

September 24, 1993

93 SEP 27 AM 11:40

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). 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 this initial investigation, SFFBC initiated a quarterly groundwater monitoring program at the site, with monitoring events occurring in December, March, June, and September. This report presents the findings of the September 1993 monitoring event which is the fifth sampling event since installation of well MW-1 in September 1992.

DEPTH TO GROUNDWATER

Prior to purging and sampling monitoring well MW-1, the depth to groundwater and well depth were measured by *SEACOR* on September 2, 1993 using an electronic water-level indicator. Groundwater was measured at a depth of 8.00 feet below the top of the PVC casing. This represents a 2.85 foot decrease in water level since the June 4, 1993 monitoring event. Historic depth to groundwater measurements are included on Table 1.

SFFBQ4E.RP1
50090-002-01

MONITORING WELL PURGING AND SAMPLING

Monitoring well purging and sampling was performed by *SEACOR* on September 2, 1993. 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 three casing volumes of water 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 stainless-steel 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 8015 modified, and 8020, respectively.

CHEMICAL TESTING RESULTS

The groundwater sample analyzed from monitoring well MW-1 was reported to contain TPHg at a concentration of 1.5 mg/l and benzene and xylenes at concentrations of 340 and 140 micrograms per liter ($\mu\text{g}/\ell$), respectively. Ethylbenzene and toluene were not detected above the laboratory reporting limit at 0.5 $\mu\text{g}/\ell$. When compared to water quality data from June 1993, TPHg, toluene, and ethylbenzene concentrations have decreased, while concentrations of benzene and xylenes have remained unchanged. 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.

RECOMMENDATIONS

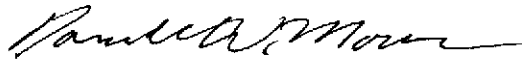
SEACOR, on behalf of SFFBC, plans to continue quarterly groundwater monitoring and reporting to provide additional water quality data for the site.

Mr. Thomas Peacock
September 24, 1993
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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,

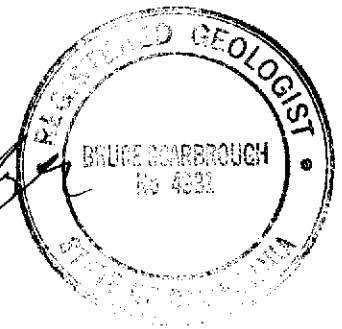
Science & Engineering Analysis Corporation



Donald W. Moore
Project Geologist



Bruce E. Scarbrough, R.G.
Principal Geologist



DWM/lk

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

Attachments:

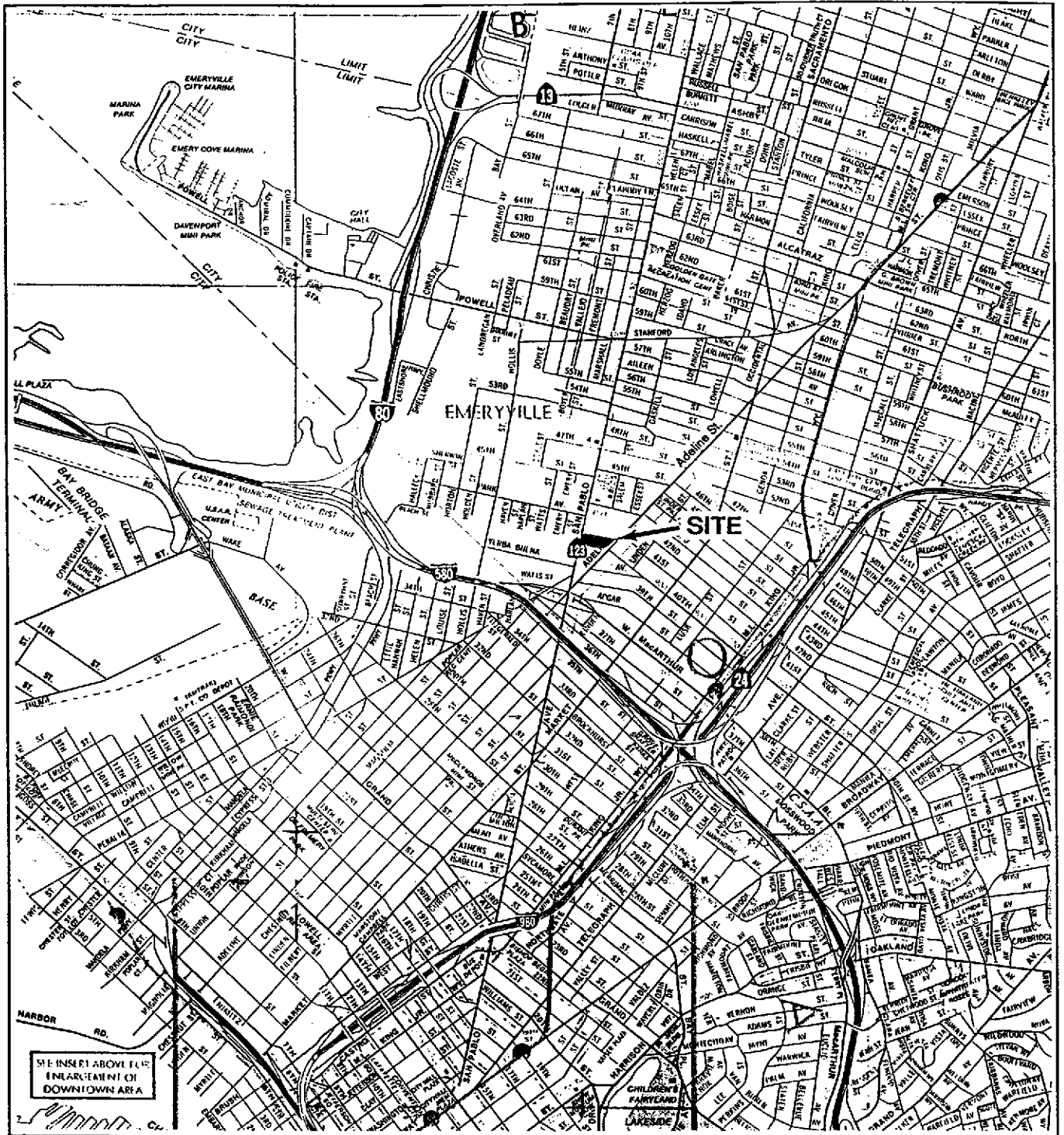
- Figure 1 - Site Location Map
- Figure 2 - Site Plan
- Table 1 - Groundwater Measurements and Chemical Analytical Results
- Groundwater Sample Data Sheet, Laboratory Analytical Reports and Chain-of-Custody Records

TABLE 1
GROUNDWATER MEASUREMENTS AND CHEMICAL
ANALYTICAL RESULTS
 4070 San Pablo Avenue
 Emeryville, California

WELL	DATE	DEPTH TO GROUNDWATER ⁽¹⁾	TPH _g ⁽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
	6/4/93	5.15	2.9	340	58	50	140
	9/2/93	8.00	1.5	340	ND < 0.5	ND < 0.5	140

NOTES:

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

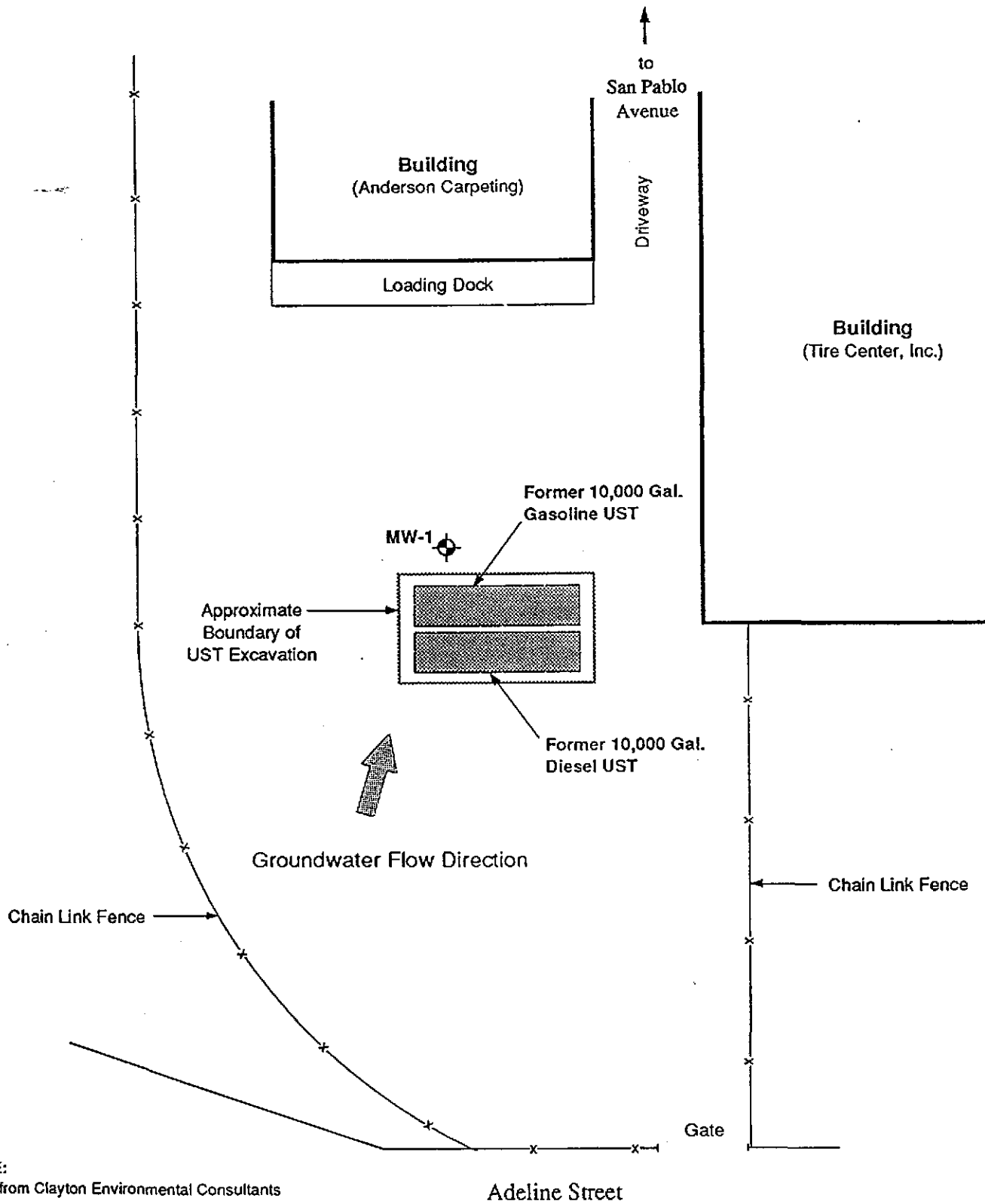


SOURCE:
 California State Automobile Association
 Oakland, Berkeley, Alameda, 2/91

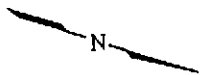
0 4000 Feet



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



SOURCE:
Modified from Clayton Environmental Consultants



0 40 Feet

LEGEND

 Monitoring Well Location

SEACOR WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 50090-002-01
 PURGED BY: Kurt Heiss
 SAMPLED BY: Kurt Heiss

WELL ID: MU-1
 SAMPLE ID: MU-1-9
 CLIENT NAME: S.E. French & Co
 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>2.77</u>
DEPTH TO WATER (feet): <u>8.60</u>	CALCULATED PURGE (gal): <u>0.31</u>
DEPTH OF WELL (feet): <u>25.30</u>	ACTUAL PURGE VOL (gal): <u>8.5</u>

DATE PURGED: 9/2/93 Start (2400 Hr) 1247 End (2400 Hr.) 1304
 DATE SAMPLED: 9/2/93 Start (2400 Hr) 1330 End (2400 Hr.) 1330

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

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal)	pH (unit)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR (Visual)	TURBIDITY (NTU) (Visual)
<u>1255</u>	<u>6</u>	<u>7.0</u>	<u>1030</u>	<u>70.9</u>	<u>T94</u>	<u>Very</u>
<u>1300</u>	<u>7</u>	<u>7.0</u>	<u>1030</u>	<u>70.2</u>	<u>11</u>	<u>11</u>
<u>1304</u>	<u>8.5</u>	<u>6.9</u>	<u>1090</u>	<u>70.5</u>	<u>11</u>	<u>11</u>
_____	_____	_____	_____	_____	_____	_____

D.O. (ppm): N.M. COLOR, COBALT (0-100): T94
 ODOR: None
 Clear _____
 Cloudy _____
 Yellow _____
 Brown (T94)

PURGING EQUIPMENT

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

Other: _____

SAMPLING EQUIPMENT

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

Other: _____

WELL INTEGRITY: smashed expansion cap LOCK #: Master 0909
 REMARKS: None Groundwater recovery slow

SIGNATURE: [Signature] Page 1 of 1



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: 09/21/1993
NET Client Acct. No: 74000
NET Pacific Job No: 93.03892
Received: 09/04/1993

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 Job No: 93.03892

Date: 09/21/1993
ELAP Certificate: 1386
Page: 2

Ref: Project No: 70007-004-01

SAMPLE DESCRIPTION: MW-1-9
Date Taken: 09/02/1993
Time Taken: 13:30
NET Sample No: 172864

Parameter	Results	Flags	Reporting		Method	Date	Date
			Limit	Units		Extracted	Analyzed
TPH (Gas/BTEXE,Liquid)							
METHOD 5030/M8015	--						09/15/1993
DILUTION FACTOR*	1						09/15/1993
as Gasoline	1.5		0.05	mg/L	5030		09/15/1993
METHOD 8020 (GC,Liquid)	--						09/15/1993
Benzene	340		0.5	ug/L	8020		09/16/1993
Toluene	ND		0.5	ug/L	8020		09/15/1993
Ethylbenzene	ND		0.5	ug/L	8020		09/15/1993
Xylenes (Total)	140		0.5	ug/L	8020		09/16/1993
SURROGATE RESULTS	--						09/15/1993
Bromofluorobenzene (SURR)	90			% Rec.	5030		09/15/1993



Client Acct: 74000
Client Name: Seacor
NET Job No: 93.03892

Date: 09/21/1993
ELAP Certificate: 1386
Page: 3

Ref: Project No: 70007-004-01

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	CCV	Units	Date Analyzed	Analyst Initials
	Standard % Recovery	Standard Amount Found	Standard Amount Expected			
TPH (Gas/BTEX,Liquid)						
as Gasoline	115.0	1.15	1.00	mg/L	09/16/1993	dkb
Benzene	97.0	4.85	5.00	ug/L	09/16/1993	dkb
Toluene	89.2	4.46	5.00	ug/L	09/16/1993	dkb
Ethylbenzene	96.2	4.81	5.00	ug/L	09/16/1993	dkb
Xylenes (Total)	95.7	14.36	15.0	ug/L	09/16/1993	dkb
Bromofluorobenzene (SURR)	90.0	90	100	% Rec.	09/16/1993	dkb



Client Acct: 74000
Client Name: Seacor
NET Job No: 93.03892

Date: 09/21/1993
ELAP Certificate: 1386
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Ref: Project No: 70007-004-01

METHOD BLANK REPORT

Parameter	Method	Reporting	Units	Date	Analyst
	Blank				
	Amount	Limit		Analyzed	Initials
	Found				
TPH (Gas/BTEX, Liquid)					
as Gasoline	ND	0.05	mg/L	09/16/1993	dkb
Benzene	ND	0.5	ug/L	09/16/1993	dkb
Toluene	ND	0.5	ug/L	09/16/1993	dkb
Ethylbenzene	ND	0.5	ug/L	09/16/1993	dkb
Xylenes (Total)	ND	0.5	ug/L	09/16/1993	dkb
Bromofluorobenzene (SRR)	77		% Rec.	09/16/1993	dkb



Client Acct: 74000
Client Name: Seacor
NET Job No: 93.03892

Date: 09/21/1993
ELAP Certificate: 1386
Page: 5

Ref: Project No: 70007-004-01

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike		RPD	Spike Amount	Sample Conc.	Matrix Spike		Units	Date Analyzed	Analyst Initials
	% Rec.	% Rec.				Conc.	Conc.			
TPH (Gas/BTXE,Liquid)										
as Gasoline	94.0	106.0	11.9	1.00	ND	0.94	1.06	mg/L	09/16/1993	dkb
Benzene	84.0	95.6	12.9	36.2	ND	30.4	34.6	ug/L	09/16/1993	dkb
Toluene	88.4	96.3	8.6	68.2	ND	60.3	65.7	ug/L	09/16/1993	dkb
Bromofluorobenzene (SURR)				100	85			% Rec.	09/16/1993	dkb



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. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor.
- dw : Result expressed as dry weight.
- 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 the 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., Rev. 1, December 1987.

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

SEACOR Chain-of-Custody Record

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

5500

Project # 70007-004-01 Task #				Analysis Request												Number of Containers	
Project Manager: Donald Moore				TPH _g /BTEX 8015 (modified)/8020	TPH _d 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 (15)	TCLP Metals	Comments/Instructions		
Laboratory: NET Pacific																Sample ID	Date
MW-1-9	9/2/93	1330	H ₂ O	X													
Travel Blank									X	HOLD	Travel Blank per D.M.					2XUCC	1
																10. A.C. 9/7/93	
																1000 MW-1-9 w/ mail to bldg.	
																AT. 9/7/93	

CUSTODY SEALED
9/3/93
[Signature]
Seal intact

Special Instructions/Comments:
Please include travel blank analytical results with Job # N/A data package!

Relinquished by: [Signature]
Sign: Kurt Heiss
Print: Kurt Heiss
Company: SEACOR
Time: [Signature] Date: 9/2/93

Received by: [Signature]
Sign: D. Sullivan
Print: D.S.
Company: Priord
Time: 9820 Date: 9/3/93

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

Relinquished by: [Signature]
Sign: [Signature]
Print: [Signature]
Company: [Signature]
Time: 0940 Date: 9/3/93

Received by: [Signature]
Sign: Stenstrom
Print: Stenstrom
Company: Sequoia
Time: 1000 Date: 9/3/93

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