

April 15, 1996

ENVIRONMENTAL
PROTECTION
95 APR 17 PM 12:40

Mr. Steve Chrissanthos
Alameda Cellars
1702 Lincoln Avenue
Alameda, CA 94501

RE: Quarterly Groundwater Monitoring Report
2425 Encinal Avenue, Alameda, California
ACC Job No. 6039-5

Dear Mr. Chrissanthos:

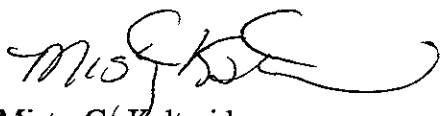
The enclosed report describes the materials and procedures used during the quarterly groundwater investigation performed at 2425 Encinal Avenue, Alameda, California. This work was performed to evaluate the areal extent of groundwater impact.

Analysis of the groundwater samples collected from monitoring wells MW-1, MW-2a, MW-3, and MW-4 indicated elevated concentrations of hydrocarbons. Analytical results of groundwater samples from monitoring well MW-5 reported nondetectable concentrations of constituents indicating a lateral extent of groundwater impact.

A letter dated September 22, 1995, from Mr. Christopher Smith of the Underground Storage Tank Cleanup Fund (UST Fund) states that aggressive remedial action such as vapor extraction will not be reimbursable through the UST Fund. The letter further states that a "no further action" alternative may be the appropriate action for this site. This option was previously presented to Alameda County Health Care Services Agency, Local Oversight Program (ACHCSA); however, it was rejected. Through quarterly monitoring, ACC Environmental Consultants, Inc., (ACC) has demonstrated that groundwater flow is consistently toward the southwest. Because the groundwater gradient and flow direction have been established, continual quarterly monitoring is not warranted. ACC proposes to reduce the groundwater monitoring from quarterly to semiannually to document degrading trends of groundwater constituents and possibly represent the "no further action" alternative to ACHCSA for consideration to obtain site closure.

If you have any comments regarding this report, please call me at (510) 638-8400.

Sincerely,



Misty C. Kaltreider
Project Geologist

/jvc:mcr

Ms. Juliet Shin - Alameda County Health Care Services

7977 Capwell Drive, Suite 100 • Oakland, CA 94621 • (510) 638-8400 • FAX. (510) 638-8404

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ENVIRONMENTAL
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GROUNDWATER MONITORING REPORT


**2425 Encinal Avenue
Alameda, California**

ACC Job No. 6039-5

Prepared for:
Mr. Steve Chrissanthos
Alameda Cellars
1702 Lincoln Avenue
Alameda, CA 94501

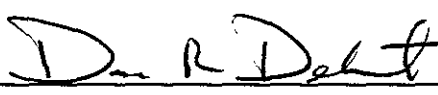
April 1996

Prepared by:



Misty Kaltreider
Project Geologist

Reviewed by:



David R. DeMent, RG
Senior Geologist

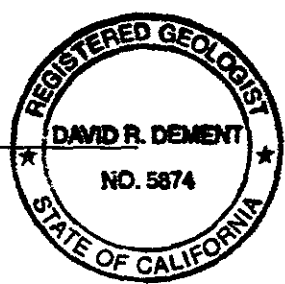


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GROUNDWATER MONITORING REPORT

**2425 Encinal Avenue
Alameda, California**

1.0 INTRODUCTION

On behalf of Mr. Steve Chrissanthos and Alameda Cellars, ACC Environmental Consultants, Inc., (ACC) has prepared this report on groundwater monitoring performed at the above referenced site. The site is located at the northern corner of Encinal and Park Avenues in Alameda, California, as shown on Figure 1. The property is occupied by Alameda Cellars, a commercial liquor store.

The purpose of the work was to evaluate changes in the groundwater flow direction and gradient and monitor for the presence of petroleum hydrocarbons in groundwater in the vicinity of former gasoline underground storage tanks (USTs). The project objectives were to: 1) measure the elevation of the groundwater in each monitoring well; 2) obtain groundwater samples from the six existing monitoring wells and analyze the water samples for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX); and 3) report the findings.

2.0 BACKGROUND

In March 1990, two 10,000-gallon gasoline USTs were removed from the subject site. Analysis of the soil samples collected from beneath the USTs indicated concentrations up to 710 parts per million (ppm) of TPHg.

In December 1992, ACC performed a subsurface investigation, including drilling five borings on site. Three of the borings were converted into monitoring wells MW-1, MW-2a, and MW-3. Analytical results of the soil collected during drilling and sampling indicated concentrations up to 1,365 ppm TPHg and up to 18.9 ppm benzene. Initial groundwater samples collected in January 1993 from the monitoring wells indicated up to 5,680 parts per billion (ppb) in well MW-2a and up to 1,560 ppb benzene in well MW-1.

An additional soil investigation was conducted in May 1993 to evaluate the extent of impact in the soil and groundwater. Findings of the additional investigation indicated the lateral extent of petroleum hydrocarbon impacted soil did not appear to extend beyond the property boundaries along the northern, western, and eastern sides. However, along the southern side, the impacted soil appeared to extend into Park and Encinal Avenues. Field observations made during the additional investigation and soil sample analysis indicated impacted soil existed primarily around the former tank excavation and the former dispenser island. The vertical extent of petroleum hydrocarbons in the soil occurs at the soil/groundwater interface.

Analysis of grab groundwater samples collected from borings drilled during the additional investigation indicate that residual petroleum hydrocarbons from the former tank excavation and dispenser island are migrating off site via the groundwater.

In December 1993, three additional monitoring wells (MW-4, MW-5, and MW-6) were installed at the property to further evaluate the extent of petroleum hydrocarbon impact to groundwater. Laboratory analysis of the soil samples collected from each boring indicated nondetectable concentrations of constituents which verifies the lateral extent of soil impact.

Laboratory analysis of the groundwater samples collected from monitoring wells MW-5 and MW-6 have consistently indicated below detectable concentrations of constituents evaluated, indicating a lateral extent of groundwater impact. Laboratory analysis of groundwater collected from monitoring well MW-4 indicated detectable concentrations of constituents. The location of the southern edge of the groundwater impact is just off site to the south. This cross gradient movement is attributed to the relatively flat gradient and possible recharge into the excavated area.

3.0 GROUNDWATER MONITORING AND SAMPLING

ACC conducted quarterly monitoring on March 19, 1996. Work at the site included measuring depth to water, subjectively evaluating groundwater in the wells, and purging and sampling the wells for laboratory analysis.

3.1 Groundwater Monitoring

Prior to groundwater sampling, the depth to the surface of the water table was measured from the top of the polyvinyl chloride well casing using a Solinst water level meter. The water level measurements were recorded to the nearest 0.01 foot with respect to mean sea level (MSL). Groundwater monitoring data obtained at the site is attached as Appendix 1. Information regarding well elevations and groundwater levels are summarized in Table 1.

TABLE 1 - GROUNDWATER DEPTH INFORMATION

Well ID Well Elevation	Date Monitored	Depth to Groundwater (feet)	Groundwater Elevation (feet above MSL)
MW-1 27.61	01/09/93	6.75	20.86
	02/09/93	6.41	21.20
	03/10/93	6.34	21.27
	04/12/93	6.52	21.09
	05/17/93	7.38	20.23
	06/28/93	8.42	19.19
	07/13/93	8.68	18.93
	08/10/93	8.25	19.36
	09/10/93	8.73	18.88
	10/12/93	9.04	18.57
	12/20/93	7.87	19.74
	03/18/94	6.96	20.65
	04/08/94	7.69	19.92
	06/22/94	8.55	19.06
	12/07/94	6.92	20.69
	03/16/95	5.54	22.07
	06/23/95	7.17	20.44
	09/14/95	8.17	19.44
	12/18/95	6.77	20.84
3/19/96	5.34	22.27	

Well ID Well Elevation	Date Monitored	Depth to Groundwater (feet)	Groundwater Elevation (feet above MSL)
MW-2a 27.98	01/09/93	7.06	20.92
	02/09/93	6.63	21.35
	03/10/93	6.57	21.41
	04/12/93	6.77	21.21
	05/17/93	7.61	20.37
	06/28/93	8.68	19.30
	07/13/93	8.94	19.04
	08/10/93	8.66	19.32
	09/10/93	8.95	19.03
	10/12/93	9.36	18.62
	12/20/93	8.24	19.74
	03/18/94	7.80	20.18
	04/08/94	7.67	20.31
	06/22/94	7.82	20.16
	12/07/94	7.23	20.75
	03/16/95	5.62	22.36
	06/23/95	7.35	20.63
	09/14/95	8.41	19.57
	12/18/95	7.05	20.93
3/19/96	5.49	22.49	

Well ID Well Elevation	Date Monitored	Depth to Groundwater (feet)	Groundwater Elevation (feet above MSL)
MW-3 27.89	01/09/93	6.68	21.21
	02/09/93	6.25	21.64
	03/10/93	6.18	21.71
	04/12/93	6.41	21.48
	05/17/93	7.37	20.52
	06/28/93	8.47	19.42
	07/13/93	8.74	19.15
	08/10/93	8.45	19.44
	09/10/93	8.52	19.37
	10/12/93	9.20	18.69
	12/20/93	7.95	19.94
	03/18/94	6.60	21.29
	04/08/94	7.70	20.19
	06/22/94	8.62	19.27
	12/07/94	6.92	20.97
	03/16/95	5.25	22.64
	06/23/95	6.99	20.90
	09/14/95	8.11	19.78
12/18/95	6.58	21.31	
3/19/96	5.14	22.75	

Well ID Well Elevation	Date Monitored	Depth to Groundwater (feet)	Groundwater Elevation (feet above MSL)
MW-4 26.97	12/20/93	7.25	19.72
	03/18/94	6.64	20.33
	04/08/94	7.12	19.85
	06/22/94	7.96	19.01
	12/07/94	6.32	20.65
	03/16/95	5.08	21.89
	06/23/95	6.65	20.32
	09/14/95	7.61	19.36
	12/18/95	6.20	20.77
	03/19/96	4.87	22.10
MW-5 27.34	12/20/93	8.01	19.33
	03/18/94	7.80	19.54
	04/08/94	7.82	19.52
	06/22/94	8.51	18.83
	12/07/94	7.08	20.26
	03/16/95	5.72	21.62
	06/23/95	7.38	19.96
	09/14/95	8.27	19.07
	12/18/95	7.17	20.17
3/19/96	5.49	21.85	

→ Why so shallow all of a sudden?

Well ID Well Elevation	Date Monitored	Depth to Groundwater (feet)	Groundwater Elevation (feet above MSL)
MW-6 28.03	12/20/93	8.00	20.03
	03/18/94	---	---
	04/08/94	7.72	20.31
	06/22/94	8.68	19.35
	12/07/94	---	---
	12/13/94	6.73	21.30
	03/16/95	5.04	22.99
	06/23/95	6.90	21.13
	09/14/95	8.07	19.96
	12/18/95	---	---
	3/19/96	5.05	22.98

Note: Depth to groundwater measured from the top of well casing
 --- = Depth to groundwater not measured.

3.2 Groundwater Gradient

The groundwater flow direction, as calculated from monitoring well data obtained on March 19, 1996, is illustrated on Figure 3. Based on groundwater elevation calculations, groundwater flow is toward the southwest at an average gradient of 0.013 foot/foot. The groundwater flow direction, as determined from monitoring well data, is similar to previous sampling events. Table 2 summarizes historical gradient and approximate flow directions calculated from water elevations.

TABLE 2 - HISTORICAL GRADIENT AND FLOW DIRECTION

Date Monitored	Gradient (foot/foot)	Direction
01/09/93	0.01	west
02/09/93	0.01	southwest
03/10/93	0.01	west/southwest
04/12/93	0.01	west/southwest
05/17/93	0.01	south/southwest
06/28/93	0.01	southwest
07/13/93	0.01	southwest
08/10/93	0.004	west

Date Monitored	Gradient (foot/foot)	Direction
09/10/93	0.02	southwest
10/12/93	0.004	southwest
12/20/93	0.01	west
03/18/94	0.02	west
04/08/94	0.01	west
06/22/94	0.03	south/southwest
12/07/94	0.01 (average)	west/southwest
03/16/95	0.01	southwest
06/23/95	0.01-0.013 (varies)	southwest
09/14/95	0.008	southwest
12/18/95	0.011	southwest
03/19/96	0.011	southwest

3.3 Groundwater Sampling

Prior to groundwater sampling, each well was purged using a new polyethylene dedicated bailer and new string. Groundwater samples were collected when temperature, pH, and conductivity of the water stabilized and a minimum of four well-casing volumes of water had been removed. Following purging, each well was allowed to recharge prior to sampling. When recovery to 80 percent of the static water level was observed, a sample was collected for analysis. Groundwater conditions were monitored during purging and sampling. A copy of the well monitoring worksheet is attached as Appendix 1.

Wells were sampled using a new disposable polyethylene bailer attached to new string. From each monitoring well, sample vials were filled to overflowing and sealed so that no air was trapped in the vial. Once filled, sample vials were inverted and tapped to test for air bubbles. Samples were collected in approved, laboratory-supplied vials. Sample containers were labeled with self-adhesive, pre-printed tags and were stored in a pre-chilled, insulated container pending delivery to a state-certified laboratory for analysis.

Water purged during the development and sampling of the monitoring wells was temporarily stored on site in Department of Transportation approved 55-gallon drums pending laboratory analysis and proper disposal.

4.0 RESULTS OF GROUNDWATER SAMPLING

Groundwater samples collected from each well were submitted to Chromalab, Inc., under chain of custody protocol. Groundwater samples collected from wells MW-1 through MW-6 were analyzed for TPHg and BTEX by EPA Methods 8015 Modified and 8020. Copies of the chain of custody record and laboratory analytical reports are attached as Appendix 2. Dissolved gasoline constituents were detected in groundwater samples collected from wells MW-1, MW-2a, MW-3, and MW-4. Laboratory analysis of water samples collected from wells MW-5 and MW-6 indicated nondetectable concentrations of constituents. A historic summary of groundwater sample results is presented in Table 3.

TABLE 3 - GROUNDWATER SAMPLE ANALYTICAL RESULTS

Well ID	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-1	01/09/93	5,360	1,560.0	1,026.6	641.0	2,706.2
	04/12/93	12,000	750.0	100.0	500.0	1,400.0
	07/13/93	720	119.6	32.7	70.8	262.0
	10/12/93	8,400	420.0	39.0	280.0	880.0
	12/20/93	5,200	270.0	58.0	170.0	590.0
	03/18/94	18,000	570.0	180.0	270.0	1,500.0
	04/08/94	NT	NT	NT	NT	NT
	06/22/94	4,800	160.0	56.0	130.0	310.0
	12/07/94	9,100	530.0	200.0	350.0	1,300.0
	03/16/95	230	15.0	4.5	9.4	38.0
	06/23/95	2,700	170.0	19.0	40.0	180.0
	09/14/95	1,700	160.0	12.0	69.0	100.0
	12/18/95	2,900	190.0	57.0	130.0	380.0
	03/19/96	14,000	910	280	400	2,100

Elevated levels appear to correlate w/ shallow water table periods.

Well ID	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-2	01/09/93	5,680	801.6	598.6	840.2	2,196.1
	04/12/93	12,000	460.0	110.0	240.0	1,600.0
	07/13/93	550	145.2	47.5	126.8	127.4
	10/12/93	2,000	280.0	17.0	100.0	120.0
	12/20/93	3,300	450.0	40.0	200.0	350.0
	03/18/94	7,900	370.0	53.0	190.0	530.0
	04/08/94	NT	NT	NT	NT	NT
	06/22/94	3,800	420.0	37.0	140.0	290.0
	12/07/94	6,800	640.0	100.0	370.0	950.0
	03/16/95	6,500	590.0	96.0	360.0	1,000.0
	06/23/95	4,300	170.0	58.0	33.0	810.0
	09/14/95	1,700	270.0	17.0	76.0	160.0
	12/18/95	3,900	410.0	52.0	290.0	610.0
	03/19/96	9,000	470	70	540	1,400
MW-3	01/09/93	<50	<0.5	<0.5	<0.5	<0.5
	04/12/93	1,500	95.0	30.0	46.0	85.0
	07/13/93	540	18.3	106.2	75.7	128.0
	10/12/93	3,500	290.0	230.0	210.0	460.0
	12/20/93	690	31.0	10.0	31.0	25.0
	03/18/94	450	9.6	11.0	5.5	23.0
	04/08/94	NT	NT	NT	NT	NT
	06/22/94	2,500	150.0	130.0	81.0	280.0
	12/07/94	420	16.0	8.3	26.0	37.0
	03/16/95	490	19.0	2.7	24.0	46.0
	06/23/95	860	41.0	5.4	32.0	110.0
	09/14/95	720	43.0	3.7	50.0	86.0
	12/18/95	860	27.0	10.0	38.0	53.0
	03/19/96	570	28	2.2	21	30

Well ID	Date Sampled	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl-benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)
MW-4	12/20/93	580	2.3	<0.5	1.4	1.1
	03/18/94	2,100	11.0	1.5	2.3	6.0
	04/08/04	NT	NT	NT	NT	NT
	06/22/94	1,600	39.0	7.5	13.0	16.0
	12/07/94	2,100	82.0	9.6	4.7	14.0
	03/16/95	3,400	140.0	12.0	45.0	29.0
	06/23/95	1,800	140.0	13.0	13.0	28.0
	09/14/95	3,900	250.0	6.1	3.8	11.0
	12/18/95	2,400	94.0	14.0	11.0	29.0
	03/19/96	1,300	68	8.2	25	21
MW-5	12/20/93	<50	<0.5	<0.5	<0.5	<0.5
	03/18/94	<50	<0.5	<0.5	<0.5	<0.5
	04/08/94	NT	NT	NT	NT	NT
	06/22/94	<50	<0.5	<0.5	<0.5	<0.5
	12/07/94	<50	<0.5	<0.5	<0.5	<0.5
	03/16/95	<50	<0.5	<0.5	<0.5	<0.5
	06/12/95	<50	<0.5	<0.5	<0.5	<0.5
	09/14/95	<50	<0.5	<0.5	<0.5	<0.5
	12/18/95	<50	<0.5	<0.5	<0.5	<0.5
	03/19/96	<50	<0.5	<0.5	<0.5	<0.5
MW-6	12/20/93	<50	<0.5	<0.5	<0.5	<0.5
	03/13/94	NT	NT	NT	NT	NT
	04/08/94	<50	<0.5	<0.5	<0.5	<0.5
	06/22/94	<50	<0.5	<0.5	<0.5	<0.5
	12/13/94	<50	<0.5	<0.5	<0.5	<0.5
	03/16/95	<50	<0.5	<0.5	<0.5	<0.5
	06/23/95	<50	<0.5	<0.5	<0.5	<0.5
	09/14/95	<50	<0.5	<0.5	<0.5	<0.5

Note: $\mu\text{g/L}$ = micrograms per liter (approximately equivalent to parts per billion)
 NT = Not tested

no V sampled because on semi-annual

5.0 DISCUSSION

This report documents the quarterly monitoring conducted in the six groundwater wells at the Alameda Cellars facility, 2425 Encinal Avenue, Alameda. Groundwater sample results indicate detectable concentrations of gasoline constituents in the groundwater samples collected from wells MW-1, MW-2a, MW-3, and MW-4. Nondetectable concentrations of TPHg and BTEX were reported in samples collected from wells MW-5 and MW-6, consistent with previous sampling events. Results for the samples collected from wells MW-1, MW-2a, and MW-3 indicated an increase in gasoline constituents compared with the previous sampling event conducted in December 1995. Concentrations of petroleum hydrocarbons reported in wells MW-3 and MW-4 have decreased since the previous sampling event. Groundwater flow direction and gradient are consistent with the previous sampling events.

Groundwater elevation was measured to be at the highest levels since January 1993, which was the first evaluation of the groundwater conditions. The March 1996 event reported the highest water levels ever measured; however, the concentrations in the groundwater are not as high as those concentrations detected in January 1993 when groundwater levels were also elevated. Even though it appears that concentrations are greater when water levels are elevated, this event indicates that the constituents are degrading and will continue to degrade. *Y. M. M. M.*

Based on a letter dated September 22, 1995, from Mr. Christopher Smith, Water Resources Control Engineer for the Underground Storage Tank Cleanup Fund (UST Fund), aggressive remedial action such as vapor extraction will not be reimbursed by the UST Fund. Mr. Smith further states that a "no further action" alternative would be the appropriate action for this site based on nonpotable water usage from the shallow aquifer in the area. Based on conversations with Mr. Smith and ACC's review of the Lawrence Livermore National Laboratory (LLNL) report "Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks," further investigation or active remedial action is not justified for this site.

6.0 CONCLUSIONS

The extent of the groundwater impact has been identified and groundwater monitoring conducted since January 1993 has documented a decreasing trend in groundwater impact. Based on the work completed to date and comments from Mr. Smith of the UST Fund, the following conclusions can be made:

- The most recent groundwater sampling indicates detectable concentrations of petroleum hydrocarbons in monitoring wells MW-1 through MW-4. TPHg concentrations increased in wells MW-1 and MW-2a. TPHg concentrations have decreased in monitoring wells MW-3 and MW-4. *But what are these decreases attributable to?*
- Since January 1993, varying concentrations of hydrocarbons in wells MW-1 through MW-4 appear to be a result of residual hydrocarbons from the former excavation which continue to impact the groundwater through fluctuating groundwater levels.

- The highest groundwater levels were reported this quarter; however, the corresponding March 1996 petroleum hydrocarbon concentrations were not the highest overall, indicating natural biodegradation of remnant hydrocarbons.
- The bulk of the source was removed with the tank removal; therefore, ACC feels that the detectable concentrations observed in the groundwater are the result of remnant impacted soil affecting the groundwater.
- The area of impact is limited based on laboratory results from samples collected from well MW-5 which has continually indicated a nondetectable concentration of constituents.
- Due to the relatively flat gradient, the potential for plume migration is limited. Impacted groundwater will likely degrade before any substantial downgradient migration occurs.
- The groundwater concentrations will likely continue to degrade and attenuate over time.

or something else, such as partitioning, diffusion, etc.

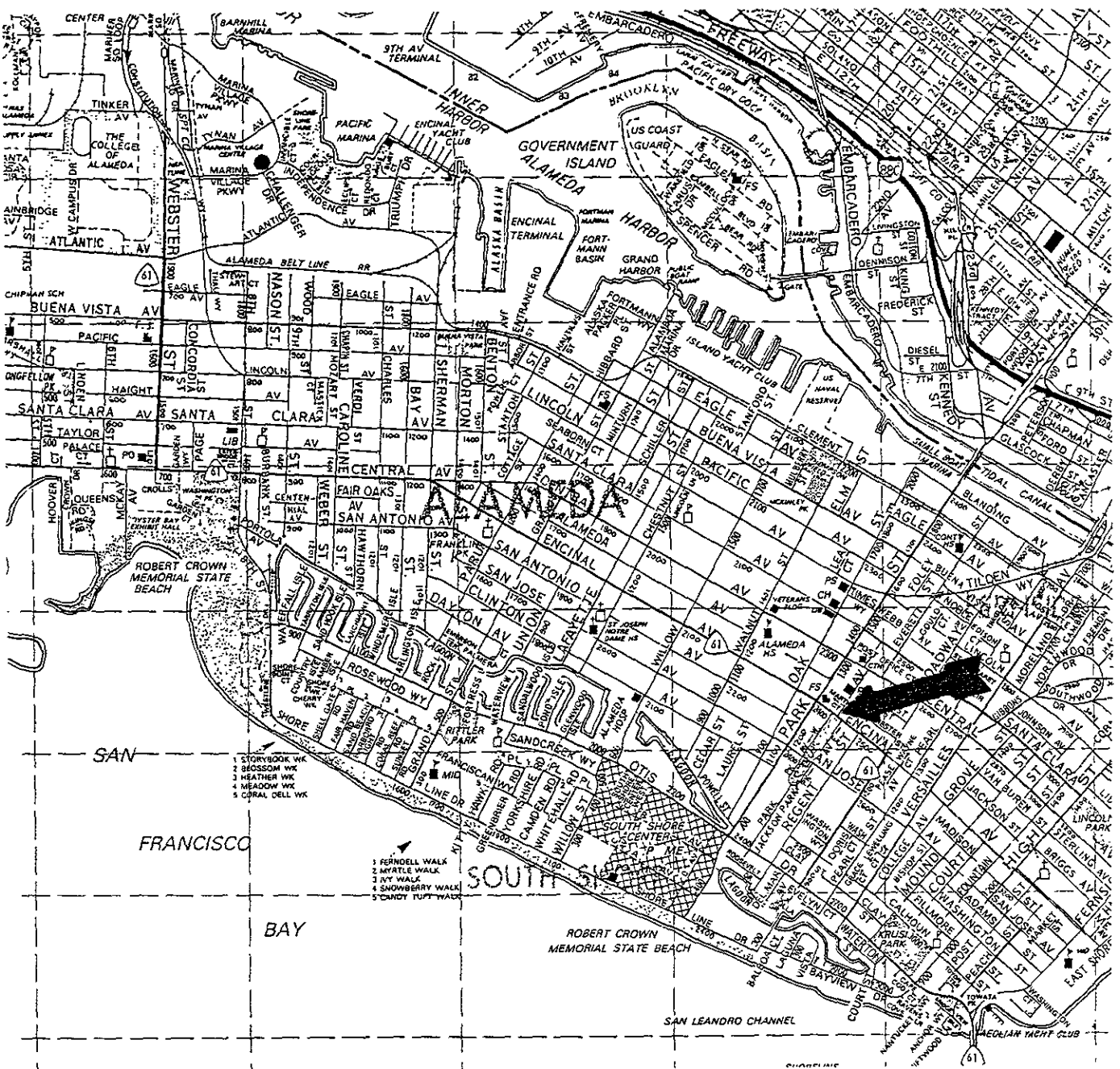
7.0 RECOMMENDATIONS

The Executive Director of the State Water Resources Control Board (SWRCB) has recommended that the LLNL report be implemented aggressively. ACC recommends that the SWRCB direction be followed and no further investigation performed. Based on the work completed to date and the laboratory results from the groundwater samples collected, ACC anticipates that the concentrations observed within the monitoring wells will fluctuate with seasonal precipitation then will decline with time.

ACC recommends that:

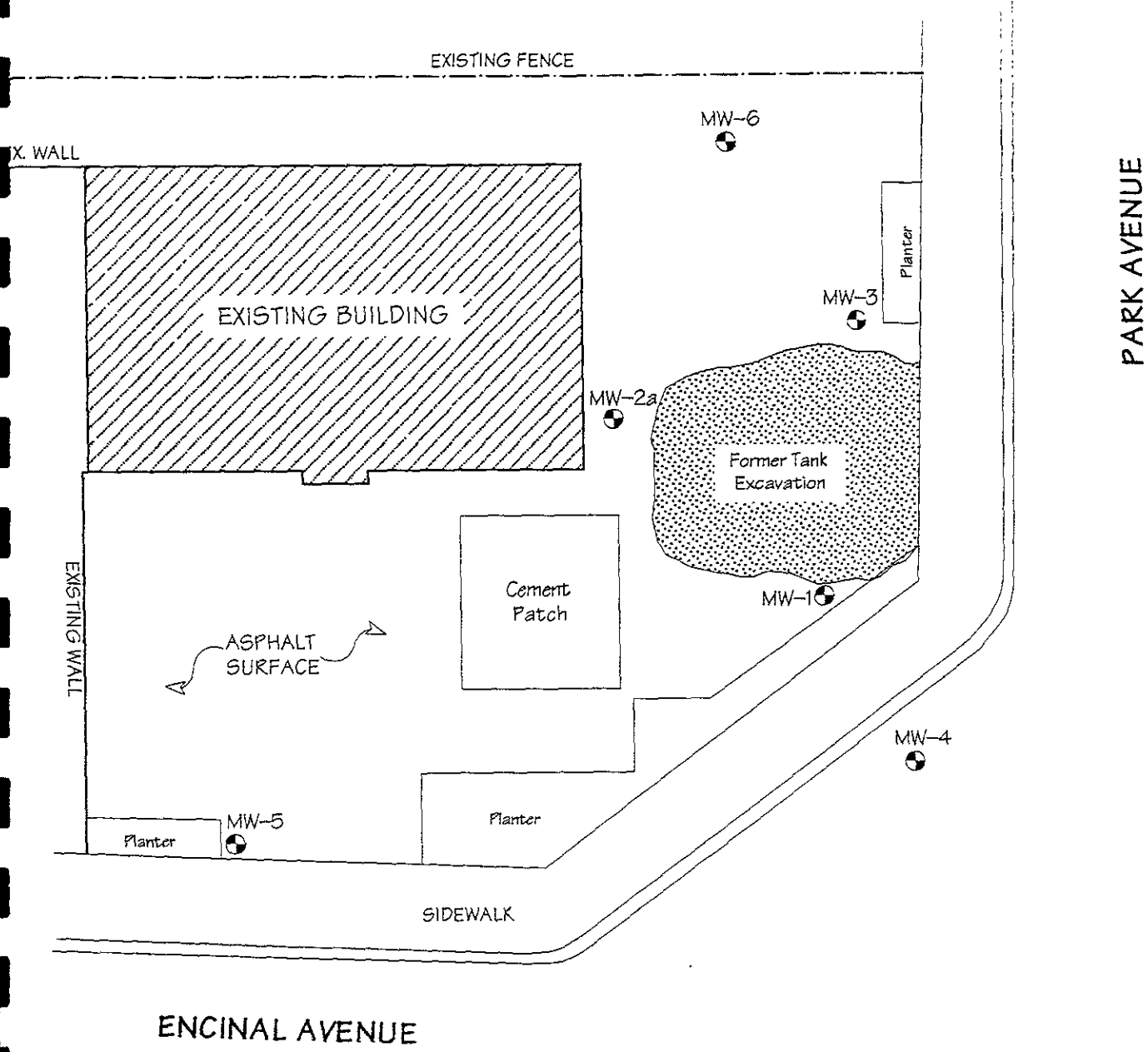
- The water at the site be tested for total dissolved solids and total coliform to evaluate the water quality of the shallow aquifer.
- The groundwater monitoring of all six wells should be reduced to semiannually in order to document decreasing trends.


→ not really necessary

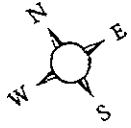


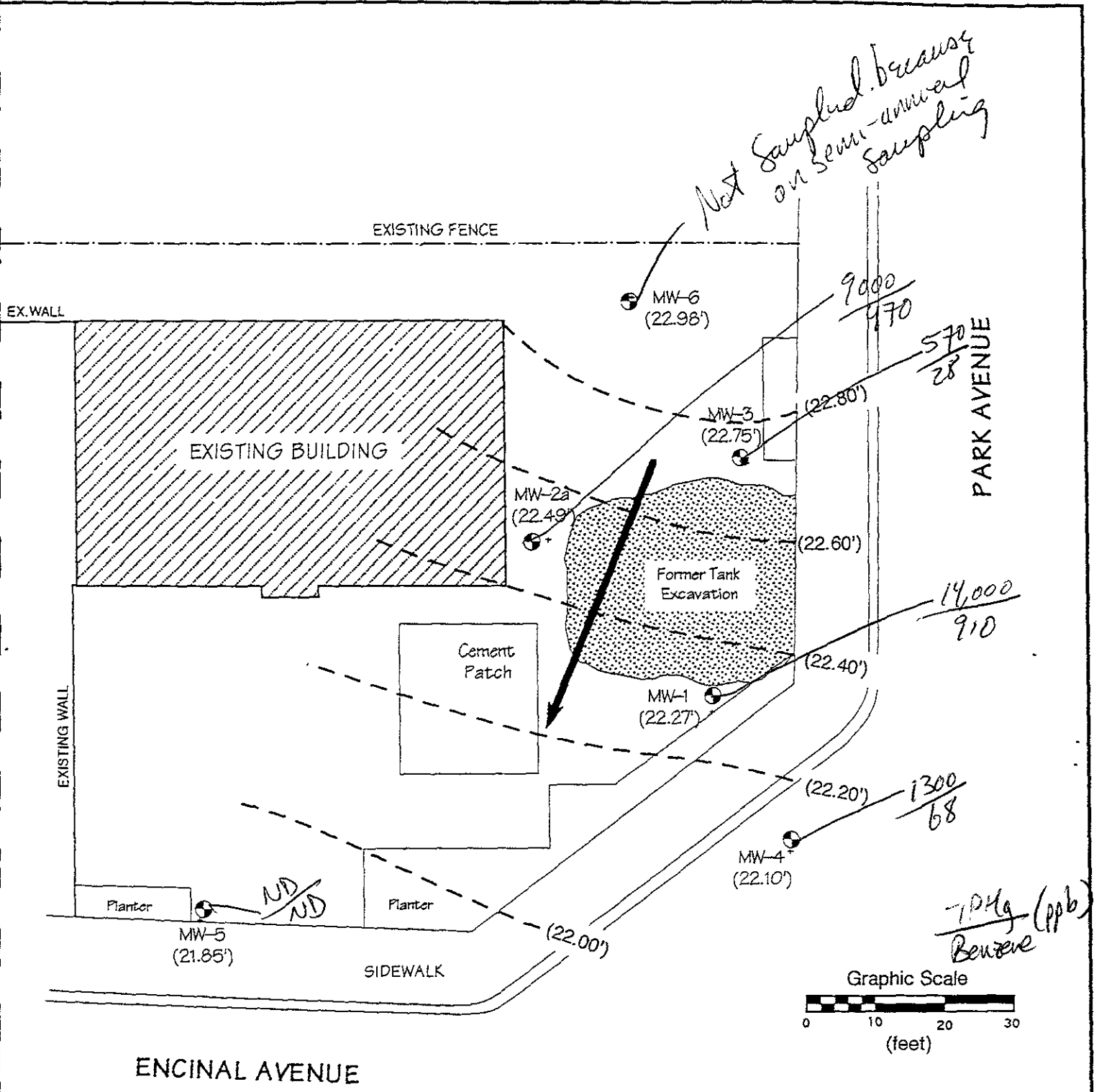
SOURCE: THOMAS BROTHERS GUIDE, 1990 ed.

Title: Location Map 2425 Encinal Avenue Alameda, California	
Figure Number: 1.0	Scale: 1" = 1/4 mi
Drawn By: JVC	Date: 3/19/96
Project Number: 6039-5	
ACC Environmental Consultants 7977 Capwell Drive, Suite 100 Oakland, California 94621 (510) 638-8400 Fax: (510) 638-8404	



Legend
 MW-5  - Groundwater Monitoring Well Location

Title: Site Plan 2425 Encinal Ave Alameda, California	
Figure Number: 2.0	Scale: 1" = 20"
Drawn By: JVC	Date: 3/19/96
Project Number: 6039-5	
ACC Environmental Consultants 7977 Capwell Drive, Suite 100 Oakland, CA 94621 (510) 638-8400 Fax: (510) 638-8404	
	

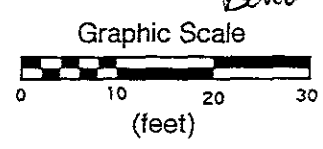


Not Sampled because on semi-annual sampling

*1,400
910*

*1,300
68*

*704g (ppb)
Benzene*



ENCINAL AVENUE

- Legend**
- MW-5 - Groundwater Monitoring Well Location
 - - - Groundwater Elevation Contour (Contour Interval = 0.2 feet)
 - ↘ - Approximate Groundwater Flow Direction 3/19/96

Title: Groundwater Gradient 2425 Encinal Avenue Alameda, California	
Figure Number: 3.0	Scale: 1" = 20"
Drawn By: JVC	Date: 3/19/96
Project Number: 6039-5	
ACC Environmental Consultants 7977 Capwell Drive, Suite 100 Oakland, CA 94621 (510) 638-8400 Fax: (510) 638-8404	

WELL MONITORING WORKSHEET

JOB NAME: ALAMEDA CELLARS	PURGE METHOD: MANUAL BAILING
SITE ADDRESS: 2425 ENCINAL	SAMPLED BY: J. CONKLIN
JOB #: 6039-S	LABORATORY: CHROMALAB
DATE: 3/19/96	ANALYSIS: TPH-GAS, BTEX
Onsite Drum Inventory SOIL:	MONITORING <input checked="" type="checkbox"/> DEVELOPING <input type="checkbox"/>
EMPTY: WATER: 3-100%	SAMPLING <input checked="" type="checkbox"/>

	PURGE VOLUME	HYDAC READINGS				OBSERVATIONS
	(Gal)	pH	Temp. (F)	Cond. un/cm		
WELL: MW-1 DEPTH OF BORING: <u>17.27'</u> DEPTH TO WATER: <u>5.34'</u> WATER COLUMN: <u>11.93'</u> WELL DIAMETER: 2" WELL VOLUME: \approx 2 gal COMMENTS:					<input type="checkbox"/> Froth	
	2.0	8.45	65.1	325	<input type="checkbox"/> Sheen	
	4.0	8.37	65.2	331	<input checked="" type="checkbox"/> Odor Type <u>gas</u>	
	6.0	8.21	64.7	342	<input type="checkbox"/> Free Product	
	↓				Amount _____ Type _____	
	8.0	8.20	64.8	340	<input type="checkbox"/> Other	
WELL: MW-2A DEPTH OF BORING: <u>14.16'</u> DEPTH TO WATER: <u>5.49'</u> WATER COLUMN: <u>8.67'</u> WELL DIAMETER: 2" WELL VOLUME: \approx 1.4 gal COMMENTS:					<input type="checkbox"/> Froth	
	1.4	8.71	64.7	342	<input type="checkbox"/> Sheen	
	2.8	8.54	64.5	345	<input checked="" type="checkbox"/> Odor Type <u>gas</u>	
	4.2	8.36	64.1	346	<input type="checkbox"/> Free Product	
	↓				Amount _____ Type _____	
	5.6	8.34	64.0	343	<input type="checkbox"/> Other	
WELL: MW-3 DEPTH OF BORING: <u>14.31'</u> DEPTH TO WATER: <u>5.14'</u> WATER COLUMN: <u>9.17'</u> WELL DIAMETER: 2" WELL VOLUME: \approx 1.5 gal COMMENTS:					<input type="checkbox"/> Froth	
	1.5	8.31	62.5	334	<input type="checkbox"/> Sheen	
	3.0	8.25	62.8	332	<input checked="" type="checkbox"/> Odor Type <u>gas</u>	
	4.5	8.21	62.9	330	<input type="checkbox"/> Free Product	
	↓				Amount _____ Type _____	
	6.0	8.19	63.1	329	<input type="checkbox"/> Other	

JOB NAME: ALAMEDA CELLARS	PURGE METHOD: MANUAL BAILING
SITE ADDRESS: 2425 ENCINAL	SAMPLED BY: J. CONKLIN
JOB #: 6039-5	LABORATORY: CH2OMALAB
DATE: 3/19/96	ANALYSIS: TPH-GAS BTEX
Onsite Drum Inventory SOIL:	MONITORING <input checked="" type="checkbox"/> DEVELOPING <input type="checkbox"/>
EMPTY: WATER: 3x100%	SAMPLING <input checked="" type="checkbox"/>

	PURGE		HYDAC READINGS		OBSERVATIONS
	VOLUME				
WELL: MW-4	(Gal)	pH	Temp. (F)	Cond. un/cm	<input type="checkbox"/> Froth
DEPTH OF BORING: 17.51'	2.05	7.85	63.1	341	<input type="checkbox"/> Sheen
DEPTH TO WATER: 4.87'	4.10	7.81	63.0	337	<input type="checkbox"/> Odor Type _____
WATER COLUMN: 12.64'	6.15	7.72	62.7	325	<input type="checkbox"/> Free Product
WELL DIAMETER: 2"					Amount _____ Type _____
WELL VOLUME: ≈ 2.05 gal					<input type="checkbox"/> Other
COMMENTS:	↓				
	8.20	7.70	62.6	324	
WELL: MW-5	(Gal)	pH	Temp. (F)	Cond. un/cm	<input type="checkbox"/> Froth
DEPTH OF BORING: 17.50'	2.0	8.31	64.5	351	<input type="checkbox"/> Sheen
DEPTH TO WATER: 5.49'	4.0	8.25	64.1	343	<input type="checkbox"/> Odor Type _____
WATER COLUMN: 12.01'	6.0	8.18	64.2	338	<input type="checkbox"/> Free Product
WELL DIAMETER: 2"					Amount _____ Type _____
WELL VOLUME: ≈ 2.0 gal					<input type="checkbox"/> Other
COMMENTS:	↓				
	8.0	8.17	64.1	336	
WELL: MW-6	(Gal)	pH	Temp. (F)	Cond. un/cm	<input type="checkbox"/> Froth
DEPTH OF BORING: 17.48'	2.05	8.25	65.1	326	<input type="checkbox"/> Sheen
DEPTH TO WATER: 5.05'	4.10	8.15	65.0	321	<input type="checkbox"/> Odor Type _____
WATER COLUMN: 12.43'	6.15	8.04	64.5	318	<input type="checkbox"/> Free Product
WELL DIAMETER: 2"					Amount _____ Type _____
WELL VOLUME: ≈ 2.05 gal					<input type="checkbox"/> Other
COMMENTS:	↓				
	8.20	8.07	64.4	316	

**ANALYTICAL RESULTS
AND
CHAIN OF CUSTODY RECORD**

CHROMALAB, INC.

Environmental Services (SDB)

March 26, 1996

Submission #: 9603593

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: 2425 ENCINAL
Received: March 19, 1996

Project#: 6039-5

re: 6 samples for Gasoline and BTEX compounds analysis.

Method: EPA 5030/8015M/8020

Sampled: March 19, 1996 Matrix: WATER Run#: 874 Analyzed: March 25, 1996

Spl#	CLIENT SPL ID	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
80683	MW-1	14000	910	280	400	2100
80684	MW-2A	9000	470	70	540	1400

Sampled: March 19, 1996 Matrix: WATER Run#: 875 Analyzed: March 22, 1996

Spl#	CLIENT SPL ID	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
80687	MW-5	N.D.	N.D.	N.D.	N.D.	N.D.
80688	MW-6	N.D.	N.D.	N.D.	N.D.	N.D.

Sampled: March 19, 1996 Matrix: WATER Run#: 875 Analyzed: March 23, 1996

Spl#	CLIENT SPL ID	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
80685	MW-3	570	28	2.2	21	30
80686	MW-4	1300	68	8.2	25	21

Reporting Limits	50	0.50	0.50	0.50	0.50
Blank Result	N.D.	N.D.	N.D.	N.D.	N.D.
Blank Spike Result (%)	85.4	104	97.4	102	102

June Zhao
June Zhao
Chemist

Marianne Alexander
Marianne Alexander
Gas/BTEX Supervisor

CHROMALAB, INC.

1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1919 • Facsimile 510/484-1096

Chain of Custody

Environmental Services (SDB) (DOHS 1094)

DATE 3/19/96 PAGE 1 OF 1

PROJ MGR M. KALTREIDER
 COMPANY ACC Environmental Consultants
 ADDRESS 7977 Capwell Drive, Suite 100
Oakland, California 94621

SAMPLERS (SIGNATURE) [Signature] (PHONE NO.) (510) 638-8400
 (FAX NO.) (510) 638-8404

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	NUMBER OF CONTAINERS
MW-1	3/19/96		H ₂ O	COOL		X															3
MW-2A	"		"	"		X															3
MW-3	"		"	"		X															3
MW-4	"		"	"		X															3
MW-5	"		"	"		X															3
MW-6	"		"	"		X															3

PROJECT INFORMATION

PROJECT NAME 2425 ENCINAL
 PROJECT NUMBER 6039-5
 P.O. # 6039-5

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS 18
 HEAD SPACE 2
 REC'D GOOD CONDITION/COLD
 CONFORMS TO RECORD

TAT STANDARD 5-DAY 24 48 72 OTHER

SPECIAL INSTRUCTIONS/COMMENTS

RELINQUISHED BY <u>[Signature]</u> (SIGNATURE) (TIME)	1.	RELINQUISHED BY <u>[Signature]</u> (SIGNATURE) (TIME)	2.	RELINQUISHED BY <u>[Signature]</u> (SIGNATURE) (TIME)	3.
<u>JOHN CONKLIN</u> (PRINTED NAME) (DATE)					
<u>ACC</u> (COMPANY)					
RECEIVED BY <u>[Signature]</u> 1718 (SIGNATURE) (TIME)		RECEIVED BY <u>[Signature]</u> 2 (SIGNATURE) (TIME)	2.	RECEIVED BY (LABORATORY) <u>[Signature]</u> (SIGNATURE) (TIME)	3
<u>EDWARD SCHUB</u> 3/18/96 (PRINTED NAME) (DATE)					
<u>CHROMALAB INC</u> (COMPANY)					