

November 4, 1998

UST Local Oversight Program  
Alameda County Health Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Attention: Ms. Eva Chu

Subject: Report of Soil and Groundwater Investigation  
3838 West Street UST Site  
Oakland, California  
GA Project No. 140-01-01  
LOP Site ID No.: 4262

- let's resample MW-1W to confirm results,  
Analyze for TPH<sub>g</sub>, BTEX
- effluent was well screened from 15'-27' bgs  
when GW was encountered at ~16' bgs

Ladies and Gentlemen:

Gribi Associates is pleased to submit this report on behalf of Mr. Johnny Houston documenting a recently-completed soil and groundwater investigation at the 3838 West Street underground storage tank (UST) site in Oakland, California (see Figure 1 and Figure 2). This soil and groundwater investigation included the drilling and sampling of two soil borings immediately adjacent to a gasoline UST formerly located at the project site. The purpose of the soil boring investigation was to assess soil and groundwater quality adjacent to the former UST in order to address regulatory site closure.

## Background

One 550-gallon gasoline UST, which apparently had been unused for at least 20 years, was removed from the project site on January 8, 1992. Prior to removing the UST, approximately 650 gallons of water was pumped from the tank. Following removal of the UST, the Alameda County Department of Environmental Health inspector noted holes in the tank, and hydrocarbon odors and sheens in the excavation. Two soil samples collected at about eight feet in depth in the UST excavation cavity contained no detectable gasoline constituents and low levels of lead. One four-point composite soil sample collected from the excavated soil stockpile contained 4.3 parts per million (ppm) of TPH-G, with low levels of BTEX constituents and 32 ppm of Total Lead. A grab groundwater sample collected from the UST excavation cavity following tank removal contained 16 ppm of TPH-G, with low or no detectable levels of BTEX constituents.

On July 29, 1998, Gribi Associates submitted a workplan to Alameda County UST Local Oversight Program proposing the drilling and sampling of a single hand auger boring southwest from the former UST excavation cavity. Alameda County granted approval to implement the workplan with the provision that an additional boring be drilled on the south side of the former UST excavation cavity.

## **LIMITATIONS**

The services provided under this contract as described in this report include professional opinions and judgments based on data collected. These services have been provided according to generally accepted environmental protocol. The opinions and conclusions contained in this report are typically based on information obtained from:

1. Observations and measurements made by our field staff.
2. Contacts and discussions with regulatory agencies and others.
3. Review of available hydrogeologic data.

## **DESCRIPTION OF FIELD ACTIVITIES**

The two soil borings were drilled and sampled by Mr. Jim Gribi on August 13, 1998. A temporary monitoring installed in the southwest boring was purged and sampled on August 19, 1998.

### **Prefield Activities**

Prior to beginning field activities, Gribi Associates marked proposed boring locations and notified Underground Services Alert (USA). In addition, Gribi Associates obtained a drilling permit from Alameda County Public Works Department. A copy of this permit is contained in Appendix A.

### **Location of Soil Borings**

Locations of the soil boring, IB-1, and the temporary monitoring well, MW-1, are shown on Figure 2. MW-1 was sited in the expected downgradient (southwest) groundwater flow direction from the former UST excavation cavity. IB-1 was installed between the former UST and the adjacent project site building in order to assess potential hydrocarbon impacts to receptors in the adjacent project site building.

### **Drilling and Sampling of Soil Borings**

The well boring MW-1 was drilled to a depth of about 13 feet below grade, and the investigative boring IB-1 was advanced to a depth of about nine feet below surface grade. Both borings were drilled using hand auger equipment. During hand augering, retrieved soil cuttings were logged by Mr. Jim Gribi, a California-registered geologist. Boring logs for the two borings are contained in Appendix B. All hand auger and sampling equipment was thoroughly cleaned and decontaminated between each sample collection by triple rinsing first with water, then with dilute tri-sodium phosphate solution, and finally with distilled water. Following completion, the investigative boring IB-1 was grouted to match existing grade.

Soil samples were collected from each of the two soil borings at a depth of about seven feet below surface grade. Each of the soil samples was collected using the following method: (1) Exposed soil

was scraped away; (2) A clean 2-inch by 6-inch brass tube was completely filled with undisturbed soil, taking care to minimize excess void in the tube; (3) The tube was then quickly sealed with aluminum foil and plastic end caps, wrapped tightly with tape and labeled; and (4) The sealed tube was immediately placed in cold storage for transport to the laboratory.

A grab groundwater sample was collected from investigative boring IB-1 using a clean disposable PVC bailer. This water sample was collected in four 40-ml VOA vials by completely filling each container from the bailer, and then tightly sealing each container with teflon-lined septum, making sure that no air bubbles were present. Each container was then labeled and immediately placed on ice for transport to the analytical laboratory.

### **Installation and Sampling of Temporary Well**

Groundwater monitoring well MW-1 was constructed using 1-1/4 inch diameter Schedule 40 threaded PVC casing according to the following specifications: (1) 0.020-inch slotted well casing was placed from approximately 12.5 feet to 7.5 feet in depth; (2) Filter sand was placed around the casing to a depth of about 4.5 feet below grade; (3) A bentonite seal was placed around the casing from 4.5 feet to 4.0 feet in depth; and (4) The remaining annulus was grouted using a cement/sand slurry (bentonite less than 5 percent). The top of each well was enclosed in a traffic rated locking box set in concrete slightly above grade. Well construction specifications for each well are shown on the boring log for MW-1, which is contained in Appendix B.

After allowing the cement seal to cure for at least 48 hours, the well MW-1 was developed and sampled using clean disposable PVC bailer. Well development consisted of purging the well of at least three well volumes before sampling. During well development, groundwater was periodically monitored for presence of free-floating product and odor, pH, specific conductance, temperature and visible clarity. A groundwater sampling data sheet for MW-1 is contained in Appendix C. After these parameters had stabilized, groundwater was sampled directly from the bailer in the following manner: (1) Three 40-ml glass VOA vials were completely filled directly from the bailer with a minimum of agitation; (2) After making sure that no air bubbles were present, each container was tightly sealed with a teflon-lined septum; and (3) Each container was labeled and placed in cold storage for transport to the analytical laboratory under formal chain-of-custody. All sampling equipment was thoroughly cleaned and decontaminated between each sample collection by triple rinsing as described previously in this report.

### **Laboratory Analysis of Soil and Groundwater Samples**

A total of two soil samples, one grab groundwater sample, and one well groundwater sample were analyzed for the following parameters:

USEPA 8015M Total Petroleum Hydrocarbons as Gasoline (TPH-G)  
USEPA 8020/602 Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)  
USEPA 8020/602 Methyl-t-butyl Ether (MTBE)

All laboratory analyses were conducted by Acculabs, Inc., a California-certified analytical laboratory, with two-week turn around on lab results.

## RESULTS OF INVESTIGATION

### General Subsurface Conditions

Subsurface soils in the two borings were generally similar, consisting of dark grey silty soil down to about two feet in depth, followed by reddish brown sandy, gravelly silt down to about five feet in depth. Soils below about five feet in depth consisted of grey green to reddish brown sandy, silty gravel down to total depth. Groundwater was encountered in both borings at about eight feet in depth.

Grey green hydrocarbon staining, with moderate to strong hydrocarbon odors, was noted in subsurface soils in MW-1 from about 5.5 feet to 9.0 feet in depth, and in subsurface soils in IB-1 from about 7.0 feet to 9.0 feet in depth. Purged groundwater from MW-1 exhibited slight to moderate hydrocarbon odors, with no hydrocarbon sheens.

### Results of Laboratory Analyses

Soil and water analytical results are summarized in Table 1. Laboratory data reports for soil and water samples are contained in Appendix D.

Table 1 SUMMARY OF SOIL AND GROUNDWATER ANALYTICAL RESULTS 3838 West Street UST Site							
Sample ID	Sample Depth	Constituent (parts per million)					
		TPH-G	B	T	E	X	MTBE
<b>Soil Samples</b>							
IB-1.1	7.0 ft	120 <sup>1</sup>	<0.10	<0.10	0.19	0.22	<1.0
MW-1.1	6.5 ft	190 <sup>1</sup>	<0.25	<0.25	0.77	0.53	<2.5
<b>Groundwater Samples</b>							
IB-1W	—	26	<0.025	0.085	0.180	0.058	<0.250
MW-1W	7.83 ft	1.8	0.0028	0.011	0.0059	0.0027	<0.025

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene, T = Toluene, E = Ethylbenzene, X = Xylenes

MTBE = Methyl-t-butyl Ether

<0.10 = Not detected above the expressed value.

<sup>1</sup> = Acculabs, Inc. laboratory report states "Product is not typical gasoline."

#### 4.0 CONCLUSIONS

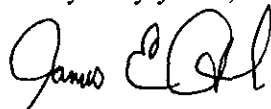
Field screening and laboratory analytical results from the two soil borings indicate hydrocarbon impacts in subsurface soils from about five to nine feet in depth in MW-1 and seven to nine feet in IB-1. Although soil samples from the two borings contained moderate levels of Total Petroleum Hydrocarbons as Gasoline (TPH-G), these soil samples did not encounter detectable levels of Benzene or Toluene. Thus, as laboratory chromatograms seem to confirm, the volatile fractions of residual gasoline releases in subsurface soils appear to have degraded over the more than 20 years since the USTs were in use. Based on these results, it appears likely that residual gasoline constituents present in subsurface soils beneath the site do not pose a significant risk to potential indoor air receptors at the site.

The groundwater sample from investigative boring IB-1 was a grab sample collected directly from the boring after hand augering through fuel-laden soil. Thus, laboratory analytical results from the IB-1 grab groundwater sample are not representative of true groundwater conditions. The groundwater sample from monitoring well MW-1, on the other hand, was collected from a groundwater monitoring well after purging and sampling the well. Thus, laboratory analytical results from the MW-1 groundwater sample are probably more representative of true groundwater conditions downgradient from the former UST. These MW-1 groundwater results, which are much lower than the IB-1 water results, seem to indicate minimal impact to groundwater from previous gasoline releases from the former project site UST.

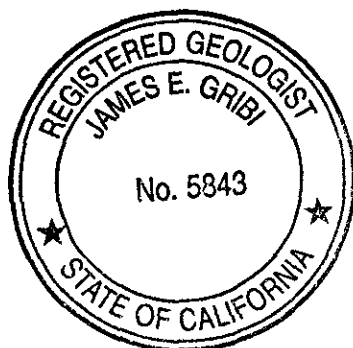
In summary, although residual hydrocarbons are present in soil and groundwater beneath the site, significant natural degradation of these hydrocarbons has occurred in the two decades since the USTs were last used. Because of this natural degradation of volatile gasoline constituent, remaining less volatile residual hydrocarbons do not pose a significant risk to current and future human and environmental receptors in the project site vicinity. Based on these conclusions, we recommend that Alameda County UST Local Oversight Program review this site for regulatory case closure.

We appreciate the opportunity to provide these services for you. Please call if you have questions or require additional information.

Very truly yours,

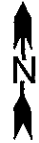
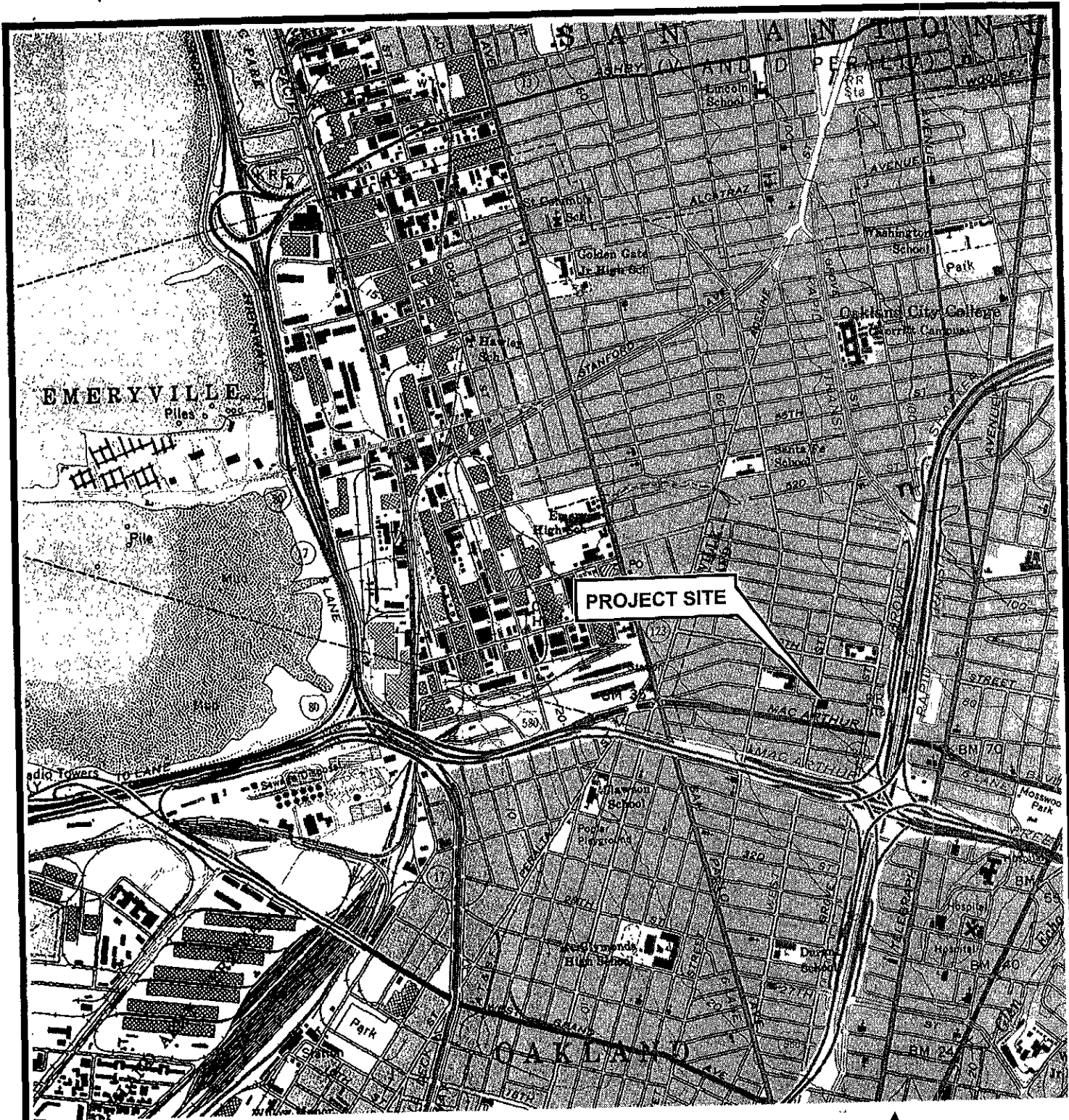


James E. Gribi  
Registered Geologist  
California No. 5843



JEG/ct  
Enclosures

## FIGURES



TOPOGRAPHY FROM USGS OAKLAND, WEST  
7.5-MINUTE QUADRANGLE MAP, (TOPOI 1997).

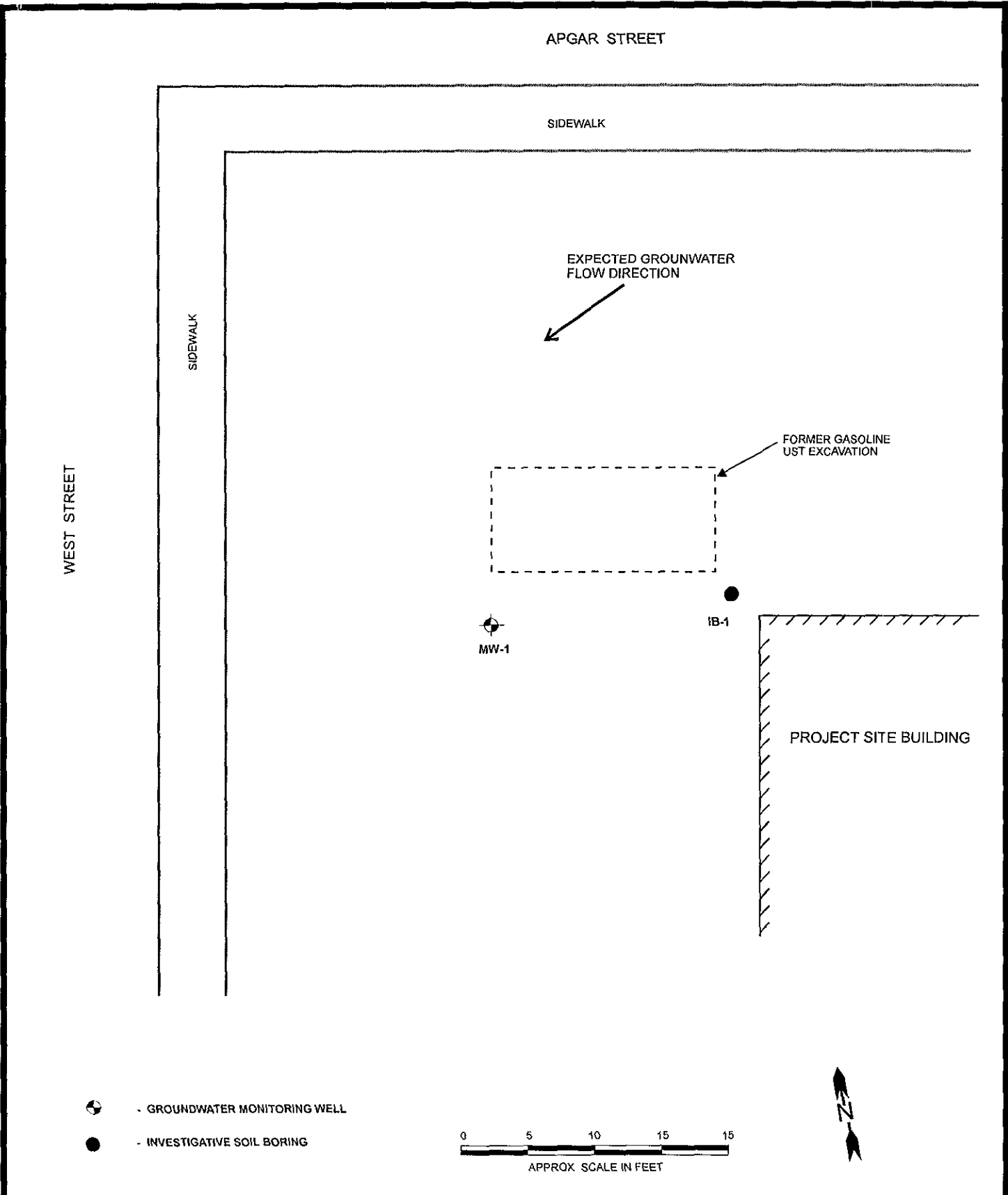
DESIGNED BY:	CHECKED BY:
DRAWN BY: JG	SCALE: 1:24,000
PROJECT NO: 140-01-01	



**SITE VICINITY MAP**

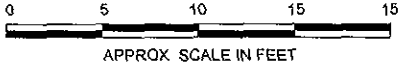
3838 WEST STREET UST SITE  
OAKLAND, CALIFORNIA

DATE: 07/28/98      FIGURE: 1

**GRIBI Associates**



-  - GROUNDWATER MONITORING WELL
-  - INVESTIGATIVE SOIL BORING

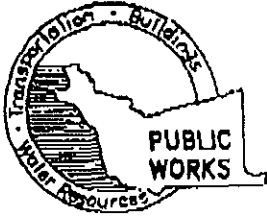


DESIGNED BY	CHECKED BY:	<b>SITE PLAN</b>	DATE: 11/02/98	FIGURE: 2
DRAWN BY: JG	SCALE:		<b>GRIBI Associates</b>	
PROJECT NO 140-01-01		3838 WEST STREET OAKLAND, CALIFORNIA		



**APPENDIX A**

**ALAMEDA COUNTY DRILLING PERMIT**



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION  
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651  
PHONE (510) 670-5575 ANDREAS GODFREY FAX (510) 670-5262  
(510) 670-5248 ALVIN KAN

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 3838 WEST STREET  
OAKLAND CALIFORNIA

California Coordinates Source \_\_\_\_\_ ft. Accuracy ± \_\_\_\_\_ ft.  
CCN \_\_\_\_\_ (A.C.C.F.) \_\_\_\_\_  
APN \_\_\_\_\_

CLIENT  
Name JOHNNY HOUSTON  
Address 3838 WEST STREET Phone 510/541-5246  
City OAKLAND CA Zip 94608

APPLICANT  
Name JIM GELB  
GELB ASSOCIATES Fax 707/864-5543  
Address 804 VINTAGE AVE Phone SAME  
City SWANSEA CA Zip 94585

TYPE OF PROJECT  
Well Construction  Geotechnical Investigation  
Cathodic Protection  General   
Water Supply  Contamination   
Monitoring  Well Destruction

PROPOSED WATER SUPPLY WELL USE  
New Domestic  Replacement Domestic   
Municipal  Irrigation   
Industrial  Other

DRILLING METHOD:  
Mud Rotary  Air Rotary  Auger   
Cable  Other  Mud Auger

DRILLER'S LICENSE NO: Not Applicable

WELL PROJECTS  
Drill Hole Diameter 2 1/2 in Maximum 12 ft.  
Casing Diameter \_\_\_\_\_ in Depth \_\_\_\_\_ ft.  
Surface Seal Depth \_\_\_\_\_ ft. Number \_\_\_\_\_

GEOTECHNICAL PROJECTS  
Number of Borings 2 Maximum 12 ft.  
Hole Diameter 2 1/2 in Depth \_\_\_\_\_ ft.

ESTIMATED STARTING DATE 8/14/98  
ESTIMATED COMPLETION DATE 8/14/98

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 7368

APPLICANT'S SIGNATURE James C. Gelb DATE 8/10/98

FOR OFFICE USE

PERMIT NUMBER 98 WR 345  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

### PERMIT CONDITIONS

Circled Permit Requirements Apply

- A. GENERAL**
  1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
  2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
  3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS**
  1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
  2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
  1. Minimum surface seal thickness is two inches of cement grout placed by tremie
  2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet
- D. GEOTECHNICAL**  
Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremie cement grout shall be used in place of compacted cuttings.
- E. CATHODIC**  
Fill hole above snode zone with concrete placed by tremie
- F. WELL DESTRUCTION**  
See attached.
- G. SPECIAL CONDITIONS**

APPROVED Andreas Godfrey DATE 8-14-

**APPENDIX B**  
**SOIL BORING LOGS**



# LOG OF WELL BORING

SHEET \_1\_ OF \_1\_

BORING NUMBER: **MW-1**

BORING LOCATION:

SOUTHWEST OF FORMER UST

BORING TYPE: MONITORING WELL

PROJECT NAME:

3838 WEST STREET UST SITE

PROJECT NUMBER: 140-01-01

START DATE: 08/13/98

COMPLETION DATE: 08/13/98

DRILLING CONTRACTOR :

DRILLING METHOD: HAND AUGER

BOREHOLE DIAMETER: 3-1/4 INCHES

BORING TOTAL DEPTH: 15 FEET

COMPLETION METHOD: WELL

## GRIBI Associates

### LOG OF MATERIAL

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	RECOVERY	BLOWS PER 6 IN.	USCS	LOG OF MATERIAL	PIEZOMETER WELL INSTALLATION
0						ML	0.0 - 2.0 Ft. Dark grey SILT, soft, moist, no hydrocarbon odors or staining.	<p>                     A - WELL SCREEN DEPTH: 7.69 FT                      B - WELL SCREEN LENGTH: 4.91 FT                      C - DEPTH TO TOP OF SAND: 4.5 FT                      D - DEPTH OF CEMENT SEAL: 4.0 FT                 </p>
2						ML	2.0 - 5.5 Ft. Reddish brown gravelly SILT, sandy, moist, no hydrocarbon odors or staining.	
4	MW-1.1	6.5 FT				GM	5.5 - 9.0 Ft. Grey green sandy silty GRAVEL, loose to firm, moist to wet, moderate to strong hydrocarbon odors	
6						GM	9.0 - 13.0 Ft. Grey green to brown sandy GRAVEL, slightly clayey, loose, wet, slight to moderate hydrocarbon.	
8							TOTAL DEPTH: 13 FEET GROUNDWATER DEPTH APPROX. 8 FEET	
10								
12								
14								
16								

**WELL SPECIFICATIONS**

A - WELL SCREEN DEPTH:	7.69 FT	CASING TYPE:	SCH 40 PVC
B - WELL SCREEN LENGTH	4.91 FT	CASING SIZE:	1-1/4-INCH
C - DEPTH TO TOP OF SAND	4.5 FT	SLOT SIZE:	0.020-INCH
D - DEPTH OF CEMENT SEAL	4.0 FT		

**APPENDIX C**  
**GROUNDWATER SAMPLING DATA SHEET**

GROUNDWATER SAMPLING RECORD		GRIBI Associates	
Well No. MO-1	Well Loc.		
Project Name J.P. WEST	Project No. 140-01-01		
Date 6/19/98 Time	TOC Elevation	GW Elevation	
Depth to Water 7.33	Well Depth	Well Diameter	
Purge Water, 2": Wtr Column X 0.163 X 3 =	Purge Water, 4": Wtr Column X 0.653 X 3 =		
Purge/Sample Method	Lab Analyses		
Weather Conditions	Laboratory		

Time	Volume Purged	Temp.	Cond.	pH	Visual
	2	66.5	60	7.1	CLR - NO FP
	3.5	66.9	60	7.3	<del>CLR</del> CLR SA
	5	66.9	60	7.5	slky br N
	7.5	67.1	60	7.5	
	10	67.1	0.50	7.14	
	15	66.5	60	7.5	slky br N
					NO HC
					NO SPPN

Remarks  
4 VCAS

**APPENDIX D**

**LABORATORY DATA REPORTS**





Sample Log 18898  
August 20, 1998

Jim Gribi  
Gribi Associates  
884 Vintage  
Suisun, CA 94585

Subject : 1 Water and 2 Soil samples  
Project Name : JH-West St.  
Project Number : 140-01-01

Dear Mr. Gribi,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

WEST Laboratory is certified by the State of California (# 1346). If you have any questions regarding procedures or results, please call me at 530-757-0920.

Sincerely,

  
Stewart Podolsky



August 19, 1998  
Sample Log 18898

MTBE (Methyl-t-butyl ether) By EPA Method 8020/602

From : JH-West St. (Proj. # 140-01-01)

Sampled : 08/13/98

Received : 08/13/98

Matrix : Soil

SAMPLE	Date Analyzed	(MRL) mg/kg	Measured Value mg/kg
IB-1.1 (7.0)	08/19/98	(1.0)	<1.0
MW-1.1 (6.5')	08/19/98	(2.5)	<2.5

Approved By:

*S. Lee-Renouf for*  
Stewart Podolsky  
Senior Chemist



August 19, 1998  
Sample Log 18898

MTBE (Methyl-t-butyl ether) By EPA Method 8020/602

From : JH-West St. (Proj. # 140-01-01)  
Sampled : 08/13/98  
Received : 08/13/98  
Matrix : Water

SAMPLE	Date Analyzed	(MRL) ug/L	Measured Value ug/L
IB-1W	08/19/98	(250)	<250

Approved By:

*L. Lee-Renouf for*  
Stewart Podolsky  
Senior Chemist



Sample Log 18898

18898-01

Sample: IB-1.1 (7.0)

From : JH-West St. (Proj. # 140-01-01)

Sampled : 08/13/98

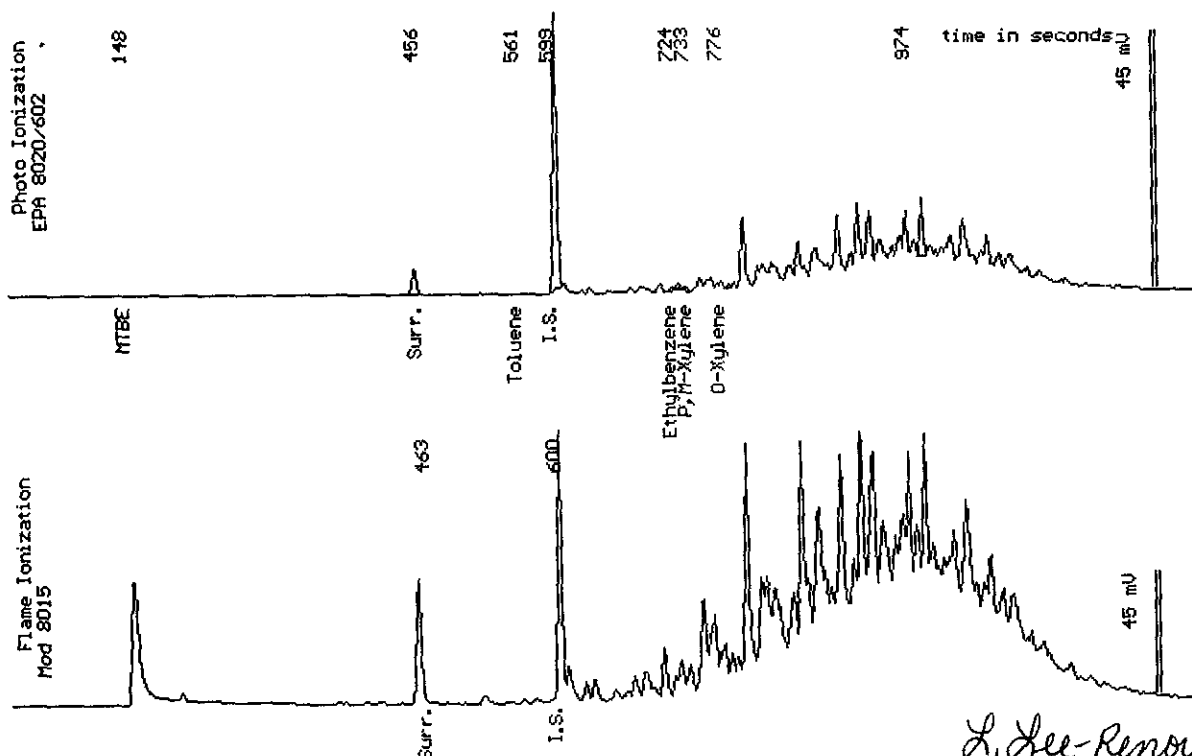
Dilution : 1:20

Matrix : Soil

Run Log : 4176G

Parameter	(MRL) $\mu\text{g}/\text{kg}$	Measured Value $\mu\text{g}/\text{kg}$
Benzene	(.10)	<.10
Toluene	(.10)	<.10
Ethylbenzene	(.10)	.19
Total Xylenes	(.10)	.22
TPH as Gasoline	(20)	120 *
Surrogate Recovery		86 %

\* Product is not typical gasoline.



Date Analyzed: 08-19-98  
Column : 0.53mm ID X 60m Restek Rtx-1701

*L. Lee-Reno*  
Stewart Podolsky  
Senior Chemist



Sample Log 18898

18898-02

Sample: IB-1W

From : JH-West St. (Proj. # 140-01-01)

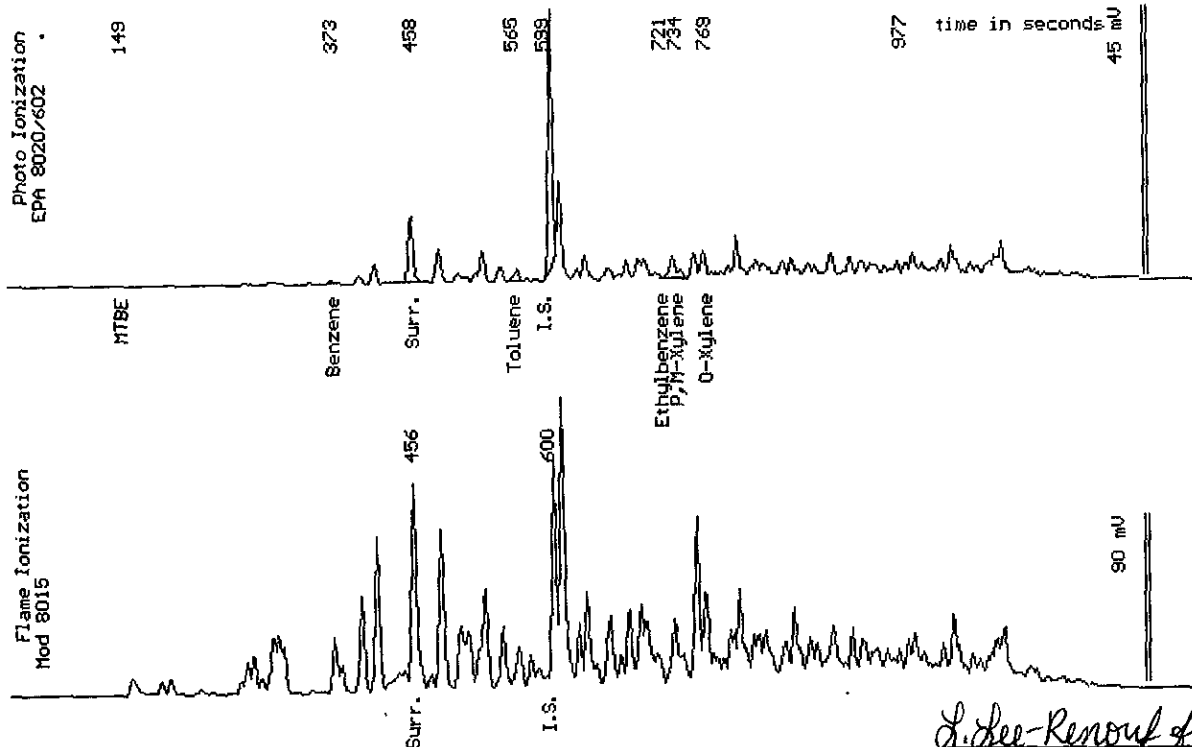
Sampled : 08/13/98

Dilution : 1:50

Run Log : 4176F

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(25)	<25
Toluene	(25)	85
Ethylbenzene	(25)	180
Total Xylenes	(25)	58
TPH as Gasoline	(2500)	26000
Surrogate Recovery		128 %



Date Analyzed: 08-19-98  
Column : 0.53mm ID X 60m Restek Rtx-1701

*Stewart Podolsky*  
Stewart Podolsky  
Senior Chemist



Sample Log 18898

18898-03

Sample: MW-1.1 (6.5')

From : JH-West St. (Proj. # 140-01-01)

Sampled : 08/13/98

Dilution : 1:50

Run Log : 4176G

Matrix : Soil

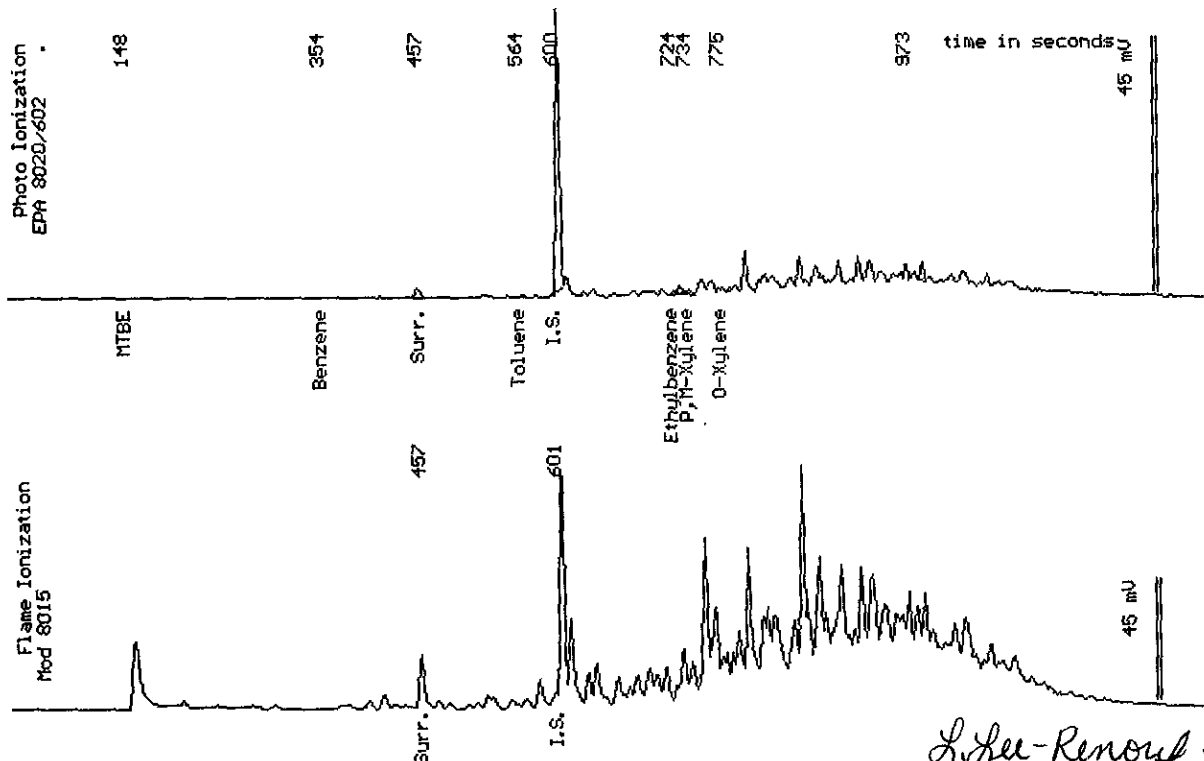
Parameter	(MRL) mg/kg	Measured Value mg/kg
Benzene	(.25)	<.25
Toluene	(.25)	<.25
Ethylbenzene	(.25)	.77
Total Xylenes	(.25)	.53
TPH as Gasoline	(50)	190 *

Surrogate Recovery

\*\*\*

Diluted Out

\* Product is not typical gasoline.



Date Analyzed: 08-19-98  
Column : 0.63mm ID X 60m Restek Rtx-1701

*Stewart Podolsky*  
Stewart Podolsky  
Senior Chemist



August 20, 1998  
Sample Log 18898

QC Report for EPA 8020 & Modified EPA 8015  
Run Log : 4175W (Methanol Extracts)  
From : JH-West St. (Proj. # 140-01-01)  
Sample(s) Received : 08/13/98

Parameter	Laboratory Control		RPD *
	Spike % Recovery	Duplicate % Recovery	
Benzene	102	95	7
Ethylbenzene	105	98	7
TPH as Gasoline	141	126	11

Parameter	Method Blank
Benzene	<0.10mg/Kg
Toluene	<0.10mg/Kg
Ethylbenzene	<0.10mg/Kg
Total Xylenes	<0.10mg/Kg
TPH as Gasoline	< 20mg/Kg

*Stewart Podolsky*  
Stewart Podolsky  
Senior Chemist



August 19, 1998  
Sample Log 18898

QC Report for EPA 602 & Modified EPA 8015  
Run Log : 4176E  
From : JH-West St. (Proj. # 140-01-01)  
Sample(s) Received : 08/13/98

Parameter	Matrix Spike % Recovery	Matrix Spike Duplicate % Recovery	RPD *
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Spiked sample too contaminated for spike recovery. See LCS data.

\* RPD = Relative Percent Difference

Parameter	Laboratory Control Sample % Recovery
-----------	---

Benzene	100
Ethylbenzene	103
Gasoline	114

Parameter	Method Blank
-----------	--------------

Benzene	<0.50 ug/L
Toluene	<0.50 ug/L
Ethylbenzene	<0.50 ug/L
Total Xylenes	<0.50 ug/L
TPH as Gasoline	<50 ug/L

*Stewart Podolsky*  
Stewart Podolsky  
Senior Chemist







Sample Log 18916  
August 27, 1998

Jim Gribi  
Gribi Associates  
884 Vintage  
Suisun, CA 94585

Subject : 1 Water sample  
Project Name : JH-West St.  
Project Number : 140-01-01

Dear Mr. Gribi,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

WEST Laboratory is certified by the State of California (# 1346). If you have any questions regarding procedures or results, please call me at 530-757-0920.

Sincerely,

  
Stewart Podolsky



Sample Log 18916

MTBE (Methyl-t-butyl ether) By EPA Method 8020/602

From : JH-West St. (Proj. # 140-01-01)


Sampled : 08/19/98

Received : 08/20/98

Matrix : Water

SAMPLE	Date Analyzed	(MRL) ug/L	Measured Value ug/L
MW-1W	08/26/98	(25)	<25

Approved By:

  
\_\_\_\_\_  
Stewart Podolsky  
Senior Chemist



Sample Log 18916

18916-01

Sample: MW-1W

From : JH-West St. (Proj. # 140-01-01)

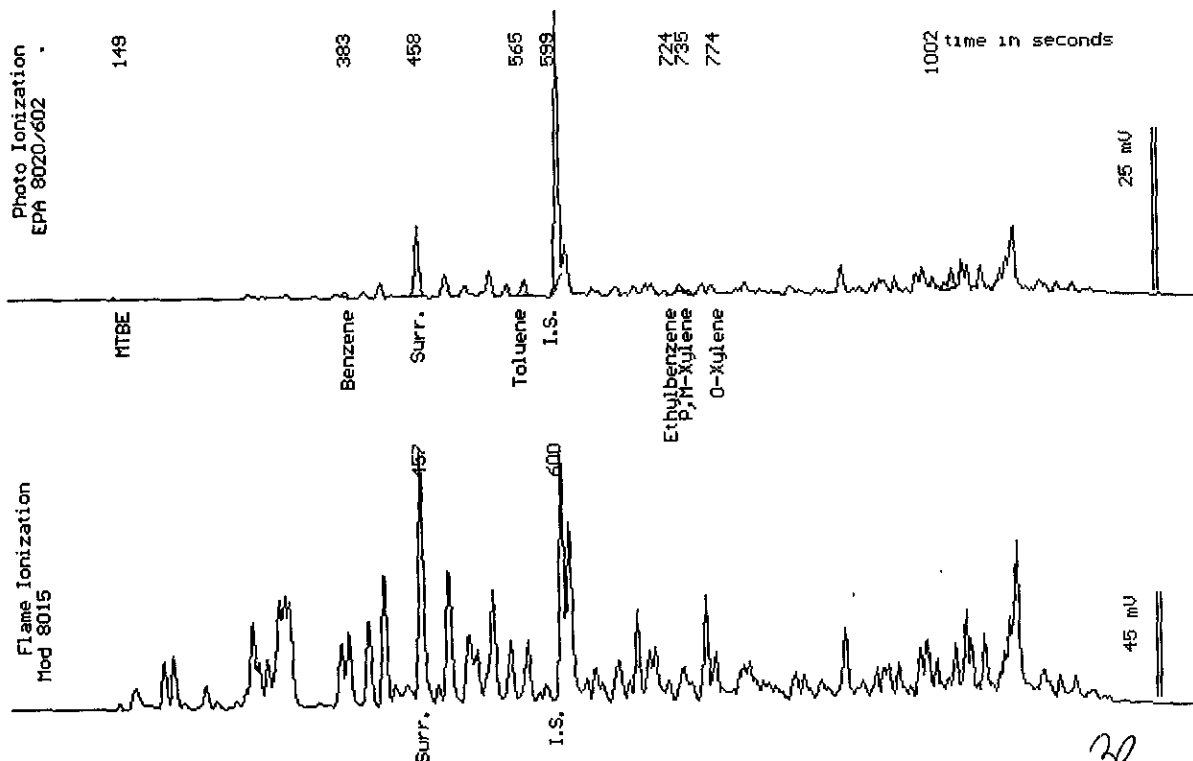
Sampled : 08/19/98

Dilution : 1:5

Matrix : Water

Run Log : 4176P

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(2.5)	2.8
Toluene	(2.5)	11
Ethylbenzene	(2.5)	5.9
Total Xylenes	(2.5)	2.7
TPH as Gasoline	(250)	1800
Surrogate Recovery		127 %



Date Analyzed: 08-26-98  
Column : 0.53mm ID X 60m Restek Rtx-1701

Stewart Podolsky  
Senior Chemist



Davis/Sacramento 1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

August 27, 1998  
Sample Log 18916

QC Report for EPA 602 & Modified EPA 8015  
Run Log : 4176N  
From : JH-West St. (Proj. # 140-01-01)  
Sample(s) Received : 08/20/98

Parameter	Matrix Spike % Recovery	Matrix Spike Duplicate % Recovery	RPD *
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Spiked sample too contaminated for spike recovery. See LCS data.

\* RPD = Relative Percent Difference

Parameter	Laboratory Control Sample % Recovery
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Benzene	107
Ethylbenzene	107
Gasoline	118

Parameter	Method Blank
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Benzene	<0.50 ug/L
Toluene	<0.50 ug/L
Ethylbenzene	<0.50 ug/L
Total Xylenes	<0.50 ug/L
TPH as Gasoline	<50 ug/L

Stewart Podolsky  
Senior Chemist

