



# EMCON Associates

1921 Ringwood Avenue, San Jose, California 95131-1721 • (408) 453-7300 • Fax (408) 437-9526

HAZMAT

94 SEP -6 PM 3:55

Date: August 30, 1994  
Project OC75-005.24

To:

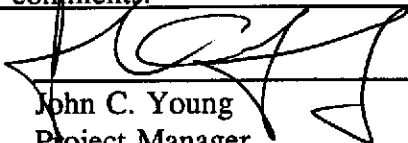
Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94621

We are enclosing:

Copies	Description
<u>1</u>	<u>Second Quarter 1994 Groundwater Monitoring Report</u>
	<u>for ARCO Service Station 4494</u>

For your:	<u>X</u>	Use	Sent by:	<u>        </u>	Regular Mail
	<u>        </u>	Approval		<u>        </u>	Standard Air
	<u>        </u>	Review		<u>        </u>	Courier
	<u>        </u>	Information		<u>X</u>	Other <u>Certified Mail</u>

Comments: Please call with any questions or comments.

  
John C. Young  
Project Manager





August 26, 1994  
Project OC75-005.24

Mr. Michael Whelan  
Environmental Engineer  
ARCO Products Company  
P. O. Box 5811  
San Mateo, California 94420

Re: Second quarter 1994 groundwater monitoring program results, ARCO service station 4494, Oakland, California

Dear Mr. Whelan:

This letter presents the results of the second quarter 1994 groundwater monitoring program at ARCO Products Company (ARCO) service station 4494, 566 Hegenberger Road, Oakland, California (Figure 1).

### **MONITORING PROGRAM RESULTS**

The second quarter 1994 groundwater monitoring event was performed by Integrated Wastestream Management, Inc. (IWM) on May 11, 1994. Wells MW-1, MW-3 through MW-7 and RW-1 are monitored quarterly. Groundwater samples collected during second quarter monitoring were analyzed for total petroleum hydrocarbons as gasoline (TPHG), and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Certified analytical reports, chain-of-custody documentation, and field data sheets are presented in Appendix A. Depths to groundwater and analytical data are presented in Table 1. Figure 2 presents groundwater elevation data along with TPHG and benzene concentrations from the May 11, 1994 monitoring event.

### **SITE STATUS UPDATE**

This update reports site activities performed during the second quarter of 1994 and the anticipated site activities for the third quarter of 1994.



Mr. Michael Whelan  
August 26, 1994  
Page 2

Project 0C75-005.24

### Second Quarter 1994 Activities

- Quarterly groundwater monitoring report for first quarter 1994 prepared and submitted by RESNA Industries Inc.
- IWM performed second quarter 1994 groundwater monitoring event.

### Work Anticipated Third Quarter


- Prepare and submit quarterly groundwater monitoring report for second quarter 1994.
- Perform quarterly groundwater monitoring for third quarter 1994.

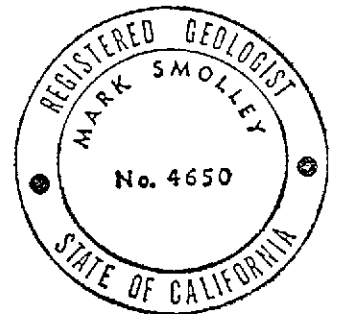
Please call if you have questions.

Sincerely,

EMCON Associates

  
John C. Young  
Project Manager

  
Mark Smolley, R.G. #4650  
Senior Project Geologist



Attachments: Table 1 - Summary of Groundwater Sample Analyses for ARCO Facility A-4494  
Figure 1 - Site Location  
Figure 2 - Site Plan  
Appendix A - Certified Analytical Report, Chain-of-Custody Documentation and Field Data Sheets

**Table 1**

**Summary of Ground Water Sample Analyses for ARCO Facility A-4494, Oakland, California**

WELL NUMBER	MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	RW-1	
DATE SAMPLED	5/11/94	5/11/94	5/11/94	5/11/94	5/11/94	5/11/94	5/11/94	
DEPTH TO WATER	6.57	8.09	8.29	6.18	5.98	7.45	7.96	
SHEEN	NONE	NONE	NONE	NONE	NONE	NONE	NONE	
PRODUCT THICKNESS	NA	NA	NA	NA	NA	NA	NA	
TPHg	ND	ND	ND	ND	ND	ND	3,300	
<b>BTEX</b>								
BENZENE	ND	ND	ND	ND	ND	ND	32	
TOLUENE	ND	ND	ND	ND	ND	ND	28	
ETHYLBENZENE	ND	ND	ND	ND	ND	ND	87	
XYLENES	ND	ND	ND	ND	ND	ND	310	

**FOOTNOTES:**

Concentrations reported in ug/L (ppb).

TPHg = Total Purgeable Petroleum Hydrocarbons (USEPA Method 8015 Modified)

BTEX Distinction (USEPA Method 8020)

PCE = Tetrachloroethene (USEPA Method 8010)

\* = Well inaccessible

\*\* = Not sampled per consultant request.

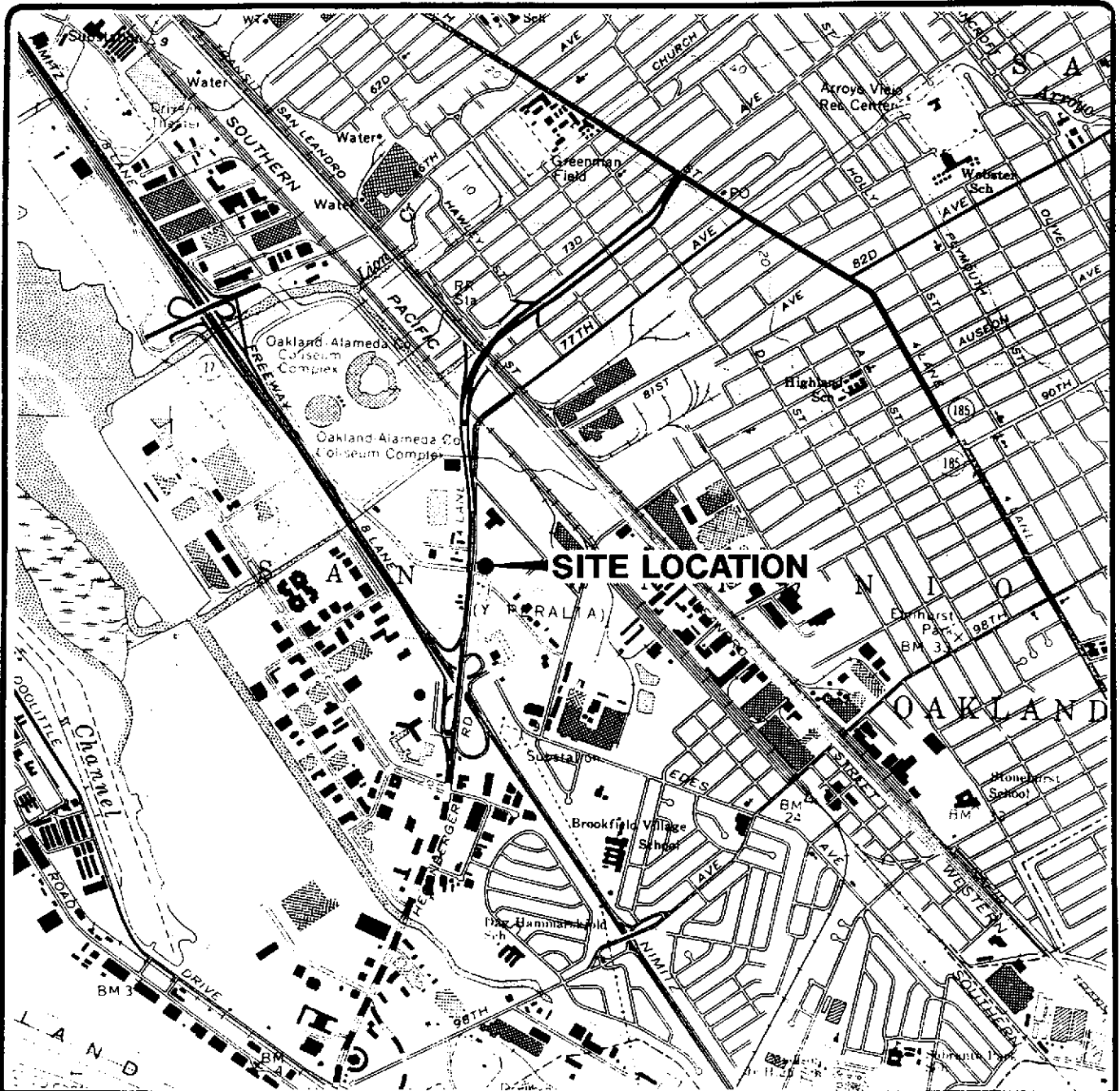
DCE = cis-1, 2-Dichloroethene (USEPA Method 8010)

TCE = Trichloroethene (USEPA Method 8010)

ND = Not Detected.

NA = Not applicable.

FP = Floating product.



Base map from USGS 7.5' Quad. Maps:  
Oakland East and San Leandro, California.  
Photorevised 1980.

Scale : 0 2000 4000 Feet



**EMCON**  
Associates

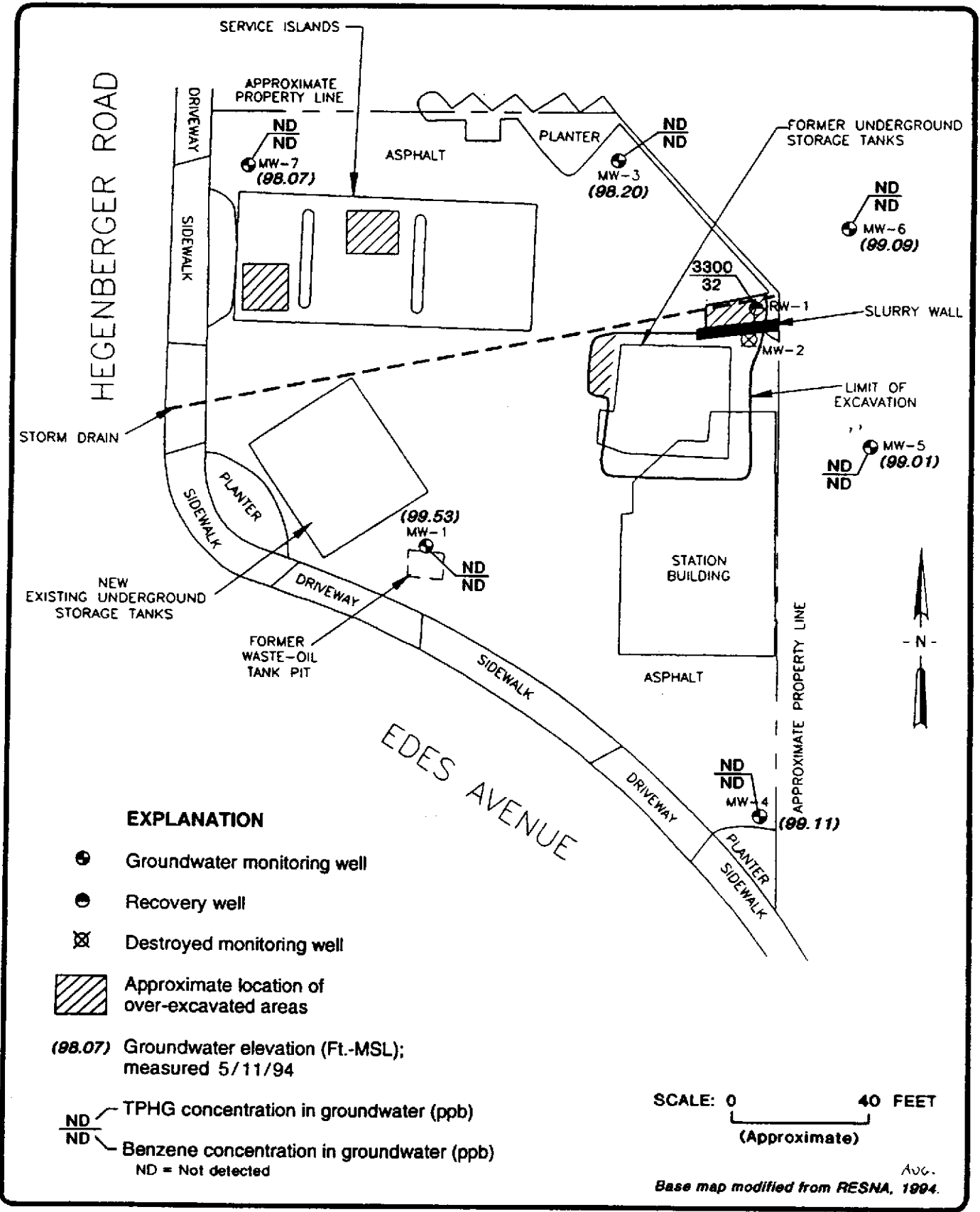
ARCO PRODUCTS COMPANY  
SERVICE STATION 4494, 566 HEGENBERGER RD.  
QUARTERLY GROUNDWATER MONITORING  
OAKLAND, CALIFORNIA

SITE LOCATION

FIGURE

**1**

PROJECT NO.  
C75-05.24



**EMCON**  
 Associates

ARCO PRODUCTS COMPANY  
 SERVICE STATION 4494, 566 HEGENBERGER RD.  
 QUARTERLY GROUNDWATER MONITORING  
 OAKLAND, CALIFORNIA

SITE PLAN

FIGURE

**2**

PROJECT NO.  
 C75-05.24

**APPENDIX A**

**CERTIFIED ANALYTICAL REPORT, CHAIN-OF-CUSTODY  
DOCUMENTATION AND FIELD DATA SHEETS**

# COLUMBIA ANALYTICAL SERVICES, Inc.

## Acronyms

ASTM	American Society for Testing and Materials
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NR	Not Requested
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
VPH	Volatile Petroleum Hydrocarbons



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IWM  
Project: ARCO Facility No. 4494  
Sample Matrix: Water

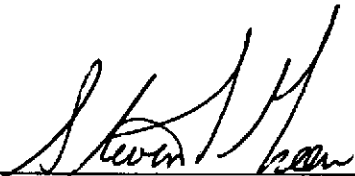
Date Collected: 5/11/94  
Date Received: 5/12/94  
Date Extracted: NA  
Service Request: SJ940573

BTEX and TPH as Gasoline  
EPA Methods 5030/8020/California DHS LUFT Method  
Units: µg/L(ppb)

Sample Name:	MW-1 (19)	MW-3 (9.3)	MW-4 (14.1)
Lab Code:	SJ940573-2	SJ940573-3	SJ940573-4
Date Analyzed:	5/19/94	5/19/94	5/19/94

Analyte	MRL			
Benzene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND
TPH as Gasoline	50	ND	ND	ND

Approved By: \_\_\_\_\_



Date: \_\_\_\_\_

5/26/94

3S22/041594

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IWM  
Project: ARCO Facility No. 4494  
Sample Matrix: Water

Date Collected: 5/11/94  
Date Received: 5/12/94  
Date Extracted: NA  
Service Request: SJ940573

BTEX and TPH as Gasoline  
EPA Methods 5030/8020/California DHS LUFT Method  
Units: µg/L(ppb)

Sample Name:	MW-5 (6.5)	MW-6 (6.1)	MW-7 (12.1)
Lab Code:	SJ940573-5	SJ940573-6	SJ940573-7
Date Analyzed:	5/19/94	5/19/94	5/19/94

Analyte	MRL			
Benzene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND
TPH as Gasoline	50	ND	ND	ND

Approved By: 

Date: 5/26/94

3S22/041594

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IWM  
Project: ARCO Facility No. 4494  
Sample Matrix: Water

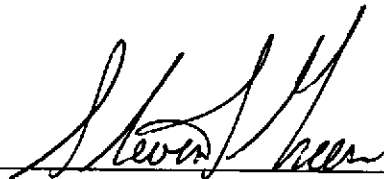
Date Collected: 5/11/94  
Date Received: 5/12/94  
Date Extracted: NA  
Service Request: SJ940573

BTEX and TPH as Gasoline  
EPA Methods 5030/8020/California DHS LUFT Method  
Units: µg/L(ppb)

Sample Name: RW-1 (9)      Method Blank  
Lab Code: SJ940573-8      SJ940519-WMB  
Date Analyzed: 5/19/94      5/19/94

Analyte	MRL		
Benzene	0.5	32	ND
Toluene	0.5	28	ND
Ethylbenzene	0.5	87	ND
Total Xylenes	0.5	310	ND
TPH as Gasoline	50	3,300	ND

Approved By: \_\_\_\_\_



Date: \_\_\_\_\_

5/26/94

3S22/041594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IWM  
Project: ARCO Facility No. 4494  
Sample Matrix: Water

Date Collected: 5/11/94  
Date Received: 5/12/94  
Date Extracted: NA  
Date Analyzed: 5/19/94  
Service Request: SJ940573

Surrogate Recovery Summary  
BTEX and TPH as Gasoline  
EPA Methods 5030/8020/California DHS LUFT Method

Sample Name	Lab Code	Percent Recovery $\alpha,\alpha,\alpha$ -Trifluorotoluene
MW-1 (19)	SJ940573-2	99
MW-3 (9.3)	SJ940573-3	103
MW-4 (14.1)	SJ940573-4	106
MW-5 (6.5)	SJ940573-5	104
MW-6 (6.1)	SJ940573-6	106
MW-7 (12.1)	SJ940573-7	106
RW-1 (9)	SJ940573-8	113
MW-1 (19) MS	SJ940573-2MS	107
MW-1 (19) DMS	SJ940573-2DMS	113
Method Blank	SJ940519-WMB	102

CAS Acceptance Limits: 69-116

Approved By:



Date:



SUR1/041594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IWM  
Project: ARCO Facility No. 4494

Date Analyzed: 5/19/94  
Service Request: SJ940573

Initial Calibration Verification (ICV) Summary  
BTEX and TPH as Gasoline  
EPA Methods 5030/8020/California DHS LUFT Method  
Units: ppb

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Benzene	25	25.8	103	85-115
Toluene	25	25.6	102	85-115
Ethylbenzene	25	25.5	102	85-115
Total Xylenes	75	77.9	104	85-115
TPH as Gasoline	250	245	98	90-110

Approved By: 

Date: 5/26/94

ICV24/041594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IWM  
Project: ARCO Facility No. 4494  
Sample Matrix: Water

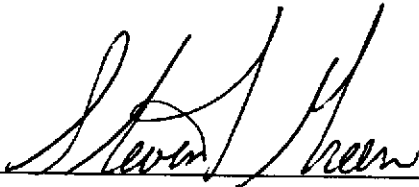
Date Collected: 5/11/94  
Date Received: 5/12/94  
Date Extracted: NA  
Date Analyzed: 5/19/94  
Service Request: SJ940573

Matrix Spike/Duplicate Matrix Spike Summary  
TPH as Gasoline  
EPA Method 5030/California DHS LUFT Method  
Units: µg/L (ppb)

Sample Name: MW-1 (19)  
Lab Code: SJ940573-2

Analyte	Spike Level		Sample Result	Spike Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference
	MS	DMS		MS	DMS	MS	DMS		
TPH as Gasoline	250	250	ND	232	243	93	97	67-121	5

Approved By:



Date:

5/26/94

DMS1S/041594

**ARCO Products Company**

Division of AtlanticRichfieldCompany

Task Order No. IWM-94-500

**Chain of Custody**

ARCO Facility no. a 4494

City (Facility) OAKLAND

Project manager (Consultant) TOM De San / J. Young

ARCO engineer MIKE Wheland

Telephone no. (ARCO) 415 571 2434

Telephone no. (Consultant) 408/9429955

Fax no. (Consultant) 408/9421499

Laboratory name Columbia

Consultant name IWM/Reana

Address (Consultant) 950 Ames Ad. Mulp. Ca 95035

Contract number 07077

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX EPA 802	BTEX/TPH EPA 802/802/8015	TPH Modified 8015 Gas Diesel	Oil and Grease 413.1 413.2	TPH EPA 418.1/SM503E	EPA 801/8010	EPA 824/8240	EPA 825/8270	TCLP Metals VOA VOC	Semi VOA VOC	CAMP EPA 801/807000 TTLC STLC	Lead Org/DHS Lead EPA 7420/7421		
			Soil	Water	Other	Ice	Acid																
FB-1	1	2		✓		✓	✓	5-11-94	900		✓	✓											
19 MW-1	2	2		✓		✓	✓		1308		✓	✓											
9-3 MW-3	3	2		✓		✓	✓		1224		✓	✓											
14-1 MW-4	4	2		✓		✓	✓		1327		✓	✓											
6-5 MW-5	5	2		✓		✓	✓		1348		✓	✓											
6-1 MW-6	6	2		✓		✓	✓		1207		✓	✓											
12-1 MW-7	7	2		✓		✓	✓		1249		✓	✓											
9 RW-1	8	2		✓		✓	✓		1410		✓	✓											

Method of shipment CAMPLER DELIVER

Special detection Limit/reporting

Special QA/QC

Remarks Hold on FB-1

Lab number 5194-0573

- Turnaround time
- Priority Rush 1 Business Day
  - Rush 2 Business Days
  - Expedited 5 Business Days
  - Standard 10 Business Days

Condition of sample:

OKAY

Temperature received:

COOL

Relinquished by sampler

The Salda

Date 5-12-94 Time 1313

Received by

J. Young CAS/SJ 5/12/94 1313

Relinquished by

Date \_\_\_\_\_ Time \_\_\_\_\_

Received by

Relinquished by

Date \_\_\_\_\_ Time \_\_\_\_\_

Received by laboratory

Date \_\_\_\_\_ Time \_\_\_\_\_

REC'D JUN 21 1994

**I** NTEGRATED  
**W** ASTESTREAM  
**M** ANAGEMENT, INC.

June 3, 1994

Mr. John Young  
RESNA Industries  
3315 Almaden Expressway, Suite 34  
San Jose, CA 95118


Dear Mr. Young:

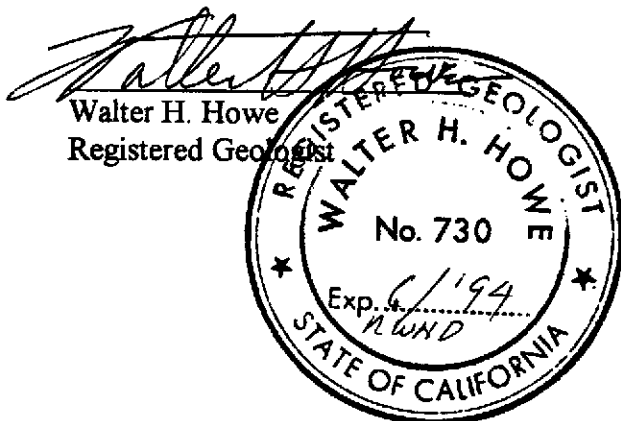
Attached are the field data sheets and analytical results for quarterly ground water sampling at ARCO Facility No. A-4494 in Oakland, California. Integrated Wastestream Management measured the depth to water and collected samples from wells at this site on May 11, 1994.

Sampling was carried out in accordance with the protocols described in the "Request for Bid for Quarterly Sampling at ARCO Facilities in Northern California".

Please call us if you have any questions.

Sincerely,  
Integrated Wastestream Management

  
Tom DeLon  
Project Manager





**Summary of Ground Water Sample Analyses for ARCO Facility A-4494, Oakland, California**

WELL NUMBER	MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	RW-1	
DATE SAMPLED	5/11/94	5/11/94	5/11/94	5/11/94	5/11/94	5/11/94	5/11/94	
DEPTH TO WATER	6.57	8.09	8.29	6.18	5.98	7.45	7.96	
SHEEN	NONE	NONE	NONE	NONE	NONE	NONE	NONE	
PRODUCT THICKNESS	NA	NA	NA	NA	NA	NA	NA	
TPHg	ND	ND	ND	ND	ND	ND	3,300	
<b>BTEX</b>								
BENZENE	ND	ND	ND	ND	ND	ND	32	
TOLUENE	ND	ND	ND	ND	ND	ND	28	
ETHYLBENZENE	ND	ND	ND	ND	ND	ND	87	
XYLENES	ND	ND	ND	ND	ND	ND	310	

**FOOTNOTES:**

Concentrations reported in ug/L (ppb).

TPHg = Total Purgeable Petroleum Hydrocarbons (USEPA Method 8015 Modified)

BTEX Distinction (USEPA Method 8020)

PCE = Tetrachloroethene (USEPA Method 8010)

\* = Well inaccessible

\*\* = Not sampled per consultant request.

DCE = cis-1, 2-Dichloroethene (USEPA Method 8010)

TCE = Trichloroethene (USEAP Method 8010)

ND = Not Detected.

NA = Not applicable.

FP = Floating product.

# FIELD REPORT

## Depth To Water / Floating Product Survey

NEW TD's taken on 5-11-94 From Top of Box

Site Arrival Time: 830

Site Departure Time: 1429

Weather Conditions: cloudy cool

DTW: Well Box or Well Casing (circle one)

Project No.: \_\_\_\_\_

Location: 560 DeSemberger Road

Date: May 11, 1994

Client / Station#: Arco 4494

Field Technician: Vince Valdes

Day of Week: Wednesday

DTW ORDER	WELL ID	SURFACE SEAL	LID SECURE	GASKET	LOCK	EXPANDING CAP	TOTAL DEPTH (Feet)	FIRST DEPTH TO WATER (Feet)	SECOND DEPTH TO WATER (Feet)	DEPTH TO FLOATING PRODUCT (Feet)	FLOATING PRODUCT THICKNESS (Feet)	SHIEN (Y=YES, N=NO)	COMMENTS	MATERIALS
4	MW-1	OK	yes	OK	R <sup>H</sup>	R <sup>H</sup>	23.2	6.57+	6.57+	N/A	N/A	N	4" missing both hex screws	hex
2	MW-3	OK	yes	OK	OK	OK	18.30	8.09	8.09	N/A	N/A	N	4" H <sub>2</sub> O in well box	10MM
5	MW-4	OK	yes	OK	OK	OK	16.80	8.29-	8.29-	N/A	N/A	N	4"	Allen
6	MW-5	OK	yes	OK	OK	OK	17.80	6.18	6.18	N/A	N/A	N	2" ANNULAR seal exceeds the length of 2" casing.	15/16
1	MW-6	OK	yes	OK	OK	OK	18.77	5.98	5.98	N/A	N/A	N	2"	15/16
3	MW-7	OK	yes	OK	OK	OK	14.70	7.45+	7.45+	N/A	N/A	N	4" missing screws loose threaded	hex 10mm
7	RW-1	OK	yes	OK	OK	OK	11.60	7.96	7.96	N/A	N/A	N	2" MARKS MEASURED from top of retrofitted 2" casing.	10MM

NR NEED Replacement

WELL ID: MW-6 TD 18.77 DTW 5.98 X 0.17 X 3 - 6.52  
Linear Ft. Volume Casing Calculated Purge

DATE PURGED: 5-11-94 START (2400 HR): 1202 END (2400 HR) 1205  
 DATE SAMPLED: 5-11-94 TIME (2400 HR): 1207 DTW: 6.1

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1204</u>	<u>2</u>	<u>6.84</u>	<u>4.11</u>	<u>67.0</u>	<u>clear</u>
<u>1204</u>	<u>5</u>	<u>6.82</u>	<u>3.97</u>	<u>66.4</u>	<u>clear</u>
<u>1205</u>	<u>7</u>	<u>6.84</u>	<u>3.94</u>	<u>66.3</u>	<u>clear</u>

Total purge: 7  
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.  
 REMARKS:

WELL ID: MW-3 TD 18.30 DTW 8.09 X 0.66 X 3 - 20.27  
Linear Ft. Volume Casing Calculated Purge

DATE PURGED: 5-11-94 START (2400 HR): 1218 END (2400 HR) 1222  
 DATE SAMPLED: 5-11-94 TIME (2400 HR): 1224 DTW: 9.3

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1219</u>	<u>2</u>	<u>7.06</u>	<u>3.38</u>	<u>67.9</u>	<u>clear</u>
<u>1220</u>	<u>9</u>	<u>7.34</u>	<u>1.86</u>	<u>66.5</u>	<u>cloudy</u>
<u>1221</u>	<u>14</u>	<u>7.23</u>	<u>3.23</u>	<u>66.1</u>	<u>clear</u>
<u>1222</u>	<u>20</u>	<u>7.21</u>	<u>4.97</u>	<u>66.0</u>	<u>clear</u>

Total purge: 20  
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.  
 REMARKS:

WELL ID: MW-7 TD 14.70 DTW 7.45+ X 0.66 X 3 - 14.35  
Linear Ft. Volume Casing Calculated Purge

DATE PURGED: 5-11-94 START (2400 HR): 1240 END (2400 HR) 1246  
 DATE SAMPLED: 5-11-94 TIME (2400 HR): 1249 DTW: 12.1

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1241</u>	<u>2</u>	<u>7.09</u>	<u>6.27</u>	<u>68.0</u>	<u>yellow</u>
<u>1242</u>	<u>6</u>	<u>6.76</u>	<u>4.65</u>	<u>66.9</u>	<u>yellow</u>
<u>1244</u>	<u>10</u>	<u>6.83</u>	<u>6.31</u>	<u>66.5</u>	<u>clear</u>
<u>1246</u>	<u>11</u>	<u>6.85</u>	<u>7.54</u>	<u>66.2</u>	<u>clear</u>

Total purge: 11  
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.  
 REMARKS: well pumped dry at 10 and 11 gallons.

WELL ID: MW-1 TD 23.2 DTW 6.57+ X 0.66 X 3 - 32.92  
Linear Ft. Volume Casing Calculated Purge

DATE PURGED: 5-11-94 START (2400 HR): 1259 END (2400 HR) 1305  
 DATE SAMPLED: 5-11-94 TIME (2400 HR): 1308 DTW: 19

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1301</u>	<u>4</u>	<u>6.78</u>	<u>11.22</u>	<u>66.9</u>	<u>clear</u>
<u>1303</u>	<u>15</u>	<u>7.03</u>	<u>2.76</u>	<u>66.8</u>	<u>clear</u>
<u>1304</u>	<u>21</u>	<u>7.08</u>	<u>6.70</u>	<u>66.5</u>	<u>clear</u>
<u>1305</u>	<u>22</u>	<u>7.08</u>	<u>6.73</u>	<u>66.5</u>	<u>clear</u>

Total purge: 22  
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.  
 REMARKS: well pumped dry at 21, and again at 22 gallons. took last parameter via disp. bailer prior to samp.

PRINT NAME:

Vince Valdes

SIGNATURE:

Vince Valdes

CASING DIAMETER (inches):	<u>2</u>	<u>3</u>	<u>4</u>	<u>6</u>	<u>8</u>	<u>12</u>	Other: _____
GALLON/LINEAR FOOT:	<u>0.17</u>	<u>0.38</u>	<u>0.66</u>	<u>1.5</u>	<u>2.6</u>	<u>5.8</u>	Other: _____

WELL ID: MW-4 TD 16.8 DTW 8.29 x 0.66 Gal. X 3 Casing - 16.84 Calculated  
Linear Ft. Volume Purge

DATE PURGED: 5-11-94 START (2400 HR): 1317 END (2400 HR): 1326  
 DATE SAMPLED: 5-11-94 TIME (2400 HR): 1327 DTW: 14.1

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1318</u>	<u>2</u>	<u>7.01</u>	<u>6.09</u>	<u>67.6</u>	<u>clean</u>
<u>1319</u>	<u>7</u>	<u>7.04</u>	<u>5.29</u>	<u>65.8</u>	<u>clean</u>
<u>1324</u>	<u>12</u>	<u>7.11</u>	<u>6.13</u>	<u>65.9</u>	<u>clean</u>
<u>1326</u>	<u>14</u>	<u>7.10</u>	<u>6.19</u>	<u>65.6</u>	<u>clean</u>

Total purge: 14

PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.

REMARKS: well pumped dry at 12 and again at 14 gal lens.

WELL ID: MW-5 TD 17.80 DTW 6.18 x 0.17 Gal. X 3 Casing - 5.92 Calculated  
Linear Ft. Volume Purge

DATE PURGED: 5-11-94 START (2400 HR): 1340 END (2400 HR): 1345  
 DATE SAMPLED: 5-11-94 TIME (2400 HR): 1348 DTW: 6.5

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1343</u>	<u>2</u>	<u>7.07</u>	<u>8.52</u>	<u>68.5</u>	<u>clean</u>
<u>1344</u>	<u>4</u>	<u>7.03</u>	<u>7.28</u>	<u>68.6</u>	<u>clean</u>
<u>1345</u>	<u>6</u>	<u>7.00</u>	<u>6.68</u>	<u>66.4</u>	<u>clean</u>

Total purge: 6

PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.

REMARKS:

WELL ID: RW-1 TD 11.60 DTW 7.96 x 0.17 Gal. X 3 Casing - 1.85 Calculated  
Linear Ft. Volume Purge

DATE PURGED: 5-11-94 START (2400 HR): 1259 END (2400 HR): 1407  
 DATE SAMPLED: 5-11-94 TIME (2400 HR): 1410 DTW: 9

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1401</u>	<u>.50</u>	<u>7.04</u>	<u>2.09</u>	<u>64.2</u>	<u>clean</u>
<u>1404</u>	<u>1.0</u>	<u>7.22</u>	<u>5.47</u>	<u>64.3</u>	<u>clean</u>
<u>1407</u>	<u>1.8</u>	<u>7.20</u>	<u>4.42</u>	<u>64.9</u>	<u>clean</u>

Total purge: 1.8

PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.

REMARKS:

WELL ID: \_\_\_\_\_ TD \_\_\_\_\_ DTW \_\_\_\_\_ x \_\_\_\_\_ Gal. X \_\_\_\_\_ Casing - \_\_\_\_\_ Calculated  
Linear Ft. Volume Purge

DATE PURGED: \_\_\_\_\_ START (2400 HR): \_\_\_\_\_ END (2400 HR): \_\_\_\_\_  
 DATE SAMPLED: \_\_\_\_\_ TIME (2400 HR): \_\_\_\_\_ DTW: \_\_\_\_\_

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)

Total purge: \_\_\_\_\_

PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.

REMARKS:

PRINT NAME: Vince Valdes

SIGNATURE: Vince Valdes

CASING DIAMETER (inches): 2 3 4 6 8 12 Other: \_\_\_\_\_  
 GALLON/LINEAR FOOT: 0.17 0.38 0.66 1.5 2.6 5.8 Other: \_\_\_\_\_