0 ^b	NC	NC	7.74 E+06	0	9,144
08/01/01	187	216	11,423	0	0 ^b	0 ^b	NS	NS	0 ^b	0 ^b	NC	NC	7.74 E+06	0	9,144
09/18/01	151	180	11,426	3	0 ^b	0 ^b	NS	NS	0 ^b	0 ^b	NC	NC	7.78 E+06	0	9,144
10/02/01	169	211	11,429	3	51	<2.8	1.6	<0.016	2.756	<0.189	0.078	<0.001	7.82 E+06	0.37	9,144
11/06/01	123	136	12,268	839	140	4.1	<0.16	<0.016	5.524	0.178	<0.006	<0.001	1.65 E+07	144.66	9,289
12/04/01	116	172	12,941	673	<2.8	<2.8	<0.016	<0.016	<0.104	<0.154	<0.001	<0.001	2.28 E+07	78.89	9,368

TPHg = Total petroleum hydrocarbons as gasoline

ppmv = Parts per million by volume.

NS = Not Sampled

NC = Not Calculated

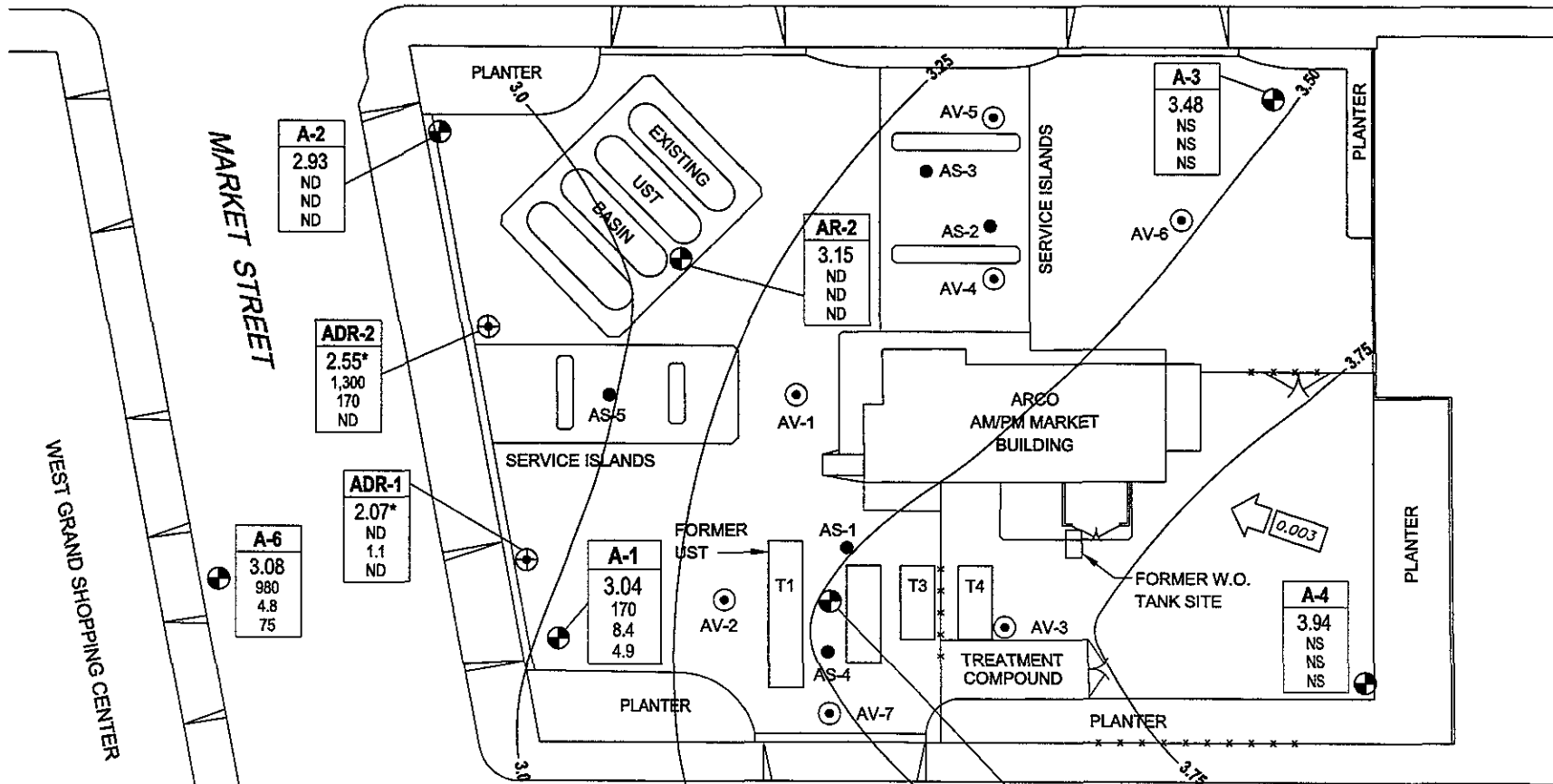
^aPower interrupt-system did not operate

^bNo samples collected, only FID results

^cSystem off due to site construction activities.

Note: Flow rates, extraction and emission rates were corrected from 9/20/00 through 02/06/01 due to previous faulty flow readings. Hour meters adjusted from 4/26/01 through 6/12/01 due to possible mis-reading.

WEST GRAND AVENUE



LEGEND

- A-1 MONITORING WELL LOCATION
- AV-1 VAPOR EXTRACTION WELL LOCATION
- ADR-1 GROUNDWATER MONITORING/VAPOR EXTRACTION WELL
- AS-1 AIR SPARGING WELL LOCATION
- 3.0 GROUNDWATER TABLE CONTOUR (FEET ABOVE MSL)
- 0.003 APPROXIMATE GROUNDWATER FLOW GRADIENT AND DIRECTION

Well	WELL DESIGNATION
ELEV	GROUNDWATER ELEVATION (FEET ABOVE MSL)
TPH-g	CONCENTRATION OF TPH-g, BENZENE AND MTBE IN MICROGRAMS PER LITER
Benzene	
MTBE	

- * NOT USED IN CONTOURING
- ND NOT DETECTED
- NS NOT SAMPLED



NORTH

0 50 100



SCALE IN FEET

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

URS	Project No. 38465940	GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP Third Quarter 2002 (August 14, 2002)	FIGURE 1
	Arco Service Station 2169 889 West Grand Avenue Oakland, California		

ATTACHMENT A
FIELD PROCEDURES AND FIELD DATA SHEETS

FIELD PROCEDURES

Sampling Procedures

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

WELL GAUGING DATA

Project # 020814-AMZ Date 8-14-02 Client ACC02169

Site 489 W Grand Ave. OAKLAND

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or FOO		
* A-1	3					11.12	24.50		S	P
* A-2	3					11.62	26.2		S	P
A-3	3					12.27	30.1		G	
A-4	3					11.31	28.4		G	
* A-5	2					10.41	30.		S	MP
A-6	2					10.43	26.5		S	MP
AR-1	6					12.08 12.13	24		S	P
* AR-2	4					12.13 12.07	29.3		S	MP
* ADR-1	4					11.66	21.9		S	MP
ADR-2	4					12.09	26.3	✓	S	MP
* Covered w/sock in well										

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020614-Au 2	Station # 2169
Sampler: <u> </u>	Date: 8-14-02
Well I.D.: A-1	Well Diameter: 2 (3) 4 6 8 <u> </u>
Total Well Depth: 24.50	Depth to Water: 11.12
Depth to Free Product: <u> </u>	Thickness of Free Product (feet): <u> </u>
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

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

Purge Method: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input checked="" type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: <u> </u>	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> 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.

4.9	x	3	=	14.7	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
16:27	71.0	7.6	1124	5	Cloudy
16:29	71.2	7.5	1129	10	" "
16:31	71.2	7.4	1132	15	" "

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 15	
Sampling Time: 16:35	Sampling Date: 8-14-02	
Sample I.D.: A-1	Laboratory: Pace (Sequoia) Other <u> </u>	
Analyzed for: (TPH-G BTEX MTBE TPH-D) Other: <u> </u>		
D.O. (if req'd):	Pre-purge: <u> </u> mg/L	Post-purge: 5.7 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 #: 020614-Au2	Station # 2169
Sampler: Au	Date: 8-14-02
Well I.D.: A-2	Well Diameter: 2 (3) 4 6 8
Total Well Depth: 26.2	Depth to Water: 11.62
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

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

Purge Method: Bailer Disposable Bailer Middleburg <input checked="" type="checkbox"/> Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer <input checked="" type="checkbox"/> 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.

5.3	x	3	=	15.9	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
16:01	70.6	7.5	863	5.3	Clear
16:03	70.3	7.2	1000	10.6	" "
16:05	70.0	7.2	1005	15.9	" "

Did well dewater? Yes <input checked="" type="checkbox"/> (NO)	Gallons actually evacuated: 15.9
Sampling Time: 16:10	Sampling Date: 8-14-02
Sample I.D.: A-2	Laboratory: Pace (Sequoia) Other _____
Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: 3.7 mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>020614-A-2</u>	Station # <u>2169</u>
Sampler: <u>Am</u>	Date: <u>8-14-02</u>
Well I.D.: <u>A-5</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>30</u>	Depth to Water: <u>12.41</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>
<input type="checkbox"/> Disposable Bailer <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Disposable Bailer
<input type="checkbox"/> Middleburg	<input type="checkbox"/> Extraction Port
<input type="checkbox"/> Electric Submersible	Other: _____
<input type="checkbox"/> Extraction Pump	
Other: _____	

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

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
<u>14:25</u>	<u>72.6</u>	<u>6.6</u>	<u>965</u>	<u>0</u>	<u>cloudy</u>

Did well dewater? Yes No Gallons actually evacuated: 0

Sampling Time: 14:25 Sampling Date: 8-14-02

Sample I.D.: A-5 Laboratory: Page (Sequoia) Other _____

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other: _____

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 #: 020614-A-2	Station # 2169
Sampler: <i>bl</i>	Date: 8-14-02
Well I.D.: A-6	Well Diameter: (2) 3 4 6 8
Total Well Depth: 26.5	Depth to Water: 10.43
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

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

Purge Method: Bailer Disposable Bailer <input checked="" type="checkbox"/> Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer Disposable Bailer <input checked="" type="checkbox"/> Extraction Port Other: _____
--	---

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

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
14:51	73.3	7.1	979	0	Cloudy

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 0
Sampling Time: 14:51	Sampling Date: 8-14-02
Sample I.D.: A-6	Laboratory: Pace (Sequoia) Other _____
Analyzed for: (TPH-G) BTEX MTBE TPH-D Other:	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: 1.5 mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>020614-AW2</u>	Station # <u>2169</u>
Sampler: <u>AW</u>	Date: <u>8-14-02</u>
Well I.D.: <u>AR-1</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth: <u>28</u>	Depth to Water: <u>12.08</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: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input checked="" type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <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>23.4</u>	x	<u>3</u>	=	<u>70.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
15:22	72.1	8.1	523	23.4	dark brown
15:25	72.7	7.9	510	46.6	" "
15:26	72.5	7.9	737	70.2	" "

Did well dewater? Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No	Gallons actually evacuated: <u>70.2</u>
Sampling Time: <u>15:30</u>	Sampling Date: <u>8-14-02</u>
Sample I.D.: <u>AR-1</u>	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>TPH-G BTEX MTBE</u> TPH-D Other:	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>2.2</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020614-Ar-2	Station # 2169
Sampler: <u> </u>	Date: 8-14-02
Well I.D.: AR-2	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth: 29.3	Depth to Water: 12.13
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> Disposable Bailer Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Other: _____
---	--

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

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
13:05	71.5	7.9	916	0	Clear

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>0</u>
Sampling Time: 13:05	Sampling Date: 8-14-02
Sample I.D.: AR-2	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>TPH-G BTEX MTBE</u> TPH-D Other:	
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 #: 020614-Au2	Station # 2169
Sampler: <i>AW / PVB</i>	Date: 8-14-02
Well I.D.: ADR-1	Well Diameter: 2 3 4 6 8 <u> </u>
Total Well Depth: 21.9	Depth to Water: 11.066
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(Yst)</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: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <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 screen. Otherwise, the well must be purged.

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

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1532	74.9	6.7	1322	—	Clear
					ORCs in well.

Did well dewater? Yes : <u>(No)</u>	Gallons actually evacuated: <u> </u>
Sampling Time: 1530	Sampling Date: 8-14-02
Sample I.D.: ADR-1	Laboratory: Pace <u>(Sequoia)</u> Other _____
Analyzed for: <u>(TPH-G BTEX MTBE)</u> TPH-D Other:	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>(3.4)</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 020614-AR-2	Station # 2169
Sampler: <i>AM / MGB</i>	Date: 8-14-02
Well I.D.: APR-2	Well Diameter: 2 3 4 6 8
Total Well Depth: 26.3	Depth to Water: 12.0
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

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

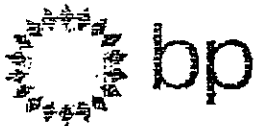
Purge Method: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port Other: _____
---	---

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

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

Time	Temp (°F)	pH	Conductivity (mS or μ S)	Gals. Removed	Observations
1547	72.1	7.0	1496	—	Cloudy, Odor, Sheen DRCs in well.

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: _____
Sampling Time: 1545	Sampling Date: 8-14-02
Sample I.D.: APR-2	Laboratory: Pace Sequoia Other _____
Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: 0.9 mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV



Chain of Custody Record

Project Name 020414-AMZ

BP BU/GEM CO Portfolio: _____

BP Laboratory Contract Number: _____

Date: 8-14-02

Requested Due Date (mm/dd/yy) _____

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

Recipient Name: <u>SEQUOIA</u> Address: <u>885 Jarvis Dr. Morgan Hill, CA 95037</u> PM: <u>Latonya Pelt</u> Tel/Fax: <u>408-776-9600 / 408-782-6308</u> Report Type & QC Level: <u>Send EDF Reports</u> BP/GEM Account No.: _____	BP/GEM Facility No.: _____ BP/GEM Facility Address: <u>889 W. GRAND AVE, OAKLAND, CA</u> Site ID No.: <u>ARCO 2169</u> Site Lat/Long: _____ California Global ID #: <u>T0600100112</u> BP/GEM PM Contact: <u>PAUL SUPPLE</u> Address: _____ Tele/Fax: _____	Consultant/Contractor: <u>URS</u> Address: <u>529 12th St., Ste. 200 Oakland, CA 94609-4014</u> e-mail EDD: <u>syed_rehan@urscorp.com</u> Consultant/Contractor Project No.: <u>J5-00002169.01 00427</u> Consultant Tele/Fax: <u>510-874-3280/510-874-3268</u> Consultant/Contractor PM: <u>Scott Robinson</u> Invoice to: <u>Consultant/Contractor or (BP/GEM (circle one))</u> BP/GEM Work Release No.: _____
--	--	--

Bottle Order 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)	TPH -D (8015)	MTBE (8021)	MTBE, TAME, ETBE DIPE, TBA (8260)	1,2-DCA & EDB (8260)					
1	A-1	16:35		X			3						X	X	X							
2	A-2	16:10					3						X	X	X							
3	A-3	14:28					3						X	X	X							
4	A-6	14:51					3						X	X	X							
5	AR-1	15:30					3						X	X	X							
6	AR-2	13:05					3						X	X	X							
7	ADR-1	15:30					3						X	X	X							
8	ADR-2	15:46					3						X	X	X							
9																						
10																						

Supplier's Name: <u>Albert</u> Supplier's Company: <u>Blaine Tech</u> Shipment Date: _____ Shipment Method: _____ Shipment Tracking No.: _____	Relinquished By / Affiliation: <u>[Signature]</u> Date: <u>8/15/02</u> Time: <u>11:00</u>	Accepted By / Affiliation: <u>[Signature] SER</u> Date: <u>8/15/02</u> Time: <u>17:00</u>
--	--	--

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

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

WELLHEAD INSPECTION CHECKLIST AND REPAIR ORDER

Client ARCO # 2169 Inspection Date 4-14-02

Site Address 449 W. Grand Ave Inspected By AM

1. Lid on box?	6. Casing secure?	12. Water standing in wellbox?	15. Well cap functional?
2. Lid broken?	7. Casing cut level?	12a. Standing above the top of casing?	16. Can cap be pulled loose?
3. Lid bolts missing?	8. Debris in wellbox?	12b. Standing below the top of casing?	17. Can cap seal out water?
4. Lid bolts stripped?	9. Wellbox is too far above grade?	12c. Water even with the top of casing?	18. Padlock present?
5. Lid seal intact?	10. Wellbox is too far below grade?	13. Well cap present?	19. Padlock functional?
	11. Wellbox is crushed/damaged?	14. Well cap found secure?	

Check box if no deficiencies were found. Note below deficiencies you were able to correct.

Well I.D.	Deficiency	Corrective Action Taken

Note below all deficiencies that could not be corrected and still need to be corrected.

Well I.D.	Persisting Deficiency	BTS Office assigns or defers Correction to:	Date assigned	Date corrected
A-4	Missing 2 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 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:

Area 2169	
Station #	
949 W. GOARD AVE	
Station Address	
Total Gallons Collected From Groundwater Monitoring Wells:	
added equip. rinse water <u>5</u>	any other adjustments _____
TOTAL GALS. RECOVERED <u>107</u>	loaded onto BTS vehicle # <u>11</u>
BTS event #	time date
<u>020614 - Area</u>	<u>16:00</u> <u>6/17/02</u>
signature _____	

REC'D AT	time date
<u>Alford</u>	<u>17:00</u> <u>6/14/02</u>
unloaded by signature <u>[Signature]</u>	

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



**Sequoia
Analytical**

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

29 August, 2002

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

RE: ARCO #2169, Oakland, Ca
Sequoia Report: MLH0349

Enclosed are the results of analyses for samples received by the laboratory on 08/15/02 12:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt
Project Manager

CA ELAP Certificate #1210



**Sequoia
Analytical**

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

Project: ARCO #2169, Oakland, Ca
Project Number: ARCO #2169, Oakland, CA
Project Manager: Scott Robinson

Reported:
08/29/02 10:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-1	MLH0349-01	Water	08/14/02 16:35	08/15/02 12:10
A-2	MLH0349-02	Water	08/14/02 16:10	08/15/02 12:10
A-5	MLH0349-03	Water	08/14/02 14:25	08/15/02 12:10
A-6	MLH0349-04	Water	08/14/02 14:51	08/15/02 12:10
AR-1	MLH0349-05	Water	08/14/02 15:30	08/15/02 12:10
AR-2	MLH0349-06	Water	08/14/02 13:05	08/15/02 12:10
ADR-1	MLH0349-07	Water	08/14/02 15:30	08/15/02 12:10
ADR-2	MLH0349-08	Water	08/14/02 15:45	08/15/02 12:10

Sequoia Analytical - Morgan Hill

Latonya K. Felt

Latonya Felt, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: ARCO #2169, Oakland, CA
Project Number: ARCO #2169, Oakland, CA
Project Manager: Scott Robinson

Reported:
08/29/02 10:47

Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-1 (MLH0349-01) Water Sampled: 08/14/02 16:35 Received: 08/15/02 12:10									
Gasoline Range Organics (C6-C10)	170	50	ug/l	1	2H21002	08/21/02	08/21/02	8015Bm/8021	HC-21
								B	
Benzene	8.4	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	1.4	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	4.9	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		124 %	70-130		"	"	"	"	
A-2 (MLH0349-02) Water Sampled: 08/14/02 16:10 Received: 08/15/02 12:10									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2H21002	08/21/02	08/21/02	8015Bm/8021	
								B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	1.2	0.50	"	"	"	"	"	"	QR-04
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		102 %	70-130		"	"	"	"	
A-5 (MLH0349-03) Water Sampled: 08/14/02 14:25 Received: 08/15/02 12:10									
Gasoline Range Organics (C6-C10)	840	500	ug/l	10	2H21002	08/21/02	08/21/02	8015Bm/8021	HC-21
								B	
Benzene	150	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	68	5.0	"	"	"	"	"	"	
Xylenes (total)	41	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	25	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		102 %	70-130		"	"	"	"	



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

Project: ARCO #2169, Oakland, Ca
Project Number: ARCO #2169, Oakland, CA
Project Manager: Scott Robinson

Reported:
08/29/02 10:47

Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-6 (MLH0349-04) Water Sampled: 08/14/02 14:51 Received: 08/15/02 12:10									
Gasoline Range Organics (C6-C10)	980	100	ug/l	2	2H21001	08/21/02	08/21/02	8015Bm/8021 B	HC-21
Benzene	4.8	1.0	"	"	"	"	"	"	
Toluene	2.6	1.0	"	"	"	"	"	"	
Ethylbenzene	2.0	1.0	"	"	"	"	"	"	
Xylenes (total)	4.9	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	75	5.0	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		96.2 %	70-130	"	"	"	"	"	
AR-1 (MLH0349-05) Water Sampled: 08/14/02 15:30 Received: 08/15/02 12:10									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2H21002	08/21/02	08/21/02	8015Bm/8021 B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	1.3	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		111 %	70-130	"	"	"	"	"	
AR-2 (MLH0349-06) Water Sampled: 08/14/02 13:05 Received: 08/15/02 12:10									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2H21002	08/21/02	08/21/02	8015Bm/8021 B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		109 %	70-130	"	"	"	"	"	



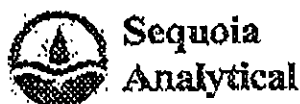
URS Corporation
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #2169, Oakland, Ca
Project Number: ARCO #2169, Oakland, CA
Project Manager: Scott Robinson

Reported:
08/29/02 10:47

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
ADR-1 (MLH0349-07) Water Sampled: 08/14/02 15:30 Received: 08/15/02 12:10									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2H21001	08/21/02	08/21/02	8015Bm/8021 B	
Benzene	1.1	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		104 %		70-130	"	"	"	"	
ADR-2 (MLH0349-08) Water Sampled: 08/14/02 15:45 Received: 08/15/02 12:10									
Gasoline Range Organics (C6-C10)	1300	1000	ug/l	20	2H21002	08/21/02	08/21/02	8015Bm/8021 B	IIC-21
Benzene	170	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	100	10	"	"	"	"	"	"	
Xylenes (total)	47	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	50	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		101 %		70-130	"	"	"	"	



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URS Corporation 500 12th Street, Suite 100 Oakland CA, 94607	Project: ARCO #2169, Oakland, Ca Project Number: ARCO #2169, Oakland, CA Project Manager: Scott Robinson	Reported: 08/29/02 10:47
--	--	-----------------------------

Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%RBC Limits	RPD	RPD Limit	Notes
Batch 2H21001 - EPA 5030B [P/T]										
Blank (2H21001-BLK1) Prepared & Analyzed: 08/21/02										
Gasoline Range Organics (C6-C10)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: <i>a,a,a</i> -Trifluorotoluene	98.4		"	10.0		98.4	70-130			
LCS (2H21001-BS1) Prepared & Analyzed: 08/21/02										
Benzene	11.0	0.50	ug/l	10.0		110	70-130			
Toluene	11.1	0.50	"	10.0		111	70-130			
Ethylbenzene	10.5	0.50	"	10.0		105	70-130			
Xylenes (total)	33.9	0.50	"	30.0		113	70-130			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	11.3		"	10.0		113	70-130			
LCS (2H21001-BS2) Prepared & Analyzed: 08/21/02										
Gasoline Range Organics (C6-C10)	246	50	ug/l	250		98.4	70-130			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	10.7		"	10.0		107	70-130			
Matrix Spike (2H21001-MS1) Source: MLH0349-07 Prepared: 08/21/02 Analyzed: 08/22/02										
Gasoline Range Organics (C6-C10)	52.7	50	ug/l	550	ND	95.8	60-140			
Benzene	10.7	0.50	"	6.60	1.1	145	60-140			QM-07
Toluene	44.5	0.50	"	39.7	ND	112	60-140			
Ethylbenzene	9.80	0.50	"	9.20	ND	105	60-140			
Xylenes (total)	50.4	0.50	"	46.1	ND	109	60-140			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	10.8		"	10.0		108	70-130			
Matrix Spike Dup (2H21001-MSD1) Source: MLH0349-07 Prepared: 08/21/02 Analyzed: 08/22/02										
Gasoline Range Organics (C6-C10)	426	50	ug/l	550	ND	77.5	60-140	21.2	25	
Benzene	11.3	0.50	"	6.60	1.1	185	60-140	5.45	25	QM-07
Toluene	45.7	0.50	"	39.7	ND	115	60-140	2.66	25	
Ethylbenzene	10.0	0.50	"	9.20	ND	107	60-140	2.02	25	
Xylenes (total)	51.5	0.50	"	46.1	ND	112	60-140	2.16	25	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	11.5		"	10.0		115	70-130			

Sequoia Analytical - Morgan Hill

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

Project: ARCO #2169, Oakland, Ca
Project Number: ARCO #2169, Oakland, CA
Project Manager: Scott Robinson

Reported:
08/29/02 10:47

Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
Batch: 2H21002 - EPA 50303 (P/T)										
Blank (2H21002-BLK1) Prepared & Analyzed: 08/21/02										
Gasoline Range Organics (C6-C10)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: <i>a,a,a</i> -Trifluorotoluene	11.0		"	10.0		110	70-130			
LCS (2H21002-BR1) Prepared & Analyzed: 08/21/02										
Benzene	10.7	0.50	ug/l	10.0		107	70-130			
Toluene	10.7	0.50	"	10.0		107	70-130			
Ethylbenzene	10.4	0.50	"	10.0		104	70-130			
Xylenes (total)	32.1	0.50	"	30.0		107	70-130			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	10.5		"	10.0		105	70-130			
LCS (2H21002-BR2) Prepared & Analyzed: 08/21/02										
Gasoline Range Organics (C6-C10)	250	50	ug/l	250		100	70-130			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	12.3		"	10.0		123	70-130			
Matrix Spike (2H21002-MS1) Source: MLH0349-06 Prepared & Analyzed: 08/21/02										
Gasoline Range Organics (C6-C10)	527	50	ug/l	550	ND	95.8	60-140			
Benzene	11.9	0.50	"	6.60	ND	180	60-140			QM-07
Toluene	41.0	0.50	"	39.7	ND	103	60-140			
Ethylbenzene	9.82	0.50	"	9.20	ND	107	60-140			
Xylenes (total)	47.4	0.50	"	46.1	ND	103	60-140			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	11.4		"	10.0		114	70-130			
Matrix Spike Dup (2H21002-MSD1) Source: MLH0349-06 Prepared & Analyzed: 08/21/02										
Gasoline Range Organics (C6-C10)	467	50	ug/l	550	ND	84.9	60-140	12.1	25	
Benzene	12.6	0.50	"	6.60	ND	191	60-140	5.71	25	QM-07
Toluene	41.5	0.50	"	39.7	ND	105	60-140	1.21	25	
Ethylbenzene	9.86	0.50	"	9.20	ND	107	60-140	0.407	25	
Xylenes (total)	47.6	0.50	"	46.1	ND	103	60-140	0.421	25	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	11.2		"	10.0		112	70-130			

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



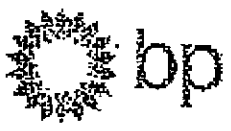
LRS Corporation
500 12th Street, Suite 100
Oakland, CA, 94607

Project: ARCO #2169, Oakland, Ca
Project Number: ARCO #2169, Oakland, CA
Project Manager: Scott Robinson

Reported:
08/29/02 10:47

Notes and Definitions

- HC-21 Chromatogram Pattern; Gasoline C6-C10
- 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-04 Primary and confirmation results varied by greater than 40% RPD. 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 D20414-AR2

11640349

BP/BGEM CO Portfolio:

BP Laboratory Contract Number:

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

Date: 8-14-02

Requested Due Date (mandatory):

Send To:	BP/BGEM Facility No.:	Consultant/Contractor:
Lab Name: SEQUOIA	BP/BGEM Facility Address: 889 W. GRAND AVE, OAKLAND, CA	Address: 529 12th St., Ste. 200
Lab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. ARCO 2169	Oakland, CA 94609-4014
	Site Location:	e-mail EDD: synd_rehan@urscorp.com
	California Global ID #: T0500100112	Consultant/Contractor Project No.: JS-00002169.01 00427
Lab PM: Latonya Pez	BP/BGEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-3200/510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: Send EDP Reports	Tele/Fax:	Invoice to: Consultant/Contractor or BP/BGEM (check one)
BP/BGEM Account No.:		BP/BGEM Work Release No:

Urn No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives			Requested Analysis					Sample Point Lat/Long and Comments
			Soil/Solid	Water/Liquid	Sediment	Air			Unpreserved	H2O2	HNO3	HCl	TELETYPE (NO. 575021)	TELETYPE (5015)	MTBE (5021)	MTBE, XANENE, BTEX (PIPE, TOL) (5020)	
1	A-1	11:35	X			11	3				X	X	X				
2	A-2	11:40				12					X	X	X				
3	A-5	11:45				13					X	X	X				
4	A-6	11:51				14					X	X	X				
5	AR-1	11:53				15					X	X	X				
6	AR-2	11:55				16					X	X	X				
7	ADR-1	11:58				17					X	X	X				
8	ADR-2	11:59				18					X	X	X				
9																	
10																	

Sampler's Name: <u>Albert</u>	Called/Checked By / Affiliation: <u>BT</u>	Date: <u>8/15/02</u>	Time: <u>11:00</u>	Accepted By / Affiliation: <u>with SGA</u>	Date: <u>8/15/02</u>	Time: <u>11:00</u>
Sampler's Company: <u>Business Tech</u>		Date: <u>8/15/02</u>	Time: <u>11:30</u>		Date: <u>8/15/02</u>	Time: <u>11:30</u>
Equipment Date:		Date: <u>8/15/02</u>	Time: <u>12:10</u>		Date: <u>8/15/02</u>	Time: <u>12:10</u>
Equipment Method:						
Event Tracking No.:						

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

Seals in Place Yes No Temperature Blank Yes No Cooler Temperature on Receipt 42 °C Trip Blank Yes No

Attention: White Copy - Laboratory / Yellow Copy - BP/BGEM / Pink Copy - Consultant/Contractor

ATTACHMENT C
HISTORIC GROUNDWATER DATA

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

ARCO Service Station 2169
889 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC	Depth	FP	Groundwater	Date Sampled	TPH			Ethyl-	Total	MTBE	MTBE	TPH	Dissolved	Purged/
		Elevation (ft-MSL)	to Water (feet)	Thickness (feet)	Elevation (ft-MSL)		Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	benzene (µg/L)	Xylenes (µg/L)	8021B* (µg/L)	8260 (µg/L)	Diesel (µg/L)	Oxygen (mg/L)	Not Purged (P/NP)
A-1	03-24-95	14.16	8.10	ND	6.06	03-24-95	1,200	230	39	34	66	--	--	160		
A-1	06-05-95	14.16	11.13	ND	3.03	06-05-95	1,500	310	27	36	76	--	--	710		
A-1	08-17-95	14.16	11.71	ND	2.45	08-18-95	1,600	470	35	48	110	120	--	240		
A-1	12-04-95	14.16	12.28	ND	1.88	12-04-95	1,200	240	17	25	56	--	120	--		
A-1	03-01-96	14.16	8.78	ND	5.38	03-13-96	1,300	300	74	29	73	100	--	--		
A-1	05-29-96	14.16	9.85	ND	4.31	05-29-96	Not sampled: well sampled semi-annually, during the first and third quarters									
A-1	08-29-96	14.16	11.08	ND	3.08	08-29-96	1,200	320	5.9	25	27	110	--	--		
A-1	11-21-96	14.16	10.54	ND	3.62	11-21-96	Not sampled: well sampled semi-annually, during the first and third quarters									
A-1	03-26-97	14.16	10.55	ND	3.61	03-26-97	<50	0.8	<0.5	<0.5	<0.5	64	--	--		
A-1	05-21-97	14.16	11.10	ND	3.06	05-21-97	Not sampled: well sampled semi-annually, during the first and third quarters									
A-1	08-08-97	14.16	11.32	ND	2.84	08-08-97	91	7	<0.5	0.5	3.9	<60	--	--		
A-1	11-18-97	14.16	3.46	ND	10.70	11-18-97	54	<0.5	<0.5	<0.5	0.6	27	--	--		
A-1	02-20-98	14.16	7.10	ND	7.06	02-23-98	590	160	22	15	28	70	--	--		
A-1	05-11-98	14.16	9.87	ND	4.29	05-11-98	280	26	<0.5	0.8	2.3	6	--	--		
A-1	07-30-98	14.16	10.73	ND	3.43	07-30-98	1,000	210	5	<5	38	<30	--	--		
A-1	10-08-98	14.16	11.15	ND	3.01	10-08-98	3,100	740	11	<10	24	<60	--	--		
A-1	02-18-99	14.16	8.00	ND	6.16	02-18-99	510	87	7.1	6.4	13	52	--	--		
A-1	05-26-99	14.16	10.60	ND	3.56	05-26-99	240	26	<0.5	1.2	6.2	34	--	--		
A-1	08-23-99	14.16	11.22	ND	2.94	08-23-99	79	3.9	0.6	<0.5	1.7	38	--	--	0.68	NP
A-1	10-27-99	14.16	11.37	ND	2.79	10-27-99	110	2.2	<0.5	<0.5	<1	25	--	--	0.80	NP
A-1	01-31-00	14.16	9.44	ND	4.72	01-31-00	<50	<0.5	<0.5	<0.5	<1	<3	--	--	1.0	NP
A-2	03-24-95	14.55	8.64	ND	5.91	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-2	06-05-95	14.55	11.72	ND	2.83	06-05-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-2	08-17-95	14.55	12.35	ND	2.20	08-17-95	<50	<0.5	<0.5	<0.5	<0.5	12	--	--		
A-2	12-04-95	14.55	12.74	ND	1.81	12-04-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-2	03-01-96	14.55	9.34	ND	5.21	03-13-96	<50	<0.5	0.6	<0.5	1.3	<9	--	--		

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1995 - Present***

ARCO Service Station 2169
889 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC	Depth to Water (feet)	FP Thickness (feet)	Groundwater		TPH			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)	
		Elevation (ft-MSL)			Elevation (ft-MSL)	Date Sampled	Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)								
A-2	05-29-96	14.55	10.40	ND	4.15	05-29-96	<50	<0.5	<0.5	<0.5	<0.5	<20	--	--			
A-2	08-29-96	14.55	11.50	ND	3.05	08-29-96	<50	<0.5	<0.5	<0.5	<0.5	<39	--	--			
A-2	11-21-96	14.55	11.06	ND	3.49	11-21-96	<50	<0.5	<0.5	<0.5	<0.5	<30	--	--			
A-2	03-26-97	14.55	11.12	ND	3.43	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	<20	--	--			
A-2	05-21-97	14.55	11.58	ND	2.97	05-21-97	Not sampled: well sampled semi-annually, during the first and third quarters										
A-2	08-08-97	14.55	11.82	ND	2.73	08-08-97	<50	<0.5	<0.5	<0.5	<0.5	<20	--	--			
A-2	11-18-97	14.55	3.33	ND	11.22	11-18-97	Not sampled: well sampled semi-annually, during the first and third quarters										
A-2	02-20-98	14.55	7.68	ND	6.87	02-20-98	<50	<0.5	<0.5	<0.5	<0.5	17	--	--			
A-2	05-11-98	14.55	10.45	ND	4.10	05-11-98	Not sampled										
A-2	07-30-98	14.55	11.23	ND	3.32	07-30-98	Not sampled: well sampled semi-annually, during the first and second quarters										
A-2	10-08-98	14.55	11.62	ND	2.93	10-08-98	Not sampled: well sampled semi-annually, during the first and second quarters										
A-2	02-18-99	14.55	8.62	ND	5.93	02-18-99	93	<0.5	<0.5	<0.5	<1	26	--	--			
A-2	05-26-99	14.55	11.16	ND	3.39	05-26-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--			
A-2	08-23-99	14.55	11.69	ND	2.86	08-23-99	Not sampled: well sampled semi-annually, during the first and second quarters										0.59
A-2	10-27-99	14.55	11.88	ND	2.67	10-27-99	Not sampled: well sampled semi-annually, during the first and second quarters										0.59
A-2	01-31-00	14.55	10.17	ND	4.38	01-31-00	<50	<0.5	<0.5	<0.5	<1	<3	--	--	1.0	NP	
A-3	03-24-95	15.75	8.83	ND	6.92	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--			
A-3	06-05-95	15.75	12.44	ND	3.31	06-05-95	Not sampled: well sampled annually										
A-3	08-17-95	15.75	13.04	ND	2.71	08-17-95	Not sampled: well sampled annually										
A-3	12-04-95	15.75	13.57	ND	2.18	12-04-95	Not sampled: well sampled annually										
A-3	03-01-96	15.75	9.90	ND	5.85	03-13-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--			
A-3	05-29-96	15.75	11.08	ND	4.67	05-29-96	Not sampled: well sampled annually										
A-3	08-29-96	15.75	12.38	ND	3.37	08-29-96	Not sampled: well sampled annually										
A-3	11-21-96	15.75	11.86	ND	3.89	11-21-96	Not sampled: well sampled annually										
A-3	03-26-97	15.75	11.81	ND	3.94	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--			
A-3	05-21-97	15.75	12.35	ND	3.40	05-21-97	Not sampled: well sampled annually										

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Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)
A-3	08-08-97	15.75	12.62	ND	3.13	08-08-97	Not sampled: well sampled annually									
A-3	11-18-97	15.75	3.75	ND	12.00	11-18-97	Not sampled: well sampled annually									
A-3	02-20-98	15.75	8.06	ND	7.69	02-20-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-3	05-11-98	15.75	11.19	ND	4.56	05-11-98	Not sampled: well sampled annually									
A-3	07-30-98	15.75	12.05	ND	3.70	07-30-98	Not sampled: well sampled annually									
A-3	10-08-98	15.75	12.43	ND	3.32	10-08-98	Not sampled: well sampled annually									
A-3	02-18-99	15.75	9.05	ND	6.70	02-18-99	Not sampled: well sampled annually									
A-3	05-26-99	15.75	11.93	ND	3.82	05-26-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-3	08-23-99	15.75	12.57	ND	3.18	08-23-99	Not sampled: well sampled annually									
A-3	10-27-99	15.75	12.65	ND	3.10	10-27-99	Not sampled: well sampled annually									
A-3	01-31-00	15.75	9.55	ND	6.20	01-31-00	<50	<0.5	<0.5	<0.5	<1	9	--	--	1.0	NP
A-4	03-24-95	15.25	7.20	ND	8.05	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-4	06-05-95	15.25	11.70	ND	3.55	06-05-95	Not sampled: well sampled annually									
A-4	08-17-95	15.25	12.28	ND	2.97	08-17-95	Not sampled: well sampled annually									
A-4	12-04-95	15.25	12.63	ND	2.62	12-04-95	Not sampled: well sampled annually									
A-4	03-01-96	15.25	8.55	ND	6.70	03-13-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-4	05-29-96	15.25	10.32	ND	4.93	05-29-96	Not sampled: well sampled annually									
A-4	08-29-96	15.25	11.55	ND	3.70	08-29-96	Not sampled: well sampled annually									
A-4	11-21-96	15.25	10.83	ND	4.42	11-21-96	Not sampled: well sampled annually									
A-4	03-26-97	15.25	10.97	ND	4.28	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-4	05-21-97	15.25	11.51	ND	3.74	05-21-97	Not sampled: well sampled annually									
A-4	08-08-97	15.25	11.73	ND	3.52	08-08-97	Not sampled: well sampled annually									
A-4	11-18-97	15.25	4.37	ND	10.88	11-18-97	Not sampled: well sampled annually									
A-4	02-20-98	15.25	6.25	ND	9.00	02-20-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-4	05-11-98	15.25	10.33	ND	4.92	05-11-98	Not sampled: well sampled annually									
A-4	07-30-98	15.25	11.25	ND	4.00	07-30-98	Not sampled: well sampled annually									

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Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)	
A-4	10-08-98	15.25	11.62	ND	3.63	10-08-98	Not sampled: well sampled annually										
A-4	02-18-99	15.25	7.12	ND	8.13	02-18-99	Not sampled: well sampled annually										
A-4	05-26-99	15.25	11.12	ND	4.13	05-26-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--			
A-4	08-23-99	15.25	11.62	ND	3.63	08-23-99	Not sampled: well sampled annually										
A-4	10-27-99	15.25	11.74	ND	3.51	10-27-99	Not sampled: well sampled annually										
A-4	01-31-00	15.25	9.45	ND	5.80	01-31-00	<50	<0.5	<0.5	<0.5	<1	4	--	--	1.0	NP	
A-5	03-24-95	13.51	7.40	ND	6.11	03-24-95	3,300	200	310	130	460	--	--	--			
A-5	06-05-95	13.51	10.43	ND	3.08	06-05-95	57,000	2,700	4,600	1,500	6,800	--	--	--			
A-5	08-17-95	13.51	11.15	ND	2.36	08-18-95	34,000	1,600	2,700	1,100	5,100	<28	--	--			
A-5	12-04-95	13.51	11.42	ND	2.09	12-04-95	61	<0.5	<0.5	<0.5	<0.5	--	--	--			
A-5	03-01-96	13.51	8.11	ND	5.40	03-13-96	11,000	860	960	380	1,600	<100	--	--			
A-5	05-29-96	13.51	9.30	ND	4.21	05-29-96	19,000	1,600	1,900	880	3,300	<100	--	--			
A-5	08-29-96	13.51	10.60	ND	2.91	08-29-96	7,700	490	450	260	990	<30	--	--			
A-5	11-21-96	13.51	10.05	ND	3.46	11-21-96	8,000	450	550	340	1,100	<30	--	--			
A-5	03-26-97	13.51	9.87	ND	3.64	03-26-97	3,100	190	140	130	340	<30	--	--			
A-5	05-21-97	13.51	10.25	ND	3.26	05-21-97	16,000	1,500	900	700	2,700	<120	--	--			
A-5	08-08-97	13.51	10.42	ND	3.09	08-08-97	9,000	690	240	440	1,300	<30	--	--			
A-5	11-18-97	13.51	Not surveyed: well inaccessible														
A-5	02-20-98	13.51	Not surveyed: well inaccessible														
A-5	05-11-98	13.51	Not surveyed: well inaccessible														
A-5	07-30-98	13.51	Not surveyed: well inaccessible														
A-5	10-08-98	13.51	Not surveyed: well inaccessible														
A-5	02-18-99	13.51	7.63	ND	5.88	02-18-99	<50	0.8	<0.5	<0.5	1.5	<10	--	--			
A-5	05-26-99	13.51	9.85	ND	3.66	05-26-99	1,700	240	41	110	330	<12	--	--			
A-5	08-23-99	13.51	10.60	ND	2.91	08-23-99	560	65	3	30	52	<6	--	--	0.73	NP	
A-5	10-27-99	13.51	10.72	ND	2.79	10-27-99	480	93	1.0	16	19	<3	--	--	0.65	NP	

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							Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)									
A-5	01-31-00	13.51	9.37	ND	4.14	01-31-00	Not sampled: well was inaccessible											
A-6	03-24-95	13.51	7.89	ND	5.62	03-24-95	120	<0.5	<1	<0.5	<1.5	--	--	--				
A-6	06-05-95	13.51	10.06	ND	3.45	06-05-95	160	<0.5	<0.6	<0.5	<0.5	--	--	--				
A-6	08-17-95	13.51	11.10	ND	2.41	08-18-95	530	<0.5	<0.5	<2.4	<4.2	6	--	--				
A-6	12-04-95	13.51	11.52	ND	1.99	12-04-95	28,000	1,600	1,800	880	3,600	--	--	--				
A-6	03-01-96	13.51	8.21	ND	5.30	03-13-96	1,400	<3	<15	<7	<10	<20	--	--				
A-6	05-29-96	13.51	9.25	ND	4.26	05-29-96	410	<2	<2	<2	<2	3	--	--				
A-6	08-29-96	13.51	10.52	ND	2.99	08-29-96	80	<0.5	<0.5	<0.5	<0.5	6	--	--				
A-6	11-21-96	13.51	10.54	ND	2.97	11-21-96	62	<0.5	<0.5	<0.5	<0.5	12	--	--				
A-6	03-26-97	13.51	9.93	ND	3.58	03-26-97	110	<0.5	0.8	1	1.4	15	--	--				
A-6	05-21-97	13.51	10.54	ND	2.97	05-21-97	600	0.6	0.6	<2	2.7	<3	--	--				
A-6	08-08-97	13.51	10.77	ND	2.74	08-08-97	850	<0.5	<0.5	6.1	<0.5	<4	--	--				
A-6	11-18-97	13.51	3.41	ND	10.10	11-18-97	690	<1	<1	3	2	7	--	--				
A-6	02-20-98	13.51	6.73	ND	6.78	02-20-98	60	<0.5	0.6	1.3	0.5	4	--	--				
A-6	05-11-98	13.51	9.26	ND	4.25	05-11-98	140	<0.5	0.7	0.6	<0.5	6	--	--				
A-6	07-30-98	13.51	10.12	ND	3.39	07-30-98	910	<2	<2	3	7	34	--	--				
A-6	10-08-98	13.51	10.53	ND	2.98	10-08-98	1,300	<2	4	3	4	21	--	--				
A-6	02-18-99	13.51	7.50	ND	6.01	02-18-99	150	<0.5	<0.5	1.4	1.7	35	--	--				
A-6	05-26-99	13.51	10.00	ND	3.51	05-26-99	100	<0.5	<0.5	<0.5	<0.5	17	--	--				
A-6	08-23-99	13.51	10.70	ND	2.81	08-23-99	98	0.6	<0.5	1.1	4.3	13	--	--	2.42	NP		
A-6	10-27-99	13.51	11.00	ND	2.51	10-27-99	<50	<0.5	<0.5	<0.5	<1	7	--	--	13.23	NP		
A-6	01-31-00	13.51	9.31	ND	4.20	01-31-00	<50	<0.5	<0.5	<0.5	<1	9	--	--	1.0	NP		
AR-1	03-24-95	15.61	7.25	ND	8.36	03-24-95	270	14	0.6	2.5	2.1	--	--	130				
AR-1	06-05-95	15.61	11.37	ND	4.24	06-05-95	190	10	<0.5	0.8	0.5	--	--	580				
AR-1	08-17-95	15.61	12.40	ND	3.21	08-17-95	960	110	12	4.5	150	14	--	<50				

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889 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC	Depth to Water (feet)	FP Thickness (feet)	Groundwater		TPH				Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
		Elevation (ft-MSL)			Elevation (ft-MSL)	Date Sampled	Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)						
AR-1	12-04-95	15.61	12.90	ND	2.71	12-04-95	<50	1.5	<0.5	<0.5	0.8	--	--	--		
AR-1	03-01-96	15.61	8.19	ND	7.42	03-13-96	150	3.8	0.5	1.4	1.3	<3	--	--		
AR-1	05-29-96	15.61	10.41	ND	5.20	05-29-96	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-1	08-29-96	15.61	12.12	ND	3.49	08-29-96	<50	<0.5	<0.5	<0.5	0.8	<3	--	--		
AR-1	11-21-96	15.61	11.52	ND	4.09	11-21-96	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-1	03-26-97	15.61	11.33	ND	4.28	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
AR-1	05-21-97	15.61	12.02	ND	3.59	05-21-97	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-1	08-08-97	15.61	12.31	ND	3.30	08-08-97	<50	0.7	<0.5	1	<0.5	<3	--	--		
AR-1	11-18-97	15.61	3.97	ND	11.64	11-18-97	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-1	02-20-98	15.61	6.42	ND	9.19	02-23-98	<200	<2	<2	<2	160	--	--	--		
AR-1	05-11-98	15.61	10.93	ND	4.68	05-11-98	<50	<0.5	<0.5	<0.5	<0.5	4	--	--		
AR-1	07-30-98	15.61	11.82	ND	3.79	07-30-98	<50	<0.5	<0.5	<0.5	<0.5	6	--	--		
AR-1	10-08-98	15.61	12.24	ND	3.37	10-08-98	<50	<0.5	<0.5	<0.5	<0.5	6	--	--		
AR-1	02-18-99	15.61	7.75	ND	7.86	02-18-99	<50	<0.5	<0.5	<0.5	<1.0	<10	--	--		
AR-1	05-26-99	15.61	11.62	ND	3.99	05-26-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
AR-1	08-23-99	15.61	9.32	ND	6.29	08-23-99	Not sampled: well sampled semi-annually, during the first and second quarters									
AR-1	10-27-99	15.61	12.14	ND	3.47	10-27-99	Not sampled: well sampled semi-annually, during the first and second quarters									
AR-1	01-31-00	15.61	Not surveyed: well inaccessible													
AR-2	03-24-95	15.28	9.13	ND	6.15	03-24-95	<50	6.2	<0.5	<0.5	0.6	--	--	<50		
AR-2	06-05-95	15.28	12.09	ND	3.19	06-05-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	<50		
AR-2	08-17-95	15.28	12.78	ND	2.50	08-18-95	<50	<0.5	<0.5	<0.5	<0.5	4	--	<50		
AR-2	12-04-95	15.28	11.44	ND	3.84	12-13-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
AR-2	03-01-96	15.28	9.83	ND	5.45	03-13-96	190	26	2.6	3.3	13	200	--	--		
AR-2	05-29-96	15.28	10.97	ND	4.31	05-29-96	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-2	08-29-96	15.28	12.20	ND	3.08	08-29-96	<50	<0.5	<0.5	<0.5	<0.5	95	--	--		
AR-2	11-21-96	15.28	11.57	ND	3.71	11-21-96	Not sampled: well sampled semi-annually, during the first and third quarters									

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

ARCO Service Station 2169
889 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC	Depth to Water (feet)	FP Thickness (feet)	Groundwater		TPH				Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)
		Elevation (ft-MSL)			Elevation (ft-MSL)	Date Sampled	Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)								
AR-2	03-26-97	15.28	11.60	ND	3.68	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	9	--	--			
AR-2	05-21-97	15.28	12.12	ND	3.16	05-21-97	Not sampled: well sampled semi-annually, during the first and third quarters										
AR-2	08-08-97	15.28	12.35	ND	2.93	08-08-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--			
AR-2	11-18-97	15.28	3.48	ND	11.80	11-18-97	Not sampled: well sampled semi-annually, during the first and third quarters										
AR-2	02-20-98	15.28	8.00	ND	7.28	02-20-98	<50	<0.5	<0.5	<0.5	<0.5	43	--	--			
AR-2	05-11-98	15.28	10.97	ND	4.31	05-11-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--			
AR-2	07-30-98	15.28	11.76	ND	3.52	07-30-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--			
AR-2	10-08-98	15.28	12.17	ND	3.11	10-08-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--			
AR-2	02-18-99	15.28	9.17	ND	6.11	02-18-99	<50	<0.5	<0.5	<0.5	<1.0	<10	--	--			
AR-2	05-26-99	15.28	11.72	ND	3.56	05-26-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--			
AR-2	08-23-99	15.28	12.31	ND	2.97	08-23-99	Not sampled: well sampled semi-annually, during the first and second quarters										
AR-2	10-27-99	15.28	12.42	ND	2.86	10-27-99	Not sampled: well sampled semi-annually, during the first and second quarters										
AR-2	01-31-00	15.28	10.31	ND	4.97	01-31-00	Not sampled										
ADR-1	03-24-95	13.95	8.04	0.01	** 5.92	03-24-95	Not sampled: well contained floating product										
ADR-1	06-05-95	13.95	11.02	ND	2.93	06-05-95	23,000	310	420	300	1,900	--	--	13,000			
ADR-1	08-17-95	13.95	11.86	ND	2.09	08-18-95	4,400	150	120	95	620	120	--	4,500			
ADR-1	12-04-95	13.95	10.05	ND	3.90	12-13-95	8,800	100	130	120	990	--	--	--			
ADR-1	03-01-96	13.95	8.76	ND	5.19	03-13-96	89,000	370	1,000	840	8,100	<500	--	--			
ADR-1	05-29-96	13.95	9.74	ND	4.21	05-30-96	27,000	230	380	370	2,700	<100	--	--			
ADR-1	08-29-96	13.95	10.77	ND	3.18	08-29-96	5,300	190	58	76	470	85	--	--			
ADR-1	11-21-96	13.95	10.49	ND	3.46	11-21-96	1,900	82	21	32	270	110	--	--			
ADR-1	03-26-97	13.95	10.37	ND	3.58	03-26-97	1,300	260	6	39	27	95	--	--			
ADR-1	05-21-97	13.95	10.90	ND	3.05	05-21-97	2,100	300	18	37	200	79	--	--			
ADR-1	08-08-97	13.95	11.12	ND	2.83	08-08-97	3,900	620	49	110	470	<200	--	--			
ADR-1	11-18-97	13.95	3.47	ND	10.48	11-18-97	18,000	900	140	360	2,700	<60	--	--			
ADR-1	02-20-98	13.95	Not surveyed: well inaccessible														

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

ARCO Service Station 2169
889 West Grand Avenue, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)	
							Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)								
ADR-1	05-11-98	13.95	Not surveyed: well inaccessible														
ADR-1	07-30-98	13.95	Not surveyed: well inaccessible														
ADR-1	10-08-98	13.95	Not surveyed: well inaccessible														
ADR-1	02-18-99	13.95	7.80	ND	6.15	02-18-99	200	4.4	<0.5	1.3	1.3	43	--	--			
ADR-1	05-26-99	13.95	10.40	ND	3.55	05-26-99	160	10	<0.5	1.7	1.8	43	--	--			
ADR-1	08-23-99	13.95	10.70	ND	3.25	08-23-99	7,400	310	16	210	970	18	--	--	0.37	NP	
ADR-1	10-27-99	13.95	10.82	ND	3.13	10-27-99	5,000	210	6.3	180	490	5	--	--	0.73	NP	
ADR-1	01-31-00	13.95	9.21	ND	4.74	01-31-00	290	3.6	<0.5	1.1	<1	26	--	--	1.0	NP	
ADR-2	03-24-95	14.64	8.41	>3.00	NR[1]	03-24-95	Not sampled: well contained floating product										
ADR-2	06-05-95	14.64	11.45	>3.00	NR[1]	06-05-95	Not sampled: well contained floating product										
ADR-2	08-17-95	14.64	12.10	0.03	** 2.56	08-17-95	Not sampled: well contained floating product										
ADR-2	12-04-95	14.64	10.93	0.03	** 3.73	12-13-95	Not sampled: well contained floating product										
ADR-2	03-01-96	14.64	8.74	ND	5.90	03-13-96	29,000	1,100	1,200	710	3,800	<500	--	--			
ADR-2	05-29-96	14.64	10.43	ND	4.21	05-29-96	33,000	510	500	470	2,300	120	--	--			
ADR-2	08-29-96	14.64	11.64	ND	3.00	08-29-96	8,000	230	180	150	730	53	--	--			
ADR-2	11-21-96	14.64	11.23	ND	3.41	11-21-96	15,000	630	440	390	2,100	75	--	--			
ADR-2	03-26-97	14.64	11.13	ND	3.51	03-26-97	6,100	320	23	180	400	32	--	--			
ADR-2	05-21-97	14.64	11.64	ND	3.00	05-21-97	6,100	380	22	210	320	<30	--	--			
ADR-2	08-08-97	14.64	11.85	ND	2.79	08-08-97	8,400	380	35	230	910	<30	--	--			
ADR-2	11-18-97	14.64	3.33	ND	11.31	11-18-97	11,000	230	29	300	1,200	<60	--	--			
ADR-2	02-20-98	14.64	7.67	ND	6.97	02-20-98	4,700	320	30	130	360	20	--	--			
ADR-2	05-11-98	14.64	10.47	ND	4.17	05-11-98	Not sampled										
ADR-2	07-30-98	14.64	Not surveyed: well inaccessible														
ADR-2	10-08-98	14.64	11.67	ND	2.97	10-08-98	Not sampled										
ADR-2	02-18-99	14.64	Not surveyed: well inaccessible														
ADR-2	05-26-99	14.64	11.02	ND	3.62	05-26-99	5,900	670	5	340	104	16	--	--			

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

**ARCO Service Station 2169
889 West Grand Avenue, Oakland, California**

Well Number	Date Gauged	TOC	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH				Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
		Elevation (ft-MSL)					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)						
ADR-2	08-23-99	14.64	9.82	ND	4.82	08-23-99	9,100	570	12	410	1,000	28	--	--	0.50	NP
ADR-2	10-27-99	14.64	9.85	Sheen	4.79	10-27-99	Not sampled: sheen present								0.65	NP
ADR-2	01-31-00	14.64	10.15	ND	4.49	01-31-00	7,700	280	3.4	370	390	23	--	--	2.0	NP

TOC: top of casing

ft-MSL: elevation in feet, relative to mean sea level

TPH: total petroleum hydrocarbons, California DHS LUFT Method

BTEX: benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 10/27/99).

MTBE: Methyl tert-butyl ether

µg/L: micrograms per liter

mg/L: milligrams per liter

ND: none detected

NR: not reported; data not available or not measurable

--: not analyzed or not applicable

<: denotes concentration not present at or above laboratory detection limit stated to the right.

[1]: well contained more than 3 feet of floating product; exact product thickness and groundwater elevation could not be measured

*: EPA method 8020 prior to 10/27/99

** [corrected elevation (Z')] = Z + (h * 0.73) where: Z = measured elevation, h = floating product thickness, 0.73 = density ratio of oil to water

***: For previous historical groundwater elevation data please refer to *Fourth Quarter 1995 Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, ARCO Service Station 2169, 889 West Grand Avenue, Oakland, California, (EMCON, March 4, 1996).*

**Table 2
Groundwater Flow Direction and Gradient**

**ARCO Service Station 2169
889 West Grand Avenue, Oakland, California**

Date Measured	Average Flow Direction	Average Hydraulic Gradient
03-24-95	Northwest	0.009
06-05-95	Northwest	0.002
08-17-95	West	0.001
12-04-95	North-Northwest	0.002
03-01-96	Northwest	0.003
05-29-96	Northwest	0.002
08-29-96	West	0.002
11-21-96	West-Northwest	0.002
03-26-97	Northwest	0.002
05-21-97	North-Northwest	0.002
08-08-97	North-Northwest	0.002
11-18-97	North-Northwest	0.003
02-20-98	North	0.013
05-11-98	North	0.03
07-30-98	North	0.002
10-08-98	North-Northwest	0.002
02-18-99	Northwest	0.008
05-26-99	North-Northwest	0.003
08-23-99	Variable	Variable
10-27-99	Variable	Variable
01-31-00	West-Northwest	0.006

Table 3
Soil Vapor Extraction System
Operational Uptime Information (1998 - present)
Arco Service Station No. 2169
889 West Grand Avenue, Oakland, California

Date	Meter (hrs.)	Operation (hrs.)	Period Operation				Cumulative Operation			
			Total (days)	Uptime (days)	Downtime (days)	Uptime (%)	Total (days)	Uptime (days)	Downtime (days)	Uptime (%)
04/01/98 ¹	7365.55	6909.60					1399	287.9	1111.1	21%
04/15/98	7365.55	6909.60								
06/22/98	7365.78	6909.83	68	0.0	68.0	0%	1467	287.9	1179.1	20%
08/20/98	7365.78	6909.83	59	0.0	59.0	0%	1526	287.9	1238.1	19%
10/07/98	7366.69	6910.74	48	0.0	48.0	0%	1574	287.9	1286.1	18%
10/08/98	7392.07	6936.12	1	1	0	100%	1575	289.0	1286.0	18%
10/30/98	7752.82	7296.87	22	15.0	7.0	68%	1597	304.0	1293.0	19%
11/18/98	7755.18	7299.23	19	0.1	18.9	1%	1616	304.1	1311.9	19%
11/25/98	7869.69	7413.74	7	4.8	2.2	68%	1623	308.9	1314.1	19%
12/08/98	8182.76	7726.81	13	13.0	0.0	100%	1636	322.0	1314.0	20%
02/05/99	8183.26	7727.31	59	0.0	59.0	0%	1695	322.0	1373.0	19%
03/19/99	8183.56	7727.61	42	0.0	42.0	0%	1737	322.0	1415.0	19%
04/27/99	8183.56	7727.61	39	0.0	39.0	0%	1776	322.0	1454.0	18%
06/21/99	8183.88	7727.93	55	0.0	55.0	0%	1831	322.0	1509.0	18%
06/24/99	8260.48	7804.53	3	3	0	106%	1834	325.2	1508.8	18%
08/19/99	8260.48	7804.53	56	0	56	0%	1890	325.2	1564.8	17%
08/25/99	8360.47	7904.52	6	4	2	69%	1896	329.4	1566.6	17%
09/08/99	8695.25	8239.3	14	14	0	100%	1910	343.3	1566.7	18%
09/09/99	8706.53	8250.58	1	0	1	47%	1911	343.8	1567.2	18%
09/21/99	8994.92	8538.97	12	12	0	100%	1923	355.8	1567.2	19%
10/05/99	9331.19	8875.24	14	14	0	100%	1937	369.8	1567.2	19%
10/19/99	9667.61	9211.66	14	14	0	100%	1951	383.8	1567.2	20%
11/03/99	10026.92	9570.97	15	15	0	100%	1966	398.8	1567.2	20%
11/17/99	10364.01	9908.06	14	14	0	100%	1980	412.8	1567.2	21%
12/01/99	10699.82	10243.87	14	14	0	100%	1994	426.8	1567.2	21%
12/16/99	11059.81	10603.86	15	15	0	100%	2009	441.8	1567.2	22%
01/05/00	11060.05	10604.1	20	0	20	0%	2029	441.8	1587.2	22%

¹ Operational data through 04/01/98 from First Quarter 1998 Quarterly Monitoring Report

Table 4
Soil Vapor Extraction System
Flow Rates and Analytical Results of Air Samples (1998 - present)

Arco Service Station No. 2169
889 West Grand Avenue, Oakland, California

Date	Sample Location	Vacuum (in. H2O)	Velocity (fpm)	Flowrate ¹ (scfm)	Analyses (ppmv)					
					TPHG	Benzene	Toulene	Ethylbenzene	Xylene	MTBE
10/08/98	Influent	21.2	750	35	190	<0.1	<0.1	<0.1	0.2	
	Effluent ²		3600	274.2	<5	<0.1	<0.1	<0.1	<0.2	
11/18/98	Influent	21	900	42	83	<0.1	0.4	0.4	0.9	
	Effluent		3300	253.4	<5	<0.1	<0.1	<0.1	<0.2	
12/08/98	Influent	25	1100	51	12	<0.1	0.3	<0.1	0.2	<0.8
	Effluent		3100	238.0	6	<0.1	0.3	<0.1	0.2	<0.8
06/21/99	Influent	40	1000	44	20	0.1	0.1	<0.1	<0.2	<0.8
	Effluent		2500	192.0	<5	<0.1	<0.1	<0.1	<0.2	<0.8
08/19/99	Influent	39.2	800	35	180	6.9	0.9	0.15	0.32	5.5
	Effluent		2800	215.0	<2.4	0.05	<0.013	<0.012	0.03	0.13
09/08/99	Influent	50.2	1500	65	71	0.2	0.2	0.2	0.9	1.1
	Effluent		2300	176.6	<5	<0.1	<0.1	<0.1	<0.2	<0.8
10/05/99	Influent	59	1700	71	42	0.3	<0.1	<0.1	0.3	<0.8
	Effluent		2300	176.6	<5	<0.1	0.1	<0.1	<0.2	<0.8
11/03/99	Influent	50	1700	73	240	<0.1	0.2	0.2	3.9	1.3
	Effluent		2200	168.9	<5	<0.1	<0.1	<0.1	<0.2	<0.8
12/01/99	Influent	50.1	1000	43	180	0.2	0.1	<0.1	2.3	<0.8
	Effluent		1250	96.0	<5	<0.1	0.2	<0.1	<0.2	<0.8

¹Influent Flow Rate, cfm = (Velocity, fpm)(Influent Pipe Area, sq. ft.)(406.8 in.H2O - Vacuum, in.H2O) / (406.8 in.H2O)
where Influent Pipe Diameter = 3"
Effluent Flow Rate, cfm = (Velocity, fpm)(Effluent Pipe Area, sq.ft.)[(460° R + 77° F)/(460° R + Vapor Temp F)]
where Effluent (after blower) Pipe Diameter = 4"
²Dilution air only

Table 5
Soil Vapor Extraction System
Extraction Rates, Emission Rates, Destruction Efficiency, and Mass Removed
(1998 - present)

Arco Service Station No. 2169
889 West Grand Avenue, Oakland, California

Date End	Extraction Rate from Wellfield ¹		Emission Rate to Atmosphere ²		Destruction Efficiency ³		Period Removal ⁴		Cumulative Removal	
	TPHG (lbs/day)	Benzene (lbs/day)	TPHG (lbs/day)	Benzene (lbs/day)	TPHG (%)	Benzene (%)	TPHG (lbs)	Benzene (lbs)	TPHG (lbs)	Benzene (lbs)
04/01/98 ⁵									8582.1	0
10/08/98	2.4351	0.0	<0.5037	<0.0079	Waived		39.5329	0	8621.6	0
11/18/98	1.2772	0.0	<0.4655	<0.0073	Waived		22.7538	0	8644.4	0
12/08/98	0.2233	0.0	0.5248	<0.0068	Waived		0.0104	0	8644.4	0
06/21/99	0.3251	0.0013	<0.3527	<0.0055	Waived		1.0376	0.0041	8645.4	0.0041
08/19/99	2.3459	0.0702	<0.1896	<0.0031	Waived		42.4964	1.2723	8687.9	1.2763
09/08/99	1.6830	0.0037	<0.3245	<0.0051	Waived		21.0150	0.0462	8708.9	1.3226
10/05/99	1.1005	0.0061	<0.3245	<0.0051	Waived		30.8459	0.1721	8739.8	1.4946
11/03/99	6.4514	0.0021	<0.3104	<0.0048	Waived		187.1967	0.0609	8927.0	1.5555
12/01/99	2.8454	0.0025	<0.1763	<0.0028	Waived		82.5210	0.0716	9009.5	1.6272

¹ Extraction Rate, lbs/day = (Influent Flow, cfm)(Influent conc., ppmv)(g/mole)(60 min/hr)(24 hr/day)(28.3 L/cf) / (10⁶)(24.45 moles/L)(453.6 g/lb)
where TPHG = 100 g/mole and Benzene = 78.1 g/mole; Influent conc. = 0, if reported as non-detect

² Emission Rate, lbs/day = (Effluent Flow, cfm)(Effluent conc., ppmv)(g/mole)(60 min/hr)(24 hr/day)(28.3 L/cf) / (10⁶)(24.45 moles/L)(453.6 g/lb)
where TPHG = 100 g/mole and Benzene = 78.1 g/mole; Effluent conc. = Method Reporting Limit, if reported as non-detect

³ Destruction Efficiency, % = (Extraction Rate - Emission Rate)(100) / (Extraction Rate); "Waived" = if TPHG emissions <1.0 lbs/day and Benzene emissions <0.02 lbs/day

⁴ Period Removal, lbs = (Extraction Rate)(Uptime)

⁵ Operational data through 4/1/98 from First Quarter 1998 Quarterly Monitoring Report

ATTACHMENT D

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

01/08/03

EDF 1 2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #2169, Oakland, Ca
Work Order Number:	MLH0349
Global ID:	T0600100112
Lab Report Number:	MLH0349082920021047

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotcti	Run	Sub
MLH03490829200	A-1 21047	MLH034901	W	CS	SW8020F	SW5030B	08/14/02	08/21/02	08/21/02	2H21002	1	
MLH03490829200	A-2 21047	MLH034902	W	CS	SW8020F	SW5030B	08/14/02	08/21/02	08/21/02	2H21002	1	
MLH03490829200	A-5 21047	MLH034903	W	CS	SW8020F	SW5030B	08/14/02	08/21/02	08/21/02	2H21002	1	
MLH03490829200	A-6 21047	MLH034904	W	CS	SW8020F	SW5030B	08/14/02	08/21/02	08/21/02	2H21001	1	
MLH03490829200	ADR-1 21047	MLH034907	W	CS	SW8020F	SW5030B	08/14/02	08/21/02	08/21/02	2H21001	1	
MLH03490829200	ADR-2 21047	MLH034908	W	CS	SW8020F	SW5030B	08/14/02	08/21/02	08/21/02	2H21002	1	
MLH03490829200	AR-1 21047	MLH034905	W	CS	SW8020F	SW5030B	08/14/02	08/21/02	08/21/02	2H21002	1	
MLH03490829200	AR-2 21047	MLH034906	W	CS	SW8020F	SW5030B	08/14/02	08/21/02	08/21/02	2H21002	1	
		2H21001BS1	WQ	BS1	SW8020F	SW5030B	//	08/21/02	08/21/02	2H21001	1	
		2H21001BS2	WQ	BS2	SW8020F	SW5030B	//	08/21/02	08/21/02	2H21001	1	
		2H21001BLK1	WQ	LB1	SW8020F	SW5030B	//	08/21/02	08/21/02	2H21001	1	
		2H21001MS1	W	MS1	SW8020F	SW5030B	//	08/21/02	08/22/02	2H21001	1	
		2H21001MSD1	W	SD1	SW8020F	SW5030B	//	08/21/02	08/22/02	2H21001	1	
		2H21002BS1	WQ	BS1	SW8020F	SW5030B	//	08/21/02	08/21/02	2H21002	1	
		2H21002BS2	WQ	BS2	SW8020F	SW5030B	//	08/21/02	08/21/02	2H21002	1	
		2H21002BLK1	WQ	LB1	SW8020F	SW5030B	//	08/21/02	08/21/02	2H21002	1	
		2H21002MS1	W	MS1	SW8020F	SW5030B	//	08/21/02	08/21/02	2H21002	1	
		2H21002MSD1	W	SD1	SW8020F	SW5030B	//	08/21/02	08/21/02	2H21002	1	

EDFSAMP: Error Summary Log

01/08/03

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

EDFTEST: Error Summary Log

01/08/03

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

EDFRES: Error Summary Log

01/08/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	2H21001MS1	MS1	W	SW8020F	PR	08/22/02	1	AAATFBZME
Warning: extra parameter	2H21001MS1	MS1	W	SW8020F	PR	08/22/02	1	GROC6C10
Warning: extra parameter	2H21001MSD1	SD1	W	SW8020F	PR	08/22/02	1	AAATFBZME
Warning: extra parameter	2H21001MSD1	SD1	W	SW8020F	PR	08/22/02	1	GROC6C10
Warning: extra parameter	2H21002MS1	MS1	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	2H21002MS1	MS1	W	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	2H21002MSD1	SD1	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	2H21002MSD1	SD1	W	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	MLH034901	CS	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	MLH034901	CS	W	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	MLH034901	CS	W	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	MLH034902	CS	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	MLH034902	CS	W	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	MLH034902	CS	W	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	MLH034903	CS	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	MLH034903	CS	W	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	MLH034903	CS	W	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	MLH034904	CS	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	MLH034904	CS	W	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	MLH034904	CS	W	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	MLH034905	CS	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	MLH034905	CS	W	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	MLH034905	CS	W	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	MLH034906	CS	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	MLH034906	CS	W	SW8020F	PR	08/21/02	1	GROC6C10

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	MLH034906	CS	W	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	MLH034907	CS	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	MLH034907	CS	W	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	MLH034907	CS	W	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	MLH034908	CS	W	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	MLH034908	CS	W	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	MLH034908	CS	W	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	2H21001BLK1	LB1	WQ	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	2H21001BLK1	LB1	WQ	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	2H21001BLK1	LB1	WQ	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	2H21001BS1	BS1	WQ	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	2H21001BS2	BS2	WQ	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	2H21001BS2	BS2	WQ	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	2H21002BLK1	LB1	WQ	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	2H21002BLK1	LB1	WQ	SW8020F	PR	08/21/02	1	GROC6C10
Warning: extra parameter	2H21002BLK1	LB1	WQ	SW8020F	PR	08/21/02	1	MTBE
Warning: extra parameter	2H21002BS1	BS1	WQ	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	2H21002BS2	BS2	WQ	SW8020F	PR	08/21/02	1	AAATFBZME
Warning: extra parameter	2H21002BS2	BS2	WQ	SW8020F	PR	08/21/02	1	GROC6C10

EDFQC: Error Summary Log

01/08/03

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

EDFCL: Error Summary Log

01/08/03

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

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