

ENVIRONMENTAL
PROTECTION
99 JAN 12 AM 8:45

January 6, 1998
961276NA

Ms. Susan Hugo
Hazardous Materials Specialist
Department of Environmental Health
Alameda County Health Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Subject: Transmittal of 4th Quarter 1997 Groundwater Monitoring Results
City of Emeryville Fire Station No. 2 UST Site

Dear Ms. Hugo:

On behalf of the City of Emeryville Redevelopment Agency, transmitted herewith is the subject site quarterly groundwater monitoring results for the fourth quarter 1997. This is the second monitoring event of an one-year quarterly groundwater monitoring program. The monitoring activities were performed in accordance with the Workplan (Woodward-Clyde, August 1996), which was submitted to and approved by the Alameda County Department of Environmental Health.

Please do not hesitate to call me at (510) 874-3060 or Mr. Ignacio Dayrit of the City of Emeryville Redevelopment Agency at (510) 596-4356 for questions and comments.

Sincerely,



Xinggang Tong, P.E.
Project Manager

cc: Ignacio Dayrit, City of Emeryville

January 6, 1998
961276NA

Mr. Ignacio Dayrit
City of Emeryville Redevelopment Agency
2200 Powell Street, 12th Floor
Emeryville, California 94608-1806

Subject: Quarterly Groundwater Monitoring Results for the 4th Quarter 1997
City of Emeryville Fire Station No.2 UST Site

Dear Ignacio:

Woodward-Clyde is pleased to present the fourth quarter 1997 groundwater monitoring results for the City of Emeryville Fire Station No. 2 UST site, which is located at 6303 Hollis Street in Emeryville, California. This is the second monitoring event of an one-year quarterly groundwater monitoring program. This groundwater monitoring program is requested by the Alameda County Department of Environmental Health (ACDEH) in a letter to the City dated May 29, 1996, and is authorized by the City in a contract to Woodward-Clyde dated July 12, 1996.

Groundwater samples were collected from the on-site monitoring well MW-1 on December 5, 1997, and were delivered to American Environmental Network (AEN) Pleasant Hill Laboratory for the analysis of Total Petroleum Hydrocarbons (TPH) as gasoline (TPH-G), Benzene, Toluene, Ethyl benzene, & Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE), and total lead. Results are summarized in Table 1. Concentrations of toluene, ethylbenzene, total xylenes, and total lead were below their respective laboratory reporting limits. Benzene and TPH-G (0.7 ug/l and 0.06 mg/l, respectively) were detected only slightly above their laboratory reporting limits. MTBE was reported at 120 ug/l. These concentrations are well below their respective RBCA Tier 1 threshold levels for commercial indoor land use scenario, which was addressed in the RBCA evaluation report prepared by Woodward-Clyde in May 1997 and approved by the ACDEH in a letter to the City dated November 6, 1997.

Compared with the 3rd quarter 1997 monitoring results, TPH-G and BTEX concentrations showed little change while MTBE concentration, even though it is still very low (120 ug/l), increased substantially. In a telephone discussion the laboratory indicated that MTBE usually has higher frequencies of false positive identification at low concentrations as compared to BTEX under the current GC analytical protocol. The increase in MTBE concentration may not be of concern at this time, but will be followed



in the next two quarterly monitoring events. Because lead was not detected above laboratory detection limit in the past two consecutive quarters and has never been detected in groundwater before, we do not plan to measure lead in groundwater in the next two quarterly monitoring events.

Woodward-Clyde retained Environmental Sampling Services to perform field sampling activities. Prior to purging, depth from the top of well casing to water was measured at 3.02 feet using a Solinst electronic water level meter. The well was then purged by manually bailing out 10 gallons (approximately 4 well casing volumes) of groundwater using a disposable PVC bailer. Temperature, pH, and conductivity of the purged water were monitored during the well purging. Well monitoring data sheet is included with this report. After the water level recovered to about 80% of the static water level and water parameters stabilized, a new disposable bailer was gently lowered into the well approximately half its length past the air-water interface. The bailer was retrieved and the water was promptly transferred to appropriate sample containers supplied by the laboratory. Sample containers were promptly capped, labeled, placed in an ice-cooled container, and delivered to the AEN Pleasant Hill Laboratory under chain-of-custody in the same day the samples were collected. For quality control, a trip blank was included in the container and was analyzed for TPH-G and BTEX. The trip blank was reported in the Former Celis Gas Station data package, which was also sampled the same day.

The purged water was placed in a 55-gallon DOT drum, which was labeled and left on site for future disposal. Woodward-Clyde retained PLS Surveys, Inc. of Oakland to survey the well elevation on July 10, 1997. The top of the well casing is measured at 17.02 feet mean sea level (MSL).

Please call me at (510) 874-3060 if you have questions or comments.

Sincerely,



Xinggang Tong, Ph.D., P.E.
Project Manager



Enclosures:

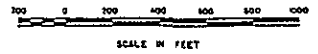
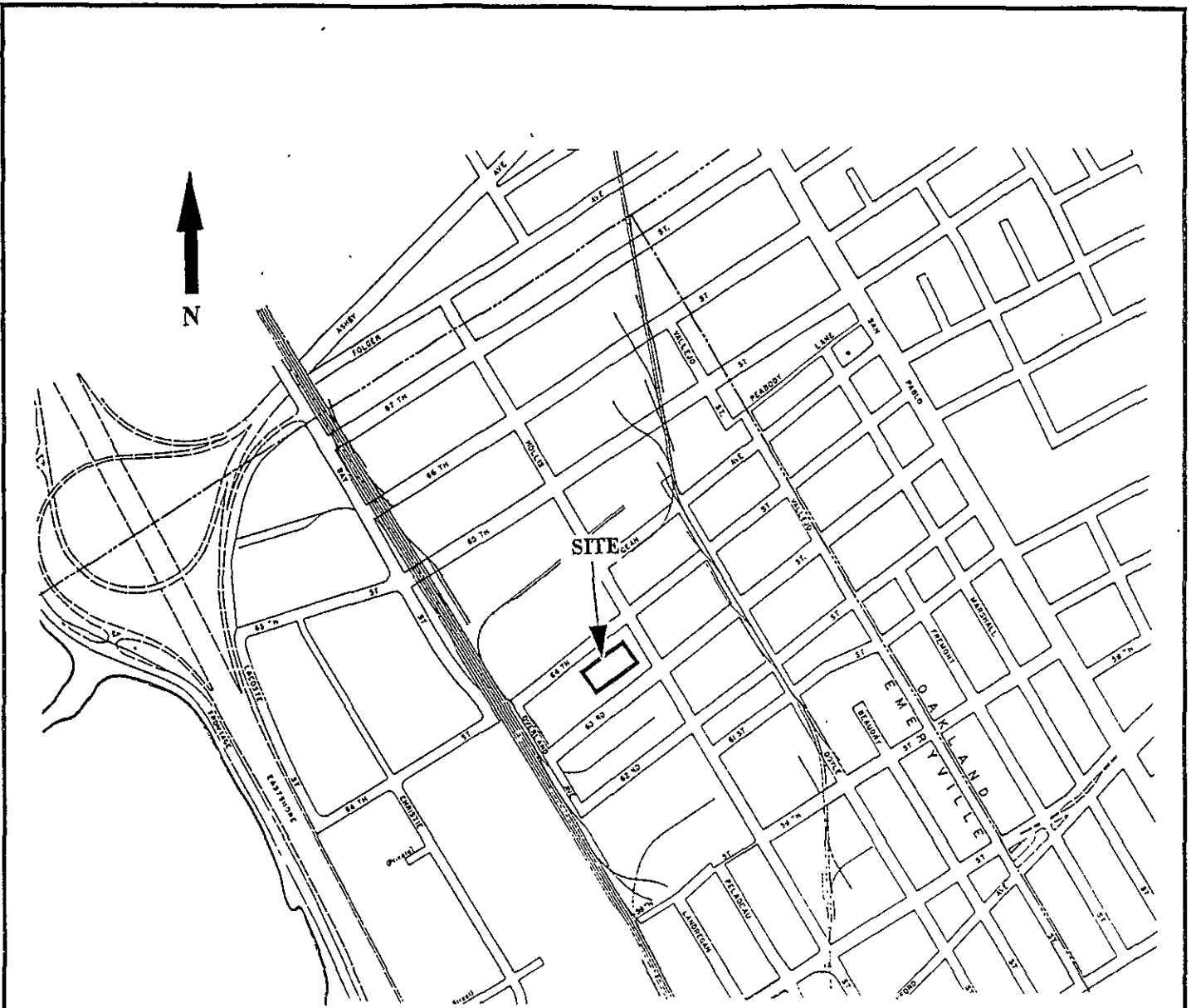
- A. Table 1 - Groundwater analytical results (current and historical)
- B. Site location maps
- C. Well purging data sheet
- D. Laboratory analytical report




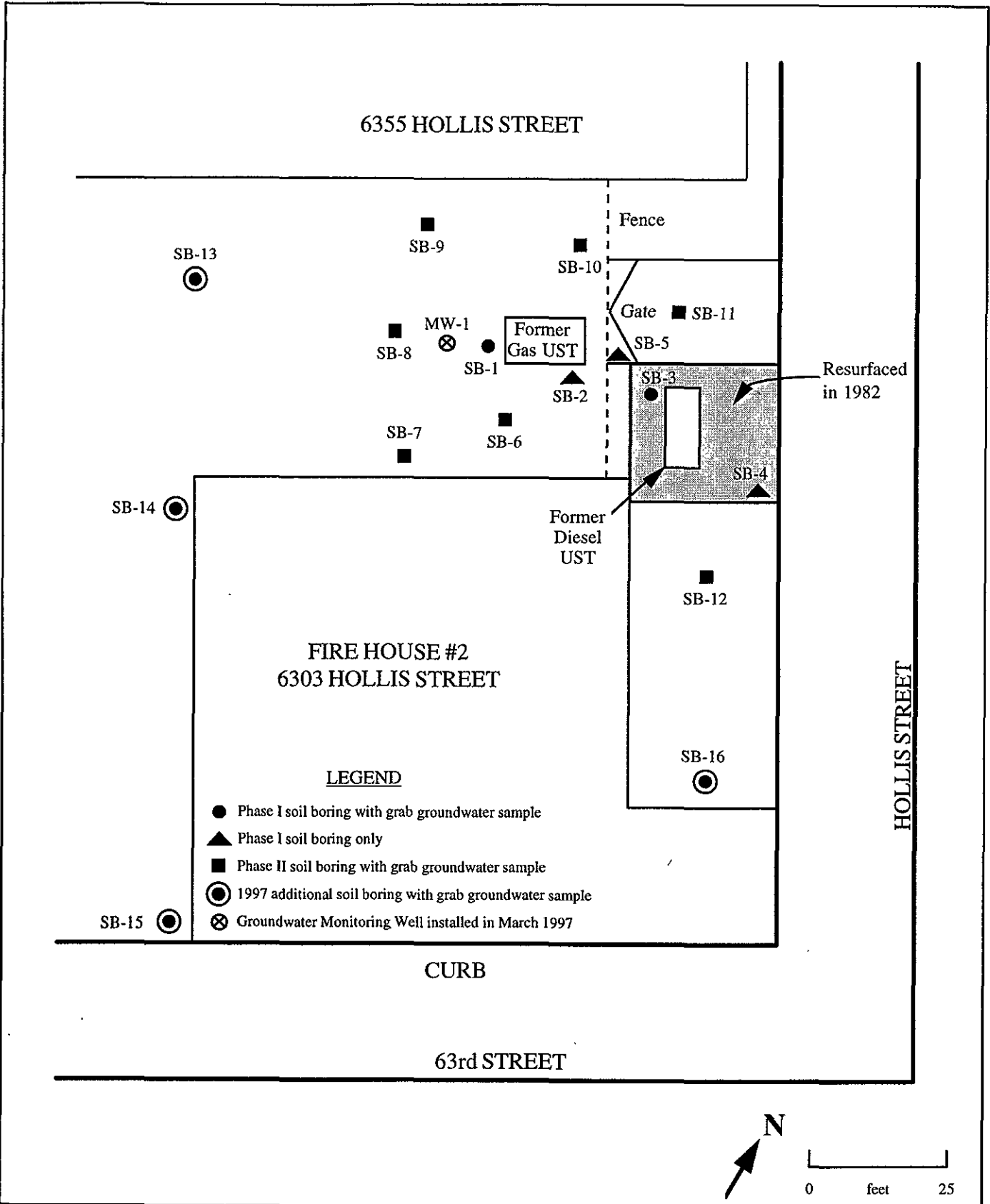
TABLE 1
GROUNDWATER ANALYTICAL RESULTS
CITY OF EMERYVILLE
FIRE STATION No. 2

Sample No.	Date Sampled	Water level		TPH ^a Gasoline (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (ug/L)	Total Lead (ug/L)	Notes
		TOC (ft)	MSL (ft)								
MW-1	12/5/97	3.02	14.00	0.06	0.7	ND (0.5)	ND (0.5)	ND (2)	120	ND (40)	4th quarter 97
Trip Blank	12/5/97			ND (0.05)	ND (0.5)	ND (0.5)	ND (0.5)	ND (2)	ND (5)	NA	4th quarter 97
MW-1	9/26/97	4.36	12.66	ND (0.05)	1.0	ND (0.5)	0.6	ND (2)	18	ND (40)	3rd quarter 97
Trip Blank	9/26/97			ND (0.05)	ND (0.5)	ND (0.5)	ND (0.5)	ND (2)	ND (5)	NA	3rd quarter 97
SB-3	3/15/95	NA	NA	NA	220	3,800	2,500	14,000	NA	NA	Phase I investigation
SB-1	3/15/95	NA	NA	0.99	6.1	40	33	160	NA	NA	
Trip Blank	3/15/95	NA	NA	NA	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	NA	
SB-6-W	6/17/95	NA	NA	0.41	24	27	27	110	NA	NA	Phase II investigation
SB-7-W	6/17/95	NA	NA	5.50	36	30	180	510	NA	NA	
SB-8-W	6/17/95	NA	NA	0.46	18	36	27	100	NA	NA	
SB-9-W	6/17/95	NA	NA	ND (0.05)	ND (0.5)	ND (0.5)	0.7	3.7	NA	NA	Phase II investigation
SB-10-W	6/17/95	NA	NA	ND (0.05)	ND (0.5)	ND (0.5)	0.6	3.3	NA	NA	
SB-11-W	6/17/95	NA	NA	0.23	12	8.6	12	44	NA	NA	
SB-12-W	6/17/95	NA	NA	0.97	40	130	38	170	NA	NA	Phase II investigation
Trip Blank	6/17/95	NA	NA	ND (0.05)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	NA	NA	
SB-13-W	3/26/97	NA	NA	ND (0.05)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	NA	additional investigation
SB-14-W	3/26/97	NA	NA	ND (0.05)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	NA	
SB-15-W	3/26/97	NA	NA	ND (0.05)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	NA	
SB-16-W	3/26/97	NA	NA	29	430	1,200	1,000	4,700	ND (500)	NA	additional investigation
Trip Blank	3/26/97	NA	NA	ND (0.05)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	NA	

Notes: ^a Total petroleum hydrocarbons by EPA Method 8015 (Mod.), quantified as gasoline.
Benzene, toluene, ethylbenzene and xylenes by EPA Method 8020.
NA - Not analyzed; ND - Not detected at or above the detection limit given in parentheses.
TOC - measured to top of well casing; MSL - mean sea level.



Project No. 94166NA	CITY OF EMERYVILLE Fire Station Number 2	SITE LOCATION	Figure 1
Woodward-Clyde Consultants 			July 15, 1995



Project No. 961276NA	City of Emeryville Fire Station No. 2	LOCATION OF MONITORING WELL MW-1	Figure 2
Woodward-Clyde Consultants			



**Environmental
Sampling Services**

WELL SAMPLE LOG SHEET Well Identification: MW-1 Date: 12/5/97

Project Name: Fire Station No. 2 Emeryville Client Project Number: 961276NA

Well Description: 5" 4" 5" 6" 8" Well Type: PVC Stainless Steel

Is well secured? YES / (NO) Type of lock / lock number: NO Lock Cap is Broken

Observations/Comments: 15/16" wrench to open well cover

Purge Method: Teflon (Disposable Bailer) Centrifugal pump GRUNDFOS Redi-flow pump Other: _____

Pump lines: NEW/CLEANED/DEDICATED Bailer lines: (NEW) / CLEANED

Method of cleaning pump: Alconox Liquidnox Tap Water DI Rinse Other: _____

Method of cleaning bailer: Alconox Liquidnox Tap Water DI Rinse Other: _____

Sampling Method: Teflon (Disp. Tef. bailer) (Disp. PVC bailer) Redi-Flow 2 pump Other: _____

pH Meter Serial Number: 330089 Specific Conductance Meter Serial Number: 9640203AB

Date(s) Calibrated: 12/5/97 @ 1035 (4) (7) (10) Specific Conductance Meter: _____ @ 100 umhos/cm @ _____ °C

Method to measure water level: Subm. ESP #2 Specific Conductance Meter: _____ @ 1000 umhos/cm @ _____ °C

Water Level at Start (DTW): 3.02 Water Level Prior to Sampling: 5.98

TD = 20.36 - 3.02 (DTW) x "k" = 2.8 gallons/casing volume x 3 = 8.4 gallons for 3 casing volumes
 ("k" = 0.163 (2" well) "k" = 0.653 (4" well) "k" = 1.02 (5" well) "k" = 1.46 (6" well) "k" = 2.61 (8" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance ms (uS)	Turbidity (NTU's)	Color	Comments
<u>12/5/97</u>	<u>1154</u>	<u>2</u>	<u>6.45</u>	<u>19.9</u>	<u>1279</u>	<u>Low</u>	<u>Cloudy Lt Brown</u>	<u>Slight odor</u>
	<u>1158</u>	<u>4</u>	<u>6.60</u>	<u>20.3</u>	<u>1278</u>	<u>"</u>	<u>"</u>	<u>" "</u>
	<u>1202</u>	<u>6</u>	<u>6.77</u>	<u>20.6</u>	<u>1304</u>	<u>"</u>	<u>"</u>	<u>" "</u>
	<u>1204</u>	<u>8</u>	<u>6.74</u>	<u>20.5</u>	<u>1305</u>	<u>"</u>	<u>"</u>	<u>" "</u>
	<u>1210</u>	<u>10</u>	<u>6.76</u>	<u>20.5</u>	<u>1297</u>	<u>"</u>	<u>"</u>	<u>" "</u>
<u>12/5/97</u>	<u>1216</u>	<u>Aft. Sampl</u>	<u>6.78</u>	<u>20.1</u>	<u>1221</u>	<u>Low</u>	<u>Cloudy Lt Brown</u>	<u>Slight odor</u>

Total Discharge: 10 gallons Casing Volumes Removed: _____

Method of disposal of discharged water: 55 gallon Drum

Date/Time sampled: 12/5/97 @ 1214 Analysis: 3 VOAs w/ HPL (TPH g/BTEX/MTBE) / 250 ml HNO₃ Asly (Lead)

Comments: _____

QA/QC: _____ @ _____ as Eq. Blank Duplicate MS/MSD Split

Sampled By: E. Penman

Environmental Sampling Services
6680 Alhambra Ave. Martinez, CA 94553
Tel/Fax: (510) 372-8108



American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

WOODWARD-CLYDE CONSULTANTS
500 12TH STREET, STE. 100
OAKLAND, CA 94607

ATTN: XINGGANG TONG
CLIENT PROJ. ID: 961276NA
CLIENT PROJ. NAME: FIVE ST. NO. 2

REPORT DATE: 12/19/97
DATE(S) SAMPLED: 12/05/97
DATE RECEIVED: 12/05/97
AEN WORK ORDER: 9712079

PROJECT SUMMARY:

On December 5, 1997, this laboratory received 1 water sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.


Larry Klein
Laboratory Director

WOODWARD-CLYDE CONSULTANTS

SAMPLE ID: MW-1
 AEN LAB NO: 9712079-01
 AEN WORK ORDER: 9712079
 CLIENT PROJ. ID: 961276NA

DATE SAMPLED: 12/05/97
 DATE RECEIVED: 12/05/97
 REPORT DATE: 12/19/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	0.7 *	0.5 ug/L		12/10/97
Toluene	108-88-3	ND	0.5 ug/L		12/10/97
Ethylbenzene	100-41-4	ND	0.5 ug/L		12/10/97
Xylenes, Total	1330-20-7	ND	2 ug/L		12/10/97
Purgeable HCs as Gasoline	5030/GCFID	0.06 *	0.05 mg/L		12/10/97
Methyl t-Butyl Ether	1634-04-4	120 *	5 ug/L		12/10/97
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	12/09/97
Lead	EPA 6010	ND	0.04 mg/L		12/10/97

ND = Not detected at or above the reporting limit
 * = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9712079
CLIENT PROJECT ID: 961276NA

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spikes(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analyses.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behaviour, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrument performance.

D: Surrogates diluted out.

I: Interference.

!: Indicates result outside of established laboratory QC limits.

WORK ORDER: 9712079

QUALITY CONTROL REPORT

PAGE QR-2

ANALYSIS: Metals Scan by ICP

MATRIX: Water

METHOD BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
 INSTRUMENT: TJA Enviro 36
 UNITS: mg/L
 METHOD:

LAB ID: IFW_PBW_A
 PREPARED:
 ANALYZED: 12/10/97

INSTR RUN: ICP\971210161900/1/
 BATCH ID: IFW120997-A
 DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)		RPD (%)	RPD LIMIT (%)
						LOW	HIGH		
Ag Silver	ND		0.005						
Al Aluminum	ND		0.1						
As Arsenic	ND		0.04						
Ba Barium	ND		0.01						
Be Beryllium	ND		0.002						
Ca Calcium	ND		0.2						
Cd Cadmium	ND		0.005						
Co Cobalt	ND		0.005						
Cr Chromium	ND		0.01						
Cu Copper	ND		0.01						
Fe Iron	ND		0.1						
K Potassium	ND		0.1						
Mg Magnesium	ND		0.04						
Mn Manganese	ND		0.005						
Mo Molybdenum	ND		0.01						
Na Sodium	ND		0.5						
Ni Nickel	ND		0.01						
Pb Lead	ND		0.04						
Sb Antimony	ND		0.02						
Se Selenium	ND		0.07						
Tl Thallium	ND		0.05						
V Vanadium	ND		0.005						
Zn Zinc	ND		0.01						

LABORATORY CONTROL SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
 INSTRUMENT: TJA Enviro 36
 UNITS: mg/L
 METHOD:

LAB ID: IFW_LCD_A
 PREPARED:
 ANALYZED: 12/10/97

INSTR RUN: ICP\971210161900/3/1
 BATCH ID: IFW120997-A
 DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)		RPD (%)	RPD LIMIT (%)
						LOW	HIGH		
Ag Silver	0.0245	ND	0.005	0.0250	98.0	72	127		
Al Aluminum	1.04	ND	0.1	1.00	104	89	116		
As Arsenic	0.443	ND	0.04	0.400	111	75	125		
Ba Barium	1.06	ND	0.01	1.00	106	91	120		
Be Beryllium	0.0264	ND	0.002	0.0250	106	82	119		
Ca Calcium	10.6	ND	0.2	10.0	106	80	120		
Cd Cadmium	0.0518	ND	0.005	0.0500	104	84	120		
Co Cobalt	0.280	ND	0.005	0.250	112	96	120		
Cr Chromium	0.105	ND	0.01	0.100	105	85	128		
Cu Copper	0.130	ND	0.01	0.125	104	86	123		
Fe Iron	0.515	ND	0.1	0.500	103	84	133		
K Potassium	10.2	ND	0.1	10.0	102	80	120		
Mg Magnesium	10.3	ND	0.04	10.0	103	80	120		
Mn Manganese	0.282	ND	0.005	0.250	113	93	122		
Mo Molybdenum	0.213	ND	0.01	0.200	107	89	117		
Na Sodium	10.1	ND	0.5	10.0	101	80	120		
Ni Nickel	0.263	ND	0.01	0.250	105	92	121		
Pb Lead	0.554	ND	0.04	0.500	111	90	122		
Sb Antimony	0.530	ND	0.02	0.500	106	82	113		
Se Selenium	0.515	ND	0.07	0.500	103	75	125		
Tl Thallium	0.541	ND	0.05	0.500	108	85	115		
V Vanadium	0.270	ND	0.005	0.250	108	91	118		
Zn Zinc	0.262	ND	0.01	0.250	105	90	121		

WORK ORDER: 9712079

QUALITY CONTROL REPORT

PAGE QR-3

ANALYSIS: Metals Scan by ICP

MATRIX: Water

LABORATORY CONTROL SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
 INSTRUMENT: TJA Enviro 36
 UNITS: mg/L
 METHOD:

LAB ID: IFW_LCS_A
 PREPARED:
 ANALYZED: 12/10/97

INSTR RUN: ICP\971210161900/2/1
 BATCH ID: IFW120997-A
 DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)		RPD (%)	RPD LIMIT (%)
						LOW	HIGH		
Ag Silver	0.0227	ND	0.005	0.0250	90.8	72	127		
Al Aluminum	0.994	ND	0.1	1.00	99.4	89	116		
As Arsenic	0.405	ND	0.04	0.400	101	75	125		
Ba Barium	1.03	ND	0.01	1.00	103	91	120		
Be Beryllium	0.0261	ND	0.002	0.0250	104	82	119		
Ca Calcium	10.3	ND	0.2	10.0	103	80	120		
Cd Cadmium	0.0488	ND	0.005	0.0500	97.6	84	120		
Co Cobalt	0.273	ND	0.005	0.250	109	96	120		
Cr Chromium	0.0991	ND	0.01	0.100	99.1	85	128		
Cu Copper	0.127	ND	0.01	0.125	102	86	123		
Fe Iron	0.494	ND	0.1	0.500	98.8	84	133		
K Potassium	9.92	ND	0.1	10.0	99.2	80	120		
Mg Magnesium	9.99	ND	0.04	10.0	99.9	80	120		
Mn Manganese	0.274	ND	0.005	0.250	110	93	122		
Mo Molybdenum	0.202	ND	0.01	0.200	101	89	117		
Na Sodium	9.85	ND	0.5	10.0	98.5	80	120		
Ni Nickel	0.255	ND	0.01	0.250	102	92	121		
Pb Lead	0.534	ND	0.04	0.500	107	90	122		
Sb Antimony	0.506	ND	0.02	0.500	101	82	113		
Se Selenium	0.480	ND	0.07	0.500	96.0	75	125		
Tl Thallium	0.505	ND	0.05	0.500	101	85	115		
V Vanadium	0.264	ND	0.005	0.250	106	91	118		
Zn Zinc	0.255	ND	0.01	0.250	102	90	121		

LABORATORY CONTROL DUPLICATES

SAMPLE TYPE: Method Spike Sample Duplicate
 INSTRUMENT: TJA Enviro 36
 UNITS: mg/L
 METHOD:

LAB ID: IFW_LCR_A
 PREPARED:
 ANALYZED: 12/10/97

INSTR RUN: ICP\971210161900/4/2
 BATCH ID: IFW120997-A
 DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%)		RPD (%)	RPD LIMIT (%)
						LOW	HIGH		
Ag Silver	0.0245	0.0227	0.005					7.63	10
Al Aluminum	1.04	0.994	0.1					4.52	10
As Arsenic	0.443	0.405	0.04					8.96	15
Ba Barium	1.06	1.03	0.01					2.87	10
Be Beryllium	0.0264	0.0261	0.002					1.14	10
Ca Calcium	10.6	10.3	0.2					2.87	15
Cd Cadmium	0.0518	0.0488	0.005					5.96	10
Co Cobalt	0.280	0.273	0.005					2.53	10
Cr Chromium	0.105	0.0991	0.01					5.78	10
Cu Copper	0.130	0.127	0.01					2.33	10
Fe Iron	0.515	0.494	0.1					4.16	10
K Potassium	10.2	9.92	0.1					2.78	10
Mg Magnesium	10.3	9.99	0.04					3.06	10
Mn Manganese	0.282	0.274	0.005					2.88	10
Mo Molybdenum	0.213	0.202	0.01					5.30	10
Na Sodium	10.1	9.85	0.5					2.51	10
Ni Nickel	0.263	0.255	0.01					3.09	10
Pb Lead	0.554	0.534	0.04					3.68	10
Sb Antimony	0.530	0.506	0.02					4.63	10
Se Selenium	0.515	0.480	0.07					7.04	15
Tl Thallium	0.541	0.505	0.05					6.88	10
V Vanadium	0.270	0.264	0.005					2.25	10
Zn Zinc	0.262	0.255	0.01					2.71	10

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9712079
 INSTRUMENT: H
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
12/10/97	MW-1	01	100
QC Limits:			70-130

DATE ANALYZED: 12/10/97
 SAMPLE SPIKED: 9712079-01
 INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Benzene	100	90	7	70-130	20
Toluene	100	98	6	70-130	20
Ethylbenzene	100	103	7	70-130	20
Total Xylenes	300	102	7	70-130	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

*** END OF REPORT ***

Woodward-Clyde Consultants

500 12th Street, Suite 100, Oakland, CA 94607-4014
(510) 893-3600

Chain of Custody Record

ABC
D

PROJECT NO. *Fire St. No. 2*
961276NA Emeryville

SAMPLERS: (Signature) *Stephen Morrison*
Environmental Sampling Services

ANALYSES

DATE	TIME	SAMPLE NUMBER	Sample Matrix (Soil, Water, Air)	ANALYSES				Number of Containers	REMARKS (Sample preservation, handling procedures, etc.)
				EPA Method	EPA Method	EPA Method	EPA Method		
<i>12/5/97</i>	<i>12:14</i>	<i>MW-1</i>	<i>W</i>			<i>TPH gas, BTEX & MTBE</i>	<i>Lead (EPA 6010)</i>	<i>4</i>	<i>Questions/Results To: Xinggang Tong (510) 874-3060</i> <i>7-day TAT</i>

TOTAL NUMBER OF CONTAINERS *4*

RELINQUISHED BY: (Signature) *Stephen Morrison*

DATE/TIME *12/7/97 1:43*

RECEIVED BY: (Signature) *Stephen Morrison*

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

METHOD OF SHIPMENT: *Delivered*

SHIPPED BY: (Signature)

COURIER: (Signature)

RECEIVED FOR LAB BY: (Signature)

DATE/TIME