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GROUNDWATER MONITORING REPORT

February 12, 1998

501 5th Avenue
Oakland, California

Prepared For:
Mr. Robert Mibach

ACC Project No. 6045-014.00

OAKLAND ▪ SACRAMENTO
SEATTLE ▪ LOS ANGELES

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ENVIRONMENTAL
CONSULTANTS

GROUNDWATER MONITORING REPORT

Peralta Community College District Maintenance Yard
501 5th Avenue
Oakland, California

ACC Project No. 6045-014.00

Prepared for:

Mr. Robert Mibach
Peralta Community College District
333 East 8th Street
Oakland, California

February 12, 1998

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Reviewed by: _____
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OAKLAND • LOS ANGELES • SACRAMENTO • SEATTLE

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GROUNDWATER MONITORING REPORT
Peralta Community College District Maintenance Yard
501 5th Avenue
Oakland, California

1.0 INTRODUCTION

This report presents the procedures and findings of groundwater investigation conducted by ACC Environmental Consultants, Inc., (ACC) on behalf of the Peralta Community College District (District), site owner at 501 5th Avenue, Oakland, California (Figure 1). The project objective was to evaluate the extent of groundwater impact from the previous underground storage of petroleum products and to evaluate effectiveness of remedial actions conducted in the summer of 1995 using analysis of groundwater samples collected from three onsite monitoring wells.

2.0 BACKGROUND

Five underground storage tanks (USTs) were installed at the subject property prior to the 1960s. The tanks were used for storage of fuel and waste oil for the City of Oakland Corporation Yard. The tanks consisted of two 6,000-gallon gasoline tanks, one 2,000-gallon diesel tank, one 2,000-gallon ethyl (premium) gasoline tank, and one 550-gallon waste-oil tank. In 1980, the District acquired the property. The District abandoned the five USTs by filling them with water and installed three new fiberglass USTs. The new tanks consisted of two 6,000-gallon and one 4,000-gallon fiberglass tanks used to store gasoline fuel. The new tanks were installed approximately 150 feet from the original tanks.

2.1 UST Removal

In 1992, the five original USTs were removed by R.S. Eagan. During removal, eight soil samples and one grab groundwater sample were collected from the excavation. Laboratory analysis of the soil samples indicated concentrations up to 228 parts per million (ppm) total petroleum hydrocarbons as diesel (TPHd), 134 ppm total petroleum hydrocarbons as gasoline (TPHg), 2,407 parts per billion (ppb) benzene, 4,617 ppb toluene, 7,170 ppb ethylbenzene, 6,147 ppb total xylenes, and 5,477 ppm oil and grease. Laboratory analysis of the water sample collected from the excavation indicated concentrations of 170,000 ppb TPHd, 15,000 ppb TPHg, 286 ppb benzene, 698 ppb toluene, 300 ppb ethylbenzene, 808 ppb total xylenes, and 284,000 ppb oil and grease.

2.2 Previous Assessments

In September 1992, a preliminary study was performed by Environ of Emeryville, California, to evaluate soil and groundwater conditions at the site and at neighboring sites as part of a due diligence investigation associated with the sale of the property. This study indicated that hydrocarbon constituents reported in the soil and grab groundwater samples at the District Maintenance Yard were possibly a result of regional impact.

In November 1992, ACC performed a subsurface environmental site assessment of the soil around the former tank excavation. Concentrations of TPHg and motor oil were detected in the soil and groundwater samples collected from the borings. Laboratory analysis of the soil samples indicated concentrations up to 370 ppm TPHg, 12 ppm TPHd, 5,342 ppm motor oil, 76.94 ppm benzene, 73.9 ppm toluene, 30.4 ppm ethylbenzene, and 95.41 ppm xylenes.

In November 1993, the three fiberglass gasoline USTs were removed from the property. Soil samples collected from the excavation indicated concentrations up to 1.3 ppm TPHg, 0.019 ppm benzene, and 0.018 ppm toluene. Initial groundwater samples collected from the excavation indicated 27,000 ppb TPHg, 1,200 ppb benzene, 5,100 ppb toluene, 690 ppb ethylbenzene, and 5,700 ppb xylenes. During removal of the tanks, approximately 3,500 gallons of water were removed from the excavation. Analysis of subsequent groundwater samples from the excavation indicated concentrations of 210 ppb TPHg and 14 ppb xylenes. Due to the detectable levels of constituents reported in the soil and groundwater samples, additional groundwater investigation was requested by the Alameda County Health Care Services Agency (ACHCSA).

In February 1994, four additional borings were drilled on site and converted into 2-inch-diameter monitoring wells (MW-1, MW-2, MW-3, and MW-4). The monitoring wells were used to evaluate the extent of groundwater impact from the two former excavations (Figure 2). Laboratory analysis of the groundwater samples collected in February 1994 from monitoring wells MW-1 and MW-4 (downgradient from the tank excavations) indicated no detectable levels of the constituents evaluated. The groundwater results from monitoring well MW-1 indicated a downgradient extent of groundwater impact. Laboratory analysis of groundwater samples collected from monitoring wells MW-2 and MW-3 (upgradient of the former tank excavations) indicated detectable levels of constituents. Groundwater samples collected from borings MW-2 and MW-3 indicated detectable levels of TPHd, TPHg, and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Motor oil was reported in the soil sample collected from boring MW-2. However, motor oil was not detected in the groundwater sample collected from monitoring well MW-2. A concentration of TPHd was detected only in the soil sample from boring MW-2.

An additional soil and groundwater investigation was conducted on May 9, 1994, to evaluate possible upgradient sources of petroleum hydrocarbons on site. The investigation included drilling five borings upgradient (east) of existing monitoring wells MW-2 and MW-3. Laboratory analysis of the soil samples collected during the additional investigation indicated detectable concentrations of TPHd up to 11 ppm and motor oil up to 100 ppm. No detectable concentrations of TPHg or BTEX were reported in the soil samples analyzed. Groundwater was encountered at a depth of approximately 5 to 6 feet below ground surface (bgs) during the additional investigation. Laboratory analysis of grab groundwater samples collected from the boreholes indicated no detectable concentrations of TPHd, motor oil, or BTEX. A concentration of TPHg of 61 ppb was reported in one grab groundwater sample collected from one boring. Motor oil was not detected in the groundwater samples collected from the borings and monitoring wells. Results of the analytical data from previous investigations indicate that upgradient sources of TPHg and motor oil exist. Fine-grained fill material and Bay Mud appear to restrict the mobility of the petroleum hydrocarbons from impacting groundwater; however,

groundwater flow direction data suggest that constituent movement is to the west, away from monitoring wells MW-2 and MW-3.

2.3 Interim Remedial Action

Based on the findings of the subsurface investigations, elevated concentrations of petroleum hydrocarbons in the soil and groundwater indicate that a source of impact still existed on site. To remediate the source, overexcavation of the area around the former tank excavation was recommended as a cost-effective means. The proposed scope of work, approved by the lead regulatory agency, ACHCSA, included excavating impacted soil in the vicinity of the former tank excavation, actively purging the groundwater during excavation, and destroying well MW-2 during excavation activity.

Interim remedial action as overexcavation of impacted soil around the former tank excavation (removed in 1992) was performed in the summer of 1995. The work consisted of source removal including overexcavation and removal of approximately 2,250 cubic yards of impacted soil and removal of approximately 14,888 gallons of excavation water. During soil removal, four previously unknown USTs were discovered, three of which were removed. One UST still exists at the site. In order to protect the adjacent portable building's integrity, the tank was not removed at the time of remedial action. The UST will be removed after relocation of the adjacent building. The proposed remedial action and UST removal is tentatively scheduled for summer of 1998.

Based on previous investigations conducted on site, the extent of impact in the soil and groundwater was in the immediate vicinity around former monitoring well MW-2 and the existing UST, adjacent to the portable buildings. Due to the findings of the interim remedial action and the existence of previously unknown USTs, groundwater monitoring of the existing three wells (MW-1, MW-3, and MW-4) was reinstated after the interim remedial action.

3.0 FIELD PROCEDURES

3.1 Groundwater Monitoring

Before groundwater sampling, the depth to the surface of the water table was measured from the top of the polyvinyl chloride 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 included in Appendix 1. Information regarding well elevations and groundwater level measurements is summarized in Table 1.

TABLE 1 - GROUNDWATER DEPTH INFORMATION

Well No.	Date Monitored	Well Elevation* (above MSL)	Depth to Groundwater	Groundwater Elevation
MW-1	02/14/94	6.78	3.69	3.09
	05/16/94		6.80	-0.02
	08/25/94		7.05	-0.27
	11/16/94		3.50	3.28
	02/14/95		3.91	2.87
	05/18/95		6.46	0.32
	03/27/96		4.32	2.46
	10/08/96		6.96	-0.18
	01/13/97		3.36	3.42
	07/17/97		6.21	0.57
	01/19/98		3.41	3.37
MW-2	02/14/94	8.70	4.70	4.00
	05/16/94		4.74	3.96
	08/25/94		5.49	3.21
	11/16/94		5.03	3.67
	02/14/95		4.55	4.15
	05/18/95		4.77	3.93
	Destroyed		---	---
MW-3	02/14/94	8.83	4.57	4.26
	05/16/94		4.78	4.05
	08/25/94		5.93	2.90
	11/16/94		4.04	4.79
	02/14/95		4.55	2.72
	05/18/95		4.49	4.34
	03/27/96		4.51	4.32
	10/08/96		6.60	2.23
	01/13/97		4.12	4.71
	07/17/97		6.60	2.23
	01/19/98		4.16	4.67

Well No.	Date Monitored	Well Elevation* (above MSL)	Depth to Groundwater	Groundwater Elevation
MW-4	02/14/94	5.45	1.69	3.76
	05/16/94		2.36	3.09
	08/25/94		3.25	2.20
	11/16/94		1.01	4.44
	02/14/95		6.11	2.72
	05/18/95		2.32	3.13
	03/27/96		2.35	3.10
	10/08/96		3.75	1.70
	01/13/97		1.69	3.76
	07/17/97		3.48	1.97
	01/19/98		1.73	3.72

*Notes: *All measurements are reported in feet; well elevation measured to top of casing*

3.2 Groundwater Gradient

Groundwater elevations were calculated from water level measurements collected in the wells on January 19, 1998. Groundwater gradient and flow direction were calculated from this data by triangulation using the elevation of the potentiometric surface measured with respect to MSL datum. As shown in Figure 3, general direction of groundwater flow is west at a gradient of 0.031 foot/foot. Historic groundwater flow direction on site is summarized in Table 2. The groundwater gradient is similar to previous monitoring events.

TABLE 2 - GROUNDWATER GRADIENT AND FLOW DIRECTION

Date Monitored	Gradient (foot/foot)	Direction
02/14/94	0.01	west
05/16/94	0.025	west
08/25/94	0.031	west
11/16/94	0.013	west
02/14/95	0.014	northwest
05/18/95	0.033	west
03/27/96	0.033	west-northwest
10/08/96	0.05	west
01/13/97	0.028	west
07/17/97	0.043	west
01/19/98	0.031	west

3.3 Groundwater Sampling

After water level measurements were collected, groundwater pH, temperature, dissolved oxygen (DO), turbidity, salinity, and electrical conductivity were monitored. The wells were not purged upon the written recommendation of the ACHCSA in their September 11, 1997 letter. The well monitoring worksheet is included as Appendix 1.

After the groundwater level had recovered to a minimum of approximately 85 percent of its static level, water samples were obtained from wells MW-1, MW-3, and MW-4 using disposable polyethylene bailers. Three 40-milliliter laboratory-supplied VOA vials, without headspace, and one amber liter jar were filled with the water collected from each monitoring well. Sample containers were labeled with self-adhesive, preprinted tags. The samples were stored in a pre-chilled, insulated container pending delivery to Chromalab, Inc. (Chromalab), a state-certified laboratory for analysis.

4.0 FINDINGS

Groundwater samples were collected from monitoring wells MW-1, MW-3, and MW-4 and submitted to Chromalab for analysis of TPHg, BTEX, and methyl tertiary butyl ether (MTBE) by EPA Method SW846 8020A Nov 1990/8015 Mod and total extractable petroleum hydrocarbons (TEPH) as diesel, kerosene, and motor oil by EPA Method 8015M. Analytical results from the groundwater samples are summarized in Table 3. A copy of the analytical results and chain of custody records is included as Appendix 2.

TABLE 3 - GROUNDWATER SAMPLE ANALYTICAL RESULTS

Well No.	Date Sampled	TPHg (µg/L)	TEPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-1	02/14/94	<50	<50	<0.5	<0.5	<0.5	<0.5	---
	05/23/94	<50	<50	<0.5	<0.5	<0.5	<0.5	---
	08/25/94	<50	---	<0.5	<0.5	<0.5	<0.5	---
	11/16/94	<50	---	<0.5	<0.5	<0.5	<0.5	---
	02/14/95	<50	---	<0.5	<0.5	<0.5	<0.5	---
	05/18/95	<50	---	<0.5	<0.5	<0.5	<0.5	---
	03/27/96	<50	120(d)	<0.5	<0.5	<0.5	<0.5	---
	10/08/96	<50	570(d)/670(m)*	<0.5	<0.5	<0.5	<0.5	---
	01/13/97	<50	720(d)/1,000(m)*	<0.5	<0.5	<0.5	<0.5	---
	07/17/97	<50	500(d)*/760(m)	<0.5	<0.5	<0.5	<0.5	<5.0
	01/19/98	<50	340(d)*/740(m)*	<0.5	<0.5	<0.5	<0.5	<5.0

Well No.	Date Sampled	TPHg (µg/L)	TEPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-2	02/14/94	200	<50	1.7	<0.5	1.1	1.1	---
	05/23/94	600	<50	1.8	0.9	0.7	2.1	---
	08/25/94	70	---	<50	<0.5	<0.5	0.5	---
	11/16/94	<50	---	<50	<0.5	<0.5	0.6	---
	02/14/95	160	---	0.7	0.6	<0.5	1.0	---
	05/18/95	50	---	<0.5	<0.5	<0.5	0.6	---
	Destroyed	---	---	---	---	---	---	---
MW-3	02/14/94	780	<50	0.6	0.6	1.7	2.7	---
	05/23/94	680	<50	<0.5	<0.5	2.2	2.2	---
	08/25/94	310	---	6.4	2.7	1.9	4.1	---
	11/16/94	650	---	1.6	1.5	<0.5	2.7	---
	02/14/95	70	---	<0.5	<0.5	<0.5	<0.5	---
	05/18/95	470	---	<0.5	1.1	0.7	0.6	---
	03/27/96	740	390(d)*	7.9	19	3.0	8.0	---
	10/08/96	640	640(d)/680(m)	7.6	3.8	3.9	5.6	---
	01/13/97	640	1,300(k)/1,200(m)*	4.4	2.2	2.6	4.0	---
	07/17/97	600	1,400(d)*/1,100(m)	7.3	11	3.6	4.8	<5.0
	01/19/98	<50	520(d)*/1,000(m)*	<0.5	<0.5	<0.5	<0.5	<5.0
MW-4	02/14/94	<50	<50	<0.5	<0.5	<0.5	<0.5	---
	05/23/94	93	<50	<0.5	<0.5	<0.5	<0.5	---
	08/29/94	<50	---	<0.5	<0.5	<0.5	<0.5	---
	11/16/94	100	---	2.7	<0.5	<0.5	1.0	---
	02/14/95	60	---	<0.5	<0.5	<0.5	<0.5	---
	05/18/95	<50	---	<0.5	<0.5	<0.5	<0.5	---
	03/27/96	<50	<50	<0.5	<0.5	<0.5	<0.5	---
	10/08/96	<50	430(d)*	<0.5	<0.5	<0.5	<0.5	---
	01/13/97	<50	830(d)/950(m)*	0.8	<0.5	<0.5	<0.5	---
	07/17/97	<50	190(d)*	<0.5	<0.5	<0.5	<0.5	<5.0
	01/19/98	53	200(d)*/550(m)*	2.2	<0.5	<0.5	<0.5	<5.0

Notes: *µg/L = micrograms per liter (approximately equivalent to ppb)*
< = Less than laboratory reporting limit indicated
d = The noted concentration is TEPH as diesel
m = The noted concentration is TEPH as motor oil
k = The noted concentration is TEPH as kerosene
** Hydrocarbons do not match laboratory's standard profile*

5.0 DISCUSSION

Groundwater flow direction and gradient are consistent with previous sampling events. The concentrations of petroleum hydrocarbons as diesel and motor oil have decreased in wells MW-1 and MW-3 since the most recent sampling event. The concentrations of petroleum hydrocarbons as diesel and motor oil increased slightly in well MW-4. No concentrations of TPHg, BTEX, or MTBE were detected above the reporting limits in wells MW-1 and MW-3. The 1995 remedial action appears to

have promoted a more regional groundwater flow (toward the west) by removing preferential pathways.

6.0 CONCLUSIONS

Based on groundwater monitoring and sampling, ACC has the following conclusions:

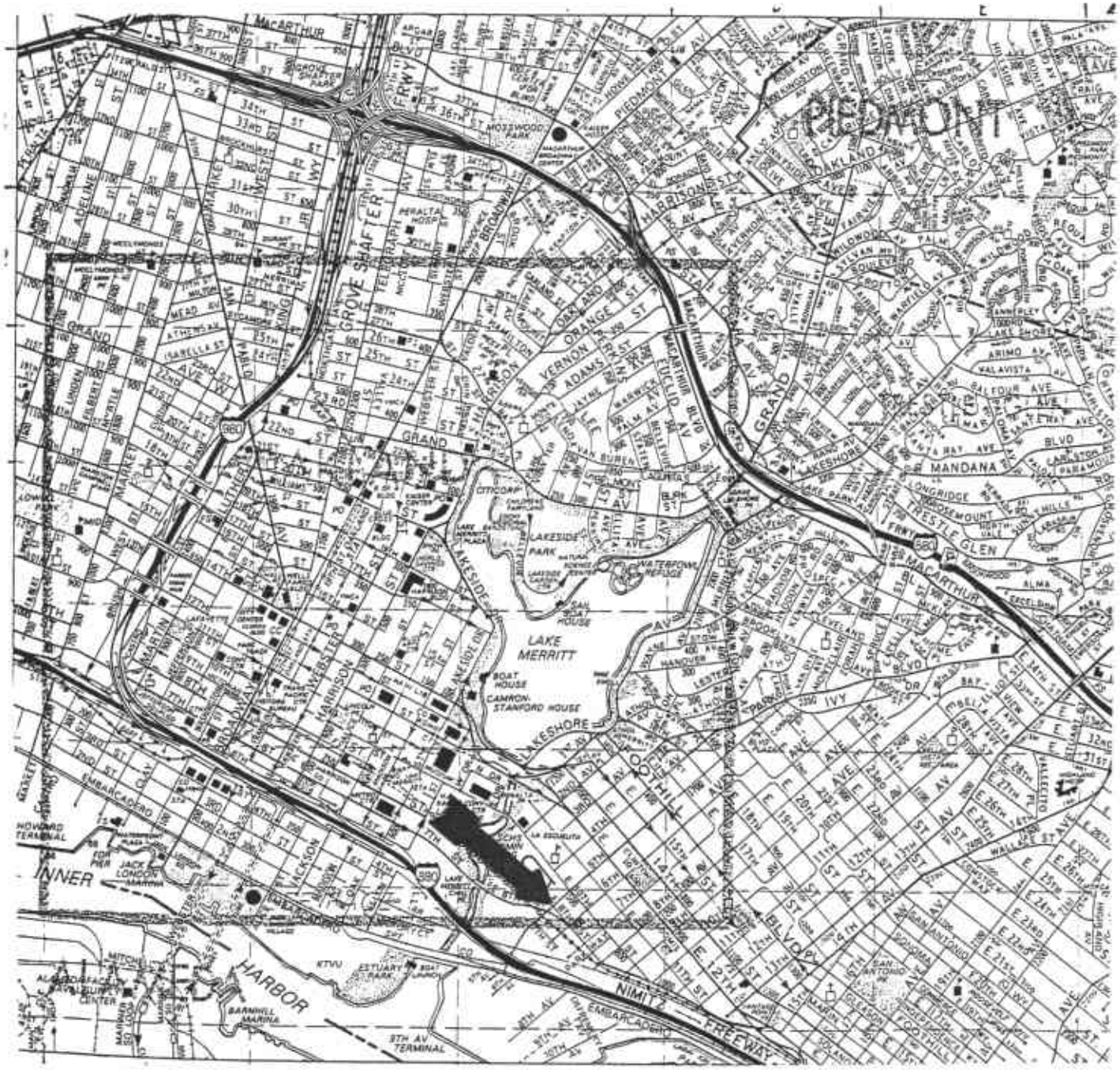
- Results of the groundwater investigation indicated detectable concentrations of hydrocarbons in the diesel and motor oil range in monitoring wells MW-1, MW-3, and MW-4. The laboratory reported that hydrocarbons detected in the diesel and motor oil range did not match the standard profile.

- TPHg was only reported in well MW-4. The concentration of TPHg has increased slightly in well MW-4 since the previous sampling events.

- The concentrations of TEPH decreased from the previous sampling event in wells MW-1 and MW-3, but increased slightly in well MW-4.

- Groundwater flow direction and gradient were calculated to be essentially the same both before and after interim remedial action; however, the removal of preferential pathways and replacement of subsurface material with fill material that allows more consistent groundwater movement may have aided in the migration of constituents downgradient toward wells MW-1 and MW-4.

Remedial action and UST removal is tentatively scheduled for the summer of 1998. Remedial actions proposed include removing the existing UST, impacted soil around the existing UST, and removing impacted soil around well MW-3 which was not removed during the 1995 interim remedial action. Biannual groundwater monitoring will be initiated after completion of the 1998 remedial action.



SOURCE: Thomas Bros. Guide, 1994

Title: Location Map
Peralta Community College District
Maintenance Yard
501 5th Avenue, Oakland, California

Figure Number: 1	Scale: 1" = 1/4 mi
Drawn By: CLM	Date: 2/6/98
Project Number: 6045-14	

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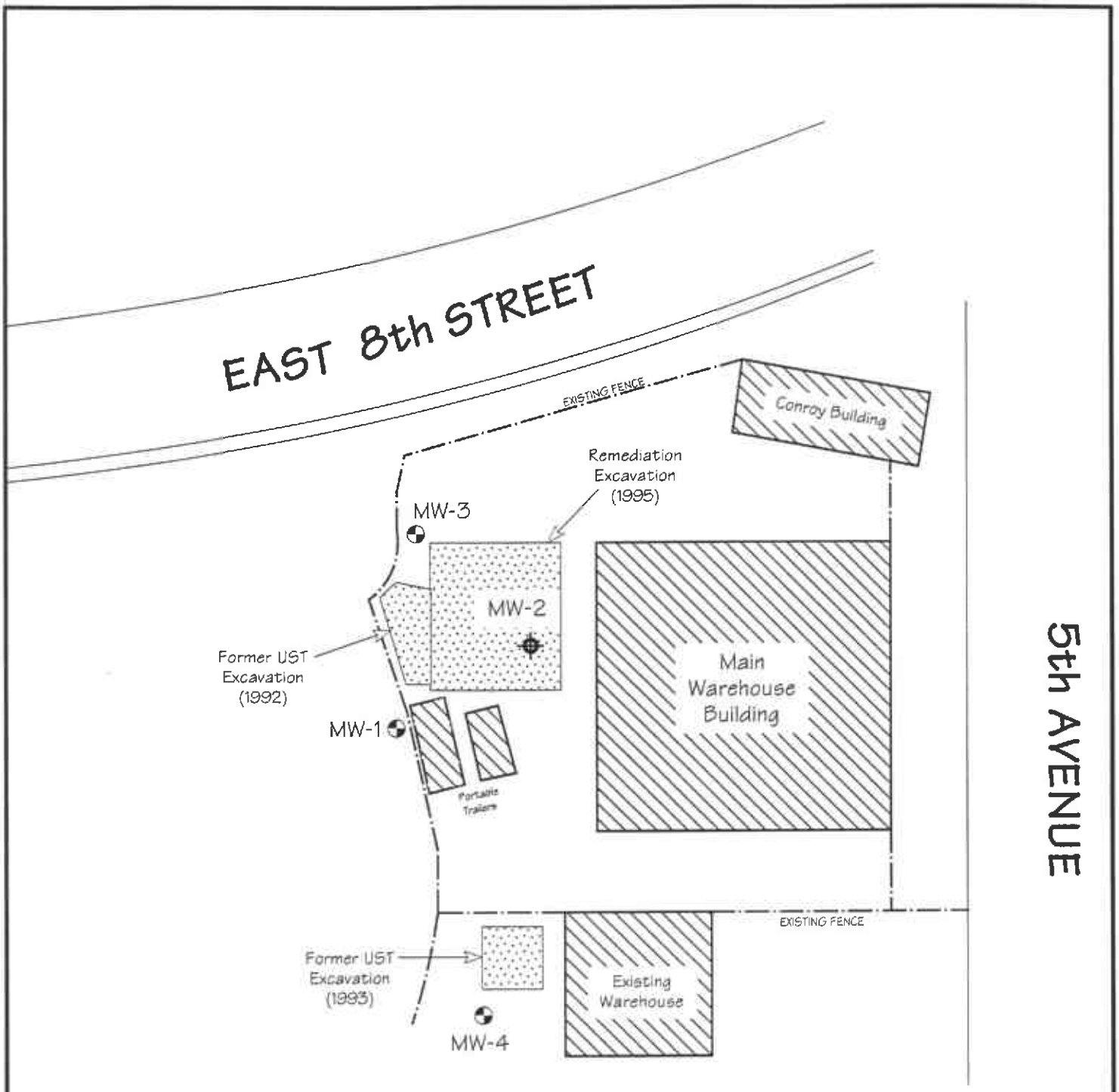

Scale In Feet

0 50 100 150

Legend

MW-3 - Existing Groundwater Monitoring Well

MW-2 - Former Groundwater Monitoring Well (destroyed)

Site Plan
Peralta Community College District
Maintenance Yard
501 5th Avenue, Oakland, California

Figure Number: 2	Scale: 1" = 100'
Drawn By: JVC	Date: 3/27/96
Project Number: 6045-14	

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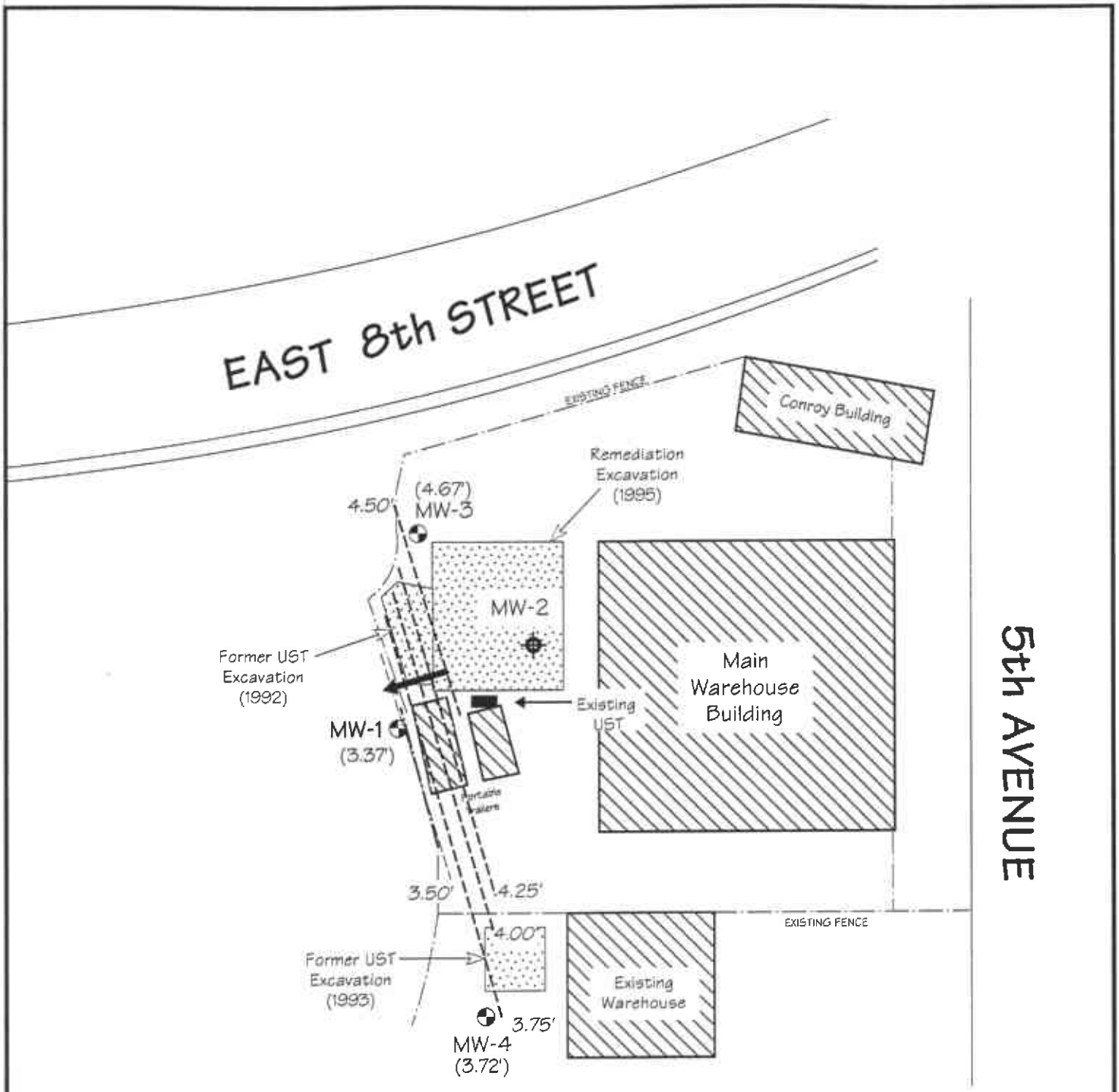
N E W S



Scale In Feet

0 50 100 150

Legend

MW-3 - Existing Groundwater Monitoring Well

MW-2 - Former Groundwater Monitoring Well (destroyed)

- Groundwater Flow Direction

Groundwater Gradient Map
Peralta Community College District
Maintenance Yard
501 5th Avenue, Oakland, California

Figure Number: 3	Scale: 1" = 100'
Drawn By: MCK	Date: 1/19/98
Project Number: 6045-14	

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ACC MONITORING WELL WORKSHEET

JOB NAME: Peralta Corp. Yard	PURGE METHOD: Manual Bailing
SITE ADDRESS: 501 54th Ave	SAMPLED BY: Eloy Cisneros
JOB #: 6045-009.00	LABORATORY: Chromalab
DATE: 1/19/98	ANALYSIS: TPHg, BTEX, MTBE, TEPH
Onsite Drum Inventory SOIL:	MONITORING ☒ DEVELOPING ☐
EMPTY: WATER: 1=100% 1=60%	SAMPLING ☒

WELL: MW-1

DEPTH OF BORING: 14.35'
DEPTH TO WATER: 3.41'
WATER COLUMN: 10.94'
WELL DIAMETER: 2"
WELL VOLUME:
COMMENTS:

PURGE VOL. (Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.
	7.63	17.6	341	0.04	521	1.6

OBSERVATIONS
☐ Froth
☐ Sheen
☐ Odor Type_____
☐ Free Product
Amount_____Type_____
☐ Other

WELL: MW-3

DEPTH OF BORING: 14.23'
DEPTH TO WATER: 4.16'
WATER COLUMN: 10.07'
WELL DIAMETER: 2"
WELL VOLUME:
COMMENTS:

PURGE VOL. (Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.
	7.98	17.8	297	0.05	168	1.8

OBSERVATIONS
☐ Froth
☐ Sheen
☐ Odor Type_____
☐ Free Product
Amount_____Type_____
☐ Other

WELL: MW-4

DEPTH OF BORING: 14.36'
DEPTH TO WATER: 1.73'
WATER COLUMN: 12.63'
WELL DIAMETER: 2"
WELL VOLUME:
COMMENTS:

PURGE VOL. (Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.
	8.09	17.3	411	0.05	248	1.3

OBSERVATIONS
☐ Froth
☐ Sheen
☐ Odor Type_____
☐ Free Product
Amount_____Type_____
☐ Other

CHROMALAB, INC.

Environmental Services (SDB)

January 29, 1998 *Submission #:* 9801251

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: 501 5TH AVE *Project#:* 6045-4.0
Received: January 22, 1998

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **MW-1**
Spl#: 167502 *Matrix:* WATER
Sampled: January 19, 1998 *Run#:*10852 *Analyzed:* January 27, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	84	1
MTBE	N.D.	5.0	N.D.	110	1
BENZENE	N.D.	0.50	N.D.	105	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	100	1
XYLENES	N.D.	0.50	N.D.	101	1

Vincent Vancil
Chemist

Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

January 29, 1998 *Submission #:* 9801251

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: 501 5TH AVE *Project#:* 6045-4.0
Received: January 22, 1998

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **MW-3**
Spl#: 167504 *Matrix:* WATER
Sampled: January 19, 1998 *Run#:*10852 *Analyzed:* January 27, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	84	1
MTBE	N.D.	5.0	N.D.	110	1
BENZENE	N.D.	0.50	N.D.	105	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	100	1
XYLENES	N.D.	0.50	N.D.	101	1

Vincent Vancil
Chemist

Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

January 29, 1998 *Submission #:* 9801251

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: 501 5TH AVE *Project#:* 6045-4.0
Received: January 22, 1998

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **MW-4**
Spl#: 167505 *Matrix:* WATER
Sampled: January 19, 1998 *Run#:*10852 *Analyzed:* January 27, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	53	50	N.D.	84	1
MTBE	N.D.	5.0	N.D.	110	1
BENZENE	2.2	0.50	N.D.	105	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	100	1
XYLENES	N.D.	0.50	N.D.	101	1

Vincent Vancil
Chemist

Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

January 28, 1998 *Submission #:* 9801251

ACC ENVIRONMENTAL CONSULTANTS

Atten: Misty Kaltreider

Project: 501 5TH AVE *Project#:* 6045-4.0
Received: January 22, 1998

re: 3 samples for TEPH analysis.
Method: *EPA 8015M*

Matrix: WATER *Extracted:* January 26, 1998
Sampled: January 19, 1998 *Run#:* 10836 *Analyzed:* January 26, 1998

Spl#	CLIENT SPL ID	Kerosene (ug/L)	Diesel (ug/L)	Motor Oil (ug/L)
167502	MW-1	N.D.	340	740
	Note: *Hydrocarbon reported as Diesel is in the late Diesel Range and does not match our Diesel Standard. Hydrocarbon reported as Motor oil does not match the pattern of our Motor oil Standard.*			
167504	MW-3	N.D.	520	1000
	Note: *Hydrocarbon reported as Diesel is in the late Diesel Range and does not match our Diesel Standard. Hydrocarbon reported as Motor oil does not match the pattern of our Motor oil Standard.*			
167505	MW-4	N.D.	200	550
	Note: *Hydrocarbon reported as Diesel is in the late Diesel Range and does not match our Diesel Standard. Hydrocarbon reported as Motor oil does not match the pattern of our Motor oil Standard.*			
Reporting Limits		50	50	500
Blank Result			N.D.	
Blank Spike Result (%)		--	87.6	--

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)

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

Chain of Custody

DATE 1/22/98 PAGE 1 OF 1

PROJ. MGR Misty Kaltreider
COMPANY ACC Environmental
ADDRESS 7977 Capwell Dr., Suite 100
Oakland, Ca. 94621

SAMPLERS (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)	MTBE	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	Hold			NUMBER OF CONTAINERS
MW-1	1/19/98	16:00	H_2O	HCL		X	X									X									4
MW-3	1/19/98	15:00	H_2O	HCL		X	X									X									4
MW-4	1/19/98	15:30	H_2O	HCL		X	X									X									4

PROJECT INFORMATION

PROJECT NAME: 501 5th Ave
PROJECT NUMBER: 6045-4.0
P.O. #: 6045-004.00

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	12
HEAD SPACE	
REC'D GOOD CONDITION/COLD	
CONFORMS TO RECORD	

TAT: STANDARD 5-DAY | | 24 | 48 | 72 | OTHER

SPECIAL INSTRUCTIONS/COMMENTS:

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY
(SIGNATURE) (TIME) 1138	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
(PRINTED NAME) (DATE) Elon Lisneros 1/22/98	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
(COMPANY) ACC Environmental	(COMPANY)	(COMPANY)
RECEIVED BY 1.	**RECEIVED BY 2.**	**RECEIVED BY (LABORATORY)**
(SIGNATURE) (TIME) 1138	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
(PRINTED NAME) (DATE) Maria 1-22-98	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
(COMPANY)	(COMPANY)	(LAB)