Applied GeoSystems, Inc.
A RESNA Company

RESNA
Working To Restore Nature

3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
Fax: (408) 264-2435

TRANSMITTAL

TO: Mr. Scott Seery
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, California 94621

DATE: September 24, 1992
PROJECT NUMBER: 69034.06
SUBJECT: Final - Second Quarter 1992 Quarterly Groundwater Monitoring at ARCO Station 601, 712 Lewelling Blvd., San Leandro, California.

FROM: Erin McLucas
TITLE: Staff Geologist

WE ARE SENDING YOU:

COPIES	DATED	DESCRIPTION
1	9/24/92	Final - Second Quarter 1992, Groundwater Monitoring at the above subject site.

THESE ARE TRANSMITTED as checked below:

[ ] For review and comment	[ ] Approved as submitted	[ ] Resubmit ___ copies for approval
[X] As requested	[ ] Approved as noted	[ ] Submit___ copies for distribution
[ ] For approval	[ ] Return for corrections	[ ] Return ___ corrected prints
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REMARKS: cc: Mr. H.C. Winsor, ARCO Products Company
Mr. Michael Whelan, ARCO Products Company
Mr. Guy Telham, San Leandro Fire Department
Mr. John Jang, CRWQCB, San Francisco Bay Region
Mr. Joel Coffman, RESNA Industries Inc.

Copies: 1 to RESNA project file no. 69034.06

EMCON ASSOCIATES
Consultants in Wastes Management and Environmental Control

RECEIVED
JUL 1992
RESNA SAN JOSE

Date July 1, 1992
Project G70-07.01

To:
Mr. Joel Coffman
RESNA/ Applied Geosystems
3315 Almaden Expressway, Suite 34
San Jose, California 95050

We are enclosing:

Copies	Description
1	Depth To Water / Floating Product Survey Results
1	Summary of Groundwater Monitoring Data
1	Certified Analytical Reports with Chain-of-Custody
8	Water Sample Field Data Sheets

For your: X Information Sent by: X Mail

Comments:
Enclosed are the data from the second quarter 1992 monitoring event at ARCO service station 601, 712 Lewelling Boulevard, San Leandro, CA. Groundwater monitoring is conducted consistent with applicable regulatory guidelines. Please call if you have any questions: (408) 453-2266.

Jim Butera

Reviewed by:

REGISTERED PROFESSIONAL ENGINEER
ROBERT CURTIS PORTER
No: 4084
Exp. 4/30/92
INDUSTRIAL
STATE OF CALIFORNIA

Robert Porter, Senior Project Engineer.

1938 Junction Avenue, San Jose, California 95131-2102, (408) 453-0719, Fax (408) 453-0452

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Phone: (408) 264-7723
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September 21, 1992
0908SSRY.601
61026.02

Mr. Scott Seery
Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94624

Subject: Site Status Update for ARCO Station 601, 712 Lewelling Blvd., San Leandro, California.

Dear Mr. Seery:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during August 1992, and site activities anticipated for the month of September 1992.

August 1992 Activities

- Performed groundwater monitoring.
- Performed monthly product removal from wells MW-1, MW-3, and MW-5.
- Continued with design and preparation of plans and specifications for a groundwater remediation system at the site.
- Drilled and installed groundwater monitoring well MW-14 on the private property (Dentist's Office) adjacent to the site.
- Developed groundwater monitoring well MW-14.
- Subitted Draft Second Quarter 1992 Groundwater Monitoring Report to ARCO for review.

Work Anticipated for September 1992

- Continue monthly groundwater monitoring.
- Submit Final Second Quarter 1992 Groundwater Monitoring Report to ARCO and regulatory agencies.
- Monthly removal of floating product will continue.
- Continue with design and preparation of plans and specifications for a groundwater remediation system at the site.
- Continue with attempts to gain offsite access from private owners to install offsite monitoring wells and submit encroachment permit to the City of San Leandro to drill and install one offsite well on Washington Avenue.
- Submit Final Addendum Five to Work Plan to ARCO and regulatory agencies for additional subsurface investigation.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,
RESNA Industries Inc.

Joel Coffman
Project Geologist

cc: Mr. Michael Whelan, ARCO Products Company
Mark Thomson, Alameda County District Attorney's Office

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LETTER REPORT
QUARTERLY GROUNDWATER MONITORING
Second Quarter 1992
at
ARCO Station 601
712 Lewelling Boulevard
San Leandro, California

69034.06

Applied GeoSystems, Inc.
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September 24, 1992
0716MWHE
69034.06

Mr. Michael Whelan
ARCO Products Company
Post Office Box 5811
San Mateo, California 94402

Subject: Second Quarter 1992 Groundwater Monitoring Report for ARCO Station 601, 712 Lewelling Boulevard, San Leandro, California.

Mr. Whelan:

As requested by ARCO Products Company (ARCO), this letter report summarizes the results of second quarter 1992 groundwater monitoring performed by ARCO's contractor, EMCON Associates (EMCON) of San Jose, California, at the above-referenced site. The objectives of this quarterly groundwater monitoring are to evaluate changes in the groundwater flow direction and gradient, and changes in concentrations of petroleum hydrocarbons in the local groundwater associated with four former underground gasoline-storage tanks (USTs) and a former waste-oil tank at the site. The field work and laboratory analyses of groundwater samples during this quarter was performed under the direction of EMCON and included measuring depths to groundwater, subjectively analyzing groundwater for the presence of petroleum product, collecting groundwater samples from the wells for laboratory analyses, and directing a State-certified laboratory to analyze the groundwater samples. Field procedures and acquisition of field data were performed under the direction of EMCON; evaluation and warrant of their field data and field protocols is beyond RESNA Industries Inc.'s (RESNA's) scope of work. RESNA's scope of work was limited to interpretation of field and laboratory analyses data, which included evaluating trends in reported hydrocarbon concentrations in the local groundwater, the groundwater gradient, and direction of groundwater flow beneath the site.

The operating ARCO Station 601 is located on the southwestern corner of Lewelling Boulevard and Washington Avenue in San Leandro, California, as shown on the Site Vicinity Map, Plate 1.

Prior to the present monitoring, RESNA (formerly Applied GeoSystems [AGS]) and others performed limited subsurface environmental investigations related to the USTs at the site. RESNA performed an environmental site assessment, including the drilling of five borings (B-1 through B-5), in August 1989 prior to tank replacement at the site (AGS, November 9, 1989). GeoStrategies, Inc. (GSI) observed the removal of four USTs and one underground waste-oil storage tank in January 1990. GSI also installed a 6-inch diameter product recovery well (RW-1) in the backfill of the former waste-oil tank excavation (GSI, June 29, 1990). In June 1990, RESNA drilled and sampled nine soil borings, and installed and sampled three groundwater monitoring wells (MW-1, MW-2, and MW-3) (AGS, December 14, 1990). RESNA began quarterly groundwater monitoring of the three onsite wells in July 1990. In May 1991, RESNA installed and sampled five additional groundwater monitoring wells (MW-4 through MW-8) and performed a vapor extraction test at the site (RESNA, October 17, 1991). The results of these investigations are presented in the reports listed in the references section. The locations of the groundwater monitoring wells and pertinent site features are shown on the Generalized Site Plan, Plate 2.

Groundwater Sampling and Gradient Evaluation

Depth to water measurements (DTW) were performed by EMCON field personnel on April 21, May 15, and June 8, 1992. Quarterly sampling was performed by EMCON field personnel on June 8, 1992. The results of EMCON's field work on the site, including DTW measurements and subjective analysis for the presence of product in the groundwater in MW-1 through MW-8, are presented on EMCON's Field Reports and Water Sample Field Data Sheets. These data are included in Appendix A.

The DTW levels, depth of well, wellhead elevations, groundwater elevations, and subjective observations for the presence of product in the groundwater monitoring wells MW-1 through MW-8 for this quarter and previous quarterly groundwater monitoring at the site are summarized in Table 1, Cumulative Groundwater Monitoring Data. EMCON's DTW measurements were used to evaluate groundwater elevations.

According to EMCON's field data sheets, floating product up to 0.02 feet thick was measured in groundwater monitoring wells MW-1 and MW-3 during the May 15 and June 8, 1992, monitorings, and roughly 0.02 feet of floating product was measured in well MW-1 during the June 8, 1992, purging. Evidence of product sheen in MW-2 through MW-8 on June 8, 1992, was not noted (see Appendix A).

Water levels in wells MW-4 (for April through June monitorings), and MW-6 and MW-7 (for May and June monitorings) do not appear to be representative of the first water-bearing zone. In April MW-4 contained less than 4 inches of water, which is approximately

the depth of the slip cap at the base of the well, and the groundwater elevation did not decrease uniformly with the other monitoring wells. This indicates that the water in MW-4 was trapped at the base of the well as residual water. In May and June, monitoring wells MW-4, MW-6, and MW-7 appeared to contain only residual water.

Groundwater elevations in wells MW-1 through MW-3, MW-5, and MW-8 decreased between approximately 3/4 and 1 foot between the April 21 and June 8, 1992, monitorings. The groundwater gradient and flow direction interpreted for April did not include the calculated groundwater elevation for MW-4, as the well contained only residual water. The groundwater gradients interpreted for May and June did not include the calculated groundwater elevations of wells MW-4, MW-6, and MW-7 as they contained only residual water. The groundwater gradients and flow directions interpreted from the April, May and June 1992 groundwater monitorings are shown on the Groundwater Gradient Maps, Plates 3 through 5. Generally, the groundwater gradient and flow direction were less than 0.01 (nearly flat) toward the west. These interpretations are generally consistent with previous quarters.

Groundwater monitoring wells MW-2, MW-4, MW-5 and MW-8 were purged and sampled by EMCON field personnel on June 8, 1992. Because subjective analysis indicated petroleum product was present in MW-1 and MW-3, and wells MW-6 and MW-7 were essentially dry, groundwater samples were not taken from these wells for laboratory analyses. EMCON's Water Sample Field Data sheets, Field Reports and Summary of Groundwater Monitoring Data, are included in Appendix A. According to EMCON's field data, each sampled well went dry during purging. Prior to sampling, only about three well volumes were purged from MW-2, two well volumes were purged from wells MW-4 and MW-5, and one well volume was purged from MW-8. The purge water was removed from the site by a licensed hazardous waste hauler; the Monitoring Well Purge Water Disposal Form is also included in Appendix A.

Laboratory Methods and Analyses

Under the direction of EMCON, groundwater samples collected from wells MW-2, MW-4, MW-5, and MW-8 were analyzed by Columbia Analytical Services, Inc. located in San Jose, California (Hazardous Waste Testing Laboratory Certification No. 1426). The water samples from MW-2, MW-4, MW-5 and MW-8 were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) using modified Environmental Protection Agency (EPA) Methods 5030/8020. Concentrations of TPHg and benzene in the groundwater are shown on Plate 6, TPHg Concentrations in Groundwater and Plate 7, Benzene Concentrations in Groundwater. The Chain of Custody Records and Laboratory Analysis Reports are included in Appendix A.

Results of these and previous water analyses are summarized in Table 2, Cumulative Results of Laboratory Analyses of Groundwater.

Results of this quarter's laboratory results indicate:

- TPHg was detected in groundwater samples from MW-5 at a concentration of 120,000 parts per billion (ppb), from MW-2 at 18,000 ppb, from MW-4 at 5,700 ppb, and from MW-8 at 4,000 ppb;

- Benzene was detected in groundwater samples from MW-5 at a concentration of 17,000 ppb, from MW-2 at 1,200 ppb, from MW-4 at 2,000 ppb. These concentrations are greater than the State Maximum Contaminant Level (MCL) of 1.0 ppb benzene; benzene was nondetectable (less than 10 ppb) in the groundwater sample from MW-8;

- Toluene was detected in groundwater samples from MW-5 at a concentration of 13,000 ppb, from MW-2 at 980 ppb, from MW-4 at 170 ppb; these concentrations are greater than the Drinking Water Action Level (DWAL) of 100 ppb. Toluene was nondetectable (less than 10 ppb) in the sample from MW-8.

- Ethylbenzene was detected in groundwater samples from MW-5 at a concentration of 2,400 ppb, from MW-2 at 330 ppb, from MW-4 at 92 ppb, and from MW-8 at 110 ppb; the concentration in MW-5 exceeds the State MCL of 680 ppb;

- Total xylenes were detected in groundwater samples from MW-5 at a concentration of 11,000 ppb, from MW-2 at 1,800 ppb, from MW-4 at 270 ppb, but was nondetectable (less than 10 ppb) in the sample from MW-8; the concentrations in MW-5 and MW-2 exceed the State MCL of 1,750 ppb.

The following general trends were noted in reported hydrocarbon concentrations in groundwater from the four monitoring wells since quarterly monitoring began at the site on July 1990. Concentrations of TPHg and BTEX have fluxuated in the groundwater from wells MW-2, MW-4, MW-5, and MW-8. In the first quarter 1992 there was a general increase in concentrations of TPHg and BTEX; during the second quarter there has been a general decrease in concentrations of TPHg and BTEX. Trends for the groundwater from wells MW-6 and MW-7 have not been established because these wells have been dry since installation in June 1991, with the exception of first quarter 1992.

Product Removal

Floating product is removed on a monthly basis. A Horner EZY Product Skimmer was installed in well MW-3 on December 24, 1991 as a means of interim remediation. Quantities of floating product and water removed are presented on Table 3, Approximate Cumulative Product Recovered. The total product recovered at the site is 3.45 gallons.

Conclusions

Groundwater at this site has been impacted by petroleum hydrocarbons. The extent of the petroleum hydrocarbons has not been defined.

Groundwater at the site decreased an average of 3/4 to 1 foot during this quarter. In April, monitoring well MW-4 contained less than 4 inches of water, which is approximately the depth of the slip cap at the base of the well, and the groundwater elevation did not decrease uniformly with the other monitoring wells. This indicates that the water in MW-4 was trapped at the base of the well as residual water. In May and June, monitoring wells MW-4, MW-6, and MW-7 appeared to contain only residual water.

RESNA also recommends that copies of this report be forwarded to:

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

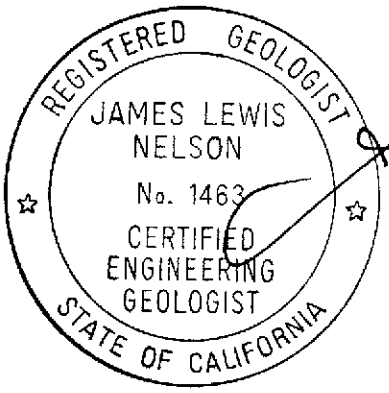
Mr. John Jang
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Mr. Guy Telham
San Leandro Fire Department
835 East 14th Street
San Leandro, California 94577

If you have any questions or comments, please call us at (408) 264-7723.

Sincerely,
RESNA Industries Inc.

Erin McLucas
Staff Geologist



James L. Nelson
Certified Engineering
Geologist No. 1463

cc: H.C. Winsor, ARCO Products Company

Enclosures: References
Plate 1, Site Vicinity Map
Plate 2, Generalized Site Plan
Plate 3, Groundwater Gradient Map, April 21, 1992
Plate 4, Groundwater Gradient Map, May 15, 1992
Plate 5, Groundwater Gradient Map, June 8, 1992
Plate 6, TPHg Concentrations in Groundwater, June 8, 1992
Plate 7, Benzene Concentrations in Groundwater, June 8, 1992

Table 1, Cumulative Groundwater Monitoring Data
Table 2, Cumulative Results of Laboratory Analyses of Groundwater
Table 3, Approximate Cumulative Product Recovered

Appendix A: EMCON's Field Reports (3), Summary of Groundwater Monitoring Data, Certified Analytical Reports with Chain-of-Custody Record, Emcon's Water Sample Field Data Sheets
Monitoring Well Purge Water Disposal Form

REFERENCES

Alameda County Health Care Services. December 26, 1991, Letter Regarding CAL-EPA Regional Hydrogeology and Contamination Study, Central San Leandro.

Applied GeoSystems, November 9, 1989, Limited Environmental Site Assessment at ARCO Service Station No. 601, San Leandro, California. AGS Report 69034-1.

Applied GeoSystems, November 30, 1990, Letter Report Quarterly Ground-Water Monitoring Fourth Quarter 1990. AGS Report 69034-3.

Applied GeoSystems, December 14, 1990, Subsurface Environmental Assessment at ARCO Station 601, San Leandro, California. AGS Report 69034-2.

Applied GeoSystems, March 24, 1991, Letter Report Quarterly Ground-Water Monitoring First Quarter 1991. (Letter Report 0130ccar, AGS 69034-3).

Applied GeoSystems, July 3, 1991, Letter Report Quarterly Ground-Water Monitoring, Second Quarter 1991. AGS 69034.03.

California Department of Health Services, Office of Drinking Water, October 18, 1990, Summary of Maximum contaminant Level (MCL) and Action Levels (AL).

GeoStrategies, Inc., June 29, 1990, Tank Replacement Report, ARCO Service Station #601, San Leandro, California. GSI Report 7918-2.

GeoStrategies, Inc, November 14, 1989, Proposed Scope of Work, ARCO Service Station #601, San Leandro, California. GSI Report 7918-1.

RESNA Industries, October 17,1991, Subsurface Environmental Assessment and Vapor Extraction Test at ARCO Station 601, 712 Lewelling Boulevard, San Leandro, California. RESNA 69034.04.

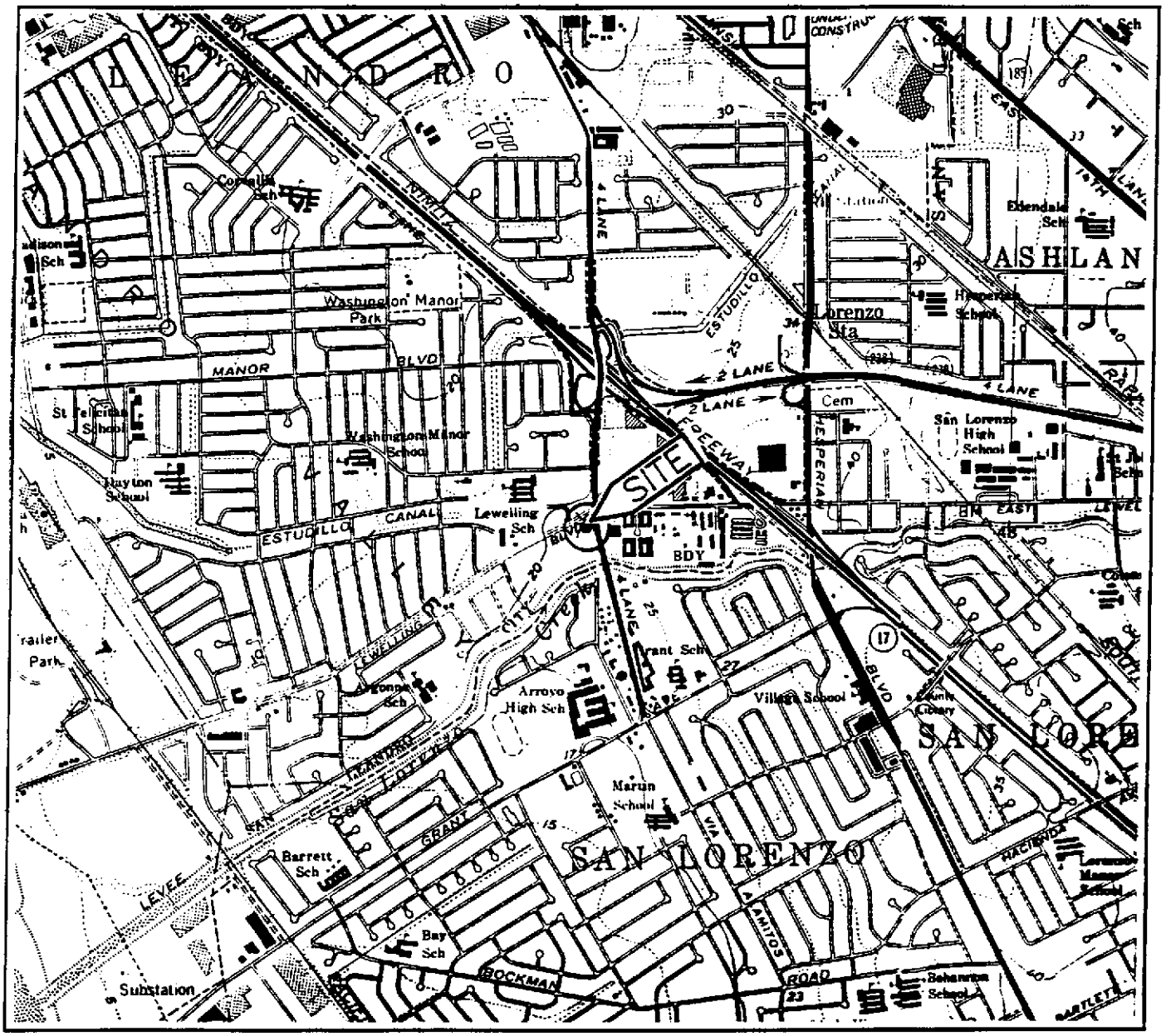
RESNA Industries, November 22, 1991, Letter Report Quarterly Groundwater Monitoring, Third Quarter 1991 at ARCO Station 601, 712 Lewelling Boulevard, San Leandro, California. RESNA 69034.03.

RESNA Industries, April 9, 1992, Letter Report Quarterly Groundwater Monitoring, Fourth Quarter 1991, at ARCO Station 601, 712 Lewelling Boulevard, San Leandro, California. RESNA 69034.06.

REFERENCES
(Continued)

RESNA Industries, May 5, 1992, Letter Report Quarterly Groundwater Monitoring, First Quarter 1992, at ARCO Station 601, 712 Lewelling Boulevard, San Leandro, California. RESNA 69034.06.

RESNA Industries, September 14, 1992, Addendum Five to Work Plan, at ARCO Station 601, 712 Lewelling Boulevard, San Leandro, California. RESNA 69034.10.



Base: U.S. Geological Survey
7.5–Minute Quadrangles
Hayward/San Leandro, California.
Photorevised 1980

LEGEND

⊙ = Site Location

Approximate Scale

2000 1000 0 2000 4000

feet

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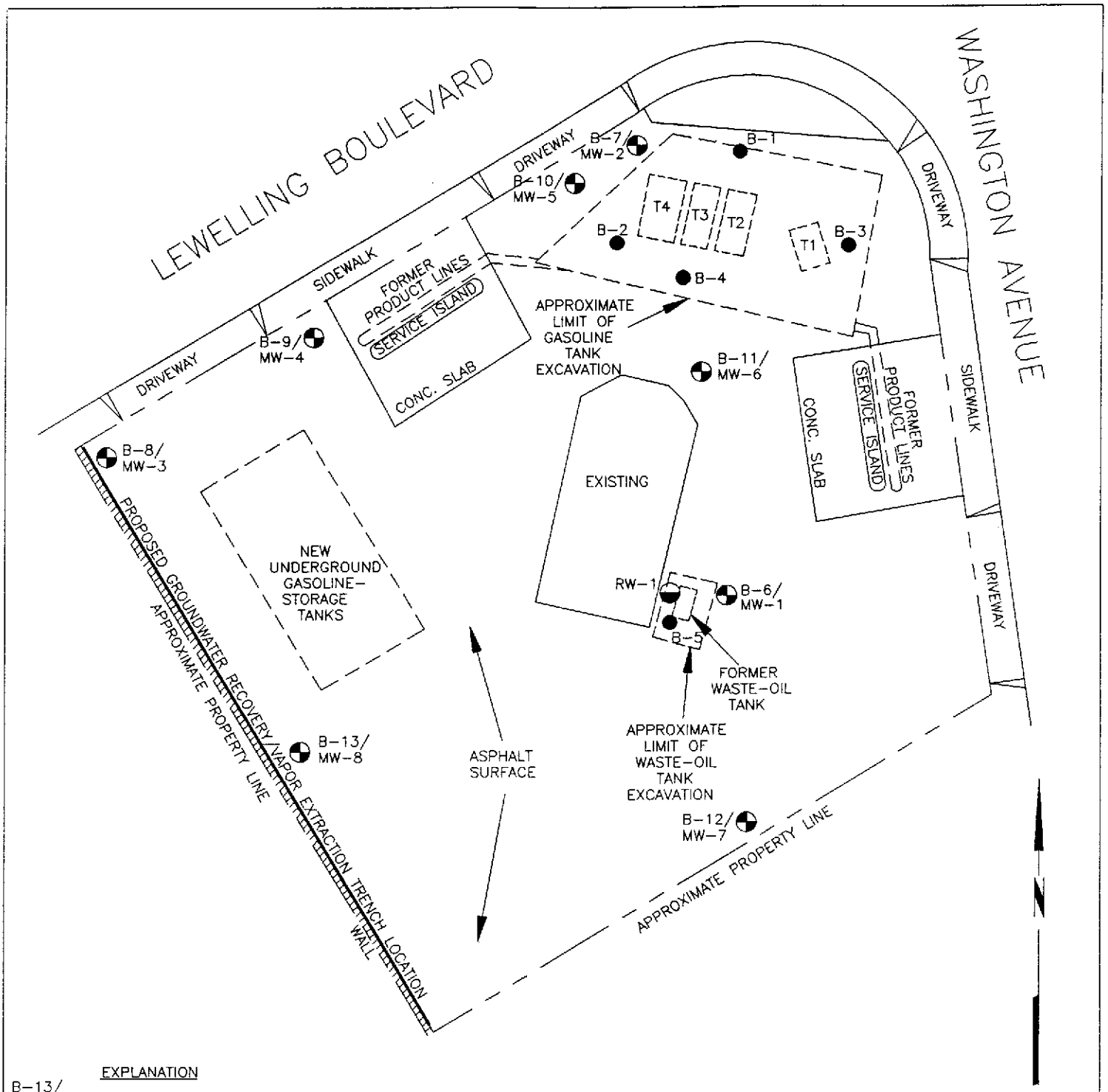
SITE VICINITY MAP
ARCO Station 601
712 Lewelling Boulevard
San Leandro, California

PLATE
1



EXPLANATION

B-13/ MW-8 = Groundwater monitoring well (RESNA, 1990 and 1991)

RW-1 = Product recovery well (GeoStrategies, January 1990)

B-5 = Soil boring (RESNA, August 1989)

T4 = Former underground gasoline storage tank

30 15 0 30 60

Approximate Scale in Feet

Source: Surveyed by Ron Archer, Civil Engineer Inc. and John Koch, Licensed Surveyor.

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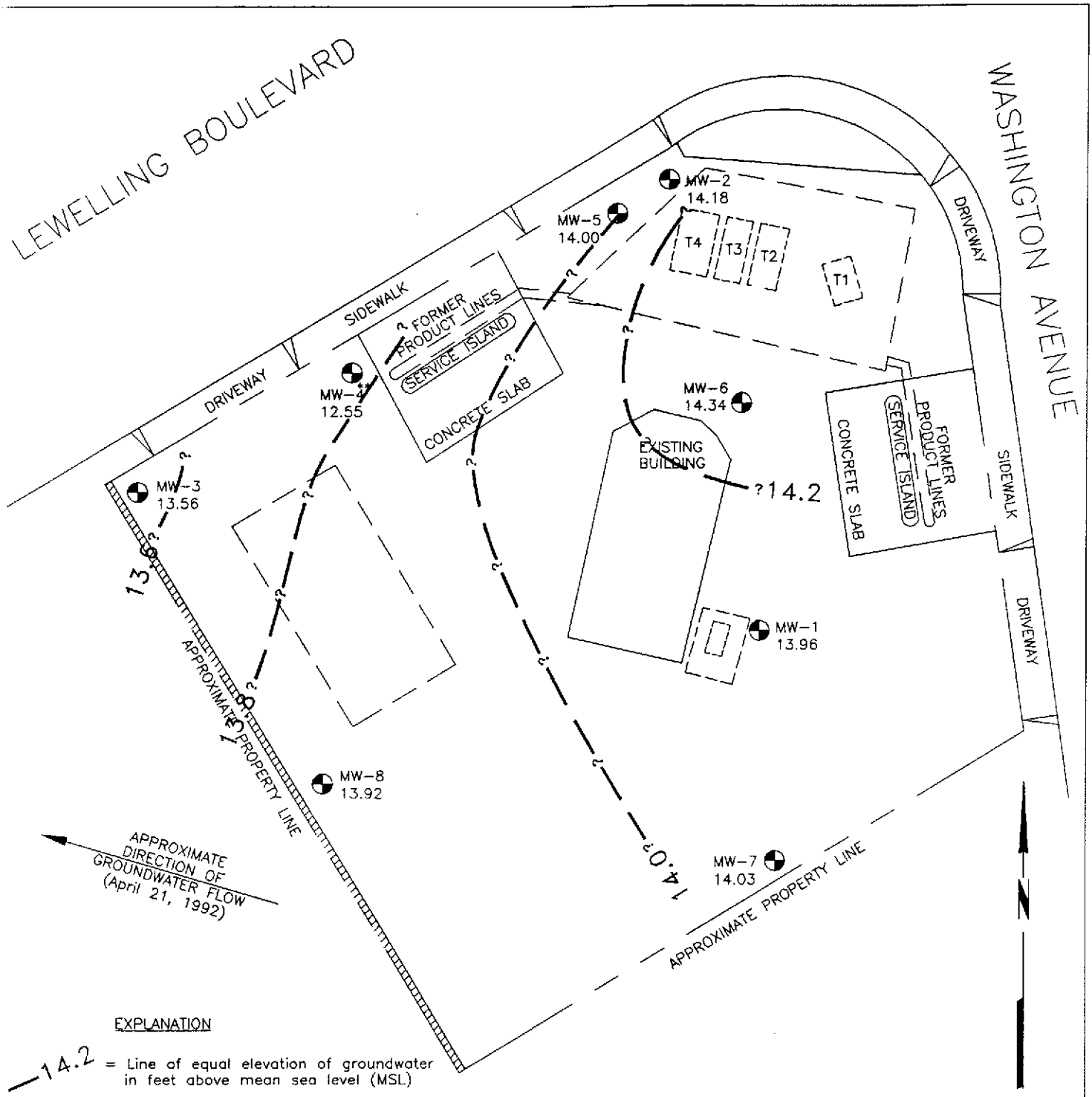
GENERALIZED SITE PLAN
ARCO Station 601
712 Lewelling Boulevard
San Leandro, California

PLATE
2



Source: Surveyed by Ron Archer, Civil Engineer Inc. and John Koch, Licensed Surveyor.

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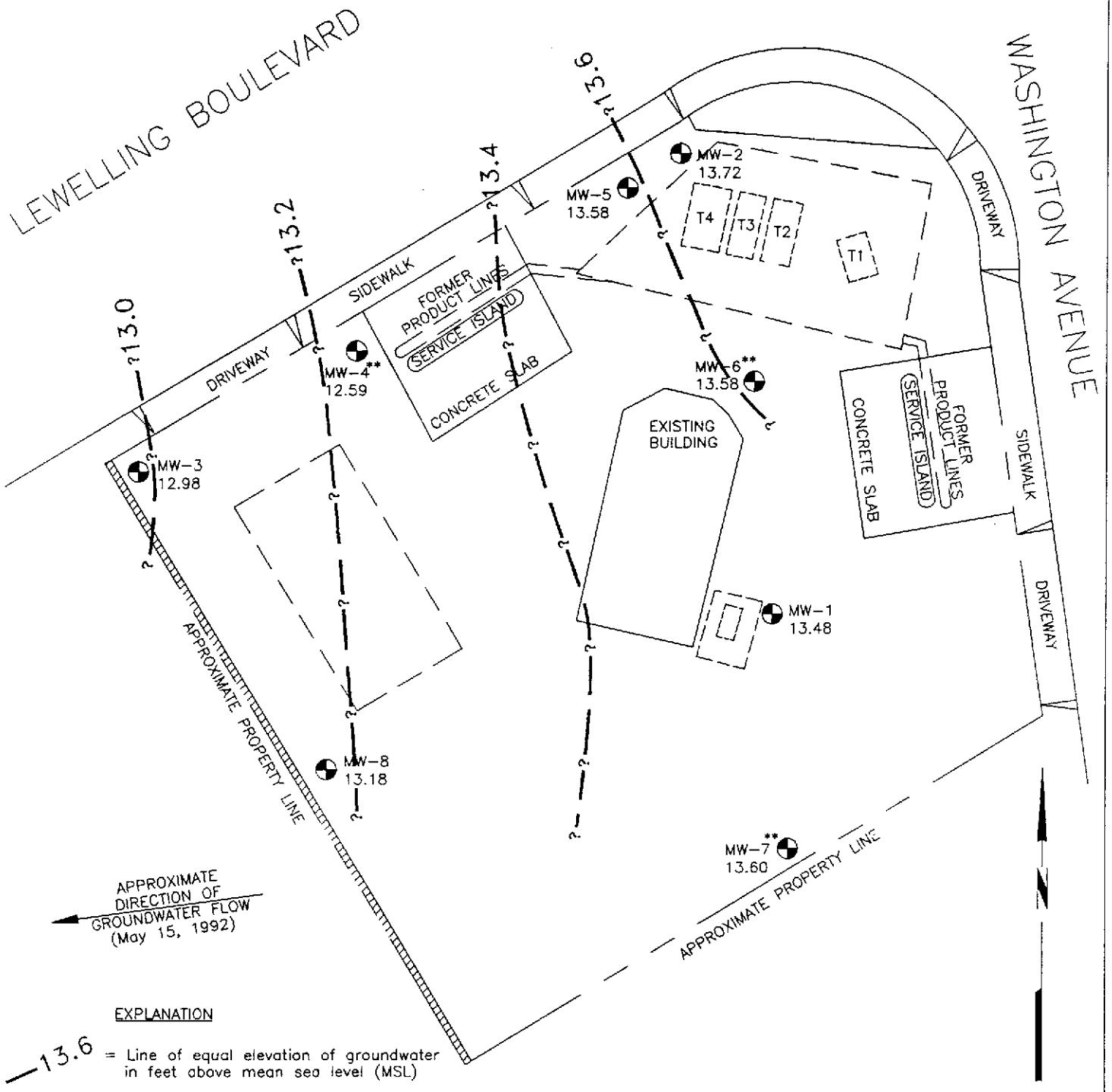
GROUNDWATER GRADIENT MAP
ARCO Station 601
712 Lewelling Boulevard
San Leandro, California

PLATE 3



EXPLANATION

13.6 = Line of equal elevation of groundwater in feet above mean sea level (MSL)

13.72 = Elevation of groundwater in feet above MSL, May 15, 1992

MW-8 = Groundwater monitoring well (RESNA, June 1990 and May 1991)

T4 = Former underground gasoline-storage tanks

** = Only residual water in well

30 15 0 30 60

Approximate Scale in Feet

Source: Surveyed by Ron Archer, Civil Engineer Inc. and John Koch, Licensed Surveyor.

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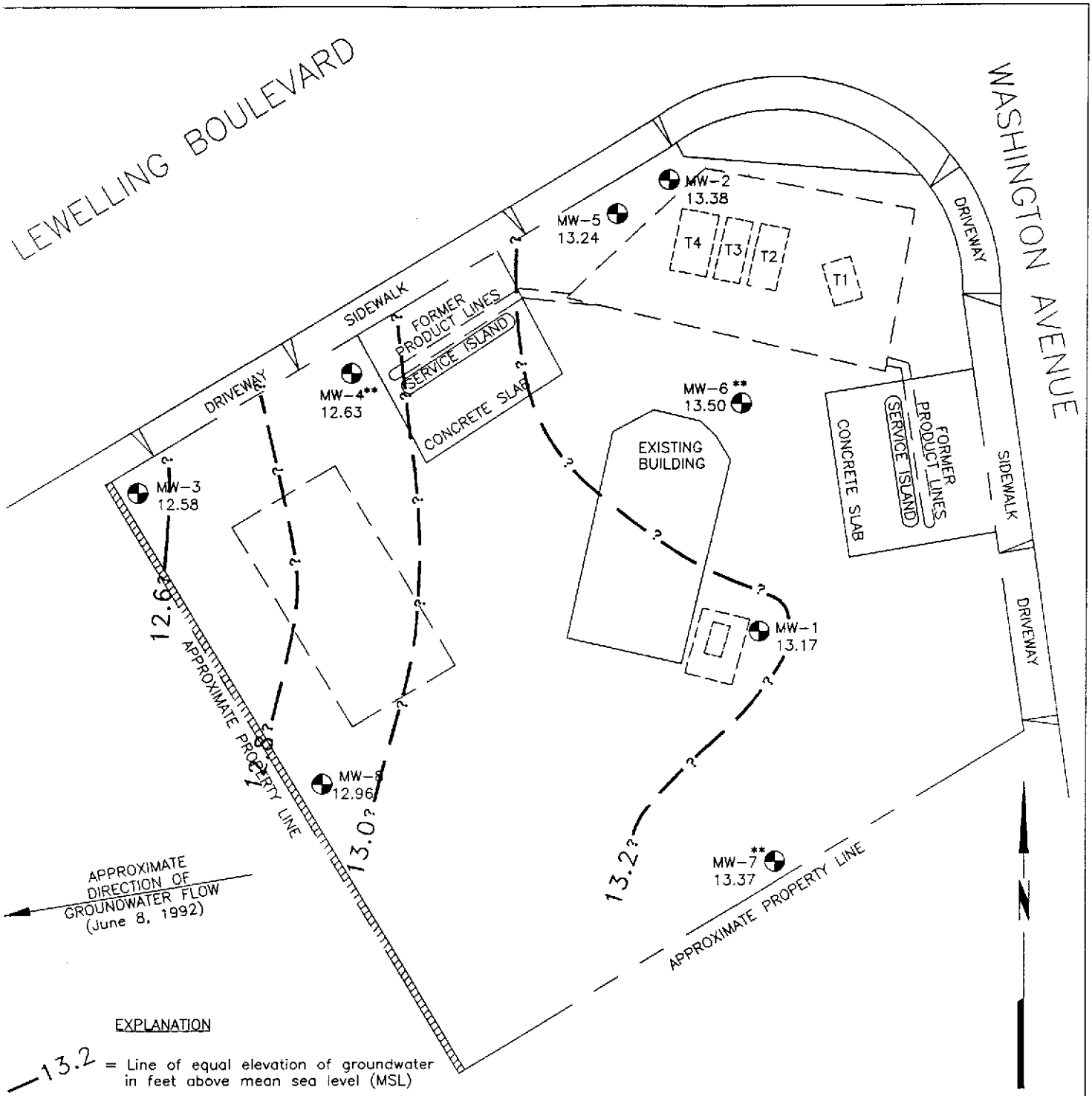
GROUNDWATER GRADIENT MAP
ARCO Station 601
712 Lewelling Boulevard
San Leandro, California

PLATE 4



EXPLANATION

13.2 = Line of equal elevation of groundwater in feet above mean sea level (MSL)

13.50 = Elevation of groundwater in feet above MSL, **June 8, 1992**

MW-8 = Groundwater monitoring well **(RESNA, June 1990 and May 1991)**

T4 = Former underground gasoline-storage tanks

** = Only residual water in well

30 15 0 30 60

Approximate Scale in Feet

Source: Surveyed by Ron Archer, Civil Engineer Inc. and John Koch, Licensed Surveyor.

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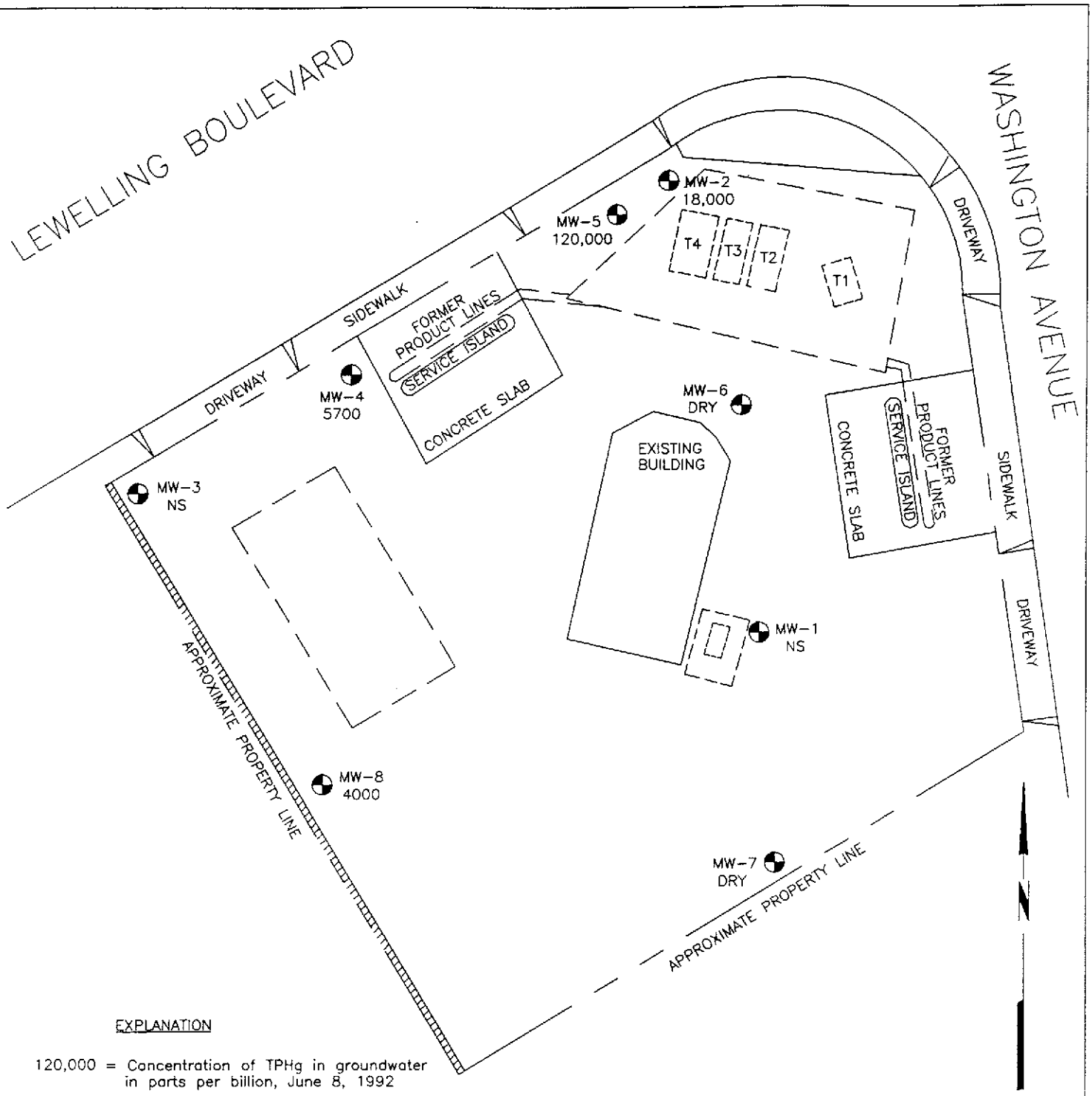
GROUNDWATER GRADIENT MAP
ARCO Station 601
712 Lewelling Boulevard
San Leandro, California

PLATE 5



EXPLANATION

120,000 = Concentration of TPHg in groundwater in parts per billion, June 8, 1992

DRY = Not enough water present during sampling event

MW-8 = Groundwater monitoring well (RESNA, June 1990 and May 1991)

T4 = Former underground gasoline-storage tanks

NS = Not sampled due to product or product sheen

Source: Surveyed by Ron Archer, Civil Engineer Inc. and John Koch, Licensed Surveyor.

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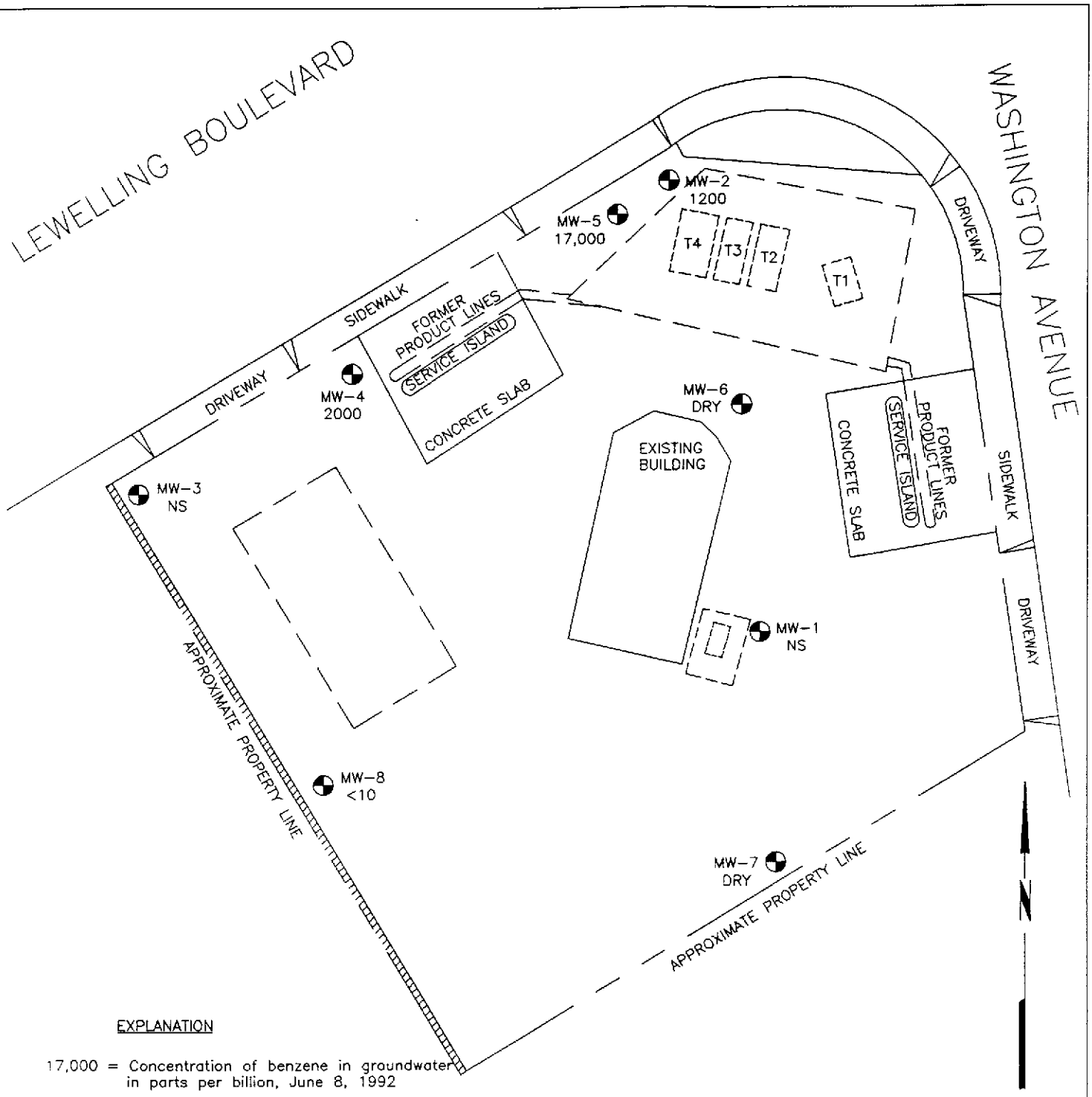
TPHg CONCENTRATIONS IN GROUNDWATER
ARCO Station 601
712 Lewelling Boulevard
San Leandro, California

PLATE 6



EXPLANATION

17,000 = Concentration of benzene in groundwater in parts per billion, June 8, 1992

DRY = Not enough water present during sampling event

MW-8 = Groundwater monitoring well (RESNA, June 1990 and May 1991)

T4 = Former underground gasoline-storage tanks

NS = Not sampled due to product or product sheen

30 15 0 30 60

Approximate Scale in Feet

Source: Surveyed by Ron Archer, Civil Engineer Inc. and John Koch, Licensed Surveyor.

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PROJECT 69034.06

BENZENE CONCENTRATIONS IN GROUNDWATER
ARCO Station 601
712 Lewelling Boulevard
San Leandro, California

PLATE 7

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
ARCO Station 601
San Leandro, California
(Page 1 of 4)

Date Well Measured	Depth of Well	Well Elevation	Depth-to-Water	Water Elevation	Floating Product
MW-1					
07/17/90	11.20	22.98	9.03	13.95	Emulsion
08/07/90			9.19	13.79	None
10/15/90			9.85*	13.13	0.25
11/20/90			9.79*	13.19	0.46
12/21/90			9.18	13.80	Sheen
01/09/91			9.47*	13.51*	0.02
02/27/91			9.31*	13.67*	0.03
03/20/91**			7.81	15.17	Sheen
04/16/91			6.12	16.86	Sheen
05/16/91		22.26	8.60*	13.66*	0.01
06/10/91			9.00	13.26	Sheen
07/18/91			9.33*	12.93*	0.01
08/22/91			9.49*	12.77*	0.04
09/18/91			9.63*	12.63*	0.04
10/10/91			9.73*	12.53*	0.04
11/21/91			8.40*	13.86*	0.01
12/24/91			9.68*	13.30*	0.13
01/19/92	11.10		8.84	13.42	None
02/20/92			7.22	15.04	None
03/23/92			7.40	14.86	Sheen
04/21/92			8.30	13.96	None
05/15/92			8.77*	13.49*	0.01
06/08/92			9.08*	13.18*	0.02
MW-2					
07/17/90	12.33	22.06	7.86	14.20	None
08/07/90			8.03	14.03	None
10/15/90			8.61	13.45	None
11/20/90			8.76	13.30	None
12/21/90			8.28	13.78	None
01/09/91			8.43	13.63	None
02/27/91			8.28	13.78	None
03/20/91**			7.26	14.80	None
04/16/91			6.97	15.09	None
05/16/91		22.79****	7.52	15.27	None
06/10/91			7.91	14.88	None
07/18/91			8.30	14.49	None
08/22/91			8.50	14.29	None
09/18/91			8.63	14.16	None
10/10/91			8.82	13.97	None
11/21/91			8.46	14.33	None
12/24/91			8.72	14.07	None
01/19/92	12.20		7.96	14.83	None

See notes on page 4 of 4.

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
ARCO Station 601
San Leandro, California
(Page 2 of 4)

Date Well Measured	Depth of Well	Well Elevation	Depth-to-Water	Water Elevation	Floating Product
MW-2					
02/20/92			6.55	16.24	None
03/23/92			6.86	15.93	None
04/21/92		21.33	7.15	14.18	None
05/15/92			7.61	13.72	None
06/08/92			7.95	13.38	None
MW-3					
07/17/90	11.99	20.84	7.03	13.81	Sheen
08/07/90			7.21	13.63	None
10/15/90			8.19*	12.65*	0.75
11/20/90			7.98*	12.85*	1.08
12/21/90			7.22*	13.62*	0.01
01/09/91			7.46*	13.38*	0.30
02/27/91			7.37*	13.47*	0.02
03/20/91**			5.79	15.05	Sheen
04/16/91			7.95	12.89	Sheen
05/16/91		20.11	7.50	12.61	None
06/10/91			7.14	12.97	Sheen
07/18/91			7.55	12.56	None
08/22/91			7.64	12.47	Sheen
09/18/91			7.89*	12.22*	0.12
10/10/91			7.82*	12.29*	0.26
11/21/91			7.59*	12.52*	0.04
12/24/91			8.74*	11.37*	0.01
01/19/92	11.94		6.98	13.13	0.01
02/20/92			5.05	15.06	0.01
03/23/92			5.75	14.36	Sheen
04/21/92			6.55	13.56	None
05/15/92			7.11*	13.00*	0.03
06/08/92			7.52*	12.59*	0.02
MW-4					
06/10/91	8.30	20.75	Dry	—	—
07/18/91			7.86	12.89	None
08/22/91			7.85	12.90	None
09/18/91			7.84	12.91	None
10/10/91			Dry	—	None
11/21/91			Dry	—	—
12/24/91			Dry	—	—
03/23/92			7.94	12.81	None
01/19/92	***		8.20	Residual Water	None

See notes on page 4 of 4.

RESNA

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
ARCO Station 601
San Leandro, California
(Page 3 of 4)

Date Well Measured	Depth of Well	Well Elevation	Depth-to-Water	Water Elevation	Floating Product
MW-4					
02/20/92	8.50		8.13	Residual Water	None
03/23/92			7.94	Residual Water	None
04/21/92			8.20	Residual Water	None
05/15/92			8.16	Residual Water	None
06/08/92			8.12	Residual Water	None
MW-5					
06/10/91	9.88	20.90	7.58	13.32	None
07/18/91			7.97	12.93	None
08/22/91			8.18	12.72	None
09/18/91			8.31	12.59	None
10/10/91			8.51	12.39	Sheen
11/21/91			8.13	12.77	None
12/24/91			8.32	12.58	None
01/19/92	10.10		7.50	13.40	None
02/20/92			5.97	14.93	None
03/23/92			6.06	14.84	None
04/21/92			6.90	14.00	None
05/15/92			7.32	13.58	None
06/08/92			7.66	13.24	None
MW-6					
06/10/91	8.40	22.08	Dry	____	____
07/18/91			Dry	____	____
08/22/91			Dry	____	____
09/18/91			Dry	____	____
10/10/91			Dry	____	____
11/21/91			Dry	____	____
12/24/91			Dry	____	____
01/19/92	8.60		8.58	Residual water	None
02/20/92			7.28	14.80	None
03/23/92			7.45	14.63	None
04/21/92			7.74	14.34	None
05/15/92			8.50	Residual Water	None
MW-7					
06/10/91	9.36	22.89	Dry	____	____
07/18/91			Dry	____	____
08/22/91			Dry	____	____
09/18/91			Dry	____	____
10/10/91			Dry	____	____
11/21/91			Dry	____	____
06/08/92			8.58	Residual Water	None

See notes on page 4 of 4.

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
ARCO Station 601
San Leandro, California
(Page 4 of 4)

Date Well Measured	Depth of Well	Well Elevation	Depth-to-Water	Water Elevation	Floating Product feet
MW-7					
12/24/91			Dry	____	___
01/19/92	9.55		Dry	____	___
02/20/92			8.74	14.15	None
03/23/92			8.20	14.69	None
04/21/92			8.86	14.03	None
05/15/92			9.29	Residual Water	None
06/08/92			9.52	Residual Water	None
MW-8					
06/10/91	10.00	20.97	7.80	13.17	None
07/18/91			8.36	12.61	None
08/22/91			8.53	12.44	None
09/18/91			8.68	12.29	None
10/10/91			8.87	12.10	None
11/21/91			8.43	12.54	None
12/24/91			8.68	12.29	None
01/19/92	10.15		7.73	13.24	None
02/20/92			5.57	15.40	None
03/23/92			5.81	15.16	None
04/21/92			7.05	13.92	None
05/15/92			7.79	13.18	None
06/08/92			8.01	12.96	None

Measurements in feet.
Datum mean sea level.
Depth-to-Water measured in feet below top of casing.
ND = Not detected.
*The recorded thickness of the floating product was then multiplied by 0.80 to obtain an approximate value for the displacement of water by the floating product. This approximate displacement value is then subtracted from the measured depth to water to obtain a calculated depth to water. These calculated groundwater depths were subtracted from wellhead elevations measured by Ron Archer, Civil Engineer, Inc., of Pleasanton, California, a licensed land surveyor, to calculate the differences in groundwater elevations.
** Anomalous due to extensive rainfall and non-functioning storm drain.
*** A misreading of 12.02 feet was recorded on EMCON's Field Report.
**** Well elevation of MW-2 incorrect; corrected 4/21/92.
Residual Water = less than 4 inches of water trapped within the cap at the base of the well.

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER
ARCO Station 601
San Leandro, California
(Page 1 of 2)

Sample	TPHg	TPHd	B	T	E	X	TOG	BNAs	VOCs	Cd	Cr	Pb	Ni	Zn
MW-1														
07/18/90						Not sampled--floating product								
10/15/90						Not sampled--floating product								
01/09/91						Not sampled--floating product								
04/16/91						Not sampled--sheen								
06/10/91						Not sampled--sheen								
10/10/91						Not sampled--floating product								
03/23/92						Not sampled--floating product								
06/08/92						Not sampled--floating product								
MW-2														
07/18/90	35,000	850[a]	3,800 (3,200)	2,900 (2,400)	690 (270)	3,600 (2,900)	<5,000	340[a] 170[b]	39[c]	<20	50	50	NA	120
10/15/90	6,400	NA	650	290	110	560	NA	NA	18[c]	NA	NA	NA	NA	NA
01/09/91	13,000	NA	1500 (1700)	970 (1200)	390 (370)	1500 (2400)	NA	NA	6.5[d]	NA	NA	NA	NA	NA
04/16/91	54,000	NA	5,200	9,000	1,500	7,700	NA	NA	NA	NA	NA	NA	NA	NA
06/10/91	26,000	NA	3,000	2,500	880	4,200	NA	NA	NA	NA	NA	NA	NA	NA
10/10/91	10,000	NA	1,600	910	280	1,400	<5,000	NA	1.7[d]	<10	<10	11	72	91
03/23/92	33,000	NA	4,100	5,000	1,100	5,300	NA	NA	NA	NA	NA	NA	NA	NA
06/08/92	18,000	NA	1,200	980	330	1,800	NA	NA	NA	NA	NA	NA	NA	NA
MW-3														
07/18/90	NA	NA	NA	NA	NA	NA	<5,000	NA	NA	NA	NA	NA	NA	NA
10/15/90						Not sampled--floating product								
01/09/91						Not sampled--floating product								
04/16/91						Not sampled--sheen								
06/10/91						Not sampled--sheen								
10/10/91						Not sampled--floating product								
03/23/92						Not sampled--floating product								
06/08/92						Not sampled--floating product								
MW-4														
06/10/91						Not sampled--dry								
10/10/91	15,000	NA	5,300	1,500	470	1,300	NA	NA	NA	NA	NA	NA	NA	NA
03/23/92	24,000	NA	5,600	4,000	580	3,100	NA	NA	NA	NA	NA	NA	NA	NA
06/08/92	5,700	NA	2,000	170	92	270	NA	NA	NA	NA	NA	NA	NA	NA
MW-5														
06/10/91	100,000	NA	25,000	20,000	2,600	12,000	NA	NA	NA	NA	NA	NA	NA	NA
10/10/91						Not sampled--sheen								
03/23/92	150,000	NA	24,000	31,000	4,400	23,000	NA	NA	NA	NA	NA	28	NA	NA
06/08/92	120,000	NA	17,000	13,000	2,400	11,000	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on page 2 of 2.

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER
ARCO Station 601
San Leandro, California
(Page 2 of 2)

Sample	TPHg	TPHd	B	T	E	X	TOG	BNAs	VOCs	Cd	Cr	Pb	Ni	Zn
MW-6														
06/10/91	Not sampled–dry													
10/10/91	Not sampled–dry													
03/23/92	75,000	NA	19,000	10,000	1,600	8,600	NA	NA	NA	NA	NA	NA	NA	NA
06/08/93	Not sampled–dry													
MW-7														
06/10/91	Not sampled–dry													
10/10/91	Not sampled–dry													
03/23/92	270	NA	10	0.5	3.0	13	NA	NA	NA	NA	NA	NA	NA	NA
06/08/92	Not sampled–dry													
MW-8														
06/10/91	5,800	NA	73	7.2	150	21	<5,000	NA	NA	NA	NA	NA	NA	NA
10/10/91	2,800	NA	31	6.1	4.5	3.9	NA	NA	NA	NA	NA	NA	NA	NA
03/23/92	8,000	NA	18 (23**)	<5.0‴ (<5.0‴)	320 (450**)	42 (23**)	NA	NA	ND	NA	NA	NA	NA	NA
06/08/92	4,000	NA	<10**	<10**	110	<10**	NA	NA	NA	NA	NA	NA	NA	NA
DWAL:	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MCLs:	—	—	1	NA	680	1,750	—	—	—	10	50	50	—	5,000
Als:	—	—	—	100	—	—	—	—	—	—	—	—	—	

Results in micrograms per liter (ug/L) = parts per billion (ppb).

NA: Not analyzed.

<: Results reported as less than the detection limit.

*: Applied analytical laboratories reports that the chromatograph resembled gasoline not diesel.

‴: Laboratory reported raised maximum reporting limit due to high analyte concentration requiring sample dilution.

( ): BTEX results analyzed as VOCs.

TPHg: Total petroleum hydrocarbons as gasoline by EPA method 8015.

TPHd: Total petroleum hydrocarbons as diesel by EPA method 3550/3510.

B: Benzene, T: Toluene, E: Ethylbenzene, X: Total Xylene isomers.

BTEX: Measured by EPA method 8020/602.

TOG: Total oil and grease measured by Standard Method 503A/E.

BNAs: Base neutral and acid extractables including polynuclear aromatics concentrations are below laboratory reporting limits for respective compounds except as indicated. ([a] = naphthalene, [b] = 2-methylnaphthalene)

VOCs: volatile organics except for BTEX concentrations are below laboratory reporting limits for respective compounds except as indicated. ([c] = methylene chloride) ([d] = 1,2-DCA)

Cd: Cadmium

Cr: Chromium

Pb: Lead (by EPA Method 7421)

Zn: Zinc

ND: Below detection limits. Detection limits for VOCs varied according to analyte.

DWAL: California Department of Health Services recommended drinking water action levels (October 1990).

MCLs: Maximum Contaminant Level in ppb (October 1990).

Als: Action Levels in ppb.

TABLE 3
APPROXIMATE CUMULATIVE PRODUCT RECOVERED
ARCO Station 601
San Leandro, California

Year	Floating Product Removed (gallons)
1991	TOTAL: 3.43

Date	Floating Product Removed (gallons)
MW-1	
01/29/92	None present
02/28/92	None present
03/25/92	None present
06/08/92	0.02
MW-3	
01/29/92	None present
02/28/92	None present
03/25/92	None present
06/08/92	None present
	TOTAL: 0.02

APPENDIX A

EMCON'S FIELD REPORTS
SUMMARY OF GROUNDWATER MONITORING DATA
CERTIFIED ANALYTICAL REPORTS WITH CHAIN-OF-CUSTODY RECORD
WATER SAMPLE FIELD DATA SHEETS
EMCON'S WATER SAMPLE FIELD DATA SHEET
MONITORING WELL PURGE WATER DISPOSAL FORM

EMCON ASSOCIATES
Consultants in Wastes Management and Environmental Control

Date April 27, 1992
Project G70-07.01

To:
Mr. Joel Coffman
RESNA/ Applied Geosystems
3315 Almaden Expressway, Suite 34
San Jose, California 95118

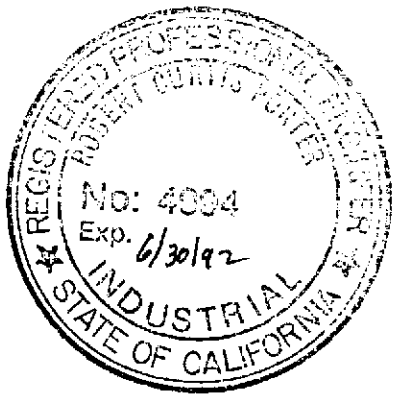
We are enclosing:

Copies	Description
1	Depth To Water/Floating Product Survey Results
	April 1992 monthly water level survey, ARCO
	station 601, 712 Lewelling Blvd., San Leandro, CA

For your: X Information Sent by: X Mail

Comments:
Monthly water level data for the above mentioned site are attached. Please call if you have any questions: (408) 453-2266.

Reviewed by:



Mark Knuttel MK

Robert C Porter

Robert Porter, Senior Project Engineer.

1938 Junction Avenue, San Jose, California 95131-2102, (408) 453-0719, Fax (408) 453-0452

FIELD REPORT
DEPTH TO WATER / FLOATING PRODUCT SURVEY

PROJECT # : G70-07.01 STATION ADDRESS : 712 Lewelling Blvd. San Leandro DATE : 04-21-92

ARCO STATION # : 601 FIELD TECHNICIAN : LARRY NASS DAY : TUESDAY

DTW Order	WELL ID	Well Box Seal	Well Lid Secure	Gasket	Lock	Locking Well Cap	FIRST DEPTH TO WATER (feet)	SECOND DEPTH TO WATER (feet)	DEPTH TO FLOATING PRODUCT (feet)	FLOATING PRODUCT THICKNESS (feet)	WELL TOTAL DEPTH (feet)	COMMENTS
1	MW-7	OK	OK	OK	OK	OK	8.86	8.86	ND	ND	9.5	—
2	MW-8	OK	OK	OK	OK	OK	7.05	7.05	ND	ND	10.15	—
3	MW-4	OK	OK	OK	OK	OK	8.20	8.20	ND	ND	8.5	—
4	MW-2	OK	OK	OK	OK	OK	7.15	7.15	ND	ND	12.25	—
5	MW-5	OK	OK	OK	OK	OK	6.90	6.90	ND	ND	10.1	—
6	MW-6	OK	OK	OK	OK	OK	7.74	7.74	ND	ND	8.60	—
7	MW-1	OK	OK	OK	OK	OK	8.30	8.30	ND	ND	11.10	IP
8	MW-3	OK	OK	OK	OK	OK	6.55	6.55	ND	ND	11.93	NO PRODUCT IN SKIMMER

EMCON ASSOCIATES
Consultants in Wastes Management and Environmental Control

RECEIVED
MAY 27 1992
RESNA
SAN JOSE

Date May 19, 1992
Project G70-07.01

To:
Mr. Joel Coffman
RESNA/ Applied Geosystems
3315 Almaden Expressway, Suite 34
San Jose, California 95118

We are enclosing:

Copies	Description
1	Depth To Water/Floating Product Survey Results
	May 1992 monthly water level survey, ARCO
	station 601, 712 Lewelling Blvd., San Leandro, CA

For your: X Information Sent by: X Mail

Comments:
Monthly water level data for the above mentioned site are attached. Please call if you have any questions: (408) 453-2266.

Reviewed by:

REGISTERED PROFESSIONAL ENGINEER
ROBERT CURTIS PORTER
No: 4034
Exp. 6/30/92
INDUSTRIAL
STATE OF CALIFORNIA

JB
Jim Butera

Robert Porter, Senior Project Engineer.

1938 Junction Avenue, San Jose, California 95131-2102, (408) 453-0719, Fax (408) 453-0452

FIELD REPORT
DEPTH TO WATER / FLOATING PRODUCT SURVEY

PROJECT # : G70-07.01 STATION ADDRESS : 712 Lewelling Blvd. San Leandro DATE : 5-15-92

ARCO STATION # : 601 FIELD TECHNICIAN : P. Chacon DAY : Friday

DTW Order	WELL ID	Well Box Seal	Well Lid Secure	Gasket	Lock	Locking Well Cap	FIRST DEPTH TO WATER (feet)	SECOND DEPTH TO WATER (feet)	DEPTH TO FLOATING PRODUCT (feet)	FLOATING PRODUCT THICKNESS (feet)	WELL TOTAL DEPTH (feet)	COMMENTS
1	MW-7		Y	Y	3259	Y	9.29	9.29	ND	ND	9.57	—
2	MW-8		Y	Y	3259	Y	7.79	7.78	ND	ND	10.2	—
3	MW-4		Y	Y	3259	Y	8.16	8.16	ND	ND	8.4	—
4	MW-2		Y	Y	3259	Y	7.61	7.61	ND	ND	12.25	water in vault box
5	MW-5		Y	Y	3259	Y	7.32	7.32	ND	ND	10.10	—
6	MW-6		Y	Y	3259	Y	8.50	8.50	ND	ND	8.6	water in box
7	MW-1		Y	Y	3259	Y	8.78	—	.01 →		11.1	oil on the side of Baffle
8	MW-3		Y	Y	3259	Y	7.13	—	1/32 →		11.9	no product in the skimmer

FIELD REPORT
DEPTH TO WATER / FLOATING PRODUCT SURVEY

PROJECT # : G70-07.01 STATION ADDRESS : 712 Lewelling Blvd. San Leandro DATE : June 8, 1992

ARCO STATION # : 601 FIELD TECHNICIAN : Steve Horton DAY : Monday

DTW Order	WELL ID	Well Box Seal	Well Lid Secure	Gasket	Lock	Locking Well Cap	FIRST DEPTH TO WATER (feet)	SECOND DEPTH TO WATER (feet)	DEPTH TO FLOATING PRODUCT (feet)	FLOATING PRODUCT THICKNESS (feet)	WELL TOTAL DEPTH (feet)	COMMENTS
1	MW-7	good	yes	good	3254	yes	9.52	9.52	ND	ND	9.60	—
2	MW-8	good	yes	good	3254	yes	8.01	8.01	ND	ND	10.20	—
3	MW-4	good	yes	good	3259	yes	8.12	8.12	ND	ND	8.50	water in box
4	MW-2	good	yes	good	3249	yes	7.95	7.95	ND	ND	12.30	water in box
5	MW-6	good	yes	good	3259	yes	8.58	8.58	ND	ND	8.60	water in box
6	MW-5	good	yes	good	3259	yes	7.66	7.66	ND	ND	10.10	—
7	MW-1	good	yes	good	3254	yes	9.09	9.09	ND	w/bailer ≈.02	11.10	water in box
8	MW-3	good	yes	good	3254	yes	7.53	7.53	ND	ND	12.00	water in box

Summary of Groundwater Monitoring Data
Second Quarter 1992
ARCO Service Station 601
712 Lewelling Boulevard, San Leandro, California
micrograms per liter (µg/l) or parts per billion (ppb)

Well ID and Sample Depth	Sampling Date	Depth To Water (feet)	Floating Product Thickness (feet)	TPH[1] as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)
MW-1	FP.[2]	9.09	0.02	FP	FP	FP	FP	FP
MW-2(12)	06/09/92	7.95	ND.[3]	18,000.	1,200.	980.	330.	1,800.
MW-3	FP	7.53	0.02	FP	FP	FP	FP	FP
MW-4(8)	06/09/92	8.12	ND.	5,700.	2,000.	170.	92.	270.
MW-5(10)	06/09/92	7.66	ND.	120,000.	17,000.	13,000.	2,400.	11,000.
MW-6	NS[4].	8.58	ND.	NS	NS	NS	NS	NS
MW-7	NS	9.52	ND.	NS	NS	NS	NS	NS
MW-8(10)	06/09/92	8.01	ND.	4,000.	<10.	<10.	110.	<10.
FB-1[5]	03/23/92	NA.[6]	NA.	<50	<0.5	<0.5	<0.5	<0.5

1. TPH. = Total petroleum hydrocarbons
2. FP. = Not sampled; well was not sampled due to detection of floating product
3. ND. = Not detected
4. NS = Not sampled due to insufficient amount of water.
5. FB. = Field blank
6. NA. = Not applicable

Columbia Analytical Services, Inc.

June 18, 1992

Jim Butera
EMCON Associates
1921 Ringwood Avenue
San Jose, CA 95131

Re: **EMCON Project No. G70-07.01**
Arco Facility No. 601

Dear Mr. Butera:

Enclosed are the results of the water samples submitted to our lab on June 9, 1992. For your reference, our service request number for this work is SJ92-0706.

All analyses were performed in accordance with the laboratory's quality assurance program.

Please call if you have any questions.

Respectfully submitted:

COLUMBIA ANALYTICAL SERVICES, INC.

Carol J Klein for
Keoni A. Murphy
Laboratory Manager

Annelise Jade Bazar
Annelise J. Bazar
Regional QA Coordinator

le/KAM

1921 Ringwood Avenue • San Jose, California 95131 • Telephone 408/437-2400 • Fax 408/437-9356

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON Associates	**Date Received:**	06/09/92
Project:	EMCON Project No. G70-07.01	**Work Order #:**	SJ92-0706
	Arco Facility No. 601	**Sample Matrix:**	Water

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

Sample Name:		MW-2 (12)	MW-4 (8)	MW-5 (10)
Date Analyzed:		06/10/92	06/10/92	06/10/92
Analyte	**MRL**			
Benzene	0.5	1,200.	2,000.	17,000.
Toluene	0.5	980.	170.	13,000.
Ethylbenzene	0.5	330.	92.	2,400.
Total Xylenes	0.5	1,800.	270.	11,000.
TPH as Gasoline	50	18,000.	5,700.	120,000.

TPH Total Petroleum Hydrocarbons
MRL Method Reporting Limit

Approved by Carol Klein Date 6-18-92

4994 Rice ... San Jose, California 95131 • Telephone 408/437-2400 • Fax 408/437-0256

Analytical Report

Client:	EMCON Associates	**Date Received:**	06/09/92
Project:	EMCON Project No. G70-07.01	**Work Order #:**	SJ92-0706
	Arco Facility No. 601	**Sample Matrix:**	Water

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

Sample Name:	MW-8 (10)	FB-1	Method Blank
Date Analyzed:	06/10/92	06/10/92	06/10/92

Analyte	MRL			
Benzene	0.5	<10.*	ND	ND
Toluene	0.5	<10.*	ND	ND
Ethylbenzene	0.5	110.	ND	ND
Total Xylenes	0.5	<10.*	ND	ND
TPH as Gasoline	50	4,000.	ND	ND

TPH Total Petroleum Hydrocarbons
MRL Method Reporting Limit
ND None Detected at or above the method reporting limit
* Raised MRL due to high analyte concentration requiring sample dilution.

Approved by Carol Klein Date 6-18-92

1924 Bigwood Avenue • San Jose, California 95131 • Telephone 408/437-2400 • Fax 408/437-9356

Client: EMCON Associates
Project: EMCON Project No. G70-07.01
Arco Facility No. 601

Date Received: 06/09/92
Work Order #: SJ92-0706
Sample Matrix: Water

QA/QC Report
Continuing Calibration Summary
BTEX and TPH as Gasoline
EPA Methods 5030/8020/DHS LUFT Method
Nanograms

Date Analyzed: 06/10/92

Analyte	CCS Loaded	CCS Recovered	% CCS Recovered	Acceptance Criteria
Benzene	250.	260.	104.	85-115
Toluene	250.	258.	103.	85-115
Ethylbenzene	250.	255.	102.	85-115
Total Xylenes	750.	813.	114.	85-115
TPH as Gasoline	2,500.	2,519.	101.	90-110

TPH Total Petroleum Hydrocarbons
CCS Continuing Calibration Standard
% CCS Recovered = (CCS Recovered/CCS Loaded) x 100%

Approved by Carol Klein Date 6-18-92

1921 Ringwood Avenue • San Jose, California 95131 • Telephone 408/437-2400 • Fax 408/437-9356

Client: EMCON Associates
Project: EMCON Project No. G70-07.01
Arco Facility No. 601

Date Received: 06/09/92
Work Order #: SJ92-0706
Sample Matrix: Water

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

Sample Name	Date Analyzed	Percent Recovery α,α,α-Trifluorotoluene
MW-2 (12)	06/10/92	113.
MW-4 (8)	06/10/92	94.
MW-5 (10)	06/10/92	97.
MW-8 (10)	06/10/92	99.
FB-1	06/10/92	92.
MS	06/10/92	100.
MSD	06/10/92	100.
Method Blank	06/10/92	90.
	CAS Acceptance Criteria	70-130

TPH Total Petroleum Hydrocarbons

Approved by Carol Klein Date 6-18-92

1921 Ringwood Avenue • San Jose, California 95131 • Telephone 408/437-2400 • Fax 408/437-9356

Client: EMCON Associates
Project: EMCON Project No. G70-07.01
Arco Facility No. 601

Date Received: 06/09/92
Work Order #: SJ92-0706
Sample Matrix: Water

QA/QC Report
Matrix Spike/Duplicate Matrix Spike Summary
TPH as Gasoline
EPA Method 5030/DHS LUFT Method
µg/L (ppb)

Date Analyzed: 06/10/92

					Percent Recovery		
		Sample	Spike Result				Acceptance
Analytes	Spike Level	Result	MS	DMS	MS	DMS	Criteria
TPH as Gasoline	5,000.	4,600.	8,960.	8,960.	87.	87.	70-140

TPH Total Petroleum Hydrocarbons

Approved by Carol Klein Date 6-18-92

1924 Ringwood Avenue • San Jose, California 95131 • Telephone 408/437-2400 • Fax 408/437-9356

ARCO Products Company
Division of AtlanticRichfieldCompany

Task Order No. EMCGC-92-1

Chain of Custody

ARCO Facility no. 601 | City (Facility) SAN Leandro | Project manager (Consultant) Jim Botera

ARCO engineer Kyle Christie | Telephone no. (ARCO) (415) 571-2434 | Telephone no. (Consultant) (408) 453-0719 | Fax no. (Consultant) (408) 453-0452

Consultant name EMCON ASSOCIATES | Address (Consultant) 1938 Junction Avenue SAN JOSE CA

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH GAS EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
~~MW-1( )~~		~~2~~		~~X~~		~~X~~	HCl				~~X~~				no sample - product							
MW-2(12)	1-2	2		X		X	↓	6/8/92	14:15		X											
~~MW-3( )~~		~~2~~		~~X~~		~~X~~					~~X~~				no sample - product							
MW-4(8)	3-4	2		X		X		6/8/92	13:45		X											
MW-5(10)	5-6	2		X		X		6/8/92	15:00		X											
~~MW-6( )~~		~~2~~		~~X~~		~~X~~					~~X~~				no sample - dry							
~~MW-7( )~~		~~2~~		~~X~~		~~X~~					~~X~~				no sample - dry							
MW-8(10)	7-8	2		X		X		6/8/92	13:20		X											
FB-1	9-10	2		X		X	↓	6/8/92	13:18		X											
~~MW-5( )~~		~~1~~		~~X~~		~~X~~	~~NP~~	J.B.														

Laboratory name: CAS

Contract number: 07077

Method of shipment: Sampler will deliver

Special detection Limit/reporting: Lowest Possible

Special QA/QC: As Normal

Remarks: 2-40ml VOA's per well

Lab number: 5J92-0706

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

Condition of sample: OK | Temperature received: COOL

Relinquished by sampler	Date	Time	Received by		
[signature]	6/9/92	9:20	[signature]	6-9-92	9:20 AM

Relinquished by	Date	Time	Received by

Relinquished by	Date	Time	Received by laboratory	Date	Time

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant
APPC-3292 (2-91)

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

EMCON ASSOCIATES

PROJECT NO: 670-07.01 SAMPLE ID: MW-1

PURGED BY: S. Horton / NA CLIENT NAME: ARCO #601

SAMPLED BY: S. Horton / NA LOCATION: San Leandro, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 ___ 3 ___ 4 X 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): - VOLUME IN CASING (gal.): 1.31 / ___

DEPTH TO WATER (feet): 9.09 CALCULATED PURGE (gal.): 6.59 / ___

DEPTH OF WELL (feet): 11.10 ACTUAL PURGE VOL. (gal.): NA / ___

DATE PURGED: 6/8/92 NA / Start (2400 Hr) NA / End (2400 Hr) NA / ___

DATE SAMPLED: 6/8/92 / Start (2400 Hr) ___ / End (2400 Hr) ___ / ___

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
		NC Sample Well Contained				
			Product			

D. O. (ppm): NR ODOR: ___ NR (COBALT 0 - 100) NR (NTU 0 - 200)

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): NR

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	___ Bailer (Teflon®)	___ 2" Bladder Pump	___ Bailer (Teflon®)
___ Centrifugal Pump	___ Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: NA		Other: NA	

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: ___

Meter Calibration: Date: 6/8/92 Time: ___ Meter Serial #: 5912 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: MW-7

Signature: [signature] Reviewed By: JG Page 1 of 8

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

EMCON ASSOCIATES

PROJECT NO: 670-07.01 SAMPLE ID: MW-2

PURGED BY: S. Horton CLIENT NAME: ARCO #601

SAMPLED BY: S. Horton LOCATION: San Leandro, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 ___ 3 ___ 4 X 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): ___ VOLUME IN CASING (gal.): 2.85

DEPTH TO WATER (feet): 7.95 CALCULATED PURGE (gal.): 14.26

DEPTH OF WELL (feet): 12.30 ACTUAL PURGE VOL. (gal.): 8.0

DATE PURGED: 6/8/92 Start (2400 Hr) 13:57 End (2400 Hr) 14:04

DATE SAMPLED: 6/8/92 Start (2400 Hr) 14:15 End (2400 Hr) 14:15

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
13:55	3.0	6.72	1536	65.7	gray	heavy
14:00	6.0	6.74	1566	68.4	gray	heavy
14:04	— Well Dried At 8.0 Gallons —					
14:15	recharge	6.73	1659	68.9	gray	heavy

D. O. (ppm): NR ODOR: strong NR (COBALT 0 - 100) NR (NTU 0 - 200)

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): Good

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	___ Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	X Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: ___	

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: ___

Meter Calibration: Date: 6/3/92 Time: ___ Meter Serial #: 8912 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: MW-7

Signature: [signature] Reviewed By: JTB Page 2 of 8

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

EMCON ASSOCIATES

PROJECT NO: 670-07.01 SAMPLE ID: MW-3

PURGED BY: S. Horton CLIENT NAME: ARCO #661

SAMPLED BY: S. Horton / NA LOCATION: San Leandro, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 ___ 3 ___ 4 X 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): - VOLUME IN CASING (gal.): 2.93

DEPTH TO WATER (feet): 7.53 CALCULATED PURGE (gal.): 14.66

DEPTH OF WELL (feet): 12.00 ACTUAL PURGE VOL. (gal.): 1.00

DATE PURGED: 6/8/92 Start (2400 Hr) 15:10 End (2400 Hr) 15:14

DATE SAMPLED: ~~6/8/92~~ NA Start (2400 Hr) N/A End (2400 Hr) NA/

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
15:14						
		No Sample Product Began				
		To Appear After 1.0 Gallon				
			≈.015 was measured w/ bailer			

D. O. (ppm): NR ODOR: strong NR (COBALT 0 - 100) NR (NTU 0 - 200)

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): FB-1

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	___ Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	X Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: NA	

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: ___

Meter Calibration: Date: 6/8/92 Time: ___ Meter Serial #: 5917 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: MW-2

Signature: S. Horton Reviewed By: JB Page 3 of 8

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

EMCON ASSOCIATES

PROJECT NO: 670-07.01 SAMPLE ID: MW-4

PURGED BY: S. Horton CLIENT NAME: ARCO # 601

SAMPLED BY: S. Horton LOCATION: San Leandro, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 ___ 3 ___ 4 X 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): — VOLUME IN CASING (gal.): .24

DEPTH TO WATER (feet): 8.12 CALCULATED PURGE (gal.): 1.24

DEPTH OF WELL (feet): 8.50 ACTUAL PURGE VOL. (gal.): 0.5

DATE PURGED: 6/5/92 Start (2400 Hr) 13:30 End (2400 Hr) 13:33

DATE SAMPLED: 6/5/92 Start (2400 Hr) 13:45 End (2400 Hr) 13:45

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
13:31	.50	7.18	2670	71.9	gray	heavy
13:33		Well Dried At .50 Gallons				
13:45	recharge	7.15	2610	69.9	gray	heavy

D. O. (ppm): NR ODOR: strong

COLOR (visual): NR (COBALT 0 - 100) TURBIDITY (visual): NR (NTU 0 - 200)

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): NR

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	X Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	___ Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: ___	

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: ___

Meter Calibration: Date: 6/5/92 Time: ___ Meter Serial #: 4912 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: MW-7

Signature: S. Horton Reviewed By: TB Page 4 of 5

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

EMCON ASSOCIATES

PROJECT NO: 670-0701 SAMPLE ID: MW-5

PURGED BY: S. Horton CLIENT NAME: ARCO #601

SAMPLED BY: S. Horton LOCATION: San Leandro, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 ___ 3 ___ 4 X 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): - VOLUME IN CASING (gal.): 1.6

DEPTH TO WATER (feet): 7.66 CALCULATED PURGE (gal.): 8.00

DEPTH OF WELL (feet): 10.16 ACTUAL PURGE VOL. (gal.): 2.5

DATE PURGED: 6/8/92 Start (2400 Hr) 14:44 End (2400 Hr) 14:51

DATE SAMPLED: 6/8/92 Start (2400 Hr) 15:00 End (2400 Hr) 15:00

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
14:49	2.5	7.04	1647	62.8	gray	heavy
14:51	___	Well Dried At 2.5 Gallons				
15:00	recharge	7.08	1676	62.9	gray	heavy

D. O. (ppm): NR ODOR: strong COLOR (visual): NR (COBALT 0 - 100) TURBIDITY (visual): NR (NTU 0 - 200)

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): NR

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	X Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	___ Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: ___	

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: ___

Meter Calibration: Date: 6/8/92 Time: ___ Meter Serial #: 8912 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: MW-7

Signature: Steve Horton Reviewed By: JB Page 5 of 8

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

EMCON ASSOCIATES

PROJECT NO: 670-07.01 SAMPLE ID: MW-6

PURGED BY: S. Horton CLIENT NAME: ARCO #661

SAMPLED BY: S. Horton NA LOCATION: San Leandro, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 ___ 3 ___ 4 X 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): - VOLUME IN CASING (gal.): .01 NA

DEPTH TO WATER (feet): 8.58 CALCULATED PURGE (gal.): .01

DEPTH OF WELL (feet): 8.60 ACTUAL PURGE VOL. (gal.): ___

DATE PURGED: 6/8/92 Start (2400 Hr) 16.30 End (2400 Hr) ___

DATE SAMPLED: ~~6/8/92~~ NA Start (2400 Hr) NA End (2400 Hr) NA

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
		Not Enough Water To Sample				

D. O. (ppm): NR ODOR: NA COLOR (COBALT 0 - 100): NR TURBIDITY (NTU 0 - 200): NR

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): NR

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	X Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	___ Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: NA	

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: ___

Meter Calibration: Date: 6/3/92 Time: ___ Meter Serial #: 8912 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: MW-7

Signature: [signature] Reviewed By: JB Page 6 of 8

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

EMCON ASSOCIATES

PROJECT NO: 670-07.01 SAMPLE ID: MW-7

PURGED BY: S. Horton CLIENT NAME: ARCO #601

SAMPLED BY: S. Horton NA LOCATION: San Leandro, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2" ___ 3 ___ 4 X 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): - VOLUME IN CASING (gal.): .05

DEPTH TO WATER (feet): 9.52 CALCULATED PURGE (gal.): .26

DEPTH OF WELL (feet): 9.60 ACTUAL PURGE VOL. (gal.): NA

DATE PURGED: 6/8/92 Start (2400 Hr) 13:45 End (2400 Hr) NA

DATE SAMPLED: 6/8/92 NA Start (2400 Hr) NA End (2400 Hr) NA

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
		Well Dry, Not Enough Water				
		To Sample, No Recharge				

D. O. (ppm): NR ODOR: ___ COLOR (COBALT 0 - 100): NR TURBIDITY (NTU 0 - 200): NR

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): NR

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	X Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	___ Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: NA	

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: ___

Meter Calibration: Date: 6/8/92 Time: 12:40 Meter Serial #: 8917 Temperature °F: 74.4

(EC 1000 1010 / 1000) (DI ___) (pH 7 7.01 / 7.00) (pH 10 9.99 / 10.00) (pH 4 4.00 / ___)

Location of previous calibration: ___

Signature: [signature] Reviewed By: JB Page 7 of 8

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

EMCON ASSOCIATES

PROJECT NO: G70-07 01 SAMPLE ID: MW-8

PURGED BY: S. Horton CLIENT NAME: ARCO #601

SAMPLED BY: S. Horton LOCATION: San Leandro, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 ___ 3 ___ 4 X 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): - VOLUME IN CASING (gal.): 1.43

DEPTH TO WATER (feet): 8.01 CALCULATED PURGE (gal.): 7.18

DEPTH OF WELL (feet): 10.20 ACTUAL PURGE VOL. (gal.): 1.50

DATE PURGED: 6/8/92 Start (2400 Hr) 13:00 End (2400 Hr) 13:04

DATE SAMPLED: 6/8/92 Start (2400 Hr) 13:20 End (2400 Hr) 13:20

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
13:04	1.5	6.83	1777	72.4	gray	heavy
Well Dried At 1.5 Gallons						
13:20	recharge	6.87	1819	70.5	gray	heavy

D. O. (ppm): NR ODOR: strong NR (COBALT 0 - 100) NR (NTU 0 - 200)

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): NR

PURGING EQUIPMENT

___ 2" Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Well Wizard™
___ Bailer (Teflon®)
X Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated
Other: ___

SAMPLING EQUIPMENT

___ 2" Bladder Pump
___ DDL Sampler
___ Dipper
___ Well Wizard™
X Bailer (Teflon®)
___ Bailer (Stainless Steel)
___ Submersible Pump
___ Dedicated
Other: ___

WELL INTEGRITY: Good LOCK #: 329

REMARKS: ___

Meter Calibration: Date: 6/5/92 Time: ___ Meter Serial #: 8912 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: MW-7

Signature: [signature] Reviewed By: JB Page 8 of 8

{TF1046}

TF NUMBER: 1046

GIB-92-033

MONITORING WELL PURGE WATER TRANSPORT FORM

GENERATOR INFORMATION

NAME: ARCO PRODUCTS

ADDRESS: P.O. BOX 5811

CITY,STATE,ZIP: SAN MATEO, CA 94402 PHONE #: (415) 571-2434

DESCRIPTION OF WATER: PURGE WATER GENERATED DURING SAMPLING OR DEVELOPMENT OF MONITORING WELLS LOCATED AT VARIOUS SITES. AUGER RINSATE GENERATED DURING THE INSTALLATION OF MONITORING WELLS AT VARIOUS SITES. THE WATER MAY CONTAIN DISSOLVED HYDROCARBONS.

THE GENERATOR CERTIFIES THAT THIS WATER AS DESCRIBED IS NON-HAZARDOUS

Kyle Christie by Jon DeZa 6/26/92
(Typed or printed full name & signature) (Date)

SITE INFORMATION

	STA #	JOB #	ADDRESS	GALS
1	A-2092	20636	5498 MONTEREY RD., SAN JOSE, CA	56
2	A-2089	20704	2104 N. CAPITOL AVE., SAN JOSE, CA	422
3	A-749	20691	1998 UNIVERSITY AVE., PALO ALTO, CA	141
4	A-1326	20727	840 SAN ANTONIO RD., PALO ALTO, CA	30
5	A-4494	20652	566 HEGENBERGER RD., OAKLAND, CA	61
6	A-1319	20624	365 JACKSON ST., HAYWARD, CA	32
7	A-4931	20684	731 W. MACARTHUR BLVD., OAKLAND, CA	425
8	A-313	20644	3600 ALAMEDA DELAS, MENLO PARK, CA	94
9	A-2152	20653	22141 CENTER ST., CASTRO VALLEY, CA	131
10	A-2153	20720	2800 HOMESTEAD RD., SANTA CLARA, CA	10
11	→A-601	20654	712 LEWELLING BLVD., SAN LEANDRO, CA	17
12	A-5387	20655	20200 HESPERIAN BLVD., HAYWARD, CA	3
			TOTAL GALLONS:	1,422

TRANSPORTER INFORMATION

NAME: BALCH PETROLEUM

ADDRESS: 930 AMES AVE.

CITY,STATE,ZIP: MILPITAS, CA 95035 PHONE #: (408) 942-8686

TRUCK ID #: ALLIED JERRY DRAKE 6-26-92
(Typed or printed full name & signature) (Date)

TSD FACILITY INFORMATION

NAME: GIBSON OIL & REFINING

ADDRESS: 475 SEAPORT BLVD

CITY,STATE,ZIP: REDWOOD CITY, CA 94063 PHONE #: (415) 368-5511

RELEASE #: 11320 BILL EDIN Bill Edin 6-26-92
(Typed or printed full name & signature) (Date)