

ACC
Hazardous
20 JUL 20 11:26

July 18, 1994

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

RE: Results of Quarterly Groundwater Sampling at
2425 Encinal, Alameda, California

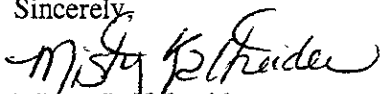
Dear Mr. Chrissanthos:

Thank you for providing ACC with the opportunity to present this report. The enclosed report describes the materials and procedures used during the quarterly groundwater investigation performed at 2425 Encinal, Alameda, California. This work was performed to evaluate the vertical extent of groundwater contamination.

Analysis of the groundwater samples from monitoring wells MW-1, MW-2, MW-3, and MW-4 indicated elevated concentrations of hydrocarbons. Analytical results of groundwater samples from monitoring wells MW-5 and MW-6 indicated below detectable levels of constituents indicating a lateral extent of contamination.

If you have any comments regarding this report, please call me.

Sincerely,



Misty C. Kaltreider
Geologist

cc: Mr. Richard Hiatt - Regional Water Quality Control Board
Ms. Juliet Shin - Alameda County Health Care Services - Division of
Hazardous Materials

QUARTERLY GROUNDWATER INVESTIGATION

2425 ENCINAL
ALAMEDA, CALIFORNIA

Job Number 6039-5

July 1994

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

Prepared by: *Misty Kaltreider*
Misty Kaltreider
Project Geologist

Reviewed by: *Christopher M. Palmer*
Christopher M. Palmer, CEG #1262
Certified Engineering Geologist

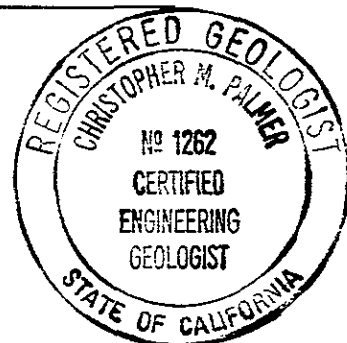


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1.0 INTRODUCTION

This report presents the procedures and findings of the quarterly groundwater investigation conducted by ACC Environmental Consultants, Inc., ("ACC") on behalf of Mr. Steve Chrissanthos and Alameda Cellars, site owner at 2425 Encinal, Alameda, California. The project objective, as described in the Work Plan prepared on November 5, 1993, was to evaluate the extent of groundwater impact from the previous underground storage of gasoline.

2.0 BACKGROUND

The site is presently occupied by Alameda Cellars, a commercial liquor store. The property is owned by Mr. Steve Chrissanthos. In March, 1990, two 10,000-gallon gasoline tanks were removed from the above referenced site. Analysis of the soil samples collected from beneath the two gasoline tanks indicated up to 710 parts per million (ppm) of Total Petroleum Hydrocarbons (TPH) as gasoline. Soil samples collected from beneath the diesel tank indicated less than detectable levels of TPH as diesel.

In December 1992, five borings were drilled 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 soil sampling indicated a maximum soil concentration of Total Petroleum Hydrocarbons (TPH) as gasoline as 1,365 ppm. Benzene concentration was 18.9 ppm in the same sample.

Initial groundwater samples collected in January, 1993, from the monitoring wells indicated a maximum TPH-gasoline concentration of 5,680 ppb (MW-2a) and a maximum benzene concentration of 1,560 ppb (MW-1).

Additional soil investigation was conducted in May, 1993 to evaluate the extent of contamination in the soil and groundwater. Findings of the additional investigation indicated the lateral extent of 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 appears to extend into Park and Encinal Avenues. Field observations made during the additional investigation and soil sample analysis indicated the soil hydrocarbon plume is primarily around the former tank excavation and the former dispenser island. The vertical limit of hydrocarbons in the soil is estimated to occur at the present groundwater table.

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

Per request of Alameda County Health Care Services - Hazardous Materials Division, this preliminary Site Assessment was conducted to further evaluate the groundwater contamination from the gasoline release on-site.

In December 1993, three additional monitoring wells (MW-4, MW-5, and MW-6) were installed to evaluate the extent of groundwater contaminant plume. Laboratory analysis of the soil collected from each boring indicated below detectable levels of constituents which verifies the lateral extent of soil contamination.

Laboratory analysis of the groundwater samples collected from monitoring well MW-5 and MW-6 indicated below detectable levels of constituents evaluated. The groundwater results indicated a lateral extent of groundwater contamination. Laboratory analysis of groundwater collected from monitoring well MW-4 indicated low detectable levels of constituents. Constituents reported from monitoring well MW-4 are low when compared with reported levels in monitoring wells MW-1, MW-2a, and MW-3. The location of the southern edge of the groundwater contaminant plume is just off-site to the south. This "side" gradient movement is attributed to the relatively flat gradient and possible recharge into the excavated area.

3.0 FIELD PROCEDURES

3.1 Groundwater Sampling

Groundwater samples were collected on June 22, 1994 from monitoring wells MW-1, MW-2a, MW-3, MW-4, MW-5 and MW-6. Prior to groundwater sampling the depth to the surface of the water table was measured from the top of the PVC casing using a Solinst Water Level Meter. Information regarding well elevations and groundwater level measurements are summarized in Table 1.

TABLE 1 - Groundwater Depth Information

<u>Date Sampled</u>	<u>Depth to Groundwater (Ft.)</u>	<u>Groundwater Elevation (Ft.)</u>
<u>Well No. MW-1</u>	<u>Elevation of Top of Casing-27.61 MSL</u>	
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
<u>Well No. MW-2a</u>	<u>Elevation of Top of Casing-27.98 MSL</u>	
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

TABLE 1 - Groundwater Depth Information, cont.

<u>Date Sampled</u>	<u>Depth to Groundwater (Ft.)</u>	<u>Groundwater Elevation (Ft.)</u>
<u>Well No. MW-2a</u>	Elevation of Top of Casing-27.98 MSL	
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
<u>Well No. MW-3</u>	Elevation of Top of Casing-27.89 MSL	
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
<u>Well No. MW-4</u>	Elevation of Top of Casing-26.97 MSL	
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
<u>Well No. MW-5</u>	Elevation of Top of Casing-27.34 MSL	
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
<u>Well No. MW-6</u>	Elevation of Top of Casing-28.03 MSL	
12/20/93	8.00	20.03
03/18/94	----	----
04/08/94	7.72	20.31
06/22/94	8.68	19.35

Notes: All measurements in feet
MSL = Mean Sea Level

After water-level measurements were taken, each on-site well was purged by hand using a designated disposable Teflon bailer for each well. Groundwater Ph, temperature and electrical

conductivity were monitored during well purging. Each well was considered to be purged when these parameters stabilized. Three to four well volumes were removed to purge each well. Worksheets of conditions monitored during purging are attached in Appendix C.

After the groundwater level had recovered to a minimum of approximately 80 percent of its static level, water samples were obtained using designated disposable Teflon bailers. Two 40 ml VOA vials, without headspace, were filled from the water collected from each monitoring well. The samples were preserved on ice and submitted to Chromalab Inc. under chain of custody protocol. Laboratory results with chain of custody forms are attached in Appendix D.

4.0 FINDINGS

4.1 Analytical Results - Groundwater

One groundwater sample each from monitoring wells MW-1, MW-2a, MW-3, MW-4, MW-5, and MW-6 was collected and submitted for analysis for TPH as gasoline by EPA test method 5030 and BTEX by EPA test method 602. Analysis results from the groundwater samples are summarized in Table 2 and Figure 2. Analytical results are attached in Appendix B.

TABLE 2 - Analytical Results - Groundwater

Well Number	Date Collected	TPH-gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/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
MW-2a	06/22/94	4,800	160.0	56.0	130.0	310.0
	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	
MW-3	06/22/94	3,800	420.0	37.0	140.0	290.0
	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	

TABLE 2 - Analytical Results - Groundwater

Well Number	Date Collected	TPH-gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/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
	04/08/94	NT	NT	NT	NT	NT
	06/22/94	1,600	39.0	7.5	13.0	16.0
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
MW-6	12/20/93	< 50	<0.5	<0.5	<0.5	<0.5
	03/18/94	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

Notes: ug/L = parts per billion (ppb)
 NT = Not Tested

4.2 Groundwater Gradient

Prior to calculating the groundwater gradient, elevations for the on-site monitoring wells were surveyed by Ron Archer Civil Engineer, Inc. to an accuracy of one-hundredth of a foot. The well elevation was surveyed at the top of the PVC well casing. The elevations of the monitoring wells were established relative to a nearby benchmark located in the curb on the northwest corner of the intersection of Park and Encinal Avenues in Alameda, California.

The groundwater gradient was calculated using the on-site monitoring wells. The location of the wells is shown on Figure 1 - Site Plan. Groundwater elevations were collected from monitoring wells MW-1, MW-2a, MW-3, MW-4, and MW-5 on March 18, 1994 (illustrated in Figure 2). Groundwater elevations were collected from all on-site wells on April 8, 1994 (illustrated on Figure 3.) The gradient was evaluated by triangulation using the elevation of the potentiometric surface measured with respect to Mean Sea Level datum.

The historical groundwater gradient and the direction of groundwater flow on-site is summarized in Table 3.

TABLE 3 - Historic Groundwater Gradient

Date Monitored	Gradient (foot/foot)	Direction
01/09/93	0.009	west
02/09/93	0.013	southwest
03/10/93	0.012	west/southwest
04/12/93	0.012	west/southwest
05/17/93	0.0078	south/southwest

TABLE 3 - Historic Groundwater Gradient, cont.

<u>Date Monitored</u>	<u>Gradient (foot/foot)</u>	<u>Direction</u>
06/28/93	0.0076	southwest
07/13/93	0.0058	southwest
08/10/93	0.004	west
09/10/93	0.015	southwest
10/12/93	0.004	southwest
12/20/93	0.0083	west
03/18/94	0.018	west
04/08/94	0.011	west
06/22/94	0.027	south/southwest

5.0 CONCLUSION

The data and observations discussed herein indicate that groundwater has been impacted due to an unauthorized hydrocarbon release. The analytical parameters used for soil and groundwater sampling performed were in accordance with the guidance document "Tri-Regional Water Quality Control Boards Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites", dated August 10, 1990, for gasoline tanks.

First quarter sampling and analysis indicated elevated levels of TPH as gasoline with BTEX in the groundwater from monitoring well MW-1 and MW-2a. Groundwater from monitoring well MW-3 has below detectable levels of constituents. Second quarterly sampling and analysis of the groundwater in April indicated an increase in levels of Total Petroleum Hydrocarbons as gasoline in all wells, however, the benzene, toluene, ethylbenzene and xylenes levels have declined in water samples from monitoring wells MW-1 and MW-2a. Constituents detected during July 1993 appear decreasing due to the fluctuating groundwater elevation. During October 1993 sampling, constituents in monitoring wells MW-1 and MW-3 have increased while only TPH as gasoline and benzene have increased in monitoring well MW-2a. Benzene increase in MW-2a is probably due to residual drainage and the well's close proximity to the former tank location and/or contaminant desorbation from sediment.

Three additional monitoring wells (MW-4, MW-5, and MW-6) were installed to evaluate the extent of groundwater contaminate plume. Laboratory analysis of the soil collected from each boring indicated below detectable levels of constituents which verifies the lateral extent of soil contamination.

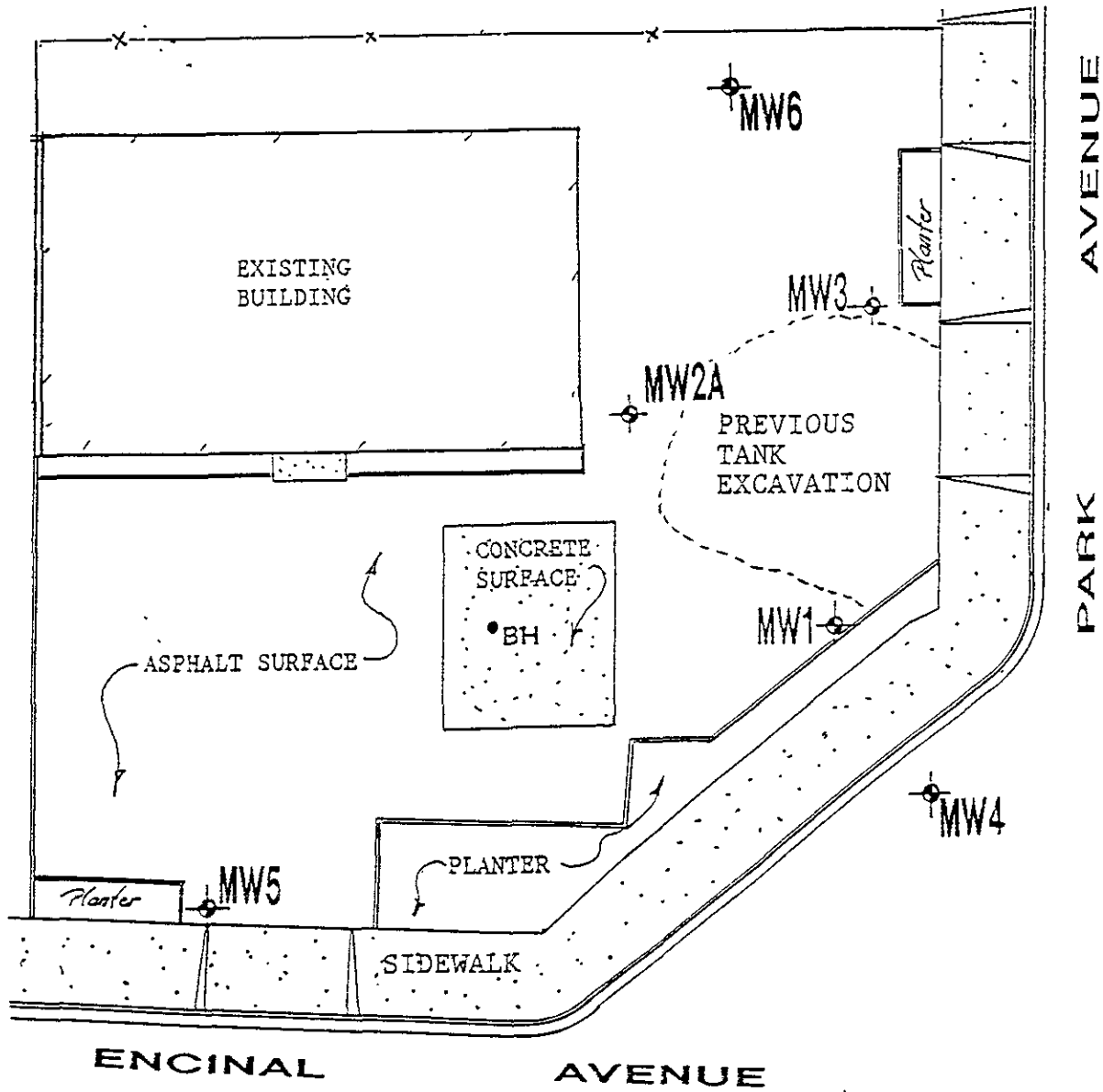
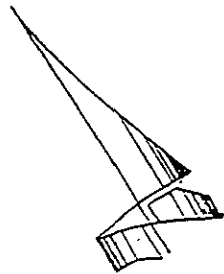
Laboratory analysis of the groundwater samples collected from monitoring well MW-5 and MW-6 in January and March - April, 1994 indicated below detectable levels of constituents evaluated. The groundwater results indicated a lateral extent of groundwater contamination. Laboratory analysis of groundwater collected from monitoring well MW-4 indicated low detectable levels of constituents.

The location of the southern edge of the groundwater contaminant plume is just off-site to the south. This "side" gradient movement is attributed to the relatively flat gradient and possible recharge into the excavated area causing fluctuating lateral movement. However, the data to date indicate that contaminant movement is minimal.

6.0 RECOMMENDATIONS

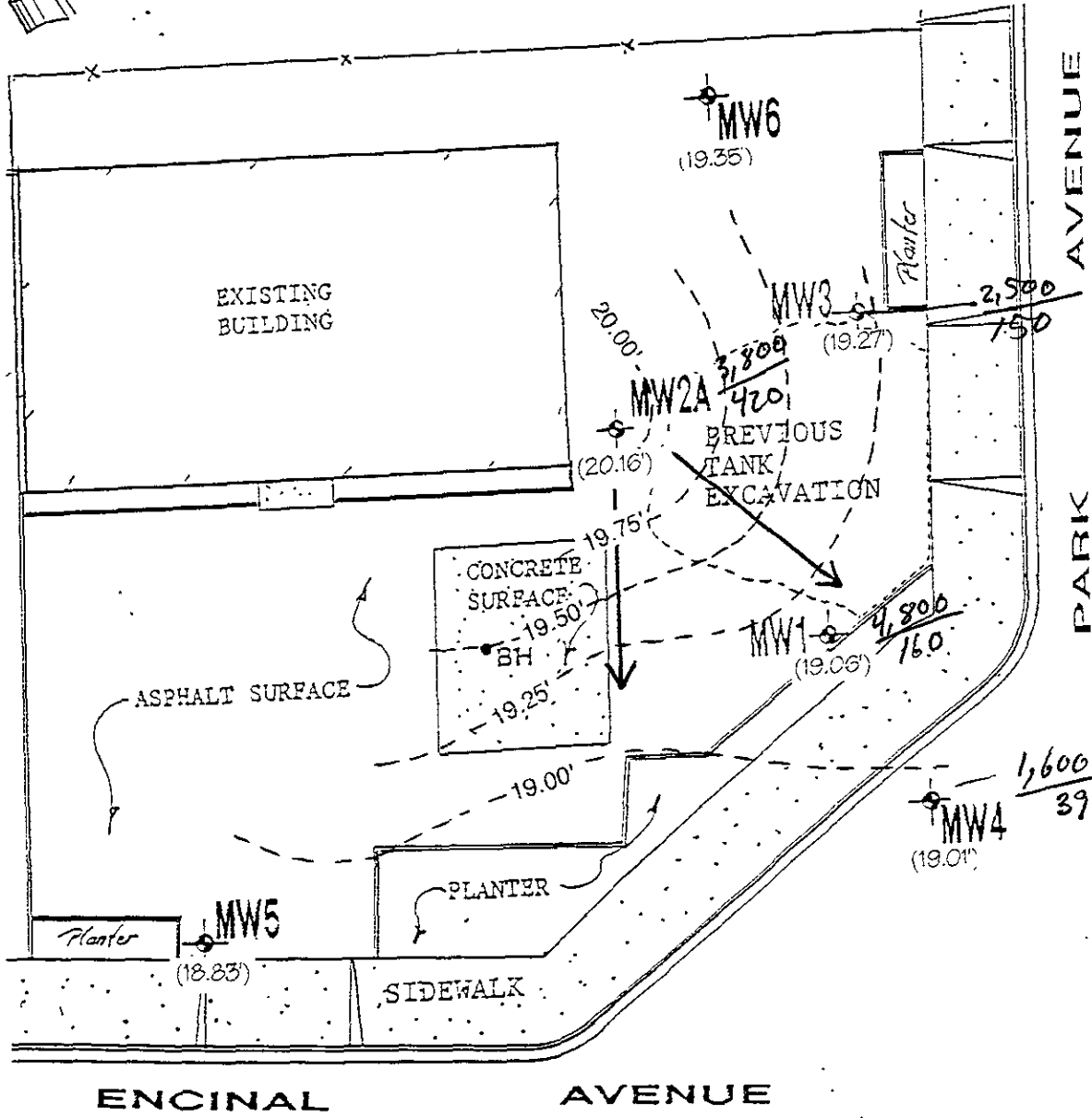
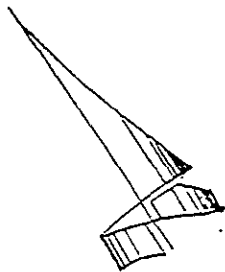
Pursuant to the Tri-Regional Board guidelines, groundwater sampling and monitoring of the on-site wells should continue on a quarterly basis.

Pursuit to the CCR Title 23, Chapter 16, Articles 5, 7, and 11 of the Underground Storage Tank regulations a Corrective Action Plan is being drafted to determine the method of cleanup. The Corrective Action Plan will identify and evaluate the appropriate corrective actions for the property located at 2425 Encinal Avenue.



Scale: 1" = 20'

Project # 6039-5	1/12/94	Drawn By: TRF	Alameda Cellars 2425 Encinal Avenue	Site Plan Figure 1
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Elevations in Feet Above Mean Sea Level
 Scale: 1" = 20'

Figure 2

Groundwater Gradient
 Alameda Cellars
 2425 Encinal Avenue

Project # 8039-5

Drawn By: TRF

June 22, 1994

APPENDIX A

Well Sampling Well Development check one

Well Number: MW-1

Job Number: 6039-1

Job Name: 2425 ENCLAVE

Date: 6-21-94

Sampler: Culvert

Depth to Water (measured from TCC): 8.55'

Inside Diameter of Casing: 2"

Depth of Boring: 18'

Method of well development/purging: Pump/Bail

Amount of Water Bailed/Pumped from well: 9 g

Depth to Water after well development: _____

Depth to water prior to sampling: 8.80

Bailed water stored on-site ? How ? Drums

Number of well volumes removed: 4 plus

TSP wash, distilled rinse, new rope ? Pump - TSP / Distilled Rinse
Rope/Bailer - New

Water Appearance:

	yes	no
froth		
irridescence		
oil		
smell		
product		
other, describe		

Samples Obtained:

- TPH (gasoline)
- TPH (diesel)
- TPH (motor oil)
- BTXE
- EPA 624
- EPA 625
- EPA 608
- PCBs only
- Metals
- Other, specify
- Field Blank

Gallons Removed	pH	EC	Temp
<u>8.8</u>	<u>6.90</u>	<u>6.70</u>	<u>67.1</u>
10	5.89	5.82	67.5
15	5.47	6.47	67.4
20	5.10	6.32	67.5
25	5.05	6.00	67.5
30	5.01	5.70	67.4
35	4.85	5.65	67.4
40	4.86	5.60	67.4
45 <u>9</u>	4.90	5.60	67.4
50			

Well Sampling

Well Development

check one

Well Number: MN-2

Job Number: 6039-5

Job Name: 2425 Encinal

Date: 6-21-94

Sampler: Culvert

Depth to Water (measured from TOC): 7.82'

Inside Diameter of Casing: 2"

Depth of Boring: 15'

Method of well development/purging: bail/pump

Amount of Water Bailed/Pumped from well: 8

Depth to Water after well development: _____

Depth to water prior to sampling: 8.98 Slow Recharge

Bailed water stored on-site ? How ? Drums

Number of well volumes removed: 4 plus

TSP wash, distilled rinse, new rope ? Pump-TSP/Distilled Rinse

Water Appearance:

	yes	no
froth		<input checked="" type="checkbox"/>
irridescence		<input checked="" type="checkbox"/>
oil		<input checked="" type="checkbox"/>
smell	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
product		<input checked="" type="checkbox"/>
other, describe		<input checked="" type="checkbox"/>

Samples Obtained:

- TPH (gasoline)
- TPH (diesel)
- TPH (motor oil)
- BTXE
- EPA 624
- EPA 625
- EPA 608
- PCBs only
- Metals
- Other, specify
- Field Blank

Gallons Removed	pH	EC	Temp
5 6	6.50	7.21	76.3
10	6.13	7.16	67.8
15	6.00	8.15	69.7
20	5.55	7.21	69.1
25	5.140	7.04	67.4
30	5.35	7.33	67.2
35	5.33	7.30	67.2
42 40	5.40	7.31	67.2
45			
50			

Well Sampling

Well Development

check one

Well Number: MW-3Job Number: 6039-5Job Name: 2425 ENCINALDate: 6-21-94Sampler: CulvertDepth to Water (measured from TCC): 8.62Inside Diameter of Casing: 2"Depth of Boring: 14'Method of well development/purging: Pump/BailAmount of Water Bailed/Pumped from well: 5 gallons

Depth to Water after well development: _____

Depth to water prior to sampling: 9.43Bailed water stored on-site ? How ? DrumsNumber of well volumes removed: 4TSP was, distilled rinse, new rope ? Pump-TSP

Water Appearance:

	yes	no
froth		<input checked="" type="checkbox"/>
irridescence		<input checked="" type="checkbox"/>
oil		<input checked="" type="checkbox"/>
smell	<input checked="" type="checkbox"/>	
product		<input checked="" type="checkbox"/>
other, describe		<input checked="" type="checkbox"/>

Samples Obtained:

TPH (gasoline)	<input type="checkbox"/>
TPH (diesel)	<input type="checkbox"/>
TPH (motor oil)	<input type="checkbox"/>
BTXE	<input type="checkbox"/>
EPA 624	<input type="checkbox"/>
EPA 625	<input type="checkbox"/>
EPA 608	<input type="checkbox"/>
PCEs only	<input type="checkbox"/>
Metals	<input type="checkbox"/>
Other, specify	<input type="checkbox"/>
Field Blank	<input type="checkbox"/>

Gallons Removed	pH	EC	Temp
5	4	10.00	8.26 76.1
10		8.88	8.19 74.1
15		9.62	7.90 72.7
20		7.92	7.90 72.8
25		7.69	8.10 72.6
30		7.80	8.06 71.7
35		7.75	8.04 71.8
40		7.74	8.14 71.8
45			
50			

Well Sampling

Well Development

check one

Well Number: MW-4

Job Number: 6039-5

Job Name: 2425 Excavate

Date: 6-21-94

Sampler: Culbert

Depth to Water (measured from TOC): 7.96

Inside Diameter of Casing: 2"

Depth of Boring: 18'

Method of well development/purging: bail/pump

Amount of Water Bailed/Pumped from well: 10

Depth to Water after well development: ~~7.96~~

Depth to water prior to sampling: 8.12

Bailed water stored on-site? How? Drums

Number of well volumes removed: 4

TSP wash, distilled rinse, new rope? Pump - TSP / Distilled Rinse

Water Appearance:

	yes	no
froth		
irridescence		
oil		
smell		
product		
other, describe		

Samples Obtained:

- TPH (gasoline)
- TPH (diesel)
- TPH (motor oil)
- BTXE
- EPA 624
- EPA 625
- EPA 608
- PCBs only
- Metals
- Other, specify
- Field Blank

PH meter zeroed

Gallons Removed	pH	EC	Temp
<u>8</u>	<u>4.86</u>	<u>5.11</u>	<u>66.4</u>
<u>10</u>	<u>6.43</u>	<u>5.05</u>	<u>67.1</u>
<u>15</u>	<u>6.35</u>	<u>5.13</u>	<u>67.9</u>
<u>20</u>	<u>6.60</u>	<u>5.19</u>	<u>68.0</u>
<u>25</u>	<u>6.63</u>	<u>5.13</u>	<u>68.0</u>
<u>30</u>	<u>6.58</u>	<u>5.15</u>	<u>68.1</u>
<u>35</u>			
<u>40</u>			
<u>45</u>			
<u>50</u>			

Well Sampling Well Development

check one

Well Number: MW-5Job Number: 6039-5Job Name: 2425 EXHAWDate: 6-21-94Sampler: CulvertDepth to Water (measured from TCC): 8.51Inside Diameter of Casing: 2"Depth of Boring: 18'Method of well development/purging: Bail/PumpAmount of Water Bailed/Pumped from well: 10

Depth to Water after well development: _____

Depth to water prior to sampling: 864Bailed water stored on-site ? How ? DrumsNumber of well volumes removed: 4 plusTSP wash, distilled rinse, new rope ? Pump-TSP / Distilled Rinse

Water Appearance:

	yes	no
froth		
irridescence		
oil		
smell		
product		
other, describe		

Gallons Removed	pH	EC	Temp
<u>10</u>	<u>7.85</u>	<u>5.69</u>	<u>68.7</u>
<u>10</u>	<u>7.89</u>	<u>5.97</u>	<u>68.5</u>
<u>15</u>	<u>7.03</u>	<u>6.07</u>	<u>68.8</u>
<u>20</u>	<u>6.95</u>	<u>6.09</u>	<u>68.7</u>
<u>25</u>	<u>6.98</u>	<u>6.00</u>	<u>68.8</u>
<u>30</u>			
<u>35</u>			
<u>40</u>			
<u>45</u>			
<u>50</u>			

Samples Obtained:

TPH (gasoline)	<input type="checkbox"/>
TPH (diesel)	<input type="checkbox"/>
TPH (motor oil)	<input type="checkbox"/>
BTXE	<input type="checkbox"/>
EPA 624	<input type="checkbox"/>
EPA 625	<input type="checkbox"/>
EPA 608	<input type="checkbox"/>
PCBs only	<input type="checkbox"/>
Metals	<input type="checkbox"/>
Other, specify	<input type="checkbox"/>
Field Blank	<input type="checkbox"/>

Well Sampling

Well Development

check one

Well Number: MW-6

Job Number: 6039-5

Job Name: 2425 Encinal

Date: 6-21-94

Sampler: Culvert

Depth to Water (measured from TOC): 8.68

Inside Diameter of Casing: 2"

Depth of Boring: 18'

Method of well development/purging: pump

Amount of Water Bailed/Pumped from well: 17 g

Depth to Water after well development: _____

Depth to water prior to sampling: 8.92

Bailed water stored on-site ? How ? Drums

Number of well volumes removed: 4

TSP wash, distilled rinse, new rope ? TSP Distilled

Water Appearance:

	yes	no
froth		
irridescence		
oil		
smell		
product		
other, describe		

Samples Obtained:

- TPH (gasoline)
- TPH (diesel)
- TPH (motor oil)
- BTXE
- EPA 624
- EPA 625
- EPA 608
- PCBs only
- Metals
- Other, specify
- Field Blank

Gallons Removed	pH	EC	Temp
5	8.06	6.21	64.3
10	7.01	6.01	64.3
15	7.01	6.20	64.3
21.7	7.01	6.21	64.3
25			
30			
35			
40			
45			
50			

APPENDIX B

CHROMALAB, INC.

Environmental Services (SDB)

June 30, 1994

Submission #: 9406272

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: 2425 ENCINAL
Received: June 22, 1994

Project#: 6039-5

re: 6 samples for Gasoline and BTEX analysis.

Matrix: WATER

Sampled: June 21, 1994

Lab Run#: 3242

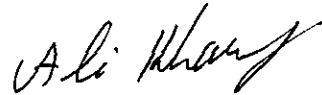
Analyzed: June 29, 1994

Method: EPA 5030/8015M/602

Lab #	SAMPLE ID	Gasoline (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
55472	MW-1	4.8	160	56	130	310
55473	MW-2	3.8	420	37	140	290
55474	MW-3	2.5	150	130	81	280
55475	MW-4	1.6	39	7.5	13	16
55476	MW-5	N.D.	N.D.	N.D.	N.D.	N.D.
55477	MW-6	N.D.	N.D.	N.D.	N.D.	N.D.
DETECTION LIMITS		0.05	0.5	0.5	0.5	0.5
BLANK		N.D.	N.D.	N.D.	N.D.	N.D.
BLANK SPIKE RECOVERY (%)		96	105	112	104	111

ChromaLab, Inc.


Jack Kelly
Chemist


Ali Kharrazi
Organic Manager

JACK 173407

CHROMALAB, INC.

DOHS 1094

2239 (

SUBM #: 9406272
 CLIENT: ACC
 DUE: 06/29/94
 REF: 16978

Order #16978
 79 155472-55477
Chain of Custody

FE 6-22-94 PAGE 1 OF 1

PROJ. MGR. Misty Kuffneder
 COMPANY ACC Environ
 ADDRESS 1000 Atlantic Ave, Ste 110
Alameda, CA

SAMPLERS (SIGNATURE) Bret Culbert (PHONE NO.) (570) 522-8189

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel (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)	METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	NUMBER OF CONTAINERS
MW-1	6-21	9 AM	H ₂ O	Cold		✓															3
MW-2		10 AM				✓															3
MW-3		11 AM				✓															3
MW-4		12 PM				✓															3
MW-5		1 PM				✓															3
MW-6		2 PM				✓															3

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NAME: <u>2425 ENCINAL</u>	TOTAL NO. OF CONTAINERS <u>18</u>	HEAD SPACE	
PROJECT NUMBER <u>6039-5</u>	REC'D GOOD CONDITION/COLD	CONFORMS TO RECORD	
P.O. #	TAT	STANDARD 5-DAY	24 48 72 OTHER

SPECIAL INSTRUCTIONS/COMMENTS:

RELINQUISHED BY 1	RELINQUISHED BY 2	RELINQUISHED BY 3
<u>Bret Culbert</u> 8 AM (SIGNATURE) (TIME)		
<u>Bret Culbert</u> 6-22-94 (PRINTED NAME) (DATE)		
<u>ACC Environ</u> (COMPANY)		
RECEIVED BY 1 <u>B. Morrow</u> 6-22-94 (SIGNATURE) (TIME)	RECEIVED BY 2	RECEIVED BY (LABORATORY) 3
<u>B. Morrow</u> 6-22-94 (PRINTED NAME) (DATE)		
<u>Chromalab</u> (COMPANY)		