

STID 1509

January 5, 1993

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SEACOR
Science & Engineering
Analysis Corporation

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

**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). Land use in the immediate site vicinity is primarily commercial and industrial. 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

Site background information provided herein is based on information provided to SEACOR by the SFFBC. The SFFBC, the former owner of the subject site operated two USTs at the site until 1989. The 10,000-gallon capacity USTs were buried side by side within a common excavation. One UST was used for storing gasoline and the other diesel fuel. Fill pipes for both were formerly located on the south side of the excavation. In 1989, Paradiso Construction Company (Paradiso) removed the two USTs; however, it is not known whether the USTs and piping were leak tested prior to removal.

Following removal of the USTs, soil and groundwater samples were collected from the open UST excavation by Clayton Environmental Consultants (Clayton). Mr. Dennis Byrne of the Alameda County Department of Environmental Health (ACDEH) was onsite during the sampling and directed sampling locations and chemical analyses required. Four soil samples were collected at a depth of 9 feet from the excavation sidewalls adjacent to the north and south end of each UST. Water was noted at a depth of 10 feet within the excavation at the time of sampling. Two groundwater samples were collected from water which flowed into depressions created by the base of each UST.

Analysis of sidewall soil samples indicated total petroleum hydrocarbon as gasoline (TPHg) concentrations up to 40 parts per million (ppm), TPH as diesel (TPHd) concentrations up to 70 ppm, and benzene, toluene, ethylbenzene, and xylenes (BTEX) concentrations up to 19 ppm. The highest analyte concentrations were detected in soil samples collected from the south side of the excavation. Both groundwater samples were reported to contain detectable fuel hydrocarbons at the

SFFBEME.RPT
70007-004-01 FB11

following concentrations: TPHg (200 ppm), benzene (24 ppm), toluene (35 ppm), ethylbenzene (2.9 ppm), and xylenes (18 ppm).

A letter from Paradiso to the ACDEH dated August 29, 1989, stated that the UST excavation was purged of water three times and a total of approximately 5,000 gallons of water was removed and disposed of as hazardous waste through H&H Shipping Company in San Francisco, California. According to the August 29, 1989 letter, a water sample from the excavation was collected and chemically analyzed following purging and "shows that the contaminated water was purged from the site through this process." Analysis of this water sample showed TPHg at a concentration of 0.54 ppm and BTEX at concentrations of 0.073, 0.025, 0.068, and 0.086 ppm, respectively. Paradiso's August 29, 1989 letter also stated that soil removed from the UST excavation was being aerated onsite and would be used to backfill the excavation once hydrocarbon concentrations were confirmed to be insignificant. No further information regarding this site was provided.

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 TPHg and TPHd at concentrations of 1.4 and 0.2 ppm, 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. BTEX were also detected in the water sample at concentrations of 0.47, 0.043, 0.045, and 0.10 ppm, respectively.

MONITORING WELL PURGING AND SAMPLING

Monitoring well purging and sampling was performed by SEACOR on December 3, 1992. 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 PVC 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 (13 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 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

Mr. Thomas Peacock
Quarterly Groundwater Monitoring Report
January 5, 1993
Page 3

Analytical Laboratory for analysis of TPHg and BTEX according to EPA Methods 8015, modified and 602, respectively.

CHEMICAL TESTING RESULTS

The groundwater sample analyzed from monitoring well MW-1 was reported to contain ethylbenzene at a concentration of 1.6 micrograms per liter ($\mu\text{g/l}$), or parts per billion; no other analytes were detected above the reporting limit from this sample. Table 1 summarizes the groundwater level measurements and chemical analytical results for this quarterly groundwater monitoring event as well as the previous sampling event. Laboratory analytical data sheets and chain-of-custody documentation are included as an Attachment.

When compared to water quality data from September 1992, TPHg and BTEX concentrations have decreased significantly. TPHg and benzene, toluene, and xylenes decreased to non-detectable concentrations, while ethylbenzene decreased from 43 to 1.6 $\mu\text{g/l}$. The next quarterly groundwater monitoring event is scheduled for March 1993.

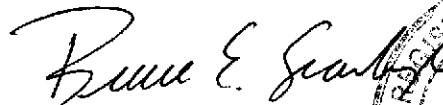
If you have any questions or comments regarding this report, please do not hesitate to call us at (415) 882-1548.

Sincerely yours,

Science & Engineering Analysis Corporation



Donald W. Moore
Project Geologist



Bruce E. Scarbrough, R.G.
Principal Geologist



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

Attachments:

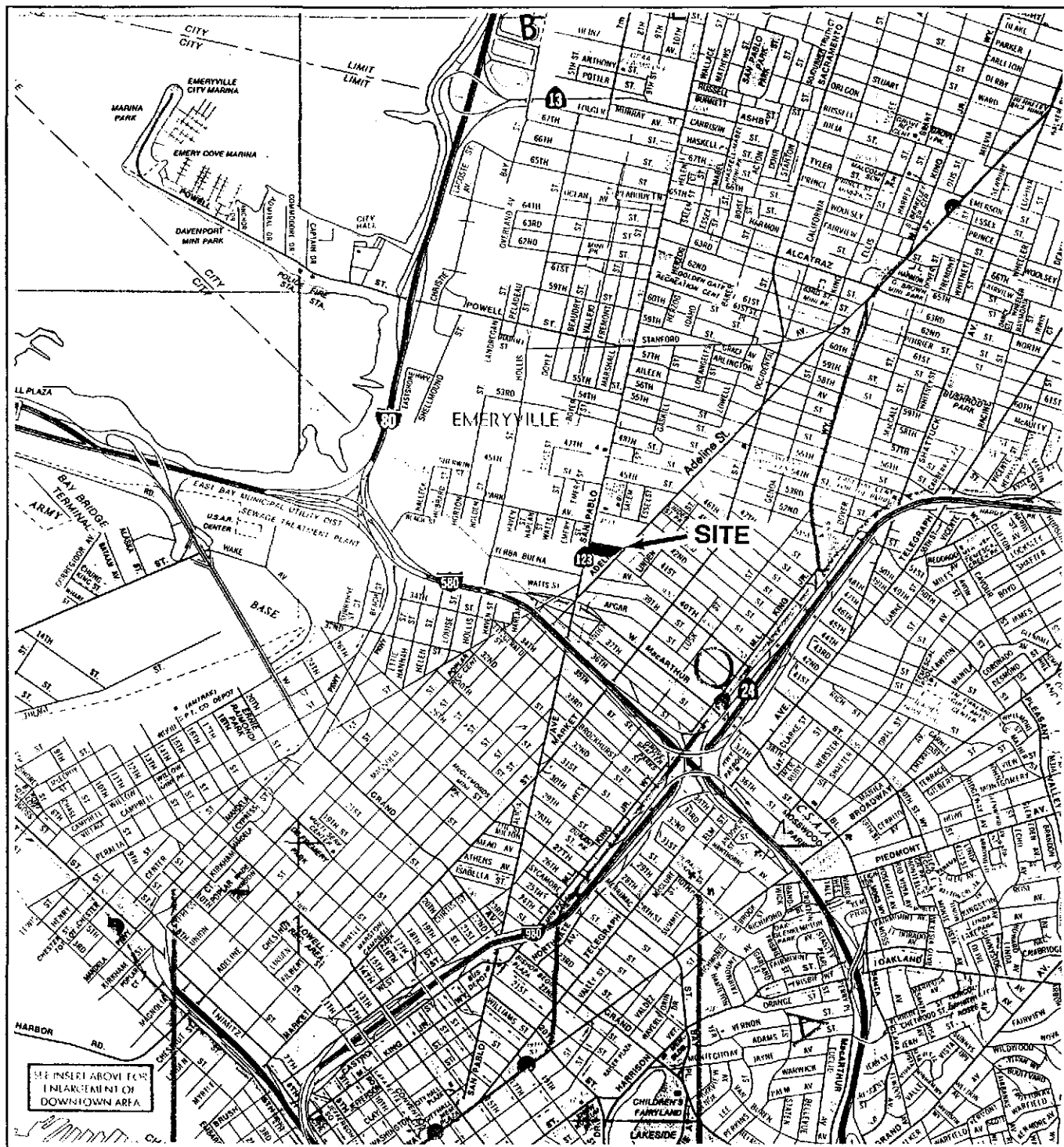
- Table 1 - Groundwater Measurements and Chemical Analytical Results
- Figure 1 - Site Location Map
- Figure 2 - Site Plan
- Groundwater Sample Data Sheet, Laboratory Analytical Reports and Chain-of-Custody Records

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

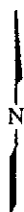
NOTES:

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

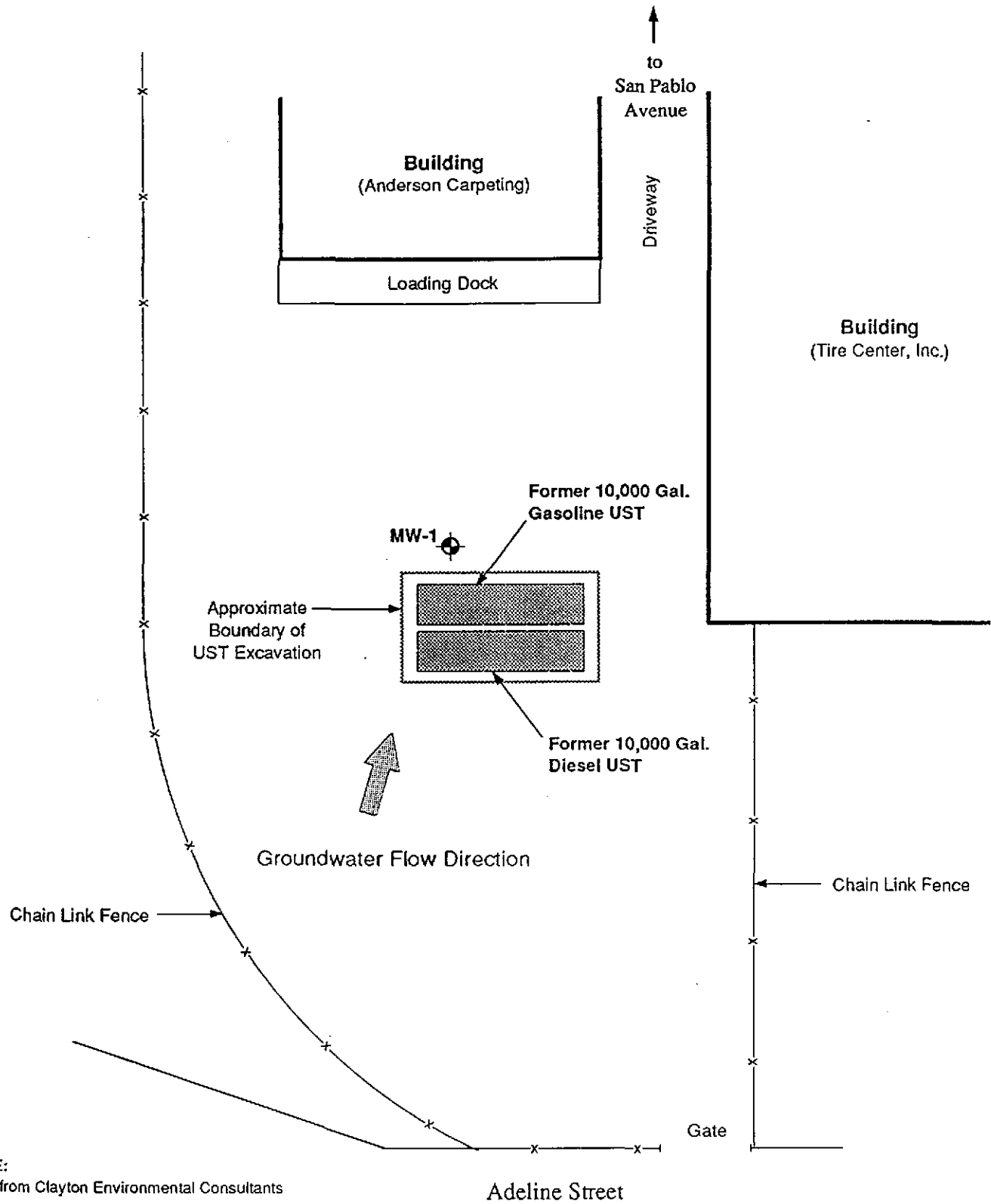


SOURCE:
 California State Automobile Association
 Oakland, Berkeley, Alameda, 2/91

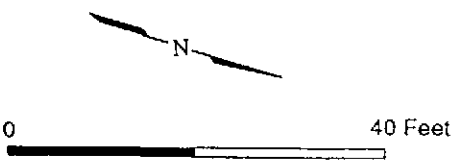
0 4000 Feet



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
Seacor
90 New Montgomery
Suite 620
San Francisco, CA 94105

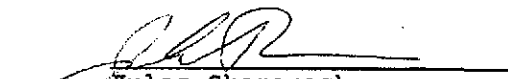
Date: 12/20/1992
NET Client Acct. No: 74000
NET Pacific Job No: 92.49658
Received: 12/05/1992

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 Job No: 92.49658

Date: 12/20/1992
 Page: 2

Ref: Project No: 70007-004-01

SAMPLE DESCRIPTION: MW-1-E
 Date Taken: 12/03/1992
 Time Taken: 13:06
 LAB Job No: (-146497)

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Liquid)			---	
METHOD 5030 (GC,FID)			---	
DATE ANALYZED			12-11-92	
DILUTION FACTOR*			1	
as Gasoline	5030	0.05	ND	mg/L
METHOD 8020 (GC,Liquid)			---	
DATE ANALYZED			12-11-92	
DILUTION FACTOR*			1	
Benzene	8020	0.5	ND	ug/L
Ethylbenzene	8020	0.5	1.6	ug/L
Toluene	8020	0.5	ND	ug/L
Xylenes (Total)	8020	0.5	ND	ug/L
SURROGATE RESULTS			---	
Bromofluorobenzene	5030		93	% Rec.



Client Acct: 74000
Client Name: Seacor
NET Job No: 92.49658

Date: 12/20/1992
Page: 3

Ref: Project No: 70007-004-01

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Gasoline	0.05	mg/L	94	ND	86	105	19
Benzene	0.5	ug/L	79	ND	89	109	19
Toluene	0.5	ug/L	93	ND	90	109	19

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, $100 \frac{|\text{Value 1} - \text{Value 2}|}{\text{mean value}}$.
- 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

1128

Address: 90 New Montgomery, Suite 620
San Francisco, CA
94105 (415) 882-1548

Project # 70007-004-01 Task #
Project Manager Donald Moore / Bruce Scarborough
Laboratory NET Pacific
Turn-around time: Standard / 10 days

Sampler's Name: Kurt Heiss
Sampler's Signature: *Donald W. Moore for KHT*

Analysis Request

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
X											2x UCC ^W / 171 HCl	2
											HOLD	
											Received 3 UCCs for sample MW-1-S and 1 UCC for Travel Blank.	
											CUSTODY SEALED 12/4/92 @ 1900 MMT	
											seals intact. A.L.	

Special Instructions/Comments:

Relinquished by:
Sign *Donald W. Moore*
Print SEACOR
Company Donald W. Moore
Time 3:20 Date 12/4/92

Received by:
Sign *Mike TAVANI*
Print MIKE TAVANI
Company NET
Time 3:20 PM Date 12/4/92

Sample Receipt

Total no. of containers 4
Chain of custody seals: Y
Rec'd good condition/cold: Y
Conforms to record: Y

Relinquished by:
Sign *Mike TAVANI*
Print M. TAVANI
Company NET
Time 1900 Date 12/4/92

Received by:
Sign *A. Lopez*
Print A. LOPEZ
Company NET
Time 11:00 Date 12/5/92

Client:
Client Contact:
Client Phone Number:

SEACOR WATER SAMPLE FIELD DATA SHEET

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

WELL ID: MW-1
 SAMPLE ID: MW-1
 CLIENT NAME: S.F.B. - 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>2.52</u>
DEPTH TO WATER (feet): <u>9.55</u>	CALCULATED PURGE (gal) <u>12.60</u>
DEPTH OF WELL (feet): <u>25.30</u>	ACTUAL PURGE VOL (gal) <u>13</u>

DATE PURGED: 12/3/92 Start (2400 Hr) 1250 End (2400 Hr.) 1303
 DATE SAMPLED: 12/3/92 Start (2400 Hr) 1306 End (2400 Hr.) 1306

ADDITIONAL 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)
<u>1258</u>	<u>10</u>	<u>6.6</u>	<u>1748</u>	<u>65.0</u>	<u>Tan</u>	<u>Very</u>
<u>1301</u>	<u>12</u>	<u>6.7</u>	<u>1548</u>	<u>65.1</u>	<u>Tan</u>	<u>Very</u>
<u>1303</u>	<u>13</u>	<u>6.7</u>	<u>1583</u>	<u>65.1</u>	<u>Tan</u>	<u>Very</u>

IRON (ppm): N.M. COLOR, COBALT (0-100): Cloudy Tan
 Clear _____
 Cloudy
 Yellow _____
 Brown

REMARKS: None

PURGING EQUIPMENT

SAMPLING EQUIPMENT

<p>2" Bladder Pump _____ Bailer (Teflon®) _____ Centrifugal Pump <input checked="" type="checkbox"/> Bailer (PVC) _____ Submersible Pump _____ Bailer (Stainless Steel) _____ Well Wizard™ _____ Dedicated _____</p>	<p>2" Bladder Pump _____ Bailer (Teflon®) _____ DDL Sampler _____ Bailer (PVC/disposable) _____ Submersible Pump <input checked="" type="checkbox"/> Bailer (Stainless Steel) _____ Well Wizard™ _____ Dedicated _____</p>
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WELL INTEGRITY: Good LOCK #: 0909
 REMARKS: Slight groundwater loss during purging