SECOR
International Incorporated

98 NOV 20 PM 3:10

November 18, 1998

Mr. Barney M. Chan
Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

#4008

**QUARTERLY GROUNDWATER MONITORING REPORT FOR SEPTEMBER 1998, 580 JULIE ANN WAY, OAKLAND, CALIFORNIA, St ID #4008, FOR METZ BAKING COMPANY**

Dear Mr. Chan:

SECOR International Incorporated (*SECOR*) is pleased to submit this Quarterly Groundwater Monitoring Report presenting the results of groundwater monitoring conducted at 580 Julie Ann Way in Oakland, California (the Site, see Figure 1, Site Location Map). We are submitting this document on behalf of the Metz Backing Company (Metz) which formerly operated the Site as a San Francisco French Bread Company (SFFBC) baking and distribution facility. The scope of work performed was in accordance with the additional requirement by the Alameda County Environmental Health Services (ACEHS) in a November 7, 1997 letter. This report presents monitoring well sounding, groundwater elevation, and groundwater quality data collected from seven Site wells on September 11, 1998.

## BACKGROUND

The Site formerly operated one 8,000-gallon capacity gasoline underground storage tank (UST) and one 10,000-gallon capacity diesel UST for fueling delivery trucks (Figure 2). Previous subsurface investigations conducted by Groundwater Technology, Inc. (GTI) in June 1991 and *SECOR* in November 1993 indicated the presence of total petroleum hydrocarbons as gasoline (TPHg) and TPH as diesel (TPHd) in soil samples collected in the immediate vicinity of the USTs. At soil boring locations further away from the USTs, low to non-detectable concentrations of TPHg and TPHd were reported; however, elevated concentrations of high-boiling point hydrocarbons (total oil and grease/total recoverable petroleum hydrocarbons) were reported at all boring locations where analyzed.

*SECOR* supervised the excavation and removal of the two USTs in September 1995. Petroleum hydrocarbon-impacted soil and groundwater were observed during UST removal activities, laboratory analysis of collected soil and groundwater samples revealed the presence of TPHg, TPHd, and high-boiling hydrocarbons. Based on the apparent composition of these high-boiling point hydrocarbons and their pervasive presence in fill soil underlying the Site, it was determined that the source of these hydrocarbons is not related to the USTs. *SECOR* supervised the installation of seven groundwater monitoring wells (MW-1 through MW-7) adjacent to the former USTs in February and August 1996 and May 1998. Soil and groundwater samples collected and analyzed during these activities revealed the presence of TPHg; TPHd; TPH as motor oil (TPHmo); benzene, toluene, ethylbenzene, and xylenes (BTEX); and methyl tertiary butyl ether (MTBE).



360-22nd Street, Suite 600, Oakland, CA 94612 (510) 285-2556 (510) 285-2568 Fax www.secor.com

## SUBSURFACE UTILITIES

*SECOR* conducted a file review at the City of Oakland Community & Economic Development Agency. The purpose of this file review was to gather information regarding the existence of subsurface utilities in the vicinity of the former UST excavation which may intercept and preferentially divert petroleum hydrocarbon-affected groundwater. Three main underground utility lines located in Julie Ann Way were identified on two Plot and Roof Plans attached: one 2-inch gas line, one 8-inch sanitary sewer line, and one 8-inch water line (see Appendix A). The 8-inch sanitary sewer line also has two 4-inch laterals connected between the main line and the east and west portions of the Site. The locations of existing 2-inch gas line and 8-inch water line were also verbally confirmed by the personnel of PG&E and East Bay Municipal Utility District (MUD). The 2-inch gas line is situated in the south side of Julie Ann Way, approximately 10 feet away and downgradient from the former UST excavation. The gas line is also buried at a depth of less than 3 feet below ground surface (bgs) which is above the water table (see Appendix A). The water line, sanitary sewer main and lateral lines are all located at least 30 feet away from the former UST excavation. Therefore, these underground utility lines are unlikely to be subsurface conduits for petroleum hydrocarbon-affected groundwater.

? not necessarily

## GROUNDWATER MONITORING PROCEDURES

On September 11, 1998, *SECOR* sounded seven groundwater monitoring wells (MW-1 through MW-7) using an electronic water-level indicator. The depth-to-groundwater and total depth were measured for each well and recorded on the Hydrologic and Water Sample Field Data Sheets included in Appendix B. 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 Teflon 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 Water Sample Field Data Sheets included in Appendix B. Upon removal of the appropriate purge volume and stabilization of the measured parameters, samples were collected from each well using a disposable PVC bailer. Groundwater samples were decanted into prelabeled laboratory-supplied glassware, placed in an ice-filled cooler, and transported to Chromalab, Inc. (Chromalab) of Pleasanton, California, a state-certified laboratory under chain-of-custody documentation.

Seven samples were submitted for chemical analysis of TPHg, TPHd, and TPHmo by EPA Method 8015, modified, and BTEX and MTBE by EPA Method 8020. Laboratory analytical reports and chain-of-custody records are included in Appendix C.

## SUMMARY OF RESULTS

Groundwater elevations along with historic data are included in Table 1. Groundwater chemical results along with historic data are included in Table 2.

**Monitoring Well Sounding**

A groundwater elevation contour map based on the September 11, 1998 groundwater elevation data is presented as Figure 3. During this monitoring event, groundwater was measured at depths between 4.43 feet and 8.02 feet below the top of the PVC casing. These depths translate to groundwater elevations ranging from 2.10 to 5.56 feet above mean sea level (msl). During this monitoring event groundwater elevations have decreased ranging from 0.27 feet to 5.30 feet in wells MW-1 through MW-5 and MW-7 and increased 1.75 feet in well MW-6 when compared with the June 1998 data. Interpretation of the groundwater elevation contour map indicates a general flow direction to the northwest under an average hydraulic gradient of 0.029 feet per foot (ft/ft).

**Groundwater Chemical Results**

Groundwater samples exhibited pH values ranging from 6.78 to 8.26 pH units; temperatures ranging from 67.5 to 69.2 degrees Fahrenheit; specific conductivities ranging from 2,270 micromhos per centimeter (µmhos/cm) to a number exceeding the range of the equipment (more than 20,000 µmhos/cm); appearance ranging from clear to gray; and turbidity ranging from low to high. Groundwater chemical results for September 1998 are shown on Table 2 and displayed graphically on Figure 4. Laboratory analytical reports and chain-of-custody records are included in Appendix C.

During this monitoring event, groundwater sample collected from well MW-1 was reported to contain TPHg at a concentration of 4,800 micrograms per liter (µg/ℓ). Samples collected from wells MW-1 through MW-7 were reported to contain TPHd at concentrations ranging from 410 µg/ℓ to 3,700 µg/ℓ. Samples collected from wells MW-1 and MW-2 were also reported to contain TPHmo at concentrations of 900 µg/ℓ and 750 µg/ℓ, respectively. The maximum BTEX concentrations were reported in the sample collected from wells MW-1 and MW-2 at 270 µg/ℓ, 15 µg/ℓ, 510 µg/ℓ, and 41 µg/ℓ, respectively. MTBE was detected in well MW-5 at a concentration of 10 µg/ℓ. No BTEX and MTBE concentrations were reported above the specified laboratory reporting limit in the groundwater samples collected from wells MW-6 and MW-7. The reported chemical concentrations were similar to the historic data.

*SECOR* plans to conduct the next quarterly groundwater monitoring event for the Site in December 1998. Please do not hesitate to contact us at (415) 882-1548 with any questions or comments regarding this document.

Sincerely,

**SECOR International Incorporated**

Liping Zhang
Project Manager

Bruce E. Scarbrough, R.G.
Principal Geologist

cc: Mr. Christopher Rants, Metz Baking Company

Attachments:

Table 1 - Well Construction Details and Groundwater Elevations
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 - Plot and Roof Plans
Appendix B - Hydrologic and Water Sample Field Data Sheets
Appendix C - Laboratory Analytical Reports and Chain-of-Custody Records

**TABLE 1**
**WELL CONSTRUCTION DETAILS AND GROUNDWATER ELEVATIONS**
580 Julie Ann Way
Oakland, California

| WELL NUMBER | TOTAL DEPTH[a] | SCREENED INTERVAL[a] | CASING DIAMETER[b] | TOP OF CASING ELEVATION[c] | DATE | DEPTH TO GROUNDWATER[d] | GROUNDWATER ELEVATION[c] |
|---|---|---|---|---|---|---|---|
| MW-1 | 14.5 | 4.5-14.5 | 2 | 10.06 | 08/16/96 | 4.41 | 5.65 |
| | | | | | 08/22/96 | 4.45 | 5.61 |
| | | | | | 07/31/97 | 4.70 | 5.36 |
| | | | | | 06/04/98 | 3.66 | 6.40 |
| | | | | | 09/11/98 | 4.50 | 5.56 |
| MW-2 | 15 | 5-15 | 2 | 10.17 | 08/16/96 | 4.52 | 5.65 |
| | | | | | 08/22/96 | 4.54 | 5.63 |
| | | | | | 07/31/97 | 4.86 | 5.31 |
| | | | | | 06/04/98 | 3.83 | 6.34 |
| | | | | | 09/11/98 | 4.63 | 5.54 |
| MW-3 | 15 | 5-15 | 2 | 10.12 | 08/16/96 | 12.66 | -2.54 |
| | | | | | 08/22/96 | 7.99 | 2.13 |
| | | | | | 07/31/97 | 5.11 | 5.01 |
| | | | | | 06/04/98 | 2.72 | 7.40 |
| | | | | | 09/11/98 | 8.02 | 2.10 |
| MW-4 | 15 | 5-15 | 2 | 9.70 | 08/16/96 | 5.72 | 3.98 |
| | | | | | 08/22/96 | 5.72 | 3.98 |
| | | | | | 07/31/97 | 6.02 | 3.68 |
| | | | | | 06/04/98 | 5.60 | 4.10 |
| | | | | | 09/11/98 | 5.96 | 3.74 |
| MW-5 | 15 | 4-15 | 2 | 9.42 | 06/04/98 | 5.44 | 3.98 |
| | | | | | 09/11/98 | 5.71 | 3.71 |
| MW-6 | 15 | 4-15 | 2 | 9.88 | 06/04/98 | 7.92 | 1.96 |
| | | | | | 09/11/98 | 6.17 | 3.71 |

**TABLE 1 (Continued)**
**WELL CONSTRUCTION AND GROUNDWATER ELEVATIONS**
580 Julie Ann Way
Oakland, California

| WELL NUMBER | TOTAL DEPTH[a] | SCREENED INTERVAL[a] | CASING DIAMETER[b] | TOP OF CASING ELEVATION[c] | DATE | DEPTH TO GROUNDWATER[d] | GROUNDWATER ELEVATION[c] |
|---|---|---|---|---|---|---|---|
| MW-7 | 15 | 4-15 | 2 | 9.91 | 06/04/98<br>09/11/98 | 3.58<br>4.43 | 6.33<br>5.48 |

NOTES:

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

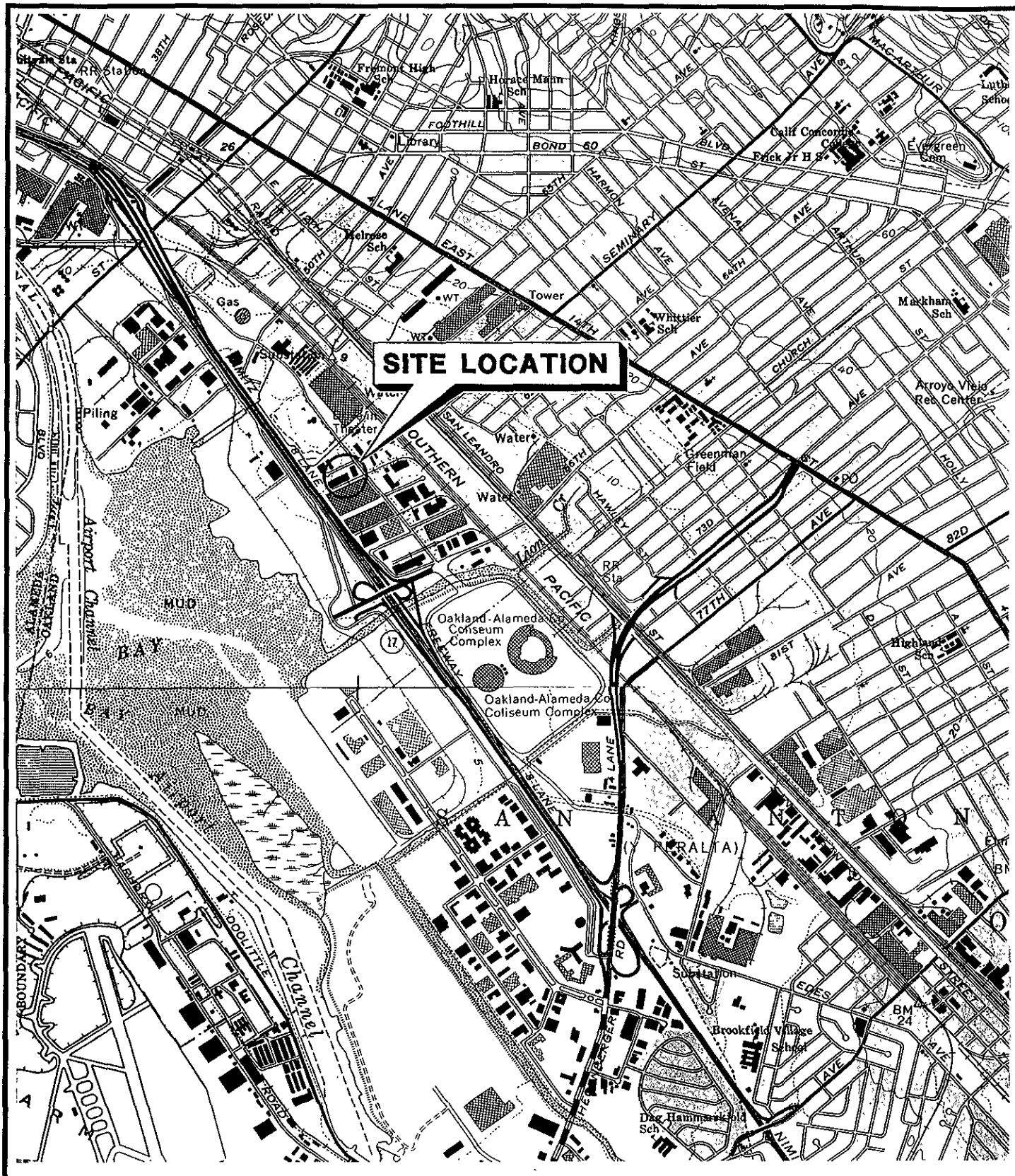
**TABLE 2**
**GROUNDWATER CHEMICAL RESULTS**
580 Julie Ann Way
Oakland, California

| SAMPLE NUMBER | DATE | TPHg[a] (µg/ℓ)[b] | TPHd[c] (µg/ℓ) | TPHmo[d] (µg/ℓ) | Benzene (µg/ℓ) | Toluene (µg/ℓ) | Ethylbenzene (µg/ℓ) | Xylenes (µg/ℓ) | MTBE[e] (µg/ℓ) | Lead (mg/ℓ)[f] | TDS[g] (mg/ℓ) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 02/28/96 | 5,900 | ND[h] < 10 | 1,700 | 540 | 9.0 | 950 | 110 | NA[i] | NA | NA |
| | 08/16/96 | 5,600 | 5,400[j] | 4,000 | 540 | 7.3 | 950 | 110 | NA | ND < 0.05 | NA |
| | 07/31/97 | 5,900 | 3,200 | 1,600 | 630 | 8.0 | 900 | 34 | ND < 10 | NA | NA |
| | 06/04/98 | 1,800 | 1,600[k] | 640[l] | 160 | 2.6 | 300 | 1.6 | ND < 5.0 | NA | 580 |
| | 09/11/98 | 4,800 | 3,300[m] | 900 | 270 | 15 | 510 | 41 | ND < 50 | NA | NA |
| MW-2 | 08/16/96 | 2,700 | 3,000[j] | 1,800 | 63 | 36 | 65 | 100 | NA | ND < 0.05 | NA |
| | 07/31/97 | 1,800 | 3,300 | 1,800 | 20 | 1.8 | 22 | 4.6 | 7.0 | NA | NA |
| | 06/04/98 | ND < 50 | 4,100[k] | ND < 500 | 10 | 0.72 | 2.3 | 3.5 | ND < 5.0 | NA | 2,900 |
| | 09/11/98 | ND < 500 | 3,700[m] | 750 | 65 | 15 | 39 | 5.7 | ND < 50 | NA | NA |
| MW-3 | 08/16/96 | ND < 50 | 730[j] | 640 | 3.1 | ND < 0.5 | ND < 0.5 | ND < 0.5 | NA | ND < 0.05 | NA |
| | 07/31/97 | ND < 50 | 1,600 | 1,500 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 5.0 | NA | NA |
| | 06/04/98 | ND < 50 | 860[k] | ND < 500 | 3.9 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 5.0 | NA | 5,100 |
| | 09/11/98 | ND < 50 | 570[k] | ND < 500 | 4.0 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 5.0 | NA | NA |
| MW-4 | 08/16/96 | 460 | 2,800[j] | 3,000 | 17 | 1.0 | 9.1 | 1.4 | NA | ND < 0.05 | NA |
| | 07/31/97 | 360 | 2,000 | 1,800 | 1.8 | 0.6 | 7.6 | 0.8 | ND < 5.0 | NA | NA |
| | 06/04/98 | ND < 50 | 1,400[k] | 710[l] | 18 | 1.6 | 2.5 | 1.9 | ND < 5.0 | NA | 2,000 |
| | 09/11/98 | ND < 50 | 1,200[k] | ND < 500 | 0.93 | ND < 0.5 | 1.0 | ND < 0.5 | ND < 5.0 | NA | NA |
| MW-5 | 06/04/98 | ND < 50 | 970[k] | ND < 500 | 7.2 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 5.0 | NA | 9,900 |
| | 09/11/98 | ND < 50 | 810[k] | ND < 500 | 5.7 | ND < 0.5 | ND < 0.5 | ND < 0.5 | 10 | NA | NA |
| MW-6 | 06/04/98 | ND < 50 | 120[k] | ND < 500 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 5.0 | NA | 43,000 |
| | 09/11/98 | ND < 50 | 410[m] | ND < 500 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 5.0 | NA | NA |
| MW-7 | 06/04/98 | ND < 50 | 900[k] | 540[l] | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 5.0 | NA | 6,100 |
| | 09/11/98 | ND < 50 | 3,700[m] | ND < 500 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 0.5 | ND < 5.0 | NA | NA |

**TABLE 2 (Continued)**
**GROUNDWATER CHEMICAL RESULTS**
580 Julie Ann Way
Oakland, California

NOTES:

(a) Total petroleum hydrocarbons as gasoline.
(b) Micrograms per liter.
(c) Total petroleum hydrocarbons as diesel.
(d) Total petroleum hydrocarbons as motor oil.
(e) Methyl tertiary butyl ether.
(f) Milligrams per liter.
(g) Total dissolved solids.
(h) ND: Not detected at specified laboratory reporting limit.
(i) NA: Not Analyzed.
(j) Lighter and heavier hydrocarbons were found in the range of diesel, but do not resemble a diesel fingerprint. Possible gasoline and motor oil, see attached certified laboratory analytical report.
(k) Hydrocarbon reported does not match the pattern of the laboratory diesel standard, see attached certified laboratory analytical report.
(l) Hydrocarbon reported does not match the pattern of the laboratory motor oil standard, see attached certified laboratory analytical report.
(m) Hydrocarbon reported is in the early diesel range and does not match the pattern of the laboratory diesel standard, see attached certified laboratory analytical report.




SOURCE: BASE MAP FROM U.S.G.S. OAKLAND EAST AND SAN LEANDRO CA QUADRANGLES. 7.5 MINUTE SERIES TOPOGRAPHIC MAP, PHOTOREVISED 1980.

| | |
|---|---|
| DRAWN | CCR |
| APPR | DWM |
| DATE | 12OCT95 |
| JOB NO. | 70007-001-01 |

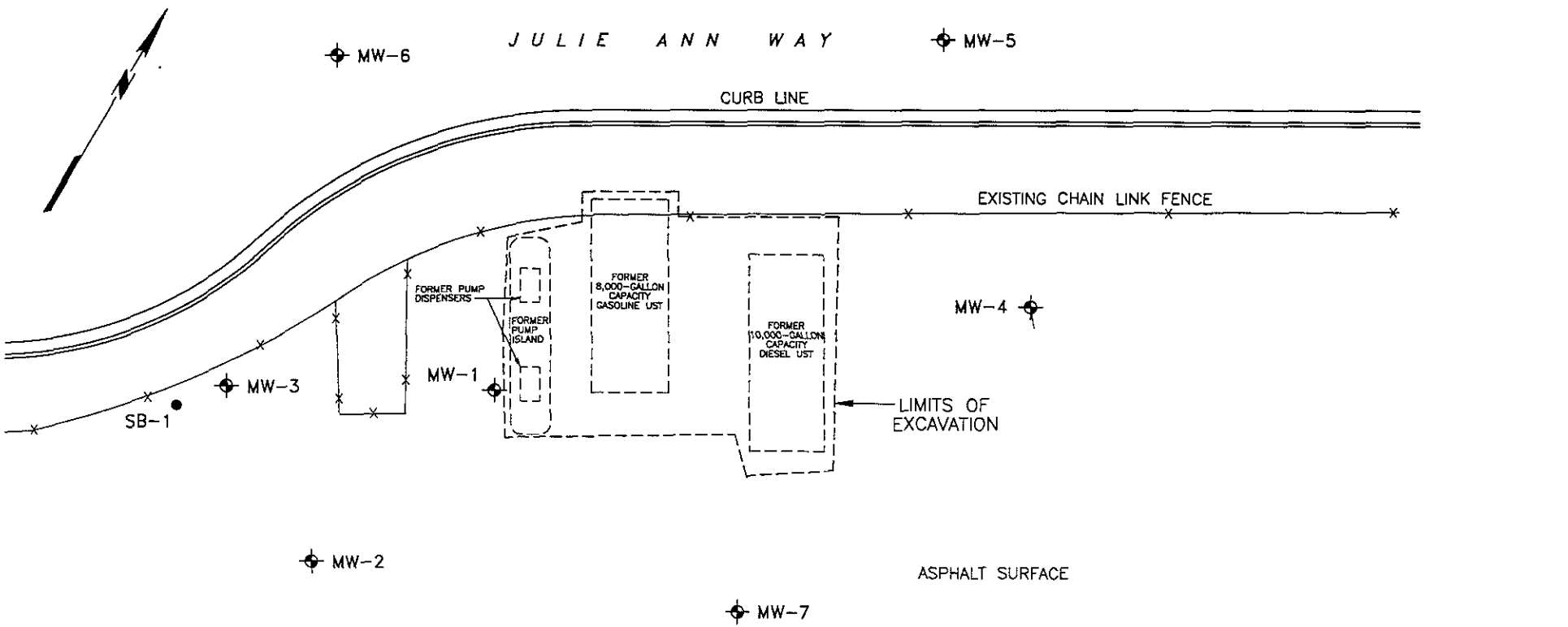
**SECOR**
**INTERNATIONAL INCORPORATED**

FIGURE 1
SAN FRANCISCO FRENCH BREAD
580 JULIE ANN WAY
OAKLAND, CALIFORNIA

# SITE LOCATION MAP

198510.171511 X:\SF-BREAD\JULIE\81TEPLAN

199810.181210 X:\SF-BREAD\JULIE\SITE




REFERENCE: RON ARCHER CIVIL ENGINEER INC., DATED AUGUST 15, 1996.

0 20 40
SCALE FEET

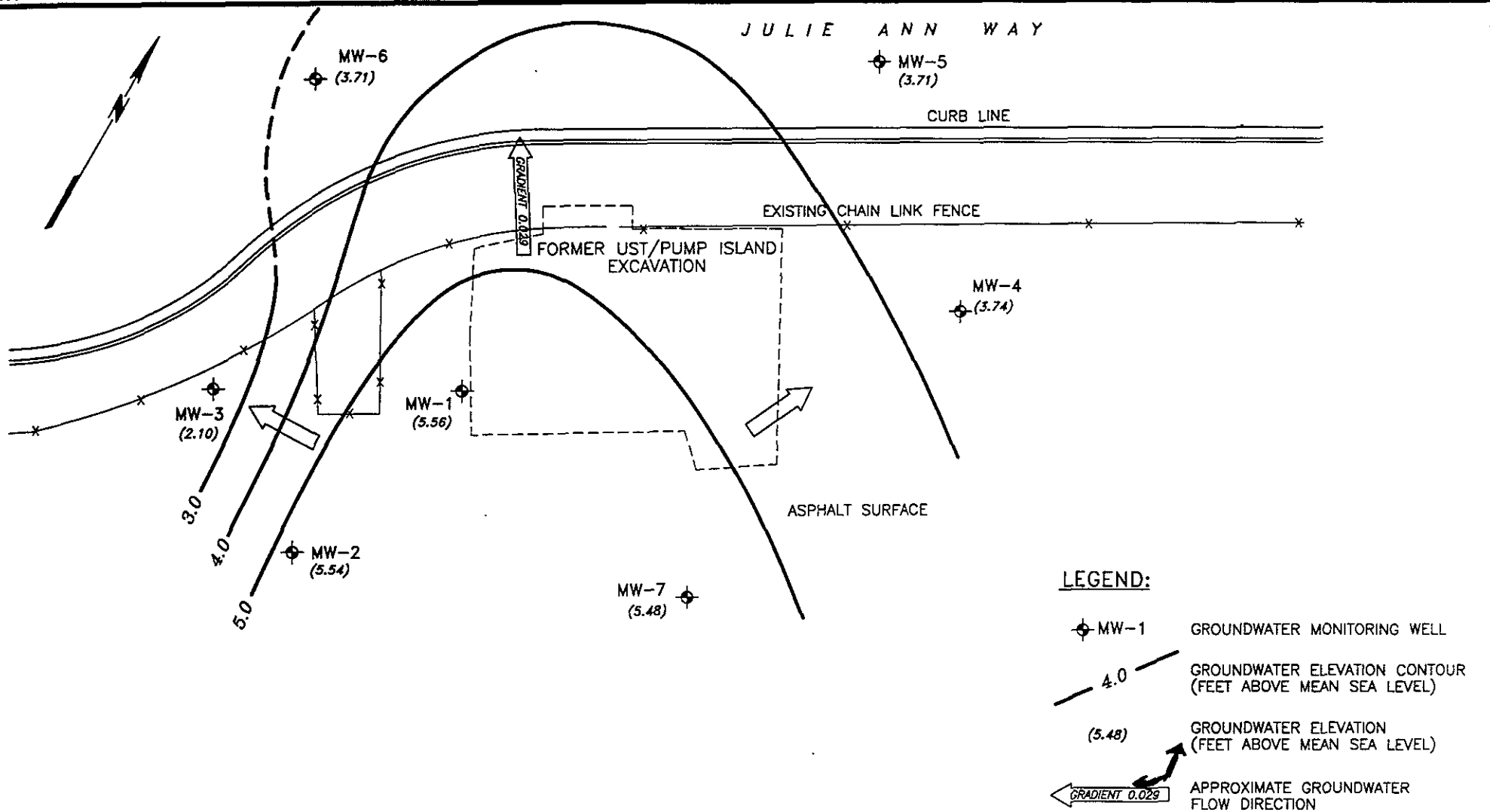
**SECOR**
**INTERNATIONAL INCORPORATED**

| | |
|---|---|
| DRAWN | CCR |
| APPR | LZ |
| DATE | 190CT98 |
| JOB NO. | 50090-009-04 |

FIGURE 2
SAN FRANCISCO FRENCH BREAD
580 JULIE ANN WAY
OAKLAND, CALIFORNIA

**SITE PLAN**

199810.141427 X:\SF-BREAD\JULIE\JULIE12




REFERENCE: RON ARCHER CIVIL ENGINEER INC., DATED AUGUST 15, 1996.

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SCALE FEET

**SECOR**
**INTERNATIONAL INCORPORATED**

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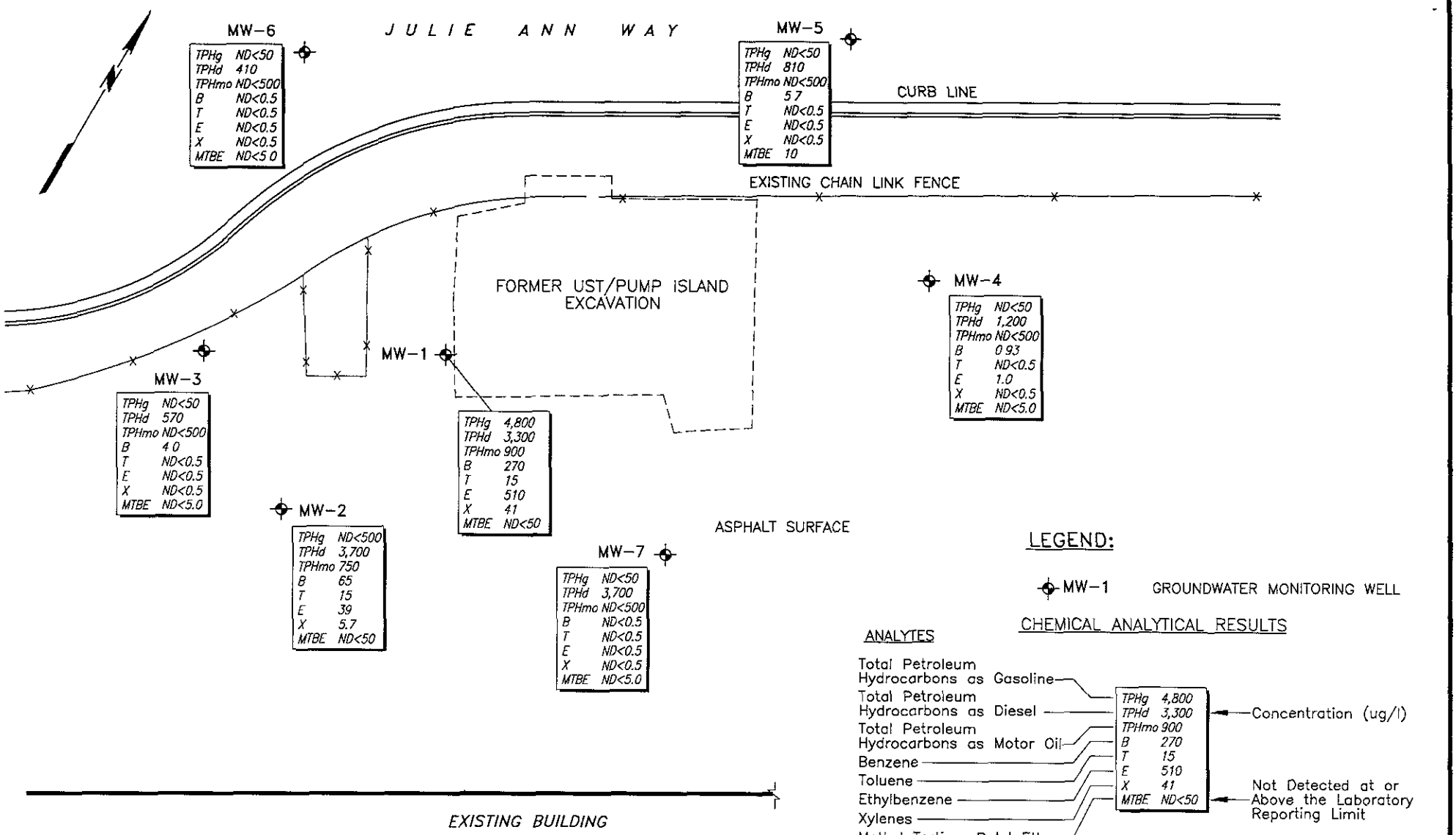
|---|---|
| DRAWN | CCR |
| APPR | LZ |
| DATE | 14OCT98 |
| JOB NO. | 50090-009-04 |

FIGURE 3
SAN FRANCISCO FRENCH BREAD
580 JULIE ANN WAY
OAKLAND, CALIFORNIA

# GROUNDWATER ELEVATION CONTOUR MAP-SEPTEMBER 11, 1998

199810.141417 X:\SF-BREAD\JULIE\JULIE11




REFERENCE: RON ARCHER CIVIL ENGINEER INC., DATED AUGUST 15, 1996.

0 20 40
SCALE FEET

**SECOR**
**INTERNATIONAL INCORPORATED**

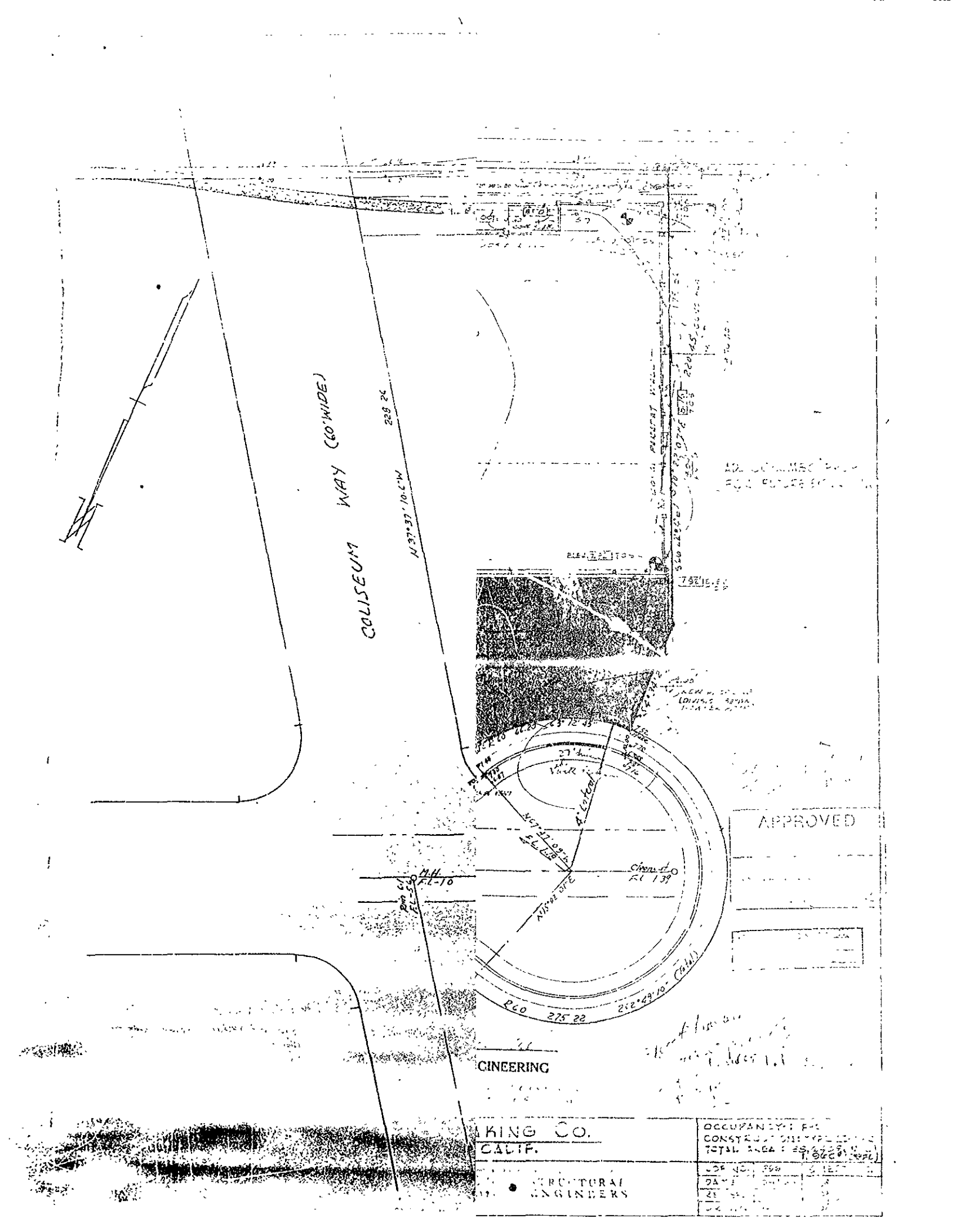
| | |
|---|---|
| DRAWN | CCR |
| APPR | LZ |
| DATE | 14OCT98 |
| JOB NO. | 50090-009-04 |

FIGURE 4
SAN FRANCISCO FRENCH BREAD
580 JULIE ANN WAY
OAKLAND, CALIFORNIA

# GROUNDWATER CHEMICAL RESULTS - SEPTEMBER 11, 1998

# APPENDIX A

# PLOT AND ROOF PLANS


COLISEUM WAY (60' WIDE)
N37°37'10"W
229.24
APPROVED
CINEERING
KING CO.
CALIF.
STRUCTURAL
ENGINEERS

EXIST'G SOUR T

EXIST'G FENCE

OFFICES

DRAINAGE INLET

REMOVE

EXIST'G DRAIN THROUGH CURB

NEW 12' SLIDE GATE

CONC GUTTER

DEPRESSED CURB

SURVEYOR'S CERTIFICATE: THIS MAP CORRECTLY REPRESENTS A SURVEY MADE UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYOR ACT AT THE REQUEST OF COLOMBO BAKING COMPANY ON JUNE 13, 1955

I HEREBY CERTIFY THAT ALL PROVISIONS OF APPLICABLE STATE LAWS AND LOCAL ORDINANCES HAVE BEEN COMPLIED WIT

I FURTHER CERTIFY THAT THE PARCEL DELINEATED HEREON, THE SURVEY IS THE SAME AS THAT SHOWN ON PARCEL MAP, TRACT FILED ON JUNE 29, 1955, BOOK NO. 50, PAGE 56 ALAMEDA COUNTY RECORDER'S OFFICE.

SIGNED:

R.C.E. 5660

DATE:

PARK AVENUE FOR COLOMBO BAKING COMPANY

HUNTINGTON & ASSOCIATES, INC.

Structural Engineers (415) 530-7460 • Oakland, Ca. 94612

# APPENDIX B

# HYDROLOGIC AND WATER SAMPLE FIELD DATA SHEETS

# HYDROLOGIC DATA SHEET

DATE: 9.11.98 PROJECT: SFFB - Oakland PROJECT # 50090 - 002 - 04

EVENT: Q3 SAMPLER: N. von Doepp

| WELL OR LOCATION | TIME | MEASUREMENT | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|
| | | TOC | DTW | DTP | PT | ELEV | |
| mw-1 | 830 | | 4.5 | | | | |
| mw-2 | 915 | | 4.63 | | | | |
| mw-3 | 1015 | | 8.02 | | | | |
| mw-4 | 1116 | | 5.96 | | | | |
| mw-5 | 1218 | | 5.71 | | | | |
| mw-6 | 1316 | | 6.17 | | | | |
| mw-7 | 1417 | | 4.43 | | | | |
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CODES: TOC - TOP OF CASING (FEET, RELATIVE TO MEAN SEA LEVEL)
DTW - DEPTH TO WATER (FEET)
DTP - DEPTH TO PRODUCT (FEET)
PT - PRODUCT THICKNESS (FEET)
ELEV - GROUNDWATER ELEVATION (FEET, RELATIVE TO MEAN SEA LEVEL)

# SECOR International Inc.

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50090.009-04 PURGED BY: MD WELL I.D.: MW-1

CLIENT NAME: SFPB SAMPLED BY: MD SAMPLE I.D.: MW-1

LOCATION: Oakland QA SAMPLES: _____

DATE PURGED 9-11-98 START (2400hr) 8:30 END (2400hr) 8:45

DATE SAMPLED 9-11-98 SAMPLE TIME (2400hr) 9:00

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

| CASING DIAMETER: | 2" | 3" | 4" | 5" | 6" | 8" | Other |
|---|---|---|---|---|---|---|---|
| Casing Volume: (gallons per foot) | X (0.17) | ____ (0.38) | ____ (0.67) | ____ (1.02) | ____ (1.50) | ____ (2.60) | ____ ( ) |

DEPTH TO BOTTOM (feet) = 14.5 CASING VOLUME (gal) = 1.7

DEPTH TO WATER (feet) = 4.5 CALCULATED PURGE (gal) = 5.1

WATER COLUMN HEIGHT (feet) = 10.0 ACTUAL PURGE (gal) = 6.0

### FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|---|
| 9-11 | 835 | 2 | 68.1 | 2270 | 7.43 | Grey | med |
| ↓ | 840 | 4 | ↓ | 2990 | 7.23 | ↓ | ↓ |
| ↓ | 845 | 6 | ↓ | 3110 | 7.14 | ↓ | High |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |

### SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____ SAMPLE TURBIDITY: _____

80% RECHARGE: ___YES ___NO ANALYSES: TPHg TPHd TPHmo BTEX MTBE

ODOR: _____ SAMPLE VESSEL / PRESERVATIVE: 3 VOAs, 1 Amber liter

### PURGING EQUIPMENT

____ Bladder Pump
____ Centrifugal Pump
____ Submersible Pump
____ Peristaltic Pump
X Bailer (Teflon)
____ Bailer (PVC)
____ Bailer (Stainless Steel)
____ Dedicated _____

Other: _____

Pump Depth: _____

### SAMPLING EQUIPMENT

____ Bladder Pump
____ Centrifugal Pump
____ Submersible Pump
____ Peristaltic Pump
X Bailer (Teflon)
____ Bailer ( ___PVC or ___disposable)
____ Bailer (Stainless Steel)
____ Dedicated _____

Other: _____

WELL INTEGRITY: Locked LOCK#: _____

REMARKS: _____

SIGNATURE: _____

# *SECOR International Inc.*

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50090-009-04 PURGED BY: MD WELL I.D.: MW-2

CLIENT NAME: SFFB SAMPLED BY: MD SAMPLE I.D.: MW-2

LOCATION: _____ QA SAMPLES: _____

DATE PURGED 9-11-98 START (2400hr) 9:15 END (2400hr) 930

DATE SAMPLED " SAMPLE TIME (2400hr) 1000

SAMPLE TYPE: Groundwater ✓ Surface Water ____ Treatment Effluent ____ Other ____

| CASING DIAMETER: Casing Volume: (gallons per foot) | 2" ✓ (0.17) | 3" ____ (0.38) | 4" ____ (0.67) | 5" ____ (1.02) | 6" ____ (1.50) | 8" ____ (2.60) | Other ____ ( ) |
|---|---|---|---|---|---|---|---|

DEPTH TO BOTTOM (feet) = 15.00 CASING VOLUME (gal) = 1.8

DEPTH TO WATER (feet) = 4.63 CALCULATED PURGE (gal) = 5.3

WATER COLUMN HEIGHT (feet) = 10.37 ACTUAL PURGE (gal) = 6.0

### FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|---|
| 9-11 | 918 | 2 | 68.2 | 10440 | 7.26 | Lt Grey | low |
| ↓ | 926 | 4 | ↓ | 12700 | 7.37 | Grey | med |
| ↓ | 930 | 6 | ↓ | 12760 | 7.43 | ↓ | high |
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### SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____ SAMPLE TURBIDITY: _____

80% RECHARGE: ___YES ___NO ANALYSES: TPH, TPHd TPHmo BTEX MTBE

ODOR: _____ SAMPLE VESSEL / PRESERVATIVE: 3 VOCs 1-Liter

| PURGING EQUIPMENT | | SAMPLING EQUIPMENT | |
|---|---|---|---|
| ____ Bladder Pump | ✓ Bailer (Teflon) | ____ Bladder Pump | ✓ Bailer (Teflon) |
| ____ Centrifugal Pump | ____ Bailer (PVC) | ____ Centrifugal Pump | ____ Bailer ( ___PVC or ___disposable) |
| ____ Submersible Pump | ____ Bailer (Stainless Steel) | ____ Submersible Pump | ____ Bailer (Stainless Steel) |
| ____ Peristaltic Pump | ____ Dedicated _____ | ____ Peristaltic Pump | ____ Dedicated _____ |
| Other: _____ | | Other: _____ | |
| Pump Depth: _____ | | | |

WELL INTEGRITY: Locked LOCK#: _____

REMARKS: _____

SIGNATURE: _____

# SECOR International Inc.

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50070-009-04 PURGED BY: MD WELL I.D.: MW-3

CLIENT NAME: SFFB SAMPLED BY: MD SAMPLE I.D.: MW-3

LOCATION: Oakland QA SAMPLES: _____

DATE PURGED 9-11-98 START (2400hr) 1015 END (2400hr) 1032

DATE SAMPLED 11 SAMPLE TIME (2400hr) 1100

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" X (0.17) 3" ____ (0.38) 4" ____ (0.67) 5" ____ (1.02) 6" ____ (1.50) 8" ____ (2.60) Other ____ ( )

Casing Volume: (gallons per foot)

DEPTH TO BOTTOM (feet) = 15.00 CASING VOLUME (gal) = ~~1.5~~ 1.18

DEPTH TO WATER (feet) = ~~8.03~~ 8.03 CALCULATED PURGE (gal) = ~~3.9~~ 3.6

WATER COLUMN HEIGHT (feet) = ~~6.97~~ 6.97 ACTUAL PURGE (gal) = ~~4.0~~ 4.0

### FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|---|
| 9-11 | 1019 | 2 | 67.5 | 18650 | 7.19 | Grey | high |
| ↓ | 1027 | 3 | ↓ | 18710 | 7.23 | ↓ | ↓ |
| ↓ | 1032 | 4 | ↓ | 18830 | 7.39 | ↓ | ↓ |
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### SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____ SAMPLE TURBIDITY: _____

80% RECHARGE: ___YES ___NO ANALYSES: TPHg TPHd TPHmo BTEX MTBE

ODOR: _____ SAMPLE VESSEL / PRESERVATIVE: 3 VOAs, 1-Am. Liter

### PURGING EQUIPMENT

____ Bladder Pump
____ Centrifugal Pump
____ Submersible Pump
____ Peristaltic Pump
X Bailer (Teflon)
____ Bailer (PVC)
____ Bailer (Stainless Steel)
____ Dedicated _____

Other: _____

Pump Depth: _____

### SAMPLING EQUIPMENT

____ Bladder Pump
____ Centrifugal Pump
____ Submersible Pump
____ Peristaltic Pump
X Bailer (Teflon)
____ Bailer ( ___PVC or ___disposable)
____ Bailer (Stainless Steel)
____ Dedicated _____

Other: _____

WELL INTEGRITY: Good LOCK#: _____

REMARKS: _____

SIGNATURE: _____

# SECOR International Inc.

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: ~~76[illegible]~~ 50090-008-04
CLIENT NAME: SFFB
LOCATION: Oakland

PURGED BY: NVD
SAMPLED BY: NVD

WELL I.D.: MW-4
SAMPLE I.D.: MW-4
QA SAMPLES: _____

DATE PURGED: 9.11.98
DATE SAMPLED: "

START (2400hr): 11:16
END (2400hr): 1131
SAMPLE TIME (2400hr): 1200

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

| CASING DIAMETER: | 2" | 3" | 4" | 5" | 6" | 8" | Other |
|---|---|---|---|---|---|---|---|
| Casing Volume: (gallons per foot) | X (0.17) | ____ (0.38) | ____ (0.67) | ____ (1.02) | ____ (1.50) | ____ (2.60) | ____ ( ) |

DEPTH TO BOTTOM (feet) = 15.00
DEPTH TO WATER (feet) = 5.96
WATER COLUMN HEIGHT (feet) = 9.04

CASING VOLUME (gal) = 1.54
CALCULATED PURGE (gal) = 4.6
ACTUAL PURGE (gal) = 5.0

### FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|---|
| 9.11 | 1120 | 2 | 67.3 | 8850 | 7.36 | Lt. Grey | low |
| ↓ | 1127 | 4 | ↓ | 8610 | 7.45 | ↓ | ↓ |
| | 1131 | 5 | | 8550 | 7.49 | | |

### SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____
SAMPLE TURBIDITY: _____

80% RECHARGE: ___YES ___NO
ANALYSES: TPHg TPHd TPHmo BTEX MTBE
ODOR: _____
SAMPLE VESSEL / PRESERVATIVE: 3 - Voas, 1 - Am. liter

### PURGING EQUIPMENT

____ Bladder Pump
____ Centrifugal Pump
____ Submersible Pump
____ Peristaltic Pump
X Bailer (Teflon)
____ Bailer (PVC)
____ Bailer (Stainless Steel)
____ Dedicated _____
Other: _____
Pump Depth: _____

### SAMPLING EQUIPMENT

____ Bladder Pump
____ Centrifugal Pump
____ Submersible Pump
____ Peristaltic Pump
X Bailer (Teflon)
____ Bailer ( ___PVC or ___disposable)
____ Bailer (Stainless Steel)
____ Dedicated _____
Other: _____

WELL INTEGRITY: Good
LOCK#: _____

REMARKS: _____

SIGNATURE: _____

# SECOR International Inc.

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50040-009-04 PURGED BY: MD WELL I.D.: MW-5

CLIENT NAME: SFFB SAMPLED BY: " SAMPLE I.D.: MW-5

LOCATION: Oakland QA SAMPLES:

DATE PURGED 9.11.98 START (2400hr) 1218 END (2400hr) 1235

DATE SAMPLED " SAMPLE TIME (2400hr) 1300

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

| CASING DIAMETER: Casing Volume: (gallons per foot) | 2" (0.17) | 3" (0.38) | 4" (0.67) | 5" (1.02) | 6" (1.50) | 8" (2.60) | Other ( ) |
|---|---|---|---|---|---|---|---|
| | X | | | | | | |

DEPTH TO BOTTOM (feet) = 15 CASING VOLUME (gal) = 1.6

DEPTH TO WATER (feet) = 5.74 CALCULATED PURGE (gal) = 4.8

WATER COLUMN HEIGHT (feet) = 9.26 ACTUAL PURGE (gal) = 5.0

### FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|---|
| 9.11 | 1223 | 2 | 69.1 | 16510 | 7.53 | clr | low |
| ↓ | 1228 | 4 | ↓ | 17830 | 7.32 | ↓ | ↓ |
| ↓ | 1235 | 5 | ↓ | 17900 | 7.27 | ↓ | ↓ |
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### SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: ____ SAMPLE TURBIDITY: ____

80% RECHARGE: ___YES ___NO ANALYSES: TPHg TPHd TPHmo BTEX MTBE

ODOR: ____ SAMPLE VESSEL / PRESERVATIVE: 3- Voas, 1- Am. liter

### PURGING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
X Bailer (Teflon)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated ____

Other: ____

Pump Depth: ____

### SAMPLING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
X Bailer (Teflon)
___ Bailer ( ___PVC or ___disposable)
___ Bailer (Stainless Steel)
___ Dedicated ____

Other: ____

WELL INTEGRITY: Good LOCK#: ____

REMARKS: ____

SIGNATURE: [signature] Page 1 of 1

# SECOR International Inc.

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50890-009-04 PURGED BY: Mud WELL I.D.: MW-6

CLIENT NAME: SFFB SAMPLED BY: " SAMPLE I.D.: MW-6

LOCATION: Oakland QA SAMPLES: _____

DATE PURGED 9-11-98 START (2400hr) 1316 END (2400hr) 1333

DATE SAMPLED " SAMPLE TIME (2400hr) 1400

SAMPLE TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

| CASING DIAMETER: | 2" | 3" | 4" | 5" | 6" | 8" | Other |
|---|---|---|---|---|---|---|---|
| Casing Volume: (gallons per foot) | X (0.17) | ___ (0.38) | ___ (0.67) | ___ (1.02) | ___ (1.50) | ___ (2.60) | ___ ( ) |

DEPTH TO BOTTOM (feet) = 15 CASING VOLUME (gal) = 1.50

DEPTH TO WATER (feet) = 6.17 CALCULATED PURGE (gal) = 4.50

WATER COLUMN HEIGHT (feet) = 8.83 ACTUAL PURGE (gal) = 5.0

### FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|---|
| 9.11.98 | 1321 | 2 | 69.2 | off scale | 7.11 | Clear | Mod |
| ↓ | 1328 | 4 | ↓ | ↓ | 6.95 | ↓ | ↓ |
| ↓ | 1333 | 5 | ↓ | ↓ | 6.78 | ↓ | ↓ |

### SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____ SAMPLE TURBIDITY: _____

80% RECHARGE: ___YES ___NO ANALYSES: TPHg, TPHd, TPHmo, BTEX, MTBE

ODOR: _____ SAMPLE VESSEL / PRESERVATIVE: 3-voas, 1-Am. liter

### PURGING EQUIPMENT

____ Bladder Pump
____ Centrifugal Pump
____ Submersible Pump
____ Peristaltic Pump
X Bailer (Teflon)
____ Bailer (PVC)
____ Bailer (Stainless Steel)
____ Dedicated _____

Other: _____

Pump Depth: _____

### SAMPLING EQUIPMENT

____ Bladder Pump
____ Centrifugal Pump
____ Submersible Pump
____ Peristaltic Pump
X Bailer (Teflon)
____ Bailer (___PVC or ___disposable)
____ Bailer (Stainless Steel)
____ Dedicated _____

Other: _____

WELL INTEGRITY: Good LOCK#: _____

REMARKS: _____

SIGNATURE: [signature]

# SECOR International Inc.

## WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50050-009-04 | PURGED BY: MvD | WELL I.D.: MW-7

CLIENT NAME: SFFD | SAMPLED BY: " | SAMPLE I.D.: "

LOCATION: Oakland | QA SAMPLES: _____

DATE PURGED: 9.11.98 | START (2400hr): 1417 | END (2400hr): 1430

DATE SAMPLED: " | SAMPLE TIME (2400hr): 1500

SAMPLE TYPE: Groundwater X | Surface Water _____ | Treatment Effluent _____ | Other _____

CASING DIAMETER: 2" X | 3" ___ | 4" ___ | 5" ___ | 6" ___ | 8" ___ | Other ___

Casing Volume: (gallons per foot) (0.17) | (0.38) | (0.67) | (1.02) | (1.50) | (2.60) | ( )

DEPTH TO BOTTOM (feet) = ~~15~~ 16 | CASING VOLUME (gal) = 1.8

DEPTH TO WATER (feet) = 4.43 | CALCULATED PURGE (gal) = 5.40

WATER COLUMN HEIGHT (feet) = 10.57 | ACTUAL PURGE (gal) = 6.0

### FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|---|
| 9.11.98 | 1422 | 2 | 67.7 | 15570 | 6.26 | Grey | high |
| ↓ | 1426 | 4 | ↓ | 16110 | 7.99 | ↓ | ↓ |
| ↓ | 1430 | 6 | ↓ | 16348 | 7.96 | ↓ | ↓ |
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### SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____ | SAMPLE TURBIDITY: _____

80% RECHARGE: ___YES ___NO | ANALYSES: TPHg TPHd TPHmo BTEX MTBE

ODOR: _____ | SAMPLE VESSEL / PRESERVATIVE: 3-Vogs, 1-Am liter

### PURGING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
X Bailer (Teflon)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated _____

Other: _____

Pump Depth: _____

### SAMPLING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
X Bailer (Teflon)
___ Bailer ( ___PVC or ___disposable)
___ Bailer (Stainless Steel)
___ Dedicated _____

Other: _____

WELL INTEGRITY: good | LOCK#: _____

REMARKS: _____

SIGNATURE: _____

# APPENDIX C

# LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY RECORDS

# CHROMALAB, INC.

Environmental Services (SDB)

October 12, 1998 Submission #: 9809162

SECOR SAN FRANCISCO
90 New Montgomery St. , Suite 620
San Francisco, CA 94105-4503

Attn: Liping Zhang

**RE:** Analysis for project SFFB, number 50090-009-04.

REPORTING INFORMATION

Samples were received cold and in good condition on September 11, 1998. They were refrigerated upon receipt and analyzed as described in the attached report. ChromaLab followed EPA or equivalent methods for all testing reported.

No discrepancies were observed or difficulties encountered with the testing.

| Client Sample ID | Matrix | Date collected | Sample # |
|---|---|---|---|
| MW-1 | WTR | September 11, 1998 | 205675 |
| MW-2 | WTR | September 11, 1998 | 205676 |
| MW-3 | WTR | September 11, 1998 | 205677 |
| MW-4 | WTR | September 11, 1998 | 205678 |
| MW-5 | WTR | September 11, 1998 | 205679 |
| MW-6 | WTR | September 11, 1998 | 205680 |
| MW-7 | WTR | September 11, 1998 | 205681 |

Afsaneh Salimpour
Project Manager



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(925) 484-1919 • Facsimile (925) 484-1096
Federal ID #68-0140157

# CHROMALAB, INC.

Environmental Services (SDB)

September 18, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* 7 samples for TEPH analysis.
*Method:* *EPA 8015M*

*Matrix:* WATER *Extracted:* September 15, 1998
*Sampled:* September 11, 1998 *Run#:* 14895 *Analyzed:* September 17, 1998

| Spl# | CLIENT SPL ID | Diesel (ug/L) | Motor Oil (ug/L) |
|---|---|---|---|
| *205677* | MW-3 | 570 | N.D. |
| | *Note: Hydrocarbon reported does not match the pattern of our Diesel Standard. Surrogate Recoveries biased high due to Hydrocarbon co-elution.* | | |

*Matrix:* WATER *Extracted:* September 15, 1998
*Sampled:* September 11, 1998 *Run#:* 14895 *Analyzed:* September 18, 1998

| Spl# | CLIENT SPL ID | Diesel (ug/L) | Motor Oil (ug/L) |
|---|---|---|---|
| *205675* | MW-1 | 3300 | 900 |
| | *Note: Hydrocarbon reported is in the early Diesel Range and does not match our Diesel Standard. Surrogate Recoveries biased high due to Hydrocarbon co-elution.* | | |
| *205676* | MW-2 | 3700 | 750 |
| | *Note: Hydrocarbon reported is in the early Diesel Range and does not match our Diesel Standard.* | | |
| *205678* | MW-4 | 1200 | N.D. |
| | *Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.* | | |
| *205679* | MW-5 | 810 | N.D. |
| | *Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.* | | |
| *205680* | MW-6 | 410 | N.D. |
| | *Note: Hydrocarbon reported is in the early Diesel Range and does not match our Diesel Standard.* | | |
| *205681* | MW-7 | 3700 | N.D. |
| | *Note: Hydrocarbon reported is in the early Diesel Range and does not match our Diesel Standard. Surrogate Recoveries biased high due to Hydrocarbon co-elution.* | | |

**CHROMALAB, INC.**
Environmental Services (SDB)

September 18, 1998 *Submission #:* 9809162


SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* 7 samples for TEPH analysis, continued.
*Method:* *EPA 8015M*

*Matrix:* WATER *Extracted:* September 15, 1998
*Sampled:* September 11, 1998 *Run#:* 14895 *Analyzed:* September 18, 1998

| Spl# CLIENT SPL ID | Diesel (ug/L) | Motor Oil (ug/L) |
|---|---|---|
| Reporting Limits | 50 | 500 |
| Blank Result | N.D. | |
| Blank Spike Result (%) | 96.8 | -- |

Carolyn House
Analyst

Bruce Havlik
Analyst



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Federal ID #68-0140157

**CHROMALAB, INC.**

Environmental Services (SDB)

September 18, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* **Surrogate** report for 7 samples for TEPH analysis.

*Method:* EPA 8015M
*Lab Run#:* 14895
*Matrix:* WATER

| Sample# | Client Sample ID | Surrogate | % Recovered | Recovery Limits |
|---|---|---|---|---|
| *205675-1* | MW-1 | O-TERPHENYL | 148 | 60-130 |
| *205676-1* | MW-2 | O-TERPHENYL | 127 | 60-130 |
| *205677-1* | MW-3 | O-TERPHENYL | 204 | 60-130 |
| *205678-1* | MW-4 | O-TERPHENYL | 113 | 60-130 |
| *205679-1* | MW-5 | O-TERPHENYL | 123 | 60-130 |
| *205680-1* | MW-6 | O-TERPHENYL | 124 | 60-130 |
| *205681-1* | MW-7 | O-TERPHENYL | 136 | 60-130 |

| Sample# | QC Sample Type | Surrogate | % Recovered | Recovery Limits |
|---|---|---|---|---|
| *206000-1* | *Reagent blank (MDB)* | O-TERPHENYL | 86.1 | 60-130 |
| *206001-1* | *Spiked blank (BSP)* | O-TERPHENYL | 104 | 60-130 |
| *206002-1* | *Spiked blank duplicate (BSD)* | O-TERPHENYL | 99.4 | 60-130 |

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QCSURR1229 CMH 18-Sep-98 14:25

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Federal ID #68-0140157

# CHROMALAB, INC.

Environmental Services (SDB)

September 18, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* **Blank spike and duplicate** report for TEPH analysis.

*Method:* EPA 8015M

*Matrix:* WATER
*Lab Run#:* 14895 *Analyzed:* September 15, 1998

| Analyte | Spike Amount BSP (ug/L) | Spike Amount Dup | Spike Found BSP (ug/L) | Spike Found Dup | Spike Recov BSP (%) | Spike Recov Dup (%) | Control Limits | % RPD | % RPD Lim |
|---|---|---|---|---|---|---|---|---|---|
| DIESEL | 2500 | 2500 | 2420 | 2390 | 96.8 | 95.6 | 60-130 | 1.25 | 25 |

BS Smpl #: 206001
BSD Smpl #: 206002

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# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

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

*Client Sample ID:* **MW-1**
*Spl#:* 205675 *Matrix:* WATER
*Sampled:* September 11, 1998 *Run#:*14943 *Analyzed:* September 16, 1998

| ANALYTE | RESULT (ug/L) | REPORTING LIMIT (ug/L) | BLANK RESULT (ug/L) | BLANK SPIKE (%) | DILUTION FACTOR |
|---|---|---|---|---|---|
| GASOLINE | 4800 | 500 | N.D. | 84 | 10 |
| MTBE | N.D. | 50 | N.D. | 104 | 10 |
| BENZENE | 270 | 5.0 | N.D. | 89 | 10 |
| TOLUENE | 15 | 5.0 | N.D. | 89 | 10 |
| ETHYL BENZENE | 510 | 5.0 | N.D. | 98 | 10 |
| XYLENES | 41 | 5.0 | N.D. | 86 | 10 |

Vincent Vancil
Analyst

Michael Verona
Operations Manager

~~LAS~~ ~~LEV2~~
AS V132 O:BTEXQC0220
VINCE 10:39

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Federal ID #68-0140157

# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

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

*Client Sample ID:* **MW-3**
*Spl#:* 205677 *Matrix:* WATER
*Sampled:* September 11, 1998 *Run#:*14943 *Analyzed:* September 17, 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. | 104 | 1 |
| BENZENE | 4.0 | 0.50 | N.D. | 89 | 1 |
| TOLUENE | N.D. | 0.50 | N.D. | 89 | 1 |
| ETHYL BENZENE | N.D. | 0.50 | N.D. | 98 | 1 |
| XYLENES | N.D. | 0.50 | N.D. | 86 | 1 |

Vincent Vancil
Analyst

Michael Verona
Operations Manager



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Federal ID #68-0140157

# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* **Blank spike and duplicate** report for Gasoline BTEX MTBE analysis.

*Method:* SW846 8020A Nov 1990 / 8015Mod

*Matrix:* WATER
*Lab Run#:* 14943 *Analyzed:* September 16, 1998

| Analyte | Spike Amount BSP (ug/L) | Spike Amount Dup (ug/L) | Spike Found BSP (ug/L) | Spike Found Dup (ug/L) | Spike Recov BSP (%) | Spike Recov Dup (%) | Control Limits | % RPD | % RPD Lim |
|---|---|---|---|---|---|---|---|---|---|
| GASOLINE | 500 | 500 | 418 | 437 | 83.6 | 87.4 | 75-125 | 4.44 | 20 |
| MTBE | 100 | 100 | 104 | 113 | 104 | 113 | 75-125 | 8.29 | 20 |
| BENZENE | 100 | 100 | 88.6 | 92.2 | 88.6 | 92.2 | 77-123 | 3.98 | 20 |
| TOLUENE | 100 | 100 | 88.8 | 92.3 | 88.8 | 92.3 | 78-122 | 3.86 | 20 |
| ETHYL BENZENE | 100 | 100 | 97.6 | 98.1 | 97.6 | 98.1 | 70-130 | 0.51 | 20 |
| XYLENES | 300 | 300 | 259 | 274 | 86.3 | 91.3 | 75-125 | 5.63 | 20 |

BS Smpl #: 206396
BSD Smpl #: 206397

LEV2
OC_BSD1226 VINCE 10:39.34

1220 Quarry Lane • Pleasanton, California 94566-4756
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Federal ID #68-0140157

**CHROMALAB, INC.**

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* **Matrix spike** report for Gasoline BTEX MTBE analysis.

*Method:* SW846 8020A Nov 1990 / 8015Mod

*Matrix:* WATER
*Lab Run#:* 14943 *Instrument:* 3400-3 *Analyzed:* September 16, 1998

| Analyte | Spiked Sample Amount (ug/L) | Spike Amt MS (ug/L) | Spike Amt MSD (ug/L) | Amt Found MS (ug/L) | Amt Found MSD (ug/L) | Spike Recov MS (%) | Spike Recov MSD (%) | Control Limits | % RPD | % RPD Lim |
|---|---|---|---|---|---|---|---|---|---|---|
| GASOLINE | N.D. | 500 | 500 | 424 | 441 | 84.8 | 88.2 | 65-135 | 3.93 | 20 |
| MTBE | N.D. | 100 | 100 | 129 | 118 | 119 | 108 | 65-135 | 9.69 | 20 |
| BENZENE | N.D. | 100 | 100 | 53.3 | 91.3 | 53.3 | 91.3 | 65-135 | 52.6 | 20 |
| TOLUENE | N.D. | 100 | 100 | 94.6 | 93.8 | 94.0 | 93.2 | 65-135 | 0.85 | 20 |
| ETHYL BENZENE | N.D. | 100 | 100 | 106 | 99.3 | 106 | 99.3 | 65-135 | 6.53 | 20 |
| XYLENES | N.D. | 300 | 300 | 278 | 277 | 92.3 | 92.0 | 65-135 | 0.32 | 20 |

*Sample Spiked:* 206044
*Submission #:* 9809185
*Client Sample ID:* TREATED WATER

MS Smpl #: 206398
MSD Smpl #: 206399

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**CHROMALAB, INC.**

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* **Surrogate** report for 3 samples for Gasoline BTEX MTBE analysis.
*Method:* SW846 8020A Nov 1990 / 8015Mod
*Lab Run#:* 14943
*Matrix:* WATER

| Sample# | Client Sample ID | Surrogate | % Recovered | Recovery Limits |
|---|---|---|---|---|
| *205675-1* | MW-1 | TRIFLUOROTOLUENE | 76.3 | 58-124 |
| *205675-1* | MW-1 | 4-BROMOFLUOROBENZENE | 102 | 50-150 |
| *205676-1* | MW-2 | TRIFLUOROTOLUENE | 107 | 58-124 |
| *205676-1* | MW-2 | 4-BROMOFLUOROBENZENE | 128 | 50-150 |
| *205677-1* | MW-3 | TRIFLUOROTOLUENE | 86.7 | 58-124 |
| *205677-1* | MW-3 | 4-BROMOFLUOROBENZENE | 149 | 50-150 |

| Sample# | QC Sample Type | Surrogate | % Recovered | Recovery Limits |
|---|---|---|---|---|
| *206395-1* | *Reagent blank (MDB)* | TRIFLUOROTOLUENE | 88.9 | 58-124 |
| *206395-1* | *Reagent blank (MDB)* | 4-BROMOFLUOROBENZENE | 123 | 50-150 |
| *206396-1* | *Spiked blank (BSP)* | TRIFLUOROTOLUENE | 87.7 | 58-124 |
| *206396-1* | *Spiked blank (BSP)* | 4-BROMOFLUOROBENZENE | 111 | 50-150 |
| *206397-1* | *Spiked blank duplicate (BSD)* | TRIFLUOROTOLUENE | 88.8 | 58-124 |
| *206397-1* | *Spiked blank duplicate (BSD)* | 4-BROMOFLUOROBENZENE | 113 | 50-150 |
| *206398-1* | *Matrix spike (MS)* | TRIFLUOROTOLUENE | 93.8 | 58-124 |
| *206398-1* | *Matrix spike (MS)* | 4-BROMOFLUOROBENZENE | 111 | 50-150 |
| *206399-1* | *Matrix spike duplicate (MSD)* | TRIFLUOROTOLUENE | 83.2 | 58-124 |
| *206399-1* | *Matrix spike duplicate (MSD)* | 4-BROMOFLUOROBENZENE | 109 | 50-150 |

V132
QCSURR1229 VINCE 23-Sep-98 10:4

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Federal ID #68-0140157

# CHROMALAB, INC.

Environmental Services (SDB)

October 2, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

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

*Client Sample ID:* **MW-4**
*Spl#:* 205678 *Matrix:* WATER
*Sampled:* September 11, 1998 *Run#:*14953 *Analyzed:* September 17, 1998

| ANALYTE | RESULT (ug/L) | REPORTING LIMIT (ug/L) | BLANK RESULT (ug/L) | BLANK SPIKE (%) | DILUTION FACTOR |
|---|---|---|---|---|---|
| GASOLINE | N.D. | 50 | N.D. | 101 | 1 |
| MTBE | N.D. | 5.0 | N.D. | 97 | 1 |
| BENZENE | 0.93 | 0.50 | N.D. | 100 | 1 |
| TOLUENE | N.D. | 0.50 | N.D. | 99 | 1 |
| ETHYL BENZENE | 1.0 | 0.50 | N.D. | 98 | 1 |
| XYLENES | N.D. | 0.50 | N.D. | 98 | 1 |

*Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile.If quantified using Gasoline's response factor, concentration would equal 410ug/L.*

Vincent Vancil
Analyst

Michael Verona
Operations Manager

**AS LEV2

AS V132 O:BTEXQC0220
VINCE 16:59

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# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

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

*Client Sample ID:* **MW-6**
*Spl#:* 205680 *Matrix:* WATER
*Sampled:* September 11, 1998 *Run#:*14953 *Analyzed:* September 17, 1998

| ANALYTE | RESULT (ug/L) | REPORTING LIMIT (ug/L) | BLANK RESULT (ug/L) | BLANK SPIKE (%) | DILUTION FACTOR |
|---|---|---|---|---|---|
| GASOLINE | N.D. | 50 | N.D. | 101 | 1 |
| MTBE | N.D. | 5.0 | N.D. | 97 | 1 |
| BENZENE | N.D. | 0.50 | N.D. | 100 | 1 |
| TOLUENE | N.D. | 0.50 | N.D. | 99 | 1 |
| ETHYL BENZENE | N.D. | 0.50 | N.D. | 98 | 1 |
| XYLENES | N.D. | 0.50 | N.D. | 98 | 1 |

Vincent Vancil
Analyst

Michael Verona
Operations Manager

**AG LEV2

AS V132 O:BTEXQC0220
VINCE 10:39

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# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

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

*Client Sample ID:* **MW-7**
*Spl#:* 205681 *Matrix:* WATER
*Sampled:* September 11, 1998 *Run#:*14953 *Analyzed:* September 17, 1998

| ANALYTE | RESULT (ug/L) | REPORTING LIMIT (ug/L) | BLANK RESULT (ug/L) | BLANK SPIKE (%) | DILUTION FACTOR |
|---|---|---|---|---|---|
| GASOLINE | N.D. | 50 | N.D. | 101 | 1 |
| MTBE | N.D. | 5.0 | N.D. | 97 | 1 |
| BENZENE | N.D. | 0.50 | N.D. | 100 | 1 |
| TOLUENE | N.D. | 0.50 | N.D. | 99 | 1 |
| ETHYL BENZENE | N.D. | 0.50 | N.D. | 98 | 1 |
| XYLENES | N.D. | 0.50 | N.D. | 98 | 1 |

Vincent Vancil
Analyst

Michael Verona
Operations Manager

**AS LEV2

AS V132 O:BTEXQC0220
VINCE 10:39

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# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* **Surrogate** report for 4 samples for Gasoline BTEX MTBE analysis.
*Method:* SW846 8020A Nov 1990 / 8015Mod
*Lab Run#:* 14953
*Matrix:* WATER

| Sample# | Client Sample ID | Surrogate | % Recovered | Recovery Limits |
|---|---|---|---|---|
| *205678-1* | MW-4 | TRIFLUOROTOLUENE | 99.1 | 58-124 |
| *205678-1* | MW-4 | 4-BROMOFLUOROBENZENE | 92.8 | 50-150 |
| *205679-1* | MW-5 | TRIFLUOROTOLUENE | 102 | 58-124 |
| *205679-1* | MW-5 | 4-BROMOFLUOROBENZENE | 77.2 | 50-150 |
| *205680-1* | MW-6 | TRIFLUOROTOLUENE | 99.2 | 58-124 |
| *205680-1* | MW-6 | 4-BROMOFLUOROBENZENE | 80.8 | 50-150 |
| *205681-1* | MW-7 | TRIFLUOROTOLUENE | 102 | 58-124 |
| *205681-1* | MW-7 | 4-BROMOFLUOROBENZENE | 80.8 | 50-150 |

| Sample# | QC Sample Type | Surrogate | % Recovered | Recovery Limits |
|---|---|---|---|---|
| *206455-1* | *Reagent blank (MDB)* | TRIFLUOROTOLUENE | 99.7 | 58-124 |
| *206455-1* | *Reagent blank (MDB)* | 4-BROMOFLUOROBENZENE | 73.7 | 50-150 |
| *206456-1* | *Spiked blank (BSP)* | TRIFLUOROTOLUENE | 117 | 58-124 |
| *206456-1* | *Spiked blank (BSP)* | 4-BROMOFLUOROBENZENE | 83.5 | 50-150 |
| *206457-1* | *Spiked blank duplicate (BSD)* | TRIFLUOROTOLUENE | 117 | 58-124 |
| *206457-1* | *Spiked blank duplicate (BSD)* | 4-BROMOFLUOROBENZENE | 84.4 | 50-150 |
| *206458-1* | *Matrix spike (MS)* | TRIFLUOROTOLUENE | 109 | 58-124 |
| *206459-1* | *Matrix spike duplicate (MSD)* | TRIFLUOROTOLUENE | 107 | 58-124 |

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# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

re: **Blank spike and duplicate** report for Gasoline BTEX MTBE analysis.

*Method:* SW846 8020A Nov 1990 / 8015Mod

*Matrix:* WATER
*Lab Run#:* 14953 *Analyzed:* September 17, 1998

| Analyte | Spike Amount BSP (ug/L) | Spike Amount Dup (ug/L) | Found BSP | Found Dup | Recov BSP (%) | Recov Dup (%) | Control Limits | % RPD | % RPD Lim |
|---|---|---|---|---|---|---|---|---|---|
| GASOLINE | 500 | 500 | 507 | 522 | 101 | 104 | 75-125 | 2.93 | 20 |
| MTBE | 100 | 100 | 97.0 | 84.7 | 97.0 | 84.7 | 75-125 | 13.5 | 20 |
| BENZENE | 100 | 100 | 99.6 | 99.9 | 99.6 | 99.9 | 77-123 | 0.30 | 20 |
| TOLUENE | 100 | 100 | 98.6 | 99.4 | 98.6 | 99.4 | 78-122 | 0.80 | 20 |
| ETHYL BENZENE | 100 | 100 | 98.1 | 96.9 | 98.1 | 96.9 | 70-130 | 1.23 | 20 |
| XYLENES | 300 | 300 | 295 | 290 | 98.3 | 96.7 | 75-125 | 1.64 | 20 |

BS Smpl #: 206456
BSD Smpl #: 206457

LEV2
QC_BSD1226 VINCE 10-39 34

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# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* **Matrix spike** report for Gasoline BTEX MTBE analysis.

*Method:* SW846 8020A Nov 1990 / 8015Mod

*Matrix:* WATER
*Lab Run#:* 14953 *Instrument:* 3400-5 *Analyzed:* September 17, 1998

| Analyte | Spiked Sample Amount (ug/L) | Spike Amt MS (ug/L) | Spike Amt MSD (ug/L) | Amt Found MS (ug/L) | Amt Found MSD (ug/L) | Spike Recov MS (%) | Spike Recov MSD (%) | Control Limits | % RPD | % RPD Lim |
|---|---|---|---|---|---|---|---|---|---|---|
| MTBE | 66 | 100 | 100 | 103 | 112 | 103 | 112 | 65-135 | 8.37 | 20 |
| BENZENE | 0.93 | 100 | 100 | 92.3 | 94.0 | 92.3 | 94.0 | 65-135 | 1.82 | 20 |
| TOLUENE | N.D. | 100 | 100 | 91.5 | 92.3 | 91.5 | 92.3 | 65-135 | 0.87 | 20 |
| ETHYL BENZENE | 1.0 | 100 | 100 | 95.9 | 95.0 | 95.9 | 95.0 | 65-135 | 0.94 | 20 |
| XYLENES | N.D. | 300 | 300 | 286 | 282 | 95.3 | 94.0 | 65-135 | 1.37 | 20 |

*Sample Spiked:* 205678
*Submission #:* 9809162
*Client Sample ID:* MW-4

MS Smpl #: 206458
MSD Smpl #: 206459

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# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

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

*Client Sample ID:* **MW-2**
*Spl#:* 205676 *Matrix:* WATER
*Sampled:* September 11, 1998 *Run#:*14971 *Analyzed:* September 16, 1998

| ANALYTE | RESULT (ug/L) | REPORTING LIMIT (ug/L) | BLANK RESULT (ug/L) | BLANK SPIKE (%) | DILUTION FACTOR |
|---|---|---|---|---|---|
| GASOLINE | N.D. | 500 | N.D. | 86 | 10 |
| MTBE | N.D. | 50 | N.D. | 102 | 10 |
| BENZENE | 65 | 5.0 | N.D. | 90 | 10 |
| TOLUENE | 15 | 5.0 | N.D. | 90 | 10 |
| ETHYL BENZENE | 39 | 5.0 | N.D. | 99 | 10 |
| XYLENES | 5.7 | 5.0 | N.D. | 88 | 10 |

*Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile.If quantified using Gasoline's response factor, concentration would equal 3900ug/L.*

Vincent Vancil
Analyst

Michael Verona
Operations Manager

**AS LEV2

AS V132 O:BTEXQC0220
VINCE 10:39

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# CHROMALAB, INC.

Environmental Services (SDB)

October 2, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

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

*Client Sample ID:* **MW-5**
*Spl#:* 205679 *Matrix:* WATER
*Sampled:* September 11, 1998 *Run#:*14971 *Analyzed:* September 17, 1998

| ANALYTE | RESULT (ug/L) | REPORTING LIMIT (ug/L) | BLANK RESULT (ug/L) | BLANK SPIKE (%) | DILUTION FACTOR |
|---|---|---|---|---|---|
| GASOLINE | N.D. | 50 | N.D. | 86 | 1 |
| MTBE | 10 | 5.0 | N.D. | 102 | 1 |
| BENZENE | 5.7 | 0.50 | N.D. | 90 | 1 |
| TOLUENE | N.D. | 0.50 | N.D. | 90 | 1 |
| ETHYL BENZENE | N.D. | 0.50 | N.D. | 99 | 1 |
| XYLENES | N.D. | 0.50 | N.D. | 88 | 1 |

*Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile.If quantified using Gasoline's response factor, concentration would equal 82ug/L.*

Vincent Vancil
Analyst

Michael Verona
Operations Manager

**AS LEV2

AS V132 O:BTEXQC0220
VINCE 16:59

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Federal ID #68-0140157

**CHROMALAB, INC.**

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* **Blank spike and duplicate** report for Gasoline BTEX MTBE analysis.

*Method:* SW846 8020A Nov 1990 / 8015Mod

*Matrix:* WATER
*Lab Run#:* 14971 *Analyzed:* September 18, 1998

| Analyte | Spike Amount BSP (ug/L) | Spike Amount Dup (ug/L) | Spike Found BSP (ug/L) | Spike Found Dup (ug/L) | Spike Recov BSP (%) | Spike Recov Dup (%) | Control Limits | % RPD | % RPD Lim |
|---|---|---|---|---|---|---|---|---|---|
| GASOLINE | 500 | 500 | 430 | 410 | 86.0 | 82.0 | 75-125 | 4.76 | 20 |
| MTBE | 100 | 100 | 102 | 106 | 102 | 106 | 75-125 | 3.85 | 20 |
| BENZENE | 100 | 100 | 89.6 | 93.7 | 89.6 | 93.7 | 77-123 | 4.47 | 20 |
| TOLUENE | 100 | 100 | 89.6 | 94.1 | 89.6 | 94.1 | 78-122 | 4.90 | 20 |
| ETHYL BENZENE | 100 | 100 | 98.5 | 99.8 | 98.5 | 99.8 | 70-130 | 1.31 | 20 |
| XYLENES | 300 | 300 | 263 | 278 | 87.7 | 92.7 | 75-125 | 5.54 | 20 |

BS Smpl #: 206687
BSD Smpl #: 206688

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LEV2
QC_BSD1226 VINCE 10-39,34

# CHROMALAB, INC.

Environmental Services (SDB)

September 23, 1998 *Submission #:* 9809162

SECOR SAN FRANCISCO

*Atten:* Liping Zhang

*Project:* SFFB *Project#:* 50090-009-04
*Received:* September 11, 1998

*re:* **Surrogate** report for 2 samples for Gasoline BTEX MTBE analysis.
*Method:* SW846 8020A Nov 1990 / 8015Mod
*Lab Run#:* 14971
*Matrix:* WATER

| Sample# | Client Sample ID | Surrogate | % Recovered | Recovery Limits |
|---|---|---|---|---|
| *205676-2* | MW-2 | TRIFLUOROTOLUENE | 106 | 58-124 |
| *205676-2* | MW-2 | 4-BROMOFLUOROBENZENE | 119 | 50-150 |
| *205679-2* | MW-5 | TRIFLUOROTOLUENE | 84.9 | 58-124 |
| *205679-2* | MW-5 | 4-BROMOFLUOROBENZENE | 115 | 50-150 |

| Sample# | QC Sample Type | Surrogate | % Recovered | Recovery Limits |
|---|---|---|---|---|
| *206686-1* | *Reagent blank (MDB)* | TRIFLUOROTOLUENE | 51.2 | 58-124 |
| *206686-1* | *Reagent blank (MDB)* | 4-BROMOFLUOROBENZENE | 114 | 50-150 |
| *206687-1* | *Spiked blank (BSP)* | TRIFLUOROTOLUENE | 89.0 | 58-124 |
| *206687-1* | *Spiked blank (BSP)* | 4-BROMOFLUOROBENZENE | 118 | 50-150 |
| *206688-1* | *Spiked blank duplicate (BSD)* | TRIFLUOROTOLUENE | 88.8 | 58-124 |
| *206688-1* | *Spiked blank duplicate (BSD)* | 4-BROMOFLUOROBENZENE | 134 | 50-150 |

V132
QCSURR1229 VINCE 23-Sep-98 10:4

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SUBM #: 9809162 REP: ASLEV2
CLIENT: SECOR-SF
DUE: 09/10/98
REF #: 61932

989162 41932
Chain-of Custody Number:

# SECOR Chain-of Custody Record

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

Field Office: San Francisco
Address: 90 New Montgomery St. #620
SF, CA 94105

Job Name: SFFB
Location: Oakland - 580 Julie Ann Way

Project # 50090-009-04 Task # 003
Project Manager Cheng Zhang
Laboratory Chroma
Turnaround Time Stand.

Sampler's Name N. Von Paris
Sampler's Signature

| Sample ID | Date | Time | Matrix | HCID | TPHg/BTEX/WTPH-G 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 | MTBE | TPHmo | Comments/ Instructions | Number of Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mw-1 | 9-11-98 | 900 | H2O | | X | X | | | | | | | | | | X | X | | 4 |
| mw-2 | | 1000 | | | | | | | | | | | | | | | | | |
| mw-3 | | 1100 | | | | | | | | | | | | | | | | | |
| mw-4 | | 1200 | | | | | | | | | | | | | | | | | |
| mw-5 | | 1300 | | | | | | | | | | | | | | | | | |
| mw-6 | | 1400 | | | | | | | | | | | | | | | | | |
| mw-7 | | 1500 | | | | | | | | | | | | | | | | | |

Special Instructions/Comments:

Relinquished by:
Sign
Print
Company SECOR
Time 1530 Date 9-11-98

Received by: Asanee Salumpaw
Sign Asanee Salumpaw
Print Asanee Salumpaw
Company Chromalab
Time 15:30 Date 9/11/98

Relinquished by:
Sign
Print
Company Chromalab
Time 4:45 Date 9/11

Received by: Alexandra Paredes
Sign Alexandra Paredes
Print Alex Paredes
Company Chroma Lab
Time 1659 Date 9/11/98

Sample Receipt
Total no. of containers:
Chain of custody seals:
Rec'd. in good condition/cold:
Conforms to record:

Client:
Client Contact:
Client Phone:

SECOR CUSTREC Rev. 1/95

Date: / / Page of