

February 15, 2002

Alameda County
SEP 1 3 2005
Environmental Health

**PHASE II
SUBSURFACE INVESTIGATION**

1240 Powell Street
Emeryville, California

Project No. 4885
Wells Fargo RETECHS No. RMO7255273967

Prepared For

Wells Fargo Bank
1298 E. 14th Street, Suite 320
San Leandro, CA 94577

Prepared By

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

AEI

February 15, 2002

Mr. William Rauch
Wells Fargo Bank RETECHS
3645 Cardiff Avenue, #201
Los Angeles, CA 90034

Subject: Phase II Subsurface Investigation
1240 Powell Street
Emeryville, California
AEI Project No. 4885
WFB RETECHS No. RMO7255273967

Dear Mr. Rauch:

The following letter report describes the activities and results of the subsurface investigation performed by AEI Consultants at the above referenced property (Figure 1: Site Location Map). The investigation included the collection and analyses of soil and groundwater samples from a total of eight (8) shallow soil borings. The project was designed to assess whether a release of petroleum hydrocarbons had occurred at the property.

I Site Description and Background

The subject property (hereinafter referred to as the "site" or "property" is located at 1240 Powell Street at the northwest corner of Powell Street and Vallejo Street in the City of Emeryville. The property is approximately 10,000 square feet in size and is currently improved with a two-story office building occupying approximately 60% of the property. The eastern portion of the property is improved with parking and driveway areas and landscaping.

AEI was retained in December 2001 to perform a Phase I Environmental Site Assessment (ESA) on the property. The ESA revealed that the property was used as a gasoline service station from the late 1950s through 1974. Records reviewed at the Emeryville Building Department revealed that the service station was originally equipped with two 6,000-gallon fuel underground storage tanks (USTs), one 2,000-gallon UST, and one 550-gallon waste-oil UST. In 1969, one of the 6,000 USTs was reportedly replaced with a 10,000 gallon UST. Permits to demolish the station in 1974 indicated the removal of "all aboveground and below ground facilities." No records of any soil and/or groundwater sample analyses were found. Approximate locations of the former USTs and associated dispensers are shown on Figure 2.

An additional 4,000-gallon UST was associated with the current building, and was used to fuel delivery trucks. The Emeryville Fire Department issued a permit in 1991 for removal of the 4,000 gallon UST. No other documentation was available regarding the removal of this UST. The approximate location of this UST is shown on Figure 2.

Based on the former presence of numerous fuel USTs and associated dispensing systems and the lack of other records, it was concluded in the ESA that the property could have been impacted by petroleum hydrocarbons.

II Investigative Efforts

AEI performed the subsurface investigation at the property on February 7, 2002. A total of eight (8) soil borings (labeled SB-1 through SB-8) were advanced. The boring locations were chosen based on the locations of the former USTs and associated piping. The locations of the soil borings are shown on Figure 2.

The near surface soils encountered during the boring advancement generally consisted of clays with varying amounts of sands and gravels. Refer to Attachment A for detailed logs of each boring.

The site is located approximately 30 feet above mean sea level and about 3,000 east of the San Francisco Bay. The site is located on alluvial deposits from the Berkeley Hills. The local topography slopes moderately to the west, the direction toward which groundwater is expected to flow.

Soil Sample Collection

The borings were advanced with a Geoprobe® direct-push drilling rig. Each boring was advanced to between 12 and 20 feet below ground surface (bgs), depending on where saturated soils were encountered. Soil samples were collected from each boring at approximately 5-foot intervals.

Fuel hydrocarbon odors and possible soil staining were observed in borings SB-1, SB-2, and SB-5. Field observations are noted on the boring logs (Attachment A). Soil samples were collected in 2" acrylic liners, from which a sample was cut at the selected depths. The soil samples were sealed with Teflon tape and plastic end caps, and placed in a cooler with wet ice to await transportation to the laboratory.

Groundwater Sample Collection

Groundwater was encountered at various depths, between 6 and 17 feet bgs during the advancement of all borings except for boring SB-7. A groundwater sample was collected either through the push rods or temporary PVC casing inserted into the borings. A drop tube equipped with a check valve was used to extract the water samples. Groundwater was collected into 40-ml VOA vials and 1-liter amber bottles. The sample containers were capped so that no head space or air bubbles were visible within the containers, and then placed in a cooler with wet ice to await transportation to the laboratory.

Following sample collection and removal of all sampling equipment, each boring was backfilled with neat cement grout.

Laboratory Analysis

On February 7, 2002, the soil and groundwater samples were transported to McCampbell Analytical Inc. (DOHS Certification Number 1644) under chain of custody protocol for analyses.

A total of nine (9) soil samples and seven (7) groundwater samples were selected for analyses. Each selected sample was analyzed for total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030 / 8015M, TPH as diesel by EPA method 3550 or 3510 / 8015M, and benzene, toluene, ethyl-benzene, and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA method 602 / 8020. One sample collected from nearest the former waste oil tank was also analyzed for total oil and grease (TOG) by EPA method 413.1, volatile organic compounds by EPA method 8260, and for the LUFT five metals (cadmium, chromium, lead, nickel, and zinc) by EPA methods 6010 / 2007, 239.2.

The remaining soil samples were placed on hold at the laboratory.

III Findings

TPH as gasoline and TPH as diesel were detected in soil sample SB-1 8' at 47 mg/kg and 5.8 mg/kg, respectively. Hydrocarbons were not detected in any of the other soil samples. In addition, no concentrations of TOG or volatile organic compounds were detected in the sample for which they were analyzed. No anomalously high concentrations of metals were found.

Hydrocarbons were detected in four of the seven groundwater samples, with TPH as gasoline detected up to 1,400 µg/l and TPH as diesel detected up to 1,400 µg/l. Both benzene and MTBE were detected up to 5.7 µg/l in the groundwater.

Results of the analytical testing are summarized in Tables 1 & 2. Laboratory analytical reports and chain of custody documents are presented in Appendix B. Due to the requested issue date of this report, laboratory QA/QC documents were not available, however these can be sent upon request once received by AEI.

IV Summary and Conclusions

This investigation was designed to assess whether a release of hydrocarbons had occurred as a result of historical underground storage and dispensing of fuel at the property. Sample analyses indicate that soil and groundwater beneath the site are impacted with petroleum hydrocarbons. Based on the lack of an identified off-site source, the release appears to have originated at the subject site.

Due to access limitations, samples could not be collected near the former dispenser islands or the former waste-oil tank. The possibility remains that impacted soil and/or groundwater exists beneath the current building in either or both of these locations.

Further investigation would be necessary to determine whether a health risk exists for building occupants and to determine the overall extent of the release and associated liability.

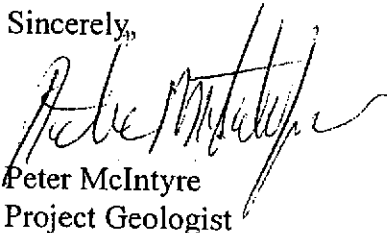
V Report Limitation

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the required information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

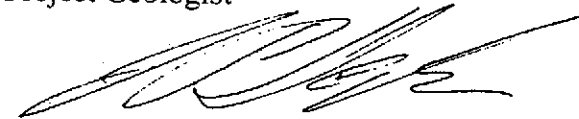
These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact me at (925) 283-6000.

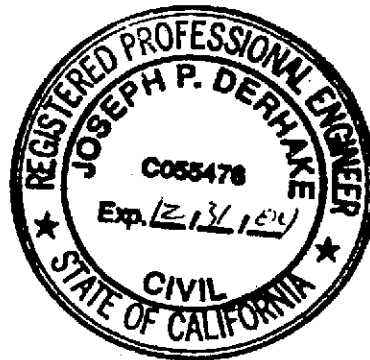
Sincerely,



Peter McIntyre
Project Geologist



Joseph P. Derhake, PE
Principal

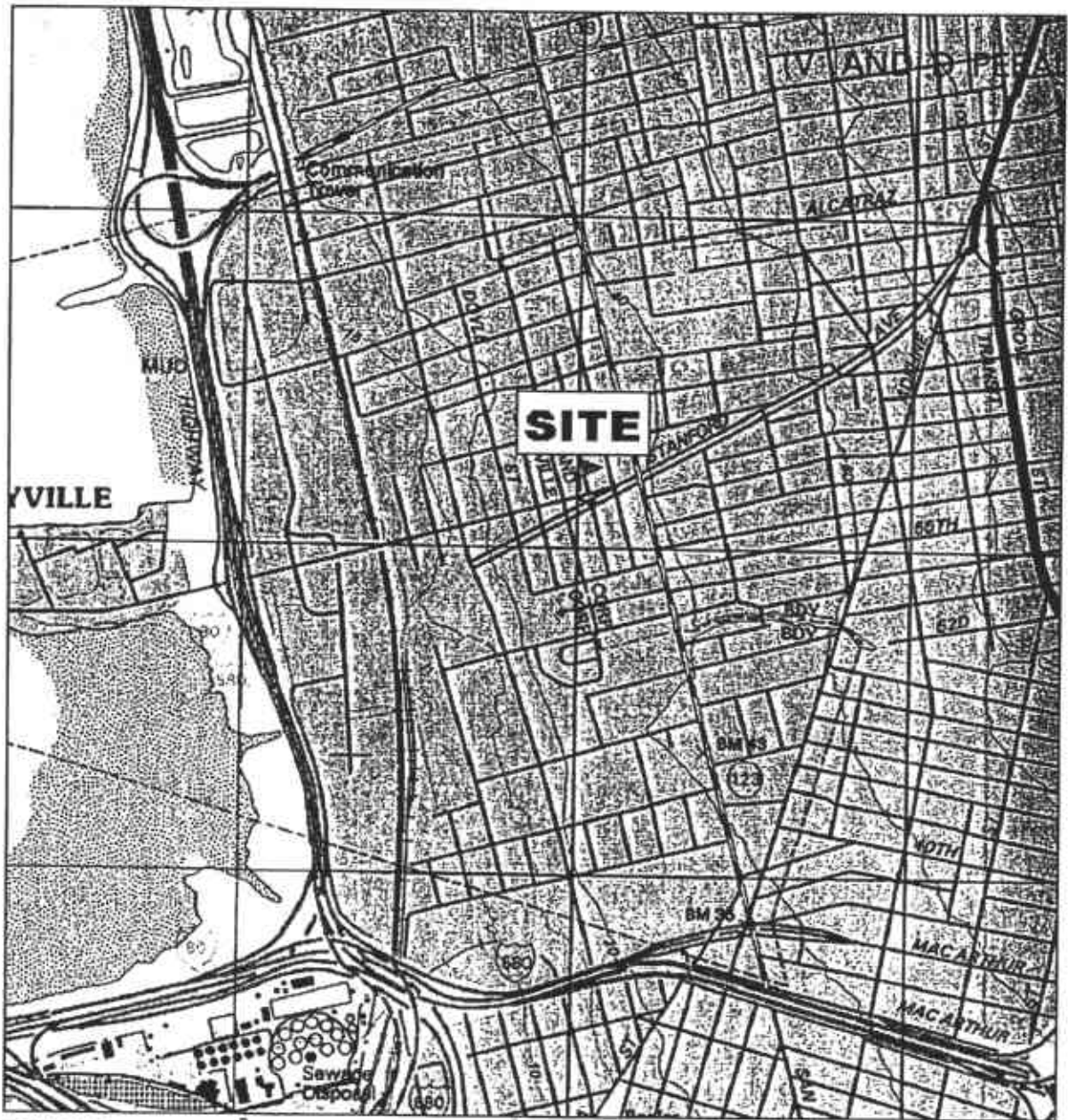


Figures

Tables

Attachment A: Soil Boring Logs

Attachment B: Sample Analytical Documentation



TN * MN
15 1/2°

0 1000 FEET 0 500 1000 METERS

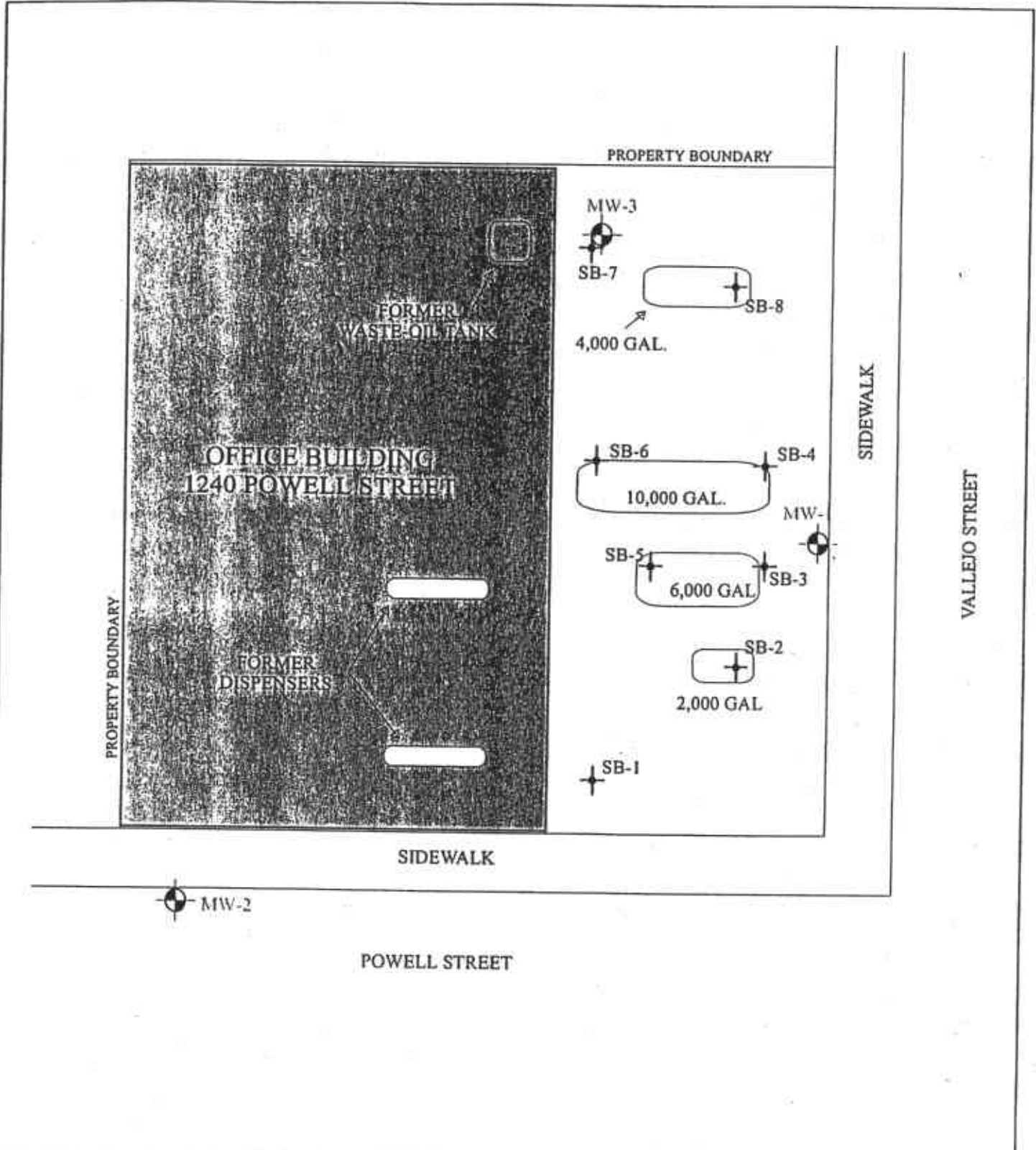
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AEI CONSULTANTS
3210 OLD TUNNEL RD. STE B. LAFAYETTE, CA

SITE LOCATION MAP

1240 POWELL STREET
EMERYVILLE, CALIFORNIA

FIGURE 1
PROJECT NO. 4885



LEGEND

- LOCATION OF MONITORING WELLS INSTALLED 8/2/02
- LOCATION OF SOIL BORINGS ADVANCED 2/7/02
- APPROXIMATE LOCATIONS OF FORMER TANKS SHOWN WITH SIZE

AEI CONSULTANTS
3210 Old Tunnel Road, Ste B, Lafayette, CA

SITE PLAN

1240 POWELL STREET
EMERYVILLE, CALIFORNIA

FIGURE 2
PROJECT NO 5272

**Table 1:
Soil Sample Analytical Data**

Sample ID	TPH as gasoline mg/kg	TPH as diesel mg/kg	MTBE mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	TOG mg/kg	VOCs (8260) mg/kg
SB-1 8'	47	5.8	<0.5	<0.05	<0.05	<0.05	<0.05	-	-
SB-3 4'	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	-	-
SB-4 8'	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	-	-
SB-5 6'	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	-	-
SB-6 8'	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	-	-
SB-7 8'	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	-	-
SB-7 12'	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	-	-
SB-7 15'	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<50	ND
SB-8 10'	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	-	-
MDL	1.0	1.0	0.05	0.005	0.005	0.005	0.005	50	<0.005*

MDL = Method Detection Limit

- = Sample not analyzed by this method

ug/kg = micrograms per kilogram (ppb)

mg/kg = milligrams per kilogram (ppm)

ND = Not detected above method detection limit

* = reporting limit varies by chemical, see Appendix B

Table 2 Supplement: LUFT Five Metals

Sample ID	Cadmium	Chromium	Lead	Nickel	Zinc
SB-7 12'	<0.5	26	6	40	41

All results in Table 2 Supplement in mg/kg

**Table 2:
Groundwater Sample Analytical Results**

Sample ID	TPH as gasoline µg/L	TPH as diesel µg/L	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethyl- benzene µg/L	Xylenes µg/L
SB-1 W	320	230	<5.0	<0.5	<0.5	5.2	3.3
SB-2 W	1,400	1,400	<5.0	5.7	3.0	3.3	4.0
SB-3 W	<50	<50	5.7	<0.5	<0.5	<0.5	<0.5
SB-4 W	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
SB-5 W	71	200	<5.0	<0.5	1.5	<0.5	<0.5
SB-6 W	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5
SB-8 W	<50	580	<5.0	<0.5	<0.5	<0.5	<0.5
MDL	50	50	5.0	0.5	0.5	0.5	0.5

MDL = Method Detection Limit

ND = Not detected above the Method Detection Limit (unless otherwise noted)

µg/L = micrograms per liter (ppb)

mg/l. = milligrams per liter (ppm)

- = Sample not analyzed by this method

ATTACHMENT A
SOIL BORING LOGS

Project No: 4885

Sheet: 1 of 1

Project Name: WFB, EMERYVILLE

Log of Borehole: SB-1

Client: WELLS FARGO

Location:

Depth	USCS		Subsurface Description	Sample Data				Well Data	Remarks	
	Symbol	Label		Sample Label	Type	Blow/ft	Recovery			
0	[Hatched Pattern]	CL	Ground Surface						No hydrocarbon (HC) odor	
2			CLAY Sand and gravelly clay, clasts up to 1 cm, orange / brown							
4										
6										
8			Color change to olive/green	SB-1 8'	SS					Strong odor, staining
10										Water at 10' after 10 min
12										Low soil recovery 8-12
14			Increasing plasticity	SB-1 14'	SS					
16			Clast supported locally							HC odor
18			Clay with fine sand, plastic	SB-1 17'	SS					Saturated
20			End of Borehole							

Drill Date 2/7/02

Reviewed by: EW

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Drill Method: DIRECT PUSH

Logged by: PJM

Total Depth: 20

Depth to Water: 10.8 (static)

Project No: 4885



Sheet: 1 of 1

Project Name: WFB, EMERYVILLE

Log of Borehole: SB-2

Client: WELLS FARGO

Location:

Depth	USCS		Subsurface Description	Sample Data				Well Data	Remarks
	Symbol	Label		Sample Label	Type	Blow/ft	Recovery		
0			Ground Surface						
0 - 4		CL	CLAY Sand and gravelly clay, clasts up to 1 cm, orange / brown						
4 - 12		SP	SAND Fine to medium sand, fill material?						Very low soil recovery 4-8
12			End of Borehole						Diesel? odor Soils saturated
14									
16									
18									
20									

Drill Date 2/7/02

Reviewed by: EW

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Drill Method: DIRECT PUSH

Logged by: PJM

Total Depth: 12

Depth to Water: 5.2 (static)

Project No: 4885

Sheet: 1 of 1

Project Name: WFB, EMERYVILLE

Log of Borehole: SB-3

Client: WELLS FARGO

Location:

Depth	USCS		Subsurface Description	Sample Data				Well Data	Remarks
	Symbol	Label		Sample Label	Type	Blow/ft	Recovery		
0		SW	Ground Surface						
2			SAND Well graded sand and gravels, minor clay						
4		CL		SB-3 4'	SS				No HC odor
6			CLAY Clay with well graded sand, moderately plastic						Water level after sampling
8									
10					SB-3 10'	SS			
12		SP							
14			SAND Very fine to medium sand, few fines, saturated						
16			End of Borehole						
18									
20									

Drill Date 2/7/02

Reviewed by: EW

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Drill Method: DIRECT PUSH

Logged by: PJM

Total Depth: 16

Depth to Water: 5.75 (static)

Project No: 4885

Sheet: 1 of 1

Project Name: WFB, EMERYVILLE

Log of Borehole: SB-4

Client: WELLS FARGO

Location:

Depth	USCS		Subsurface Description	Sample Data				Well Data	Remarks	
	Symbol	Label		Sample Label	Type	Blow/ft	Recovery			
0	▨	CL	Ground Surface							
2										
4										No HC odor
5						SB-4 5'	SS			
6					CLAY Sandy and gravelly clay					
8						SB-4 8'	SS			Soils saturated?
10										
10.5									*	Slow water recharge
12					End of Borehole					
14										
16										
18										
20										

Drill Date 2/7/02

Reviewed by: EW

Drill Method: DIRECT PUSH

Logged by: PJM

Total Depth: 12

Depth to Water: 10.5

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Project No: 4885


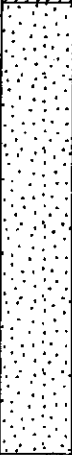
Sheet: 1 of 1

Project Name: WFB, EMERYVILLE

Log of Borehole: SB-5

Client: WELLS FARGO

Location:

Depth	USCS		Subsurface Description	Sample Data				Well Data	Remarks
	Symbol	Label		Sample Label	Type	Blow/ft	Recovery		
0			Ground Surface						
2		CL	CLAY Sandy and gravelly clay						
4		SP	SAND Fine to medium sand, clean	SB-5 4'	SS				No HC odor
6				SB-5 6'	SS				HC odor?
8			Sands with gravel and clay						Saturated
10		SW							
12			End of Borehole						
14									
16									
18									
20									

Drill Date 2/7/02

Reviewed by: EW

Drill Method: DIRECT PUSH

Logged by: PJM

Total Depth: 12

Depth to Water: 7

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Project No: 4885

Sheet: 1 of 1

Project Name: WFB, EMERYVILLE

Log of Borehole: SB-6

Client: WELLS FARGO

Location:

Depth	USCS		Subsurface Description	Sample Data				Well Data	Remarks
	Symbol	Label		Sample Label	Type	Blow/ft	Recovery		
0		CL	Ground Surface					No HC odor Saturated Slow recharge	
0			CLAY						
2			Sandy and gravelly clay						
4									
6					SB-6 6'	SS			
8			Stiff clay, sand, gravel locally						
10					SB-6 9'	SS			
12									
14			Sandy / gravelly clay						
16			End of Borehole						
18									
20									

Drill Date 2/7/02

Reviewed by: EW

AEI Consultants
 3210 Old Tunnel Road, Suite B
 Lafayette, CA 94549
 (925) 283-6000

Drill Method: DIRECT PUSH

Logged by: PJM

Total Depth: 16

Depth to Water: 8

Project No: 4885

Sheet: 1 of 1

Project Name: WFB, EMERYVILLE

Log of Borehole: SB-7

Client: WELLS FARGO

Location:

Depth	USCS		Subsurface Description	Sample Data				Well Data	Remarks	
	Symbol	Label		Sample Label	Type	Blow/ft	Recovery			
0		CL	Ground Surface							
2			CLAY Stiff clay with minor sand and gravel							
4										
6			Some gravel (<10%) Moderately plastic	SB-7 5'	SS					No HC odor
8				SB-7 8'	SS					No HC oror
10			Stiff sandy clay							
12				SB-7 12'	SS					Dark coloration, staining?
14			Stiff gravelly, sandy clay	SB-7 15'	SS					
16			End of Borehole							Dry
18										
20										

Drill Date 2/7/02

Reviewed by: EW

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Drill Method: DIRECT PUSH

Logged by: PJM

Total Depth: 16

Depth to Water: NA

McCAMPBELL ANALYTICAL INC.

110 2ND AVENUE SOUTH, #D7
PACHECO, CA 94553

Telephone: (925) 798-1620

Fax: (925) 798-1622

Report To: Peter McIntyre

Bill To:

Company: All Environmental

3210 Old Tunnel Road, Suite B

Lafayette, CA 94549-4157

Tele: (925) 283-6000

Fax: (925) 283-6121

Project #: *07883*

Project Name: *WFB*

Project Location: *Empty Oil Tank*

Sampler Signature: *[Signature]*

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HOUR 48 HOUR 5 DAY

Analysis Request

Other Comments

BTEX & TPH as Gas (602/8020 + 8015) MTRB	
TPH as Diesel (8015)	
Total Petroleum Oil & Grease (5520 E&F/B&F)	
Total Petroleum Hydrocarbons (418.1)	
EPA 601 / 8010	
BTEX ONLY (EPA 602 / 8020)	
EPA 608 / 8080	
EPA 608 / 8080 PCB % ONLY	
EPA 624 / 8240 (8260)	
EPA 625 / 8270	
PAH's / PNA's by EPA 625 / 8270 / 8310	
CAM-17 Metals	
LDPT 5 Metals	
Lead (7240/7421/239.2/6010)	
RCI	

89771

89772

89773

89774

89775

89776

89777

89778

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other				
SB-5	6'	2/7/02		1	Acid		X					X						
SB-6	6'			1	"		X					X						
SB-6	9'			1	"		X					X						
SB-7	5'			1	"		X					X						
SB-7	8'			1	"		X					X						
SB-7	12'			1	"		X					X						
SB-7	15'			1	"		X					X						
SB-8	10'			1	"		X					X						

Relinquished By: <i>[Signature]</i>	Date: 2/7/02	Time: 2:30	Received By: <i>U. Miller</i>	Date: 2/7/02	Time: 2:35
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Remarks: