

HK2, Inc. / SEMCO

1751 Leslie Street • San Mateo, California • (415) 572-8033 • (415) 572-9734 Fax

General Engineering & Environmental Contractors • License No. 719103 (A, B, C57, C61-D40, HAZ, ASB)

December 29, 1996

REF: 96-0247.rpt

Juliet Shin
Alameda County
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6763 Phone
(510) 337-9335 Fax

RE: 701 San Pablo Ave., Albany, California

Dear Juliet:

Enclosed is a report for a Phase II Site Investigation that was performed at 701 San Pablo Ave., Albany, California.

Please let us know if you have any questions.

Sincerely,

HK2, Inc. / SEMCO



Mark Dysert
Environmental Specialist

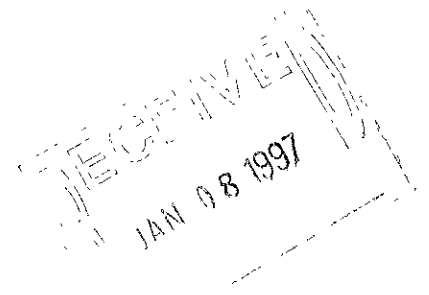


Stanley L. Klemetson, Ph.D., P.E.
Vice President

Enclosure

cc. Ingrid Werner, 22 Kensington Court, Kensington, California 94707
Phone: (510) 525-9335, Fax: (510) 527-1956

Paul Dezerick, 6400 Hollis Street, #9, Emeryville, CA 94608
Phone: (510) 450-9920, Fax: (510) 450-9929



**PHASE II
SITE INVESTIGATION**

PROJECT SITE:

**701 SAN PABLO AVE.
ALBANY, CALIFORNIA**

PREPARED FOR:

**Ingrid Werner
22 Kensington Court
Kensington, California 94707
(510) 525-9335 Phone
(510) 527-1956 Fax**

SUBMITTED TO:

**Juliet Shin
Alameda County
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6763 Phone
(510) 337-9335 Fax**

PREPARED BY:

**Stanley L. Klemetson, Ph.D., P.E.
HK2, Inc. / SEMCO
1751 Leslie Street
San Mateo, CA 94402
(415) 572-8033 Phone
(415) 572-9734 Fax**

PROJECT NO. 96-0247

December 31, 1996

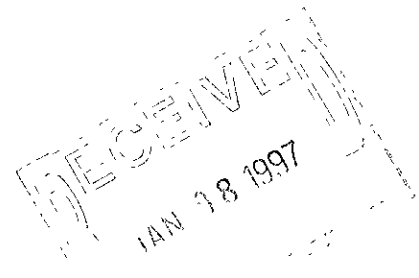


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CERTIFICATION

This report was prepared by HK2, Inc. / SEMCO under the professional direction and review of the person whose names and seal are shown below.

The recommendations and professional opinions presented herein, are within the limits prescribed by the client and were prepared in accordance with generally accepted professional engineering practices. There is no other warranty either expressed or implied.


Stanley L. Klemetson, Ph.D., P.E.



INTRODUCTION

PROJECT DESCRIPTION

The project is located at 701 San Pablo Ave., California (See Figure 1). HK2, Inc. / SEMCO was contracted to perform a Phase II site investigation at the location of a former waste oil and gasoline underground storage tanks (See Figure 2). The work was performed under the direction of Juliet Shin of the Alameda County Department of Environmental Health.

SITE HISTORY

HK2, Inc. was contracted to remove one (1) 285 gallon waste oil underground storage tank and to complete a Phase I Environmental Site Assessment. On June 20, 1996 HK2, Inc. removed the waste oil tank under the direction of Juliet Shin of the Alameda County Department of Environmental Health.

The single wall steel tank had numerous small rust holes and one large hole in the bottom of the tank of approximately 4" in diameter. The clayey soil in the excavation had some odor and discoloration. Five (5) soil samples were collected at this time. Sample 1-285-WO-6'6" (Sample #1) was collected at approximately 2' below the former tank at 6'6" below ground surface (bgs) at the fill end of the tank. Sample 2-285-WO-8' (Sample #2) was collected at 8' bgs at the fill end of the tank. Sample 3-285-WO-SSW-2'6" was not analyzed. Sample 4-285-WO-SSW-4' (Sample #3) was collected 4' bgs. from the south side wall. Sample 5-SP-COMP was a four part composite sample was collected from the excavated material. The significant laboratory data of these samples is summarized in Table 1.

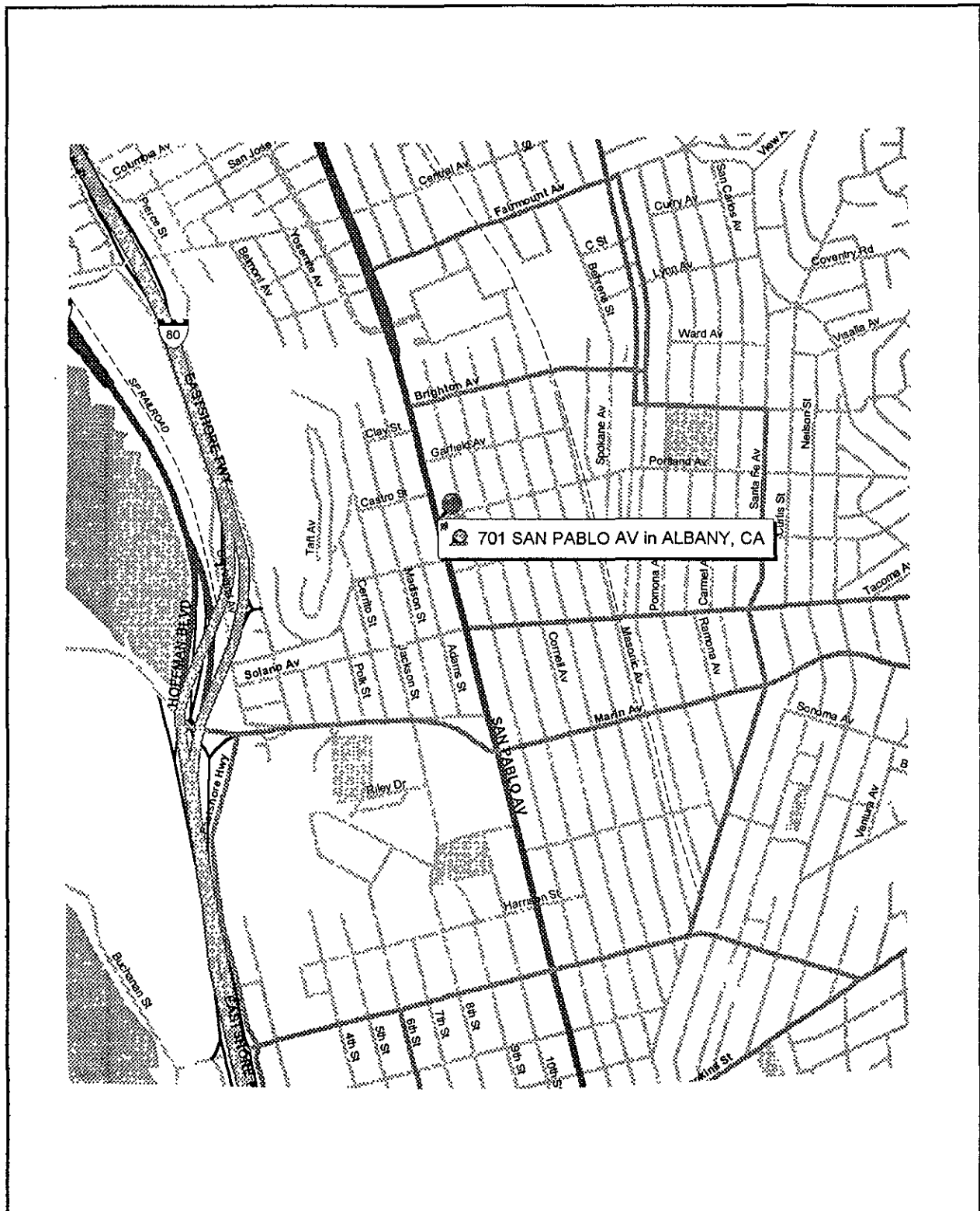


Figure 1. Site Location

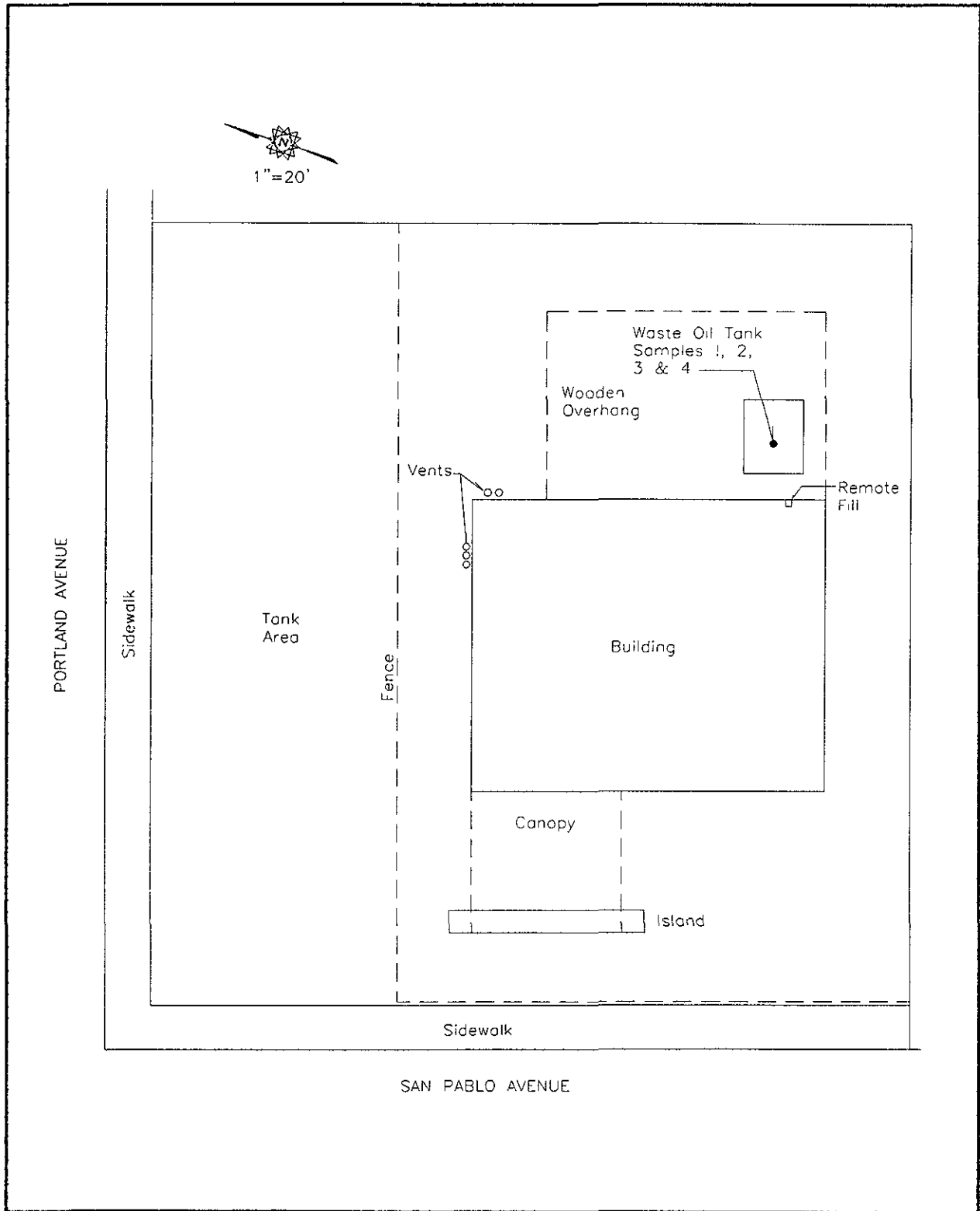


Figure 2. Site Layout

Table 1

WASTE OIL TANK SOIL SAMPLING SUMMARY
(mg/Kg)

No.	Sample	Depth	TPH-G	TPH-D	Benzene	Toulene	Ethylbenzene	Xylenes	TEPH
1	1-285-WO-6'6"	6'6"	310	1300	0.46	5.5	2	8.3	620
2	2-285-WO-8'	8'	6.2	15	0.036	0.14	0.088	0.314	NA
3	4-285-WO-SSW-4'	4'	ND	ND	ND	ND	ND	ND	ND
4	5-SP-COMP	0'	24	89	0.044	21	0.32	0.55	270
No.	Sample	Depth	Nickel	Zinc	Chromium	Cadmium	Lead		
1	1-285-WO-6'6"	6'6"	57	92	41	ND	720		
2	2-285-WO-8'	8'	75	59	74	ND	20		
3	4-285-WO-SSW-4'	4'	42	26	33	ND	14		
4	5-SP-COMP	0'	54	110	33	ND	77		

ND = Non Detect

NA = Not Analyzed

SITE GEOLOGY

REGIONAL GEOLOGY

The San Pablo Avenue site is located along the eastern edge of the San Francisco Bay. The area is underlain by Quaternary age alluvial deposits which generally consist of unconsolidated, moderately sorted, interbedded, mixtures of clay, sand and gravel. The geological classification is Late Pleistocene alluvium (Qpa).

Reference: Helley, E.J., et.al., 1979. "Flatland deposits of the San Francisco bay Region, California - their geology and engineering properties and their importance to comprehensive planning." Geological Survey Professional Paper 943, U.S.G.P.O., Washington.

SITE GEOLOGY

In general the soil at the site was found to be a clayey sand with interbedded gravel. Groundwater is encountered at approximately 10 feet below ground surface.

SAMPLING RESULTS

On October 4, 1996, two (2) soil borings were drilled to depths of approximately 19', around the site of the former gasoline underground storage tanks to collect soil and water samples and to characterize the site geology. The geological data is summarized in the boring logs in Appendix A. The analytical results of the soil sampling are summarized in Tables 2 and the water sampling is summarized in Table 3. Soil and groundwater sampling locations can be found in Figure 3. Low levels of hydrocarbons were found in both the soil and water samples.

HK2, Inc. hand augered into north and south ends of the former pump island down to 2' to collect soil samples. HK2, Inc. also hand augered into the former waste oil tank excavation to depth of 10' to collect a soil sample. The analytical results of the soil sampling are summarized in Table 4. Soil sampling locations can be found in Figure 3. Low levels of hydrocarbons were found in the pump island. The soil sample collected from the waste oil tank was non detect for hydrocarbons.

On October 9, 1996 HK2, Inc. advanced a third boring to depth of approximately 16' inside the service bay to collect soil and ground water samples. This boring addresses the former waste oil tank. The soil and ground water was near non detect for all constituents analyzed. The geological data is summarized in the boring logs in Appendix A. The analytical results of the soil sampling are summarized in Tables 2 and the water sampling is summarized in Table 3. Soil and groundwater sampling locations can be found in Figure 3.

HK2, Inc. / SEMCO

File: 96-0247.rpt

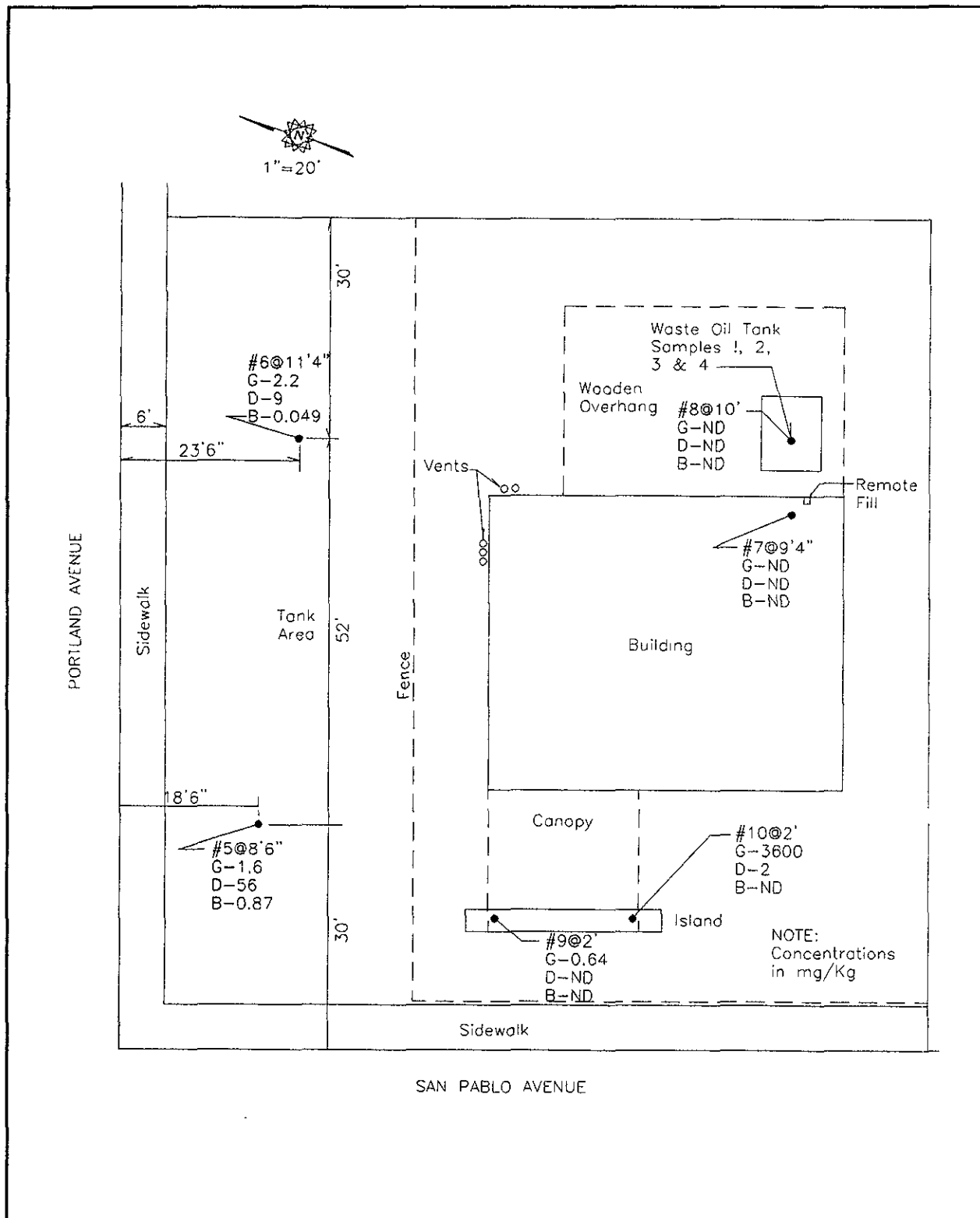


Figure 3. Soil Sampling Locations

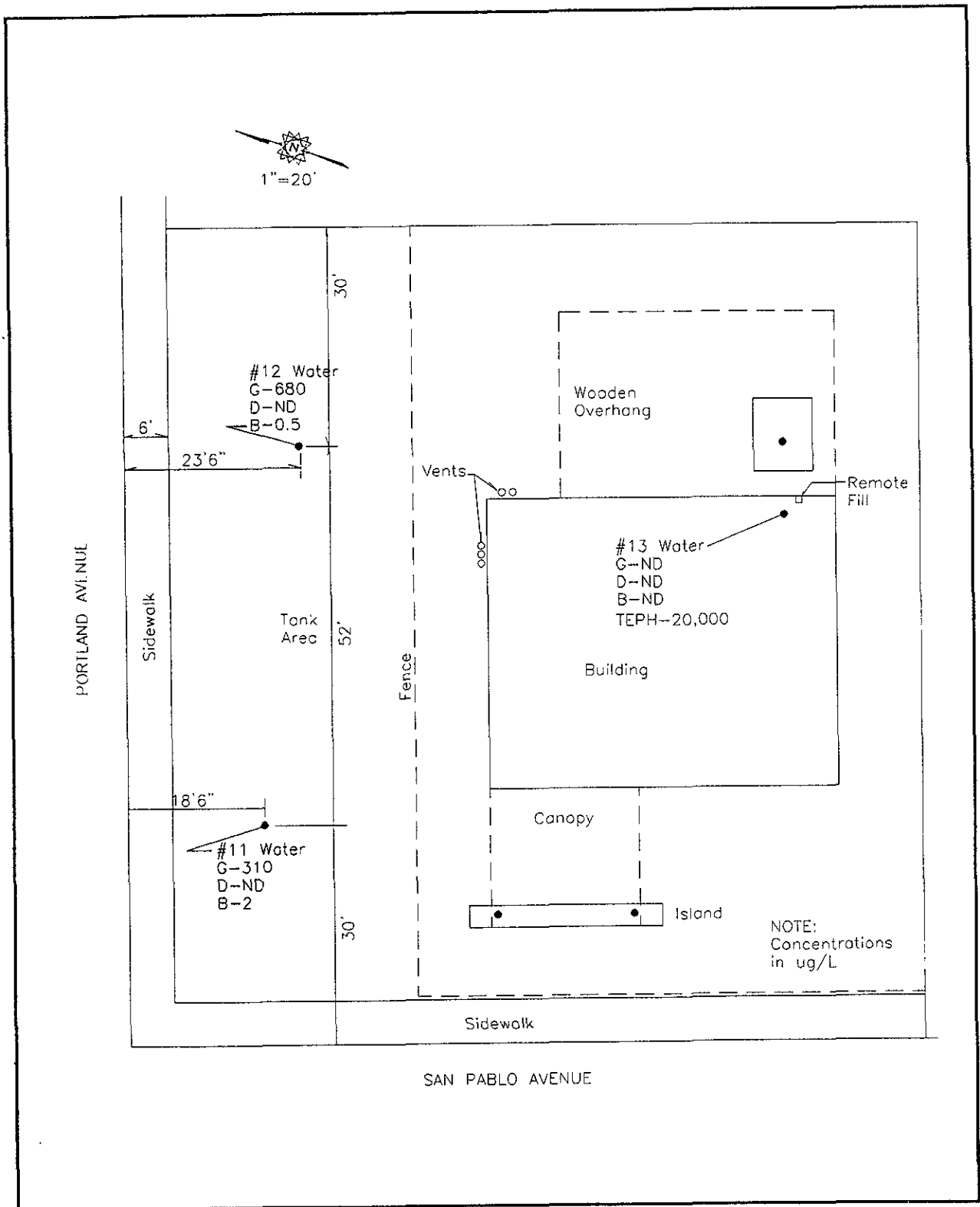


Figure 4. Groundwater Sampling Locations

Table 2

SOIL SAMPLING SUMMARY
(mg/Kg)

No.	Sample	Depth	TPH-G	TPH-D	Benzene	Toulene	Ethylbenzene	Xylenes	TEPH
5	B1-8'6"	8'6"	1.6	56	0.87	1.1	3.8	470	NA
6	B2-11'4"	11'4"	2.2	9	0.049	0.180	0.22	0.039	ND
7	B3-9'4"	9'4"	ND	ND	ND	ND	ND	20	ND
8	WO@10'	10'	ND	ND	ND	ND	ND	0.018	ND
9	PI-N@2'	2'	.064	ND	ND	ND	ND	0.035	ND
10	PI-S@2'	2'	3600	2	ND	0.005	ND	0.045	ND
No.	Sample	Depth	Nickel	Zinc	Chromium	Cadmium	Lead	PNA's	TTLc Pb
5	B1-8'6"	8'6"	NA	NA	NA	NA	ND	NA	12
6	B2-11'4"	11'4"	NA	NA	NA	NA	NA <i>8 ppb</i>	NA	8
7	B3-9'4"	9'4"	48	24	43	ND	ND <i>8 ppb</i>	ND ✓	NA
8	WO@10'	10'	69	41	35	ND	10	ND ✓	NA ✓
9	PI-N@2'	2'	NA	NA	NA	NA	18	NA	NA
10	PI-S@2'	2'	NA	NA	NA	NA	11	NA	NA

ND = Non Detect

NA = Not Analyzed

HK2, Inc. / SEMCO

File: 96-0247.rpt

Table 3

WATER SAMPLING SUMMARY
(ug/L)

No.	Sample	Depth	TPH-G	TPH-D	Benzene	Toulene	Ethylbenzene	Xylenes	TEPH
11	B1-W	9'6"	310	ND	2	3	2	5	NA
12	B2-W	14'6"	680	ND	0.5	1	ND	18	NA
13	B3-W	10'9"	ND	ND	ND	ND	ND	ND	20,000
No.	Sample	Depth	Nickel	Zinc	Chromium	Cadmium	Lead	PNA's	
11	B1-W	9'6"	NA	NA	NA	NA	ND ✓	NA	
12	B2-W	14'6"	NA	NA	NA	NA	ND ✓	NA	
13	B3-W	10'9"	ND	ND	ND	ND	ND ✓	NA	

ND = Non Detect
NA = Not Analyzed

WET test was not performed since 9 w samples were collected w/ ND for lead.

✓ ND, right?

DISCUSSION OF RESULTS

WASTE OIL TANK SITE

When the waste oil tank was removed soil samples were collected under the tank. At 6'6" (Sample No. 1) had been impacted with hydrocarbons and lead. At 8' (Sample #2) low levels of hydrocarbons still existed. The boring completed through the bottom of the waste oil tank excavation at 10' (Sample #8) did not contain any detectable hydrocarbons. No additional work appeared necessary at this location.

To evaluate possible down gradient migration from the waste oil tank a boring was drilled about 6 feet west of the excavation. No hydrocarbons were detected at a depth of 9'4" in Sample #13. The water sample collected below this depth did not contain by TPH-D, TPH-G, BTEX, or Lead. However, there was 20,000 ug/L of Total Extractable Petroleum Hydrocarbons (TEPH). Since there are no other hydrocarbons encountered in this sample it is assumed that the TEPH is based on organic materials encountered in the boring soils that mixed with the groundwater in the boring. No additional work appeared necessary at this location.

→ cannot assume this. Could be heavier oils.

FORMER GASOLINE UNDERGROUND STORAGE TANKS

There are five vent pipes for the former underground tanks. It appears that older tanks were removed and then newer tanks were installed. The latter tanks were ultimately removed and all that remains are the vent pipes. There asphalt patches to indicate former tank and pipeline locations.

One boring was drilled in each assumed tank location. The boring from the westerly tank area, Sample #5, contained low levels of hydrocarbons in the soil at a depth of 8'6". The ground water sample #11 contained 310 ug/L of TPH-G and 2 ug/L of Benzene. No TPH-D was encountered.

The boring from the easterly tank area, Sample #6, contained low levels of hydrocarbons in the soils at a depth of 11'4". The groundwater sample #12 contained 680 ug/L of TPH-G and 0.5 ug/L of Benzene. No TPH-D was encountered.

It appears that the groundwater has been impacted at the site of the former underground tanks by gasoline. The extent of the plume has not been determined, but the upgradient concentration of TPH-G is higher than the down gradient concentration. The direction of the plume has not been determined. Additional investigation is required in this area.

PUMP ISLAND

Two soil samples were collected through the pump locations at the pump island at a depth of 2 feet. The southerly sample #10 contained 3600 mg/Kg of TPH-G. The northerly sample #9 contained low levels of hydrocarbons. The depth of the soil contamination was not determined.

RECOMMENDATIONS

There appears to be both soil and groundwater contamination present near the pump island and former gasoline tank areas. Additional investigation is required to define the extent of the contamination and to select remediation alternatives.

APPENDIX A
LABORATORY ANALYSIS

22025



North State Environmental Analytical Laboratory

Chain of Custody/Request for Analysis

(415) 588-9652

Client: NSE		Phone: (415) 588-2838		Report to: J. Murphy			Turnaround Time STD			
Mailing Address: 90 S. Spruce St. SSF CA 94086				Billing to: Same			8 Hr <input type="checkbox"/>		24 Hr <input type="checkbox"/>	
Site Address:				PO# / Billing Reference: 96-778			40 Hr <input type="checkbox"/>		5 Days <input type="checkbox"/>	
Sampler:		Date: 10/24/96					Other <input type="checkbox"/>			
Sample ID:	Sample Description	Container # / type	Sampling Time/Date	ANALYSIS REQUESTED						Remarks
				TPH-D	TPH-G	BTEX	O+G	PNA		
B3@10.75'	water	1 pl.	10/24/96 2:30P					X		
				Please Initial: JPW Samples stored in ice: YES Appropriate containers: NO Samples preserved: YES VOA's without headspace Comments: only about 100ml sample temp = 3°C						
Relinquished by: Edward Plouffe		Date: 10/28/96 Time: 10:44		Received by: Dennis Plouffe					Yes <input type="checkbox"/> No <input type="checkbox"/>	
Relinquished by: Dennis Plouffe		Date: 10/28/96 Time: 12:54		Received by: Zoli 10/28/96 12:54			Were samples Preserved ?		<input type="checkbox"/>	
Relinquished by:		Date: Time:		Received in lab by:			In good condition ?		<input type="checkbox"/>	



North State Environmental Analytical Laboratory

Chain of Custody/Request for Analysis 96-732

(415) 588-9652

Client: HK2, Inc / SEMCO		Phone: (415) 572-8033		Report to: Mark / stem			Turnaround Time			
Mailing Address: 1751 Leslie Street San Mateo, CA 94402				Billing to: HK2, Inc.			8 Hr	<input checked="" type="checkbox"/>	24 Hr	
Site Address: 701 San Pablo Ave, Albany				PO# / Billing Reference: #96-0247			40 Hr		5 Days	
Sampler: Mark Dysert		Date: 10/4/96					Other			
Sample ID:	Sample Description	Container # / type	Sampling Time/Date	ANALYSIS REQUESTED						Remarks
				TPH-D	TPH-G	BTEX	O+G	TEPH	TITLE LEAD	
B1-4'6"-5'6"	SOIL	(1) POLYTUBE	9:45a 10/4							
B1-5'6"-6'6"			9:45a 10/4							
B1-6'6"-7'6"			10:00a 10/4							
B1-7'6"-8'2"			10:00a 10/4							
-6 Add B1-8'6"-9'6"			10:15a 10/4	X	X	X		X		
B1-9'6"-10'6"			10:15a 10/4							
B1-10'6"-11'6"			10:30a 10/4							
B1-11'6"-12'6"			10:30a 10/4							
B1-12'6"-13'6"			10:45a 10/4							
B1-13'6"-14'6"			10:45a 10/4							
B1-15'-15'6"			11:00a 10/4							
B1-15'6"-16'6"			11:00a 10/4							
B1-18'6"-17'3"			11:15a 10/4							
Relinquished by: <i>Mark Dysert</i>		Date: 10/8 Time: 5:45		Received by: <i>Edward L. Current</i>			Yes No			
Relinquished by:		Date: Time:		Received by:			Were samples Preserved ? <input checked="" type="checkbox"/>			
Relinquished by:		Date: Time:		Received in lab by:			In good condition ? <input checked="" type="checkbox"/>			



North State Environmental Analytical Laboratory

Chain of Custody/Request for Analysis 16-732

(415) 588-9652

Client: HKz, Inc. / SEMCO		Phone: (415) 572-8033		Report to: Mark / Stein			Turnaround Time						
Mailing Address: 1757 Leslie Street San Mateo, CA 94402				Billing to: → HKz, Inc.			8 Hr <input type="checkbox"/>		24 Hr <input checked="" type="checkbox"/>				
Site Address: 701 San Pablo Ave, Albany				PO# / Billing Reference: #96-0247			40 Hr <input type="checkbox"/>		5 Days <input type="checkbox"/>				
Sampler: Mark Dysert		Date: 10/4/96					Other <input type="checkbox"/>						
Sample ID:	Sample Description	Container # / type	Sampling Time/Date	ANALYSIS REQUESTED								Remarks	
				TPH-D	TPH-G	BTEX	O+G	TOTAL LEAD	TEPH	REP METALS	PMA		TTL PCB
B2-86"-9 1/4"	SOIL	1 POLYTUBE	2:30 10/4										
B2-94"-10 1/4"	SOIL	1 POLYTUBE	2:30 10/4										
B2-1010"-11 1/4"	SOIL	1 POLYTUBE	2:45 10/4										
B2-114"-12 1/4"	SOIL	1 POLYTUBE	2:45 10/4	X	X	X				X		X	
-5 Add Call	BI-WATER	30A, 1L	4:30 10/4										NO METALS
-1	WO@10'	1 BRASS	11:00a 10/4	X	X	X				X	X	X	
-2	PI-No 2'	1 BRASS	1:30p 10/4	X	X	X				X	X		
-3	PI-SC 2'	1 BRASS	2:00p 10/4	X	X	X				X	X		
				<i>cool</i>									
Relinquished by: Mark Dysert		Date: 10/8 Time: 5:45		Received by: Edward P. Curt			Yes		No				
Relinquished by:		Date: Time:		Received by:			Were samples Preserved ?		<input checked="" type="checkbox"/>				
Relinquished by:		Date: Time:		Received in lab by:			In good condition ?		<input checked="" type="checkbox"/>				



North State Environmental Analytical Laboratory

21972

Chain of Custody/Request for Analysis

(415) 588-9652

Client: NSE		Phone: (415) 588-2858		Report to: J. Murphy				Turnaround Time STD					
Mailing Address: 905 Spruce Ste. W SST 94080				Billing to: NSE				8 Hr <input type="checkbox"/>		24 Hr <input type="checkbox"/>			
Site Address:				PO# / Billing Reference: 96-732/736				40 Hr <input type="checkbox"/>		5 Days <input type="checkbox"/>			
Sampler:		Date:		Other <input type="checkbox"/>									
Sample ID:	Sample Description	Container # / type	Sampling Time/Date	ANALYSIS REQUESTED								Remarks	
				TPH-D	TPH-G	BTEX	O+G	ALA					
96-732-01	Soil	1GJ	10/8/96							X			
96-736-03	Soil	1GJ	10/9/96							X			
				Please Initial: <u> </u> Samples Stored in ice. <u> </u> Appropriate containers <u> </u> Samples preserved <u> </u> VOA's without headspace <u> </u> Comments: <u> 3.7°C </u>									
Relinquished by: Edward P. Cuent		Date: 10/14/96 Time: 2:04		Received by: Dennis Clary						Yes No			
Relinquished by: Dennis Clary		Date: 10/14/96 Time: 4:45		Received by: 				Were samples Preserved ?					
Relinquished by: 		Date: 10/14/96 Time: 18:15		Received in lab by: 				In good condition ?					



CERTIFICATE OF ANALYSIS

Lab No: 96-732 Date Sampled: 10-04-96
Client: SEMCO/HK2 INC. Date Analyzed: 10-14-96
Project: 701 San Pablo Ave, Albany Date Reported: 10-18-96

Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020
Diesel, Gasoline range hydrocarbons by EPA method 8015M
TEPH by Method SM 5520 E & F

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-732-01	WO @ 10' SOIL	Benzene	8020	ND
		Toluene	8020	ND
		Ethylbenzene	8020	ND
		Xylenes	8020	0.018 mg/Kg
		Diesel	8015 M	ND
		Gasoline	8015 M	ND
		TEPH	5520 F	ND
96-732-02	PI-N @ 2' SOIL	Benzene	8020	ND
		Toluene	8020	ND
		Ethylbenzene	8020	ND
		Xylenes	8020	0.035 mg/Kg
		Diesel	8015 M	ND
		Gasoline	8015 M	0.64 mg/Kg
		TEPH	5520 F	ND
96-732-03	PI-S @ 2' SOIL	Benzene	8020	ND
		Toluene	8020	0.005 mg/Kg
		Ethylbenzene	8020	ND
		Xylenes	8020	0.045 mg/Kg
		Diesel	8015 M	2 mg/Kg
		Gasoline	8015 M	3600 mg/Kg
		TEPH	5520 F	ND



CERTIFICATE OF ANALYSIS

Lab No:	96-732	Date Sampled:	10-04-96
Client:	SEMCO/HK2 INC.	Date Analyzed:	10-14-96
Project:	701 San Pablo Ave, Albany	Date Reported:	10-18-96

Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020
Diesel, Gasoline range hydrocarbons by EPA method 8015M
TEPH by Method SM 5520 E & F

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-732-05	B2-11'4"- 12'4" SOIL	Benzene	8020	0.049 mg/Kg
		Toluene	8020	0.180 mg/Kg
		Ethylbenzene	8020	0.22 mg/Kg
		Xylenes	8020	0.039 mg/Kg
		Diesel	8015 M	9 mg/Kg
		Gasoline	8015 M	2.2 mg/Kg
		TEPH	5520 F	ND
96-732-06	B1-8'6"-9'6" SOIL	Benzene	8020	0.87 mg/Kg
		Toluene	8020	1.1 mg/Kg
		Ethylbenzene	8020	3.8 mg/Kg
		Xylenes	8020	470 mg/Kg
		Diesel	8015 M	56 mg/Kg
		Gasoline	8015 M	1.6 mg/Kg

Quality Control/Quality Assurance Summary- Soil

Analyte	Method	Reporting Limit ✓	Blank ✓	MS/MSD Recovery	RPD ✓
Benzene	8020	0.005 mg/Kg	ND	114	5
Toluene	8020	0.005 mg/Kg	ND	116	9
Ethylbenzene	8020	0.005 mg/Kg	ND	117	5
Xylenes	8020	0.010 mg/Kg	ND	172	15
Gasoline	8015M	0.5 mg/Kg	ND	102	7
Diesel	8015M	1 mg/Kg	ND	90	2
TEPH	5520F	50 mg/Kg	ND	73 [?]	12

ELAP Certificate NO: 1753

Reviewed and Approved: John Murphy, Laboratory Director



North State Environmental
Chemical Waste Disposal • Trucking • Consulting

CERTIFICATE OF ANALYSIS

Lab No: 96-732 Date Sampled: 10-04-96
Client: SEMCO/ HK2 INC. Date Analyzed: 10-26-96
Project: 701 San Pablo Ave. Albany Date Reported: 10-30-96

Total Lead by Method Atomic Absorbtion Spectroscopy Samples prepared by Method 3050

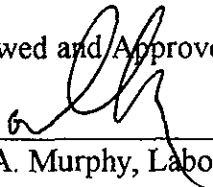
SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-732-05	B2-11'4"-12'4" SOIL	Lead	7420	8 mg/Kg

Quality Control/Quality Assurance Summary- Soil

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
Lead	7420	1 mg/Kg	ND	102/103	1

ELAP Certificate NO: 1753

Reviewed and Approved:


John A. Murphy, Laboratory Director



CERTIFICATE OF ANALYSIS

Lab No:	96-732	Date Sampled:	10-04-96
Client:	SEMCO/HK2	Date Analyzed:	10-10-96
Project:	701 San Pablo Ave. Albany	Date Reported:	10-18-96

TTLIC Metals by Atomic Absorption Spectroscopy
 Sample prepared by Method 3050

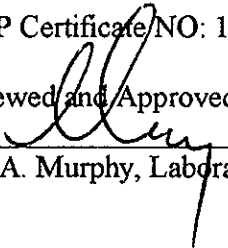
SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-732-01	WO @ 10' SOIL	Nickel	7520	69 mg/Kg
		Zinc	7950	41 mg/Kg
		Chromium	7190	35 mg/Kg
		Cadmium	7130	ND
		Lead	7420	10 mg/Kg

Quality Control Quality Assurance Summary: Soil

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
Nickel	7520	5.0 mg.Kg	ND	85/94	10
Zinc	7950	1.0 mg/Kg	ND	87/85	3
Chromium	7190	5.0 mg/Kg	ND	72/67	6
Cadmium	7130	2.0 mg/Kg	ND	96/96	1
Lead	7420	2.0 mg/Kg	ND	100/98	1

ELAP Certificate NO: 1753

Reviewed and Approved:


 John A. Murphy, Laboratory Director



North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

Lab No: 96-736
Client: SEMCO/HK2
Project: 701 SAN PABLO AVE.
ALBANY

Date Sampled: 10-09-96
Date Analyzed: 10-15-96
Date Reported: 10-17-96

Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020
Gasoline, Diesel range hydrocarbons by EPA method 8015M
TEPH by Method SM 5520 E & F

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-736-01	B2-W @ 14.49' WATER	Benzene	8020	0.5 ug/L
		Toluene	8020	1 ug/L
		Ethylbenzene	8020	ND ug/L
		Xylenes	8020	18 ug/L
		Gasoline	8015 M	680 ug/L
		Diesel	8015 M	ND
96-736-02	B1-W @ 9'6" WATER	Benzene	8020	2 ug/L
		Toluene	8020	3 ug/L
		Ethylbenzene	8020	2 ug/L
		Xylenes	8020	5 ug/L
		Gasoline	8015 M	310 ug/L
		Diesel	8015 M	ND
96-736-03	B3-9'4"-10'4" SOIL	Benzene	8020	ND
		Toluene	8020	ND
		Ethylbenzene	8020	ND
		Xylenes	8020	20 mg/Kg
		Gasoline	8015 M	ND
		Diesel	8015 M	ND
		TEPH	5520	ND



CERTIFICATE OF ANALYSIS

Lab No:	96-736	Date Sampled:	10-09-96
Client:	SEMCO/HK2	Date Analyzed:	10-15-96
Project:	701 SAN PABLO AVE. ALBANY	Date Reported:	10-17-96

Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020
 Gasoline, Diesel range hydrocarbons by EPA method 8015M
 TEPH by Method SM 5520 E & F

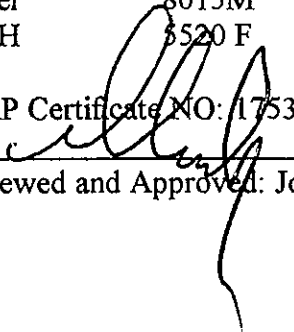
Quality Control/Quality Assurance Summary- Water

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
Benzene	8020	0.5 ug/L	ND	114	5
Toluene	8020	0.5 ug/L	ND	116	9
Ethylbenzene	8020	0.5 ug/L	ND	117	5
Xylenes	8020	1.0 ug/L	ND	172	15
Gasoline	8015M	50 ug/L	ND	102	7
Diesel	8015M	0.05 mg/L	ND	99	9

Quality Control/Quality Assurance Summary-Soil

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
Benzene	8020	0.005 mg/Kg	ND	101	5
Toluene	8020	0.005 mg/Kg	ND	94	9
Ethylbenzene	8020	0.005 mg/Kg	ND	87	5
Xylenes	8020	0.010 mg/Kg	ND	109	15
Gasoline	8015M	0.5 mg/Kg	ND	125	7
Diesel	8015M	1 mg/Kg	ND	94	5
TEPH	5520 F	50 mg/Kg	ND	73	12

ELAP Certificate NO: 1753

Reviewed and Approved:  John Murphy, Laboratory Director



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CERTIFICATE OF ANALYSIS

Lab No: 96-736 Date Sampled: 10-09-96
Client: SEMCO/HK2 Date Analyzed: 10-12-96
Project: 701 SAN PABLO AVE., Date Reported: 10-17-96
 ALBANY

Total Lead by Method Atomic Absorbtion Spectroscopy Samples prepared by Method 3050

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-736-01	B2-W @ 14.49' WATER	Lead	7420	ND
96-736-02	B1-W @ 9.6' WATER	Lead	7420	ND

Quality Control/Quality Assurance Summary- Water

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
Lead	7420	0.1 mg/L	ND	104/104	1

ELAP Certificate NO: 1753

Reviewed and Approved:


John A. Murphy, Laboratory Director



CERTIFICATE OF ANALYSIS

Lab No:	96-736	Date Sampled:	10-09-96
Client:	SEMCO/HK2 INC.	Date Analyzed:	10-12-96
Project:	701 SAN PABLO AVE., ALBANY	Date Reported:	10-12-96

TTLIC Metals by Atomic Absorption Spectroscopy
 Sample prepared by Method 3050

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-736-03	B3-9'4"-10'4" SOIL	Nickel	7520	48 mg/Kg
		Zinc	7950	24 mg/Kg
		Chromium	7190	43 mg/Kg
		Cadmium	7130	ND mg/Kg
		Lead	7420	8 mg/Kg

Quality Control Quality Assurance Summary: Soil

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
Nickel	7520	5.0 mg/Kg	ND	98/102	4
Zinc	7950	1.0 mg/Kg	ND	85/90	6
Chromium	7190	5.0 mg/Kg	ND	70/70	1
Cadmium	7130	2.0 mg/Kg	ND	103/100	3
Lead	7420	2.0 mg/Kg	ND	99/102	3

ELAP Certificate NO 1753

Reviewed and Approved:

John A. Murphy, Laboratory Director



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Chemical Waste Disposal • Trucking • Consulting

CERTIFICATE OF ANALYSIS

Lab No: 96-778 Date Sampled: 10-24-96
Client: Semco/ HK2 Inc. Date Analyzed: 10-26-96
Project: 701 San Pablo Ave. Date Reported: 11-04-96

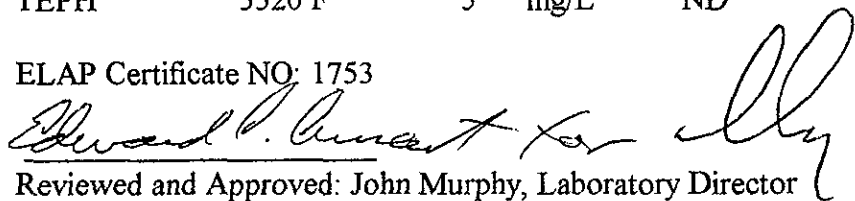
Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020
Gasoline, Diesel range hydrocarbons by EPA method 8015M
TEPH by Method SM 5520 E & F

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-778-01	B3 @ 10.75' WATER	Benzene	8020	ND
		Toluene	8020	ND
		Ethylbenzene	8020	ND
		Xylenes	8020	ND
		Gasoline	8015 M	ND
		Diesel	8015 M	ND
		TEPH	5520 F	20 mg/L

Quality Control/Quality Assurance Summary- Water

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
MTBE	8020	0.5 ug/L	ND	119	8
Benzene	8020	0.5 ug/L	ND	89	6
Toluene	8020	0.5 ug/L	ND	92	7
Ethylbenzene	8020	0.5 ug/L	ND	87	11
Xylenes	8020	1.0 ug/L	ND	125	18
Gasoline	8015M	0.05 ug/L	ND	100	16
Diesel	8015M	0.05 mg/L	ND	84	5
TEPH	5520 F	5 mg/L	ND	76	16

ELAP Certificate NO: 1753


Reviewed and Approved: John Murphy, Laboratory Director



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CERTIFICATE OF ANALYSIS

Lab No:	96-778	Date Sampled:	10-24-96
Client:	Semco/ HK2 Inc.	Date Analyzed:	10-26-96
Project:	701 San Pablo Ave.	Date Reported:	11-04-96

Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020
 Gasoline, Diesel range hydrocarbons by EPA method 8015M
 TEPH by Method SM 5520 E & F

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-663-01	WATER	Benzene	8020	ND
		Toluene	8020	ND
		Ethylbenzene	8020	ND
		Xylenes	8020	ND
		Gasoline	8015 M	ND
		Diesel	8015 M	ND
		TEPH	5520 F	20 mg/L

Quality Control/Quality Assurance Summary- Water

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
MTBE	8020	0.5 ug/L	ND	119	8
Benzene	8020	0.5 ug/L	ND	89	6
Toluene	8020	0.5 ug/L	ND	92	7
Ethylbenzene	8020	0.5 ug/L	ND	87	11
Xylenes	8020	1.0 ug/L	ND	125	18
Gasoline	8015M	0.05 ug/L	ND	100	16
Diesel	8015M	0.05 mg/L	ND	84	5
TEPH	5520 F	5 mg/L	ND	76	16

ELAP Certificate NO: 1753

 Reviewed and Approved: John Murphy, Laboratory Director



North State Environmental
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CERTIFICATE OF ANALYSIS

Lab No: 96-778 Date Sampled: 10-24-96
Client: Semco/HK2 Inc. Date Analyzed: 10-26-96
Project: 701 San Pablo Ave. Date Reported: 11-04-96

TTLIC Metals by Atomic Absorption Spectroscopy
Sample prepared by Method 3050


SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-778-01	B3 @ 10.75' WATER	Nickel	7520	ND
		Zinc	7950	ND
		Chromium	7190	ND
		Cadmium	7130	ND
		Lead	7420	ND

Quality Control Quality Assurance Summary: Water

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
Nickel	7520	5mg/L	ND	97/96	1
Zinc	7950	1 mg/L	ND	98/94	5
Chromium	7190	250 mg/L	ND	109/103	6
Cadmium	7130	100 mg/L	ND	97/97	1
Lead	7420	100 mg/L	ND	86/88	2

ELAP Certificate NO: 1753

Reviewed and Approved:


John A. Murphy, Laboratory Director



Superior

Analytical Laboratory

NORTH STATE ENVIRONMENTAL
90 SOUTH SPRUCE ST. UNIT W
SOUTH SAN FRANCISCO, CA 94053

Date: October 22, 1996

Attn: JOHN MURPHY

Laboratory Number : 21972

Project Number/Name : 96-732/736


Dear JOHN MURPHY:

Attached is Superior Analytical Laboratory report for the samples received on October 14, 1996. This report has been reviewed and approved for release. Following the cover letter is the Case Narrative detailing sample receipt and analysis. Also enclosed is a copy of the original Chain-of-Custody record confirming receipt of samples.

Please note that any unused portion of the sample will be discarded after November 13, 1996, unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please contact our Laboratory at (510) 313-0850.

Sincerely,


Afsaneh Salimpour
Project Manager



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Analytical Laboratory

CASE NARRATIVE

NORTH STATE ENVIRONMENTAL
Project Number/Name: 96-732/736
Laboratory Number: 21972

Sample Receipt

Two soil samples were received by
Superior Analytical Laboratory on October 14, 1996.

No abnormalities were noted with sample receiving.

Sample Analysis

The samples were analysed for method 8270.



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NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-732/736
Reported on October 21, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Chronology

Laboratory Number 21972

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
96-732-01	10/08/96	10/14/96	10/21/96	10/21/96	CJ211.24	01
96-736-03	10/08/96	10/14/96	10/21/96	10/21/96	CJ211.24	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ211.24-03	Method Blank	MB	Soil	10/21/96	10/21/96
CJ211.24-04	Laboratory Spike	LS	Soil	10/21/96	10/21/96
CJ211.24-05	Laboratory Spike Duplicate	LSD	Soil	10/21/96	10/21/96
CJ211.24-07	MW-2-8.5	MS 21973-06	Soil	10/21/96	10/21/96
CJ211.24-08	MW-2-8.5	MSD 21973-06	Soil	10/21/96	10/21/96



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NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-732/736
Reported on October 21, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
21972-01	96-732-01	Soil	1.0	-
21972-02	96-736-03	Soil	1.0	-

Handwritten notes: "B3a 94" with arrows pointing to sample IDs.

RESULTS OF ANALYSIS

Compound	21972-01		21972-02	
	Conc.	RL	Conc.	RL
	ug/Kg		ug/Kg	
bis(2-chloroethyl) ether	ND	300	ND	300
aniline	ND	300	ND	300
phenol	ND	300	ND	300
2-chlorophenol	ND	300	ND	300
1,3-dichlorobenzene	ND	300	ND	300
1,4-dichlorobenzene	ND	300	ND	300
1,2-dichlorobenzene	ND	300	ND	300
benzyl alcohol	ND	300	ND	300
bis-(2-chloroisopropyl) ether	ND	300	ND	300
2-methylphenol	ND	300	ND	300
hexachloroethane	ND	300	ND	300
n-nitroso-di-n-propylamine	ND	300	ND	300
4-methylphenol	ND	300	ND	300
nitrobenzene	ND	300	ND	300
isophorone	ND	300	ND	300
2-nitrophenol	ND	300	ND	300
2,4-dimethylphenol	ND	300	ND	300
bis(2-chloroethoxy) methane	ND	300	ND	300
2,4-dichlorophenol	ND	300	ND	300
1,2,4-trichlorobenzene	ND	300	ND	300
naphthalene	ND	300	ND	300
benzoic acid	ND	1500	ND	1500
4-chloroaniline	ND	300	ND	300
hexachlorobutadiene	ND	300	ND	300
4-chloro-3-methylphenol	ND	300	ND	300
2-methyl-naphthalene	ND	300	ND	300
hexachlorocyclopentadiene	ND	1500	ND	1500
2,4,6-trichlorophenol	ND	300	ND	300
2,4,5-trichlorophenol	ND	300	ND	300
2-chloronaphthalene	ND	300	ND	300
2-nitroaniline	ND	300	ND	300



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NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-732/736
Reported on October 21, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
21972-01	96-732-01	Soil	1.0	-
21972-02	96-736-03	Soil	1.0	-

RESULTS OF ANALYSIS

Compound	21972-01		21972-02	
	Conc.	RL	Conc.	RL
	ug/Kg		ug/Kg	
acenaphthylene	ND	300	ND	300
dimethylphthlate	ND	300	ND	300
2,6-dinitrotoluene	ND	300	ND	300
Acenaphthene	ND	300	ND	300
3-nitroaniline	ND	300	ND	300
2,4-dinitrophenol	ND	1500	ND	1500
dibenzofuran	ND	300	ND	300
2,4-dinitrotoluene	ND	300	ND	300
4-nitrophenol	ND	300	ND	300
fluorene	ND	300	ND	300
4-chlorophenyl-phenylether	ND	300	ND	300
diethylphthlate	ND	300	ND	300
4-nitroaniline	ND	1500	ND	1500
4,6-dinitro-2-methylphenol	ND	300	ND	300
n-nitrosodiphenylamine	ND	300	ND	300
4-bromo-phenyl-phenylether	ND	300	ND	300
hexachlorobenzene	ND	300	ND	300
pentachlorophenol	ND	1500	ND	1500
phenanthrene	ND	300	ND	300
anthracene	ND	300	ND	300
di-n-butylphthlate	ND	300	ND	300
fluoranthene	ND	300	ND	300
benzidine	ND	1500	ND	1500
pyrene	ND	300	ND	300
butylbenzylphthlate	ND	300	ND	300
3,3'-dichlorobenzidine	ND	300	ND	300
Benzo (a) Anthracene	ND	300	ND	300
chrysene	ND	300	ND	300
bis(2-ethylhexyl)phthalate	ND	300	ND	300
di-n-octylphthalate	ND	300	ND	300
Benzo (b) Fluoranthene	ND	300	ND	300



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NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-732/736
Reported on October 21, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
21972-01	96-732-01	Soil	1.0	-
21972-02	96-736-03	Soil	1.0	-

RESULTS OF ANALYSIS

Compound	21972-01		21972-02	
	Conc.	RL	Conc.	RL
	ug/Kg		ug/Kg	
Benzo (k) Fluoranthene	ND	300	ND	300
Benzo (a) Pyrene	ND	300	ND	300
Indeno (1, 2, 3) Pyrene	ND	300	ND	300
dibenzo [a, h] anthracene	ND	300	ND	300
9H-Carbazole	ND	300	ND	300
Benzo (g, h, i) Perylene	ND	300	ND	300

>> Surrogate Recoveries (%) <<

2-fluorophenol	73	66
phenol-d5	75	68
nitrobenzene-d5	73	67
2-fluorobiphenyl	79	70
2,4,6-tribromophenol	79	72
terphenyl-d14	95	88



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EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 21972

Method Blank(s)

CJ211.24-03

Conc. RL

ug/Kg

bis(2-chloroethyl) ether	ND	300
aniline	ND	300
phenol	ND	300
2-chlorophenol	ND	300
1,3-dichlorobenzene	ND	300
1,4-dichlorobenzene	ND	300
1,2-dichlorobenzene	ND	300
benzyl alcohol	ND	300
bis-(2-chloroisopropyl) ether	ND	300
2-methylphenol	ND	300
hexachloroethane	ND	300
n-nitroso-di-n-propylamine	ND	300
4-methylphenol	ND	300
nitrobenzene	ND	300
isophorone	ND	300
2-nitrophenol	ND	300
2,4-dimethylphenol	ND	300
bis(2-chloroethoxy)methane	ND	300
2,4-dichlorophenol	ND	300
1,2,4-trichlorobenzene	ND	300
naphthalene	ND	300
benzoic acid	ND	1500
4-chloroaniline	ND	300
hexachlorobutadiene	ND	300
4-chloro-3-methylphenol	ND	300
2-methyl-naphthalene	ND	300
hexachlorocyclopentadiene	ND	1500
2,4,6-trichlorophenol	ND	300
2,4,5-trichlorophenol	ND	300
2-chloronaphthalene	ND	300
2-nitroaniline	ND	300
acenaphthylene	ND	300
dimethylphthlate	ND	300
2,6-dinitrotoluene	ND	300
Acenaphthene	ND	300
3-nitroaniline	ND	300
2,4-dinitrophenol	ND	1500



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EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 21972

Method Blank(s)

CJ211.24-03

Conc. RL

ug/Kg

dibenzofuran	ND	300
2,4-dinitrotoluene	ND	300
4-nitrophenol	ND	300
fluorene	ND	300
4-chlorophenyl-phenylether	ND	300
diethylphthlate	ND	300
4-nitroaniline	ND	1500
4,6-dinitro-2-methylphenol	ND	300
n-nitrosodiphenylamine	ND	300
4-bromo-phenyl-phenylether	ND	300
hexachlorobenzene	ND	300
pentachlorophenol	ND	1500
phenanthrene	ND	300
anthracene	ND	300
di-n-butylphthlate	ND	300
fluoranthene	ND	300
benzidine	ND	1500
pyrene	ND	300
butylbenzylphthlate	ND	300
3,3'-dichlorobenzidine	ND	300
Benzo (a) Anthracene	ND	300
chrysene	ND	300
bis (2-ethylhexyl) phthalate	ND	300
di-n-octylphthalate	ND	300
Benzo (b) Fluoranthene	ND	300
Benzo (k) Fluoranthene	ND	300
Benzo (a) Pyrene	ND	300
Indeno (1, 2, 3) Pyrene	ND	300
dibenzo [a, h] anthracene	ND	300
9H-Carbazole	ND	300
Benzo (g, h, i) Perylene	ND	300



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EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 21972

Method Blank(s)

CJ211.24-03

Conc. RL

ug/Kg

>> Surrogate Recoveries (%) <<

2-fluorophenol	59
phenol-d5	56
nitrobenzene-d5	56
2-fluorobiphenyl	60
2,4,6-tribromophenol	46
terphenyl-d14	52



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EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 21972

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
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For Soil Matrix (ug/Kg)
 CJ211.24 04 / 05 - Laboratory Control Spikes

phenol		3300	2359/2454	71/74	26-90	4
2-chlorophenol		3300	2711/2824	82/86	25-102	5
1,4-dichlorobenzene		1650	1333/1388	81/84	28-104	4
n-nitroso-di-n-propylamine		1650	1437/1501	87/91	41-126	4
1,2,4-trichlorobenzene		1650	1343/1383	81/84	38-124	4
4-chloro-3-methylphenol		3300	2732/2810	83/85	26-103	2
Acenaphthene		1650	1345/1425	82/86	31-137	5
2,4-dinitrotoluene		1650	1213/1227	74/74	28-118	0
4-nitrophenol		3300	1643/1586	50/48	11-114	4
pentachlorophenol		3300	2210/2208	67/67	17-109	0
pyrene		1650	1548/1698	94/103	35-142	9

>> Surrogate Recoveries (%) <<

2-fluorophenol				82/85	25-121	
phenol-d5				84/87	24-113	
nitrobenzene-d5				82/85	23-120	
2-fluorobiphenyl				86/89	30-115	
2,4,6-tribromophenol				95/96	19-122	
terphenyl-d14				87/94	18-137	

For Soil Matrix (ug/Kg)
 CJ211.24 07 / 08 - Sample Spiked: 21973 - 06

phenol	ND	3300	1955/2073	59/63	26-90	7
2-chlorophenol	ND	3300	2209/2382	67/72	25-102	7
1,4-dichlorobenzene	ND	1650	1049/1125	64/68	28-104	6
n-nitroso-di-n-propylamine	ND	1650	1281/1305	78/79	41-126	1
1,2,4-trichlorobenzene	ND	1650	1098/1176	67/71	38-124	6
4-chloro-3-methylphenol	ND	3300	2471/2526	75/77	26-103	3
Acenaphthene	ND	1650	1235/1266	75/77	31-137	3
2,4-dinitrotoluene	ND	1650	1179/1159	71/70	28-118	1
4-nitrophenol	ND	3300	1734/1665	53/50	11-114	6
pentachlorophenol	ND	3300	2353/2233	71/68	17-109	4



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EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 21972

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
pyrene	ND	1650	1506/1494	91/91	35-142	0
>> Surrogate Recoveries (%) <<						
2-fluorophenol				65/69	25-121	
phenol-d5				70/75	24-113	
nitrobenzene-d5				68/74	23-120	
2-fluorobiphenyl				75/79	30-115	
2,4,6-tribromophenol				87/87	19-122	
terphenyl-d14				88/88	18-137	

Definitions:

- ND = Not Detected
- RL = Reporting Limit
- NA = Not Analysed
- RPD = Relative Percent Difference
- ug/L = parts per billion (ppb)
- mg/L = parts per million (ppm)

- ug/kg = parts per billion (ppb)
- mg/kg = parts per million (ppm)



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Analytical Laboratory

NORTH STATE ENVIRONMENTAL
90 SOUTH SPRUCE ST. UNIT W
SOUTH SAN FRANCISCO, CA 94053

Date: November 5, 1996

Attn: JOHN MURPHY

Laboratory Number : 22025

Project Number/Name : 96-778

Dear JOHN MURPHY:

Attached is Superior Analytical Laboratory report for the samples received on October 28, 1996. This report has been reviewed and approved for release. Following the cover letter is the Case Narrative detailing sample receipt and analysis. Also enclosed is a copy of the original Chain-of-Custody record confirming receipt of samples.

Please note that any unused portion of the sample will be discarded after November 27, 1996, unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please contact our Laboratory at (510) 313-0850.

Sincerely,

A handwritten signature in black ink, appearing to read 'Afsaneh Salimpour', is written over a horizontal line.

Afsaneh Salimpour
Project Manager



Superior

Analytical Laboratory

CASE NARRATIVE

NORTH STATE ENVIRONMENTAL
Project Number/Name: 96-778
Laboratory Number: 22025

Sample Receipt

One water sample was received by
Superior Analytical Laboratory on October 28, 1996.

Cooler temperature was 3°C

No abnormalities were noted with sample receiving.

Sample Analysis

The sample was analysed for method 8270.

8270:

- Reporting limits raised due to insufficient sample amount.

I / I



Superior

Analytical Laboratory

NORTH STATE ENVIRONMENTAL

Attn: JOHN MURPHY

Project 96-778

Reported on November 1, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Chronology

Laboratory Number 22025

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
B3 @ 10.75	10/24/96	10/28/96	10/31/96	10/31/96	CJ311.24	01

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ311.24-12	Method Blank	MB	Water	10/31/96	10/31/96
CJ311.24-13	Laboratory Spike	LS	Water	10/31/96	10/31/96
CJ311.24-14	Laboratory Spike Duplicate	LSD	Water	10/31/96	10/31/96



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Analytical Laboratory

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-778
Reported on November 1, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
22025-01 @	B3 @ 10.75	Water	10.0	-

RESULTS OF ANALYSIS

Compound 22025-01
 Conc. RL
 ug/L

bis(2-chloroethyl) ether	ND	100
aniline	ND	500
phenol	ND	100
2-chlorophenol	ND	100
1,3-dichlorobenzene	ND	100
1,4-dichlorobenzene	ND	100
1,2-dichlorobenzene	ND	100
benzyl alcohol	ND	100
bis-(2-chloroisopropyl) ether	ND	100
2-methylphenol	ND	100
hexachloroethane	ND	100
n-nitroso-di-n-propylamine	ND	100
4-methylphenol	ND	100
nitrobenzene	ND	100
isophorone	ND	100
2-nitrophenol	ND	100
2,4-dimethylphenol	ND	100
bis(2-chloroethoxy) methane	ND	100
2,4-dichlorophenol	ND	100
1,2,4-trichlorobenzene	ND	100
naphthalene	ND	100
benzoic acid	ND	500
4-chloroaniline	ND	100
hexachlorobutadiene	ND	100
4-chloro-3-methylphenol	ND	100
2-methyl-naphthalene	ND	100
hexachlorocyclopentadiene	ND	300
2,4,6-trichlorophenol	ND	100
2,4,5-trichlorophenol	ND	100
2-chloronaphthalene	ND	100
2-nitroaniline	ND	100



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Analytical Laboratory

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-778
Reported on November 1, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22025-01 @	B3 @ 10.75	Water	10.0	-

RESULTS OF ANALYSIS

Compound	22025-01	
	Conc.	RL
	ug/L	
9H-Carbazole	ND	100
Benzo (a) Pyrene	ND	100
Indeno (1, 2, 3) Pyrene	ND	100
dibenzo [a, h] anthracene	ND	100
Benzo (g, h, i) Perylene	ND	100

> Surrogate Recoveries (%) <<

2-fluorophenol	64
phenol-d5	90
nitrobenzene-d5	61
2-fluorobiphenyl	78
2,4,6-tribromophenol	114
terphenyl-d14	79



Superior

Analytical Laboratory

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 22025

Method Blank(s)

CJ311.24-12

Conc. RL

ug/L

bis(2-chloroethyl) ether	ND	10
aniline	ND	50
phenol	ND	10
2-chlorophenol	ND	10
1,3-dichlorobenzene	ND	10
1,4-dichlorobenzene	ND	10
1,2-dichlorobenzene	ND	10
benzyl alcohol	ND	10
bis-(2-chloroisopropyl) ether	ND	10
2-methylphenol	ND	10
hexachloroethane	ND	10
n-nitroso-di-n-propylamine	ND	10
4-methylphenol	ND	10
nitrobenzene	ND	10
isophorone	ND	10
2-nitrophenol	ND	10
2,4-dimethylphenol	ND	10
bis(2-chloroethoxy) methane	ND	10
2,4-dichlorophenol	ND	10
1,2,4-trichlorobenzene	ND	10
naphthalene	ND	10
benzoic acid	ND	50
4-chloroaniline	ND	10
hexachlorobutadiene	ND	10
4-chloro-3-methylphenol	ND	10
2-methyl-naphthalene	ND	10
hexachlorocyclopentadiene	ND	30
2,4,6-trichlorophenol	ND	10
2,4,5-trichlorophenol	ND	10
2-chloronaphthalene	ND	10
2-nitroaniline	ND	10
acenaphthylene	ND	10
dimethylphthlate	ND	10
2,6-dinitrotoluene	ND	10
Acenaphthene	ND	10
3-nitroaniline	ND	10
2,4-dinitrophenol	ND	50



Superior

Analytical Laboratory

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 22025

Method Blank(s)

CJ311.24-12

Conc. RL

ug/L

dibenzofuran	ND	10
2,4-dinitrotoluene	ND	10
4-nitrophenol	ND	10
fluorene	ND	10
4-chlorophenyl-phenylether	ND	10
diethylphthlate	ND	10
4-nitroaniline	ND	10
4,6-dinitro-2-methylphenol	ND	50
n-nitrosodiphenylamine	ND	10
4-bromo-phenyl-phenylether	ND	10
hexachlorobenzene	ND	10
pentachlorophenol	ND	50
phenanthrene	ND	10
anthracene	ND	10
di-n-butylphthlate	ND	10
fluoranthene	ND	10
benzidine	ND	50
pyrene	ND	10
butylbenzylphthlate	ND	10
3,3'-dichlorobenzidine	ND	50
Benzo (a) Anthracene	ND	10
chrysene	ND	10
bis (2-ethylhexyl) phthalate	ND	10
di-n-octylphthalate	ND	10
benzo (b, k) fluoranthene	ND	10
9H-Carbazole	ND	10
Benzo (a) Pyrene	ND	10
Indeno (1, 2, 3) Pyrene	ND	10
dibenzo [a, h] anthracene	ND	10
Benzo (g, h, i) Perylene	ND	10

>> Surrogate Recoveries (%) <<

2-fluorophenol	65
phenol-d5	69
nitrobenzene-d5	67
2-fluorobiphenyl	68
2,4,6-tribromophenol	52



Superior

Analytical Laboratory

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 22025

Method Blank(s)

CJ311.24-12

Conc. RL

ug/L

terphenyl-d14

63



Superior

Analytical Laboratory

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 22025

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
----------	--------------	-----------	------------	------------	----------	-------

For Water Matrix (ug/L)
 CJ311.24 13 / 14 - Laboratory Control Spikes

phenol		100	64.2/63.8	64/64	12-110	0
2-chlorophenol		100	60.5/60.5	61/61	27-123	0
1,4-dichlorobenzene		50	34.9/34.4	70/69	36-97	1
n-nitroso-di-n-propylamine		50	34.8/34.8	70/70	41-116	0
1,2,4-trichlorobenzene		50	34.3/34.2	69/68	39-98	1
4-chloro-3-methylphenol		100	64.2/62.9	64/63	23-97	2
Acenaphthene		50	36.3/36.4	73/73	46-118	0
2,4-dinitrotoluene		50	34.1/33.9	68/68	24-104	0
4-nitrophenol		100	54.0/52.9	54/53	10-80	2
pentachlorophenol		100	42.9/44.6	43/45	9-103	5
pyrene		50	33.5/33.4	67/67	26-127	0

> Surrogate Recoveries (%) <<

2-fluorophenol				64/63	21-110	
phenol-d5				67/66	10-110	
nitrobenzene-d5				67/67	35-114	
2-fluorobiphenyl				66/66	43-116	
2,4,6-tribromophenol				64/64	10-123	
terphenyl-d14				60/60	33-141	

@ - Reporting limits raised due to insufficient sample amount.

Definitions:

ND = Not Detected
 RL = Reporting Limit
 NA = Not Analysed
 RPD = Relative Percent Difference
 ug/L = parts per billion (ppb)
 mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)
 mg/kg = parts per million (ppm)



Superior Analytical Laboratory

FAX COVER SHEET

**Laboratory: (510) 313-0850 Facsimile: (510) 229-0916
835 Arnold Drive Suite 106 Martinez, California 94553**

To: NORTH STATE ENVIRONMENTAL

Date: 11-5-96

From: Superior Analytical Laboratory

Page 1 of 11

To: JOHN MURPHY

From: Afsaneh Salimpour

NORTH STATE ENVIRONMENTAL
90 SOUTH SPRUCE ST. UNIT W
SOUTH SAN FRANCISCO, CA 94053

Date: November 5, 1996

Attn: JOHN MURPHY

Laboratory Number : 22025

Project Number/Name : 96-778

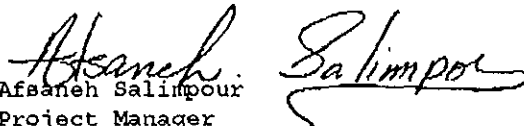
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Attached is Superior Analytical Laboratory report for the samples received on October 28, 1996. This report has been reviewed and approved for release. Following the cover letter is the Case Narrative detailing sample receipt and analysis. Also enclosed is a copy of the original Chain-of-Custody record confirming receipt of samples.

Please note that any unused portion of the sample will be discarded after November 27, 1996, unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please contact our Laboratory at (510) 313-0850.

Sincerely,


Afsaneh Salimpour
Project Manager

CASE NARRATIVE

NORTH STATE ENVIRONMENTAL
Project Number/Name: 96-778
Laboratory Number: 22025

Sample Receipt

One water sample was received by
Superior Analytical Laboratory on October 28, 1996.

Cooler temperature was 3°C

No abnormalities were noted with sample receiving.

Sample Analysis

The sample was analysed for method 8270.

8270:

- Reporting limits raised due to insufficient sample amount.

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-778
Reported on November 1, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Chronology

Laboratory Number 22025

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
B3 @ 10.75	10/24/96	10/28/96	10/31/96	10/31/96	CJ311.24	01

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ311.24-12	Method Blank	MB	Water	10/31/96	10/31/96
CJ311.24-13	Laboratory Spike	LS	Water	10/31/96	10/31/96
CJ311.24-14	Laboratory Spike Duplicate	LSD	Water	10/31/96	10/31/96

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-778
Reported on November 1, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
22025-01 @	B3 @ 10.75	Water	10.0	-

R E S U L T S O F A N A L Y S I S

Compound 22025-01
Conc. RL
ug/L

bis(2-chloroethyl) ether	ND	100
aniline	ND	500
phenol	ND	100
2-chlorophenol	ND	100
1,3-dichlorobenzene	ND	100
1,4-dichlorobenzene	ND	100
1,2-dichlorobenzene	ND	100
benzyl alcohol	ND	100
bis-(2-chloroisopropyl) ether	ND	100
2-methylphenol	ND	100
hexachloroethane	ND	100
n-nitroso-di-n-propylamine	ND	100
4-methylphenol	ND	100
nitrobenzene	ND	100
isophorone	ND	100
2-nitrophenol	ND	100
2,4-dimethylphenol	ND	100
bis(2-chloroethoxy)methane	ND	100
2,4-dichlorophenol	ND	100
1,2,4-trichlorobenzene	ND	100
naphthalene	ND	100
benzoic acid	ND	500
4-chloroaniline	ND	100
hexachlorobutadiene	ND	100
4-chloro-3-methylphenol	ND	100
2-methyl-naphthalene	ND	100
hexachlorocyclopentadiene	ND	300
2,4,6-trichlorophenol	ND	100
2,4,5-trichlorophenol	ND	100
2-chloronaphthalene	ND	100
2-nitroaniline	ND	100

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-778
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EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
22025-01 @	B3 @ 10.75	Water	10.0	-

R E S U L T S O F A N A L Y S I S

Compound 22025-01
 Conc. RL
 ug/L

acenaphthylene	ND	100
dimethylphthlate	ND	100
2,6-dinitrotoluene	ND	100
Acenaphthene	ND	100
3-nitroaniline	ND	100
2,4-dinitrophenol	ND	500
dibenzofuran	ND	100
2,4-dinitrotoluene	ND	100
4-nitrophenol	ND	100
fluorene	ND	100
4-chlorophenyl-phenylether	ND	100
diethylphthlate	ND	100
4-nitroaniline	ND	100
4,6-dinitro-2-methylphenol	ND	500
n-nitrosodiphenylamine	ND	100
4-bromo-phenyl-phenylether	ND	100
hexachlorobenzene	ND	100
pentachlorophenol	ND	500
phenanthrene	ND	100
anthracene	ND	100
di-n-butylphthlate	ND	100
fluoranthene	ND	100
benzidine	ND	500
pyrene	ND	100
butylbenzylphthlate	ND	100
3,3'-dichlorobenzidine	ND	500
Benzo (a) Anthracene	ND	100
chrysene	ND	100
bis (2-ethylhexyl) phthalate	ND	100
di-n-octylphthalate	ND	100
benzo (b,k) fluoranthene	ND	100

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project 96-778
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EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
22025-01 @	B3 @ 10.75	Water	10.0	-

R E S U L T S O F A N A L Y S I S

Compound 22025-01
Conc. RL
ug/L

9H-Carbazole	ND	100
Benzo (a) Pyrene	ND	100
Indeno (1,2,3) Pyrene	ND	100
dibenzo [a, h] anthracene	ND	100
Benzo (g, h, i) Perylene	ND	100

>> Surrogate Recoveries (%) <<

2-fluorophenol	64
phenol-d5	90
nitrobenzene-d5	61
2-fluorobiphenyl	78
2,4,6-tribromophenol	114
terphenyl-d14	79

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 22025

Method Blank(s)

CJ311.24-12

Conc. RL
ug/L

bis(2-chloroethyl) ether	ND	10
aniline	ND	50
phenol	ND	10
2-chlorophenol	ND	10
1,3-dichlorobenzene	ND	10
1,4-dichlorobenzene	ND	10
1,2-dichlorobenzene	ND	10
benzyl alcohol	ND	10
bis-(2-chloroisopropyl) ether	ND	10
2-methylphenol	ND	10
hexachloroethane	ND	10
n-nitroso-di-n-propylamine	ND	10
4-methylphenol	ND	10
nitrobenzene	ND	10
isophorone	ND	10
2-nitrophenol	ND	10
2,4-dimethylphenol	ND	10
bis(2-chloroethoxy)methane	ND	10
2,4-dichlorophenol	ND	10
1,2,4-trichlorobenzene	ND	10
naphthalene	ND	10
benzoic acid	ND	50
4-chloroaniline	ND	10
hexachlorobutadiene	ND	10
4-chloro-3-methylphenol	ND	10
2-methyl-naphthalene	ND	10
hexachlorocyclopentadiene	ND	30
2,4,6-trichlorophenol	ND	10
2,4,5-trichlorophenol	ND	10
2-chloronaphthalene	ND	10
2-nitroaniline	ND	10
acenaphthylene	ND	10
dimethylphthlate	ND	10
2,6-dinitrotoluene	ND	10
Acenaphthene	ND	10
3-nitroaniline	ND	10
2,4-dinitrophenol	ND	50

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 22025

Method Blank(s)

CJ311.24-12

Conc. RL
ug/L

	Conc.	RL
	ug/L	
dibenzofuran	ND	10
2,4-dinitrotoluene	ND	10
4-nitrophenol	ND	10
fluorene	ND	10
4-chlorophenyl-phenylether	ND	10
diethylphthlate	ND	10
4-nitroaniline	ND	10
4,6-dinitro-2-methylphenol	ND	50
n-nitrosodiphenylamine	ND	10
4-bromo-phenyl-phenylether	ND	10
hexachlorobenzene	ND	10
pentachlorophenol	ND	50
phenanthrene	ND	10
anthracene	ND	10
di-n-butylphthlate	ND	10
fluoranthene	ND	10
benzidine	ND	50
pyrene	ND	10
butylbenzylphthlate	ND	10
3,3'-dichlorobenzidine	ND	50
Benzo(a)Anthracene	ND	10
chrysene	ND	10
bis(2-ethylhexyl)phthalate	ND	10
di-n-octylphthalate	ND	10
benzo(b,k)fluoranthene	ND	10
9H-Carbazole	ND	10
Benzo(a)Pyrene	ND	10
Indeno(1,2,3)Pyrene	ND	10
dibenzo[a,h]anthracene	ND	10
Benzo(g,h,i)Perylene	ND	10

>> Surrogate Recoveries (%) <<

2-fluorophenol	65
phenol-d5	69
nitrobenzene-d5	67
2-fluorobiphenyl	68
2,4,6-tribromophenol	52

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 22025

Method Blank(s)

CJ311.24-12

Conc. RL

ug/L

terphenyl-d14

63

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 22025

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L)						
CJ311.24 13 / 14 - Laboratory Control Spikes						
phenol		100	64.2/63.8	64/64	12-110	0
2-chlorophenol		100	60.5/60.5	61/61	27-123	0
1,4-dichlorobenzene		50	34.9/34.4	70/69	36-97	1
n-nitroso-di-n-propylamine		50	34.8/34.8	70/70	41-116	0
1,2,4-trichlorobenzene		50	34.3/34.2	69/68	39-98	1
4-chloro-3-methylphenol		100	64.2/62.9	64/63	23-97	2
Acenaphthene		50	36.3/36.4	73/73	46-118	0
2,4-dinitrotoluene		50	34.1/33.9	68/68	24-104	0
4-nitrophenol		100	54.0/52.9	54/53	10-80	2
pentachlorophenol		100	42.9/44.6	43/45	9-103	5
pyrene		50	33.5/33.4	67/67	26-127	0
>> Surrogate Recoveries (%) <<						
2-fluorophenol				64/63	21-110	
phenol-d5				67/66	10-110	
nitrobenzene-d5				67/67	35-114	
2-fluorobiphenyl				66/66	43-116	
2,4,6-tribromophenol				64/64	10-123	
terphenyl-d14				60/60	33-141	

@ - Reporting limits raised due to insufficient sample amount.

Definitions:

ND = Not Detected

RL = Reporting Limit

NA = Not Analysed

RPD = Relative Percent Difference

ug/L = parts per billion (ppb)

ug/kg = parts per billion (ppb)

mg/L = parts per million (ppm)

mg/kg = parts per million (ppm)

APPENDIX B

OTHER DATA

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

Alameda County
Environmental Health
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX(510)337-9335

July 9, 1996

Ingrid & Frank Werner
22 Kensington Court
Kensington, CA 94707

STID 5347

Re: Investigations at 701 San Pablo Ave., Albany, CA

Dear Ingrid & Frank Werner,

On June 20, 1996, one 300-gallon waste oil underground storage tank (UST) was removed from the above site. Residual sludge from the UST was noted to be leaking out of a 4-inch diameter hole along the bottom of the tank on the west side.

One soil sample was collected from the bottom of the tank pit at 6.6-feet below ground surface(bgs), and one soil sample was collected from the south sidewall at 4-feet bgs, where there appeared to be some staining. These soil samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), TPH as diesel (TPHd), Total Extractable Petroleum Hydrocarbons (TEPH), and benzene, toluene, ethylbenzene, and xylenes (BTEX). Analyses of the soil sample collected from the bottom of the tank pit identified 310 parts per million(ppm) TPHg, 1,300ppm TPHd, 620ppm TEPH, 0.46ppm benzene, 5.5ppm toluene, 2.0ppm ethylbenzene, and 8.3ppm xylenes. Analysis of the soil sample collected from the south sidewall did not identify any contaminants above detection limits.

Based on the County's Inspection Notes and the Chain-of-Custody form attached to the lab analyses results, one additional soil sample was collected from the bottom of the tank pit at 8-feet bgs and placed on hold. Although the holding time of 14 days has already been exceeded for volatiles, this office is requesting that this sample be analyzed for all the above constituents, except for TEPH, in order to obtain some sense of the vertical extent of this soil contamination. This office has already verbally requested that this analysis be conducted in a phone conversation with SEMCO on July 9, 1996.

Guidelines established by the California Regional Water Quality Control Board (RWQCB) require that soil and ground water investigations be conducted when there is evidence to indicate that a release from an UST will impact or may have impacted the ground water.

Ingrid & Frank Werner
Re: 701 San Pablo Ave.
July 9, 1996
Page 3 of 4

submitted under seal of a California-Registered Geologist,
-Certified Engineering Geologist, or -Registered Civil Engineer.

The PSA proposal is due within 60 days of the date of this letter. Once the proposal is approved, field work should commence within 60 days. A report should be submitted within 45 days after the completion of this phase of work at the site. Subsequent reports are to be submitted quarterly until this site qualifies for final RWQCB "sign-off". Such quarterly reports are due the first day of the second month of each subsequent quarter.

The referenced initial and quarterly reports must describe the status of the investigation and may include, among others, the following elements:

- o Details and results of all work performed during the designated period of time: records of field observations and data, boring and well construction logs, water level data, chain-of-custody forms, laboratory results for all samples collected and analyzed, tabulations of free product thicknesses and dissolved fractions, etc.
- o Status of ground water contamination characterization.
- o Interpretations of results: water level contour maps showing gradients, free and dissolved product, plume definition maps for each target component, geologic cross sections, etc.
- o Recommendations or plans for additional investigative work or remediation.

Please be advised that this is a formal request for a work plan pursuant to Section 2722 (c) (d) of Title 23 California Code of Regulations. Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by either this agency or RWQCB.

The State Water Resources Control Board has a Petroleum Underground Storage Tank Cleanup Fund available to sites to assist in investigations and cleanup. This office encourages you

Ingrid & Frank Werner
Re: 701 San Pablo Ave.
July 9, 1996
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You are required to conduct a Preliminary Site Assessment (PSA) to determine the lateral and vertical extent and severity of both soil and ground water contamination resulting from the release at the site. The information gathered by the PSA will be used to determine an appropriate course of action to remediate the site, if deemed necessary. The PSA must be conducted in accordance with the RWQCB's Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks, and be consistent with requirements set forth in Article 11 of Title 23, California Code of Regulations. The major elements of such an investigation are summarized in the attached Appendix A. The major elements of the guidelines include, but are not limited to, the following:

- o At least one ground water monitoring well must be installed within 10 feet of the observed soil contamination, oriented in the confirmed downgradient direction relative to ground water flow. In the absence of neighboring monitoring wells located within 100 feet of the site, or any other data identifying the confirmed downgradient direction, a minimum of three wells will be required to verify gradient direction. During the installation of these wells, soil samples are to be collected at five-foot-depth intervals and any significant changes in lithology.
- o Subsequent to the installation of the monitoring well(s), these wells must be surveyed to an established benchmark, (i.e., Mean Sea Level) with an accuracy of 0.01 foot. Ground water samples are to be collected and analyzed quarterly. If the initial ground water elevation contours indicate that ground water flow directions vary greatly than you will be required to conduct monthly water level measurements until the ground water gradient behavior is known.

This Department will oversee the assessment and remediation of your site. Our oversight will include the review of and comment on work proposals and technical guidance on appropriate investigative approaches and monitoring schedules. The issuance of well drilling permits, however, will be through the Alameda County Flood Control and Water Conservation District, Zone 7, in Pleasanton. The RWQCB may choose to take over as lead agency if it is determined, following the completion of the initial assessment, that there has been a substantial impact to ground water.

In order to properly conduct a site investigation, you are required to obtain professional services of a reputable environmental consultant. All reports and proposals must be

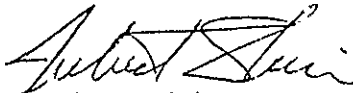
Ingrid & Frank Werner
Re: 701 San Pablo Ave.
July 9, 1996
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to look into applying to this fund. The address and phone number of the trust fund is:

State Water Resources Control Board
Division of Clean Water Programs
UST Cleanup Fund Program
2014 T Street, Ste 130
P.O. Box 944212
Sacramento, CA 94244-2120
(916) 227-4307

If you have any questions about the fund, you can contact Cheryl Gordon at (916) 227-4530. Any other questions can be directed to me at (510) 567-6763.

Sincerely,



Juliet Shin
Senior Hazardous Materials Specialist

ATTACHMENT

cc: Mark Dysert
SEMCO/HK₂, Inc.
1751 Leslie St.
San Mateo, CA 94402

Acting Chief-File

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



September 23, 1996

Ingrid & Frank Werner
22 Kensington Court
Kensington, CA 94707

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

STID 5347

Re: Work plan for investigations at 701 San Pablo Avenue, Albany, California

Dear Ingrid & Frank Werner,

This office has reviewed HK2, Inc./SEMCO's (SEMCO) work plan, dated September 6, 1996, for the above site. Based on my conversation with Stanley L. Klemetson, SEMCO, on September 23, 1996, the metal detector investigation previously conducted out at the site identified piping leading out from the exposed tank vents to the areas where Borings #3 and #4 are proposed. These areas are thought to be the former locations of the gasoline underground storage tanks (USTs). Additionally, Boring #5 is intended to address the former pump island area. Per the work plan, soil and "grab" groundwater samples collected from these borings shall be analyzed for TPHg, TPHd, BTEX, TEPH, and lead. Soil and "grab" groundwater samples collected from the area of the former waste oil UST shall be analyzed for heavy metals and Polynuclear Aromatic Hydrocarbons (PNAs), in addition to the proposed TPH and BTEX analysis, based on the fact that these contaminants were identified in soil samples collected from the former waste oil UST pit. Groundwater samples should be placed through a 0.45 micron filter to obtain the dissolved-phase, as opposed to the total metals, concentrations.

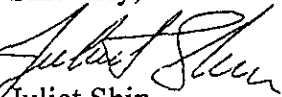
Per the work plan, a leachability test should be conducted on the lead-contaminated soil identified from the waste oil UST pit, due to the fact that the lead levels identified exceeded 10 times the STLC listed in Title 22 California Code of Regulations.

The proposed work should be implemented within 45 days of the date of this letter. A report documenting this work should be submitted to this office within 45 days after completing field activities. If significant contamination is identified in soil and/or groundwater at the site, further investigations, including the installation of permanent monitoring wells, shall be required.

Ingrid & Frank Werner
Re: 701 San Pablo Ave.
September 23, 1996
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If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,



Juliet Shin
Senior Hazardous Materials Specialist

cc: #Stanley L. Klemetson
HK2, Inc./ SEMCO
1751 Leslie St.
San Mateo, CA 94402

Acting Chief