

April 2, 1993

SEACOR

Science & Engineering
Analysis Corporation

882-1548

Mr. Thomas Peacock
Hazardous Materials Division
Alameda County Department of
Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

ST10
1509

**QUARTERLY GROUNDWATER MONITORING REPORT, 4070 SAN PABLO AVENUE,
EMERYVILLE, CALIFORNIA**

Dear Mr. Peacock:

On behalf of San Francisco French Bread Company (SFFBC), Science & Engineering Analysis Corporation (SEACOR) has prepared this quarterly groundwater monitoring report for 4070 San Pablo Avenue in Emeryville, California ("the site", see Figure 1). The site is improved with two warehouse-type buildings. The southern building is currently occupied by Anderson Carpeting and the northern building by Tire Center Inc. A site plan showing the existing site configuration, including the location of the former underground storage tanks (USTs) is attached as Figure 2.

SITE BACKGROUND

In September 1992, SEACOR installed monitoring well MW-1 slightly west, and down-gradient of the former UST locations. This well was completed to a depth of 25 feet below ground surface with the screened interval extending from 25 to 15 feet below ground surface. The groundwater sample collected from this well in September 1992 was reported to contain total petroleum hydrocarbons as gasoline (TPHg) and TPH as diesel (TPHd) at concentrations of 1.4 and 0.2 milligrams per liter (mg/l), respectively. The laboratory reported that the positive result for TPHd appears to have been due to the presence of a lighter fuel (e.g. gasoline) rather than diesel. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were also detected in the water sample at concentrations of 0.47, 0.043, 0.045, and 0.10 mg/l, respectively. Based on the findings of our initial investigation, SFFBC initiated a quarterly groundwater monitoring program at the site. This quarterly monitoring event represents the third quarter of sampling, a fourth quarter monitoring event is scheduled for June 1993.

DEPTH TO GROUNDWATER

Prior to purging and sampling monitoring well MW-1, the depth to groundwater and well depth were measured by SEACOR on March 4, 1993 using an electronic water-level indicator. Groundwater was measured at a depth of 7.82 feet below the top of the PVC casing. This represents a 0.73 foot increase in water level since the December 3, 1992 monitoring event. Historic depth to groundwater measurements are included on Table 1.

SFFBEME.RPT
70007-004-01 FB11

MONITORING WELL PURGING AND SAMPLING

Monitoring well purging and sampling was performed by *SEACOR* on **March 4, 1993**. Prior to purging the well, the depth to groundwater and well depth were measured using an electronic water level indicator. Well purging was accomplished by bailing with a clean stainless steel bailer. During purging the pH, temperature, and electrical conductivity of the discharge water was measured and the color and turbidity were visually inspected. Stabilization of these parameters was used as an indicator that fresh formation water was entering the well casing. Approximately five casing volumes of water (14 gallons) were removed from the well. A copy of the Water Sample Data Sheet is included as an Attachment. Water removed from the well during purging activities was placed in a DOT-approved 55-gallon drum and stored onsite.

Following completion of well purging, a water sample was collected by lowering a clean disposable PVC bailer into the well casing. The water sample was transferred directly from the bailer into laboratory supplied sample containers and labeled. Sample containers were stored in a cooler containing ice for shipment to the analytical laboratory. The groundwater sample was submitted to NET Pacific Analytical Laboratory for analysis of TPHg and BTEX according to EPA Methods 5030, and 8020, respectively.

CHEMICAL TESTING RESULTS

The groundwater sample analyzed from monitoring well MW-1 was reported to **contain TPHg** at a concentration of **0.70 mg/l** and, **benzene** and **xylene**s both at a concentration of 1.1 micrograms per liter ($\mu\text{g}/\ell$). Table 1 summarizes the chemical analytical results for this quarterly groundwater monitoring event as well as the previous sampling events. Laboratory analytical data sheets and chain-of-custody documentation are included as an Attachment.

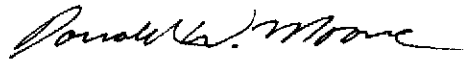
When compared to water quality data from December 1992, TPHg, benzene and xylene concentrations **have increased slightly** from non-detectable concentrations to **0.70 mg/l**, **1.1 $\mu\text{g}/\ell$** , and **1.1 $\mu\text{g}/\ell$** , respectively. The concentration of ethylbenzene decreased from **1.6 $\mu\text{g}/\ell$** to a non-detectable concentration and toluene remained not detected. The next quarterly groundwater monitoring event is scheduled for June 1993.

Mr. Thomas Peacock
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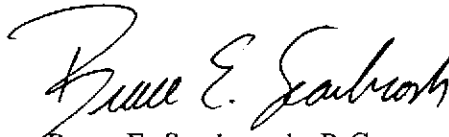
If you have any questions or comments regarding this report, please do not hesitate to call us at (415) 882-1548.

Sincerely yours,

Science & Engineering Analysis Corporation



Donald W. Moore
Project Geologist



Bruce E. Scarbrough, R.G.
Principal Geologist

DWM/mms

cc: Mr. Peter Sher, San Francisco French Bread Company

Attachments:

Figure 1 - Site Location Map

Figure 2 - Site Plan

Table 1 - Groundwater Measurements and Chemical Analytical Results

Groundwater Sample Data Sheet, Laboratory Analytical Reports and Chain-of-Custody Records

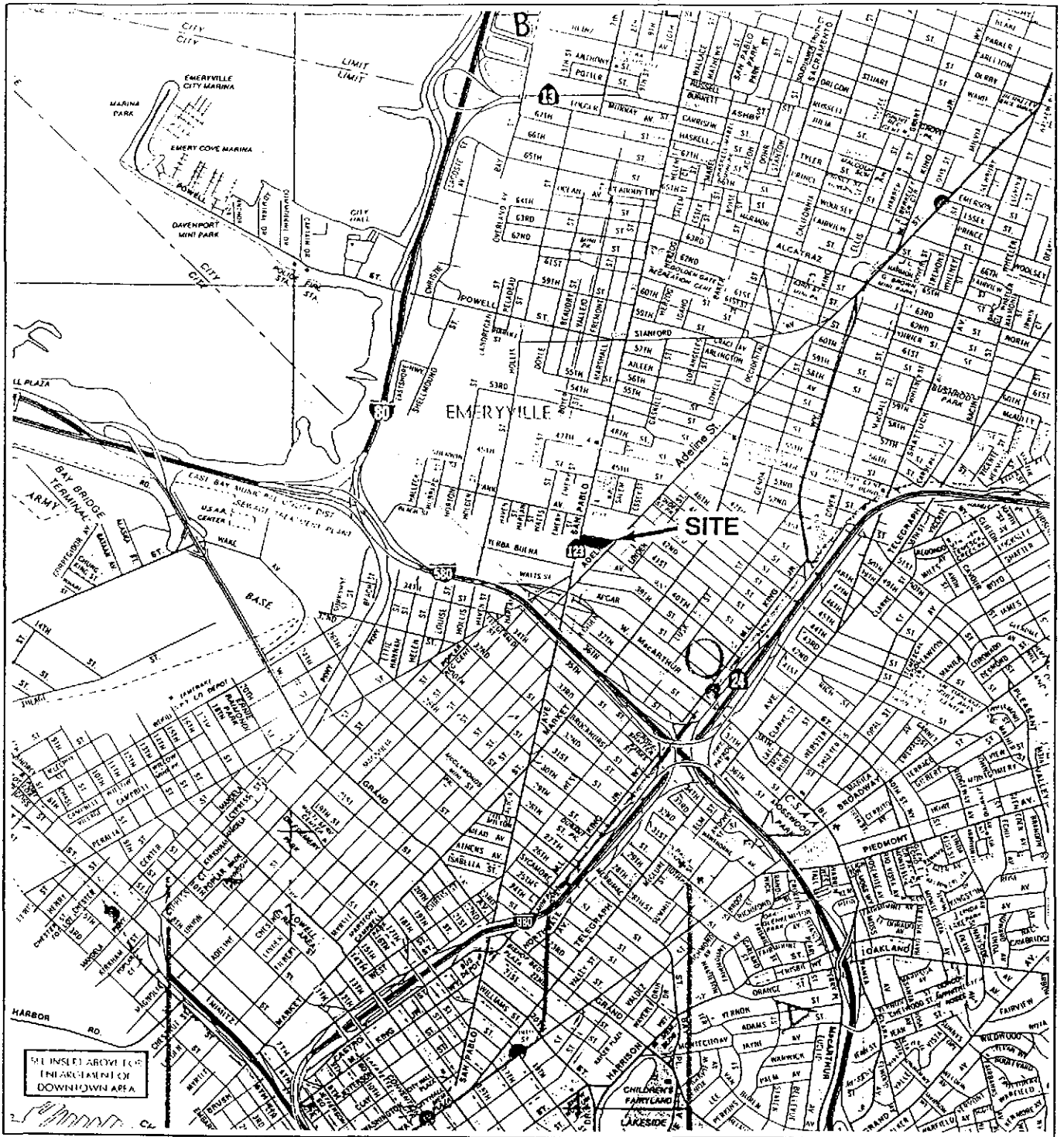
TABLE 1
GROUNDWATER MEASUREMENTS AND CHEMICAL
ANALYTICAL RESULTS

4070 San Pablo Avenue
 Emeryville, California

WELL	DATE	DEPTH TO GROUNDWATER ⁽¹⁾	TPHg ⁽²⁾ (mg/l) ⁽³⁾	BENZENE (µg/l) ⁽⁴⁾	TOLUENE (µg/l)	ETHYLBENZENE (µg/l)	XYLENES (µg/l)
MW-1	9/11/92	9.10	1.4	470	45	43	100
	12/3/92	9.55	ND < 0.05	ND < 0.5	ND < 0.5	1.6	ND < 0.5
	3/4/93	7.82	0.70	1.1	ND < 0.5	ND < 0.5	1.1

NOTES:

- (1) Feet below top of PVC casing.
- (2) Total petroleum hydrocarbons as gasoline.
- (3) Milligrams per liter.
- (4) Micrograms per liter.

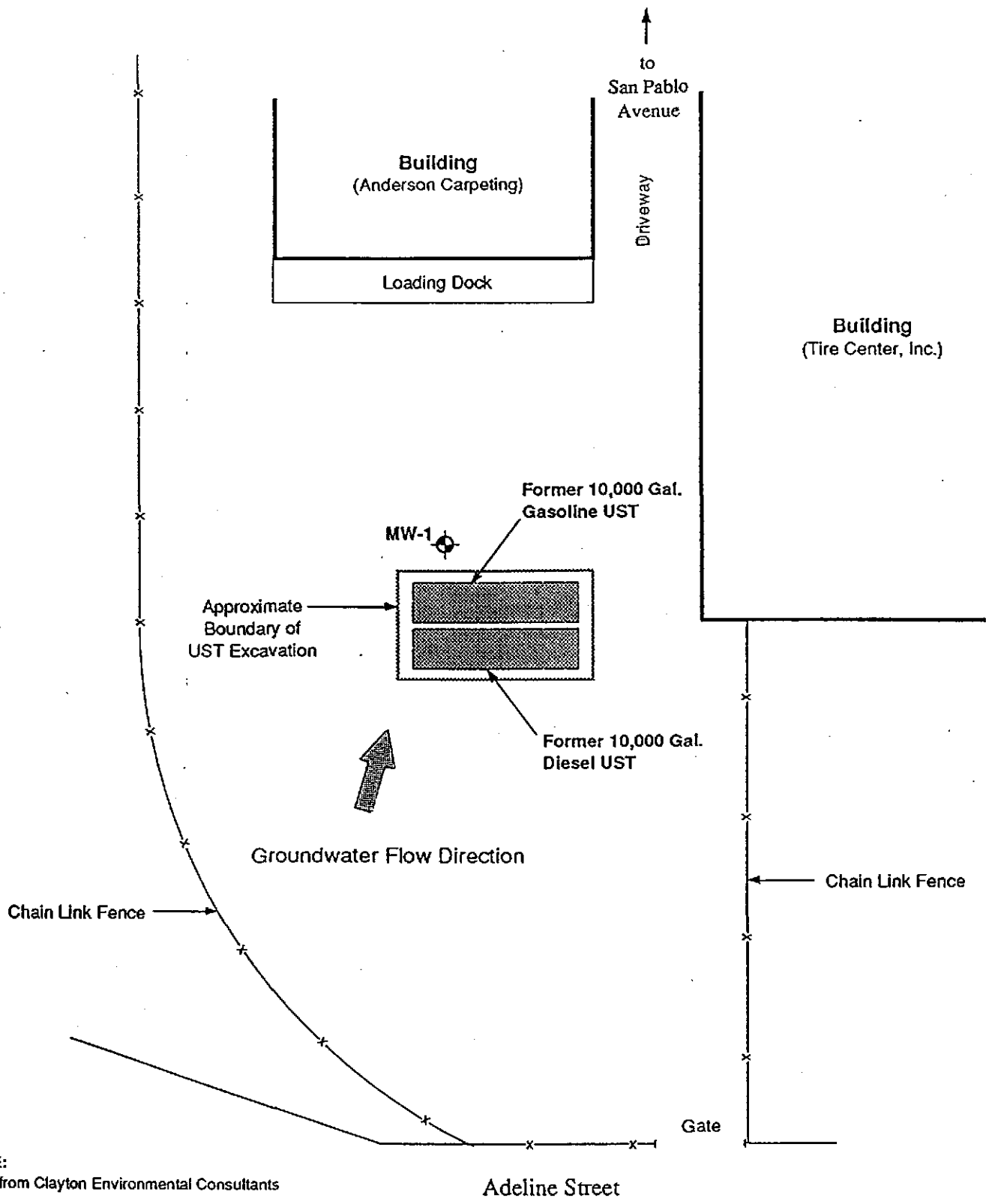


SOURCE:
 California State Automobile Association
 Oakland, Berkeley, Alameda, 2/91

0 4000 Feet

N

SITE LOCATION MAP
 4070 San Pablo Avenue
 Emeryville, California
 Figure 1



SOURCE:
Modified from Clayton Environmental Consultants

LEGEND

⊕ Monitoring Well Location



SITE PLAN
4070 San Pablo Avenue
Emeryville, California
Figure 2



NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Donald Moore/Bruce Scarbrough
Seacor
90 New Montgomery
Suite 620
San Francisco, CA 94105

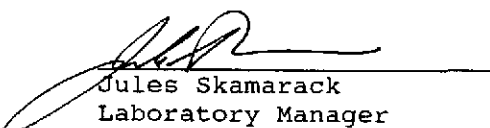
Date: 03/24/1993
NET Client Acct. No: 74000
NET Pacific Job No: 93.00855
Received: 03/06/1993

Client Reference Information

Project No; 70007-004-01

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:


Jules Skamarack
Laboratory Manager

Enclosure(s)



Client Acct: 74000
Client Name: Seacor
NET Log No: 93.00855

Date: 03/24/1993
Page: 2

Ref: Project No; 70007-004-01

SAMPLE DESCRIPTION: MW-1
Date Taken: 03/04/1993
Time Taken: 13:40
LAB Job No: (-152360)

Parameter	Results	Reporting Limit	Units	Method
TPH (Gas/BTXE,Liquid)				
METHOD 5030 (GC,FID)	--			
DATE ANALYZED	03-08-93			
DILUTION FACTOR*	1			
as Gasoline	0.70	0.05	mg/L	5030
METHOD 8020 (GC,Liquid)	--			
DATE ANALYZED	03-08-93			
DILUTION FACTOR*	1			
Benzene	1.1	0.5	ug/L	8020
Ethylbenzene	ND	0.5	ug/L	8020
Toluene	ND	0.5	ug/L	8020
Xylenes (Total)	1.1	0.5	ug/L	8020
SURROGATE RESULTS	--			
Bromofluorobenzene	115		% Rec.	5030



Client Acct: 74000
Client Name: Seacor
NET Log No: 93.00855

Date: 03/24/1993
Page: 3

Ref: Project No; 70007-004-01

QUALITY CONTROL DATA

<u>Parameter</u>	<u>Reporting Limits</u>	<u>Units</u>	<u>Cal Verf Stand % Recovery</u>	<u>Blank Data</u>	<u>Spike % Recovery</u>	<u>Duplicate Spike % Recovery</u>	<u>RPD</u>
Gasoline	0.05	mg/L	105	ND	102	102	< 1
Benzene	0.5	ug/L	91	ND	113	112	< 1
Toluene	0.5	ug/L	94	ND	100	101	< 1

COMMENT: Blank Results were ND on other analytes tested.



KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- * : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference, $100 \text{ [Value 1 - Value 2] / mean value}$.
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

SEACOR Chain-of-Custody Record

Address: 90 New Montgomery, Suite 620
San Francisco, CA 94105

2450

Project # 70007-004-01 Task # _____
Project Manager Donald Moore / Bruce Seabrough
Laboratory NET Pacific
Turn-around time: Standard / 20 days
Sampler's Name: Kurt Heiss
Sampler's Signature: [Signature]

Analysis Request

Sample ID	Date	Time	Matrix	TPHg/BTEX 8015 (modified) / 8020	TPHd 8015 (modified)	TPH 418.1	Aromatic Volatiles 602 / 8020	Volatile Organics 624 / 8240 (GC/MS)	Halogenated Volatiles 601 / 8010	Semi-volatile Organics 625 / 8270 (GC/MS)	Pesticides / PCB's 608 / 8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Comments / Instructions	Number of Containers
MW-1	3/4/93	1340	water	X											2x VUOC	2
Travel Blank	←	—	"	HOLD											1x VUOC Large HS bubble in Trip blank	1

Special Instructions/Comments:

(CUSTODY SEALED 3/5)
@ 2000 [Signature]
Seals intact. A-C

Relinquished by:
Sign Amy Bond
Print AMY BOND
Company SEACOR
Time 1:08 Date 3/5/93

Relinquished by:
Sign Andy Mackey
Print Andy Mackey
Company NET
Time 2000 Date 3-5

Received by:
Sign Andy Mackey
Print ANDY MACKAY
Company NET
Time 1300 Date 3-5-93

Received by:
Sign A. Lope
Print A. LOPE
Company NET
Time 10:30 Date 3/6/93

Sample Receipt

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

Client: _____
Client Contact: _____
Client Phone Number: _____

SEACOR WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 70007-004-01
 PURGED BY: Kurt Heiss
 SAMPLED BY: Kurt Heiss

WELL ID: MW-1
 SAMPLE ID: MW-1
 CLIENT NAME: S.F. French Bread - Emeryville
 LOCATION: Emeryville, CA

TYPE: Groundwater Surface Water _____ Treatment Effluent _____ Other _____

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

CASING ELEVATION: (feet/MSL): _____	VOLUME IN CASING (gal) <u>2.80</u>
DEPTH TO WATER (feet): <u>7.82</u>	CALCULATED PURGE (gal) <u>14.00</u>
DEPTH OF WELL (feet): <u>25.30</u>	ACTUAL PURGE VOL (gal) <u>14</u>

DATE PURGED: 3/4/93 Start (2400 Hr) 1241 End (2400 Hr) 1300
 DATE SAMPLED: 3/4/93 Start (2400 Hr) 1340 End (2400 Hr) 1340

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): None

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU) (VISUAL)
<u>1253</u>	<u>11</u>	<u>6.9</u>	<u>923</u>	<u>68.0</u>	<u>Tan</u>	<u>Very</u>
<u>1257</u>	<u>13</u>	<u>7.0</u>	<u>930</u>	<u>69.3</u>	<u>Tan</u>	<u>Very</u>
<u>1300</u>	<u>14</u>	<u>7.1</u>	<u>957</u>	<u>68.3</u>	<u>Tan</u>	<u>Very</u>

DO (ppm): N.M. COLOR, COBALT (0-100): Tan

TOR: None

Clear
 Cloudy
 Yellow
 Brown Tan

PURGING EQUIPMENT

2" Bladder Pump _____ Bailer (Teflon®)
 Centrifugal Pump _____ Bailer (PVC)
 Submersible Pump Bailer (Stainless Steel)
 Well Wizard™ _____ Dedicated

Other: _____

SAMPLING EQUIPMENT

2" Bladder Pump _____ Bailer (Teflon®)
 DDL Sampler Bailer (PVC/disposable)
 Submersible Pump _____ Bailer (Stainless Steel)
 Well Wizard™ _____ Dedicated

Other: _____

WELL INTEGRITY: Good LOCK #: 0909 - Huston
 REMARKS: Well close to dryness @ 14 gallons; slow groundwater recovery

SIGNATURE: [Signature] Page 1 of 1