



EMCON Associates

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

HAZMAT

*Need gradient map - have wells
been surveyed? Yes* 94 SEP -6 PM 3:49

Date: August 30, 1994

Project 0C75-005.24

To:

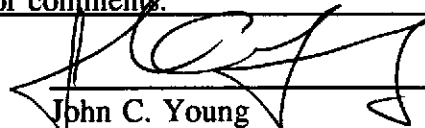
Ms. Eva Chu
Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

We are enclosing:

| Copies | Description |
|----------|--|
| <u>1</u> | <u>Second Quarter 1994 Groundwater Monitoring Report</u> |
| | <u>for ARCO Service Station 6041</u> |
| | |
| | |
| | |

For your: X Use Sent by: Regular Mail
 Approval Standard Air
 Review Courier
 Information X Other

Comments: Please call with any questions or comments.



 John C. Young
 Project Manager





August 26, 1994
Project 0C75-005.24

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 6041, Dublin, California

Dear Mr. Whelan:

This letter presents the results of the second quarter 1994 groundwater monitoring program at ARCO Products Company (ARCO) service station 6041, 7249 Village Parkway, Dublin, California (Figure 1).

MONITORING PROGRAM RESULTS

The second quarter 1994 groundwater monitoring event was performed by Integrated Wastestream Management, Inc. (IWM) on May 17, 1994. Wells MW-1 through MW-6 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 17, 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 1994

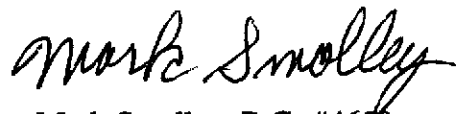
- Prepare and submit quarterly groundwater monitoring report for second quarter 1994.
- Perform quarterly groundwater monitoring for third quarter 1994.

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-6041
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-6041, Dublin, California

| WELL NUMBER | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | |
|-------------------|--------------|------------|------------|-----------|-----------|-----------|--|
| DATE SAMPLED | 5/17/94 | 5/17/94 | 5/17/94 | 5/17/94 | 5/17/94 | 5/17/94 | |
| DEPTH TO WATER | 9.82 | 7.99 | 9.11 | 7.49 | 8.99 | 9.10 | |
| SHEEN | NONE | NONE | NONE | NONE | NONE | NONE | |
| PRODUCT THICKNESS | NA | NA | NA | NA | NA | NA | |
| TPHg | 1,400 | 150 | 200 | ND | ND | ND | |
| BTEX | | | | | | | |
| BENZENE | 79 | 19 | 44 | ND | ND | ND | |
| TOLUENE | 1.4 | ND | ND | ND | ND | ND | |
| ETHLYBENZENE | 11 | 2.5 | 9.3 | ND | ND | ND | |
| XYLENES | 2.4 | 1.2 | ND | ND | ND | ND | |

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.

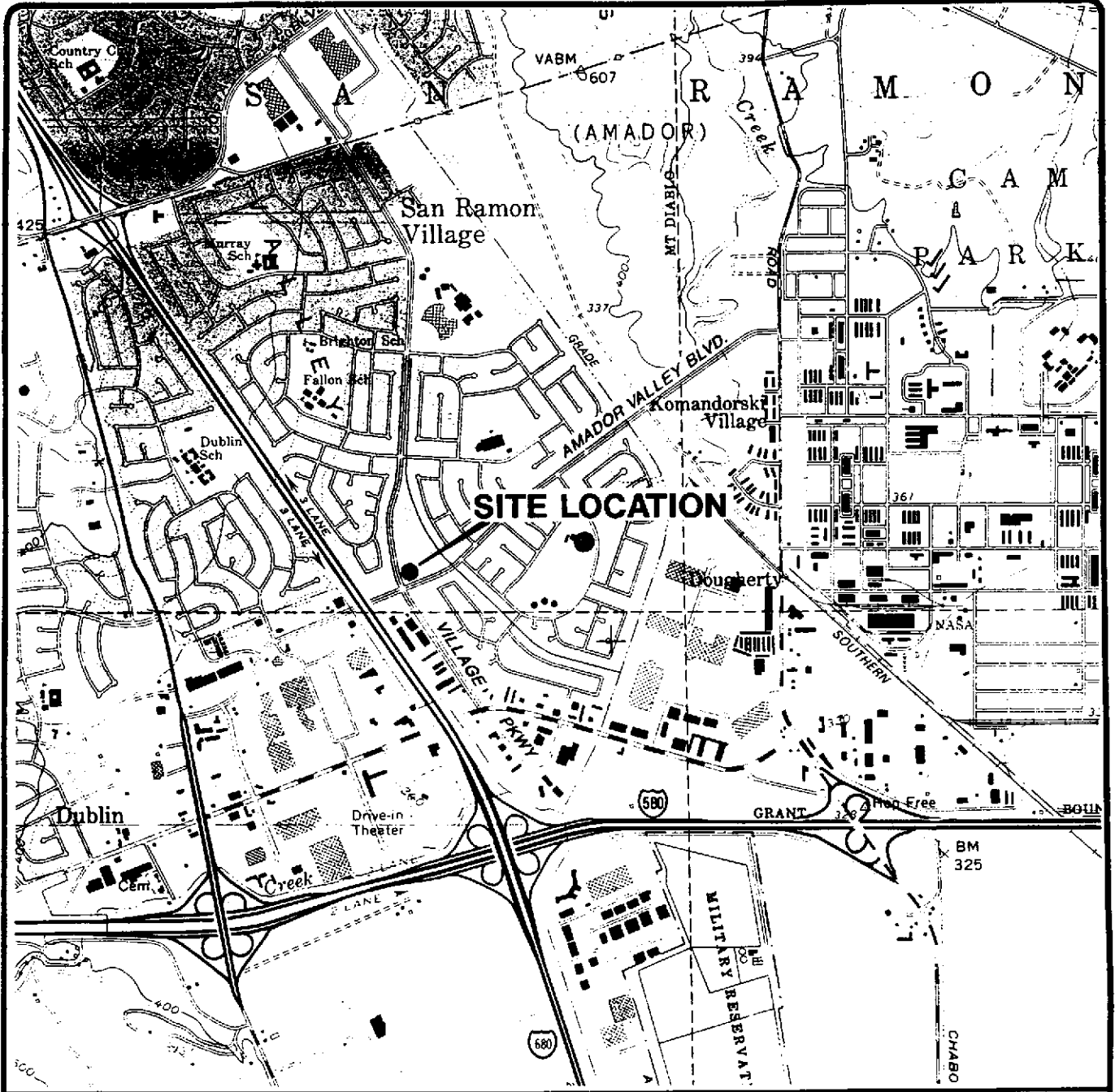
DCE = cis-1, 2-Dichloroethene (USEPA Method 8010)

TCE = Trichloroethene (USEAP Method 8010)

ND = Not Detected.

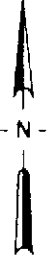
NA = Not applicable.

FP = Floating product.



Base map from USGS 7.5' Quad. Map:
Dublin, California. (Photorevised 1980).

Scale : 0 2000 4000 Feet

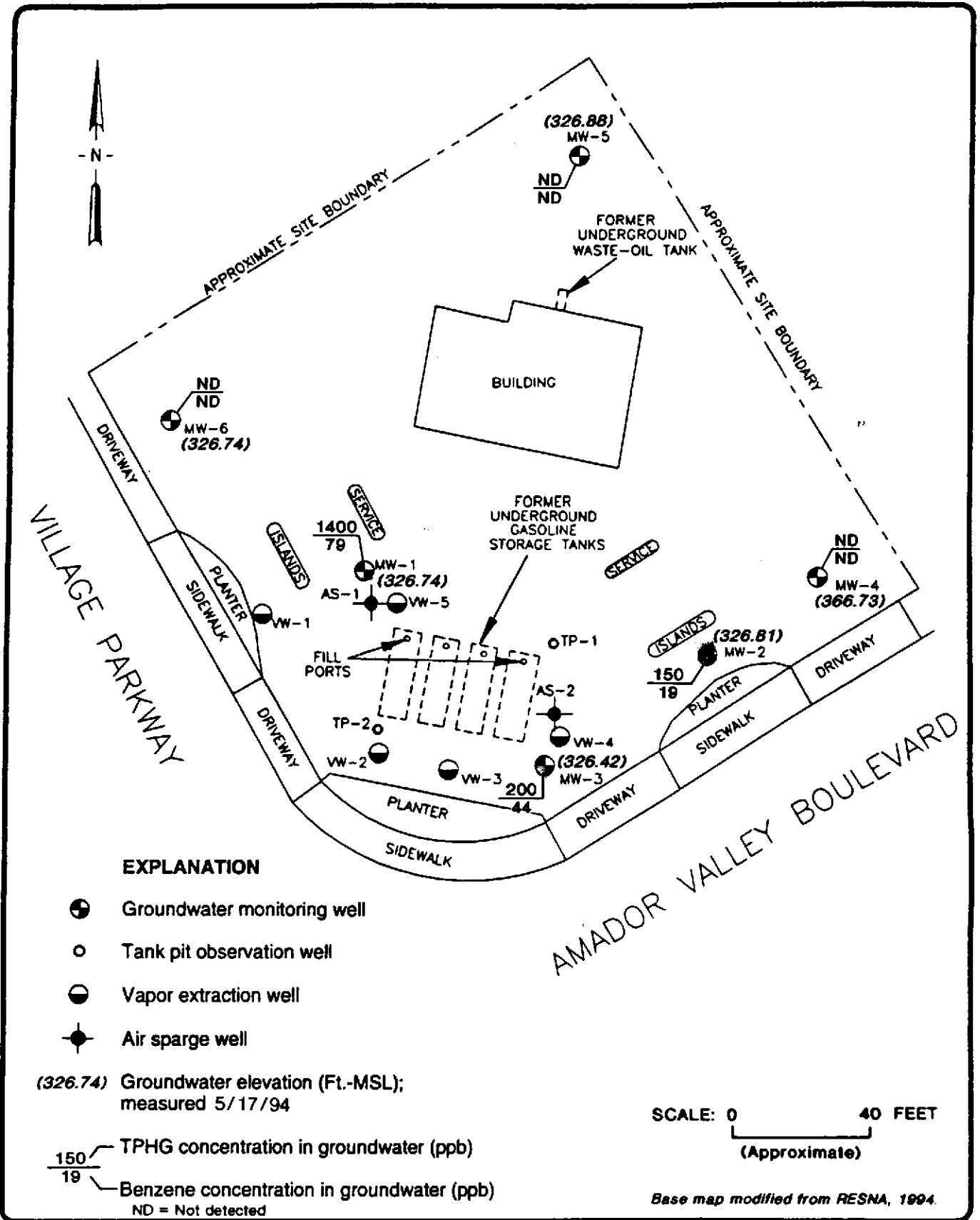



Emcon
Associates

ARCO PRODUCTS COMPANY
SERVICE STATION 6041, 7249 VILLAGE PARKWAY
QUARTERLY GROUNDWATER MONITORING
DUBLIN, CALIFORNIA

SITE LOCATION

FIGURE
1
PROJECT NO.
C75-05.24



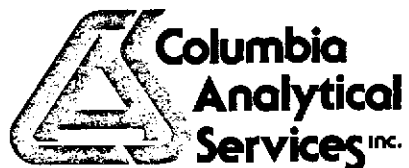
ARCO PRODUCTS COMPANY
SERVICE STATION 6041, 7249 VILLAGE PARKWAY
QUARTERLY GROUNDWATER MONITORING
DUBLIN, CALIFORNIA

SITE PLAN

FIGURE
2
PROJECT NO.
C75-05.24

APPENDIX A

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



June 6, 1994

Service Request No. SJ940598

Gina Austin
Tom DeLon
IWM
950 Ames Avenue
Milpitas, CA 95035

Re: **ARCO Facility No. 6041**

Dear Ms. Austin/Mr. DeLon:

Attached are the results of the water samples submitted to our lab on May 18, 1994. For your reference, these analyses have been assigned our service request number SJ940598.


All analyses were performed consistent with our laboratory's quality assurance program. All results are intended to be considered in their entirety, and CAS is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions.

Respectfully submitted:

COLUMBIA ANALYTICAL SERVICES, INC.


Keoni A. Murphy
Laboratory Manager


Annelise J. Bazar
Regional QA Coordinator

KAM/drf

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. 6041
Sample Matrix: Water

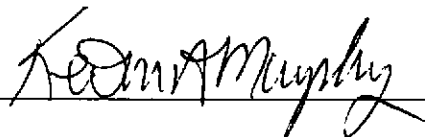
Date Collected: 5/17/94
Date Received: 5/18/94
Date Extracted: NA
Service Request: SJ940598

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

| | | | |
|----------------|-------------|------------|-------------|
| Sample Name: | MW-1 (13.5) | MW-2 (8.4) | MW-3 (13.4) |
| Lab Code: | SJ940598-2 | SJ940598-3 | SJ940598-4 |
| Date Analyzed: | 5/26/94 | 5/26/94 | 5/27/94 |

| Analyte | MRL | | | |
|-----------------|-----|-------|-----|-----|
| Benzene | 0.5 | 79 | 19 | 44 |
| Toluene | 0.5 | 1.4 | ND | ND |
| Ethylbenzene | 0.5 | 11 | 2.5 | 9.3 |
| Total Xylenes | 0.5 | 2.4 | 1.2 | ND |
| TPH as Gasoline | 50 | 1,400 | 150 | 200 |

Approved By: _____



Date: _____

JUNE 6, 1994

3S22/041594

COLUMBIA ANALYTICAL SERVICES, INC.



Analytical Report

Client: IWM
Project: ARCO Facility No. 6041
Sample Matrix: Water

Date Collected: 5/17/94
Date Received: 5/18/94
Date Extracted: NA
Service Request: SJ940598

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

| | | | |
|----------------|-------------|------------|-------------|
| Sample Name: | MW-4 (12.1) | MW-5 (15) | MW-6 (12.3) |
| Lab Code: | SJ940598-5 | SJ940598-6 | SJ940598-7 |
| Date Analyzed: | 5/26/94 | 5/26/94 | 5/26/94 |

| 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:

June 6, 1994

3S22/041594

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IWM
Project: ARCO Facility No. 6041
Sample Matrix: Water

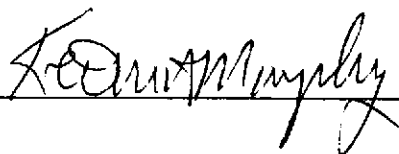
Date Collected: 5/17/94
Date Received: 5/18/94
Date Extracted: NA
Service Request: SJ940598

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

| | | | |
|----------------|--------------|--------------|--------------|
| Sample Name: | Method Blank | Method Blank | Method Blank |
| Lab Code: | SJ940525-WMB | SJ940526-WMB | SJ940527-WMB |
| Date Analyzed: | 5/25/94 | 5/26/94 | 5/27/94 |

| 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: _____

June 6, 1994

3S22/041594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IWM
Project: ARCO Facility No. 6041
Sample Matrix: Water

Date Collected: 5/17/94
Date Received: 5/18/94
Date Extracted: NA
Date Analyzed: 5/25-27/94
Service Request: SJ940598

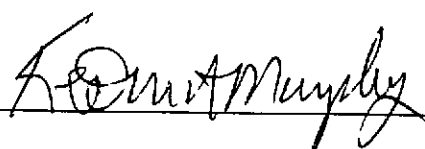
Surrogate Recovery Summary
BTEX and TPH as Gasoline
EPA Methods 5030/8020/California DHS LUFT Method

| Sample Name | Lab Code | Percent Recovery α,α,α -Trifluorotoluene |
|----------------|---------------|--|
| MW-1 (13.5) | SJ940598-2 | 101* |
| MW-2 (8.4) | SJ940598-3 | 103 |
| MW-3 (13.4) | SJ940598-4 | 108 |
| MW-4 (12.1) | SJ940598-5 | 101 |
| MW-5 (15) | SJ940598-6 | 105 |
| MW-6 (12.3) | SJ940598-7 | 105 |
| MW-4 (12.1)MS | SJ940598-5MS | 100 |
| MW-4 (12.1)DMS | SJ940598-5DMS | 102 |
| Method Blank | SJ940525-WMB | 101 |
| Method Blank | SJ940526-WMB | 103 |
| Method Blank | SJ940527-WMB | 107 |

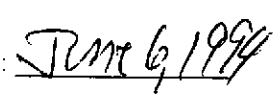
CAS Acceptance Limits: 69-116

* The surrogate used for this sample was 4-Bromofluorobenzene.

Approved By: _____



Date: _____



SUR1/041594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IWM
Project: ARCO Facility No. 6041

Date Analyzed: 5/25/94
Service Request: SJ940598

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 | 25.4 | 102 | 85-115 |
| Toluene | 25 | 25.4 | 102 | 85-115 |
| Ethylbenzene | 25 | 25.1 | 100 | 85-115 |
| Total Xylenes | 75 | 77.4 | 103 | 85-115 |
| TPH as Gasoline | 250 | 246 | 98 | 90-110 |

Approved By:

Kenneth Murphy

Date:

June 6, 1994

ICV24/041594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IWM
Project: ARCO Facility No. 6041
Sample Matrix: Water

Date Collected: 5/17/94
Date Received: 5/18/94
Date Extracted: NA
Date Analyzed: 5/25/94
Service Request: SJ940598

Matrix Spike/Duplicate Matrix Spike Summary

BTE

EPA Methods 5030/8020

Units: µg/L (ppb)

Sample Name: MW-4 (12.1)
Lab Code: SJ940598-5

| Analyte | Spike Level | | Sample Result | Spike Result | | Percent Recovery | | | | Relative Percent Difference |
|--------------|-------------|-----|---------------|--------------|------|------------------|-----|-------------------|----|-----------------------------|
| | MS | DMS | | MS | DMS | CAS | | Acceptance Limits | | |
| | | | | | | MS | DMS | | | |
| Benzene | 25 | 25 | ND | 25.3 | 25.5 | 101 | 102 | 75-135 | <1 | |
| Toluene | 25 | 25 | ND | 25.3 | 25.5 | 101 | 102 | 73-136 | <1 | |
| Ethylbenzene | 25 | 25 | ND | 25.1 | 25.3 | 100 | 101 | 69-142 | <1 | |

Approved By: _____

K. O'Malley

Date: _____

June 6, 1994

DMSIS/041594

ARCO Products Company
Division of AtlanticRichfieldCompany

Task Order No. **TWM-94-5CC**

Chain of Custody

ARCO Facility no. **A 6041** City (Facility) **Dublin** Project manager (Consultant) **Tom De Jon / Thom Young** Laboratory name **Columbia**
 ARCO engineer **Mike Whelan** Telephone no. (ARCO) **415 571 2434** Telephone no. (Consultant) **408/942 8955** Fax no. (Consultant) **408/942 1499** Contract number **07077**
 Consultant name **IWM/Resna** Address (Consultant) **950 Ames av. Milp. Ca 95035** Method of shipment **CAS LOWRIEX**

| Sample I.D. | Lab no. | Container no. | Matrix | | | Preservation | | Sampling date | Sampling time | BTEX EPA 8020 | BTEX/TPH EPA M802/8020/8015 | TPH Modified 8015 Gas Diesel | Oil and Grease 413.1 413.2 | TPH EPA 418.1/SM500E | EPA 801/8010 | EPA 824/8240 | EPA 825/8270 | TCMP Metals VOA VOA | Semi Metals VOA VOA | CAM Metals EPA 8010/7000 | TLC STLC | Lead Org. CHS | Lead EPA 7420/7421 | | |
|-------------|---------|---------------|--------|-------|-------|--------------|------|---------------|---------------|---------------|-----------------------------|------------------------------|----------------------------|----------------------|--------------|--------------|--------------|---------------------|---------------------|--------------------------|----------|---------------|--------------------|--|--|
| | | | Soil | Water | Other | Ice | Acid | | | | | | | | | | | | | | | | | | |
| FB-1 | 1 | 2 | | ✓ | | ✓ | ✓ | 5-17-94 | 1100 | | ✓ | ✓ | | | | | | | | | | | | | |
| 13.5 MW-1 | 2 | 2 | | ✓ | | ✓ | ✓ | } | 1440 | | ✓ | ✓ | | | | | | | | | | | | | |
| 8.4 MW-2 | 3 | 2 | | ✓ | | ✓ | ✓ | | 1407 | | ✓ | ✓ | | | | | | | | | | | | | |
| 13.4 MW-3 | 4 | 2 | | ✓ | | ✓ | ✓ | | 1455 | | ✓ | ✓ | | | | | | | | | | | | | |
| 12.1 MW-4 | 5 | 2 | | ✓ | | ✓ | ✓ | | 1430 | | ✓ | ✓ | | | | | | | | | | | | | |
| 15 MW-5 | 6 | 2 | | ✓ | | ✓ | ✓ | | 1418 | | ✓ | ✓ | | | | | | | | | | | | | |
| 12.3 MW-6 | 7 | 2 | | ✓ | | ✓ | ✓ | | 6 6 1448 | | ✓ | ✓ | | | | | | | | | | | | | |

Special detection Limit/reporting

Special QA/QC

Remarks
Hold on FB-1

Lab number **5194-0598**

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

Condition of sample: **Good** Temperature received: **Cool**

Relinquished by sampler **Thia Saldi** Date **5/18/94** Time **8:59 AM** Received by **Aina Austin**

Relinquished by **Aina Austin** Date **5/18/94** Time **11:55** Received by **Valery** Date **5-18-94** Time **11:55**

Relinquished by _____ Date _____ Time _____ Received by laboratory _____ Date _____ Time _____

Quarterly Monitoring Report Checklist

Site Number: A6041 City: Dublin

Results of comparison between current analyticals and previous quarter analytical results.

- No significant change.
- Significant change as follows (Tom DeLon to review):
Well(s) _____

COVER SHEET

- Addressed to the correct contact, consultant firm, and street address.
- Reports correct Sampling Date
- Reports correct Site Number and City

SUMMARY SHEET

- Correct sampling date.
- Correct DTW measurements from field sheet.
- If Applicable: Floating product measurements are calculated correctly.
- Correct analytical results.

FIELD SHEETS

- Subjective evaluation sheet is complete.
- Correct number of field sheets per number of wells sampled.
- All field sheets are signed by field technician.

ANALYTICAL RESULTS

- Sampling Date is correct.
- Detection Limits are reviewed
- Signed by Laboratory personnel.
- Copy of COC is attached.

PROOFREAD BY:

Justin 6/7/94
(Name and Date)

REVIEW PROCESS:

- Report has been reviewed by Tom DeLon
- Report submitted for copying.

FINAL REVIEW:

- Report copy is correct.
- Report signed by Tom DeLon.

REC'D JUN 21 1994

I NTEGRATED
W ASTESTREAM
M ANAGEMENT, INC.

June 10, 1994

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

Dear Mr. Young:

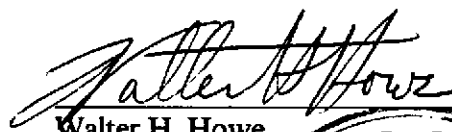
Attached are the field data sheets and analytical results for quarterly ground water sampling at ARCO Facility No. A-6041 in Dublin, California. Integrated Wastestream Management measured the depth to water and collected samples from wells at this site on May 17, 1994.

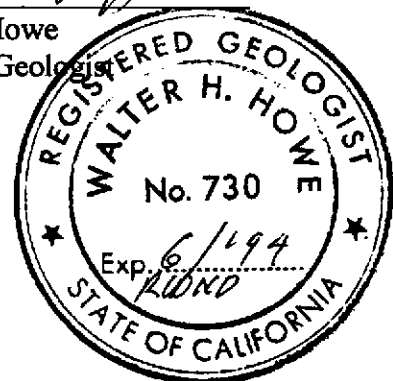
Sampling was carried out in accordance with the protocols described in the "Request for Bid for Quarterly Sampling at ARCO Facilities in Northern California".

Please call us if you have any questions.

Sincerely,
Integrated Wastestream Management


Tom DeLon
Project Manager


Walter H. Howe
Registered Geologist



Summary of Ground Water Sample Analyses for ARCO Facility A-6041, Dublin, California

| WELL NUMBER | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | |
|-------------------|---------|---------|---------|---------|---------|---------|--|
| DATE SAMPLED | 5/17/94 | 5/17/94 | 5/17/94 | 5/17/94 | 5/17/94 | 5/17/94 | |
| DEPTH TO WATER | 9.82 | 7.99 | 9.11 | 7.49 | 8.99 | 9.10 | |
| SHEEN | NONE | NONE | NONE | NONE | NONE | NONE | |
| PRODUCT THICKNESS | NA | NA | NA | NA | NA | NA | |
| TPHg | 1,400 | 150 | 200 | ND | ND | ND | |
| BTEX | | | | | | | |
| BENZENE | 79 | 19 | 44 | ND | ND | ND | |
| TOLUENE | 1.4 | ND | ND | ND | ND | ND | |
| ETHLYBENZENE | 11 | 2.5 | 9.3 | ND | ND | ND | |
| XYLENES | 2.4 | 1.2 | ND | ND | ND | ND | |

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.

WELL ID: MW-5 TD 17.90 DTW 8.99 X 0.66 X 3 17.64
 Linear Ft. Volume Purge

DATE PURGED: 5-17-94 START (2400 HR): 1409 END (2400 HR) 1415
 DATE SAMPLED: 5-17-94 TIME (2400 HR): 1418 DTW: 15

| TIME (2400 HR) | VOLUME (GAL) | pH (UNITS) | (E.C. X 1,000) (UMHOS/CM@25 C) | TEMP. (F) | COLOR (VISUAL) |
|----------------|--------------|-------------|--------------------------------|-------------|----------------|
| <u>1410</u> | <u>3</u> | <u>6.78</u> | <u>2.96</u> | <u>69.8</u> | <u>clear</u> |
| <u>1412</u> | <u>10</u> | <u>6.91</u> | <u>2.92</u> | <u>68.6</u> | <u>clear</u> |
| <u>1413</u> | <u>16</u> | <u>6.93</u> | <u>2.95</u> | <u>68.5</u> | <u>clear</u> |
| <u>1415</u> | <u>17</u> | <u>6.95</u> | <u>2.97</u> | <u>68.3</u> | <u>clear</u> |
| Total purge: | <u>17</u> | | | | |

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

REMARKS: well pumped dry at 16, and 17 gallons.

WELL ID: MW-4 TD 14.90 DTW 7.49 X 0.66 X 3 14.67
 Linear Ft. Volume Purge

DATE PURGED: 5-17-94 START (2400 HR): 1421 END (2400 HR) 1428
 DATE SAMPLED: 5-17-94 TIME (2400 HR): 1430 DTW: 12.1

| TIME (2400 HR) | VOLUME (GAL) | pH (UNITS) | (E.C. X 1,000) (UMHOS/CM@25 C) | TEMP. (F) | COLOR (VISUAL) |
|----------------|--------------|-------------|--------------------------------|-------------|----------------|
| <u>1422</u> | <u>3</u> | <u>6.85</u> | <u>4.15</u> | <u>70.1</u> | <u>clear</u> |
| <u>1424</u> | <u>9</u> | <u>6.71</u> | <u>3.96</u> | <u>68.0</u> | <u>clear</u> |
| <u>1426</u> | <u>10</u> | <u>6.73</u> | <u>3.92</u> | <u>67.8</u> | <u>clear</u> |
| <u>1428</u> | <u>11</u> | <u>6.76</u> | <u>3.97</u> | <u>67.7</u> | <u>clear</u> |
| Total purge: | <u>11</u> | | | | |

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

REMARKS: well pumped dry at 9, 10, and again at 11 gallons.

WELL ID: MW-6 TD 16.13 DTW 9.10 X 0.66 X 3 13.91
 Linear Ft. Volume Purge

DATE PURGED: 5-17-94 START (2400 HR): 1440 END (2400 HR) 1446
 DATE SAMPLED: 5-17-94 TIME (2400 HR): 1448 DTW: 12.3

| TIME (2400 HR) | VOLUME (GAL) | pH (UNITS) | (E.C. X 1,000) (UMHOS/CM@25 C) | TEMP. (F) | COLOR (VISUAL) |
|----------------|--------------|-------------|--------------------------------|-------------|----------------|
| <u>1441</u> | <u>2</u> | <u>6.86</u> | <u>4.10</u> | <u>70.0</u> | <u>clear</u> |
| <u>1443</u> | <u>9</u> | <u>6.80</u> | <u>4.35</u> | <u>69.9</u> | <u>clear</u> |
| <u>1444</u> | <u>12</u> | <u>6.83</u> | <u>4.39</u> | <u>69.8</u> | <u>clear</u> |
| <u>1446</u> | <u>14</u> | <u>6.86</u> | <u>4.21</u> | <u>68.9</u> | <u>clear</u> |
| Total purge: | <u>14</u> | | | | |

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

REMARKS: well pumped dry at 12, and again at 14 gallons.

WELL ID: _____ TD _____ DTW _____ X _____ X _____ - _____
 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: _____

WELL ID: MW-2 TD 14.24 DTW 7.99+ 0.66 3 12.37
Linear Ft. Volume Purge

DATE PURGED: 5-17-94 START (2400 HR): 1353 END (2400 HR): 1403
 DATE SAMPLED: 5-17-94 TIME (2400 HR): 1407 DTW: 8.4

| TIME (2400 HR) | VOLUME (GAL) | pH (UNITS) | (E.C. X 1,000) (UMHOS/CM@25 C) | TEMP. (F) | COLOR (VISUAL) |
|----------------|--------------|-------------|--------------------------------|-------------|----------------|
| <u>1356</u> | <u>3</u> | <u>7.84</u> | <u>0.91</u> | <u>71.7</u> | <u>CLEAR</u> |
| <u>1358</u> | <u>7</u> | <u>7.34</u> | <u>1.84</u> | <u>70.9</u> | <u>CLEAR</u> |
| <u>1401</u> | <u>10</u> | <u>6.89</u> | <u>2.06</u> | <u>70.5</u> | <u>CLEAR</u> |
| <u>1403</u> | <u>13</u> | <u>6.93</u> | <u>2.03</u> | <u>70.2</u> | <u>CLEAR</u> |

Total purge: 13
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS: _____

WELL ID: MW-1 TD 17.84 DTW 9.82 0.66 3 15.87
Linear Ft. Volume Purge

DATE PURGED: 5-17-94 START (2400 HR): 1414 END (2400 HR): 1437
 DATE SAMPLED: 5-17-94 TIME (2400 HR): 1440 DTW: 13.5

| TIME (2400 HR) | VOLUME (GAL) | pH (UNITS) | (E.C. X 1,000) (UMHOS/CM@25 C) | TEMP. (F) | COLOR (VISUAL) |
|----------------|--------------|-------------|--------------------------------|-------------|----------------|
| <u>1416</u> | <u>4</u> | <u>7.01</u> | <u>1.68</u> | <u>73.5</u> | <u>CLEAR</u> |
| <u>1420</u> | <u>8</u> | <u>6.79</u> | <u>1.75</u> | <u>72.9</u> | <u>CLEAR</u> |
| <u>1427</u> | <u>12</u> | <u>7.29</u> | <u>1.77</u> | <u>72.4</u> | <u>CLEAR</u> |
| <u>1437</u> | <u>16</u> | <u>7.33</u> | <u>1.68</u> | <u>71.0</u> | <u>CLEAR</u> |

Total purge: 16
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS: WELL PUMPED DRY AT 12, 13, 14, 15, AND 16 GALLONS
Well has a slow recharge rate.

WELL ID: MW-3 TD 15.02 DTW 9.11 0.66 3 11.70
Linear Ft. Volume Purge

DATE PURGED: 5-17-94 START (2400 HR): 1446 END (2400 HR): 1452
 DATE SAMPLED: 5-17-94 TIME (2400 HR): 1455 DTW: 13.4

| TIME (2400 HR) | VOLUME (GAL) | pH (UNITS) | (E.C. X 1,000) (UMHOS/CM@25 C) | TEMP. (F) | COLOR (VISUAL) |
|----------------|--------------|-------------|--------------------------------|-------------|----------------|
| <u>1447</u> | <u>3</u> | <u>7.48</u> | <u>1.55</u> | <u>74.3</u> | <u>CLEAR</u> |
| <u>1450</u> | <u>6</u> | <u>7.06</u> | <u>1.63</u> | <u>74.1</u> | <u>CLEAR</u> |
| <u>1452</u> | <u>7</u> | <u>7.10</u> | <u>1.65</u> | | |

Total purge: 7
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS: WELL PUMPED DRY AT 5 TO 7 GALLONS

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) |
|----------------|--------------|------------|--------------------------------|-----------|----------------|
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| | | | | | |

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

PRINT NAME: FRANCISCO ABUNGAN SIGNATURE: Francisco Abungan

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: _____