

Canonie Environmental

Canonie Environmental Services Corp
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91-153-05

November 9, 1992

Mr. Scott Seery
Senior Hazardous Materials Specialist
Alameda County Health Care Services
Agency
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

Preliminary Site Assessment Report
Garcia Enterprises, Inc. Site
16211 East 14th Street
San Leandro, California

Dear Mr. Seery:

This Preliminary Site Assessment Report (PSA) has been prepared by Canonie Environmental Services Corp. (Canonie) for the Garcia Enterprises, Inc. site located at 16211 East 14th Street in San Leandro, California. This report presents the work performed in accordance with a PSA Work Plan as amended and approved by the Alameda County Health Care Services Agency, Department of Environmental Health (County) in a letter dated May 22, 1992. The PSA was performed to assess the potential impact to shallow ground water at the Garcia Enterprises, Inc. site associated with two underground storage tanks (USTs) which were formerly located at the facility.

Introduction and Background

The Garcia Enterprises, Inc. site is located in San Leandro near the intersection of East 14th Street and 162nd Avenue (Figure 1). A car wash was active at the site from approximately 1954 through 1964. In conjunction with the car wash, two 10,000-gallon USTs were located as shown on Figure 2. Both tanks were of steel single-wall construction. Although the specific contents of each UST was not documented, the USTs contained either gasoline or diesel fuel. The current tenant of the property is Town and Country Liquors.

Canonie performed UST removal activities at the Garcia Enterprises, Inc. site in accordance with an Underground Storage Tank Closure Plan approved by both the County and the Eden Consolidated Fire Protection District. The two USTs along with two service island pumps and associated piping were removed on July 17, 1991 and transported under manifest by Erickson, Inc. to their Richmond Facility for recycling. The tanks, while having visible corrosion, did not have any visible holes. Approximately 54 cubic yards of discolored backfill and native soils were removed from the excavation and temporarily stockpiled at the site. After completing the excavation, a total of four verification soil samples were taken from the excavation sidewalls (no bottom samples were taken since ground water was accumulating in the open excavation). One soil sample was taken from beneath the former pump island and three soil samples were taken beneath the removed product piping.

A site plan depicting the former UST locations and soil sample locations is provided on Figure 2. All soil samples were taken at a depth of approximately nine to ten feet. All verification samples were analyzed for total petroleum hydrocarbons-diesel range (TPH-D); total petroleum hydrocarbons-gasoline range (TPH-G); and benzene, toluene, ethylbenzene, and xylene (BTEX). The soil sample from the northeast tank excavation sidewall (designated Sample NE-9.5' on Figure 2) indicated a TPH-D concentration of 15 parts per million (ppm). TPH-G and BTEX were non-detectable for the northeast

sidewall sample. No other detectable concentrations were indicated for any excavation sidewall samples and all pipe trench soil samples indicated non-detectable concentrations of all analytes tested. The soil sample taken beneath the former service pump location indicated benzene present at 0.16 ppm and toluene present at 0.217 ppm. TPH-D, TPH-G, xylene and ethylbenzene were all non-detectable. A summary of the chemical analyses for sampling performed during tank removal activities may be referenced in a report entitled "Underground Storage Tank Closure Report" (Canonie, September 1991).

Two soil samples were also collected from the soil stockpile and were analyzed for TPH-G, TPH-D, BTEX, and organic lead to profile the soil for disposal. The stockpile was subsequently transported as non-hazardous to a Class III landfill for disposal.

As previously mentioned, ground water was encountered in the excavation at a depth of approximately 10.5 feet. One water sample was taken from the water that accumulated in the tank removal excavation.

The water grab sample (designated WS-1) obtained from the open excavation indicated the presence of TPH-D at 0.43 ppm, TPH-G at 3.4 ppm, benzene at 0.033 ppm, toluene at 0.084 ppm, ethylbenzene at 0.02 ppm, xylene at 0.13 ppm, and total lead at 0.021 ppm. Benzene was the only analyte found in excess of primary drinking water standards (maximum contaminant levels, 0.001 ppm for benzene) in the water sample retrieved directly from the excavation. It should be noted that this water had mixed with soil disturbed during excavation operations and is not representative of ground water quality. A water sample taken from the Baker™ Tank (designated WS-2) indicated concentrations of all analytes below primary drinking water standards. The presence of detectable concentrations of petroleum hydrocarbons in the water initiated the agency request to perform an investigation to determine the potential impact to ground water.

PSA Activities

Field work for the PSA at the Garcia Enterprises, Inc. site was performed under the direction of Dr. James Babcock (Registered Geologist #4515) during the month of September 1992. Three ground water monitoring wells were installed on September 1, 1992 at the locations shown on Figure 3. Canonie used a truck-mounted flight auger rig with hollow stem augers and a split spoon sampler. An eight-inch auger was used to provide sufficient annular space for subsequent installation of monitoring wells. During drilling and well installation, a Canonie geologist supervised the drilling subcontractor, log the soil samples and drill cuttings, and obtained samples for chemical analyses. The boring logs for the three monitoring well locations are given in Appendix A.

During the drilling activities, soil samples were collected at significant changes in lithology and at the soil/water interface using a split-spoon sampler lined with brass tubes. If samples were taken for chemical analysis, the ends of the brass tubes were wrapped with aluminum foil and covered with plastic caps. The brass tubes were labeled and sealed in a Ziplock™ bag. Samples were labeled with the sample location, depth interval, date, job number, and sampler's initials. Each sample was recorded on a chain-of-custody form which was maintained with the cooler. Samples collected were placed immediately in a cooler with ice, or equivalent, and transported the same day to the laboratory for analysis, when possible. The soil samples were analyzed for TPH-G, TPH-D, and BTEX (EPA Methods 8015 modified and 8020).

Canonie placed 2-inch diameter PVC casing with sand filter pack and surface seal for each ground water monitoring well. PVC blank casing was coupled to 0.010 inch slot PVC screen was used to complete the wells. The well screen were planned to extend approximately five feet above and ten feet below the existing water table, however, due to the limited thickness of the water bearing zone ten foot screens were used at monitoring well locations MW-1 and MW-2 to avoid the possibility of penetrating the

underlying aquitard. Because the native soils are primarily silty clay, a Lonestar number 2/12 Monterey-type sand was used for the filter pack. The top of the sand filter extended to a depth of approximately one foot above the top of the screen. A two-foot bentonite seal was placed immediately above the sand filter pack. An expansive cement-bentonite grout was then placed from the top of the bentonite seal to approximately one foot below ground surface.

A locking diaphragm expansion cap was affixed to the piezometer to discourage unauthorized access to the well. A well monument with a bolted lid was set around the well casing with concrete. Well construction details are given in Appendix B.

All down-hole equipment was steam-cleaned prior to use and before leaving the site, and the split-spoon sampler was washed in a solution of trisodium phosphate (TSP) and rinsed with potable water between each sample run. All soil cuttings and steam cleaning water was containerized in 55-gallon drums. These drums were moved to a temporary on-site storage area pending analytical results.

The wells were developed by surge block and bailing on September 8, 1992. Approximately 35 gallons of water (greater than fifteen casing volumes for each well) was removed from each well. The wells were developed until the water removed is visually clear and free of sediment. The purge water was temporarily stored on-site in 55-gallon steel drums.

Water samples were collected with teflon bailers on September 11, 1992. Prior to sampling, a teflon bailer was used to purge the wells. No free product or odor was observed during sampling activities. While purging, a minimum of three consecutive measurements of the indicator parameters pH, temperature, and conductivity were recorded immediately prior to sample collection. Three casing volumes were purged prior to sampling. Water samples were collected in triplicate in 40-milliliter volatile organic analysis (VOA) bottles and one-liter amber glass containers for analysis for

TPH-G, TPH-D, and BTEX (EPA Method 8015 modified and 602). Samples were labeled with the sample identification number, date, time, job number, and sampler's initials. Each sample was recorded on a chain of custody form which was remain with the samples. The samples were placed immediately in an iced cooler and transported the same day to Sequoia Analytical in Redwood City for analysis.

A composite water sample was collected and analyzed for TPH-D, TPH-G, and BTEX to profile well development water, well purge water, and steam cleaning water for disposal. Following receipt of analytical results, the water was disposed of as non-hazardous at Gibson-Pilot. Similarly, a composite soil sample from the drilling cuttings was collected and analyzed for petroleum hydrocarbons and BTEX. The soil cuttings were disposed of as non-hazardous at a Class III disposal facility.

Wells were surveyed into an established benchmark to determine the elevation of the measuring point of each well in feet relative to mean sea level (MSL). The ground surface elevation at the well was also ~~be~~ surveyed. Water levels were measured using a battery powered sounder. The water level for each well was measured in reference to a measuring point on the PVC well casing (indelibly marked and notched). A summary of water level and measuring point elevations is given in Table 1.

Findings and Recommendations

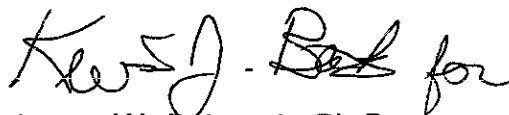
A summary of analyses of soil and ground water performed for the PSA is given in Table 2. Certified analytical results are contained in Appendix C. As shown in the table, only minor concentrations of benzene in the ground water were found; with concentrations of 0.0026 and 0.0029 ppm in monitoring wells MW-1 and MW-3 respectively. The only other hydrocarbon detected in the ground water was TPH-D at a concentration of 0.055 ppm in the sample taken from MW-3. All other analytes indicated non-detectable concentrations. All of the soil samples had non-detectable

concentrations of petroleum hydrocarbons indicating that the extent of petroleum-affected soil had been removed during the original tank removal activities.

Measurement of water levels on September 11, 1992 indicated a southwesterly gradient as shown on Figure 3. This is consistent with an earlier review of available agency information to collect information on ground water flow direction. In accordance with a phone conversation with Mr. Andreas Godfrey of Alameda County Public Works, the flow direction of shallow ground water generally follows the local topography in a westerly direction. Mr. Godfrey also referenced a site at 16304 Foothill Blvd. (intersection of Foothill Blvd. and 159th St.) for which the ground water flow (ground water depth of approximately 12 to 17 feet) is toward the southwest. Due to the local gradient and the low concentrations of analytes detected, the

petroleum hydrocarbons detected may be attributable to an off-site source. Further due to the limited extent of water bearing zone, it is not likely to contribute to or adversely affect a water supply source. In light of these considerations, further sampling of the monitoring wells is not warranted.

Respectfully submitted,



James W. Babcock, Ph.D.
Project Manager

JWB/md

cc: A. Garcia, Garcia Enterprises, Inc.

TABLE 1
GROUND WATER ELEVATIONS
GARCIA ENTERPRISES

<u>Well Number</u>	<u>Well Elevation TOC (NGVD) Feet</u>	<u>Depth of Ground Water from TOC Feet</u>	<u>Ground Water Elevation Feet</u>
MW-1	34.75	8.58	26.17
MW-2	35.26	9.13	26.13
MW-3	35.19	9.04	26.15

Notes:

1. TOC - Top of Casing.
2. NGVD - National Geodetic Vertical Datum.
3. Depth to ground water measured September 11, 1992.

TABLE 2
SUMMARY OF CHEMICAL ANALYSES
GARCIA ENTERPRISES
(Continued)

Sample Identification	Sample Depth Interval (ft)	Total Extractable Petroleum Hydrocarbons (ppm)	Total Purgeable Petroleum Hydrocarbons (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl- benzene (ppm)	Xylene (ppm)
Soil Samples							
MW-1, 10.5-11'	10.5-11	ND	ND	ND	ND	ND	ND
MW-1, 11.5-12'	11.5-12	ND	ND	ND	ND	ND	ND
MW-2, 11-11.5'	11-11.5	ND	ND	ND	ND	ND	ND
MW-2, 12.5-13'	12.5-13	ND	ND	ND	ND	ND	ND
MW-3, 10.5-11'	10.5-11	ND	ND	ND	ND	ND	ND
MW-3, 12-12.5'	12-12.5	ND	ND	ND	ND	ND	ND
Ground Water Samples							
MW-1	NA	ND	ND	2.6 ppb 0.0026	ND	ND	ND
MW-2	NA	ND	ND	ND	ND	ND	ND
MW-3	NA	ND	55 ppb 0.055	2.9 ppb 0.0029	ND	ND	ND

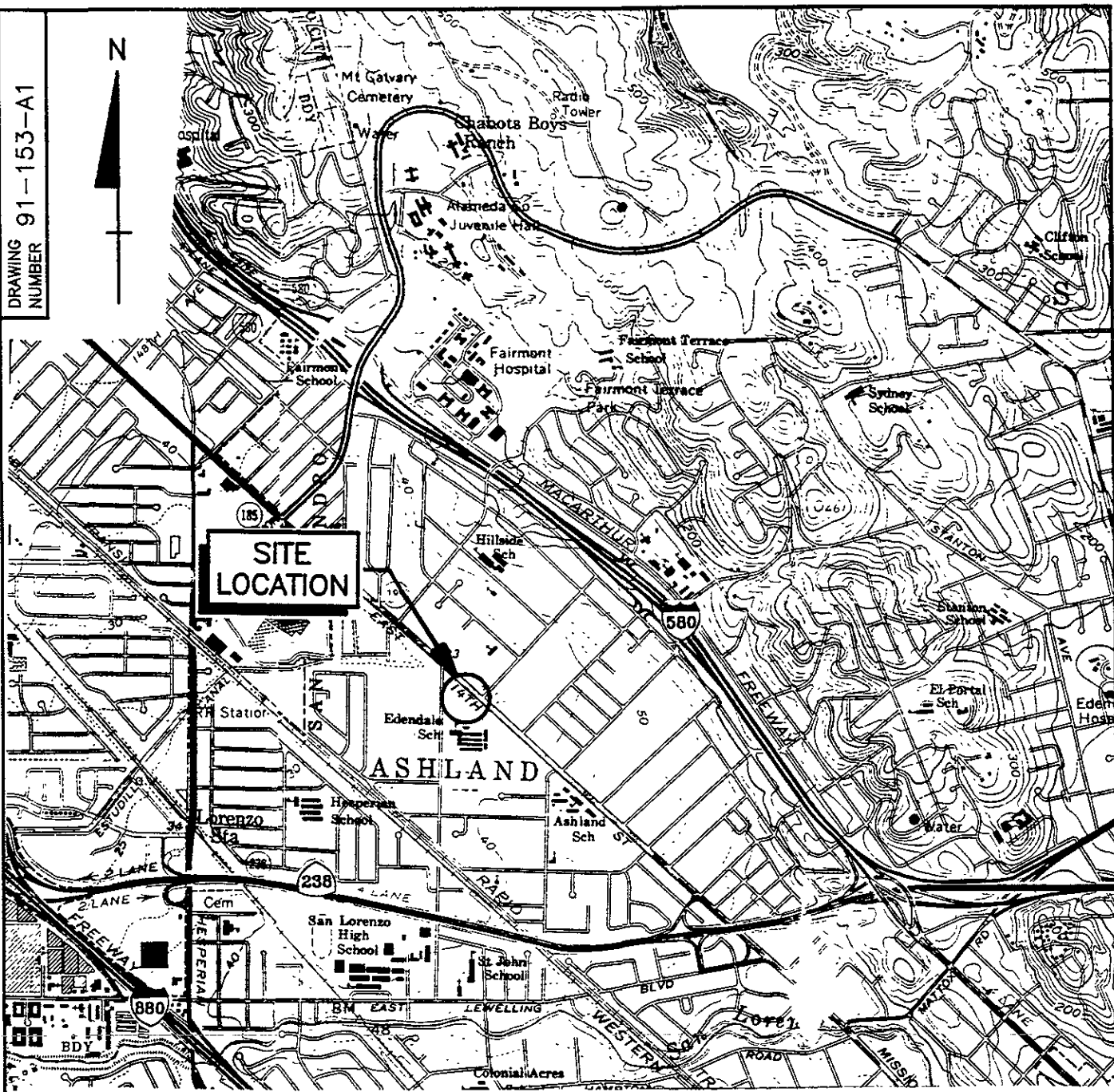
TABLE 2
SUMMARY OF CHEMICAL ANALYSES
GARCIA ENTERPRISES
(Continued)

<u>Sample Identification</u>	<u>Sample Depth Interval (ft)</u>	<u>Total Extractable Petroleum Hydrocarbons (ppm)</u>	<u>Total Purgeable Petroleum Hydrocarbons (ppm)</u>	<u>Benzene (ppm)</u>	<u>Toluene (ppm)</u>	<u>Ethylbenzene (ppm)</u>	<u>Xylene (ppm)</u>
Profile Samples for Disposal							
SP Comp (Soil)	NA	14	ND	ND	ND	ND	ND
Comp H2O (Water)	NA	0.130 <i>130 ppm</i>	ND	ND	ND	ND	ND

Notes:

- 1) ND indicates none detected at method detection limits.
- 2) NT denotes not tested.
- 3) NA denotes not applicable.
- 4) Profile samples taken to characterize materials for disposal.

DRAWING NUMBER 91-153-A1

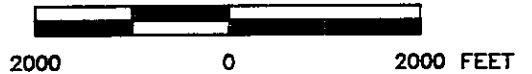


CALIFORNIA



QUADRANGLE LOCATION

SCALE



REFERENCES:

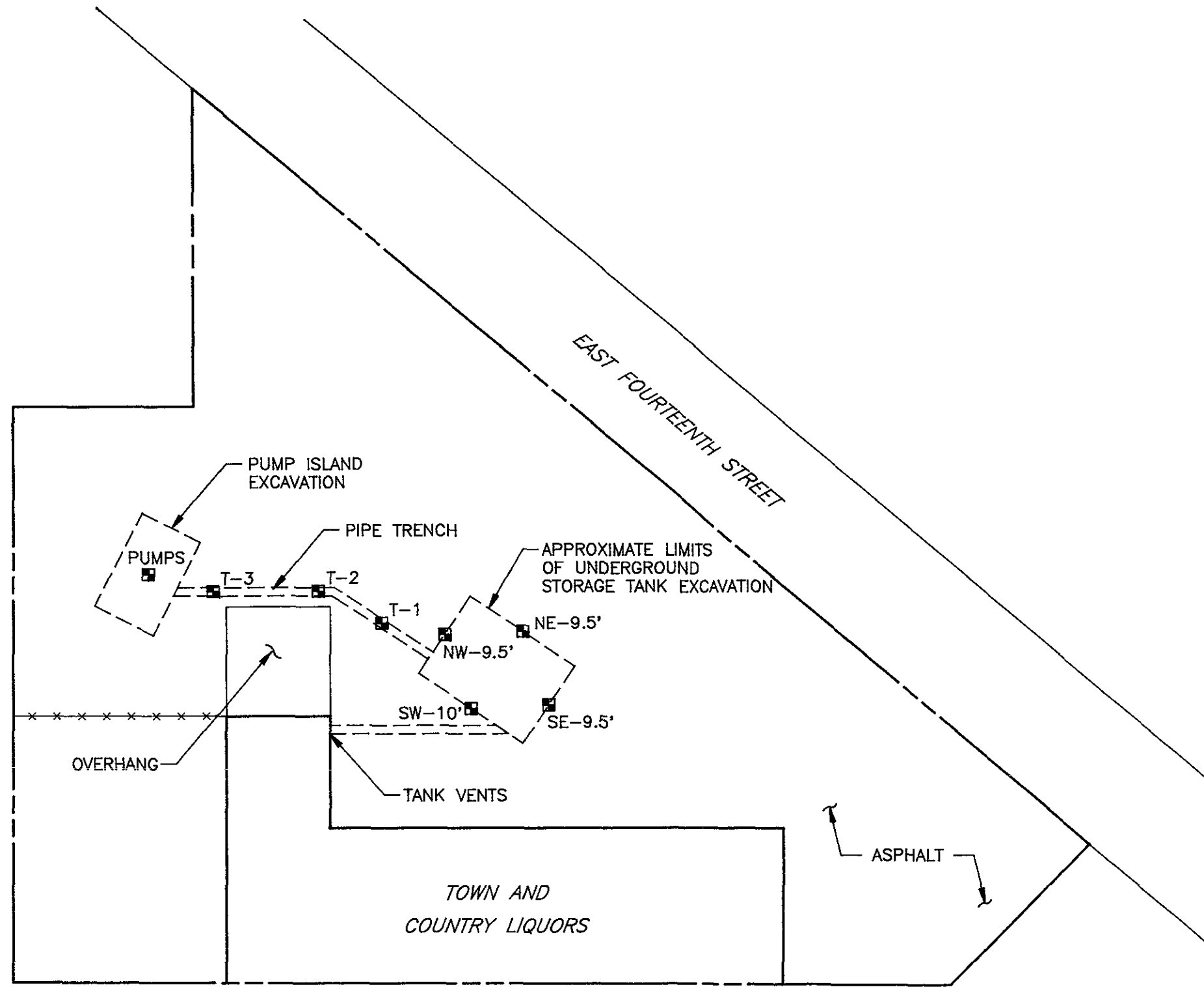
USGS 7.5 MIN TOPOGRAPHIC MAP
 TITLED: HAYWARD & SAN LEANDRO, CALIFORNIA
 DATED: 1959 (REV. 1980)

SITE LOCATION MAP
 GARCIA ENTERPRISES SITE
 SAN LEANDRO, CALIFORNIA

PREPARED FOR
GARCIA ENTERPRISES, INC.
 SAN LEANDRO, CALIFORNIA

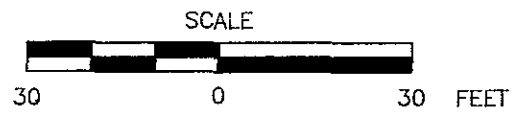
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10-22-92	ISSUED FOR REPORT	VZC	<i>[Signature]</i>	<i>[Signature]</i>
No.	DATE	ISSUE / REVISION	OWN. BY/CK'D BY/AP'D BY	DATE: 6-24-91 SCALE: AS SHOWN
				FIGURE 1
				DRAWING NUMBER 91-153-A1



LEGEND:

- PROPERTY LINE
- APPROXIMATE LIMITS OF EXCAVATION
- PUMPS
- SOIL SAMPLE LOCATION



SITE PLAN
 GARCIA ENTERPRISES SITE
 SAN LEANDRO, CALIFORNIA
 PREPARED FOR
 GARCIA ENTERPRISES, INC.
 SAN LEANDRO, CALIFORNIA

Canonie Environmental

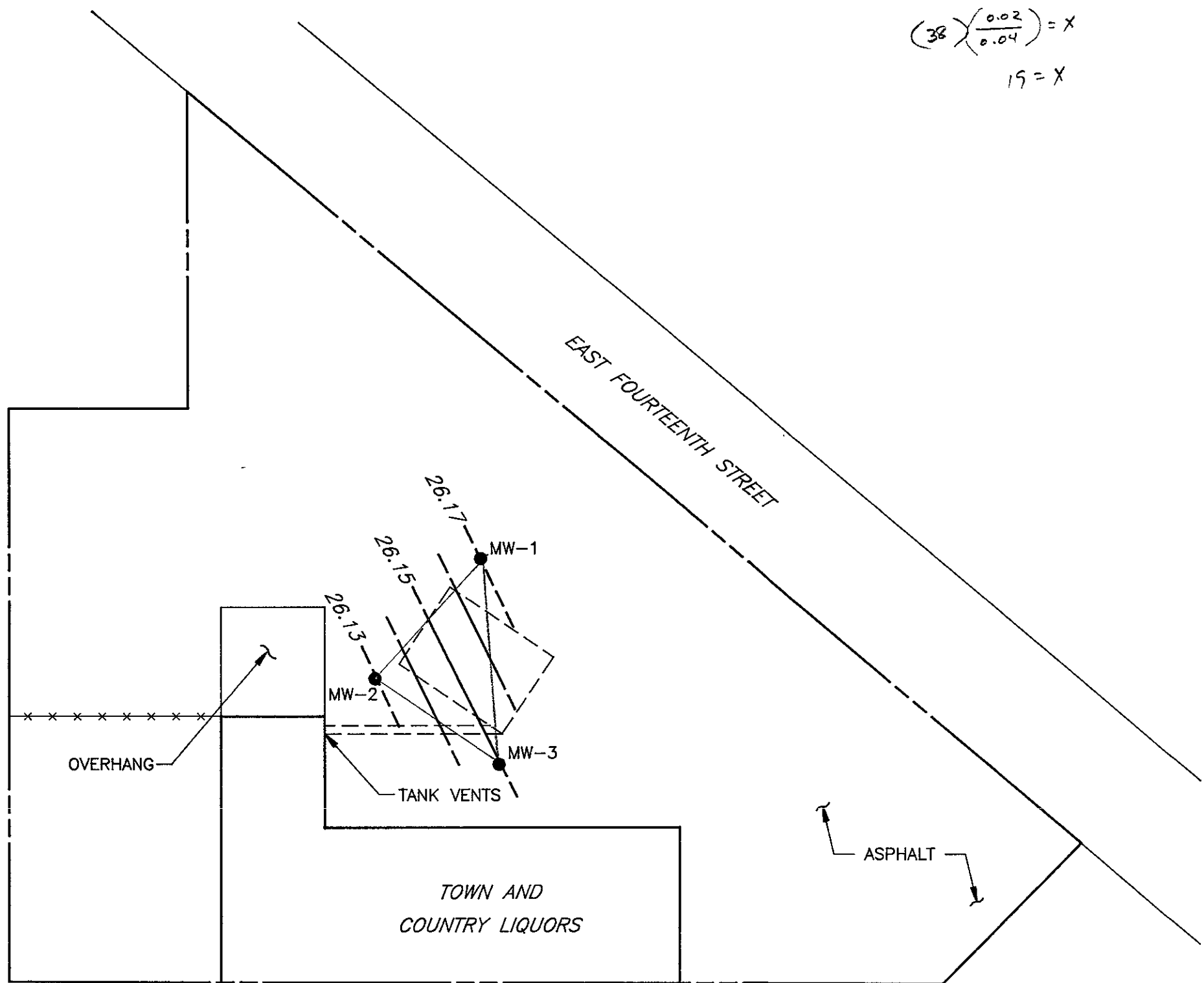
11-10-92	ISSUED FOR PRELIMINARY SITE ASSESSMENT REPORT	DS	gjt	gjt	
10-22-92	ISSUED FOR DRAFT PRELIMINARY SITE ASSESSMENT REPORT	VZC	DP	JB	
No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY

DRAWING NUMBER
91-153-B7



$$(38) \left(\frac{0.02}{0.04} \right) = X$$

$$19 = X$$

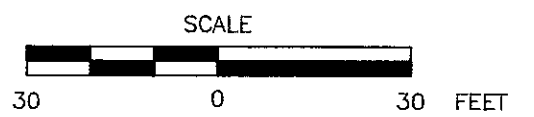


LEGEND:

- PROPERTY LINE
- - - - - APPROXIMATE LIMITS OF FORMER TANK EXCAVATION
- MW-1 MONITORING WELL LOCATION
- 26.15 — GROUND WATER CONTOUR, FEET ABOVE MEAN SEA LEVEL (MSL)

NOTES:

1. GROUND WATER CONTOURS ARE DASHED WHERE INFERRED.



MONITORING WELL LOCATIONS
GARCIA ENTERPRISES SITE
SAN LEANDRO, CALIFORNIA
PREPARED FOR
GARCIA ENTERPRISES, INC.
SAN LEANDRO, CALIFORNIA

Canonie Environmental

△	11-10-92	ISSUED FOR PRELIMINARY SITE ASSESSMENT REPORT	DS	DP	JB
△	10-22-92	ISSUED FOR DRAFT PRELIMINARY SITE ASSESSMENT REPORT	VZC	DP	JB
No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY

DATE: 10-20-92	FIGURE 3	DRAWING NUMBER 91-153-B7
SCALE: AS SHOWN		

APPENDIX A
BORING LOGS

Canonie

Boring Log

PROJECT No. 91-153-05

BORING No. MW-1

LOGGED BY GMM

PROJECT NAME: GARCIA ENTERPRISE - SAN LEANDRO, CALIFORNIA

BORING LOCATION: BY THE SIGN

SURFACE ELEV: 35.13 FEET

DRILLER: RANDY WOLFE; WEST HAZMAT

DATE STARTED: 9-1-92

DATE FINISHED: 9-1-92

DEPTH (ft)	SAMPLE		BLOW COUNT			REC (in)	USCS CLASS	GRAPHIC LOG	WC (%)	q _u (tsf)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO		
	No.	TYPE	INTERVAL		0'									6'	12'
			FROM	TO	6"									12"	18"
5	1	CS	5.0	6.5	3	3	5	18							
10	2	CS	9.5	11.0	4	6	9	18							
	3	CS	11.0	12.5	2	3	4	18							
15	4	CS	15.5	17.0	4	5	7	18							

1. Medium dense, brown, sand, with trace to some clay and silt, damp (fill material).
 2. Medium stiff, brown, silty clay, trace of sand, damp (contact depth is approximate).
 3. Color change to brown with some orange brown mottling at 9.5 ft.
 4. Loose to medium dense, medium brown, clayey fine to medium sand, (saturated).
 5. Medium stiff, brown, gray, and orange brown mottled, silty clay, trace to some sand, moist.
 6. Color changes to black and decrease in sand at 12.0 ft.
 7. Bottom of Boring at 17.0 Feet.

NOTES:
 1. Boring was drilled with a truck-mounted Mobile B-61 drill rig equipped with an 8-inch hollow stem auger (HSA).
 2. Upon completion, boring was converted to a 2-inch diameter monitoring well (see well detail MW-1).
 3. Sampler Type:
 California Sampler (CS)
 O.D.: 2.5 inches
 I.D.: 2.0 inches
 4. Groundwater was encountered at 10.5 feet during drilling.

Canonie

Boring Log

PROJECT No. 91-153-05

BORING No. MW-2

LOGGED BY GMM

PROJECT NAME: GARCIA ENTERPRISE - SAN LEANDRO, CALIFORNIA

BORING LOCATION: BY BUILDING OVERHANG

SURFACE ELEV: 35.54 FEET

DRILLER: RANDY WOLFE: WEST HAZMAT

DATE STARTED: 9-1-92

DATE FINISHED: 9-1-92

DEPTH (ft)	SAMPLE		BLOW COUNT			REC (in)	USCS CLASS	GRAPHIC LOG	NC (X)	G _u (tsf)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO		
	No.	TYPE	INTERVAL		0'									6'	12'
			FROM	TO	6"									12"	18"
5	1	CS	5.0	6.5	4	5	6	18			1.0 - 2.0	Medium dense, brown, sand, with trace to some clay and silt, damp (fill material). Medium stiff, medium brown, silty clay, trace of sand, damp (contact depth is approximate).			
10	2	CS	9.5	11.0	3	4	4	12			2.0 - 3.0				
	3	CS	11.0	12.5	5	6	6	18			11.25	Becomes moist at 10.5 ft.			
	4	CS	12.5	14.0	3	4	7	18			12.5	Loose, medium brown, clayey fine to medium sand, saturated.			
15	5	CS	15.5	17.0	5	6	7	18			2.0 - 2.5	Medium stiff, black, silty clay, trace roots, trace sand, moist.			
20											17	Bottom of Boring at 17.0 Feet.			
25												NOTES:			
30												1. Boring was drilled with a truck-mounted Mobile B-61 drill rig equipped with an 8-inch hollow stem auger (HSA).			
												2. Upon completion, boring was converted to a 2-inch diameter monitoring well (see well detail MW-2).			
												3. Sampler Type: California Sampler (CS) O.D.: 2.5 inches I.D.: 2.0 inches			
35												4. Groundwater was encountered at 11.25 feet during drilling.			
40															

Canonie

Boring Log

PROJECT No. 91-153-05

BORING No. MW-3

LOGGED BY GMM

PROJECT NAME: GARCIA ENTERPRISE - SAN LEANDRO, CALIFORNIA

BORING LOCATION: NEAR ENTRANCE TO STORE

SURFACE ELEV: 35.56 FEET

DRILLER: RANDY WOLFE: WEST HAZMAT

DATE STARTED: 9-1-92

DATE FINISHED: 9-1-92

DEPTH (ft)	SAMPLE		BLOW COUNT			REC (in)	USCS CLASS GRAPHIC LOG	WC (X)	Q _u (tsf)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO		
	No.	TYPE	INTERVAL		0'								6'	12'
			FROM	TO	6"								12"	18"
5	1	CS	4.5	6.0	4	3	4	18						
10	2	CS	9.5	11.0	3	2	2	18						
	3	CS	11.0	12.5	2	3	3	18						
15	4	CS	14.5	16.0	3	3	6	18						
20	5	CS	20.5	22.0	2	3	5	18						

NOTES:
 1. Boring was drilled with a truck-mounted Mobile B-61 drill rig equipped with an 8-inch hollow stem auger (HSA).
 2. Upon completion, boring was converted to a 2-inch diameter monitoring well (see well detail MW-3).
 3. Sampler Type:
 California Sampler (CS)
 O.D.: 2.5 inches
 I.D.: 2.0 inches
 4. Ground water was encountered at 10.0 feet during drilling.

APPENDIX B
WELL CONSTRUCTION DETAILS

Observation Well Detail

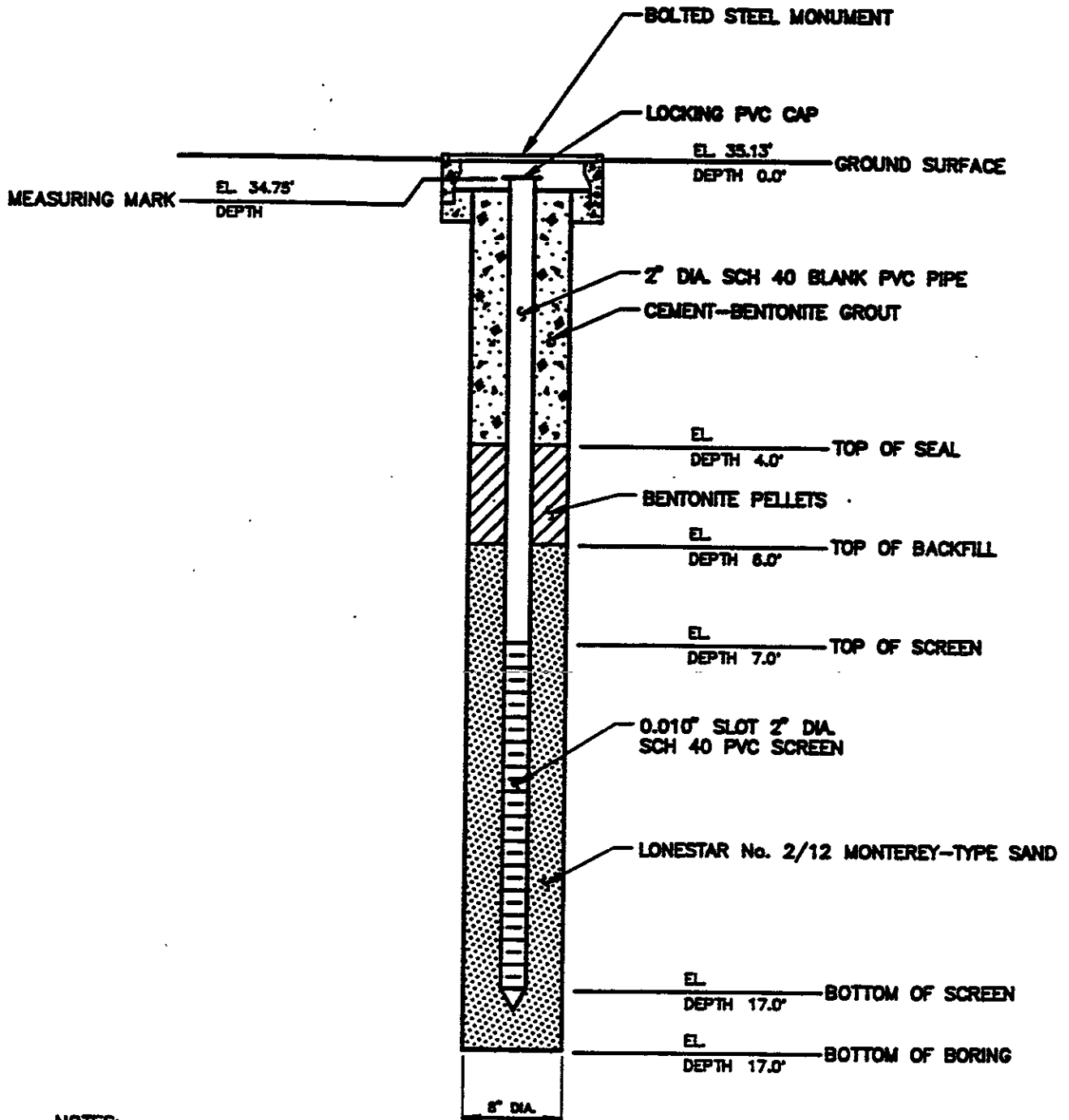
PROJECT No. 91-153

WELL No. MW-1

PROJECT NAME GARCIA ENTERPRISE SITE - SAN LEANDRO, CALIFORNIA

WELL LOCATION NEAR SIGN

DATE 9-1-92 BY GMM



NOTES:

1. NOT DRAWN TO SCALE.
2. SEE BORING LOG MW-1 FOR DETAILED SOIL DESCRIPTION.

Observation Well Detail

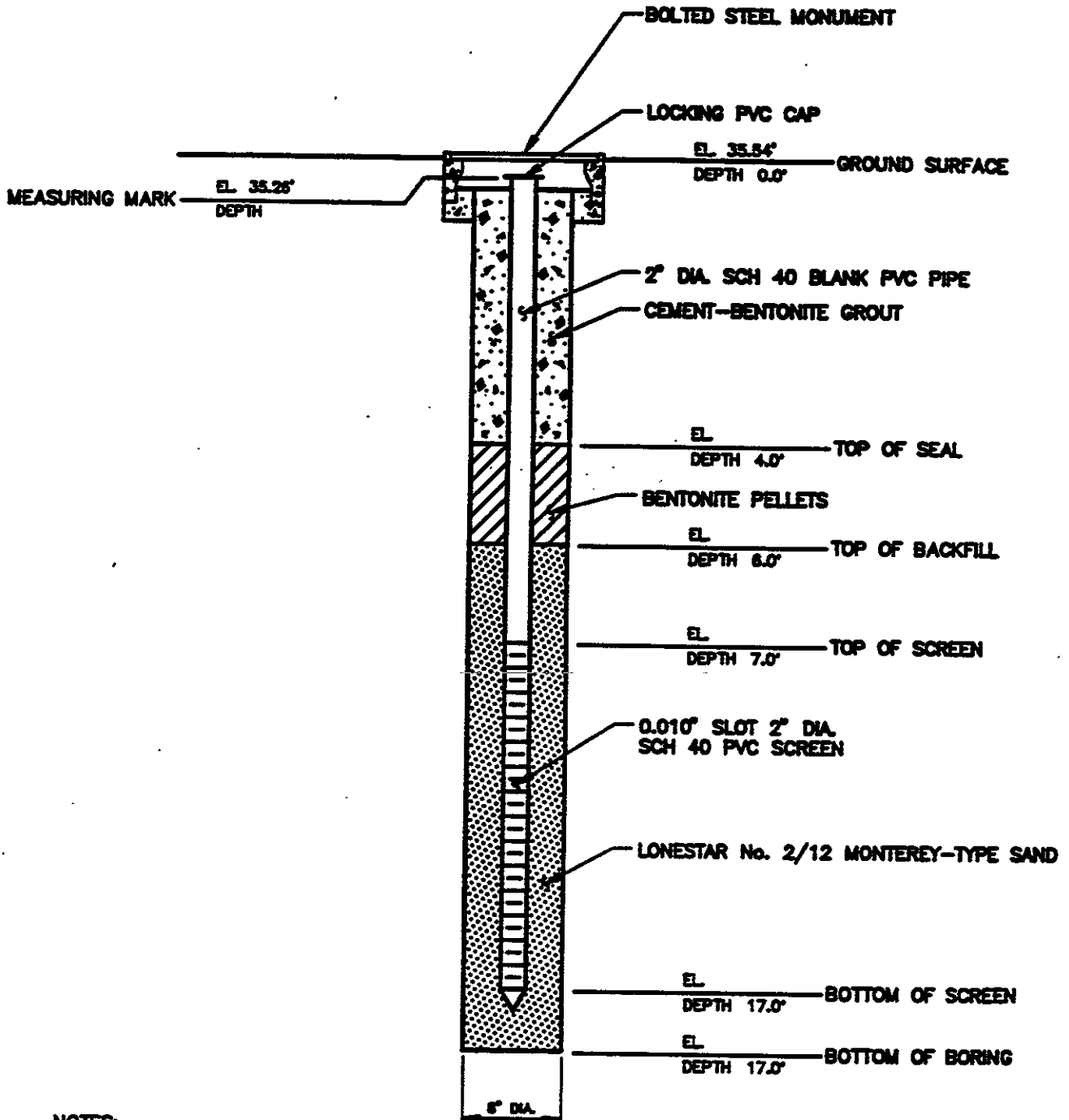
PROJECT No. 91-153

WELL No. MW-2

PROJECT NAME GARCIA ENTERPRISE SITE - SAN LEANDRO, CALIFORNIA

WELL LOCATION BY BUILDING OVERHANG

DATE 9-1-92 BY GMM



NOTES:

1. NOT DRAWN TO SCALE.
2. SEE BORING LOG MW-2 FOR DETAILED SOIL DESCRIPTION.

Observation Well Detail

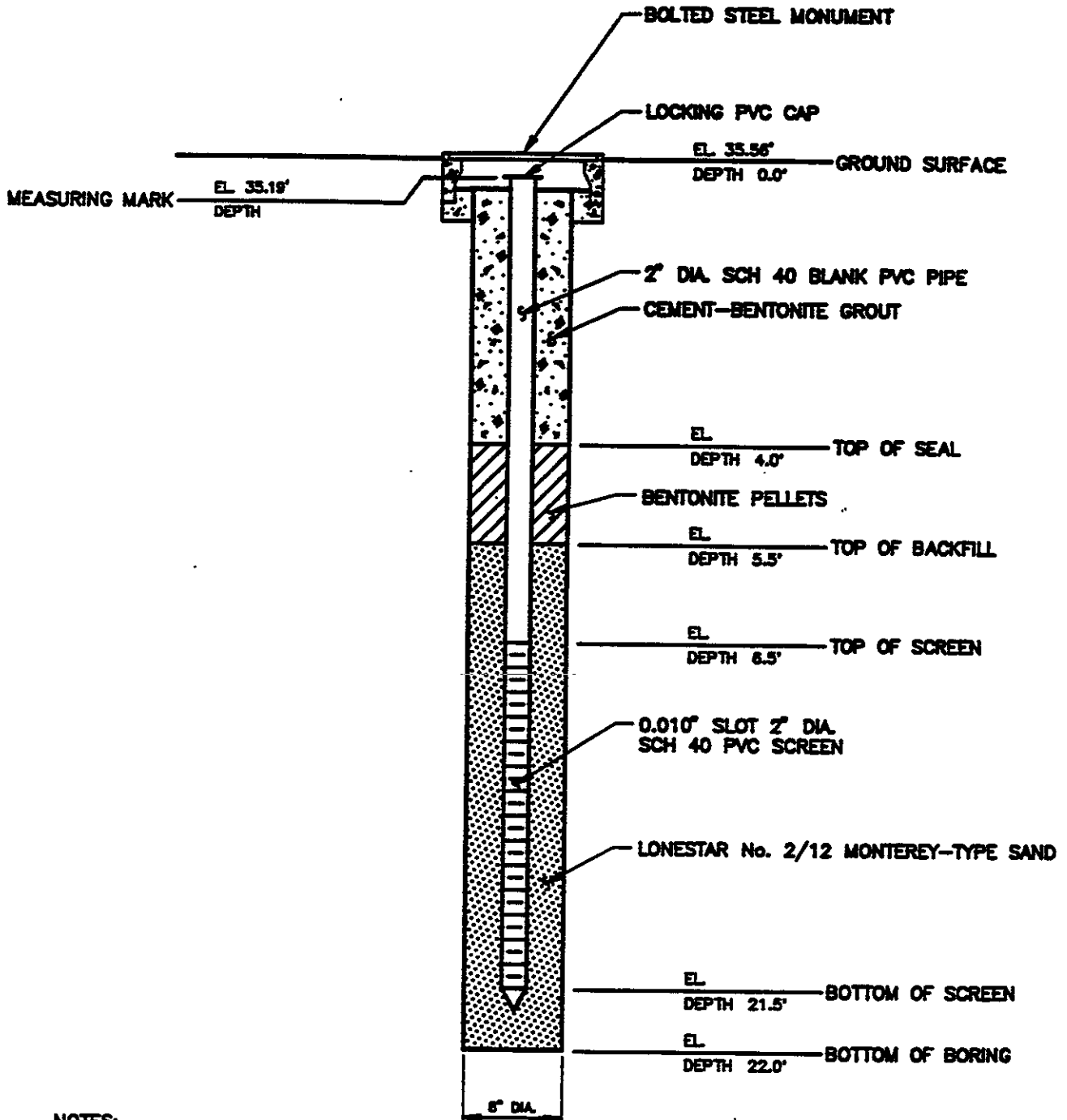
PROJECT No. 91-153

WELL No. MW-3

PROJECT NAME GARCIA ENTERPRISE SITE - SAN LEANDRO, CALIFORNIA

WELL LOCATION BY ENTRANCE OF STORE

DATE 9-1-92 BY GMM



NOTES:

1. NOT DRAWN TO SCALE.
2. SEE BORING LOG MW-3 FOR DETAILED SOIL DESCRIPTION.

APPENDIX C
CERTIFIED ANALYTICAL RESULTS



SEQUOIA ANALYTICAL

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

SEP 20 1992

David Poole

Canonis Environmental 7901 Stoneridge Drive, Suite 100 Pleasanton, CA 94578 Attention: Dave Poole	Client Project ID: 91-153-6, Garcia Ent., San Leandro Sample Matrix: Water Analysis Method: EPA 5030/8015/8020 First Sample #: 209-1818	Sampled: Sep 11, 1992 Received: Sep 11, 1992 Reported: Sep 22, 1992
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 209-1818 MW-3	Sample I.D. 209-1819 MW-1	Sample I.D. 209-1820 MW-2	Sample I.D. 209-1821 Comp. H2O	Sample I.D. 209-1822 280
Purgeable Hydrocarbons	50	55	N.D.	N.D.	N.D.	N.D.
Benzene	0.50	2.9	2.6	N.D.	5.8	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:	Non-Gas < C6	Discrete Peak	--	Discrete Peak	--
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Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	9/16/92	9/16/92	9/16/92	9/16/92	9/16/92
Instrument Identification:	GCHP-1	GCHP-1	GCHP-1	GCHP-1	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	93	83	80	120	107

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

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9800 • FAX (415) 364-9233

Canonie Environmental 7901 Stoneridge Drive, Suite 100 Pleasanton, CA 94578 Attention: Dave Poole	Client Project ID: 91-153-5, Garcia Ent., San Leandro Sample Matrix: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 209-1823	Sampled: Sep 11, 1992 Received: Sep 11, 1992 Reported: Sep 22, 1992
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 209-1823 SP Comp.
Purgeable Hydrocarbons	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Total Xylenes	0.0050	N.D.

Chromatogram Pattern: --

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	9/16/92
Instrument Identification:	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	87

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

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager



SEQUOIA ANALYTICAL

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

Canonie Environmental
7901 Stoneridge Drive, Suite 100
Pleasanton, CA 94578
Attention: Dave Poole

Client Project ID: 91-153-6, Garcia Ent., San Leandro
Sample Matrix: Water
Analysis Method: EPA 3510/3520/8015
First Sample #: 209-1818

Sampled: Sep 11, 1992
Received: Sep 11, 1992
Reported: Sep 22, 1992

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 209-1818 MW-3	Sample I.D. 209-1819 MW-1	Sample I.D. 209-1820 MW-2	Sample I.D. 209-1821 Comp. H2O
Extractable Hydrocarbons	50	N.D.	N.D.	N.D.	130
Chromatogram Pattern:		--	--	--	Discrete Peak

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0
Date Extracted:	9/14/92	9/14/92	9/14/92	9/14/92
Date Analyzed:	9/16/92	9/16/92	9/16/92	9/16/92
Instrument Identification:	GCHP-5	GCHP-5	GCHP-5	GCHP-5

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

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

Canonie Environmental

Canonie Environmental Services Corp.
7901 Stoneridge Drive
Suite 100
Pleasanton, California 94588
Phone: 510-463-9117
FAX: 510-463-2981
91-153-05

November 11, 1992

Mr. Scott Seery
Senior Hazardous Materials Specialist
Alameda County Health Care Services
Agency
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

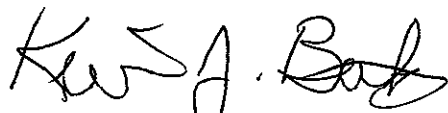
Transmittal
Preliminary Site Assessment Report
Garcia Enterprises, Inc. Site
San Leandro, California

Dear Mr. Seery:

Please find enclosed a copy of the Preliminary Site Assessment Report on the Garcia San Leandro Site for your review.

If you have any questions please call Jim Babcock or me at (510) 463-9117.

Very truly yours,



Kevin J. Betke, E.I.T.
Engineer

KJB/pm

cc: J.Babcock, Canonie Environmental Services Corp.
D.Poole, Canonie Environmental Services Corp.



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
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Canonie Environmental
7901 Stoneridge Drive, Suite 100
Pleasanton, CA 94578
Attention: Dave Poole

Client Project ID: 91-153-5, Garcia Ent., San Leandro
Sample Matrix: Soil
Analysis Method: EPA 3550/8015
First Sample #: 209-1823

Sampled: Sep 11, 1992
Received: Sep 11, 1992
Reported: Sep 22, 1992

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample L.D. 209-1823 SP Comp.
Extractable Hydrocarbons	1.0	14

Chromatogram Pattern:

Non-Diesel Mix
> C17

Quality Control Data

Report Limit Multiplication Factor:	10
Date Extracted:	9/16/92
Date Analyzed:	9/18/92
Instrument Identification:	GCHP-5

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analyses reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9800 • FAX (415) 364-9233

Canonis Environmental
7901 Stoneridge Drive, Suite 100
Pleasanton, CA 94578
Attention: Dave Poole

Client Project ID: 91-153-5, Garcia Ent., San Leandro

QC Sample Group: 2091818-22

Reported: Sep 22, 1992

QUALITY CONTROL DATA REPORT

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

Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	T. Mascarenas	T. Mascarenas	T. Mascarenas	T. Mascarenas
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Sep 16, 1992	Sep 16, 1992	Sep 16, 1992	Sep 16, 1992
QC Sample #:	MB091692	MB091692	MB091692	MB091692

Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	20
Conc. Matrix Spike:	12	9.5	12	24
Matrix Spike % Recovery:	120	95	120	120
Conc. Matrix Spike Dup.:	12	9.5	11	23
Matrix Spike Duplicate % Recovery:	120	95	110	115
Relative % Difference:	0.0	0.0	8.7	4.3

SEQUOIA ANALYTICAL

Christine L Middleton
Christine L Middleton
Project Manager

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



SEQUOIA ANALYTICAL

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

Canonis Environmental 7901 Stoneridge Drive, Suite 100 Pleasanton, CA 94578 Attention: Dave Poole	Client Project ID: 91-153-5, Garcia Ent., San Leandro QC Sample Group: 2091818-21	Reported: Sep 22, 1992
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QUALITY CONTROL DATA REPORT

ANALYTE	Diesel
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Method: EPA 8015
Analyst: M. Tran
Reporting Units: µg/L
Date Analyzed: Sep 16, 1992
QC Sample #: DSLK091462A

Sample Conc.: N.D.

Spike Conc. Added: 300

Conc. Matrix Spike: 190

Matrix Spike % Recovery: 63

Conc. Matrix Spike Dup.: 200

Matrix Spike Duplicate % Recovery: 67

Relative % Difference: 5.1

SEQUOIA ANALYTICAL


 Christine L. Middleton
 Project Manager

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



SEQUOIA ANALYTICAL

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

Canonie Environmental
7901 Stoneridge Drive, Suite 100
Pleasanton, CA 94578
Attention: Dave Poole

Client Project ID: 91-153-5, Garcia Ent., San Leandro

QC Sample Group: 209-1823

Reported: Sep 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE

Diesel

Method: EPA 8015
Analyst: C.Lee
Reporting Units: mg/kg
Date Analyzed: Sep 16, 1992
QC Sample #: DELK091892A

Sample Conc.: N.D.

Spike Conc.
Added: 15

Conc. Matrix
Spike: 12

Matrix Spike
% Recovery: 80

Conc. Matrix
Spike Dup.: 14

Matrix Spike
Duplicate
% Recovery: 93

Relative
% Difference: 15

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

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



SEQUOIA ANALYTICAL

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

Canonis Environmental
7901 Stoneridge Drive, Suite 100
Pleasanton, CA 94578
Attention: Dave Poole

Client Project ID: 91-153-5, Garcia Ent., San Leandro

QC Sample Group: 209-1823

Reported: Sep 23, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl- benzene	Xylenes
	Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	T. Mascarenas	T. Mascarenas	T. Mascarenas	T. Mascarenas
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Sep 17, 1992	Sep 17, 1992	Sep 17, 1992	Sep 17, 1992
QC Sample #:	MB091792	MB091792	MB091792	MB091792
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	20
Conc. Matrix Spike:	12	9.5	11	23
Matrix Spike % Recovery:	120	95	110	115
Conc. Matrix Spike Dup.:	12	10	12	24
Matrix Spike Duplicate % Recovery:	120	100	120	120
Relative % Difference:	0.0	5.1	8.7	4.3

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

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



SEQUOIA ANALYTICAL

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

David Poole

SEP 21 1992

Canonie Environmental	Client Project ID: Garcia Ent., 91-153-05	Sampled: Sep 1, 1992
7901 Stoneridge Drive, Suite 100	Sample Matrix: Soil	Received: Sep 2, 1992
Pleasanton, CA 94578	Analysis Method: EPA 5030/8015/8020	Reported: Sep 15, 1992
Attention: David Poole	First Sample #: 209-0729	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 209-0729 MW-3, 10.5-11'	Sample I.D. 209-0730 MW-3, 12-12.5'	Sample I.D. 209-0731 MW-2, 11-11.5'	Sample I.D. 209-0732 MW-2, 12.5-13'	Sample I.D. 209-0733 MW-1, 10.5-11'	Sample I.D. 209-0734 MW-1, 11.5-12'
Purgeable Hydrocarbons	1.0	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	0.0050	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.0050	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.0050	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.0050	N.D.	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	1.0
Date Analyzed:	9/13/92	9/13/92	9/13/92	9/13/92	9/13/92	9/13/92
Instrument Identification:	GCHP-1	GCHP-1	GCHP-1	GCHP-1	GCHP-1	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	113	117	117	113	113	120

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

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager



SEQUOIA ANALYTICAL

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

Canonie Environmental 7901 Stoneridge Drive, Suite 100 Pleasanton, CA 94578 Attention: David Poole	Client Project ID: Garcia Ent., 91-153-05 Sample Matrix: Soil Analysis Method: EPA 3550/8015 First Sample #: 209-0729	Sampled: Sep 1, 1992 Received: Sep 2, 1992 Reported: Sep 15, 1992
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TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 209-0729 MW-3, 10.5-11'	Sample I.D. 209-0730 MW-3, 12-12.5'	Sample I.D. 209-0731 MW-2, 11-11.5'	Sample I.D. 209-0732 MW-2, 12.5-13'	Sample I.D. 209-0733 MW-1, 10.5-11'	Sample I.D. 209-0734 MW-1, 11.5-12'
Extractable Hydrocarbons	1.0	N.D.	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	1.0
Date Extracted:	9/9/92	9/9/92	9/9/92	9/9/92	9/9/92	9/9/92
Date Analyzed:	9/9/92	9/9/92	9/10/92	9/10/92	9/10/92	9/10/92
Instrument Identification:	GCHP-5	GCHP-5	GCHP-5	GCHP-5	GCHP-5	GCHP-5

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

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
 (415) 364-9600 • FAX (415) 364-8233

Canonie Environmental
 7901 Stoneridge Drive, Suite 100
 Pleasanton, CA 94578
 Attention: David Poole

Client Project ID: Garcia Ent., 91-153-05

QC Sample Group: 2090729-34

Reported: Sep 15, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl- benzene	Xylenes	Diesel
	Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
Analyst:	T. Mascarenas	T. Mascarenas	T. Mascarenas	T. Mascarenas	C. Lee
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Sep 13, 1992	Sep 13, 1992	Sep 13, 1992	Sep 13, 1992	Sep 9, 1992
QC Sample #:	MB060992	MB060992	MB060992	MB060992	DBLK060992
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	20	15
Conc. Matrix Spike:	10	11	11	22	11
Matrix Spike % Recovery:	100	110	110	110	73
Conc. Matrix Spike Dup.:	11	10	12	24	11
Matrix Spike Duplicate % Recovery:	110	100	120	120	73
Relative % Difference:	9.5	9.5	8.7	8.7	0.0

SEQUOIA ANALYTICAL

Christine L. Middleton
 Project Manager

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

(See Reverse for Instructions)

NO. _____

PROJECT NAME GARCIA ENT.
 PROJECT NUMBER 91-153-05
 RECORDER [Signature]

SAMPLERS GINA M. [Signature]

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial B. Glass Liter C. Plastic 500-ml D. Plastic Liter	F. Other G. Waste H. Blank/Spike I. Other J. Other	1. Standard 2. 48 Hour 3. 96 Hour 4. Other
<u>E. Rysal Tube</u>	<u>E. Self-Sealing</u>	<u>10 DAY</u>

DATE	TIME	SAMPLE ID	NUMBER OF CONTAINERS AND PRESERVATION		ANALYSIS REQUESTED				TAT	Temperature at Time of Sampling	Temperature at Time of Analysis	NOTES	LABORATORY USE ONLY	
			Preserved	Unpreserved	TPH-G	TPH-D	BTEX	Assigned Bottle Numbers					Sample Condition Upon Receipt	Notes
9/1/92	9:15	MW-3, 10.5-11.0 FT	X		X	X	X		4	140				
	9:30	MW-3, 12.0-12.5 FT	X		X	X	X		4					0730
	10:50	MW-2, 11.0-11.5 FT	X		X	X	X		4					0731
	11:25	MW-2, 12.5-13.0 FT	X		X	X	X		4					0732
	13:10	MW-1, 10.5-11.0 FT	X		X	X	X		4					0733
	13:25	MW-1, 11.5-12.0 FT	X		X	X	X		4					0734

NOTES / MISCELLANEOUS

RELINQUISHED BY: [Signature] 9/2/92 10:35 AM

RELINQUISHED BY: [Signature] 9/2/92 1:25 PM

Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment <u>LITB PICK UP</u>	Description of Transport Container <u>ICED COOLER</u>	Other Chain-Of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
			<u>[Signature]</u>	9/1/92	0:50	<u>K. Steward</u>	9-2-92	1:20

Send Lab Results to (Name): DAVID POOLE (Check Office Below) Verbal Requested: Yes No

- | | | | | |
|---|--|--|---|--|
| <input type="checkbox"/> PORTER
TEL (219) 926-8651
FAX (219) 926-7189 | <input checked="" type="checkbox"/> PLEASANTON
TEL (415) 463-0117
FAX (415) 463-2961 | <input type="checkbox"/> IRVINE
TEL (714) 757-1755
FAX (714) 757-0960 | <input type="checkbox"/> ATLANTA
TEL (404) 951-0055
FAX (404) 951-9384 | <input type="checkbox"/> OTHER _____
TEL _____
FAX _____ |
| <input type="checkbox"/> DENVER
TEL (303) 790-1747
FAX (303) 799-0188 | <input type="checkbox"/> KING OF PRUSSIA
TEL (215) 337-2551
FAX (215) 337-0560 | <input type="checkbox"/> HOUSTON
TEL (713) 556-1666
FAX (713) 556-0666 | <input type="checkbox"/> MT. VIEW
TEL (415) 960-1840
FAX (415) 960-0739 | <input type="checkbox"/> OTHER _____
TEL _____
FAX _____ |

SERIAL NO. 09447

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

May 22, 1992

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

Mr. James Babcock, Ph.D.
Canonie Environmental Services Corporation
7901 Stoneridge Drive, Suite 100
Pleasanton, CA 94588

RE: GARCIA ENTERPRISES, 16211 E. 14TH STREET, SAN LEANDRO;
PRELIMINARY SITE ASSESSMENT

Dear Dr. Babcock:

Thank you for the recent submittal of the April 29, 1992 Canonie Environmental Services Corporation (CESC) addendum to the March 1992 CESC preliminary site assessment (PSA) work plan. The cited addendum was submitted to respond to comments generated following the Department's review of the March 1992 work plan.

This work plan has been approved as amended, with the following changes:

- 1) Trip or field blanks are required for volatile organic analyses (VOA) of water. A minimum of one (1) such trip blank is required for each sampling episode.
- 2) Please be certain duplicate VOA samples are collected from each well sampled.

Thank you again for your timely response. Please contact me at 510/271-4320 when field work has been scheduled to begin.

Sincerely,

Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Assistant Agency Director, Environmental Health
Gil Jensen, Alameda County District Attorney's Office
Rich Hiatt, RWQCB
Howard Hatayama, DTSC
Jim Ferdinand, Eden Consolidated Fire District
Anthony Garcia, Garcia Enterprises