

last QR

September 11, 1996

Ms. Jennifer Eberle
Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, #250
Alameda, California 94502-6577

ENVIRONMENTAL
PROTECTION
95 SEP 13 PM 11

QUARTERLY GROUNDWATER MONITORING REPORT AND SITE CLOSURE REQUEST, JUNE 1996, 3924 MARKET STREET, OAKLAND, CALIFORNIA, FOR METZ BAKING COMPANY

Dear Ms. Eberle:

SECOR International Incorporated (*SECOR*) is pleased to submit this Quarterly Groundwater Monitoring Report and Site Closure Request presenting the results of groundwater monitoring conducted at 3924 Market Street in Oakland, California (the Site, see Figure 1, Site Location Map). *SECOR* is submitting this document on behalf of the Metz Baking Company (Metz). Metz formerly operated the Site as a San Francisco French Bread Company (SFFBC) facility. *SECOR* is providing this document to the Alameda County Department of Environmental Health (ACDEH) in accordance with recommended activities outlined in *SECOR's* Site Investigation Summary Report dated June 28, 1995. This report presents monitoring well sounding, groundwater elevation, and groundwater quality data collected from three Site wells on June 19, 1996.

INTRODUCTION

The Site formerly operated a 500-gallon underground storage tank (UST) with associated product line and fuel dispenser for fueling delivery trucks (see Figure 2). The UST and product line were excavated and removed on March 29, 1991. Soil samples collected during the UST excavation revealed the presence of petroleum hydrocarbons. The UST excavation was overexcavated on June 21, 1991 and additional soil samples collected for analysis also indicated the presence of petroleum hydrocarbons; however, at lower concentrations. On May 25 and 26, 1995, *SECOR* installed three groundwater monitoring wells (MW-1, MW-2 and MW-3) at the locations shown on Figure 2. The three wells were installed to assess groundwater flow direction and groundwater quality in the vicinity of the former UST.

GROUNDWATER MONITORING PROCEDURES

On June 19, 1996, *SECOR* sounded three groundwater monitoring wells (MW-1 through MW-3) using an electronic water-level indicator. The depth-to-groundwater and total well depth were measured for each well and recorded on the Hydrologic and Groundwater Sample Field Data Sheets included in Appendix A. The water-level indicator was rinsed with deionized water between the sounding of each well to prevent cross contamination.

Prior to sampling, wells were purged of approximately three wellbore volumes of water using a disposable PVC bailer. During purging, the evacuated groundwater was measured for pH, electrical conductivity, and temperature, and was visually inspected for color and turbidity. Parameter results were recorded on Groundwater Sample Field Data Sheets included in Appendix A. Upon removal of the appropriate purge volume and stabilization of the measured parameters, samples were collected from each well. Groundwater samples were decanted into pre-labeled laboratory-supplied glassware, placed in an ice-filled cooler, and

transported to NET Pacific Analytical Laboratory, Inc. (NET) of Santa Rosa, California, a state-certified laboratory under chain-of-custody documentation.

Three samples were submitted for chemical analysis of total petroleum hydrocarbons as gasoline (TPHg) and TPH as diesel (TPHd) by EPA Method 8015, modified and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020. Laboratory analytical reports and chain-of-custody records are included in Appendix B.

SUMMARY OF RESULTS

Monitoring well sounding data along with historic data are included in Table 1. Groundwater chemical results along with historic data are included in Table 2.

Monitoring Well Sounding

During this monitoring event, groundwater was measured at depths between 11.90 and 13.19 feet below the top of the PVC casing. These depths translate to groundwater elevations ranging from 43.70 to 44.56 feet above mean sea level (msl). During this monitoring event, groundwater elevations have decreased by up to 2.07 feet when compared with the March 1996 data. A groundwater elevation contour map based on the June 19, 1996 groundwater elevation data is presented as Figure 3. Interpretation of Figure 3 indicates a groundwater flow direction to the west under an average hydraulic gradient of 0.027 feet per foot (ft/ft) which is consistent with historic groundwater flow data.

Groundwater Chemical Results

Groundwater samples exhibited pH values ranging from 6.78 to 7.95 pH units; temperatures ranging from 67.0 to 76.3 degrees Fahrenheit; specific conductivities ranging from 568 to 713 micromhos per centimeter ($\mu\text{mhos/cm}$); tan color; and high turbidity. Groundwater chemical results for June 1996 are shown on Table 2 and displayed graphically on Figure 4. Laboratory analytical reports and chain-of-custody records are included in Appendix B.

During this monitoring event, the groundwater sample collected from well MW-1 was reported to contain TPHg, TPHd, and xylenes at respective concentrations of 220 micrograms per liter ($\mu\text{g/l}$), 2,000 $\mu\text{g/l}$ and 3.1 $\mu\text{g/l}$; this sample did not yield reportable concentrations of benzene, toluene, and ethylbenzene. The samples collected from wells MW-2 and MW-3 were reported to contain TPHd at respective concentrations of 260 $\mu\text{g/l}$ and 420 $\mu\text{g/l}$, no other analytes were reported in these two samples.

SECOR, on behalf of Metz, requests Site closure based on the following:

- The source of petroleum hydrocarbons was removed during UST removal and subsequent overexcavation activities conducted in March and June 1991.
- Groundwater chemical results from five consecutive quarters of monitoring (June 1995 through June 1996) reveal that groundwater in the vicinity of the former UST contains low concentrations of diesel-

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range petroleum hydrocarbons. The more mobile and toxic aromatic compounds (BTEX) associated with petroleum fuels are either not detected or sporadically detected at concentrations well below the Maximum Contaminant Levels (MCLs).

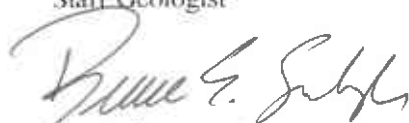
- Groundwater chemical results demonstrate that petroleum hydrocarbon concentrations within the area of affected groundwater are stable or declining, indicating source removal activities have removed or significantly reduced the source of petroleum hydrocarbons to groundwater. The low levels of dissolved phase hydrocarbons remaining in groundwater do not represent a significant threat to groundwater resources and will degrade over time.


We look forward to your response to this request, please do not hesitate to contact us at (415) 882-1548 with any question or comments regarding this document.

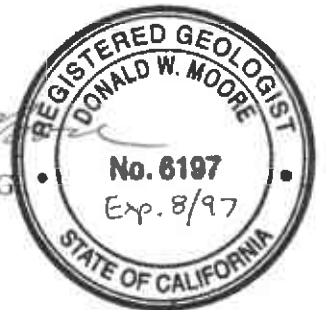
Sincerely,

SECOR International Incorporated


Liping Zhang
Staff Geologist


Bruce E. Scarbrough, R.G.
Principal Geologist


Donald W. Moore, R.G.
Project Manager



cc: Mr. Christopher Rants, Metz Baking Company

Attachments:

Table 1 - Monitoring Well Sounding Data
Table 2 - Groundwater Chemical Results

Figure 1 - Site Location Map
Figure 2 - Site Plan
Figure 3 - Groundwater Elevation Contour Map
Figure 4 - Groundwater Chemical Results

Appendix A - Hydrologic and Groundwater Sample Field Data Sheets
Appendix B - Laboratory Analytical Reports and Chain-of-Custody Records

TABLE 1
MONITORING WELL SOUNDING DATA
 3924 Market Street
 Oakland, California

WELL	TOTAL DEPTH ^(a)	SCREENED INTERVAL ^(a)	CASING DIAMETER ^(b)	TOP CASING ELEVATION ^(c)	DEPTH TO GROUNDWATER ^(d)		GROUNDWATER ELEVATION ^(c)
					Date	Depth (ft)	
MW-1	21	6-21	2	56.46	6/1/95	9.70	46.76
					9/6/95	10.70	45.76
					12/7/95	11.36	45.10
					3/7/96	10.11	46.35
					6/19/96	11.90	44.56
MW-2	24	9-24	2	57.41	6/1/95	11.59	45.82
					9/6/95	12.20	45.21
					12/7/95	12.38	45.03
					3/7/96	11.12	46.29
					6/19/96	13.19	44.22
MW-3	24	9-24	2	56.24	6/1/95	11.53	44.71
					9/6/95	11.92	44.32
					12/7/95	12.05	44.19
					3/7/96	11.70	44.54
					6/19/96	12.54	43.70

NOTES:

- (a) Measured in feet below ground surface.
- (b) Measured in inches.
- (c) Measured with respect to mean sea level.
- (d) Measured in feet below top of PVC casing.

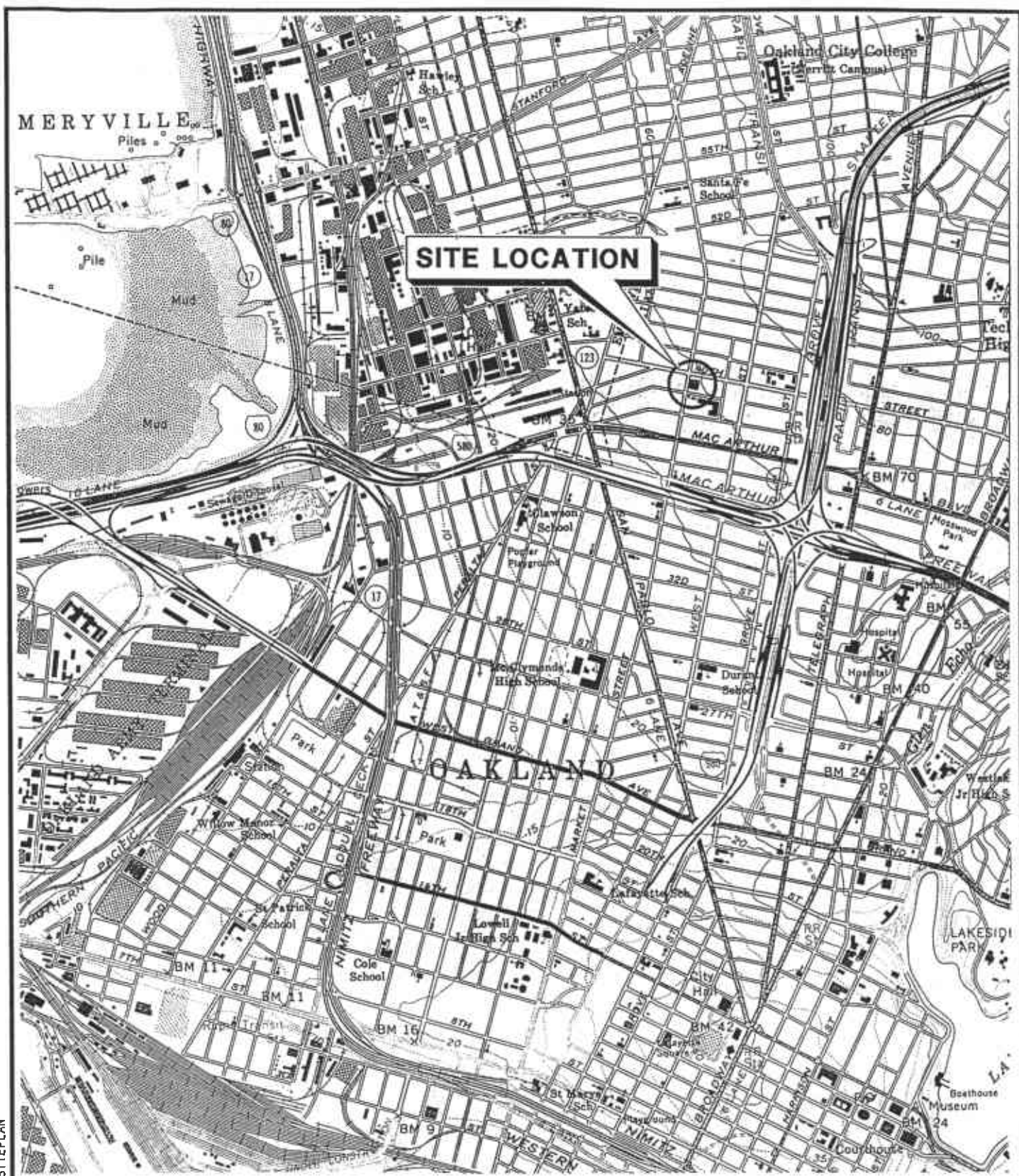
TABLE 2
GROUNDWATER CHEMICAL RESULTS
 3924 Market Street
 Oakland, California

WELL NUMBER	SAMPLE DATE	TPHg ^(a) (µg/l) ^(b)	TPHd ^(c) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)
MW-1	6/1/95	73	3,600	ND ^(d) < 0.5	1.0	ND < 0.5	3.0
	9/6/95	ND < 50	10,000	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	12/7/95	260	940	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	3/7/96	150	3,800	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	6/19/96	220	2,000	ND < 0.5	ND < 0.5	ND < 0.5	3.1
MW-2	6/1/95	ND < 50	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	9/6/95	ND < 50	500	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	12/7/95	ND < 50	90	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	3/7/96	ND < 50	320	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	6/19/96	ND < 50	260	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
MW-3	6/1/95	72	370	1.0	0.6	ND < 0.5	0.9
	9/6/95	ND < 50	2,800	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	12/7/95	ND < 50	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	3/7/96	150	470	3.5	ND < 0.5	ND < 0.5	0.6
	6/19/96	ND < 50	420	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5

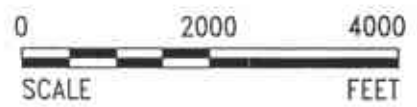
NOTES:

- (a) Total petroleum hydrocarbons as gasoline.
- (b) Micrograms per liter.
- (c) Total petroleum hydrocarbons as diesel.
- (d) ND: Not detected at specified reporting limit.

199506.13117 X 1 SF-BREAD/MARKET SITE PLAN



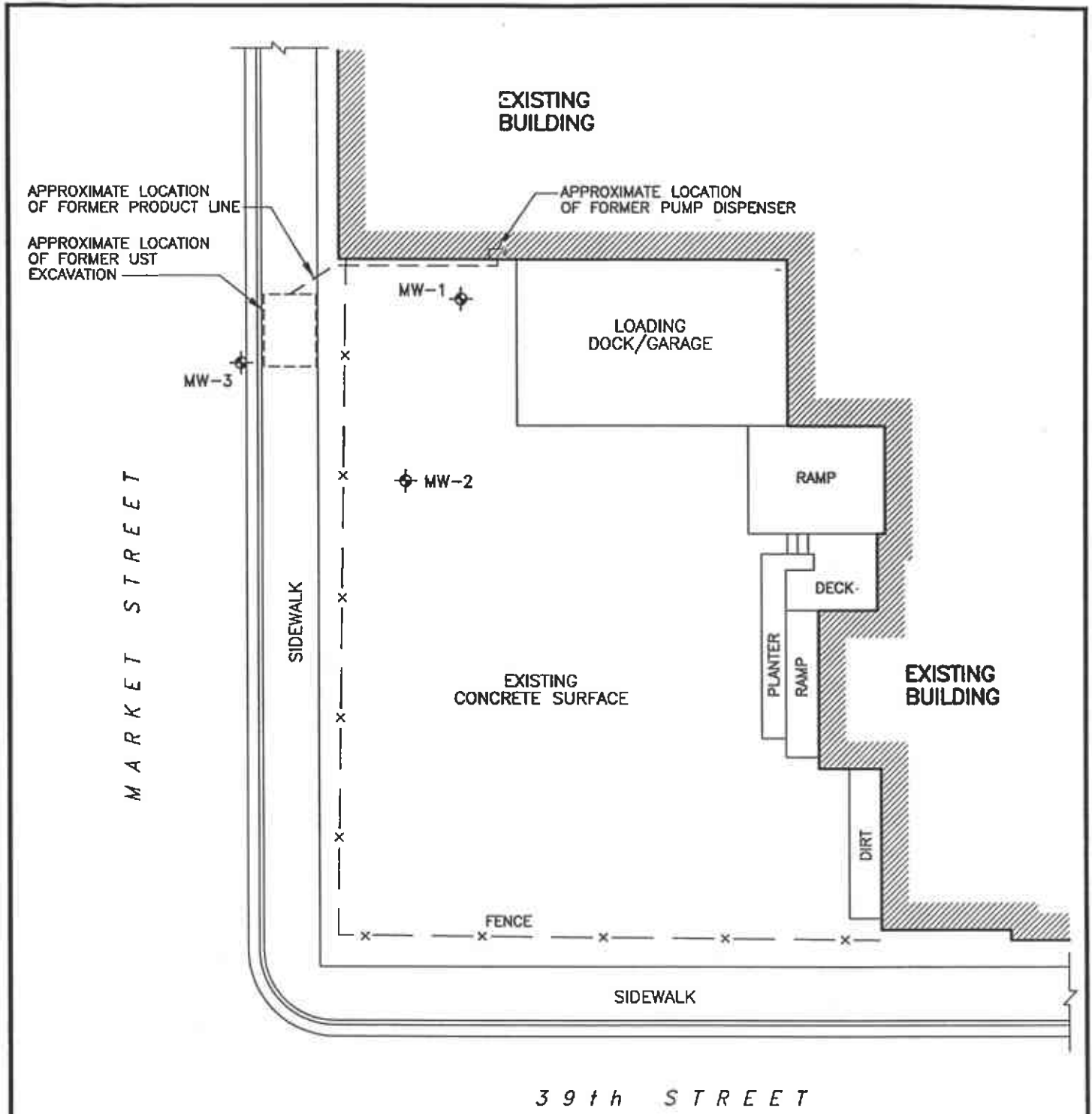
SOURCE: BASE MAP FROM U.S.G.S. OAKLAND WEST, CA QUADRANGLE. 7.5 MINUTE SERIES TOPOGRAPHIC MAP, PHOTOREVISED 1980.



SECOR
INTERNATIONAL
INCORPORATED

DRAWN	CCR
APPR	DWM
DATE	12JUN95
JOB NO.	50090-007-01

FIGURE 1
3924 MARKET STREET
OAKLAND, CALIFORNIA
SITE LOCATION MAP

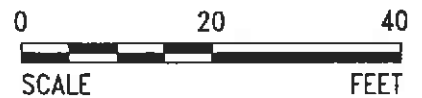


LEGEND:

⊕ MW-1 GROUNDWATER MONITORING WELL



NORTH



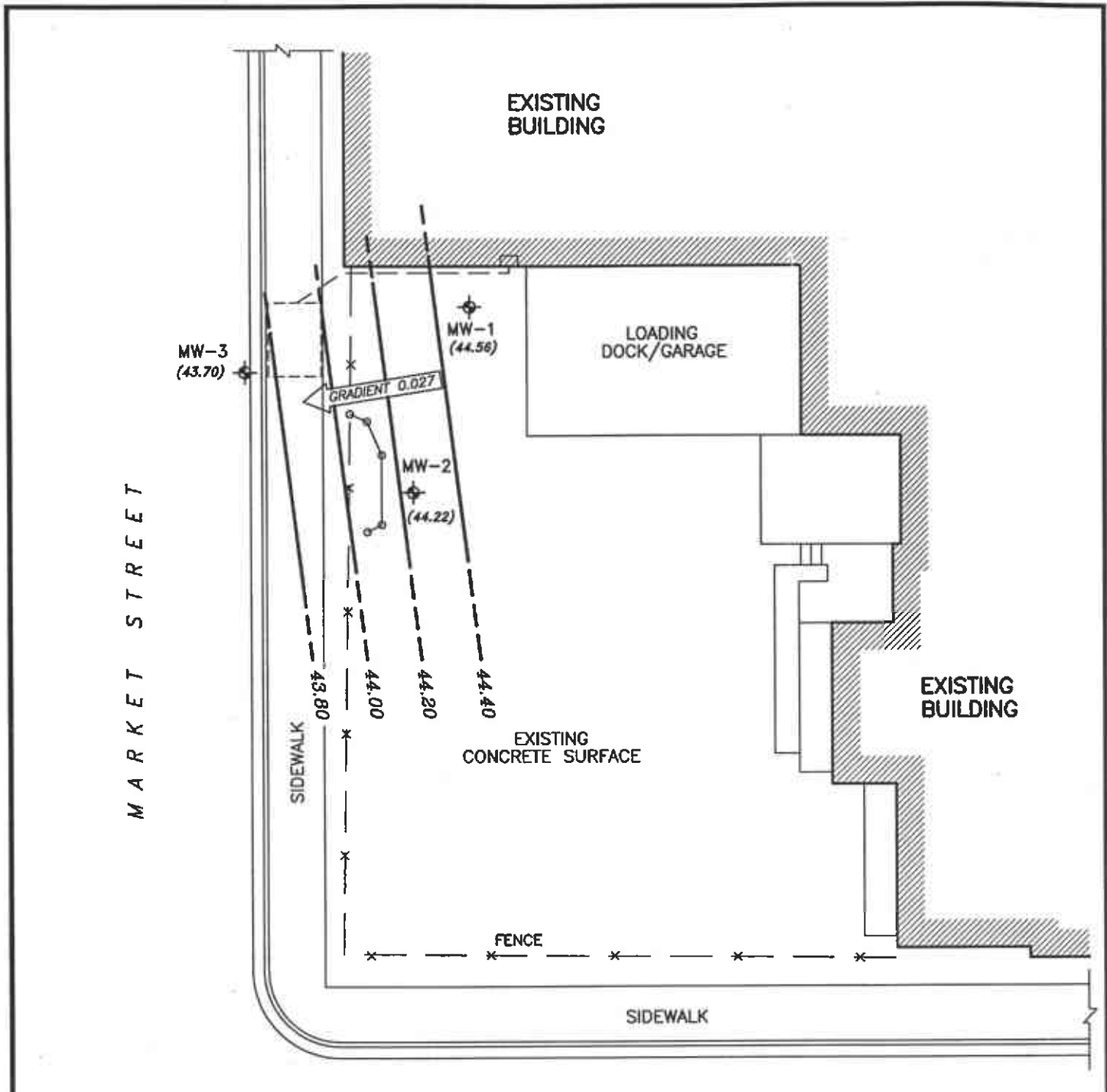
REFERENCE: SURVEYED BY RON ARCHER CIVIL ENGINEER, INC.,
JUNE 2, 1995.

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INTERNATIONAL
INCORPORATED




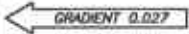
DRAWN	CCR
APPR	DWM
DATE	12JUN95
JOB NO.	50090-007-01

FIGURE 2
3924 MARKET STREET
OAKLAND, CALIFORNIA

SITE PLAN



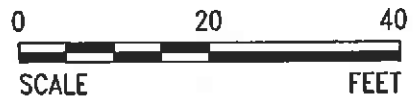
LEGEND:

-  MW-1 GROUNDWATER MONITORING WELL
-  (44.56) GROUNDWATER ELEVATION (FEET MSL)
-  44.20 GROUNDWATER ELEVATION CONTOUR (FEET MSL)
-  GRADIENT 0.027 GROUNDWATER FLOW DIRECTION AND GRADIENT

39th STREET



NORTH

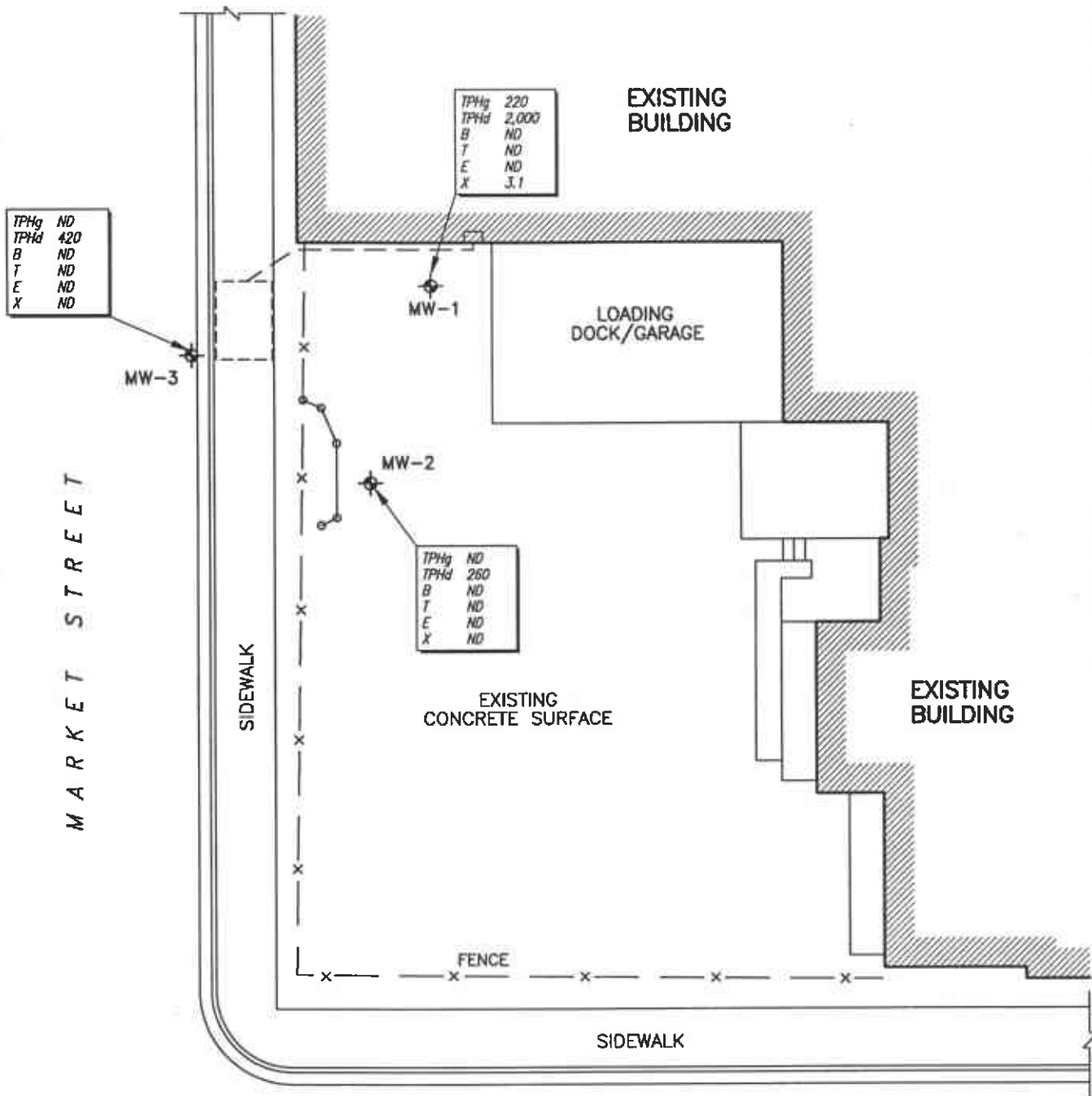


199607.171122 X:\18F-BREAD\MARKET\MARKET10

SECOR
INTERNATIONAL
INCORPORATED

DRAWN	CCR
APPR	DWM
DATE	17JUL96
JOB NO.	50090-007-02

FIGURE 3
3924 MARKET STREET,
OAKLAND, CALIFORNIA
**GROUNDWATER ELEVATION
CONTOUR MAP - JUNE 19, 1996**



LEGEND:

⊕ MW-1 GROUNDWATER MONITORING WELL

CHEMICAL ANALYTICAL RESULTS

ANALYTES

- Total Petroleum Hydrocarbons as Gasoline
- Total Petroleum Hydrocarbons as Diesel
- Benzene
- Toluene
- Ethylbenzene
- Xylenes

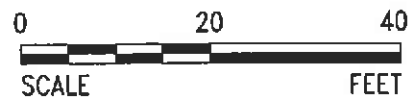
TPHg	ND
TPHd	260
B	ND
T	ND
E	ND
X	ND

← Concentration (ug/l)

← Not Detected at or Above the Laboratory Reporting Limit



NORTH



199607-131457 X-15F-BREAD\MARKET\MARKET09

SECOR
INTERNATIONAL
INCORPORATED

DRAWN	CCR
APPR	DWM
DATE	15JUL96
JOB NO.	50090-007-02

FIGURE 4
3924 MARKET STREET
OAKLAND, CALIFORNIA
GROUNDWATER CHEMICAL RESULTS - JUNE 19, 1996

APPENDIX A

**HYDROLOGIC AND GROUNDWATER
SAMPLE FIELD DATA SHEETS**

SEACOR WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 2090-007-02
 PURGED BY: LD
 SAMPLED BY: LD

WELL ID: MW-1
 SAMPLE ID: MW-1
 CLIENT NAME: SFFB
 LOCATION: Market St. Oakland

TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____
 CASING DIAMETER (inches): 2 3 _____ 4 _____ 4.5 _____ 6 _____ Other _____

CASING ELEVATION: (feet/MSL): _____	VOLUME IN CASING (gal) <u>1.5</u>
DEPTH TO WATER (feet): <u>11.90</u>	CALCULATED PURGE (gal) <u>4.5</u>
DEPTH OF WELL (feet): <u>21.0</u>	ACTUAL PURGE VOL (gal) _____

DATE PURGED: 6/19/96 Start (2400 Hr) 1255 End (2400 Hr) 1315
 DATE SAMPLED: 6/19/96 Start (2400 Hr) _____ End (2400 Hr) 1320

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): _____

FIELD MEASUREMENTS						
TIME (2400 Hr)	VOLUME (gal)	pH (unit)	E.C. (umho/cm @ 25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU) visual
<u>1300</u>	<u>1.5</u>	<u>6.98</u>	<u>713</u>	<u>76.3</u>	<u>Tan</u>	<u>High</u>
<u>1308</u>	<u>3.0</u>	<u>6.96</u>	<u>687</u>	<u>72.8</u>	<u>4</u>	<u>6</u>
<u>1315</u>	<u>4.5</u>	<u>6.70</u>	<u>672</u>	<u>71.4</u>	<u>1</u>	<u>4</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

D.O. (ppm): _____ COLOR, COBALT (0-100): _____

ODOR: Sheen

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
_____ 2" Bladder Pump	_____ Bailor (Teflon®)	_____ 2" Bladder Pump	_____ Bailor (Teflon®)
_____ Centrifugal Pump	_____ Bailor (PVC)	_____ DDL Sampler <input checked="" type="checkbox"/>	_____ Bailor (PVC/Disposable)
_____ Submersible Pump	_____ Bailor (Stainless Steel)	_____ Submersible Pump	_____ Bailor (Stainless Steel)
_____ Well Wizard™	_____ Dedicated	_____ Well Wizard™	_____ Dedicated
Other: <u>Disposable Bailor</u>		Other: _____	

WELL INTEGRITY: Good LOCK #: Dolphin

REMARKS: _____

SIGNATURE: [Signature] Page 1 of 1

SEACOR WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 10090-007-02
 PURGED BY: UJ
 SAMPLED BY: UJ

WELL ID: MW-2
 SAMPLE ID: MW-2
 CLIENT NAME: SFER
 LOCATION: Market St. Oakland

TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER (inches): 2 3 _____ 4 _____ 4.5 _____ 6 _____ Other _____

CASING ELEVATION: (feet/MSL): _____	VOLUME IN CASING (gal) _____
DEPTH TO WATER (feet): <u>13.19</u>	CALCULATED PURGE (gal) <u>1.8</u>
DEPTH OF WELL (feet): <u>24.0</u>	ACTUAL PURGE VOL. (gal) <u>1.5</u>

DATE PURGED: 6/19/86 Start (2400 Hr) 1200 End (2400 Hr) 1240
 DATE SAMPLED: 6/19/86 Start (2400 Hr) _____ End (2400 Hr) 1250

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): _____

FIELD MEASUREMENTS						
TIME (2400 Hr)	VOLUME (gal)	pH (units)	E.C. (micro/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
<u>1221</u>	<u>2</u>	<u>7.73</u>	<u>689</u>	<u>73.4</u>	<u>Tan</u>	<u>High</u>
<u>1230</u>	<u>4</u>	<u>7.56</u>	<u>670</u>	<u>70.9</u>	<u>✓</u>	<u>✓</u>
<u>1240</u>	<u>5.5</u>	<u>7.17</u>	<u>658</u>	<u>70.2</u>	<u>✓</u>	<u>✓</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

D.O. (ppm): _____ COLOR, COBALT (0-100): _____

ODOR: _____

Clear
Cloudy
Yellow
Brown

PURGING EQUIPMENT	
<input type="checkbox"/> 2" Bladder Pump	<input type="checkbox"/> Bailor (Teflon®)
<input type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailor (PVC)
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailor (Stainless Steel)
<input type="checkbox"/> Well Wizard™	<input type="checkbox"/> Dedicated
Other: <u>Disposable Bailor</u>	

SAMPLING EQUIPMENT	
<input type="checkbox"/> 2" Bladder Pump	<input type="checkbox"/> Bailor (Teflon®)
<input type="checkbox"/> DDL Sampler	<input checked="" type="checkbox"/> Bailor (PVC/Disposable)
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailor (Stainless Steel)
<input type="checkbox"/> Well Wizard™	<input type="checkbox"/> Dedicated
Other: _____	

WELL INTEGRITY: Good LOCK #: Dolphin

REMARKS: _____

SIGNATURE: [Signature] Page 1 of 1

SEACOR WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 10090-007-02
 PURGED BY: LB
 SAMPLED BY: LB

WELL ID: MW-3
 SAMPLE ID: MW-3
 CLIENT NAME: STFB
 LOCATION: Market St, Dalkwood

TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

CASING DIAMETER (Inches): 2 3 _____ 4 _____ 4.5 _____ 6 _____ Other _____

CASING ELEVATION: (feet/MSL): _____	VOLUME IN CASING (gal) <u>2.0</u>
DEPTH TO WATER (feet): <u>12.54</u>	CALCULATED PURGE (gal) <u>6.0</u>
DEPTH OF WELL (feet): <u>24.0</u>	ACTUAL PURGE VOL (gal) <u>6.0</u>

DATE PURGED: 6/19/86 Start (2400 Hr) 1115 End (2400 Hr) 1135
 DATE SAMPLED: 6/19/86 Start (2400 Hr) _____ End (2400 Hr) 1141

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): _____

FIELD MEASUREMENTS						
TIME (2400 Hr)	VOLUME (gal)	pH (units)	E.C. (micro/cm @ 25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU) visual
<u>1125</u>	<u>2</u>	<u>7.45</u>	<u>592</u>	<u>71.2</u>	<u>Tan</u>	<u>High</u>
<u>1130</u>	<u>4</u>	<u>7.47</u>	<u>568</u>	<u>68.1</u>	<u>u</u>	<u>u</u>
<u>1135</u>	<u>6</u>	<u>7.36</u>	<u>576</u>	<u>67.0</u>	<u>u</u>	<u>u</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

D.O. (ppm): _____ COLOR, COBALT (0-100): _____

ODOR: Faint Chemical Odor

Clear
 Cloudy
 Yellow
 Brown

PURGING EQUIPMENT	
<input type="checkbox"/> 2" Bladder Pump	<input type="checkbox"/> Bailor (Teflon®)
<input type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailor (PVC)
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailor (Stainless Steel)
<input type="checkbox"/> Well Wizard™	<input type="checkbox"/> Dedicated
Other: <u>Disposable Bailor</u>	

SAMPLING EQUIPMENT	
<input type="checkbox"/> 2" Bladder Pump	<input type="checkbox"/> Bailor (Teflon®)
<input type="checkbox"/> DDL Sampler	<input checked="" type="checkbox"/> Bailor (PVC (Disposable))
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailor (Stainless Steel)
<input type="checkbox"/> Well Wizard™	<input type="checkbox"/> Dedicated
Other: _____	

WELL INTEGRITY: Good LOCK #: Delphin

REMARKS: _____

SIGNATURE: [Signature] Page 1 of 1

APPENDIX B

**LABORATORY ANALYTICAL REPORTS AND
CHAIN-OF-CUSTODY RECORDS**



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2333

Donald Moore
SECOR
90 New Montgomery
Suite 620
San Francisco, CA 94105

Date: 07/08/1996
NET Client Acct. No: 74000
NET Job No: 96_01928
Received: 06/21/1996

Client Reference Information

SFFBC Market St., Oakland, CA/Proj. No. 50090-007-02

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

A handwritten signature in cursive script that reads "Ginger Brinlee". The signature is written in black ink and is positioned above a horizontal line.

Ginger Brinlee
Project Coordinator

Enclosure(s)

Client Name: SECOR
Client Acct: 74000
NET Job No: 96.01928

Date: 07/08/1996
ELAP Cert: 1386
Page: 2

Ref: SFFBC Market St., Oakland, CA/Proj. No. 50090-007-02

SAMPLE DESCRIPTION: MW-1

Date Taken: 06/19/1996

Time Taken: 13:20

NET Sample No: 265366

Parameter	Results	Flags	Reporting			Method	Date	Date	Run Batch No.
			Limit	Units	Extracted		Analyzed		
TPH (Gas/BTXE,Liquid)	--								
5030/M8015	--						06/27/1996		3670
DILUTION FACTOR*	1						06/27/1996		3670
as Gasoline	0.22		0.050	mg/L	5030		06/27/1996		3670
8020 (GC,Liquid)	--						06/27/1996		3670
Benzene	ND		0.50	ug/L	8020		06/27/1996		3670
Toluene	ND		0.50	ug/L	8020		06/27/1996		3670
Ethylbenzene	ND		0.50	ug/L	8020		06/27/1996		3670
Xylenes (Total)	3.1		0.50	ug/L	8020		06/27/1996		3670
SURROGATE RESULTS	--						06/27/1996		3670
Bromofluorobenzene (SURR)	96			% Rec.	5030		06/27/1996		3670
M8015 (EXT., Liquid)							06/26/1996		
DILUTION FACTOR*	1						06/28/1996		1240
as Diesel	2.0	B-O	0.050	mg/L	3510		06/28/1996		1240

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

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 Client Acct: 74000
 NET Job No: 96.01928

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Ref: SFFBC Market St., Oakland, CA/Proj. No. 50090-007-02

SAMPLE DESCRIPTION: MW-2
 Date Taken: 06/19/1996
 Time Taken: 12:50
 NET Sample No: 265367

Parameter	Results	Flags	Reporting			Date	Date	Run
			Limit	Units	Method	Extracted	Analyzed	Batch No.
TPH (Gas/BTXE,Liquid)								
5030/M8015	--						06/25/1996	3668
DILUTION FACTOR*	1						06/25/1996	3668
as Gasoline	ND		0.050	mg/L	5030		06/25/1996	3668
8020 (GC,Liquid)	--						06/25/1996	3668
Benzene	ND		0.50	ug/L	8020		06/25/1996	3668
Toluene	ND		0.50	ug/L	8020		06/25/1996	3668
Ethylbenzene	ND		0.50	ug/L	8020		06/25/1996	3668
Xylenes (Total)	ND		0.50	ug/L	8020		06/25/1996	3668
SURROGATE RESULTS	--						06/25/1996	3668
Bromofluorobenzene (SURR)	101			% Rec.	5030		06/25/1996	3668
M8015 (EXT., Liquid)						06/26/1996		
DILUTION FACTOR*	1						06/28/1996	1240
as Diesel	0.26	B-O	0.050	mg/L	3510		06/28/1996	1240

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

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Ref: SFFBC Market St., Oakland, CA/Proj. No. 50090-007-02

SAMPLE DESCRIPTION: MW-3
Date Taken: 06/19/1996
Time Taken: 11:45
NET Sample No: 265368

Parameter	Results	Flags	Reporting			Date	Date	Run
			Limit	Units	Method	Extracted	Analyzed	Batch No.
TPH (Gas/BTXE, Liquid)								
5030/M8015	--						06/25/1996	3668
DILUTION FACTOR*	1						06/25/1996	3668
as Gasoline	ND		0.050	mg/L	5030		06/25/1996	3668
8020 (GC, Liquid)	--						06/25/1996	3668
Benzene	ND		0.50	ug/L	8020		06/25/1996	3668
Toluene	ND		0.50	ug/L	8020		06/25/1996	3668
Ethylbenzene	ND		0.50	ug/L	8020		06/25/1996	3668
Xylenes (Total)	ND		0.50	ug/L	8020		06/25/1996	3668
SURROGATE RESULTS	--						06/25/1996	3668
Bromofluorobenzene (SURR)	100			% Rec.	5030		06/25/1996	3668
M8015 (EXT., Liquid)						06/26/1996		
DILUTION FACTOR*	1						06/28/1996	1240
as Diesel	0.42	B-O	0.050	mg/L	3510		06/28/1996	1240

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: SECOR
 Client Acct: 74000
 NET Job No: 96.01928

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CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	CCV	Flags	Units	Date Analyzed	Analyst Initials	Run Batch Number
	Standard % Recovery	Standard Amount Found	Standard Amount Expected					
TPH (Gas/BTXE, Liquid)								
as Gasoline	94.0	0.47	0.50		mg/L	06/25/1996	aal	3668
Benzene	101.0	20.2	20.0		ug/L	06/25/1996	aal	3668
Toluene	98.5	19.7	20.0		ug/L	06/25/1996	aal	3668
Ethylbenzene	98.0	19.6	20.0		ug/L	06/25/1996	aal	3668
Xylenes (Total)	101.2	60.7	60.0		ug/L	06/25/1996	aal	3668
Bromofluorobenzene (SURR)	99.0	99	100		% Rec.	06/25/1996	aal	3668
TPH (Gas/BTXE, Liquid)								
as Gasoline	98.0	0.49	0.50		mg/L	06/27/1996	aal	3670
Benzene	105.2	21.04	20.0		ug/L	06/27/1996	aal	3670
Toluene	103.1	20.61	20.0		ug/L	06/27/1996	aal	3670
Ethylbenzene	104.1	20.82	20.0		ug/L	06/27/1996	aal	3670
Xylenes (Total)	103.8	62.28	60.0		ug/L	06/27/1996	aal	3670
Bromofluorobenzene (SURR)	93.0	93	100		% Rec.	06/27/1996	aal	3670
M8015 (EXT., Liquid)								
as Diesel	102.2	1022	1000		mg/L	06/28/1996	lss	1240

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

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Ref: SFPBC Market St., Oakland, CA/Proj. No. 50090-007-02

METHOD BLANK REPORT

Parameter	Method	Reporting	Flags	Units	Date	Analyst	Run
	Blank						
TPH (Gas/BTXE,Liquid)							
as Gasoline	ND	0.050		mg/L	06/25/1996	aal	3668
Benzene	ND	0.50		ug/L	06/25/1996	aal	3668
Toluene	ND	0.50		ug/L	06/25/1996	aal	3668
Ethylbenzene	ND	0.50		ug/L	06/25/1996	aal	3668
Xylenes (Total)	ND	0.50		ug/L	06/25/1996	aal	3668
Bromofluorobenzene (SURR)	101			% Rec.	06/25/1996	aal	3668
TPH (Gas/BTXE,Liquid)							
as Gasoline	ND	0.050		mg/L	06/27/1996	aal	3670
Benzene	ND	0.50		ug/L	06/27/1996	aal	3670
Toluene	ND	0.50		ug/L	06/27/1996	aal	3670
Ethylbenzene	ND	0.50		ug/L	06/27/1996	aal	3670
Xylenes (Total)	ND	0.50		ug/L	06/27/1996	aal	3670
Bromofluorobenzene (SURR)	91			% Rec.	06/27/1996	aal	3670
M8015 (EXT., Liquid)							
as Diesel	0.08	0.050		mg/L	06/28/1996	lss	1240

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: SECOR
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MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike		RPD	Spike Amount	Sample Conc.	Matrix Spike		Flags	Units	Date Analyzed	Run Batch	Sample Spiked
	Spike % Rec.	Dup % Rec.				Spike Conc.	Dup. Conc.					
TPH (Gas/BTXE,Liquid)												265345
as Gasoline	92.0	96.0	4.3	0.50	ND	0.46	0.48		mg/L	06/25/1996	3668	265345
Benzene	97.3	97.3	0.0	7.40	ND	7.20	7.20		ug/L	06/25/1996	3668	265345
Toluene	101.3	103.0	1.7	37.2	ND	37.7	38.3		ug/L	06/25/1996	3668	265345
Bromofluorobenzene (SURR)	97.0	99.0	2.0	100	95	97	99		% Rec.	06/25/1996	3668	265345
TPH (Gas/BTXE,Liquid)												265366
as Gasoline	80.0	114.0	35.0	0.50	0.22	0.62	0.79		mg/L	06/27/1996	3670	265366
Benzene	103.0	102.3	0.7	8.33	ND	8.58	8.52		ug/L	06/27/1996	3670	265366
Toluene	101.1	100.4	0.7	41.31	ND	41.77	41.46		ug/L	06/27/1996	3670	265366
Bromofluorobenzene (SURR)	101.0	102.0	1.0	100	96	101	102		% Rec.	06/27/1996	3670	265366

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

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Ref: SFFBC Market St., Oakland, CA/Proj. No. 50090-007-02

LABORATORY CONTROL SAMPLE REPORT

Parameter	DUP		RPD	LCS			Flags	Units	Date Analyzed	Analyst Initials	Run Batch
	LCS % Rec.	LCS % Rec.		LCS Amount Found	LCS Amount Found	LCS Amount Exp.					
M8015 (EXT., Liquid) as Diesel	100.2			1.002		1.00		mg/L	06/28/1996	lss	1240
M8015 (EXT., Liquid) as Diesel	104.0			1.040		1.00		mg/L	06/28/1996	lss	1240

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

KEY TO RESULT FLAGS

- * : RPD between sample duplicates exceeds 30%.
- *M : RPD between sample duplicates or MS/MSD exceeds 20%.
- + : Correlation coefficient for the Method of Standard Additions is less than 0.995.
- < : Sample result is less than reported value.
- B-I : Value is between Method Detection Limit and Reporting Limit.
- B-0 : Analyte found in blank and sample.
- C : The result confirmed by secondary column or GC/MS analysis.
- CNA : Cr+6 not analyzed; Total Chromium concentration below Cr+6 regulatory level.
- COMP : Sample composited by equal volume prior to analysis.
- D- : The result has an atypical pattern for Diesel analysis.
- D1 : The result for Diesel is an unknown hydrocarbon which consists of a single peak.
- DH : The result appears to be a heavier hydrocarbon than Diesel.
- DL : The result appears to be a lighter hydrocarbon than Diesel.
- DR : Elevated Reporting Limit due to Matrix.
- DS : Surrogate diluted out of range.
- DX : The result for Diesel is an unknown hydrocarbon which consists of several peaks.
- FA : Compound quantitated at a 2X dilution factor.
- FB : Compound quantitated at a 5X dilution factor.
- FC : Compound quantitated at a 10X dilution factor.
- FD : Compound quantitated at a 20X dilution factor.
- FE : Compound quantitated at a 50X dilution factor.
- FF : Compound quantitated at a 100X dilution factor.
- FG : Compound quantitated at a 200X dilution factor.
- FH : Compound quantitated at a 500X dilution factor.
- FI : Compound quantitated at a 1000X dilution factor.
- FJ : Compound quantitated at a greater than 1000x dilution factor.
- FK : Compound quantitated at a 25X dilution factor.
- FL : Compound quantitated at a 250X dilution factor.
- G- : The result has an atypical pattern for Gasoline.
- G1 : The result for Gasoline is an unknown hydrocarbon which consists of a single peak.
- GH : The result appears to be a heavier hydrocarbon than Gasoline.
- GL : The result appears to be a lighter hydrocarbon than Gasoline.
- GX : The result for Gasoline is an unknown hydrocarbon which consists of several peaks.
- HT : Analysis performed outside of the method specified holding time.
- HTC : Confirmation analyzed outside of the method specified holding time.
- HTP : Prep procedure performed outside of the method specified holding time.
- HX : Peaks detected within the quantitation range do not match standard used.
- J : Value is estimated.
- MI : Matrix Interference Suspected.
- MSA : Value determined by Method of Standard Additions.
- MSA* : Value obtained by Method of Standard Additions; Correlation coefficient is <0.995.
- NI1 : Sample spikes outside of QC limits; matrix interference suspected.
- NI2 : Sample concentration is greater than 4X the spiked value; the spiked value is considered insignificant.
- NI3 : Matrix Spike values exceed established QC limits, post digestion spike is in control.
- P7 : pH of sample > 2; sample analyzed past 7 days.
- RSC : Refer to subcontract laboratory report for QC data.
- S2 : Matrix interference confirmed by repeat analysis.
- SCN : Thiocyanate not analyzed separately; total value is below the Reporting Limit for Free Cyanide.
- UMDL : Undetected at the Method Detection Limit.

SEACOR Chain-of-Custody Record

Field Office: San Francisco
 Address: 90 New Montgomery St #620
San Francisco, CA 94107

Additional documents are attached, and are a part of this Record.

Job Name: SFFBC Market Ce.
 Location: Oakland, CA

Project # 50090-007-02 Task # _____
 Project Manager Don Moore
 Laboratory NET
 Turnaround Time Standard
 Sampler's Name Liping Zhang
 Sampler's Signature [Signature]

Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPHd/BTEX/WTPH-H 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Comments/ Instructions	Number of Containers
MW-1	6/19	1320	W		X	X											4
MW-2	↓	1250	↓		X	X											4
MW-3	↓	1145	↓		X	X											4

✓ CUSTODY SEALED
 Date 6/20/96 Time 1623 Initials [Signature]
 ✓ SEAL INTACT?
 Yes No Initials [Signature]

Special Instructions/Comments:

Relinquished by: [Signature]
 Sign [Signature]
 Print Liping Zhang
 Company SEACOR
 Time 0924 Date 6/20/96
 Relinquished by: [Signature]
 Sign [Signature]
 Print P. Smart
 Company NET
 Time 1623 Date 6/20/96
 Received by: [Signature]
 Sign [Signature]
 Print P. Smart
 Company NET
 Time 10:47 Date 6/20/96
 Received by: [Signature]
 Sign [Signature]
 Print PAM GREENS
 Company NET
 Time 08:00 Date 6/21/96

Sample Receipt
 Total no. of containers: 12
 Chain of custody seals: _____
 Rec'd. good condition/cold: _____
 Conforms to record: _____
 Client: SEACOR
 Client Contact: Don Moore
 Client Phone: (415) 882-1548