

美國和利食品公司 屋

STD 3707

Wo Lee Food Co.

208 JACKSON ST., OAKLAND, CA 94607
TEL: (510) 444-7083 • (510) 834-5868 • FAX: (510) 444-4657

ENVIRONMENTAL PROTECTION
98 MAY 28 PM 4:28

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MAY 19, 1998

MR. THOMAS F. PEACOCK,
ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 HARBOR BAY PARKWAY, 2ND FLOOR,
ALAMEDA, CA 94502

STD 3707

RE : BIENNIAL GROUNDWATER MONITORING REPORT
208 JACKSON STREET, OAKLAND, CALIFORNIA
ACC PROJECT NO. 96-6238-001.02

Dear Mr. Peacock;

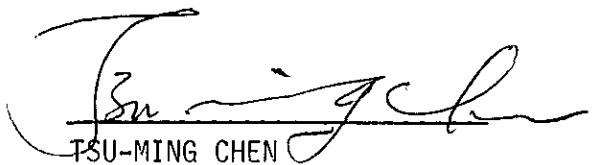
report

Enclosed one copy of groundwater monitoring report from ACC Environmental Consultants, Inc. (ACC) Conducted groundwater monitoring and Sampling at 208 Jackson Street, Oakland, California on March 25, 1998.

Groundwater analytical results indicate that natural attenuation processes at the site are reducing the concentration of dissolved-phase petroleum hydrocarbons. Gasoline concentrations have decreased in wells MW-4 and MW-5 since the previous. Sampling event in October 1997.

If you have any questions regarding this report or the project, please call our company at (510) 444-7083.

SINCERELY


TSU-MING CHEN

BIANNUAL GROUNDWATER MONITORING REPORT

**Wo Lee Food Company
208 Jackson Street
Oakland, California**


ACC Project No. 96-6238-001.02

Prepared for:

Wo Lee Food Company
208 Jackson Street
Oakland, California


May 4, 1998

Prepared by:



Stephen Southern
Senior Environmental Assessor

Reviewed by:



David R. DeMent, RG
Senior Geologist



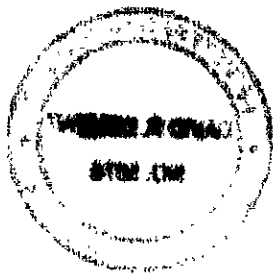


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BIANNUAL GROUNDWATER MONITORING REPORT

Wo Lee Food Company
208 Jackson Street
Oakland, California

1.0 INTRODUCTION

On behalf of Wo Lee Food Company, ACC Environmental Consultants, Inc., (ACC) has prepared this report of biannual groundwater monitoring performed at 208 Jackson Street, Oakland, California (Figure 1). The purpose of the work was to evaluate groundwater in the vicinity of the former fuel underground storage tanks (USTs). The project objectives were to: 1) measure the groundwater levels in each well and calculate groundwater elevation, gradient, and flow direction; 2) obtain groundwater samples from the two selected monitoring wells and analyze the water samples for petroleum hydrocarbon constituents; and 3) report the findings.

2.0 BACKGROUND

Four USTs were removed from the site in March 1990 (Figure 2). Tanks #1 and #3 are reported to have contained diesel fuel and tanks #2 and #4 reportedly contained gasoline fuel. Laboratory analytical results indicated that concentrations of total petroleum hydrocarbons as diesel (TPHd) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) were reported in the soil from the excavation of tank #1. Soils left in place in the other tank excavations contained relatively low concentrations of total petroleum hydrocarbons as gasoline (TPHg), TPHd, and BTEX. Approximately 125 cubic yards of soil generated from the tank removals were reportedly excavated and stockpiled on site.

Three exploratory soil borings were drilled at the site by Subsurface Consultants, Inc., (SCI) in May 1990 and converted into groundwater monitoring wells MW-1, MW-2, and MW-3 (Figure 2). SCI collected water samples from monitoring wells MW-2 and MW-3 and the tank #2 excavation in January 1994 and submitted the samples for analyses. Analytical results of groundwater samples from wells MW-2 and MW-3 did not indicate concentrations of TPHg, TPHd, or BTEX, but a sample of water collected from the tank #2 excavation indicated 3,700 $\mu\text{g/L}$ or micrograms per liter, equivalent to parts per billion (ppb) TPHd and 1.1 ppb xylenes.

SCI conducted further subsurface assessment in May 1994. Two additional groundwater monitoring wells (MW-4 and MW-5) were installed downgradient of the former USTs, adjacent to Second Street in the southern corner of the property. SCI sampled the onsite monitoring wells but was unable to locate well MW-1. Well MW-1 is believed to have been destroyed during overexcavation of soil in the vicinity of former tanks #1 and #3. Analytical results of groundwater samples collected from wells MW-2, MW-4, and MW-5 indicated that groundwater had been impacted by petroleum hydrocarbons from the former underground storage of gasoline and diesel fuels.

Due to the constituents detected in the groundwater on site, Alameda County Health Care Services Agency (ACHCSA) requested additional offsite and onsite subsurface investigation.

In March 1995, ACC performed an additional subsurface investigation, which included drilling five exploratory soil borings (B-1 through B-5) off site along Second and Madison Streets (in the downgradient direction) and 11 onsite borings (B-6 through B-16). Laboratory analytical results indicated that subsurface soil and groundwater impacts were predominantly located in the immediate vicinity of the open excavation and wells MW-4 and MW-5, with little or no offsite migration. In September through November 1995, ACC measured water levels in four groundwater monitoring wells and calculated groundwater flow direction and gradient. This work was performed in order to properly place any proposed downgradient monitoring wells.

ACC prepared a Corrective Action Plan (CAP) dated July 10, 1996. Based on investigation work performed to date, ACC recommended selective excavation and impacted groundwater removal as a means of source removal. This CAP was later amended to recommend natural attenuation as the primary remedial action option due to decreases in the concentrations of gasoline and diesel fuel constituents documented in groundwater.

In its letter dated August 12, 1996, ACHCSA requested that biannual groundwater monitoring and sampling be reinstated to evaluate groundwater conditions at the site. The letter requested that samples be analyzed for TPHg, TPHd, BTEX, and methyl tertiary butyl ether (MTBE). Initial biannual monitoring was conducted on September 4, 1996. ACHCSA approved sampling in wells MW-4 and MW-5 only in a letter dated September 24, 1997, based on previous non-reportable concentrations of petroleum hydrocarbons in wells MW-2 and MW-3.

3.0 GROUNDWATER MONITORING AND SAMPLING

ACC conducted biannual groundwater monitoring and sampling on March 25, 1998. Work at the site included measuring depth to water and subjectively evaluating groundwater in the four existing wells, and purging and sampling wells MW-4 and MW-5 for laboratory analysis.

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 well casing using an electric 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 recorded on the well monitoring worksheet is included as Appendix 1. Information regarding well elevations and groundwater levels are summarized in Table 1.

TABLE 1 - GROUNDWATER DEPTH INFORMATION

Well Number	Date Measured	Casing Elevation (MSL)	Groundwater Depth (feet)	Groundwater Elevation (MSL)
MW-2	09/26/95	6.64	5.20	1.44
	10/27/95		5.11	1.53
	11/30/95		5.19	1.45
	09/04/96		5.05	1.59
	03/21/97		4.31	2.33
	10/01/97		5.18	1.46
	03/25/98		3.40	3.24
MW-3	09/26/95	7.71	5.71	2.00
	10/27/95		5.81	1.90
	11/30/95		5.90	1.81
	09/04/96		5.64	2.07
	03/21/97		5.03	2.68
	10/01/97		5.84	1.87
	03/25/98		4.29	3.42
MW-4	09/26/95	6.74	5.39	1.35
	10/27/95		5.43	1.31
	11/30/95		5.51	1.23
	09/04/96		5.28	1.46
	03/27/97		4.67	2.07
	10/01/97		5.46	1.28
	03/25/98		3.62	3.12
MW-5	09/26/95	6.73	5.14	1.59
	10/27/95		5.17	1.56
	11/30/95		5.26	1.47
	09/04/96		5.11	1.62
	03/21/97		4.32	2.41
	10/01/97		5.23	1.50
	03/25/98		3.08	3.65

Notes: All measurements in feet relative to MSL

3.2 Groundwater Gradient

The groundwater flow direction as determined from monitoring well data obtained on March 25, 1998 is illustrated on Figure 3. Based on groundwater elevation measurements, groundwater flow at the site is toward the southeast at a gradient of 0.007 foot/foot. The groundwater flow direction and gradient in the southeast corner of the site are consistent with previous sampling events. Table 2 summarizes historic gradients and approximate flow directions determined from groundwater elevations.

TABLE 2 - GROUNDWATER GRADIENT AND FLOW DIRECTION

Date Monitored	Average Gradient (foot/foot)	Direction
September 9, 1995	0.004	south-southeast
October 27, 1995	0.003	south
November 30, 1995	0.003	south
September 4, 1996	0.003	south
March 21, 1997	0.007	south
October 1, 1997	0.003	south
March 25, 1998	0.007	Southeast

3.3 Groundwater Sampling

Before groundwater sampling, wells MW-4 and MW-5 were purged using a disposable polyethylene bailer for each well. Groundwater samples were collected when temperature, pH, dissolved oxygen (DO), salinity, turbidity, and conductivity of the water stabilized and four well casing volumes of water had been removed. Following purging, each well was allowed to recharge before 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 worksheets is presented as Appendix 1.

Wells were sampled using disposable polyethylene bailers attached to new string. From each monitoring well, approved, laboratory-supplied 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. 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.

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 wells MW-4 and MW-5 were submitted to Chromalab following chain of custody protocol. The samples were analyzed for TPHg, BTEX, and MTBE by EPA Method SW846 8020A Nov 1990/8015M and TPHd by EPA Method 8015M. Samples from wells MW-4 and MW-5 had reportable concentrations of TPHg, BTEX, and TPHd. A minor concentration of MTBE was reported in the sample from well MW-4. Table 3 summarizes

groundwater sample analytical results. A copy of the analytical results and chain of custody record is included in Appendix 2.

TABLE 3 - GROUNDWATER SAMPLE ANALYTICAL RESULTS

Well No.	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TPHd (µg/L)	MTBE (µg/L)
MW-1 (destroyed)	05/21/90	25,000	400	440	330	650	5,500	---
MW-2	05/21/90	<50	<1.0	<1.0	<1.0	<1.0	<50	---
	01/06/94	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	09/04/96	<50	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	03/21/97	<50	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	10/01/97	---	---	---	---	---	---	---
	03/25/98	---	---	---	---	---	---	---
MW-3	05/21/90	<50	<1.0	<1.0	<1.0	<1.0	<50	---
	01/06/94	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/03/94	<50	<0.5	<0.5	<0.5	<0.5	230 ⁽¹⁾	---
	09/04/96	<50	<0.5	<0.5	<0.5	<0.5	<50	<50
	03/21/97	<50	<0.5	<0.5	<0.5	<0.5	<50	<5
	10/01/97	---	---	---	---	---	---	---
	03/25/98	---	---	---	---	---	---	---
MW-4	06/03/94	210,000	7,600	28,000	3,700	24,000	9,800	---
	09/04/96	45,000	5,100	4,600	4,100	14,000	<50	<500
	03/21/97	58,000	5,000	6,300	4,600	14,000	<50	<250
	10/01/97	48,000	5,000	3,800	3,900	12,000	<260	<250
	03/25/98	26,000	1,300	2,200	2,200	4,600	9,300 ⁽³⁾	8.4
MW-5	06/03/94	7,800	3.8	6.2	10	16	4,600	---
	09/04/96	1,600	14	3.6	9.7	13	<50	<5
	03/21/97	430	4.2	<0.5	1.4	0.62	690 ⁽²⁾	<5
	10/01/97	1,100	0.7	1.1	1.2	1.9	1,800 ⁽²⁾	<5
	03/25/98	480	<0.5	1.3	1.5	6.5	230 ⁽³⁾	<5

Notes: (1) Reported to be an anomalous result from one chromatogram peak
 (2) Hydrocarbon reported does not match laboratory diesel standard
 (3) Estimated concentration due to overlapping fuel patterns.

5.0 DISCUSSION

Overall, concentrations of TPHg and BTEX decreased in wells MW-4 and MW-5. The concentration of TPHd increased in well MW-4 while it decreased in well MW-5. The concentration of xylenes increased in well MW-5.

Groundwater flow direction and gradient were fairly consistent with previous sampling events. Gradient appears to vary on a seasonal basis from 0.003 during dry periods to approximately 0.007 following precipitation events. Groundwater flow direction changed from south to southeast.

5.1 Natural Attenuation

Remediation by natural attenuation is the reduction in concentration, mass, or mobility of constituents of concern with distance and time due to naturally occurring processes in the environment. For petroleum hydrocarbons in the subsurface, biological degradation is the most important process in the reduction of mass.

Direct evidence of natural attenuation has been documented at the site. Groundwater monitoring has demonstrated decreases in concentrations of petroleum hydrocarbons, particularly BTEX and short-chain hydrocarbons. Previous boring investigation indicated little or no offsite migration. Site conditions appear to support natural biodegradation before the petroleum hydrocarbons can migrate any appreciable distance. Concentrations of petroleum hydrocarbons fluctuate but are generally decreasing with time.

6.0 CONCLUSIONS

Based on information collected during four consecutive sampling events, ACC concludes that:

- Calculated groundwater flow direction and gradient are consistent;
- Concentrations of gasoline and diesel constituents continue to fluctuate in wells MW-4 and MW-5, but show a generally decreasing trend over time; and
- Natural attenuation processes, principally biodegradation, are reducing the mass and concentration of dissolved-phase petroleum hydrocarbons but are controlled by limited dissolved oxygen levels.

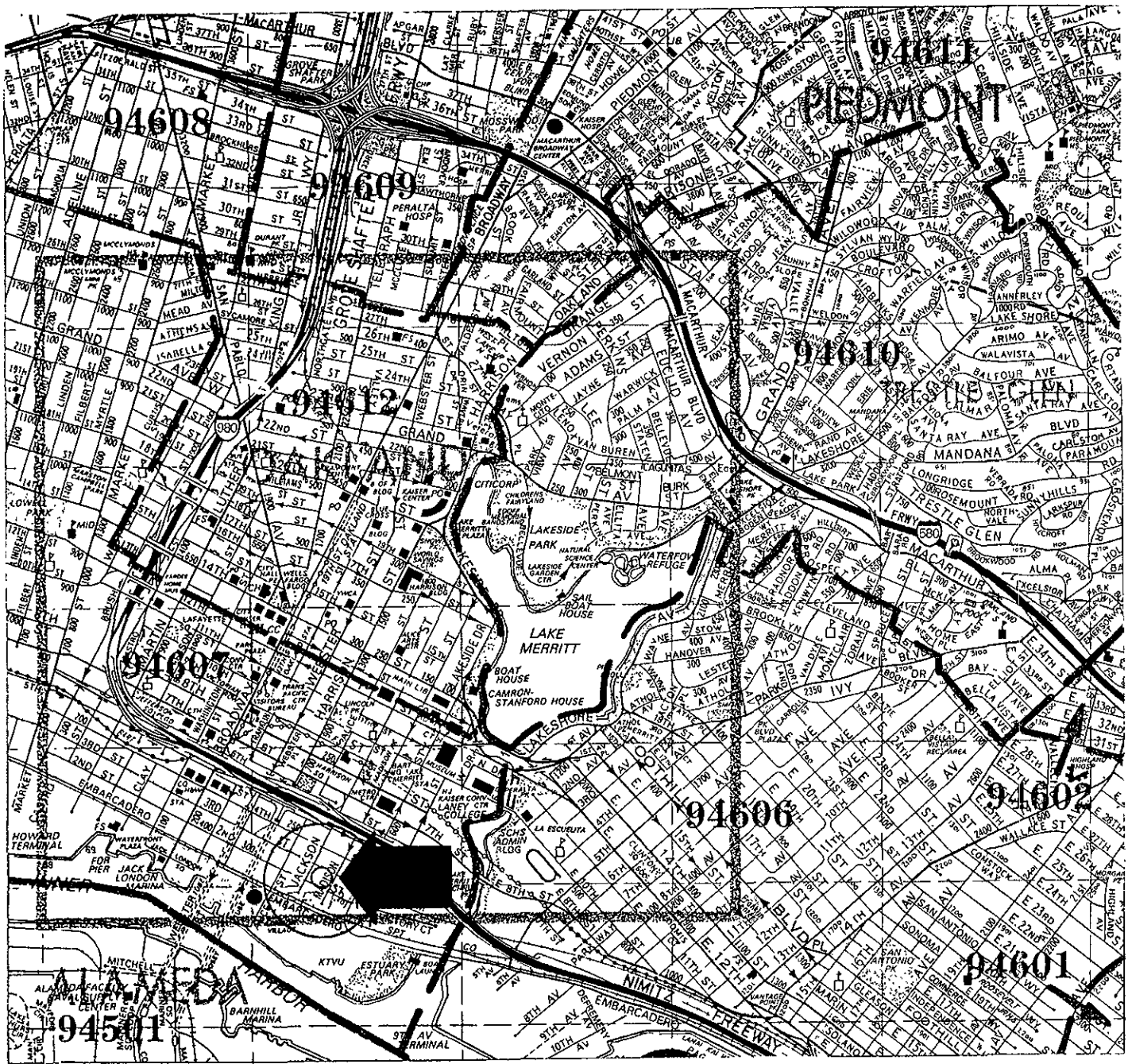
7.0 RECOMMENDATIONS

Based on conclusions from consecutive sampling events, ACC recommends that:

- Oxygen releasing compound be installed in wells MW-4 and MW-5, or in the vicinity of the wells, to enhance natural biodegradation and assist in preventing any offsite migration of impacted groundwater; and

- Groundwater sampling and monitoring of onsite wells MW-4 and MW-5 should continue on a biannual basis to verify the trend of decreasing petroleum hydrocarbon concentrations.

The next biannual groundwater sampling will be conducted in September 1998.



Source: Thomas Brothers Guide

FIGURE 1: LOCATION MAP
 208 Jackson Street
 Oakland, California

Project No. 6249-1.0

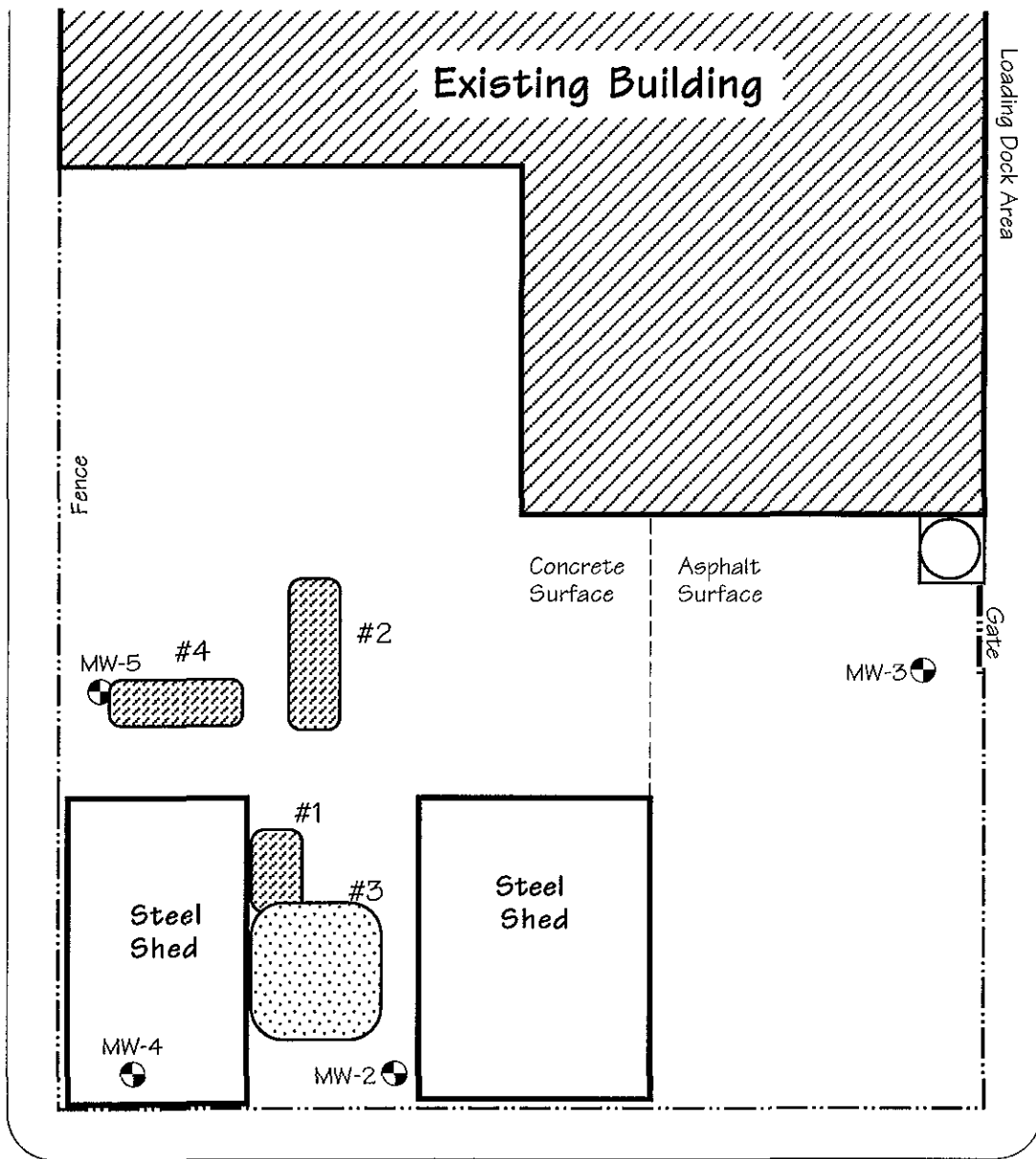
Scale: 1" = 40'

Drawn By: JVC

Date: 10/30/95

ACC Environmental Consultants
 7977 Capwell Drive, Suite 100
 Oakland, CA 94621
 (510)638-8400 Fax (510)638-8404

Second Street



Loading Dock Area




Third Street

Madison Street

Scale in Feet



Legend

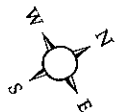
-  - Open Excavation
-  - Former UST Location
- MW-2  - Existing Groundwater Monitoring Well

Title: **SITE PLAN**
 208 Jackson Street
 Oakland, California

Figure No: 2 Scale: 1" = 40'
 Drawn By: JVC/DRD Date: 3/30/97

Project No: 6238-001.02

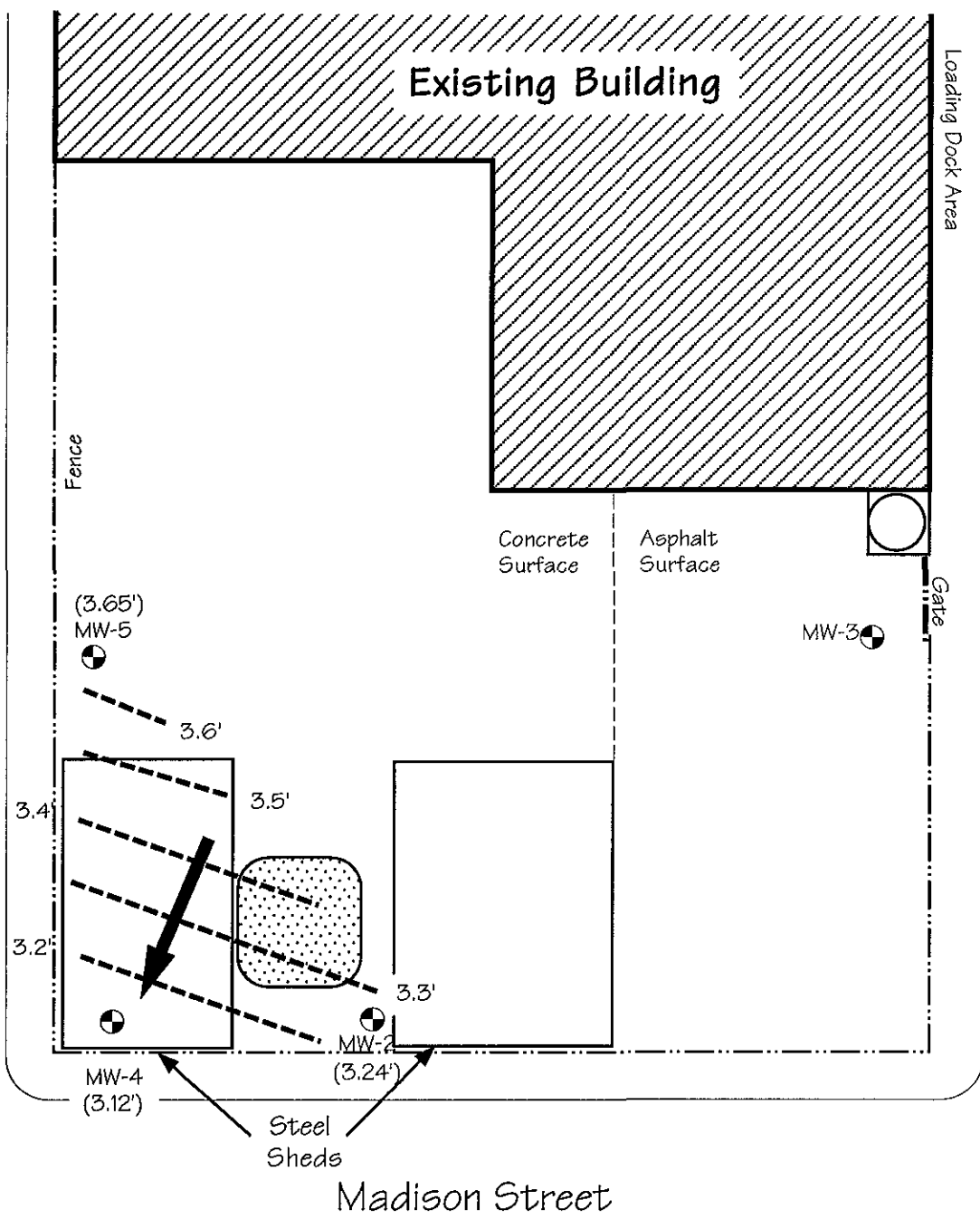
ACC Environmental Consultants, Inc.
 7977 Capwell Drive, Suite 100
 Oakland, CA 94621
 (510)638-8400 Fax (510)638-8404







Jackson St



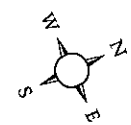
Second Street



Legend

- MW-2  - Existing Groundwater Monitoring Well
-  - Groundwater Elevation Contour
-  - Approximate Groundwater Flow Direction
-  - Open Excavation

Groundwater levels measured on March 25, 1998, Well MW-3 not used to calculate groundwater elevations

Title: Gradient Map Wo Lee Food 208 Jackson Street Oakland, California	
Figure No: 3	Scale: 1" = 40'
Drawn By: JVC/DRD	Date: 4/30/98
Project No: 6238-001.02	
ACC Environmental Consultants, Inc. 7977 Capwell Drive, Suite 100 Oakland, CA 94621 (510)638-8400 Fax (510)638-8404	
	

WELL MONITORING WORKSHEET

JOB NAME: <i>WoLee Food Co.</i>	PURGE METHOD: <i>Manual Bailing</i>
SITE ADDRESS: <i>208 Jackson St.</i>	SAMPLED BY: <i>E. Cisneros</i>
JOB #: <i>6238-1.0</i>	LABORATORY: <i>Chromalab</i>
DATE: <i>3/25/98</i>	ANALYSIS: <i>TPH_g, BTEX, MTBE</i>
Onsite Drum Inventory SOIL: <i>1</i>	MONITORING <input checked="" type="checkbox"/> DEVELOPING <input type="checkbox"/>
EMPTY: <i>1</i> WATER: <i>1=100% 1=70% 1=50%</i>	SAMPLING <input checked="" type="checkbox"/>

	PURGE VOL.	PURGE WATER READINGS						OBSERVATIONS	
	(Gal)	pH	Temp (C)	Cond.	Sal.	Turb.	D.O.	<input type="checkbox"/> Froth	<input type="checkbox"/> Sheen
WELL: <i>MW-2</i>								<input type="checkbox"/>	
DEPTH OF BORING: <i>9.19'</i>								<input type="checkbox"/>	
DEPTH TO WATER: <i>3.40'</i>								<input type="checkbox"/>	Odor Type _____
WATER COLUMN:								<input type="checkbox"/>	Free Product
WELL DIAMETER:								<input type="checkbox"/>	Amount _____ Type _____
WELL VOLUME:								<input type="checkbox"/>	Other
COMMENTS: <i>Did Not Sample</i>									
WELL: <i>MW-3</i>								<input type="checkbox"/>	Froth
DEPTH OF BORING: <i>9.24'</i>								<input type="checkbox"/>	Sheen
DEPTH TO WATER: <i>4.29'</i>								<input type="checkbox"/>	Odor Type _____
WATER COLUMN:								<input type="checkbox"/>	Free Product
WELL DIAMETER:								<input type="checkbox"/>	Amount _____ Type _____
WELL VOLUME:								<input type="checkbox"/>	Other
COMMENTS: <i>Did Not Sample</i>									
WELL: <i>MW-4</i>								<input type="checkbox"/>	Froth
DEPTH OF BORING: <i>9.39'</i>	<i>1.0</i>	<i>6.90</i>	<i>16.6</i>	<i>2.30</i>	<i>0.11</i>	<i>999</i>	<i>2.1</i>	<input type="checkbox"/>	Sheen
DEPTH TO WATER: <i>3.62'</i>	<i>2.0</i>	<i>6.81</i>	<i>16.7</i>	<i>2.28</i>	<i>0.11</i>	<i>999</i>	<i>1.9</i>	<input checked="" type="checkbox"/>	Odor Type <i>gas</i>
WATER COLUMN: <i>5.77'</i>	<i>3.0</i>	<i>6.85</i>	<i>16.5</i>	<i>2.29</i>	<i>0.11</i>	<i>999</i>	<i>2.0</i>	<input type="checkbox"/>	Free Product
WELL DIAMETER: <i>2"</i>								<input type="checkbox"/>	Amount _____ Type _____
WELL VOLUME: <i>≈ 1.0 gal</i>								<input type="checkbox"/>	Other
COMMENTS:									
	<i>4.0</i>	<i>6.86</i>	<i>16.6</i>	<i>2.29</i>	<i>0.11</i>	<i>999</i>	<i>2.0</i>		

JOB NAME: <u>Wollec Food Co.</u>	PURGE METHOD: <u>Manual Bailing</u>
SITE ADDRESS: <u>208 Jackson St.</u>	SAMPLED BY: <u>E. Cisneros</u>
JOB #: <u>6238-1.0</u>	LABORATORY: <u>Chromalab</u>
DATE: <u>3/25/98</u>	ANALYSIS: <u>TPHg, BTEX, MTBE</u>
Onsite Drum Inventory SOIL:	MONITORING <input checked="" type="checkbox"/> DEVELOPING <input type="checkbox"/>
EMPTY: WATER: = 100% = 50% = 75%	SAMPLING <input checked="" type="checkbox"/>

	PURGE VOL.	PURGE WATER READINGS						OBSERVATIONS
	(Gal)	pH	Temp.(C)	Cond.	Sal	Turb	D.O.	
WELL: <u>MW-5</u>								<input type="checkbox"/> Froth
DEPTH OF BORING: <u>8.99'</u>	<u>1.0</u>	<u>7.88</u>	<u>17.0</u>	<u>.486</u>	<u>602</u>	<u>947</u>	<u>2.6</u>	<input type="checkbox"/> Sheen
DEPTH TO WATER: <u>3.08'</u>	<u>2.0</u>	<u>7.72</u>	<u>16.5</u>	<u>.447</u>	<u>0.01</u>	<u>896</u>	<u>2.4</u>	<input type="checkbox"/> Odor Type _____
WATER COLUMN <u>5.91'</u>	<u>3.0</u>	<u>7.68</u>	<u>16.6</u>	<u>.445</u>	<u>0.01</u>	<u>999</u>	<u>2.1</u>	<input type="checkbox"/> Free Product
WELL DIAMETER: <u>2"</u>								Amount _____ Type _____
WELL VOLUME: <u>21.0 gal</u>								<input type="checkbox"/> Other
COMMENTS:								
	<u>4.0</u>	<u>7.65</u>	<u>16.6</u>	<u>.445</u>	<u>0.02</u>	<u>999</u>	<u>2.3</u>	
WELL:	(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb	D.O.	<input type="checkbox"/> Froth
DEPTH OF BORING:								<input type="checkbox"/> Sheen
DEPTH TO WATER:								<input type="checkbox"/> Odor Type _____
WATER COLUMN:								<input type="checkbox"/> Free Product
WELL DIAMETER:								Amount _____ Type _____
WELL VOLUME:								<input type="checkbox"/> Other
COMMENTS:								
WELL:	(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.	<input type="checkbox"/> Froth
DEPTH OF BORING:								<input type="checkbox"/> Sheen
DEPTH TO WATER:								<input type="checkbox"/> Odor Type _____
WATER COLUMN:								<input type="checkbox"/> Free Product
WELL DIAMETER:								Amount _____ Type _____
WELL VOLUME:								<input type="checkbox"/> Other
COMMENTS:								

ANALYTICAL RESULTS AND CHAIN OF CUSTODY

CHROMALAB, INC.

Environmental Services (SDB)

April 21, 1998

Submission #: 9803458

ACC ENVIRONMENTAL CONSULTANTS

Atten: David DeMent

Project: 208 JACKSON ST.
Received: March 31, 1998

Project#: 6238-1.0

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

Client Sample ID: MW-4

Spl#: 178008


Matrix: WATER

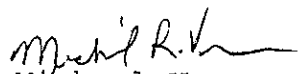
Sampled: March 25, 1998

Run#:11952

Analyzed: April 1, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE -	26000	50	N.D.	113	1
MTBE	8.4	5.0	N.D.	89	1
BENZENE	1300	0.50	N.D.	87	1
TOLUENE	2200	0.50	N.D.	89	1
ETHYL BENZENE	2200	0.50	N.D.	102	1
XYLENES	4600	0.50	N.D.	94	1


Vincent Vancil
Chemist


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

April 24, 1998

Submission #: 9803458

ACC ENVIRONMENTAL CONSULTANTS

Atten: David DeMent

Project: 208 JACKSON ST.
Received: March 31, 1998

Project#: 6238-1.0

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

Client Sample ID: MW-5

Spl#: 178009

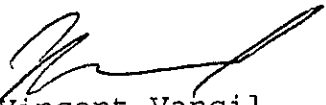
Matrix: WATER

Sampled: March 25, 1998

Run#:11952

Analyzed: April 2, 1998

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE .	480	50	N.D.	113	1
MTBE	N.D.	5.0	N.D.	89	1
BENZENE	N.D.	0.50	N.D.	87	1
TOLUENE	1.3	0.50	N.D.	89	1
ETHYL BENZENE	1.5	0.50	N.D.	102	1
XYLENES	6.5	0.50	N.D.	94	1


Vincent Vancil
Chemist


Michael Verona
Operations Manager

510 638 8404

PM V132 O: BTEXQC0220

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

PIERRE 14 43

CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1998

Submission #: 9803458

ACC ENVIRONMENTAL CONSULTANTS

Atten: David DeMent

Project: 208 JACKSON ST.
Received: March 31, 1998

Project#: 6238-1.0

re: 2 samples for TPH - Diesel analysis.
Method: EPA 8015M

Sampled: March 25, 1998 Matrix: WATER Extracted: April 3, 1998
Run#: 11975 Analyzed: April 3, 1998

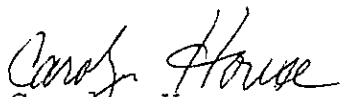
Spl#	CLIENT SPL ID	DIESEL (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
178009	MW-5	230	50	N.D.	101	1


Note: Estimated concentration due to overlapping fuel patterns.

Sampled: March 25, 1998 Matrix: WATER Extracted: April 3, 1998
Run#: 11975 Analyzed: April 6, 1998

Spl#	CLIENT SPL ID	DIESEL (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
178008	MW-4	9300	50	N.D.	101	1

Note: Estimated concentration due to overlapping fuel patterns.


Carolyn House
Chemist


Bruce Havlik
Chemist

CHROMALAB, INC.

Environmental Services (SDB)

April 6, 1998

Submission #: 9803458

ACC ENVIRONMENTAL CONSULTANTS

Atten: David DeMent

Project: 208 JACKSON ST.
Received: March 31, 1998

Project#: 6238-1.0

re: **Blank spike and duplicate** report for TPH - Diesel analysis.

Method: EPA 8015M

Matrix: WATER
Lab Run#: 11975

Analyzed: April 4, 1998

Analyte	Spike Amount		Spike Amount Found		Spike Recov		Control Limits	% RPD	% RPD Lim
	BSP (ug/L)	Dup	BSP (ug/L)	Dup	BSP (%)	Dup (%)			
DIESEL	2500	2500	2520	2480	101	99.2	60-130	1.80	25

CHROMALAB, INC.

Environmental Services (SDB)

April 6, 1998

Submission #: 9803458

ACC ENVIRONMENTAL CONSULTANTS

Atten: David DeMent

Project: 208 JACKSON ST.
Received: March 31, 1998

Project#: 6238-1.0

re: **Surrogate** report for 2 samples for TPH - Diesel analysis.

Method: EPA 8015M
Lab Run#: 11975
Matrix: WATER

<u>Sample#</u>	<u>Client Sample ID</u>	<u>Surrogate</u>	<u>% Recovered</u>	<u>Recovery Limits</u>
178008-1	MW-4	O-TERPHENYL	121	60-130
178009-1	MW-5	O-TERPHENYL	99.6	60-130

<u>Sample#</u>	<u>QC Sample Type</u>	<u>Surrogate</u>	<u>% Recovered</u>	<u>Recovery Limits</u>
178664-1	Reagent blank (MDB)	O-TERPHENYL	106	60-130
178665-1	Spiked blank (BSP)	O-TERPHENYL	108	60-130
178666-1	Spiked blank duplicate (BSD)	O-TERPHENYL	107	60-130

S005
QCSURR1 229 CMH 06-Apr-98 16:32

2458 / 178008 - 178009
CHROMALAB, INC.

CHROMALAB, INC.
 7977 CARROLL DR., SUITE 100
 OAKLAND, CA 94621
 TEL: (510) 638-8400
 FAX: (510) 638-8404

39018

Chain of Custody

DATE 3/27/98 PAGE 1 OF 1

Environmental Services (SDB) (DOHS 1094)

PROJ MGR Dave DeMent
 COMPANY ACC Environmental
 ADDRESS 7977 Carroll Dr, Suite 100
Oakland, CA 94621

SAMPLERS (SIGNATURE) Eloy Cisneros (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 (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 5242)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, 8-F, E-F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	MTBE (EPA 8260)	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	NUMBER OF CONTAINERS
MW-4	3/25/98	4:10	H ₂ O	Cold	X	X	X									X						4
MW-5	3/25/98	3:20	H ₂ O	Cold	X	X	X									X						4

PROJECT INFORMATION

PROJECT NAME 208 Jackson St.
 PROJECT NUMBER 6238-1.0
 P.O. # 6238-001.00

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS 8
 HEAD SPACE
 REC'D GOOD CONDITION/COLD
 CONFORMS TO RECORD

TAT STANDARD 5-DAY 24 48 72 OTHER

SPECIAL INSTRUCTIONS/COMMENTS
Samples were collected 3/25/98 in unpreserved containers - watch for the hold time.

RELINQUISHED BY 1 <u>Eloy Cisneros</u> 12/14 (SIGNATURE) (TIME) <u>Eloy Cisneros</u> 3/30/98 (PRINTED NAME) (DATE) <u>ACC Environmental</u> (COMPANY)	RELINQUISHED BY 2 /	RELINQUISHED BY 3 <u>H. Cassidy</u> 13:01 (SIGNATURE) (TIME) <u>B. Cassidy</u> 3-31-98 (PRINTED NAME) (DATE) <u>Chromalab</u> (COMPANY)
RECEIVED BY 1 <u>H. Cassidy</u> 13:01 (SIGNATURE) (TIME) <u>Colleen Cassidy</u> 3-31-98 (PRINTED NAME) (DATE) <u>Chromalab</u> (COMPANY)	RECEIVED BY 2 /	RECEIVED BY (LABORATORY) 3 <u>Chromalab</u> 3-31-98 (LAB)

CHROMALAB, INC.

Environmental Service (SDB)

Sample Receipt Checklist

Client Name: ACC ENVIRONMENTAL CONSULTANTS Date/Time Received: 03/31/98 | 12:14

Reference/Submis: 39018 | 9803458 Received by: BM

Checklist completed by: Chris Rowley 3/31/98 Reviewed by: aw 4-1-98
Signature Date Initials Date

Matrix: H₂O Carrier name: Client C/I aw

Shipping container/cooler in good condition? Yes No Present Not Present

Custody seals intact on shipping container/cooler? Yes No Present Not Present

Custody seals intact on sample bottles? Yes No Present Not Present

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Container/Temp Blank temperature in compliance? Temp 3.8 °C Yes No

Water - VOA vials have zero headspace? No VOA vials submitted Yes No

Water - pH acceptable upon receipt? YES Adjusted? Checked by aw chemist for VOAs

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____