Nov 11, 1998
Conduit Study

May 20, 1999

SECOR International Incorporated

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

QUARTERLY GROUNDWATER MONITORING REPORT FOR FIRST QUARTER 1999, 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 Baking 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 requirements set by the Alameda County Environmental Health Services (ACEHS) in their November 7, 1997 and December 11, 1999 letters. This report presents monitoring well sounding, groundwater elevation, and groundwater quality data collected from seven Site wells on March 17, 1999

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).

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ENVIRONMENTAL PROTECTION

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

GROUNDWATER MONITORING PROCEDURES

On March 17, 1999, 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 A. The water-level indicator was rinsed with deionized water between the sounding of each well to prevent cross contamination. All seven wells were additionally monitored for dissolved oxygen (DO) using a YSI model 51B DO meter and for oxidation-reduction potential (ORP) using a Horiba model D-22 ORP meter. The DO and ORP measurements were recorded on the Hydrologic and Water Sample Field Data Sheets which are included in Appendix A.

Prior to sampling, wells were purged of approximately three wellbore volumes of water using a disposable 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 A. 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 B.

SUMMARY OF RESULTS

Historic groundwater elevations including this quarter's data are included in Table 1. Historic groundwater chemical results including this quarter's data are included in Table 2. Also included in Table 2 are the DO and ORP field measurements collected this quarter.

Monitoring Well Sounding

A groundwater elevation contour map based on the March 17, 1999 groundwater elevation data is presented as Figure 3. During this monitoring event, groundwater was measured at depths between 3.52 feet and 5.79 feet below the top of the PVC casing. These depths translate to groundwater elevations ranging from 3.89 to 6.60 feet above mean sea level (msl). During this monitoring event groundwater elevations have increased in all monitoring wells, when compared with the December 1998 data. Interpretation of the groundwater elevation contour map indicates a general flow direction to the north under an average hydraulic gradient of 0.028 feet per foot (ft/ft). This gradient and flow direction are consistent with previous quarters' data.

Groundwater Chemical Results

Groundwater samples exhibited pH values ranging from 6.91 to 7.87 pH units; temperatures ranging from 60.8 to 67.1 degrees Fahrenheit; specific conductivities ranging from 1,000 micromhos per centimeter (µmhos/cm) to 10,370; appearance ranging from cloudy to dark gray; and turbidity ranging from low to high. DO measurements ranged from 1.10 mg/ℓ at MW-7 to 3.42 mg/ℓ at MW-3. ORP measurements ranged from -157 millivolts (mV) at MW-7 to 139 mV at MW-2. The observed DO levels at the Site indicate good oxygenation throughout the impacted zone. Also, generally low ORP levels at the Site, including at MW-1, indicate that some biological degradation is occurring. Low (negative) ORP readings are indicative of microbial activity. Therefore, oxygen does not appear to be a limiting factor in the potential for natural biodegradation at the Site.

During this monitoring event, groundwater samples collected from wells MW-1 through MW-7 were reported to contain TPHd at concentrations ranging from 290 (MW-6) micrograms per liter (µg/ℓ) to 1,400 (MW-2) µg/ℓ, TPHmo was reported at levels ranging from ND (MW-2) through 900 µg/ℓ (MW-4), TPHg was reported at levels ranging from ND (MW-3, MW-6, and MW-7) through 3,500 µg/ℓ (MW-2), BTEX and MTBE concentrations were reported in the samples collected from wells MW-1, MW-2, MW-4 and MW-5 with the maximum benzene concentration being 88 µg/ℓ from MW-1 and maximum MTBE concentration of 60 µg/ℓ from MW-1. Overall, BTEX concentrations continue to decrease in samples collected from the monitoring wells at the Site. Groundwater chemical results for March 1999 are shown on Table 2 and displayed graphically on Figure 4. Laboratory analytical reports and chain-of-custody records are included in Appendix B.

Based on the results discussed in this report, natural attenuation appears to be occuring at the Site. Based on the ACEHS statement in their August 21, 1998 letter that the Site "would currently pass a Tier I Risk Based Corrective Action (RBCA) evaluation" and that groundwater concentrations have generally decreased since that letter, Metz Baking requests Site closure based on the Site's apparent demonstration of "low risk" soil and groundwater criteria. Pending action on that request, SECOR does not plan to conduct any quarterly groundwater monitoring. Please do not hesitate to contact us at (510) 285-2556 with any questions or comments regarding this document.

Sincerely,

SECOR International Incorporated

Niels von Doepp
Staff Geologist

William E. Brasher, P.E.
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 - Hydrologic and Water Sample Field Data Sheets
Appendix B - 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[e]
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
					12/03/98	4.44	5.62
					03/17/99	3.82	6.24
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
					12/03/98	4.71	5.46
					03/17/99	4.00	6.17
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
					12/03/98	3.89	6.23
					03/17/99	3.52	6.60

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-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
					12/03/98	5.69	4.01
					03/17/99	5.41	4.29
MW-5	15	4-15	2	9.42	06/04/98	5.44	3.98
					09/11/98	5.71	3.71
					12/03/98	6.09	3.33
					03/17/99	5.53	3.89
MW-6	15	4-15	2	9.88	06/04/98	7.92	1.96
					09/11/98	6.17	3.71
					12/03/98	7.32	2.56
					03/17/99	5.79	4.09
MW-7	15	4-15	2	9.91	06/04/98	3.58	6.33
					09/11/98	4.43	5.48
					12/03/98	4.43	5.48
					03/17/99	3.75	6.16

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

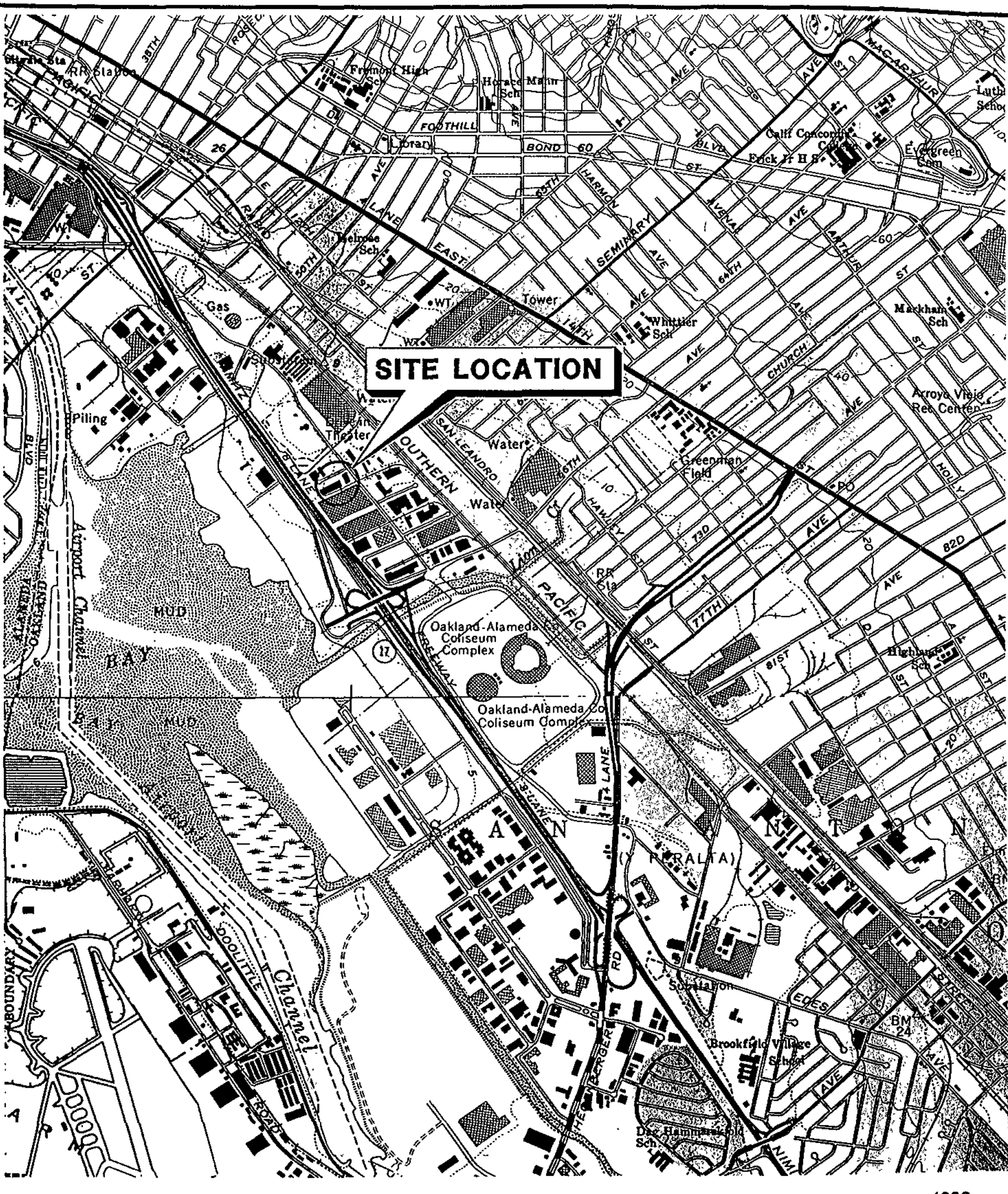
SAMPLE NUMBER	DATE	TPHg[a] (µg/ℓ)[b]	TPHd[c] (µg/ℓ)	TPHmo[d] (µg/ℓ)	Benzene (µg/ℓ)	Toluene (µg/ℓ)	Ethylbenzene (µg/ℓ)	Xylenes (µg/ℓ)	MTBE[e] (µg/ℓ)	DO[f] (mg/ℓ)[g]	ORP[h] (mV)[i]
MW-1	02/28/96	5,900	ND[j]<10	1,700	540	9.0	950	110	NA[k]	NA	NA
	08/16/96	5,600	5,400[l]	4,000	540	7.3	950	110	NA	NA	NA
	07/31/97	5,900	3,200	1,600	630	8.0	900	34	ND<10	NA	NA
	06/04/98	1,800	1,600[m]	640[n]	160	2.6	300	1.6	ND<5.0	NA	NA
	09/11/98	4,800	3,300[o]	900	270	15	510	41	ND<50	NA	NA
	12/03/98	ND<100	1,500[m]	ND<500	140	5.7	170	1.4	ND<10	NA	NA
	03/17/99	2,000	1,000[m]	740	88	3.3	190	1.2	60	1.20	-146
MW-2	08/16/96	2,700	3,000[l]	1,800	63	36	65	100	NA	NA	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[m]	ND<500	10	0.72	2.3	3.5	ND<5.0	NA	NA
	09/11/98	ND<500	3,700[o]	750	65	15	39	5.7	ND<50	NA	NA
	12/03/98	ND<100	3,800[m]	ND<500	15	4.3	3.5	5.3	ND<10	NA	NA
	03/17/99	3,500	1,400[m]	ND<500	33	3.7	28	1.7	21	1.25	139
MW-3	08/16/96	ND<50	730[l]	640	3.1	ND<0.5	ND<0.5	ND<0.5	NA	NA	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[m]	ND<500	3.9	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	09/11/98	ND<50	570[m]	ND<500	4.0	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	12/03/98	ND<50	1,200[m]	ND<500	3.3	2.1	ND<0.5	ND<0.5	ND<5.0	NA	NA
	03/17/99	ND<50	870[m]	590	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	3.42	24
MW-4	08/16/96	460	2,800[l]	3,000	17	1.0	9.1	1.4	NA	NA	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[m]	710[n]	18	1.6	2.5	1.9	ND<5.0	NA	NA
	09/11/98	ND<50	1,200[m]	ND<500	0.93	ND<0.5	1.0	ND<0.5	ND<5.0	NA	NA
	12/03/98	ND<50	1,700[m]	980	23	2.1	2.3	2.4	ND<5.0	NA	NA
	03/17/99	600	840[m]	900	2.2	ND<0.5	ND<0.5	ND<0.5	39	1.50	-121

TABLE 2 (Continued)
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)	DO[f] (mg/ℓ)[g]	ORP[h] (mV)[i]
MW-5	06/04/98	ND<50	970[m]	ND<500	7.2	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	09/11/98	ND<50	810[m]	ND<500	5.7	ND<0.5	ND<0.5	ND<0.5	10	NA	NA
	12/03/98	ND<50	840[m]	ND<500	8.4	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	03/17/99	130	820[m]	640	7.4	ND<0.5	ND<0.5	ND<0.5	17	2.30	-113
MW-6	06/04/98	ND<50	120[m]	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	09/11/98	ND<50	410[o]	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	12/03/98	ND<50	350[m]	ND<500	ND<0.5	2.6	ND<0.5	ND<0.5	ND<5.0	NA	NA
	03/17/99	ND<50	290[m]	770	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	1.74	-105
MW-7	06/04/98	ND<50	900[m]	540[n]	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	09/11/98	ND<50	3,700[o]	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	12/03/98	ND<50	780[m]	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	03/17/99	ND<50	700[m]	600	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	1.1	-157

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) Dissolved oxygen - field measured
(g) Milligrams per liter
(h) Oxidation-reduction potential - field measured
(i) Millivolts
(j) ND: Not detected at specified laboratory reporting limit.
(k) NA: Not Analyzed.
(l) Lighter and heavier hydrocarbons were found in the range of diesel, but do not resemble a diesel fingerprint. Possible gasoline and motor oil
(m) Hydrocarbon reported does not match the pattern of the laboratory diesel standard
(n) Hydrocarbon reported does not match the pattern of the laboratory motor oil standard
(o) Hydrocarbon reported is in the early diesel range and does not match the pattern of the laboratory diesel standard



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

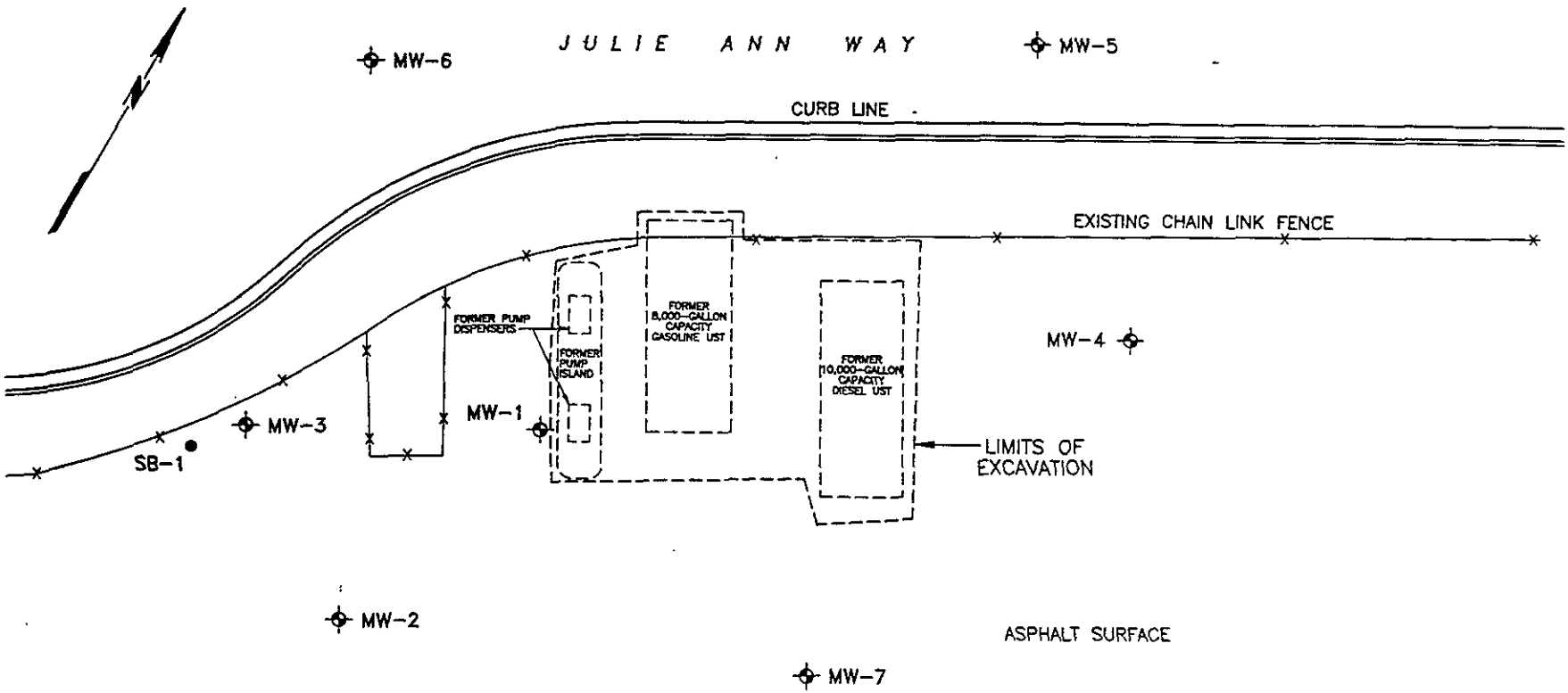
NORTH

0 2000 4000
SCALE FEET

SECOR INTERNATIONAL INCORPORATED	DRAWN CCR APPR DWM DATE 12OCT95 JOB NO. 70007-001-01	FIGURE 1 SAN FRANCISCO FRENCH BREAD 580 JULIE ANN WAY OAKLAND, CALIFORNIA **SITE LOCATION MAP**

199510.171511 X:18F-BREAD1JULIE1SITEPLAN

199810.181210 X:\SF-BREAD\JULIE\SITE



LEGEND:

- MW-1 EXISTING GROUNDWATER MONITORING WELL
- SB-1 SOIL BORING LOCATION

EXISTING BUILDING

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

0 20 40
SCALE FEET

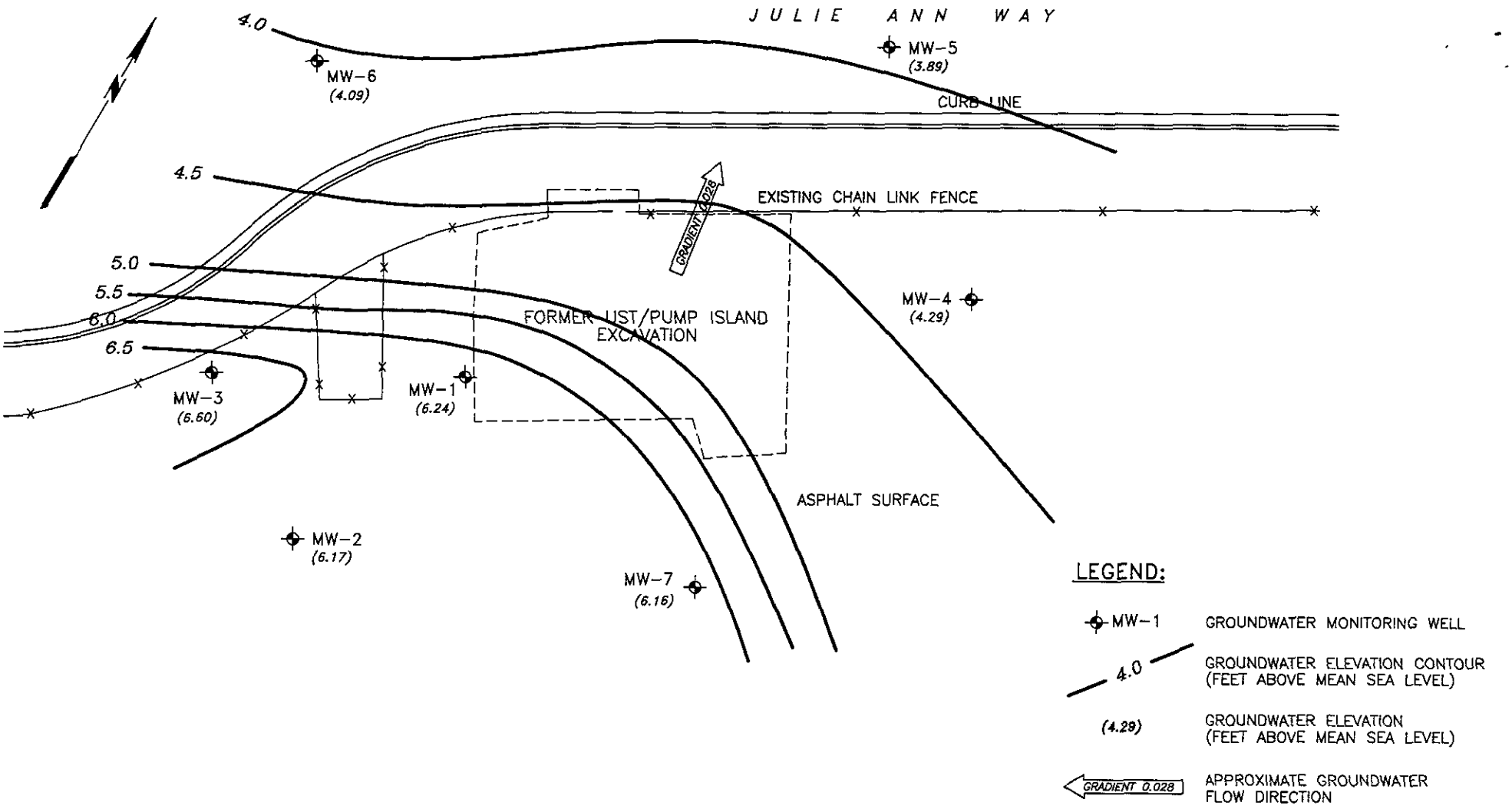
SECOR
INTERNATIONAL INCORPORATED

DRAWN	CCR
APPR	LZ
DATE	02FEB99
JOB NO.	50090-009-04

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

SITE PLAN

199904.051018 X:\SF-BREAD\JULIE\JULIE15



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

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INTERNATIONAL INCORPORATED

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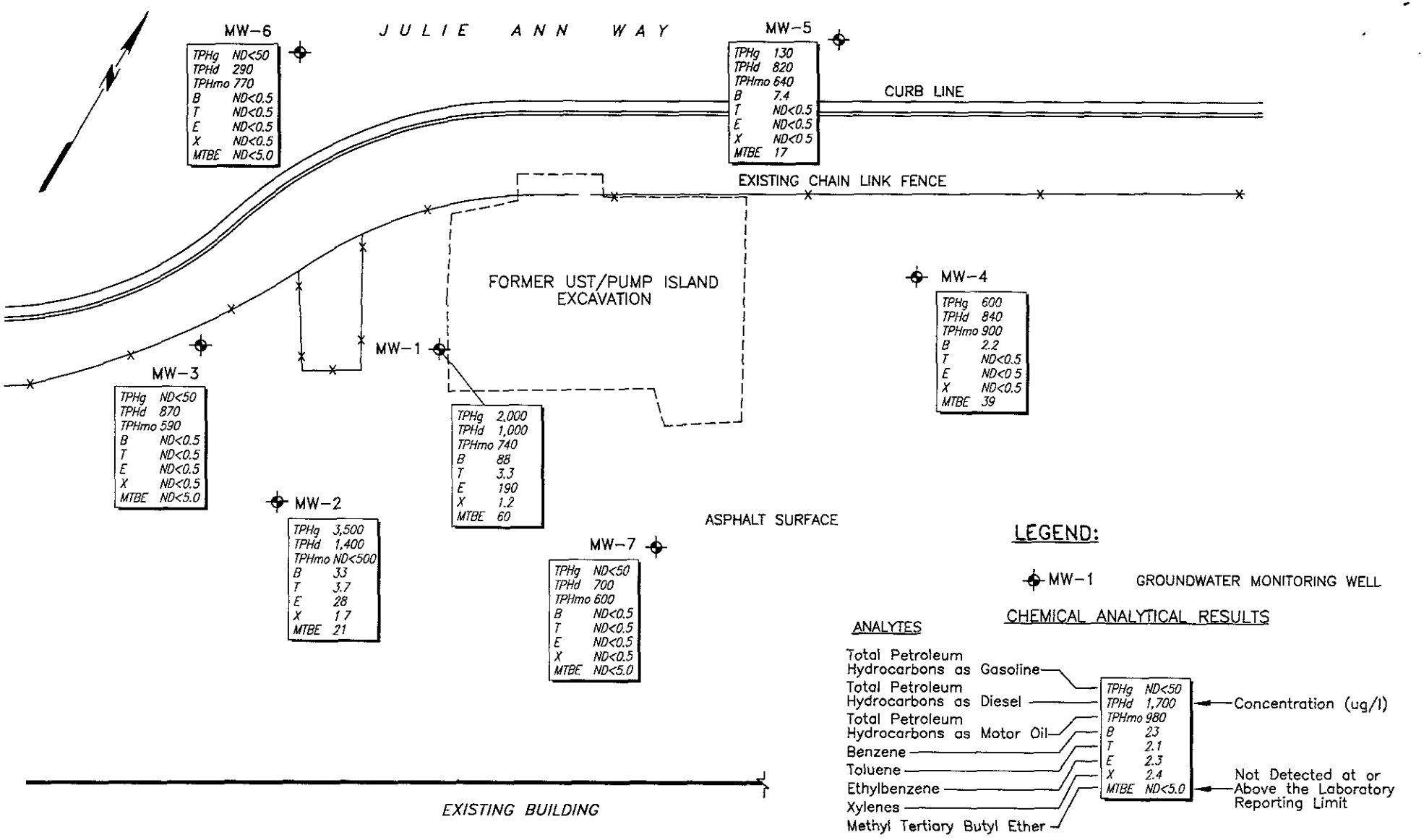
JOB NO.	50090-009-04

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

GROUNDWATER ELEVATION CONTOUR MAP-MARCH 17, 1999

199904.051028 X:\SF-BREAD\JULIE\JULIE16



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

SECOR INTERNATIONAL INCORPORATED

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DATE	05APR99
JOB NO.	50090-009-04

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

GROUNDWATER CHEMICAL RESULTS - MARCH 17, 1999

APPENDIX A

HYDROLOGIC AND WATER SAMPLE FIELD DATA SHEETS

HYDROLOGIC DATA SHEET

PROJECT: 50090-009-04 EVENT: Q1 SAMPLER: JO

WELL OR LOCATION	DATE MO	DA	YR	TIME HR	MIN	MEASUREMENT	CODE	COMMENTS
MW-3	3	17	99	9	10	3.52	DTW	2" 6.6
MW-1	3	17	99	9	14	3.82	DTW	2" 6.24
MW-2	3	17	99	9	18	4.00	DTW	2" 6.17
MW-7	3	17	99	9	24	3.75	DTW	2" 6.16
MW-4	3	17	99	9	27	5.41	DTW	2" 4.29
MW-6	3	17	99	9	43	5.79	DTW	2" 4.09
MW-5	3	17	99	9	46	5.53	DTW	2" 3.89

CODES: DTW - DEPTH TO WATER
HCL - HYDROCARBON LEVEL
HWI - HYDROCARBON/WATER INTERFACE
TD - TOTAL DEPTH
___ - _____(OTHER CODE)

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50090-009-04 PURGED BY: JO WELL I.D.: MW-1

CLIENT NAME: SFFB SAMPLED BY: JO SAMPLE I.D.: MW-1

LOCATION: 580 Julie Ann Way, Oakland WHAT QA SAMPLES?: —

DATE PURGED 3-17-99 START (2400hr) 1245 END (2400hr) —

DATE SAMPLED 3-17-99 SAMPLE TIME (2400hr) 1310

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) = 14.5 CASING VOLUME (gal) = 1.81

DEPTH TO WATER (feet) = 3.82 CALCULATED PURGE (gal) = 5.44

WATER COLUMN HEIGHT (feet) = 10.68 ACTUAL PURGE (gal) = 6.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	DTW (ft)
3/17	1251	2	65.8	1060	7.87	gray	med	
3/17	1254	4	63.6	1001	7.30	gray	med	
3/17	1257	6	63.3	1000	7.17	gray	med	

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: [illegible] SAMPLE TURBIDITY: ____N/A____

80% RECHARGE: X YES ____ NO ANALYSES: TPHg/BTEX/MTBE, TPHd, THMs

ODOR: None SAMPLE VESSEL / PRESERVATIVE: 3 VOAs, 2L

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
____ Well Wizard Bladder Pump	____ Bailer (Teflon)	____ WW Bladder Pump	____ Bailer (Teflon)
____ Active Extration Well Pump	X Bailer (PVC or X disp)	____ Sample Port	X Bailer (____ PVC or X disposable)
____ Submersible Pump	____ Bailer (Stainless Steel)	____ Submersible Pump	____ Bailer (Stainless Steel)
____ Peristaltic Pump	____ Dedicated ____	____ Peristaltic Pump	____ Dedicated ____
Other: ____		Other: ____	
Pump Depth: ____			

WELL INTEGRITY: OK LOCK#: ____

REMARKS: ____FOR WW PURGING: DISCHARGE TIME____,REFILL TIME____,AIR PRESSURE____

DO 1.2 mg/L Redox 146 mV

SIGNATURE: [signature] neg

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

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

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

LOCATION: Oakland WHAT QA SAMPLES?: —

DATE PURGED 3/17/99 START (2400hr) 1040 END (2400hr) _____

DATE SAMPLED 3/17/99 SAMPLE TIME (2400hr) 1105

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 CASING VOLUME (gal) = 1.87

DEPTH TO WATER (feet) = 4.00 CALCULATED PURGE (gal) = 5.61

WATER COLUMN HEIGHT (feet) = 11.00 ACTUAL PURGE (gal) = 6.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	DTW (ft)
3/17	1047	2	62.8	6580	7.32	yellow	med	
3/17	1051	4	64.3	6120	7.42	"	"	
3/17	1055	6	64.8	6270	7.41	"	"	

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____ SAMPLE TURBIDITY: ____N/A____

80% RECHARGE: X YES ___NO ANALYSES: TPHg, BTEX, MTBE, TPH_{mo}, TPH_d

ODOR: None SAMPLE VESSEL / PRESERVATIVE: 3 VOAs HCl, 2L

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
____ Well Wizard Bladder Pump	____ Bailer (Teflon)	____ WW Bladder Pump	____ Bailer (Teflon)
____ Active Extration Well Pump	X Bailer (PVC or ___disp)	____ Sample Port	X Bailer (___PVC or X disposable)
____ Submersible Pump	____ Bailer (Stainless Steel)	____ Submersible Pump	____ Bailer (Stainless Steel)
____ Peristaltic Pump	____ Dedicated _____	____ Peristaltic Pump	____ Dedicated _____
Other: _____		Other: _____	
Pump Depth: _____			

WELL INTEGRITY: OK LOCK#: _____

REMARKS: ___FOR WW PURGING: DISCHARGE TIME_____,REFILL TIME_____,AIR PRESSURE_____

DO 1.25mg/L Redox 139mV

SIGNATURE: _____ Page (___ of ___)

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50090-009-04 PURGED BY: JO WELL I.D.: MW-3

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

LOCATION: Oakland WHAT QA SAMPLES?: None

DATE PURGED 3/18/99 START (2400hr) 1025 END (2400hr) —

DATE SAMPLED 3/18/99 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) = 15.0 CASING VOLUME (gal) = 1.95

DEPTH TO WATER (feet) = 3.52 CALCULATED PURGE (gal) = 5.85

WATER COLUMN HEIGHT (feet) = 11.48 ACTUAL PURGE (gal) = 6.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	DTW (ft)
3/18	1030	2	67.1	9300	6.91	yellowish	low	
3/18	1036	4	66.1	1171	7.07	"	"	
3/18	1115	6	62.9	7240	7.44	"	"	

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 8.30 SAMPLE TURBIDITY: N/A

80% RECHARGE: ___YES X NO ANALYSES: TPHg, BTEX, MTBE, TPHmo, TPHd

ODOR: None SAMPLE VESSEL / PRESERVATIVE: 3 VOAs HCl, 2L

PURGING EQUIPMENT

____ Well Wizard Bladder Pump
____ Active Extration Well Pump
____ Submersible Pump
____ Peristaltic Pump
____ Bailer (Teflon)
____ Bailer (PVC or ___disp)
____ Bailer (Stainless Steel)
____ Dedicated _____

Other: _____

Pump Depth: _____

SAMPLING EQUIPMENT

___WW Bladder Pump
___ Sample Port
___ Submersible Pump
___ Peristaltic Pump
____ Bailer (Teflon)
____ Bailer (___PVC or ___disposable)
____ Bailer (Stainless Steel)
____ Dedicated _____

Other: _____

WELL INTEGRITY: OK - Went dry LOCK#: _____

REMARKS: ___FOR WW PURGING: DISCHARGE TIME_____,REFILL TIME_____,AIR PRESSURE_____

DO 3.42 mg/l Redox 24mV

SIGNATURE: [signature] Page ___ of ___

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 60090-009-04 PURGED BY: JO WELL I.D.: MW-4

CLIENT NAME: SFFB SAMPLED BY: JO SAMPLE I.D.: MW-4

LOCATION: Oakland WHAT QA SAMPLES?: —

DATE PURGED 3-17-99 START (2400hr) 1411 END (2400hr) _____

DATE SAMPLED 3-17-99 SAMPLE TIME (2400hr) 1435

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

CASING DIAMETER:	2"	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) = 15.0 CASING VOLUME (gal) = 1.63

DEPTH TO WATER (feet) = 5.41 CALCULATED PURGE (gal) = 4.89

WATER COLUMN HEIGHT (feet) = 9.59 ACTUAL PURGE (gal) = 5.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	DTW (ft)
3/17	1416	2	64.0	3820	7.31			
3/17	1420	4	62.4	3350	7.26			
3/17	1424	6	62.9	3340	6.94			

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____ SAMPLE TURBIDITY: ____N/A_____

80% RECHARGE: X YES __NO ANALYSES: TPHg, BTEX, MTBE, TPHmo, TPHd

ODOR: NONE SAMPLE VESSEL / PRESERVATIVE: 3 VOAs HCl, 2L

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
____ Well Wizard Bladder Pump	____ Bailer (Teflon)	____ WW Bladder Pump	____ Bailer (Teflon)
____ Active Extration Well Pump	X Bailer (PVC or X disp)	____ Sample Port	X Bailer (___PVC or X disposable)
____ Submersible Pump	____ Bailer (Stainless Steel)	____ Submersible Pump	____ Bailer (Stainless Steel)
____ Peristaltic Pump	____ Dedicated _____	____ Peristaltic Pump	____ Dedicated _____
Other: _____		Other: _____	
Pump Depth: _____			

WELL INTEGRITY: OK LOCK#: _____

REMARKS: ___FOR WW PURGING: DISCHARGE TIME_____,REFILL TIME_____,AIR PRESSURE_____

Do 1.51 mg/l Redox 121 mV

SIGNATURE: Jeff Clutt mg

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50090-009-04 PURGED BY: JO WELL I.D.: MW-5

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

LOCATION: _____ WHAT QA SAMPLES?: —

DATE PURGED 3-17-99 START (2400hr) 1445 END (2400hr) _____

DATE SAMPLED 3-17-99 SAMPLE TIME (2400hr) ~~1640~~ 1630

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) = 15.0 CASING VOLUME (gal) = 1.61

DEPTH TO WATER (feet) = 5.53 CALCULATED PURGE (gal) = 4.82

WATER COLUMN HEIGHT (feet) = 9.47 ACTUAL PURGE (gal) = 5.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	DTW (ft)
3/17	1448	2	61.5	5270	7.11	yellow	Mod	
3/17	1452	3.5	62.1	6910	7.04	"	"	
3/17	1556	5.0	62.4	8990	7.04	"	"	

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 9.52 SAMPLE TURBIDITY: ____N/A_____

80% RECHARGE: ~~X~~ YES X NO ANALYSES: TPHg/BTEX, MTBE, TPHd, TPHmo

ODOR: None SAMPLE VESSEL / PRESERVATIVE: 3 VOAs HCl, 2 L

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
____ Well Wizard Bladder Pump	____ Bailer (Teflon)	____ WW Bladder Pump	____ Bailer (Teflon)
____ Active Extration Well Pump	X Bailer (PVC or X disp)	____ Sample Port	X Bailer (____ PVC or X disposable)
____ Submersible Pump	____ Bailer (Stainless Steel)	____ Submersible Pump	____ Bailer (Stainless Steel)
____ Peristaltic Pump	____ Dedicated _____	____ Peristaltic Pump	____ Dedicated _____
Other: _____		Other: _____	
Pump Depth: _____			

WELL INTEGRITY: OK LOCK#: _____

REMARKS: ____FOR WW PURGING: DISCHARGE TIME _____,REFILL TIME _____,AIR PRESSURE _____

DO 2.30 mg/l Redox 113 mV *Very effervescent

mag

SIGNATURE: _____ Page 1 of 1

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50090-009-04 PURGED BY: JO WELL I.D.: MW-6

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

LOCATION: Oakland WHAT QA SAMPLES?: —

DATE PURGED 3/17/99 START (2400hr) 0910 END (2400hr) _____

DATE SAMPLED 3/17/99 SAMPLE TIME (2400hr) 1640

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) = 15.0 CASING VOLUME (gal) = 1.56

DEPTH TO WATER (feet) = 5.79 CALCULATED PURGE (gal) = 4.69

WATER COLUMN HEIGHT (feet) = 9.21 ACTUAL PURGE (gal) = 5.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	DTW (ft)
3/17	1520	2	60.8	3110	7.25	brown	high	
3/17	1524	3.5	60.8	2840	6.99	↓	↓	
3/17	1529	5	61.1	3160	6.93	↓	↓	

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 8.26 SAMPLE TURBIDITY: N/A

80% RECHARGE: ___YES X NO ANALYSES: TPHg/BTEX, MTBE, TPHmo, TPHd

ODOR: No SAMPLE VESSEL / PRESERVATIVE: 3 VOAs HCl / 2L

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ Well Wizard Bladder Pump	___ Bailer (Teflon)	___ WW Bladder Pump	___ Bailer (Teflon)
___ Active Extration Well Pump	___ Bailer (PVC or X disp)	___ Sample Port	X Bailer (___ PVC or X disposable)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Submersible Pump	___ Bailer (Stainless Steel)
___ Peristaltic Pump	___ Dedicated _____	___ Peristaltic Pump	___ Dedicated _____
Other: _____		Other: _____	
Pump Depth: _____			

WELL INTEGRITY: GL LOCK#: _____

REMARKS: ___FOR WW PURGING: DISCHARGE TIME_____,REFILL TIME_____,AIR PRESSURE_____

DO 1.74 mg/L Redox 105 mV

SIGNATURE: [signature] mg

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 50090-009-04 PURGED BY: JO WELL I.D.: MW-7

CLIENT NAME: SFFB SAMPLED BY: JO SAMPLE I.D.: MW-7

LOCATION: Oakland WHAT QA SAMPLES?: —

DATE PURGED 3-17-99 START (2400hr) 1338 END (2400hr) _____

DATE SAMPLED 3-17-99 SAMPLE TIME (2400hr) 1350

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) = 15.0 CASING VOLUME (gal) = 1.91

DEPTH TO WATER (feet) = 3.75 CALCULATED PURGE (gal) = 5.73

WATER COLUMN HEIGHT (feet) = 11.25 ACTUAL PURGE (gal) = 6.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	DTW (ft)
3/17	1334	2	62.6	10000	7.20	brown	med	
3/17	1337	4	62.1	10370	7.19	brown	"	
3/17	1340	6	61.4	10210	7.21	"	"	

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: _____ SAMPLE TURBIDITY: N/A

80% RECHARGE: X YES ___ NO ANALYSES: TPHg / BTEX / MTBE, TPHd, TPHmo

ODOR: _____ SAMPLE VESSEL / PRESERVATIVE: 3 VOAs HCl, 2L

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
____ Well Wizard Bladder Pump	____ Bailer (Teflon)	____ WW Bladder Pump	____ Bailer (Teflon)
____ Active Extration Well Pump	X Bailer (PVC or ✓disp)	____ Sample Port	X 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: OK LOCK#: _____

REMARKS: ___FOR WW PURGING: DISCHARGE TIME_____,REFILL TIME_____,AIR PRESSURE_____

DO 1.1 mg/L Redox 157 mV (effervescent sample (may contain small air bubbles))

SIGNATURE: _____ Page ___ of ___

APPENDIX B

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY

CHROMALAB, INC.

Environmental Services (SDB)

March 29, 1999 Submission #: 9903270

SECOR OAKLAND
360 20nd, Suite 600
Oakland, CA 94612

Attn: BILL BRASHER

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

REPORTING INFORMATION

Samples were received cold and in good condition on March 18, 1999. 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	March 17, 1999	233190
MW-2	WTR	March 17, 1999	233191
MW-3	WTR	March 17, 1999	233192
MW-4	WTR	March 17, 1999	233193
MW-5	WTR	March 17, 1999	233194
MW-6	WTR	March 17, 1999	233195
MW-7	WTR	March 17, 1999	233196

Afsaneh Salimpour
Project Manager

CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Client Sample ID: **MW-1**
Spl#: 233190 *Matrix:* WATER
Sampled: March 17, 1999 *Run#:*17970 *Analyzed:* March 22, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	2000	50	N.D.	108	1
MTBE	60	5.0	N.D.	116	1
BENZENE	88	0.50	N.D.	108	1
TOLUENE	3.3	0.50	N.D.	106	1
ETHYL BENZENE	190	0.50	N.D.	104	1
XYLENES	1.2	0.50	N.D.	100	1

Vincent Vancil
Analyst

Michael Verona
Operations Manager

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

CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Client Sample ID: **MW-2**
Spl#: 233191 *Matrix:* WATER
Sampled: March 17, 1999 *Run#:*17970 *Analyzed:* March 22, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	3500	50	N.D.	108	1
MTBE	21	5.0	N.D.	116	1
BENZENE	33	0.50	N.D.	108	1
TOLUENE	3.7	0.50	N.D.	106	1
ETHYL BENZENE	28	0.50	N.D.	104	1
XYLENES	1.7	0.50	N.D.	100	1

Vincent Vancil
Analyst

Michael Verona
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Client Sample ID: **MW-3**
Spl#: 233192 *Matrix:* WATER
Sampled: March 17, 1999 *Run#:*17970 *Analyzed:* March 22, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	108	1
MTBE	N.D.	5.0	N.D.	116	1
BENZENE	N.D.	0.50	N.D.	108	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	104	1
XYLENES	N.D.	0.50	N.D.	100	1

Vincent Vancil
Analyst

Michael Verona
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CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Client Sample ID: **MW-4**
Spl#: 233193 *Matrix:* WATER
Sampled: March 17, 1999 *Run#:*17970 *Analyzed:* March 22, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	600	50	N.D.	108	1
MTBE	39	5.0	N.D.	116	1
BENZENE	2.2	0.50	N.D.	108	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	104	1
XYLENES	N.D.	0.50	N.D.	100	1

Vincent Vancil
Analyst

Michael Verona
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Client Sample ID: **MW-5**
Spl#: 233194 *Matrix:* WATER
Sampled: March 17, 1999 *Run#:*17970 *Analyzed:* March 22, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	130	50	N.D.	108	1
MTBE	17	5.0	N.D.	116	1
BENZENE	7.4	0.50	N.D.	108	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	104	1
XYLENES	N.D.	0.50	N.D.	100	1

Vincent Vancil
Analyst

Michael Verona
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Client Sample ID: **MW-6**
Spl#: 233195 *Matrix:* WATER
Sampled: March 17, 1999 *Run#:*17970 *Analyzed:* March 23, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	108	1
MTBE	N.D.	5.0	N.D.	116	1
BENZENE	N.D.	0.50	N.D.	108	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	104	1
XYLENES	N.D.	0.50	N.D.	100	1

Vincent Vancil
Analyst

for
Michael Verona
Operations Manager

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Client Sample ID: **MW-7**
Spl#: 233196 *Matrix:* WATER
Sampled: March 17, 1999 *Run#:*17970 *Analyzed:* March 23, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	108	1
MTBE	N.D.	5.0	N.D.	116	1
BENZENE	N.D.	0.50	N.D.	108	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	104	1
XYLENES	N.D.	0.50	N.D.	100	1

Vincent Vancil
Analyst

Michael Verona
Operations Manager

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER
Lab Run#: 17970 *Analyzed:* March 22, 1999

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	538	539	108	108	75-125	0	20
MTBE	100	100	116	116	116	116	75-125	0	20
BENZENE	100	100	108	107	108	107	77-123	0.93	20
TOLUENE	100	100	106	108	106	108	78-122	1.87	20
ETHYL BENZENE	100	100	104	106	104	106	70-130	1.90	20
XYLENES	300	300	301	307	100	102	75-125	1.98	20

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CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

re: **Surrogate** report for 7 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 17970
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
233190-1	MW-1	TRIFLUOROTOLUENE	110	58-124
233190-1	MW-1	4-BROMOFLUOROBENZENE	111	50-150
233191-1	MW-2	TRIFLUOROTOLUENE	114	58-124
233191-1	MW-2	4-BROMOFLUOROBENZENE	117	50-150
233192-1	MW-3	TRIFLUOROTOLUENE	69.4	58-124
233192-1	MW-3	4-BROMOFLUOROBENZENE	81.8	50-150
233193-1	MW-4	TRIFLUOROTOLUENE	107	58-124
233193-1	MW-4	4-BROMOFLUOROBENZENE	106	50-150
233194-1	MW-5	TRIFLUOROTOLUENE	97.5	58-124
233194-1	MW-5	4-BROMOFLUOROBENZENE	107	50-150
233195-1	MW-6	TRIFLUOROTOLUENE	75.8	58-124
233195-1	MW-6	4-BROMOFLUOROBENZENE	90.8	50-150
233196-1	MW-7	TRIFLUOROTOLUENE	103	58-124
233196-1	MW-7	4-BROMOFLUOROBENZENE	122	50-150

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
233528-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	99.5	58-124
233528-1	*Reagent blank (MDB)*	4-BROMOFLUOROBENZENE	113	50-150
233529-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	95.6	58-124
233529-1	*Spiked blank (BSP)*	4-BROMOFLUOROBENZENE	111	50-150
233530-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	94.7	58-124
233530-1	*Spiked blank duplicate (BSD)*	4-BROMOFLUOROBENZENE	111	50-150
233531-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	97.8	58-124
233531-1	*Matrix spike (MS)*	4-BROMOFLUOROBENZENE	111	50-150
233532-1	*Matrix spike duplicate (MSD)*	TRIFLUOROTOLUENE	89.3	58-124
233532-1	*Matrix spike duplicate (MSD)*	4-BROMOFLUOROBENZENE	114	50-150

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER
Lab Run#: 17970 *Instrument:* 3400-3 *Analyzed:* March 22, 1999

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	458	476	91.6	95.2	65-135	3.85	20
MTBE	5.5	100	100	123	113	118	108	65-135	8.85	20
BENZENE	N.D.	100	100	110	105	109	104	65-135	4.69	20
TOLUENE	N.D.	100	100	108	103	107	102	65-135	4.78	20
ETHYL BENZENE	N.D.	100	100	105	98.5	104	97.6	65-135	6.35	20
XYLENES	N.D.	300	300	301	291	99.4	96.1	65-135	3.38	20

Sample Spiked: 232252
Submission #: 9903181
Client Sample ID: MW-1

MS Smpl #: 233531
MSD Smpl #: 233532

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CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Matrix: WATER *Extracted:* March 22, 1999
Sampled: March 17, 1999 *Run#:* 17963 *Analyzed:* March 23, 1999

Spl#	CLIENT SPL ID	Diesel (ug/L)	Motor Oil (ug/L)
233190	MW-1	1000	740
	Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.		
233191	MW-2	1400	N.D.
	Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.		
233192	MW-3	870	590
	Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.		
233193	MW-4	840	900
	Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.		
233194	MW-5	820	640
	Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.		
233195	MW-6	290	770
	Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.		
233196	MW-7	700	600
	Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.		
Reporting Limits		50	500
Blank Result		N.D.	N.D.
Blank Spike Result (%)		79.2	--

Carolyn House
Analyst

Bruce Havlik
Analyst

510-285-2568 AS 03/25

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CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Method: EPA 8015M

Matrix: WATER
Lab Run#: 17963 *Analyzed:* March 23, 1999

Analyte	Spike Amount BSP (ug/L)	Spike Amount Dup	Found BSP (ug/L)	Found Dup	Recov BSP (%)	Recov Dup (%)	Control Limits	% RPD	% RPD Lim
DIESEL	2500	2500	1980	1990	79.2	79.6	60-130	0.50	25

BS Smpl #: 233460
BSD Smpl #: 233461

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CHROMALAB, INC.

Environmental Services (SDB)

March 25, 1999 *Submission #:* 9903270

SECOR OAKLAND

Atten: BILL BRASHER

Project: SFFB-OAKLAND *Project#:* 50090-009-04
Received: March 18, 1999

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

Method: EPA 8015M
Lab Run#: 17963
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
233190-1	MW-1	O-TERPHENYL	114	60-130
233191-1	MW-2	O-TERPHENYL	102	60-130
233192-1	MW-3	O-TERPHENYL	122	60-130
233193-1	MW-4	O-TERPHENYL	108	60-130
233194-1	MW-5	O-TERPHENYL	129	60-130
233195-1	MW-6	O-TERPHENYL	98.4	60-130
233196-1	MW-7	O-TERPHENYL	105	60-130

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
233459-1	*Reagent blank (MDB)*	O-TERPHENYL	102	60-130
233460-1	*Spiked blank (BSP)*	O-TERPHENYL	124	60-130
233461-1	*Spiked blank duplicate (BSD)*	O-TERPHENYL	125	60-130

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9903270 / 233190-233196 45081

Chain-of-Custody Number:

SECOR Chain-of Custody Record

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

Field Office: Oakland
Address: 360 22nd St, # 600
Oakland, CA

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

Project # 50090-009-04 Task # 003
Project Manager Bill Brasher
Laboratory Chromalab
Turnaround Time Standard

Sampler's Name Jeff Ouellette
Sampler's Signature [signature]

Analysis Request

Sample ID	Date	Time	Matrix	TPH motor oil M 8015	TPHg/BTEX/WTPH-G 8015 (modified)/8020 /MTBE	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	3-17-99	1040	GW	X	X	X													5
MW-2	↓	1105	↓	X	X	X													5
MW-3		1400		X	X	X													5
MW-4		1435		X	X	X													5
MW-5		1630		X	X	X													5
MW-6		1640		X	X	X												28 cap	5
MW-7		1350		X	X	X												21 VOAS	5
																		14 poly	

SUBM #: 9903270 REF: ASLEVE
CLIENT: SECOR-OAK
DUE: 03/25/99
REF #:45081

Special Instructions/Comments:

Relinquished by:	Received by:	Sample Receipt
Sign [signature]	Sign [signature]	Total no. of containers:
Print Jeff Ouellette	Print [illegible]	Chain of custody seals:
Company SECOR	Company Chromalab	Rec'd. in good condition/cold:
Time Date 3/18/99	Time 1338 Date 3-18-99	Conforms to record:
Relinquished by: [signature]	Received by: [signature]	Client:
Sign [signature]	Sign [signature]	Client Contact:
Print [illegible]	Print A. Pavels	Client Phone:
Company Chromalab	Company Chromalab	
Time 1708 Date	Time 1708 Date 3/18/99	

SECOR CUSTREC Rev. 1/95

Date: 3 / 17 / 99 Page 1 of 1