

reviewed
1/6/92
SUS



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San Jose, CA 95118
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LETTER REPORT
QUARTERLY GROUNDWATER MONITORING
Third Quarter 1992
at
ARCO Station 2152
22141 Center Street
Castro Valley, California

69013.09

12-30-92

93 JUN 11 11 52 AM '92

3315 Almaden Expressway, Suite 34
San Jose, CA 95118
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TRANSMITTAL

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

DATE: December 30, 1992
PROJECT NUMBER: 69013.09
SUBJECT: Final - Quarterly Groundwater
Monitoring, Third Quarter 1992, ARCO
Station 2152, 22141 Center Street, Castro
Valley, California.

FROM: Erin McLucas
TITLE: Staff Geologist

WE ARE SENDING YOU:

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REMARKS: cc: Mr. Michael Whelan, ARCO Products Company
Mr. Richard Hiatt, RWQCB, San Francisco Bay Region
Mr. Joel Coffman, RESNA Industries Inc.

Copies: 1 to RESNA project file no. 69013.09

3315 Almaden Expressway, Suite 34
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Phone: (408) 264-7723
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December 30, 1992
1111MWHE
69013.09

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

Subject: Letter Report on Third Quarter 1992 Groundwater Monitoring at ARCO
Station 2152, 22141 Center Street, Castro Valley, California.

Mr. Whelan:

As requested by ARCO Products Company (ARCO), this letter report summarizes the results of the third quarter 1992 groundwater monitoring performed by ARCO's contractor, EMCON Associates (EMCON) of San Jose, 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 former gasoline-storage tanks at the site. Field work and laboratory analyses of groundwater samples during this quarter performed under the direction of EMCON, 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; warrant of their field data and evaluation of their field protocols are 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 2152 is located on the southwestern corner of Grove Way and Center Street in Castro Valley, California. The site location is shown on the Site Vicinity Map, Plate 1.

The results of previous environmental investigations at the site are presented in the reports listed in the references section of this letter report. The locations of the groundwater and vadose 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 in the four onsite wells by EMCON field personnel on July 25, August 23, and September 4, 1992. Quarterly sampling was performed by EMCON field personnel on September 4, 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-4, are presented on EMCON's field report sheets. These data are included in Appendix A.

The DTW levels, wellhead elevations, groundwater elevations, and subjective observations for product in the groundwater from MW-1 through MW-4 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. Evidence of product or sheen was not reported on EMCON's field report sheets during this quarter (see Appendix A). The groundwater gradients interpreted from the July, August, and September 1992 groundwater monitoring episodes are shown on the Groundwater Gradient Maps, Plates 3 through 5. The interpreted groundwater gradients were relatively flat, less than 0.01 toward the south-southwest. The gradients for July and September were interpreted from EMCON's DTW measurements from wells MW-1 through MW-4. The gradient for August was interpreted using wells MW-1, MW-3 and MW-4 as the groundwater elevation calculated for MW-2 was anomalously high. The groundwater elevations and gradients for this quarter are generally consistent with previously interpreted data, with the exception of the anomalously high groundwater elevation in well MW-2 during August. ? why?

Groundwater monitoring wells MW-1 through MW-4 were purged and sampled by EMCON field personnel on September 4, 1992. EMCON's water sample field data sheets, field report sheet, and Summary of Groundwater Monitoring Data for September 4, 1992, are included in Appendix A. 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.

Quarterly Groundwater Monitoring Report
ARCO Station 2152, Castro Valley, California

December 30, 1992
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Laboratory Methods and Analyses

Under the direction of EMCON, water samples collected from the wells were analyzed by Sequoia Analytical located in Redwood City, California (Hazardous Waste Testing Laboratory Certification No. 1210). The water samples from MW-1 through MW-4 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 6, TPHg/Benzene Concentrations in Groundwater. The Chain of Custody Records and Laboratory Analysis Reports are attached in Appendix A. Results of these and previous water analyses are summarized in Table 2, Cumulative Results of Laboratory Analyses of Groundwater.

TPHg and BTEX in wells MW-1 through MW-4 are nondetectable this quarter, as they have been since the July 8, 1991 sampling event.

RESNA 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. Richard Hiatt
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Quarterly Groundwater Monitoring Report
ARCO Station 2152, Castro Valley, California

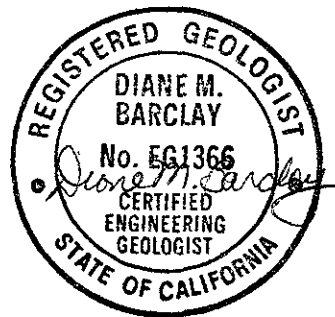
December 30, 1992
69013.09

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

Sincerely,
RESNA Industries Inc.



Erin McLucas
Staff Geologist



Diane M. Barclay
Certified Engineering
Geologist No. 1366

Enclosures: References

- Plate 1, Site Vicinity Map
- Plate 2, Generalized Site Plan
- Plate 3, Groundwater Gradient Map, July 25, 1992
- Plate 4, Groundwater Gradient Map, August 23, 1992
- Plate 5, Groundwater Gradient Map, September 4, 1992
- Plate 6, TPHg/Benzene Concentrations in Groundwater, September 4, 1992

- Table 1, Cumulative Groundwater Monitoring Data
- Table 2, Cumulative Results of Laboratory Analyses of Groundwater Samples

- Appendix A: EMCON's Field Reports Depth to Water/Floating Product Survey Results, Summary of Groundwater Monitoring Data, Certified Analytical Reports with Chain-of-Custody, and Water Sample Field Data Sheets.
Monitoring Well Purge Water Disposal Form

REFERENCES

- Applied GeoSystems. May 26, 1989. Limited Environmental Site Assessment, 22141 Center Street, Castro Valley, California, AGS Report 69013-1.
- Applied GeoSystems. January 18, 1990. Limited Subsurface Environmental Investigation Related to Underground Tank Removal, 22141 Center Street, Castro Valley, California, AGS Report 69013-2.
- Applied GeoSystems. November 13, 1990. Environmental Subsurface Investigation at ARCO Station 2152, 22141 Center Street, Castro Valley, California, AGS Report 69013-4.
- Applied GeoSystems. March 24, 1991. Letter Report, Quarterly Ground-Water Monitoring, First Quarter 1991, 22141 Center Street, Castro Valley, California, AGS Report 69013-5.
- Applied GeoSystems. May 20, 1991. Letter Report, Quarterly Ground-Water Monitoring, Second Quarter 1991, 22141 Center Street, Castro Valley, California, AGS Report 69013-5.
- RESNA. July 2, 1991. Supplemental Subsurface and Remedial Investigation at ARCO Station 2152, 22141 Center Street, Castro Valley, California, AGS 69013-6.
- RESNA. October 8, 1991. Supplemental Subsurface and Remedial Investigation at ARCO Station 2152, 22141 Center Street, Castro Valley, California, AGS 69013-5.
- RESNA. October 18, 1991. Letter Report, Quarterly Ground-Water Monitoring, Third Quarter 1991, 22141 Center Street, Castro Valley, California, AGS Report 69013-5.
- RESNA. October 22, 1991. Work Plan for Additional Subsurface Investigation and Design and Permitting of Vapor Extraction System at ARCO Station 2152, 22141 Center Street, Castro Valley, California. 69013.08
- RESNA. March 2, 1992. Letter Report, Quarterly Groundwater Monitoring, Fourth Quarter 1991, 22141 Center Street, Castro Valley, California, 69013.09.
- RESNA. May 1, 1992. Letter Report, Quarterly Groundwater Monitoring, First Quarter 1992, 22141 Center Street, Castro Valley, California, 69013.09.
- RESNA. July 17, 1992. Letter Report, Limited Subsurface Environmental Investigation, ARCO Station 2152, 22141 Center Street, Castro Valley, California, 69013.08

Quarterly Groundwater Monitoring Report
ARCO Station 2152, Castro Valley, California

REFERENCES
(Continued)

RESNA. September 22, 1992. Letter Report, Quarterly Groundwater Monitoring, Second Quarter 1992, 22141 Center Street, Castro Valley, California, 69013.09.



Base: U.S. Geological Survey
 7.5-Minute Quadrangle
 Hayward, California.
 Photorevised 1980

LEGEND

● = Site Location



Approximate Scale

2000 1000 0 2000 4000



feet

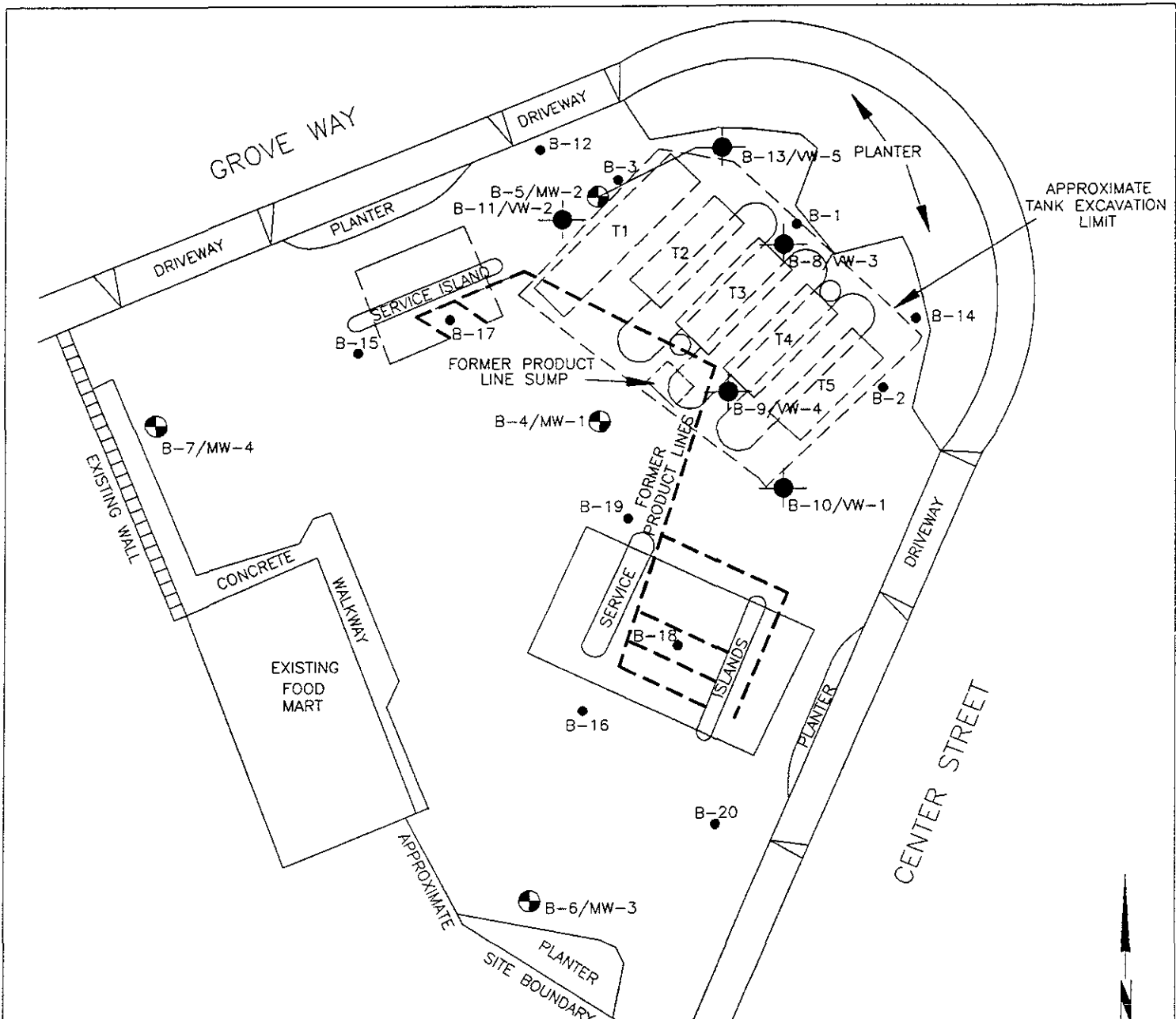
RESNA
 Working to Restore Nature

PROJECT 69013.09

**SITE VICINITY MAP
 ARCO Station 2152
 22141 Center Street
 Castro Valley, California**

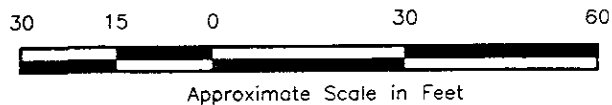
PLATE

1



EXPLANATION

- = Conductor casing
(Paradiso, August 17, 1989)
- B-20 ● = Soil boring
(RESNA, 1989, 1991, 1992)
- B-6/MW-3 ◐ = Boring/monitoring well
(RESNA, 1989, 1990)
- B-13/VW-5 ◑ = Boring/vapor well
(RESNA, June 1990)
- [T5] = Former underground gasoline-storage tanks
- - - = Present underground gasoline-storage tanks



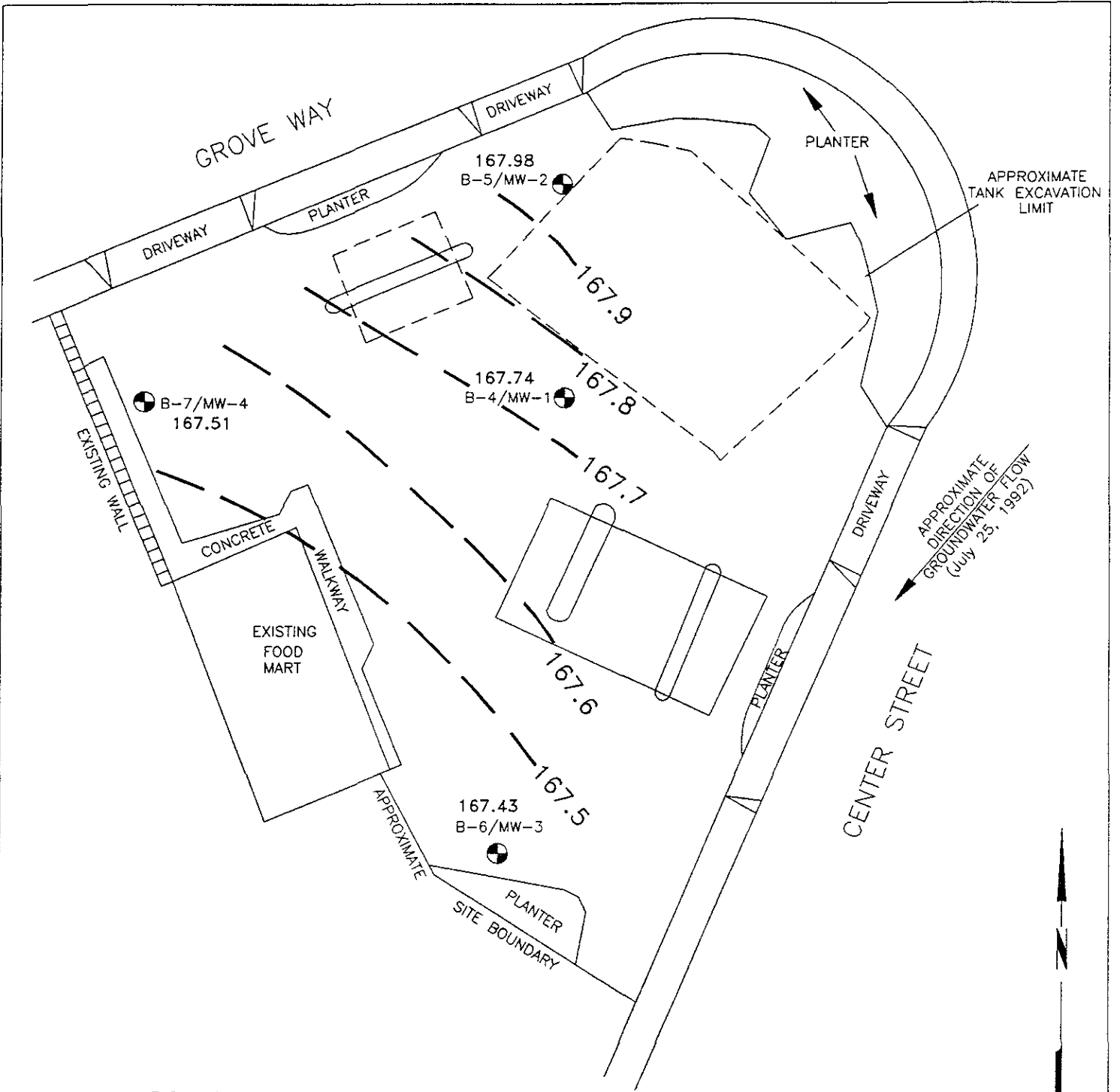
Source: Surveyed by Ron Archer Civil Engineer, Inc.



GENERALIZED SITE PLAN
 ARCO Station 2152
 22141 Center Street
 Castro Valley, California

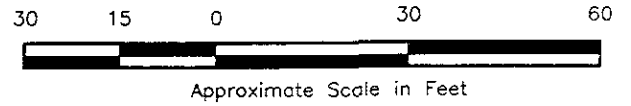
PLATE
 2

PROJECT 69013.09



EXPLANATION

- 167.9 — = Line of equal elevation of groundwater above mean sea level (MSL)
- 167.98 = Elevation of groundwater in feet (MSL) July 25, 1992
- B-6/MW-3 ⊕ = Boring/monitoring well (RESNA, 1989, 1990)



Source: Surveyed by Ron Archer Civil Engineer, Inc.

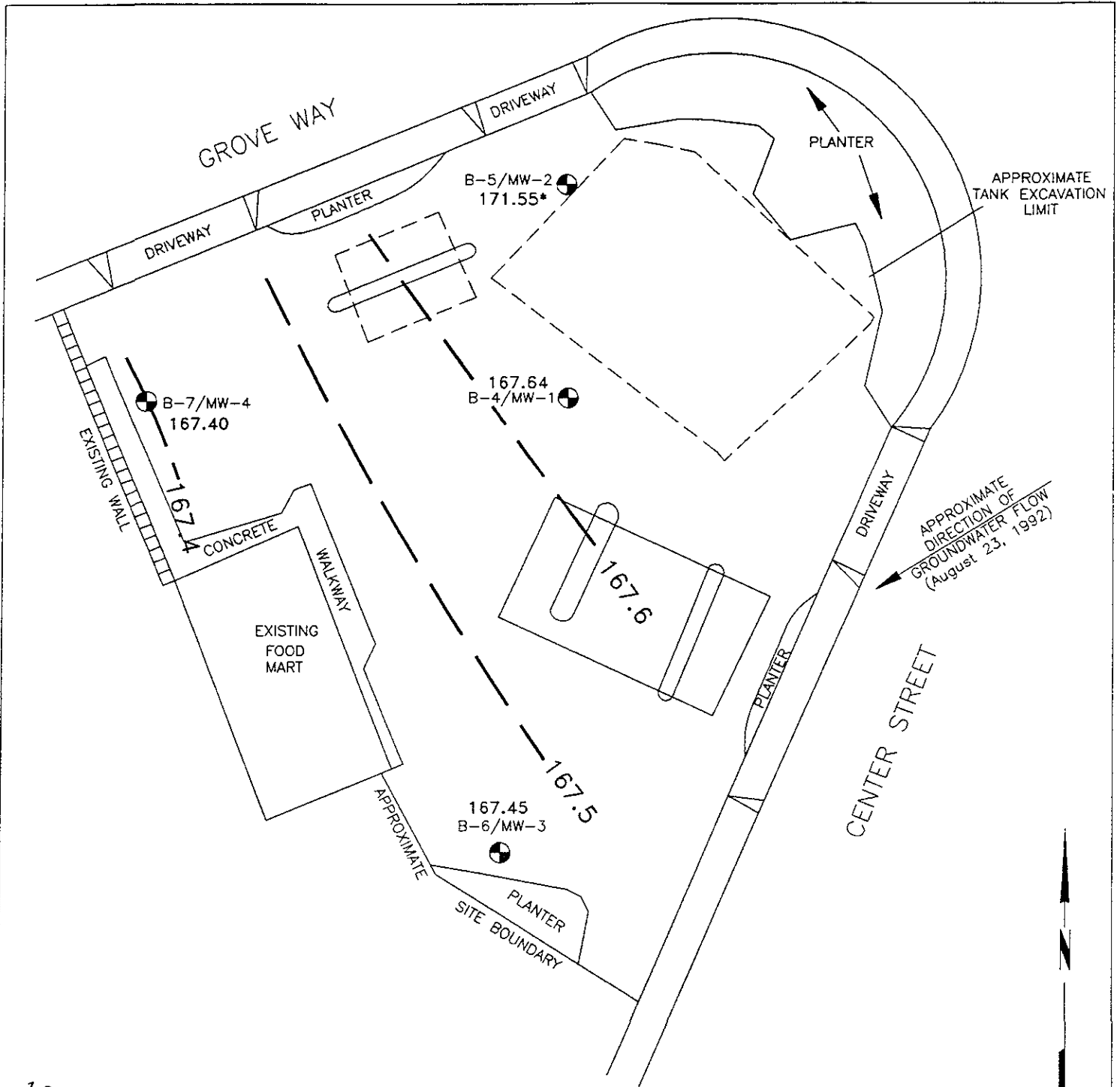



GROUNDWATER GRADIENT MAP
ARCO Station 2152
22141 Center Street
Castro Valley, California

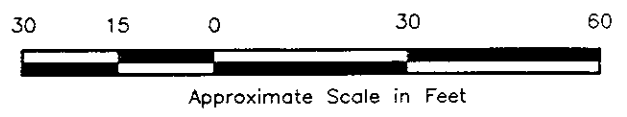
PLATE

3

PROJECT **69013.09**



- 167.6 - - - = Line of equal elevation of groundwater above mean sea level (MSL)
- 167.64 = Elevation of groundwater in feet (MSL) August 23, 1992
- 171.55* = Anomalous high groundwater elevation, not used to interpret groundwater gradient
- B-6/MW-3  = Boring/monitoring well (RESNA, 1989, 1990)



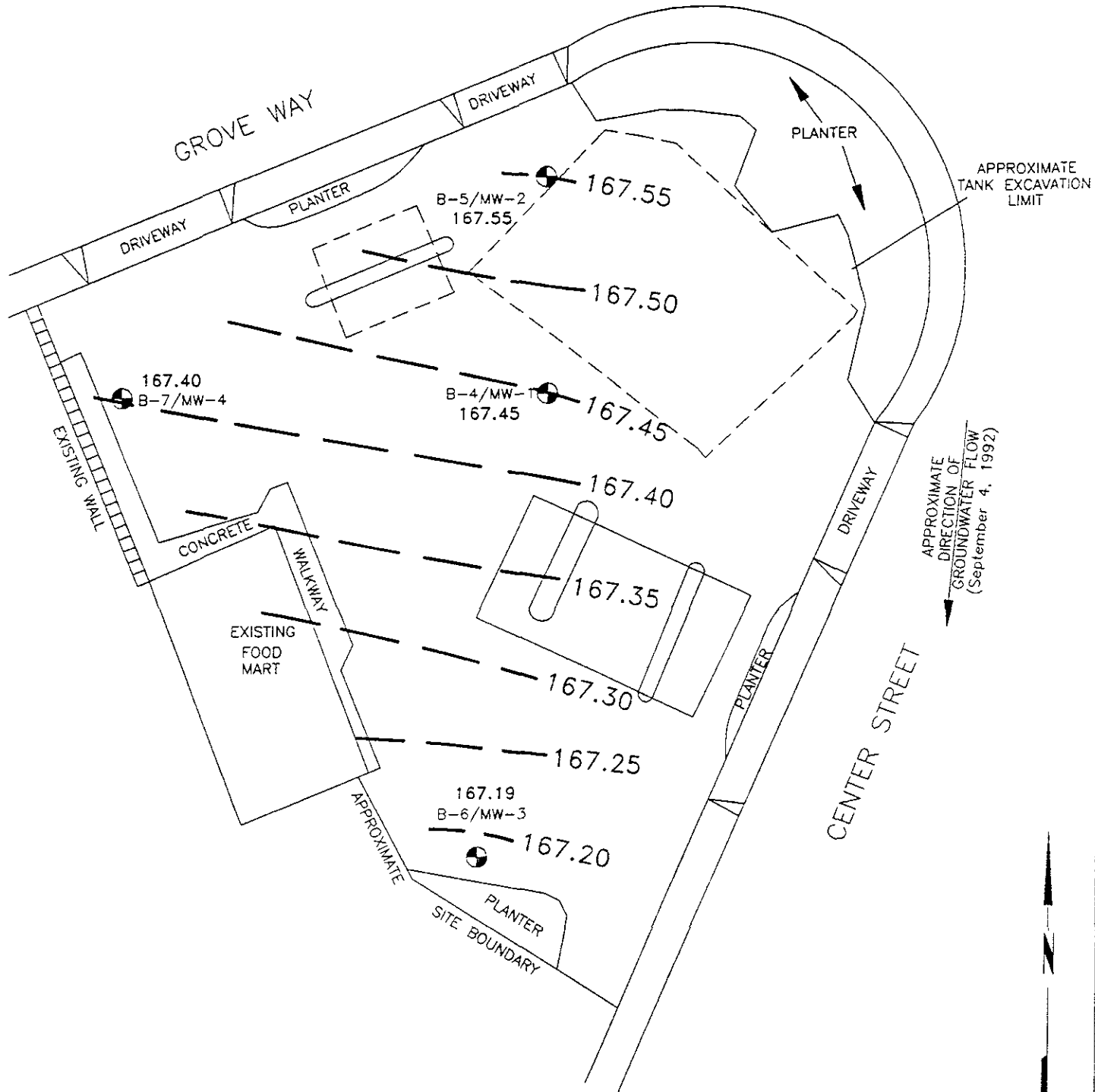
Source: Surveyed by Ron Archer Civil Engineer, Inc.



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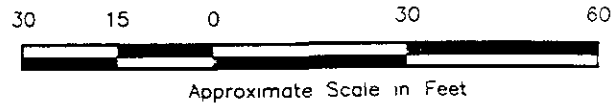
GROUNDWATER GRADIENT MAP
 ARCO Station 2152
 22141 Center Street
 Castro Valley, California

PLATE
 4



EXPLANATION

- 167.55 — = Line of equal elevation of groundwater above mean sea level (MSL)
- 167.55 = Elevation of groundwater in feet (MSL) September 4, 1992
- B-6/MW-3 = Boring/monitoring well (RESNA, 1989, 1990)



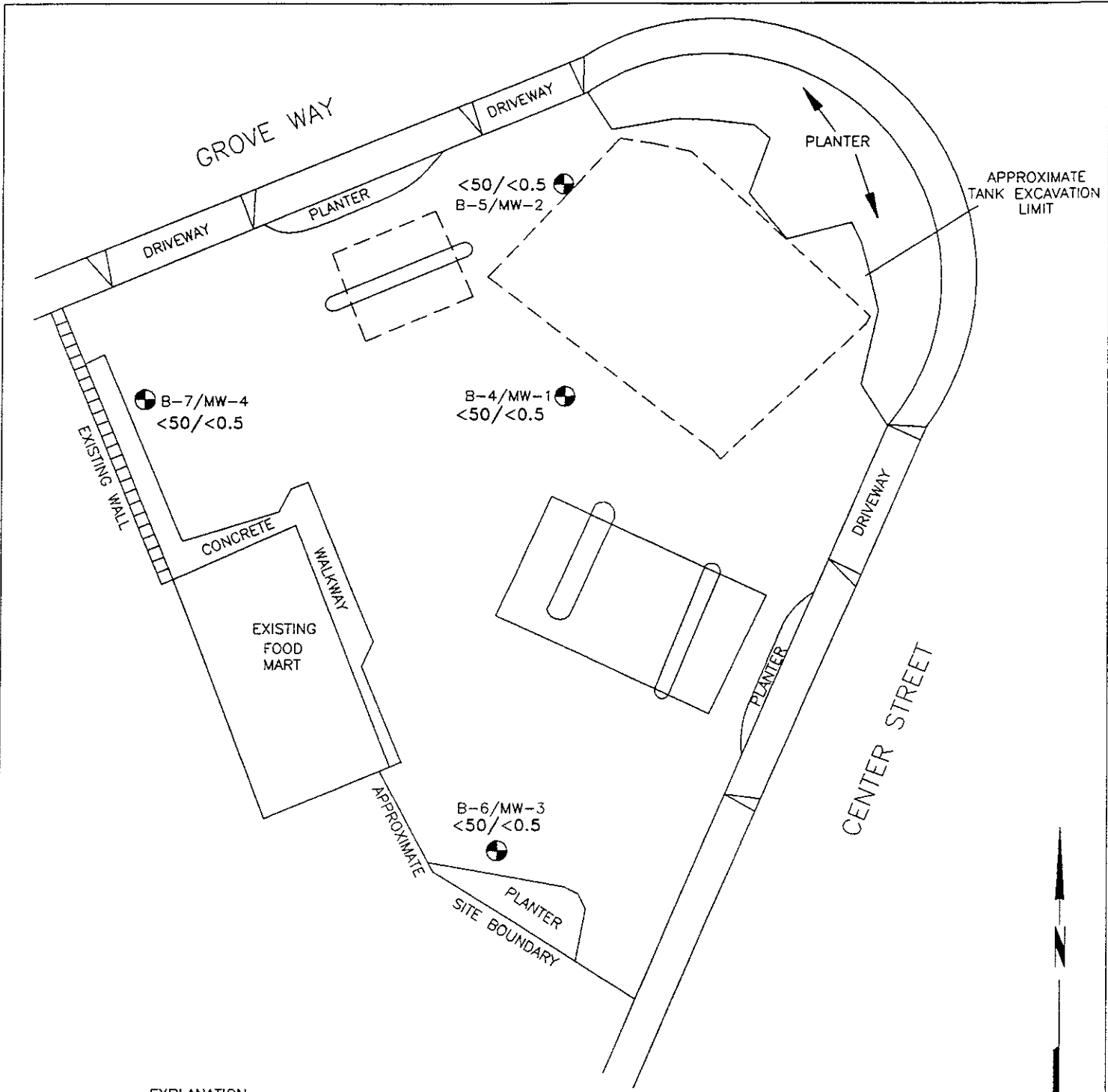
Source: Surveyed by Ron Archer Civil Engineer, Inc.



PROJECT **69013.09**

GROUNDWATER GRADIENT MAP
 ARCO Station 2152
 22141 Center Street
 Castro Valley, California

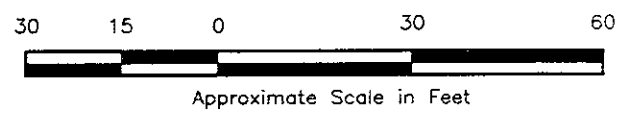
PLATE
5



EXPLANATION

<50/<0.5 = Concentrations of TPHg/Benzene in groundwater in parts per billion (ppb) September 4, 1992

B-6/MW-3 = Boring/monitoring well (RESNA, 1989, 1990)



Source: Surveyed by Ron Archer Civil Engineer, Inc.



TPHg/BENZENE CONCENTRATIONS
 IN GROUNDWATER
 ARCO Station 2152
 22141 Center Street
 Castro Valley, California

PLATE
 6

PROJECT 69013.09

Quarterly Groundwater Monitoring Report
ARCO Station 2152, Castro Valley, California

December 30, 1992
69013.09

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
ARCO Station 2152
Castro Valley, California
(Page 1 of 3)

Date Well Measured	Depth of Well	Well Elevation	Static Water Depth	Water Elevation
<u>MW-1</u>				
06/25/90	58.10	217.16	49.80	167.36
09/07/90			50.00	167.16
09/26/90			50.09	167.07
12/14/90			50.44	166.72
01/08/91			50.45	166.71
02/21/91			50.51	166.65
03/19/91			50.16	167.00
04/02/91			50.14	167.02
05/02/91	57.80		49.77	167.39
06/18/91			49.75	167.41
07/08/91			49.80	167.36
08/22/91			50.08	167.08
09/18/91			50.11	167.05
10/15/91			50.30	166.86
11/13/91			50.30	166.86
12/27/91			50.28	166.88
01/18/92			50.39	166.77
02/20/92			50.16	167.00
03/13/92			49.75	167.41
04/24/92			49.18	167.98
05/15/92			49.22	167.94
06/08/92			49.3*	167.9*
07/25/92			49.42	167.74
08/23/92			49.52	167.64
09/04/92			49.71	167.45
<u>MW-2</u>				
06/25/90	59.20	216.50	49.04	167.46
09/07/90			49.22	167.28
09/26/90			49.32	167.18
12/14/90			49.66	166.84
01/08/91			49.72	166.78
02/21/91			49.77	166.73
03/19/91			49.44	167.06
04/02/91			49.43	167.07
05/02/91	58.90		49.03	167.47
06/18/91			48.98	167.52
07/08/91			49.03	167.47
08/22/91			49.30	167.20
09/18/91			49.34	167.16
10/15/91			49.51	166.99
11/13/91			49.53	166.97
12/27/91			49.49	167.01

See notes on Page 3 of 3.

Quarterly Groundwater Monitoring Report
ARCO Station 2152, Castro Valley, California

December 30, 1992
69013.09

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
ARCO Station 2152
Castro Valley, California
(Page 2 of 3)

Date Well Measured	Depth of Well	Well Elevation	Static Water Depth	Water Elevation
<u>MW-2</u>				
01/18/92			49.60	166.90
02/20/92			49.39	167.11
03/13/92			48.97	167.53
04/24/92			48.47	168.03
05/15/92			48.47	168.03
06/08/92			48.5*	168.0*
07/25/92			48.52	167.98
08/23/92			44.95	171.55
09/04/92			48.95	167.55
<u>MW-3</u>				
06/25/90	59.70	217.57	50.55	167.02
09/07/90			50.73	166.84
09/26/90			50.81	166.76
12/14/90			51.15	166.42
01/08/91			51.16	166.41
02/21/91			51.21	166.36
03/19/91			50.93	166.64
04/02/91			50.92	166.65
05/02/91	59.34		50.51	167.06
06/18/91			50.47	167.10
07/08/91			50.54	167.03
08/22/91			50.80	166.77
09/18/91			50.82	166.75
10/15/91			51.02	166.55
11/13/91			51.03	166.54
12/27/91			51.01	166.56
01/18/92			51.15	166.42
02/20/92			50.84	166.73
03/13/92			50.39	167.18
04/24/92			49.82	167.75
05/15/92			49.90	167.67
06/08/92			50.0*	167.6*
07/25/92			50.14	167.43
08/23/92			50.12	167.45
09/04/92			50.38	167.19
<u>MW-4</u>				
06/25/90	60.30	215.18	48.06	167.12
09/07/90			48.25	166.93
09/26/90			48.35	166.83
12/14/90			48.68	166.50
01/08/91			48.70	166.48

Quarterly Groundwater Monitoring Report
ARCO Station 2152, Castro Valley, California

December 30, 1992
69013.09

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
ARCO Station 2152
Castro Valley, California
(Page 3 of 3)

Date Well Measured	Depth of Well	Well Elevation	Static Water Depth	Water Elevation
<u>MW-4</u>				
02/21/91			48.76	166.42
03/19/91			48.44	166.74
04/02/91			48.43	166.75
05/02/91	60.00		48.04	167.14
06/18/91			48.00	167.18
07/08/91			48.04	167.14
08/22/91			48.34	166.84
09/18/91			48.35	166.83
10/15/91			48.54	166.64
11/13/91			48.56	166.62
12/27/91			48.52	166.66
01/18/92			48.68	166.50
02/20/92			48.37	166.81
03/13/92			47.96	167.22
04/24/92			47.41	167.77
05/15/92			47.46	167.72
06/08/92			47.52	167.66
07/25/92			47.67	167.51
08/23/92			47.78	167.40
09/04/92			47.78	167.40

Depth measurements in feet. Water elevation is mean sea level.

Static water level measured in feet below top of casing.

* = Depth to water measurements reported to tenth of foot on EMCON's field sheets.

Quarterly Groundwater Monitoring Report
ARCO Station 2152, Castro Valley, California

December 30, 1992
69013.09

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
ARCO Station 2152
Castro Valley, California

Well	Date	TPHg	B	T	E	X
MW-1	06/26/90	64	0.63	<0.50	<0.50	<0.50
	09/26/90	<50	<0.50	<0.50	<0.50	<0.50
	01/08/91	<50	<0.50	<0.50	<0.50	<0.50
	04/02/91	<50	<0.05	<0.05	<0.05	<0.05
	07/08/91	120	2.3	4.6	1.3	9.6
	10/15/91	<30	<0.30	<0.30	<0.30	<0.30
	03/13/92	<30	<0.30	<0.30	<0.30	<0.30
	06/08/92	<30	<0.30	<0.30	<0.30	<0.30
	09/04/92	<50	<0.5	<0.5	<0.5	<0.5
MW-2	06/26/90	27	<0.50	<0.50	<0.50	<0.50
	09/26/90	<50	<0.50	<0.50	<0.50	<0.50
	01/08/91	<50	<0.50	<0.50	<0.50	<0.50
	04/02/91	<50	<0.05	<0.05	<0.05	<0.05
	07/08/91	30	0.42	0.47	<0.30	0.89
	10/15/91	<30	<0.30	<0.30	<0.30	<0.30
	03/13/92	<30	<0.30	<0.30	<0.30	<0.30
	06/08/92	<30	<0.30	<0.30	<0.30	<0.30
	09/04/92	<50	<0.5	<0.5	<0.5	<0.5
MW-3	06/25/90	52	0.65	1.5	<0.50	2.0
	09/26/90	<50	<0.50	<0.50	<0.50	<0.50
	01/08/91	<50	<0.50	<0.50	<0.50	<0.50
	04/02/91	<50	<0.05	<0.05	<0.05	<0.05
	07/08/91	67	0.69	1.5	0.65	4.7
	10/15/91	<30	<0.30	<0.30	<0.30	<0.30
	04/13/92	<30	<0.30	<0.30	<0.30	<0.30
	06/08/92	<30	<0.30	<0.30	<0.30	<0.30
	09/04/92	<50	<0.5	<0.5	<0.5	<0.5
MW-4	06/25/90	<20	<0.50	<0.50	<0.50	<0.50
	09/26/90	<50	<0.50	<0.50	<0.50	<0.50
	01/08/91	<50	<0.50	<0.50	<0.50	<0.50
	04/02/91	<50	<0.05	<0.05	<0.05	<0.05
	07/08/91	50	1.4	2.4	0.62	4.2
	10/15/91	<30	<0.30	<0.30	<0.30	<0.30
	03/13/92	<30	<0.30	<0.30	<0.30	<0.30
	06/08/92	<30	<0.30	<0.30	<0.30	<0.30
	09/04/92	<50	<0.5	<0.5	<0.5	<0.5

Results in parts per billion (ppb).

TPHg: Total petroleum hydrocarbons as gasoline

B:benzene T:toluene E:ethylbenzene X:total xylene isomers

APPENDIX A

**EMCON'S FIELD REPORTS
DEPTH TO WATER/FLOATING PRODUCT SURVEY RESULTS,
SUMMARY OF GROUNDWATER MONITORING DATA,
CERTIFIED ANALYTICAL REPORTS WITH CHAIN-OF-CUSTODY,
AND WATER SAMPLE FIELD DATA SHEETS**

MONITORING WELL PURGE WATER DISPOSAL FORM



EMCON
ASSOCIATES

Consultants in Wastes
Management and
Environmental Control

Date July 28, 1992
Project G70-26.01

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

We are enclosing:

Copies	Description
<u>1</u>	<u>Depth To Water/Floating Product Survey Results</u>
<u> </u>	<u>July 1992 monthly water level survey, ARCO</u>
<u> </u>	<u>station 2152, 22141 Center Street, Castro Valley, CA</u>

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:



Jim Butera JB

Robert Porter

Robert Porter, Senior Project
Engineer.



FIELD REPORT
DEPTH TO WATER / FLOATING PRODUCT SURVEY

PROJECT # : G70-26.01

STATION ADDRESS : 22141 Center Street, Castro Valley

DATE : 1/25/97

ARCO STATION # : 2152

FIELD TECHNICIAN : R. Schaeffer

DAY : Thurs

DIW 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-1	Yes	Yes	OK	3259	Yes	49.97	49.97	N.D.	N.D.	58.0	
2	MW-2	Yes	Yes	OK	3257	Yes	48.52	48.52	N.D.	N.D.	57.0	
3	MW-3	Yes	Yes	OK	3258	Yes	52.14	52.14	N.D.	N.D.	59.6	-
4	MW-4	Yes	Yes	OK	3219	Yes	47.67	47.67	N.D.	N.D.	60.2	-
												Flare 12' high
												fill all 1116
												in MW-2 or MW-4

SURVEY POINTS ARE TOP OF WELL CASINGS



EMCON
ASSOCIATES

Consultants in Wastes
Management and
Environmental Control

RECEIVED

1992

RESNA
SAN JOSE

Date Sept 01, 1992
Project G70-26.01

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

We are enclosing:

Copies	Description
<u>1</u>	<u>Depth To Water/Floating Product Survey Results</u>
<u> </u>	<u>August 1992 monthly water level survey, ARCO</u>
<u> </u>	<u>station 2152, 22141 Center Street, Castro Valley, CA</u>

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:



Jim Butera JB

Robert Porter
Robert Porter, Senior Project
Engineer.



FIELD REPORT
DEPTH TO WATER / FLOATING PRODUCT SURVEY

PROJECT # : G70-26.01

STATION ADDRESS : 22141 Center Street, Castro Valley

DATE : 8-23-92

ARCO STATION # : 2152

FIELD TECHNICIAN : Pick Schaeffer

DAY : MON

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-1	FINE	Yes	NONE	3259	Yes	49.52	49.52	N.D	N.D	58.0	-
2	MW-2	FINE	Yes	NONE	3259	Yes	44.95	44.95	N.D	N.D	59.1	-
3	MW-3	FINE	NO	NONE	3259	Yes	50.12	50.12	N.D	N.D	59.6	Forgot NEW ID.
4	MW-4	FINE	Yes	NONE	3259	Yes	47.78	47.78	N.D	N.D	60.2	-

SURVEY POINTS ARE TOP OF WELL CASINGS



EMCON
ASSOCIATES

Consultants in Wastes
Management and
Environmental Control

RECEIVED

SEP 29 1992

RESNA
CALIFORNIA

Date Sept 22, 1992
Project G70-26.01

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

We are enclosing:

Copies	Description
<u>1</u>	<u>Depth To Water / Floating Product Survey Results</u>
<u>1</u>	<u>Summary of Groundwater Monitoring Data</u>
<u>1</u>	<u>Certified Analytical Reports with Chain-of-Custody</u>
<u>4</u>	<u>Water Sample Field Data Sheets</u>

For your: X Information Sent by: X Mail

Comments:

Enclosed are the data from the third quarter 1992 monitoring event at ARCO service station 2152, 22141 Center Street, Castro Valley, California. Groundwater monitoring is conducted consistent with applicable regulatory guidelines. Please call if you have any questions: (408) 453-2266.

Reviewed by:



Jim Butera JB

Robert Porter
Robert Porter, Senior Project
Engineer.



**FIELD REPORT
DEPTH TO WATER / FLOATING PRODUCT SURVEY**

PROJECT # : G70-26.01

STATION ADDRESS : 22141 Center Street, Castro Valley

DATE : 9.4.92

ARCO STATION # : 2152

FIELD TECHNICIAN : Madley

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-1	OK	Yes	OK	3259	OK	49.71	49.71	ND	ND	58.1	1 bolt to lid missing
2	MW-2	OK	Yes	OK	3259	OK	48.95	48.95	ND	ND	59.2	1 bolt to lid missing
3	MW-3	OK	No	OK	3259	OK	50.38	50.38	ND	ND	59.7	piece of well box lid broken off bolts missing also
4	MW-4	OK	Yes	OK	3259	OK	47.78	47.78	ND	ND	60.3	1 bolt for lid missing

All bolts needed are diversified screws

SURVEY POINTS ARE TOP OF WELL CASINGS

Summary of Groundwater Monitoring Data
 Third Quarter 1992
 ARCO Service Station 2152
 22141 Center Street, Castro Valley, California
 micrograms per liter ($\mu\text{g/l}$) 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(58)	09/04/92	49.71	ND. ²	<50.	<0.5	<0.5	<0.5	<0.5
MW-2(59)	09/04/92	48.95	ND.	<50.	<0.5	<0.5	<0.5	<0.5
MW-3(59)	09/04/92	50.38	ND.	<50.	<0.5	<0.5	<0.5	<0.5
MW-4(60)	09/04/92	47.78	ND.	<50.	<0.5	<0.5	<0.5	<0.5
FB-1 ³	09/04/92	NA. ⁴	NA.	<50.	<0.5	<0.5	<0.5	<0.5

-
1. TPH. = Total petroleum hydrocarbons
 2. ND. = Not detected
 3. FB. = Field blank
 4. NA. = Not applicable
-



SEQUOIA ANALYTICAL

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

Emcon Associates
1938 Junction Avenue
San Jose, CA 95131
Attention: Jim Butera

Project: Arco 2152, Castro Valley

Enclosed are the results from 5 water samples received at Sequoia Analytical on September 9, 1992. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
2091185	Water, MW1(58)	9/4/92	EPA 5030/8015/8020
2091186	Water, MW-2 (59)	9/4/92	EPA 5030/8015/8020
2091187	Water, MW-3(59)	9/4/92	EPA 5030/8015/8020
2091188	Water, MW-4(60)	9/4/92	EPA 5030/8015/8020
2091189	Water, FB-1	9/4/92	EPA 5030/8015/8020

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


Maile A. Springer
Project Manager



SEQUOIA ANALYTICAL

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

Emcon Associates
1938 Junction Avenue
San Jose, CA 95131
Attention: Jim Butera

Client Project ID: Arco 2152, Castro Valley
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 209-1185

Sampled: Sep 4, 1992
Received: Sep 9, 1992
Reported: Sep 17, 1992

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 209-1185 MW1(58)	Sample I.D. 209-1186 MW-2 (59)	Sample I.D. 209-1187 MW-3(59)	Sample I.D. 209-1188 MW-4(60)	Sample I.D. 209-1189 FB-1
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	9/10/92	9/10/92	9/10/92	9/10/92	9/10/92
Instrument Identification:	GCHP 6	GCHP 6	GCHP 6	GCHP 6	GCHP 6
Surrogate Recovery, %: (QC Limits = 70-130%)	110	104	100	104	108

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL


Maile A. Springer
Project Manager



SEQUOIA ANALYTICAL

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

Emcon Associates
1938 Junction Avenue
San Jose, CA 95131
Attention: Jim Butera

Client Project ID: Arco 2152, Castro Valley

QC Sample Group: 2091185-89

Reported: Sep 17, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
---------	---------	---------	---------------	---------

Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. MirafTAB	A. MirafTAB	A. MirafTAB	A. MirafTAB
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Sep 10, 1992	Sep 10, 1992	Sep 10, 1992	Sep 10, 1992
QC Sample #:	GBLK091092	GBLK091092	GBLK091092	GBLK091092

Sample Conc.: N.D. N.D. N.D. N.D.

Spike Conc. Added: 10 10 10 30

Conc. Matrix Spike: 9.7 9.2 9.3 27

Matrix Spike % Recovery: 97 92 93 90

Conc. Matrix Spike Dup.: 9.9 9.3 9.6 28

Matrix Spike Duplicate % Recovery: 99 93 96 93

Relative % Difference: 2.0 1.1 3.2 3.6

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Maile A. Springer
Project Manager

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

2091185.EEE <2>

RCO Facility no: **2152** City (Facility): **Castro Valley** Project manager (Consultant): **JIM BUTLER**
 RCO engineer: **Kyle Christie** Telephone no (ARCO): **915 571-2434** Telephone no (Consultant): **408 453-0919** Fax no (Consultant): **408 453-0452**
 Consultant name: **EMCOV ASSOCIATES** Address (Consultant): **1938 Junction Ave San Jose**

Laboratory name: **SEQUOIA**
 Contract number: **07-073**
 Method of shipment: **Customer will pick up**

Sample I.D.	Lab no	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA 1602/8020/8015	TPH Modified 8015 Gas <input type="checkbox"/> Diesel <input type="checkbox"/>	Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/>	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCCLP Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi <input type="checkbox"/>	CAM Metals EPA 6010/7000 TTLC <input type="checkbox"/> STLC <input type="checkbox"/>	Lead Org./DHS <input type="checkbox"/> Lead EPA 7420/7421 <input type="checkbox"/>	
			Soil	Water	Other	Ice	Acid														
W1(58)		2		X		X	HCl	9-4-92	1512		X										2091185
W2(59)		2		X		X	HCl	9-4-92	1607		X										2091186
W3(59)		2		X		X	HCl	9-4-92	1424		X										2091187
W4(60)		2		X		X	HCl	9-4-92	1424		X										2091188
B-1		2		X		X	HCl	9-4-92	1707		X										2091189

Special detection Limit/reporting: **Lowest Possible**

Special QA/QC: **As Noted**

Remarks: **240ml HCl
WAT'S
sequoia
Bottles**

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

Relinquished by sampler: **[Signature]** Date: **9/8/92** Time: **14:15** Received by: **[Signature]**

Relinquished by: **[Signature]** Date: **9/8/92** Time: **16:24** Received by:

Relinquished by: **[Signature]** Date: **9-8-92** Time: **1620** Received by laboratory: **[Signature]**

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



WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

EMCON
ASSOCIATES

PROJECT NO: G70-26.01
PURGED BY: M Adler
SAMPLED BY: M Adler

SAMPLE ID: MW-1 (58)
CLIENT NAME: ARCO 2152
LOCATION: 22141 Center St.
Castro Valley, CA.

TYPE: Ground Water Surface Water Treatment Effluent Other

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

CASING ELEVATION (feet/MSL): NR VOLUME IN CASING (gal.): 5.5
DEPTH TO WATER (feet): 49.71 CALCULATED PURGE (gal.): 27.51
DEPTH OF WELL (feet): 58.1 ACTUAL PURGE VOL (gal.): 27.5

DATE PURGED: 9-4-92 Start (2400 Hr) 1452 End (2400 Hr) 1510
DATE SAMPLED: 9-4-92 Start (2400 Hr) 1512 End (2400 Hr) 1513

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
<u>1456</u>	<u>5.5</u>	<u>6.68</u>	<u>1673</u>	<u>74.7</u>	<u>TAN</u>	<u>Light</u>
<u>1459</u>	<u>11.0</u>	<u>6.64</u>	<u>1815</u>	<u>71.9</u>	<u>TAN</u>	<u>Light</u>
<u>1503</u>	<u>16.5</u>	<u>6.64</u>	<u>1940</u>	<u>71.2</u>	<u>TAN</u>	<u>Light</u>
<u>1507</u>	<u>22.0</u>	<u>6.60</u>	<u>2050</u>	<u>70.5</u>	<u>clear</u>	<u>Light</u>
<u>1510</u>	<u>27.5</u>	<u>6.60</u>	<u>2080</u>	<u>70.1</u>	<u>clear</u>	<u>Light</u>

D. O. (ppm): NR ODOR: NONE NR NR
(COBALT 0 - 100) (NTU 0 - 200)

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

PURGING EQUIPMENT

SAMPLING EQUIPMENT

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> 2" Bladder Pump | <input type="checkbox"/> Bailor (Teflon®) | <input type="checkbox"/> 2" Bladder Pump | <input checked="" type="checkbox"/> Bailor (Teflon®) |
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Bailor (PVC) | <input type="checkbox"/> DDL Sampler | <input type="checkbox"/> Bailor (Stainless Steel) |
| <input checked="" type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailor (Stainless Steel) | <input type="checkbox"/> Dipper | <input type="checkbox"/> Submersible Pump |
| <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated | <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated |
| Other: _____ | | Other: _____ | |

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: _____

Meter Calibration: Date: 9-4-92 Time: 1343 Meter Serial #: 9112 Temperature °F: _____
(EC 1000 _____ / _____) (DI _____) (pH 7 _____ / _____) (pH 10 _____ / _____) (pH 4 _____ / _____)
Location of previous calibration: MW-3 (59)

Signature: M Adler Reviewed By: JB Page 1 of 1



WATER SAMPLE FIELD DATA SHEET

EMCON
ASSOCIATES

PROJECT NO: G70-26.01
 PURGED BY: MADler
 SAMPLED BY: MADler

SAMPLE ID: MIN-2 (59)
 CLIENT NAME: Arco 2152
 LOCATION: 22141 Castro St,
Castro Valley, CA

TYPE: Ground Water Surface Water Treatment Effluent Other

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

CASING ELEVATION (feet/MSL): NR VOLUME IN CASING (gal.): 6.72
 DEPTH TO WATER (feet): 48.95 CALCULATED PURGE (gal.): 33.62
 DEPTH OF WELL (feet): 59.2 ACTUAL PURGE VOL (gal.): 34.0

DATE PURGED: 9-4-92 Start (2400 Hr) 1544 End (2400 Hr) 1604
 DATE SAMPLED: 9-4-92 Start (2400 Hr) 1607 End (2400 Hr) 1608

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
<u>1549</u>	<u>7.0</u>	<u>6.66</u>	<u>2410</u>	<u>72.5</u>	<u>clear</u>	<u>clear</u>
<u>1553</u>	<u>14.0</u>	<u>6.68</u>	<u>2380</u>	<u>71.1</u>	<u>clear</u>	<u>clear</u>
<u>1557</u>	<u>21.0</u>	<u>6.69</u>	<u>2350</u>	<u>70.5</u>	<u>clear</u>	<u>clear</u>
<u>1601</u>	<u>28.0</u>	<u>6.71</u>	<u>2330</u>	<u>70.4</u>	<u>clear</u>	<u>clear</u>
<u>1604</u>	<u>34.0</u>	<u>6.67</u>	<u>2330</u>	<u>69.4</u>	<u>clear</u>	<u>clear</u>

D. O. (ppm): NR ODOR: NONE NR NR
(COBALT 0 - 100) (NTU 0 - 200)

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

PURGING EQUIPMENT

SAMPLING EQUIPMENT

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> 2" Bladder Pump | <input type="checkbox"/> Bailor (Teflon®) | <input type="checkbox"/> 2" Bladder Pump | <input checked="" type="checkbox"/> Bailor (Teflon®) |
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Bailor (PVC) | <input type="checkbox"/> DDL Sampler | <input type="checkbox"/> Bailor (Stainless Steel) |
| <input checked="" type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailor (Stainless Steel) | <input type="checkbox"/> Dipper | <input type="checkbox"/> Submersible Pump |
| <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated | <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated |
| Other: _____ | | Other: _____ | |

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: _____

Meter Calibration: Date: 9-4-92 Time: 1343 Meter Serial #: 9112 Temperature °F: _____
 (EC 1000 _____ / _____) (DI _____) (pH 7 _____ / _____) (pH 10 _____ / _____) (pH 4 _____ / _____)
 Location of previous calibration: MIN-3 (59)

Signature: MADler Reviewed By: JB Page 2 of 11



EMCON ASSOCIATES

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

PROJECT NO: EW-26.01
PURGED BY: MAdler
SAMPLED BY: MAdler

SAMPLE ID: MW-3 (59)
CLIENT NAME: Arco 2152
LOCATION: 2241 Center St.
Castro Valley, CA.

TYPE: Ground Water Surface Water Treatment Effluent Other

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

CASING ELEVATION (feet/MSL): NR VOLUME IN CASING (gal.): 764 Gall
DEPTH TO WATER (feet): 56.38 CALCULATED PURGE (gal.): 30.56
DEPTH OF WELL (feet): 59.7 ACTUAL PURGE VOL (gal.): 31.0

DATE PURGED: 9.4.92 Start (2400 Hr) 1357 End (2400 Hr) 1421
DATE SAMPLED: 9.4.92 Start (2400 Hr) 1424 End (2400 Hr) 1425

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
<u>1403</u>	<u>8.065</u>	<u>6.71</u>	<u>2380</u>	<u>73.7</u>	<u>clear</u>	<u>light</u>
<u>1409</u>	<u>12.0</u>	<u>6.71</u>	<u>2540</u>	<u>71.5</u>	<u>clear</u>	<u>clear</u>
<u>1413</u>	<u>19.5</u>	<u>6.65</u>	<u>2510</u>	<u>70.5</u>	<u>clear</u>	<u>clear</u>
<u>1417</u>	<u>26.0</u>	<u>6.66</u>	<u>2444</u>	<u>69.8</u>	<u>clear</u>	<u>clear</u>
<u>1421</u>	<u>31.0</u>	<u>6.64</u>	<u>2420</u>	<u>69.7</u>	<u>clear</u>	<u>clear</u>

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

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

PURGING EQUIPMENT

SAMPLING EQUIPMENT

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> 2' Bladder Pump | <input type="checkbox"/> Bailor (Teflon®) | <input type="checkbox"/> 2' Bladder Pump | <input checked="" type="checkbox"/> Bailor (Teflon®) |
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Bailor (PVC) | <input type="checkbox"/> DDL Sampler | <input type="checkbox"/> Bailor (Stainless Steel) |
| <input checked="" type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailor (Stainless Steel) | <input type="checkbox"/> Dipper | <input type="checkbox"/> Submersible Pump |
| <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated | <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated |
- Other: _____ Other: _____

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: _____

Meter Calibration: Date: 9.4.92 Time: 1343 Meter Serial #: 9112 Temperature °F: 81.2
(EC 1000 1063 / 1000) (DI 52.1) (pH 7 7.04 / 7.00) (pH 10 7.98 / 10.00) (pH 4 4.08 / _____)
Location of previous calibration: MW-3 (59)

Signature: MAdler Reviewed By: JB Page 3 of 4



EMCON ASSOCIATES

WATER SAMPLE FIELD DATA SHEET

Rev. 2, 5/91

PROJECT NO: G-70-26.01
PURGED BY: M. Adler
SAMPLED BY: M. Adler

SAMPLE ID: MW-4 (60)
CLIENT NAME: Arco 2152
LOCATION: 2241 Center St.
Castro Valley, CA.

TYPE: Ground Water Surface Water Treatment Effluent Other

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

CASING ELEVATION (feet/MSL): NR VOLUME IN CASING (gal.): 8.21
DEPTH TO WATER (feet): 47.78 CALCULATED PURGE (gal.): 41.06
DEPTH OF WELL (feet): 60.3 ACTUAL PURGE VOL (gal.): 42.0

DATE PURGED: 9-4-92 Start (2400 Hr) 1636 End (2400 Hr) 1655
DATE SAMPLED: 9-4-92 Start (2400 Hr) 1658 End (2400 Hr) 1659

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
<u>1635</u>	<u>8.5</u>	<u>6.80</u>	<u>1710</u>	<u>70.7</u>	<u>TAN</u>	<u>Light</u>
<u>1640</u>	<u>17.0</u>	<u>6.74</u>	<u>1706</u>	<u>69.7</u>	<u>clear</u>	<u>light</u>
<u>1646</u>	<u>25.5</u>	<u>6.75</u>	<u>1705</u>	<u>69.3</u>	<u>clear</u>	<u>clear</u>
<u>1651</u>	<u>34.0</u>	<u>6.76</u>	<u>1693</u>	<u>68.5</u>	<u>clear</u>	<u>clear</u>
<u>1655</u>	<u>42.0</u>	<u>6.73</u>	<u>1705</u>	<u>69.5</u>	<u>clear</u>	<u>clear</u>

D. O. (ppm): NR ODOR: NONE NR NR
(COBALT 0 - 100) (NTU 0 - 200)

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

PURGING EQUIPMENT

SAMPLING EQUIPMENT

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> 2" Bladder Pump | <input type="checkbox"/> Bailer (Teflon®) | <input type="checkbox"/> 2" Bladder Pump | <input checked="" type="checkbox"/> Bailer (Teflon®) |
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Bailer (PVC) | <input type="checkbox"/> DDL Sampler | <input type="checkbox"/> Bailer (Stainless Steel) |
| <input checked="" type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailer (Stainless Steel) | <input type="checkbox"/> Dipper | <input type="checkbox"/> Submersible Pump |
| <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated | <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated |
| Other: _____ | | Other: _____ | |

WELL INTEGRITY: Good LOCK #: 3259

REMARKS: _____

Meter Calibration: Date: 9-4-92 Time: 1343 Meter Serial #: 9112 Temperature °F: _____
(EC 1000 _____ / _____) (DI _____) (pH 7 _____ / _____) (pH 10 _____ / _____) (pH 4 _____ / _____)
Location of previous calibration: MW-3 (59)

Signature: M. Adler Reviewed By: JB Page 4 of 4

MONITORING WELL PURGE WATER TRANSPORTER FORM

RECEIVED

OCT 3 2 1992

RESNA
SAN JOSE

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 Stephen R. Yajima 9-24-92
(Typed or printed full name & signature) (Date)

SITE INFORMATION

STA #	JOB #	ADDRESS	GALS
A-2092	21073-DW	5498 MONTEREY HWY., SAN JOSE, CA	401
A-6113	21053-PW	785 E. STANLEY, LIVERMORE, CA	30
A-771	21088-PW	899 RINCON AVE., LIVERMORE, CA	98
A-6201	20916-PW	40077 MISSION BLVD., FREMONT, CA	8
A-2152	21045-PW	22141 CENTER ST., CASTRO VALLEY, CA	123
A-6041	21050-PW	7249 VILLAGE PKWY., DUBLIN, CA	27
A-4495	21038	1950 S. DELAWARE, SAN MATEO, CA	46
A-4430	21010-PW	2995 MIDDLEFIELD RD., PALO ALTO, CA	173
A-2010	21090-PW	2110 OLD MIDDLEFIELD RD., MOUNTAIN VIEW, CA	415
A-1319	21054-PW	365 JACKSON ST., HAYWARD, CA	346
A-5387	21087-PW	20200 HESPERIAN BLVD., HAYWARD, CA	328
TOTAL GALLONS:			1,995

TRANSPORTER INFORMATION

NAME: BALCH PETROLEUM

ADDRESS: 930 AMES AVE.

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

TRUCK ID #: PETERBILT HURSCHEL WARD
(Typed or printed full name & signature) (Date)

TSD FACILITY INFORMATION

NAME: GIBSON ENVIRONMENTAL CLOR 1464

ADDRESS: 475 SEAPORT BLVD

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

RELEASE #: 11320 Shawn Raggi
(Typed or printed full name & signature) (Date)

D.D. R.R. 92-074 92