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

92 AR 10 AM 8:55

TRANSMITTAL

TO: MR. LARRY SETO
ACHCSA-DEH
80 SWAN WAY, ROOM 200
OAKLAND, CALIFORNIA 94621

DATE: 4/8/92
PROJECT NUMBER: 69034.06
SUBJECT: ARCO STATION 601,
712 LEWELLING BOULEVARD,
SAN LEANDRO, CALIFORNIA.

FROM: JOEL COFFMAN
TITLE: PROJECT GEOLOGIST

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[ ] Shop drawings [ ] Prints [X] Reports [ ] Specifications

[ ] Letters [ ] Change Orders [ ] _____

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[ ] For review and comment [ ] Approved as submitted [ ] Resubmit ___ copies for approval

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Applied GeoSystems, Inc.
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RESNA
Working To Restore Nature

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

April 14, 1992
0407LSET.601
61026.01

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

Not in COP

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

Dear Mr. Seto:

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

March 1992 Activities

- Performed quarterly groundwater monitoring and sampling.
- Performed monthly product removal from wells MW-1 and MW-3.
- Submitted Addendum Three to Work Plan for Additional Subsurface Investigation to ARCO and governing regulatory agencies.
- Submitted Addendum Four to Work Plan for Interim Groundwater Remediation at the subject site.
- Continue with design and permitting of groundwater remediation system at the site.

Work Anticipated for April 1992

- Monthly groundwater monitoring will continue.

- Monthly removal of floating product will continue.
- Submit Fourth Quarter 1991 Quarterly Groundwater Monitoring Report to governing regulatory agencies.
- Submit a completed Wastewater Discharge Permit Application for proposed discharge of treated groundwater from the interim groundwater remediation system to the City of San Leandro sewer system.
- Submit letter describing attempts to gain offsite access to Mr. Seto of Alameda County Health Care Services Agency (ACHCSA) and Mr. Eddy So of the California Regional Water Quality Control Board (RWQCB).

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

Sincerely,
RESNA Industries

Robert D. Campbell
Staff Geologist

Joel Coffman
Project Geologist

cc: Mr. Michael Whelan, ARCO Products Company

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LETTER REPORT
QUARTERLY GROUNDWATER MONITORING
Fourth Quarter 1991
at
ARCO Station 601
712 Lewelling Boulevard
San Leandro, California

69034.06 4/6/92

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

April 6, 1992
1116MWHE
69034.06

Mr. Michael Whelan
ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

Subject: **Fourth Quarter 1991 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 methods and results of fourth quarter 1991 groundwater monitoring performed by RESNA Industries, Inc. (RESNA) at the above-referenced site. The station is on the southwestern corner of Lewelling Boulevard and Washington Avenue in San Leandro, California, as shown on the Site Vicinity Map, Plate 1. ARCO has requested that RESNA perform monthly water level measurements and quarterly groundwater sampling to monitor hydrocarbon concentrations associated with the former waste-oil and gasoline-storage tanks at the site, and to evaluate trends related to fluctuations of these hydrocarbon concentrations.

Prior to the present monitoring, RESNA (formerly Applied GeoSystems [AGS]) and others performed limited subsurface environmental investigations related to the underground gasoline-storage tanks 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. GeoStrategies (GSI) observed the removal of four underground gasoline-storage tanks 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. 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). Quarterly groundwater monitoring was initiated in July 1990. In May 1991, RESNA installed and sampled five additional groundwater monitoring wells (MW-4 through MW-8) at the site. The results of these investigations are presented in the reports listed in the references attached to this letter report. 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

RESNA personnel performed monthly monitoring of groundwater elevations on October 10, November 21, and December 24, 1991; quarterly sampling was performed on October 10, 1991. Field work consisted of measuring depth-to-water (DTW) levels in MW-1 through MW-8; subjectively analyzing water from these wells for the presence of petroleum hydrocarbon sheen and floating product; removing product from wells containing sheen or product; and purging and sampling wells MW-2, MW-4, and MW-8 for laboratory analysis. Wells MW-1, MW-3, and MW-5 were not sampled for analysis because of the presence of floating product or sheen; wells MW-6 and MW-7 were not sampled because they were dry. Recovery well RW-1 is installed in backfill and contains floating product, therefore it is not used for groundwater gradient interpretation or analyses. The groundwater sampling protocol is presented in Appendix A.

The DTW levels, wellhead elevations, and groundwater elevations for this and previous monitoring episodes at the site are summarized in Table 1, Cumulative Groundwater Monitoring Data. Subjective analyses for site visits during this quarter indicated product sheen in well MW-5 in October, up to approximately 0.13 feet of floating product in well MW-1, and up to approximately 0.26 feet of floating product in well MW-3. Cumulative results of subjective analyses are presented in Table 1.

Groundwater elevations fluctuated up to 1.33 feet in well MW-1, which is located by the former waste-oil tank pit and may be influenced by non-native backfill material in the pit. Groundwater elevations in the other groundwater monitoring wells generally decreased between 0.01 feet and 0.85 feet between September and December.

Groundwater gradient maps for October 10, November 21, and December 24, 1991 are shown on Groundwater Gradient Maps, Plates 3 through 5, respectively. The datum from well MW-2 was not used to interpret the groundwater gradient due to anomalously high water level readings; this higher elevation may be due to perched water or other causes, including the proximity of the well to possible utility trenches. Due to floating product in wells MW-1 and MW-3, these interpreted gradients are considered approximate; groundwater elevations in wells containing floating product were calculated as stated in Appendix A. Interpreted monitoring data collected this quarter indicated groundwater gradients of approximately 0.003 toward the southeast on October 10, 0.01 toward the west on November 21, and 0.01 toward the northwest on December 24, 1991. These gradient interpretations indicate a fluctuation in gradient from previous monitoring episodes, which indicated groundwater flow toward the southwest.

Monitoring wells MW-2, MW-4, and MW-8 were purged on October 10, 1991 and sampled in accordance with the attached protocol in Appendix A. The purge water was removed from the site by a licensed hazardous waste hauler; the Uniform Hazardous Waste Manifest is also attached in Appendix A.

Laboratory Methods and Analyses

Water samples collected from the wells were sent to Sequoia Analytical Laboratory located in Redwood City, California (Hazardous Waste Testing Laboratory Certification No. 1210). The water samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) using modified Environmental Protection Agency (EPA) Methods 5030/8015/8020. Concentrations of TPHg and benzene in the groundwater are shown on Plate 4. Water samples from well MW-2 were also analyzed for total oil and grease (TOG) by Standard Method 5520 B & F, volatile organic compounds (VOCs) by Methods 5030/8010, and metals. The Chain of Custody Records and Laboratory Analysis Reports are attached. Results of these and previous water analyses are summarized in Table 2, Cumulative Results of Groundwater Laboratory Analyses.

Results of this quarter's groundwater monitoring indicate:

- Detectable concentrations of TPHg in samples from wells MW-2 (10,000 parts per billion [ppb], MW-4 (15,000 ppb), and MW-8 (2,800 ppb);

- Concentrations of benzene exceeded the State Maximum Contaminant Level (MCL) of 1 ppb in samples from wells MW-2 (1,600 ppb), MW-4 (5,300 ppb), and MW-8 (31 ppb);

- Concentrations of toluene exceeded the State Action Level (AL) of 100 ppb in samples from wells MW-2 (910 ppb) and MW-4 (1,500 ppb), but not in the sample from well MW-8 (6.1 ppb);

- Concentrations of ethylbenzene did not exceed the MCL of 680 ppb in samples from wells MW-2 (280 ppb), MW-4 (470 ppb), and MW-8 (4.5 ppb);

- Concentrations of xylenes did not exceed the MCL of 1,750 ppb in samples from wells MW-2 (1,400 ppb), MW-4 (1,300 ppb), and MW-8 (3.9 ppb);

- The concentration of TOG in the sample from well MW-2 was reported as nondetectable;
- The concentrations of 28 of 29 VOCs (1,2-dichloroethane was detected) in the sample from well MW-2 were reported as nondetectable;
- The concentration of 1,2-dichloroethane exceeded the MCL of 0.5 ppb in the sample from well MW-2 (1.7 ppb);
- Concentrations of metals did not exceed the MCLs in the sample from well MW-2; and
- Plate 6, which summarizes TPHg and benzene concentrations in groundwater for this quarter, indicates that petroleum hydrocarbons may have migrated offsite.

Monitoring and Removal of Free Product

Floating product was measured and removed during monthly and quarterly monitoring episodes. On December 24, 1991, a Horner EZY Skimmer was installed in groundwater monitoring well MW-1. Quantities of floating product and water removed are presented in Table 3, Approximate Cumulative Product Recovered. The total recovered product to date is approximately 3.43 gallons.

Conclusions and Recommendations

The groundwater at the site has been impacted by gasoline hydrocarbons. Remediation system options are being studied. RESNA recommends continued groundwater monitoring at the site, including analyses for TPHg and BTEX. As requested by Alameda County Health Care Services Agency in a letter dated December 26, 1991, RESNA also recommends that well MW-8, located downgradient from the former waste-oil tank pit, be analyzed for VOCs. A work plan including additional onsite and offsite groundwater monitoring wells and a groundwater and soil remediation system is forthcoming.

Schedule

At ARCO's request, RESNA will continue to analyze and report monthly water level and quarterly groundwater monitoring data from this site to evaluate trends in petroleum

hydrocarbons and changes in groundwater gradient with time. The next quarterly monitoring episode is scheduled for January 1992.

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

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

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

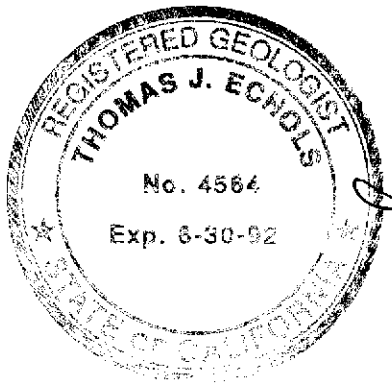
Mr. Guy Telham
San Leandro Fire Department
835 East 14th Street
San Leandro California 94577

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

Sincerely,
RESNA

Lou Leet
Staff Geologist

Joel Coffman
Project Geologist



Thomas J. Echols
Senior Geologist
C.R.G. No. 4564

cc: H.C. Winsor, ARCO Products Company

REFERENCES

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

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

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

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

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

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

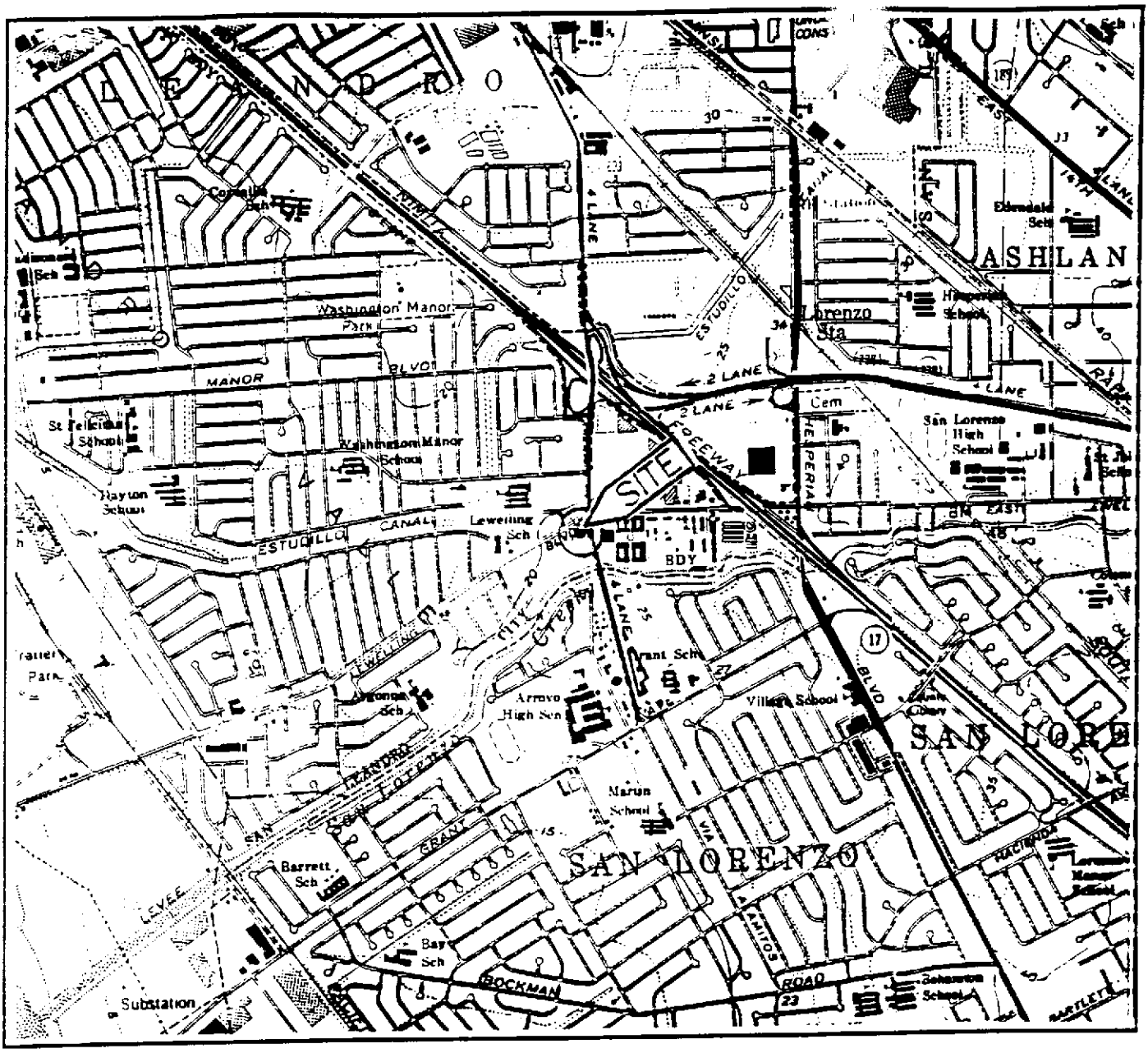
GeoStrategies, Inc, November 14, 1989, Proposed Scope of Work, ARCO Service Station #601, San Leandro, California. GSI Report 7918-1.

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

Enclosures: References
Plate 1, Site Vicinity Map
Plate 2, Generalized Site Plan
Plate 3, Groundwater Gradient Map, October 10, 1991
Plate 4, Groundwater Gradient Map, November 21, 1991
Plate 5, Groundwater Gradient Map, December 24, 1991
Plate 6, TPHg/Benzene Concentrations in Groundwater, October 10, 1991

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

Appendix A: Groundwater Sampling Protocol
Chain of Custody Record
Laboratory Analysis Reports
Uniform Hazardous Waste Manifest



Base: U.S. Geological Survey
7.5-Minute Quadrangles
Hayward/San Leandro,
California
Photorevised 1984

LEGEND

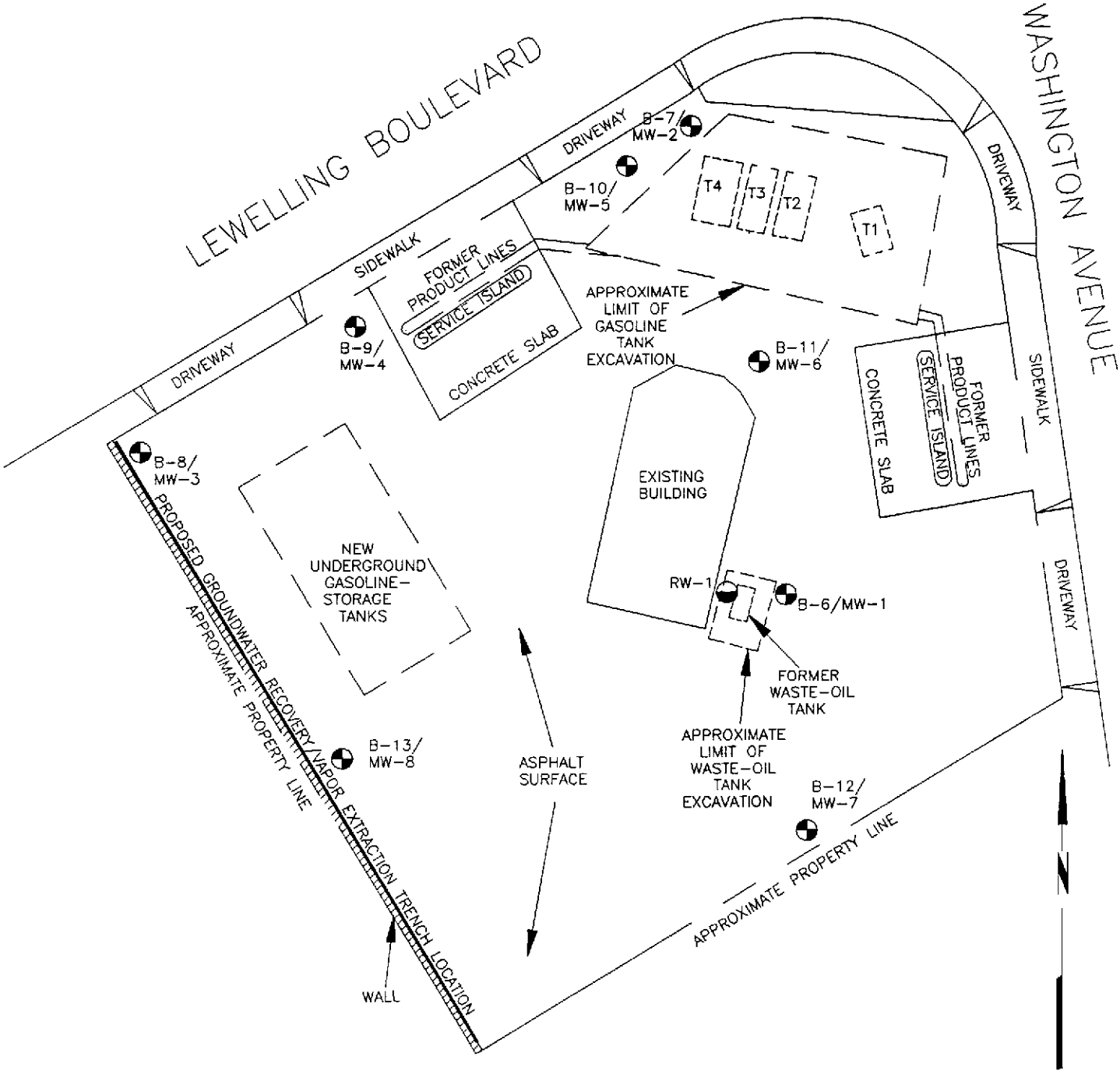
= Site Location

Approximate Scale

2000 1000 0 2000 4000

feet

RESNA	SITE VICINITY MAP ARCO Station 601 712 Lewelling Boulevard San Leandro, California	PLATE 1
PROJECT 69034.06		



EXPLANATION

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

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

T4 = Former underground gasoline-storage tank

Approximate Scale

30 15 0 30 60

feet

Source: Surveyed by Ron Archer, Civil Engineer Inc.

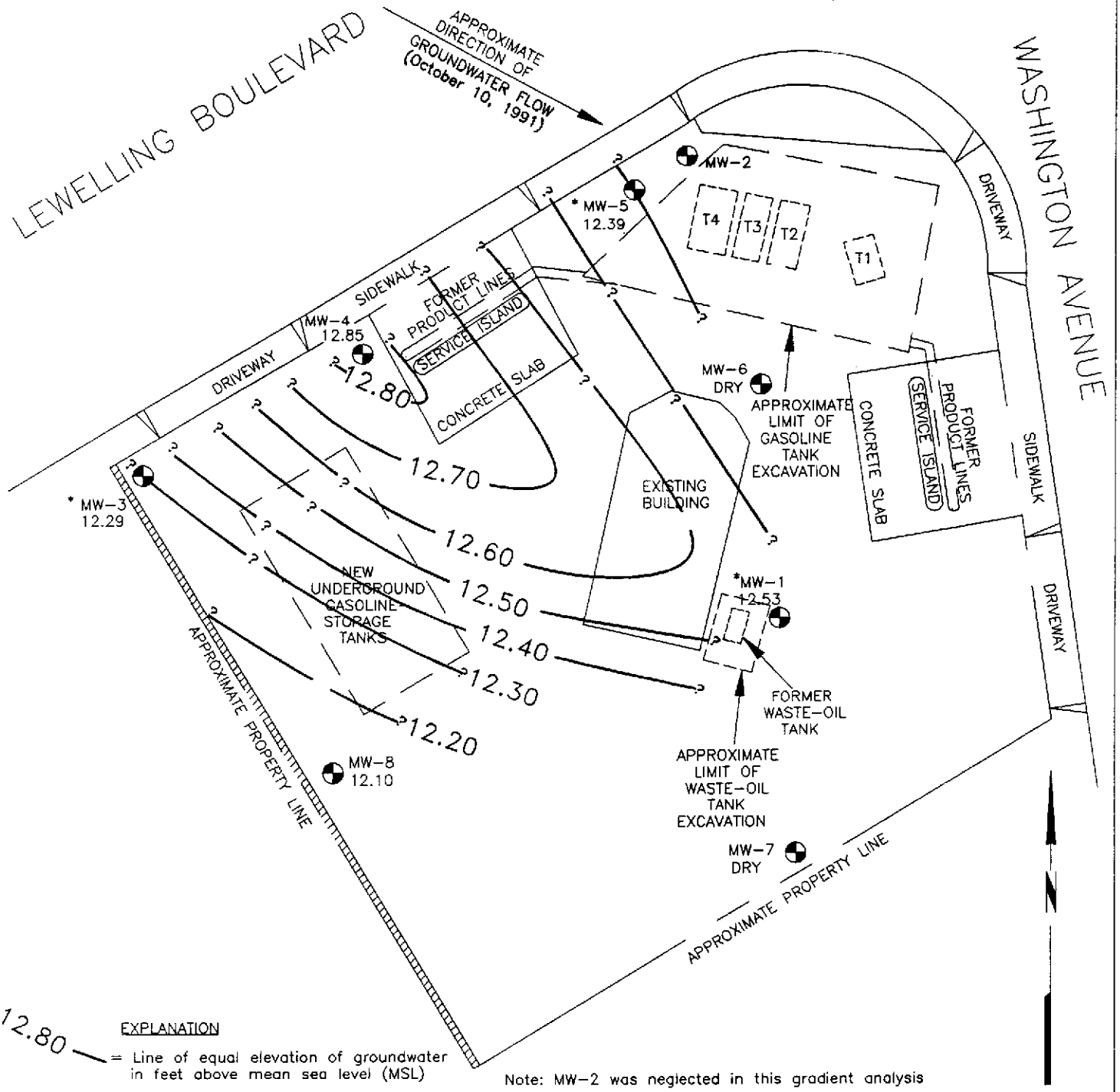
RESNA

PROJECT 69034.06

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

PLATE

2



EXPLANATION

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

12.85 = Elevation of groundwater in feet above MSL October 10, 1991

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

T4 = Former underground gasoline-storage tanks

* = Floating product or sheen present in well

Note: MW-2 was neglected in this gradient analysis

Approximate Scale

30 15 0 30 60

feet

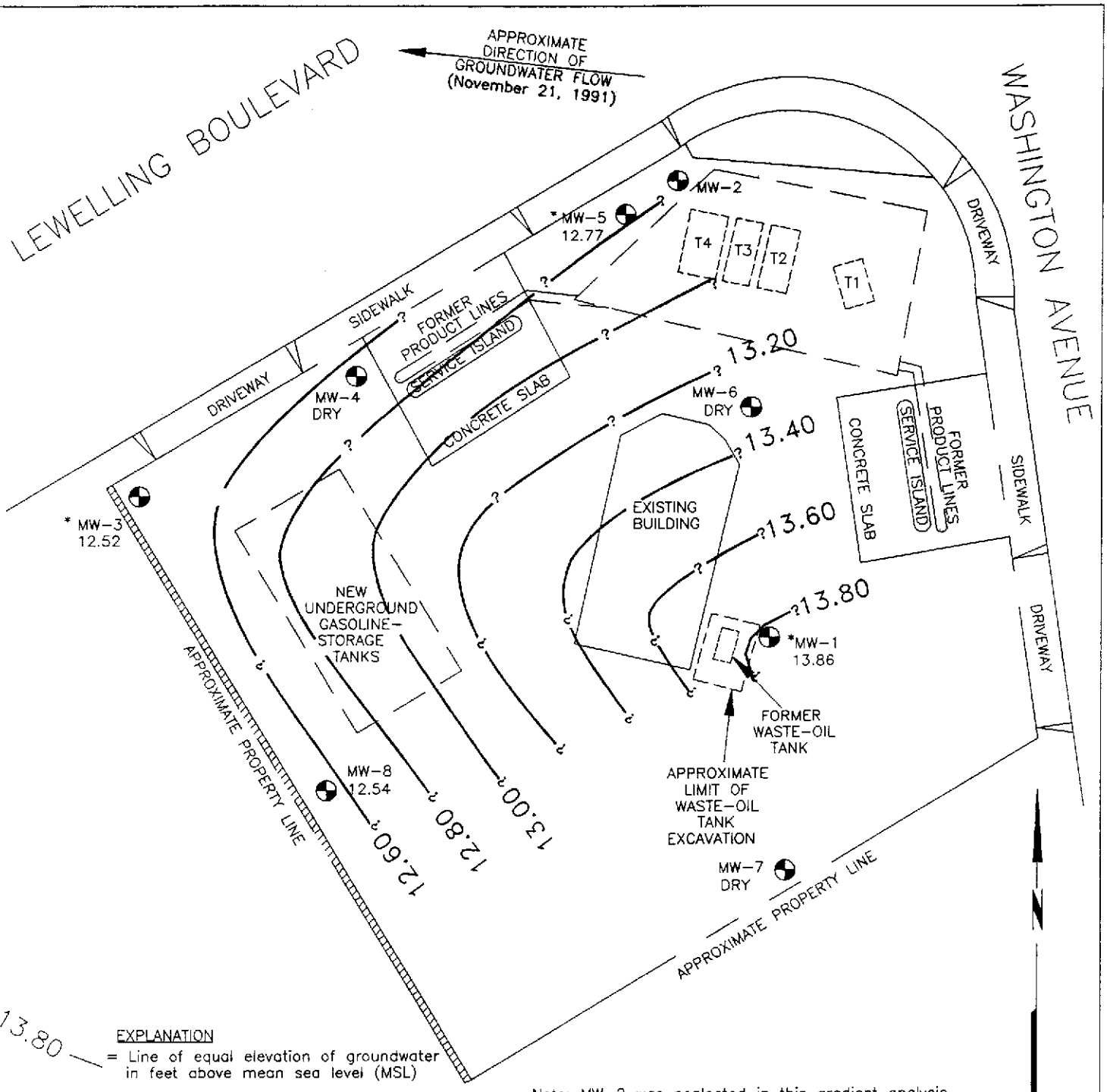
Source: Surveyed by Ron Archer, Civil Engineer Inc.

RESNA

PROJECT 69034.06

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

PLATE 3



13.80 — EXPLANATION

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

13.86 = Elevation of groundwater in feet above MSL November 21, 1991

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

T4 = Former underground gasoline-storage tanks

* = Floating product or sheen present in well

Note: MW-2 was neglected in this gradient analysis

Approximate Scale

30 15 0 30 60

feet

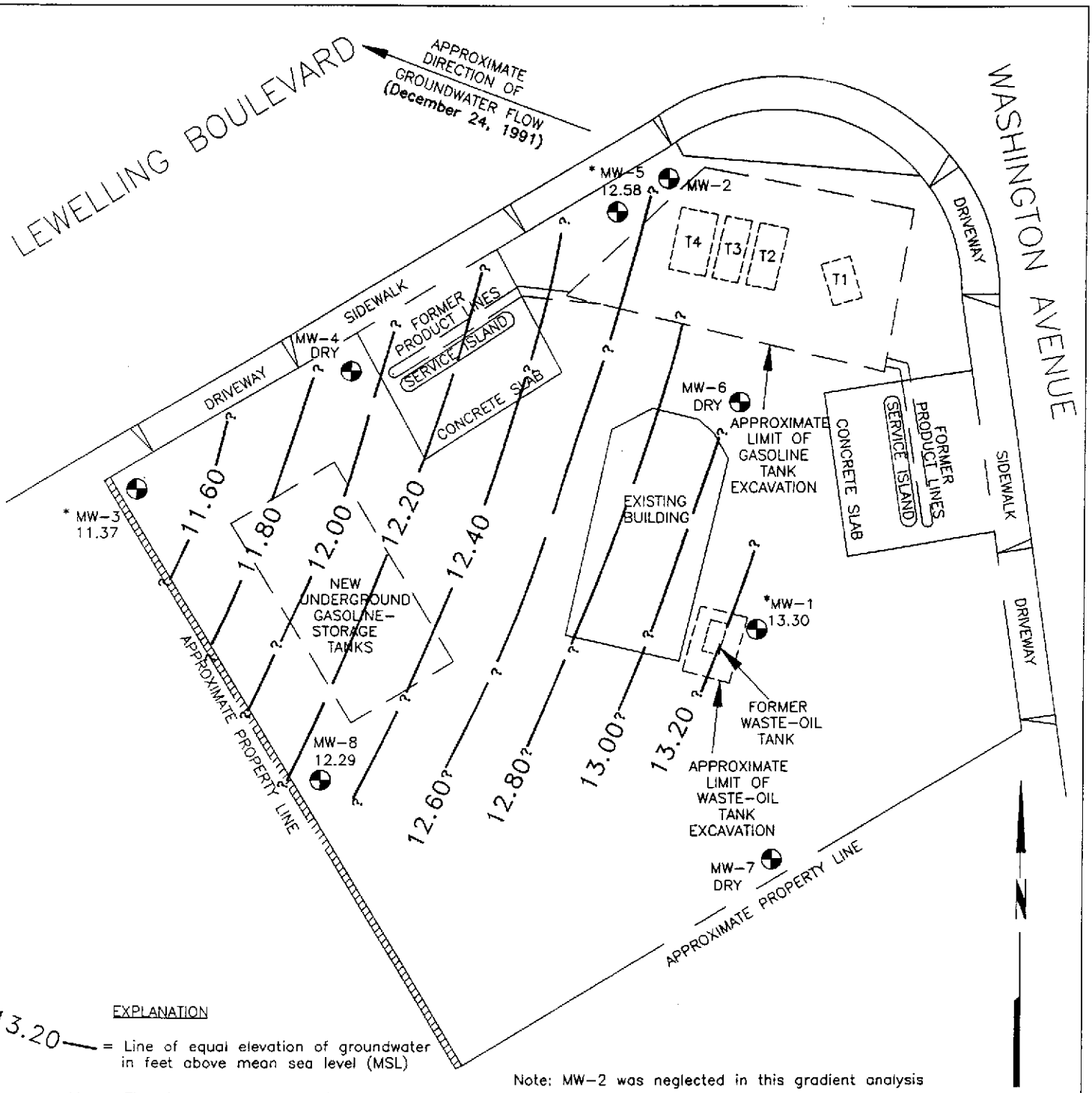
Source: Surveyed by Ron Archer, Civil Engineer Inc.

RESNA

PROJECT 69034.06

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

PLATE 4



EXPLANATION

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

13.30 = Elevation of groundwater in feet above MSL December 24, 1991

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

T4 = Former underground gasoline-storage tanks

* = Floating product or sheen present in well

Note: MW-2 was neglected in this gradient analysis

Approximate Scale

30 15 0 30 60

feet

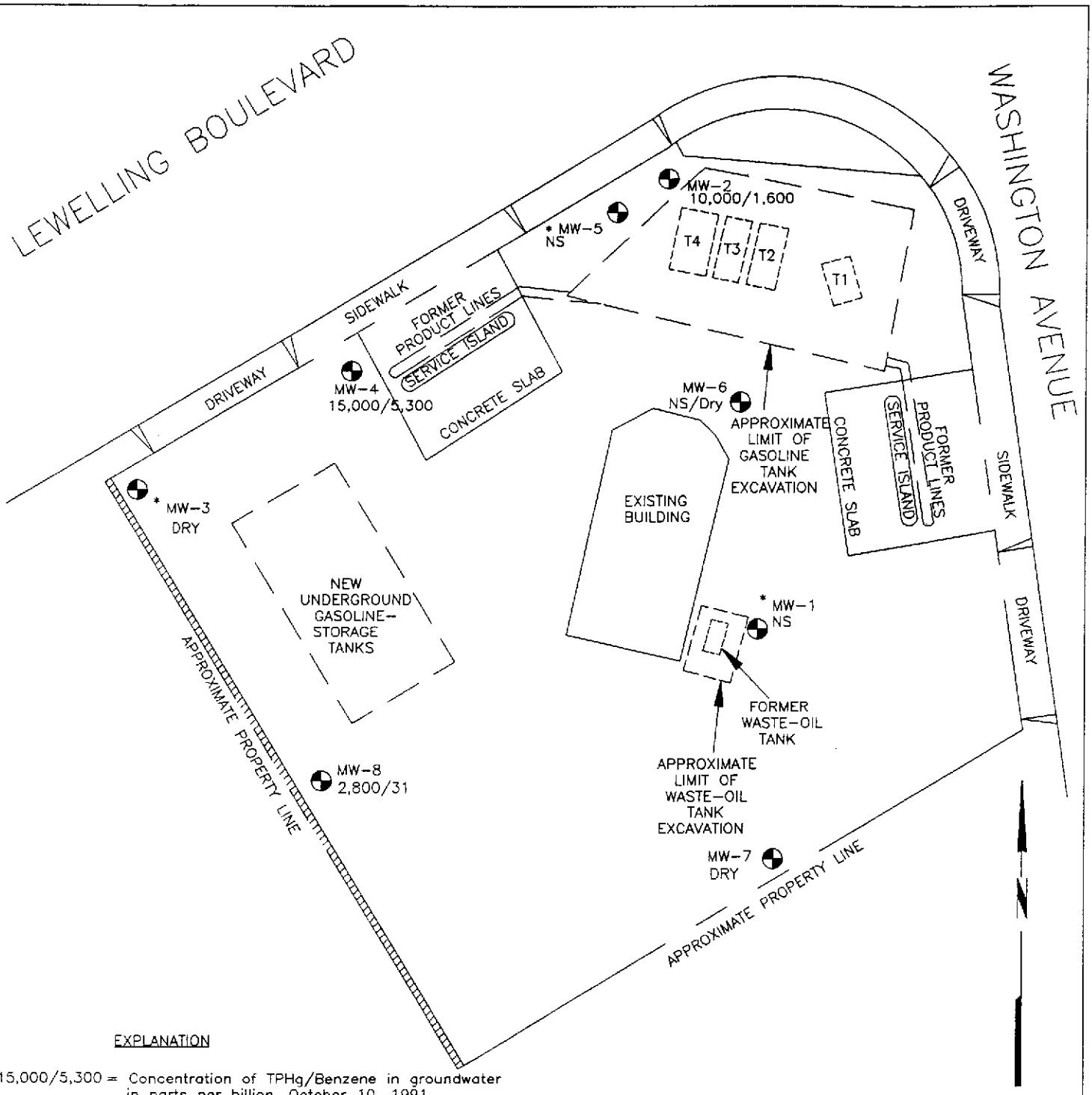
Source: Surveyed by Ron Archer, Civil Engineer Inc.

RESNA

PROJECT 69034.06

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

PLATE 5



EXPLANATION

15,000/5,300 = Concentration of TPHg/Benzene in groundwater in parts per billion, October 10, 1991

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

T4 = Former underground gasoline-storage tanks

* = Floating product or sheen present in well

NS = Not sampled

Approximate Scale

30 15 0 30 60

feet

Source: Surveyed by Ron Archer, Civil Engineer Inc.

RESNA	**TPHg/BENZENE CONCENTRATIONS IN GROUNDWATER ARCO Station 601 712 Lewelling Boulevard San Leandro, California**	**PLATE 6**
PROJECT 69034.06		

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

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
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
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

See notes on page 3 of 3.

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
ARCO Station 601
San Leandro, California
(Page 2 of 3)

Date Well Measured	Depth of Well	Well Elevation	Depth-to-Water	Water Elevation	Floating Product
MW-3 Continued					
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
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	—	—
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
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	—	—

See notes on page 3 of 3.

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

Date Well Measured	Depth of Well	Well Elevation	Depth-to-Water	Water Elevation	Floating Product
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	----	----
12/24/91			Dry	----	----
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

Measurements in feet.
Datum mean sea level.
Depth-to-Water measured in feet below top of casing.
ND = Not detected.
* Depth to water and water elevation were calculated using the attached protocol (Appendix A).
** Anomalous due to extensive rainfall and non-functioning storm drain.

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
ARCO Service 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													
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
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													
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
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													
MW-6														
06/10/91	Not sampled--dry													
10/10/91	Not sampled--dry													
MW-7														
06/10/91	Not sampled--dry													
10/10/91	Not sampled--dry													

See Notes on page 2 of 2.

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
ARCO Service 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-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
MCLs:	—	—	1	—	680	1,750	—	—	—	10	50	50	—	5,000
ALs:	—	—	—	100	—	—	—	—	—	10	50	50	—	5,000

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.
( ): 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, T: 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-Dichloroethane)
Cd: Cadmium
Cr: Chromium
Pb: Lead
Zn: Zinc
MCLs: Maximum Contaminant Level in ppb.
ALs: Action Levels in ppb.

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

Date	Floating Product Removed (gallons)	Water Removed (gallons)
MW-1		
08/07/90	1.00	1
10/15/90	0.15	1
11/20/90	0.28	1
01/09/91	0.12	12
02/27/91	0.02	7
05/16/91	0.01	1
08/22/91	0.02	1
09/18/91	0.02	1.5
10/10/91	0.03	0.5
11/21/91	0.01	0.5
12/24/91	0.08	0.5
MW-3		
10/15/90	0.45	1
11/20/90	0.65	1
12/21/90	0.01	1
01/09/91	0.18	30.5
02/27/91	0.12	8
09/18/91	0.07	1.5
10/10/91	0.17	1.5
11/21/91	0.03	0.5
12/24/91	0.01	0.5
TOTAL:	3.43	72.5

APPENDIX A

GROUNDWATER SAMPLING PROTOCOL
CHAIN OF CUSTODY RECORD
LABORATORY ANALYSIS REPORTS
UNIFORM HAZARDOUS WATER MANIFEST

GROUNDWATER SAMPLING PROTOCOL

The static water level in each well that contained water was measured with a Solinst® water-level indicator; this instrument is accurate to the nearest 0.01 foot. These 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.

The static water level in each well that was suspected to contain floating product was measured with an ORS® interface probe; this instrument is accurate to the nearest 0.01 foot. The probe contains two different sensor units, one for detecting the liquid/air interface, and one for distinguishing between water and hydrocarbon. The thickness of the floating product and the groundwater depths were recorded. 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 (potentiometric surface). 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.

Water samples collected for subjective evaluation were collected by gently lowering approximately half the length of a new, disposable bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples were checked for measurable floating hydrocarbon product and sheen.

Before water samples were collected from the groundwater monitoring wells, the wells were purged until stabilization of the temperature, pH, and conductivity was obtained. A minimum of four well casing volumes of water were purged before these characteristics stabilized; wells that did not contain enough water to purge four well volumes were purged dry. The quantity of water purged from the wells was calculated as follows:

1 well casing volume = $\pi r^2 h(7.48)$
where:
r = radius of the well casing in feet.
h = column of water in the well in feet
(well depth - depth to water).
7.48 = conversion constant from cubic feet to gallons

gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

After purging, each well was allowed to recharge to within 80% of the initial water level. Water samples were then collected with a new, disposable bailer. The water samples were carefully poured into 40-milliliter glass vials, which were filled so as to produce a positive meniscus. Sample containers were preserved (as appropriate), sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace which would allow volatilization to occur. The samples were promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory. Purge water was removed by H & H Ship Service Company, a licensed hazardous waste hauler; the Uniform Hazardous Waste Manifest is attached.

ARCO Products Company
Division of AtlanticRichfieldCompany

Chain of Custody

Task Order No. 601-91-5

ARCO Facility no. 601 69034.06	City (Facility) SAN Leandro	Project manager (Consultant) JOEL COFFMAN / LOU LEET	Laboratory name Sequoia
ARCO engineer Chuck Carmel	Telephone no. (ARCO)	Telephone no. (Consultant) (408) 244-7723	Fax no. (Consultant) (408) 264-2435
Consultant name Fresno Applied Geo Systems	Address (Consultant) 3315 Almaden Expy suite 34 San Jose		Contract number 07-073

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 EPA M602/8020/8015 GAS	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐ 5520 B+F	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	Cd, Cr, Pb, Ni, Zn Metals
W-8-MW2		3		X		X		10-10-91	11:10												
W-8-MW2		3	102666	X		X	X				X										
W-8-MW2		2		X		X							X								
W-8-MW2		1		X		X	X								X						X
W-8-MW4		3	102665	X		X	X		11:48		X										
W-9-MW8		3	102664	X		X	X		12:21		X										

Laboratory name: Sequoia
Contract number: 07-073
Method of shipment:
Special detection Limit/reporting:
Special QA/QC:
Remarks:
Lab number:

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	Date 10-11-91 Time	Received by	
Relinquished by	Date 10/11 Time 4:00	Received by	
Relinquished by	Date Time	Received by laboratory	Date 10/11 Time 4:00pm

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

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95112
Attention: Joel Coffman

Project: ARCO 601, San Leandro

Enclosed are the results from 3 water samples received at Sequoia Analytical on October 11,1991. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
1102664	Water, W-9 MW-8	10/10/91	EPA 5030/8015/8020
1102665	Water, W-8 MW-4	10/10/91	EPA 5030/8015/8020
1102666	Water, W-8-MW-2, composite	10/10/91	Cd, Cr, Pb, Ni, Zn EPA 5030/8010 EPA 5030/8015/8020 SM 5520 B&F (Gravimetric)

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 601, San Leandro	Sampled: Oct 10, 1991
3315 Almaden Expwy., Suite 34	Matrix Descript:	Water	Received: Oct 11, 1991
San Jose, CA 95112	Analysis Method:	EPA 5030/8015/8020	Analyzed: Oct 18-20, 1991
Attention: Joel Coffman	First Sample #:	110-2664	Reported: Oct 30, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
110-2664	W-9 MW-8	2,800	31	6.1	4.5	3.9
110-2665	W-8 MW-4	15,000	5,300	1,500	470	1,300
110-2666	W-8 MW-2 composite	10,000	1,600	910	280	1,400
Detection Limits:		**30**	**0.30**	**0.30**	**0.30**	**0.30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95112
Attention: Joel Coffman

Client Project ID: ARCO 601, San Leandro

QC Sample Group: 110-2664

Reported: Oct 30, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Jencks	J. Jencks	J. Jencks	J. Jencks
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Oct 18, 1991	Oct 18, 1991	Oct 18, 1991	Oct 18, 1991
QC Sample #:	BLK101891	BLK101891	BLK101891	BLK101891
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	10	11	10	31
Matrix Spike % Recovery:	100	110	100	103
Conc. Matrix Spike Dup.:	10	11	10	31
Matrix Spike Duplicate % Recovery:	100	110	100	103
Relative % Difference:	0.0	0.0	0.0	0.0

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

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(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95112
Attention: Joel Coffman

Client Project ID: ARCO 601, San Leandro

QC Sample Group: 1102665-66

Reported: Oct 30, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	L. Laikhtman	L. Laikhtman	L. Laikhtman	L. Laikhtman
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Oct 20, 1991	Oct 20, 1991	Oct 20, 1991	Oct 20, 1991
QC Sample #:	GBLK102091	GBLK102091	GBLK102091	GBLK102091
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	9.9	9.9	9.9	30
Matrix Spike % Recovery:	99	99	99	99
Conc. Matrix Spike Dup.:	11	11	11	32
Matrix Spike Duplicate % Recovery:	110	110	110	107
Relative % Difference:	7.8	7.8	7.8	8.4

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 601, San Leandro	Sampled: Oct 10, 1991
3315 Almaden Expwy., Suite 34	Matrix Descript:	Water	Received: Oct 11, 1991
San Jose, CA 95112	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted: Oct 16, 1991
Attention: Joel Coffman	First Sample #:	110-2666	Analyzed: Oct 16, 1991
			Reported: Oct 30, 1991

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)
110-2666	W-8-MW-2 composite	N.D.

Detection Limits:	5.0

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95112
Attention: Joel Coffman

Client Project ID: ARCO 601, San Leandro

QC Sample Group: 110-2666

Reported: Oct 30, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	TRPH
Method:	SM 5520 B&F
Analyst:	A. Do
Reporting Units:	mg/L
Date Analyzed:	Oct 14, 1991
QC Sample #:	BLK101491
Sample Conc.:	N.D.
Spike Conc. Added:	200
Conc. Matrix Spike:	150
Matrix Spike % Recovery:	75
Conc. Matrix Spike Dup.:	160
Matrix Spike Duplicate % Recovery:	80
Relative % Difference:	6.5

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
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RESNA	Client Project ID:	ARCO 601, San Leandro	Sampled:	Oct 10, 1991
3315 Almaden Expwy., Suite 34	Sample Descript:	Water, W-8-MW-2, composite	Received:	Oct 11, 1991
San Jose, CA 95112	Analysis Method:	EPA 5030/8010	Analyzed:	Oct 23, 1991
Attention: Joel Coffman	Lab Number:	110-2666	Reported:	Oct 30, 1991

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	0.50	N.D.
Bromoform	1.0	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	1.7
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	2.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95112
Attention: Joel Coffman

Client Project ID: ARCO 601, San Leandro
QC Sample Group: 110-2666
Reported: Oct 30, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Chloroform	Trichloro-ethene	Chloro-benzene	Bromoform
Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	C. Pollock	C. Pollock	C. Pollock	C. Pollock	C. Pollock
Reporting Units:	µg/L	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Oct 23, 1991	Oct 23, 1991	Oct 23, 1991	Oct 23, 1991	Oct 23, 1991
QC Sample #:	BLK102391	BLK102391	BLK102391	BLK102391	BLK102391
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	10	10
Conc. Matrix Spike:	11	9.5	9.2	11	12
Matrix Spike % Recovery:	110	95	92	110	120
Conc. Matrix Spike Dup.:	11	10	11	12	13
Matrix Spike Duplicate % Recovery:	110	100	110	120	130
Relative % Difference:	0.0	5.0	18	9.0	5.0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID:	ARCO 601, San Leandro	Sampled:	Oct 10, 1991
3315 Almaden Expwy., Suite 34	Sample Descript:	Water, W-8-MW-2, composite	Received:	Oct 11, 1991
San Jose, CA 95112			Analyzed:	Oct 22-23, 1991
Attention: Joel Coffman	Lab Number:	110-2666	Reported:	Oct 30, 1991

LABORATORY ANALYSIS

Analyte	Detection Limit mg/L	Sample Results mg/L
Cadmium	0.010	N.D.
Chromium	0.010	N.D.
Lead	0.0050	0.011
Nickel	0.050	0.072
Zinc	0.010	0.091

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

RESNA
3315 Almaden Expwy., Suite 34
San Jose, CA 95112
Attention: Joel Coffman

Client Project ID: ARCO 601, San Leandro

QC Sample Group: 110-2666

Reported: Oct 30, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Lead	Cadmium	Chromium	Nickel	Zinc
Method:	EPA 239.2	EPA 213.2	EPA 200.7	EPA 200.7	EPA 200.7
Analyst:	V. Patel	N. Herrera	N. Herrera	N. Herrera	N. Herrera
Reporting Units:	mg/L	mg/L	mg/L	mg/L	mg/L
Date Analyzed:	Oct 22, 1991	Oct 23, 1991	Oct 23, 1991	Oct 23, 1991	Oct 23, 1991
QC Sample #:	110-1456	110-3258	110-3258	110-3258	110-3258
Sample Conc.:	0.0069	N.D.	N.D.	N.D.	0.034
Spike Conc. Added:	1.0	1.0	1.0	1.0	1.0
Conc. Matrix Spike:	0.78	1.1	1.0	1.1	1.2
Matrix Spike % Recovery:	77	110	100	110	120
Conc. Matrix Spike Dup.:	0.77	1.1	1.1	1.1	1.2
Matrix Spike Duplicate % Recovery:	76	110	110	110	120
Relative % Difference:	1.3	0.0	9.5	0.0	0.0

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

State of California—Health and Wellare Agency

See instructions on back of page 6.

Department of Health Services
Toxic Substances Control Program
Sacramento, California

Please print or type. *Form designed for use on elite (12-pitch typewriter).*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA1000028357 | Manifest Document No. 00005 | 2. Page 1 of 1 | Information in the shaded area is not required by federal law.

3. Generator's Name and Mailing Address
ARCO
P. O. Box 5861, San Ramon, CA 94402

4. Generator's Phone (415) 871-2426/871-2428

5. Transporter 1 Company Name: H & H Ship Service Company | 6. US EPA ID Number: CAD041771168

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address
H & H Ship Service Company
220 China Basin Street
San Francisco, CA 94107

10. US EPA ID Number: CAD041771168

A. State Manifest Document Number: 0747929
B. State Generator's ID
C. State Transporter's ID
D. Transporter's Phone
E. State Facility's ID: CAD041771168
F. Facility's Phone: (415) 543-4835

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. OIL AND WATER NON-RCRA HAZARDOUS WASTE LIQUID	001	TT	00100	G	State: 334,341 EPA/Other:
b.					State: EPA/Other:
c.					State: EPA/Other:
d.					State: EPA/Other:

J. Additional Descriptions for Materials Listed Above
FUEL, OIL AND WATER
PROFILE #80876

K. Handling Codes for Wastes Listed Above
a. 01 | b. | c. | d.

15. Special Handling Instructions and Additional Information
JOB #9551
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR.
JOB SITE: ARCO STATION, #9551
712 Lewelling Boulevard
San Leandro, California

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Edward Cardona/Agent for ARCO	Edward Cardona/Agent for ARCO	11	19	91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
LANCE D. SMITH	Lance D. Smith	11	19	91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

8022A (12/90)
8700—22

Blue: GENERATOR SENDS THIS COPY TO DHS WITHIN 30 DAYS.
To: P.O. Box 400, Sacramento, CA 95812-0400