

R. William Rudolph, Jr., PE
Thomas E. Cundey, PE
Jeriann N. Alexander, PE

ENVIRONMENTAL
PROTECTION

95 MAY 23 PM 1:17

May 22, 1995
SCI 851.002

STID 4255

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94501

Work Plan Amendment 1
Groundwater Investigation
4050 Horton Street, STID# 4255
Emeryville, California

Dear Ms. Hugo:

This letter presents an addendum to the November 16, 1993 Work Plan prepared by Subsurface Consultants, Inc. (SCI) to investigate groundwater conditions downgradient from a former gasoline tank. The tank area is situated within the boundary of a contaminated groundwater plume containing chromium and several volatile organic compounds likely originating from the adjacent Electro Coating, Inc. facility. Numerous wells are being monitored by others in the area to study the plume.

Per our telephone conversation on April 18, 1995, SCI visited the site to determine whether any of the existing Electro Coating wells could be used as a sampling location for determining impacts from the former tank. The nearest Electro Coating wells are situated more than 70 feet south of the tank area, and as such would not be adequate to monitor potential impacts. However, the wells and others in the area would provide gradient information. SCI understands that a comprehensive monitoring event has been performed of the Electro Coating wells.

Since the site is situated within a contaminate plume originating from an off-site source, SCI proposes to initially evaluate groundwater impacts from the former tank by obtaining soil and groundwater samples from a test boring drilled in the downgradient direction, within 10 feet of the former tank. The downgradient direction will be based on data from the recent Electro Coating monitoring event. The test boring will be advanced using a hydraulically-driven sampling system to reduce the quantity of soil cuttings requiring disposal. A groundwater sample will be obtained from within 1-inch-diameter Schedule 40 PVC well casing temporarily placed in the boring. A soil sample from the soil/groundwater interface and the groundwater sample will be submitted for chemical analysis. The testing program will include the following tests, TPH-g, TPH-d, TOG, BTEX, lead, chromium.

 Subsurface Consultants, Inc.

1000

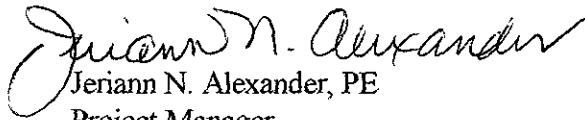
Ms. Susan Hugo
Alameda County Health Care Services Agency
May 22, 1995
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Page 2

chlorinated solvents and TDS. The results of the study will be presented in a written report complete with a site plan and analytical test reports.

If you have any questions, please call.

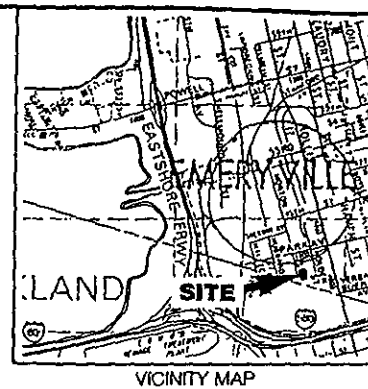
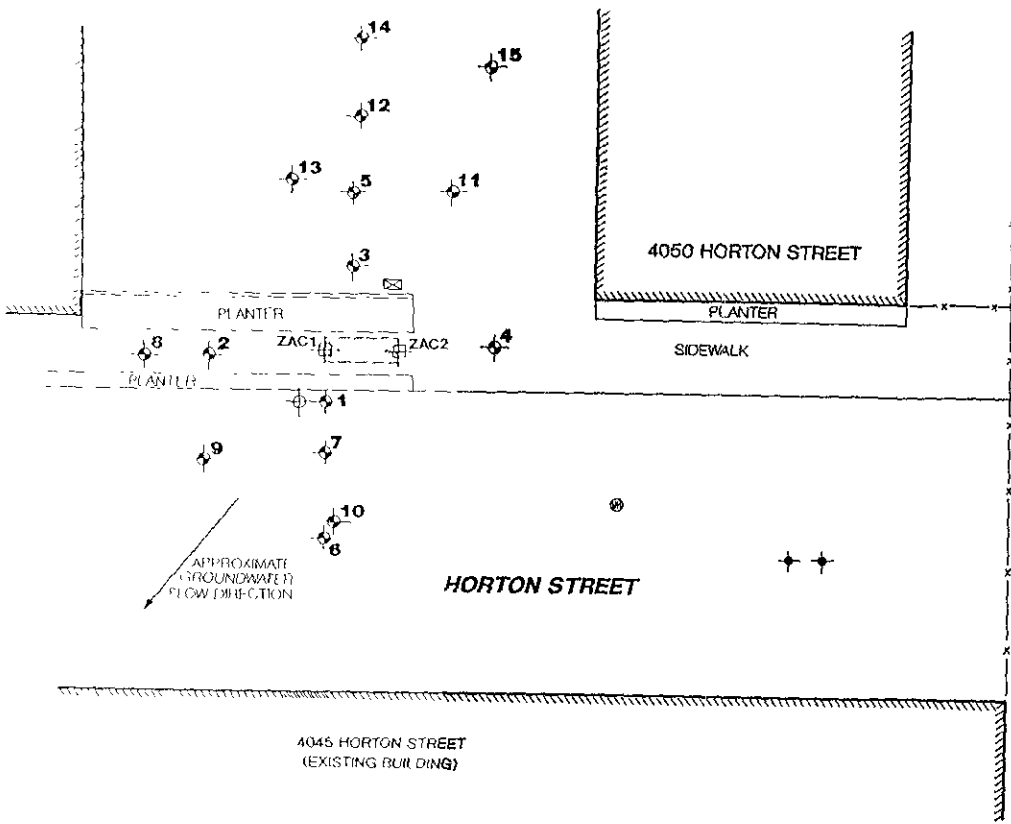
Yours very truly,

Subsurface Consultants, Inc.

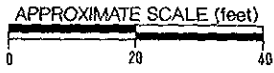

Jeriann N. Alexander, PE
Project Manager

JNA:RWR:sld

cc. Mr. Jeff Hunt
Plywood & Lumber Sales



- ⊕ TEST BORING
- ⊕ ZACOR SOIL SAMPLE LOCATION FOLLOWING TANK REMOVAL
- ⊕ PROPOSED MONITORING WELL
- ⊕ EXISTING MONITORING WELL BY OTHERS
- ⊕ PREVIOUS TANK
- ⊗ PREVIOUS FUEL DISPENSER
- ▨ EXISTING BUILDING
- x- EXISTING FENCE
- ⊙ MANHOLE COVER



SITE PLAN		
4050 HORTON STREET - EMERYVILLE, CA		PLATE
JOB NUMBER	DATE	APPROVED
851.001	8/23/93	MK
		1

Subsurface Consultants



Subsurface Consultants, Inc.

CONFIDENTIAL
SEP 18 PM 4:16

R. William Rudolph, P.E.
President

September 17, 1996
SCI 851.002

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94501

**Plywood Groundwater Investigation
Plywood & Lumber Sales
4050 Horton Street
Emeryville, California**

Dear Ms. Hugo:

Enclosed are the analytical test results of selected soil and groundwater samples obtained from test boring B-16 (see Plate 1) which was drilled and sampled in accordance with Subsurface Consultants, Inc. (SCI) work plan addendum, dated May 22, 1995. A soil sample from the groundwater interface and a grab groundwater sample were analyzed for total extractable hydrocarbons (TEH), total volatile hydrocarbons (TVH), benzene, toluene, ethylbenzene and total xylenes (BTEX), volatile organic compounds (VOC), oil & grease (O&G), total lead and total chromium. Soil data from boring B-16, as well as historic soil data from previous test boring locations representative of soil left-in-place and from excavation sampling locations, are presented on the attached Table 1. Chromium detected in soil was likely deposited onto the soil matrix due to fluctuations in the groundwater table. Analytical test results for the grab groundwater sample are presented on the attached Table 2. Additionally, groundwater data obtained during a December 1995 sampling event for monitoring wells MW-17 and MW-18 associated with the adjacent Electro-Coatings site are presented on Table 2

Based on review of the data it does appear that the former tank area is within the Electro-Coatings plume boundary. As such, the VOCs and chromium are assumed associated with the Electro-Coatings Plume. However, it is unclear as to whether or not the petroleum hydrocarbon constituents and lead detected in boring B-16 are related to a release from the former tank or are associated with the Electro-Coatings plume since petroleum hydrocarbon constituents have not been analyzed for during the Electro-Coatings study.

Ms. Susan Hugo
Alameda County Health Care Services Agency
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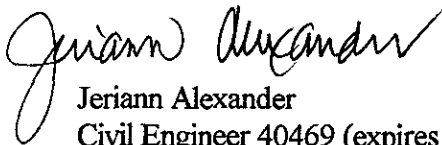
If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.



Meg Mendoza
Engineer



Jeriann Alexander
Civil Engineer 40469 (expires 9/31/99)
Registered Environmental Assessor 03130 (exp. 6/30/97)

MM:JNA:RWR:sld\hugoltr.doc

Attachments: Table 1 - Chemical Concentrations in Soil
 Table 2 - Chemical Concentrations in Groundwater
 Plate 1 - Site Plan
 Analytical Test Reports

cc: Mr. Randall Morrison
 Crosby, Heafy, Roach & May
 1999 Harrison Street
 Oakland, California 94612

Mr. Jeff Hunt
Plywood & Lumber Sales
4050 Horton Street
Emeryville, California 94608

Table 1
Chemical Concentrations in Soil

Sample Location	Depth (feet)	Oil and Grease (mg/kg)	TEH (mg/kg)	TVH (mg/kg)	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl-Benzene (ug/kg)	Xylene (ug/kg)	Metals					EPA 8010 Compounds (ug/kg)
									Total Lead (mg/kg)	Total Chromium (mg/kg)	Cadmium (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	
<u>Boring Location</u>														
4	4	<50	<1	2	14	5	<5	9	4	36.6	<0.25	32.3	45	ND
4	6	<50	<1	2	14	<5	<5	6	--	--	--	--	--	--
7	4	<50	7	7	120	68	74	270	--	--	--	--	--	--
7	6	<50	<1	1	270	28	<5	12	--	--	--	--	--	--
8	6.5	--	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
8	9.5	--	--	<1	--	--	--	--	--	--	--	--	--	--
9	6	--	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
9	9	--	--	<1	--	--	--	--	--	--	--	--	--	--
10	6	--	--	<1	<5	<5	<5	<5	--	--	--	--	--	--
12	3	--	--	<1	--	--	--	--	--	--	--	--	--	--
12	6	--	--	<1	<5	<5	<5	<5	--	--	--	--	--	--
13	3	--	--	<1	--	--	--	--	--	--	--	--	--	--
13	6	--	--	<1	<5	<5	<5	<5	--	--	--	--	--	--
15	3	--	--	<1	--	--	--	--	--	--	--	--	--	--
15	6	--	--	<1	<5	<5	<5	<5	--	--	--	--	--	--
16	8	<50	<1	<1	60	<5	<5	<5	59	76	--	--	--	ND
<u>Excavation Sample Location</u>														
7	6	<50	<1	<1	<5	<5	<5	<5	<5	--	--	--	--	--
9*	7	<50	12	49	31	27	150	180	<5	--	--	--	--	--
10	7	<50	<1	<1	<5	<5	<5	<5	<5	--	--	--	--	--
11	6	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
12	6	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
13	7	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
14	6	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
15	6	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
16	6	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
17	6	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
18	7.5	<50	<1	<1	85	<5	8	<5	--	--	--	--	--	--
19	7	<50	<1	<1	<5	<5	<5	11	--	--	--	--	--	--
20	6	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--

Table 1
Chemical Concentrations in Soil

<u>Sample Location</u>	<u>Depth (feet)</u>	<u>Oil and Grease (mg/kg)</u>	<u>TEH (mg/kg)</u>	<u>TVH (mg/kg)</u>	<u>Benzene (ug/kg)</u>	<u>Toluene (ug/kg)</u>	<u>Ethyl-Benzene (ug/kg)</u>	<u>Xylene (ug/kg)</u>	<u>Metals</u>					<u>EPA 8010 Compounds (ug/kg)</u>
									<u>Total Lead (mg/kg)</u>	<u>Total Chromium (mg/kg)</u>	<u>Cadmium (mg/kg)</u>	<u>Nickel (mg/kg)</u>	<u>Zinc (mg/kg)</u>	
21	6	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
26	7.5	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
27	7.5	<50	<1	<1	<5	<5	<5	<5	--	--	--	--	--	--
28	9	50	<1	<1	44	<5	<5	<5	--	--	--	--	--	--

Notes

O&G Oil & Grease

TEH Total extractable hydrocarbons, as diesel

TVH Total volatile hydrocarbons, as gasoline

mg/kg milligrams per kilogram

ug/kg micrograms per kilogram

-- Test not requested

* - subsequently removed by supplemental extraction

ND - Not detected above laboratory reporting limits

**Table 2
Chemical Concentrations in Groundwater**

<u>Sample</u>	<u>Date</u>	<u>O&G</u> <u>(mg/l)</u>	<u>TPH-d</u> <u>(ug/l)</u>	<u>TPH-g</u> <u>(ug/l)</u>	<u>Benzene</u> <u>(ug/l)</u>	<u>Toluene</u> <u>(ug/l)</u>	<u>Ethyl-</u> <u>benzene</u> <u>(ug/l)</u>	<u>Xylene</u> <u>(ug/l)</u>	<u>PCE</u> <u>(ug/l)</u>	<u>TCE</u> <u>(ug/l)</u>	<u>1,1-DCE</u> <u>(ug/l)</u>	<u>cis-</u> <u>1,2-DCE</u> <u>(ug/l)</u>	<u>trans-</u> <u>1,2-DCE</u> <u>(ug/l)</u>	<u>1,1,1-TCA</u> <u>(ug/l)</u>	<u>Acetone</u> <u>(ug/l)</u>	<u>2-</u> <u>Butanone</u> <u>(ug/l)</u>	<u>Dissolved**</u> <u>Chromium</u> <u>(ug/l)</u>	<u>Dissolved**</u> <u>Lead</u> <u>(ug/l)</u>
<u>2080 Horton Street Investigation</u>																		
B-16	Jan-96	<5	600*	1100	60	19	19	34	8.5	190	8.1	23	14	7	15	8.3	56,000	<3
<u>Electro-Coatings Investigation</u>																		
MW-17	Dec-95	NA	NA	NA	NA	NA	NA	NA	13	360	38	24	<10	<10	NA	NA	160,000	NA
MW-18	Dec-95	NA	NA	NA	NA	NA	NA	NA	<10	280	<10	18	<10	<10	NA	NA	20,000	NA

Notes

O&G = Oil and grease, SMWW 17 5520 EF

TPH-d = Total petroleum hydrocarbons as **diesel, EPA 8015 modified**

TPH-g = Total petroleum hydrocarbons as **gasoline, EPA 8015 modified**

PCE = Tetrachloroethene

TCE = Trichloroethene

1,1-DCE = 1,1-Dichloroethene

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

1,1,1-TCA = 1,1,1-Trichloroethane

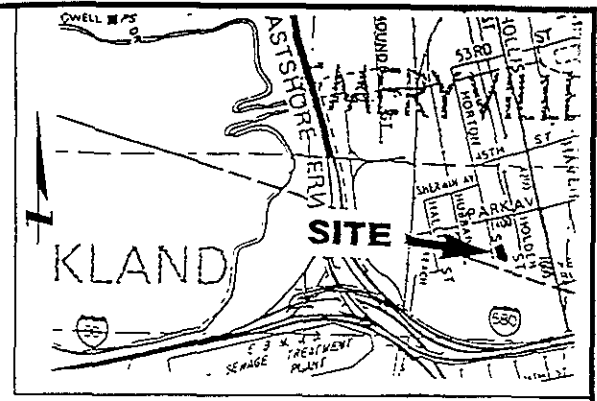
ug/l = micrograms per liter

NA = Not analyzed

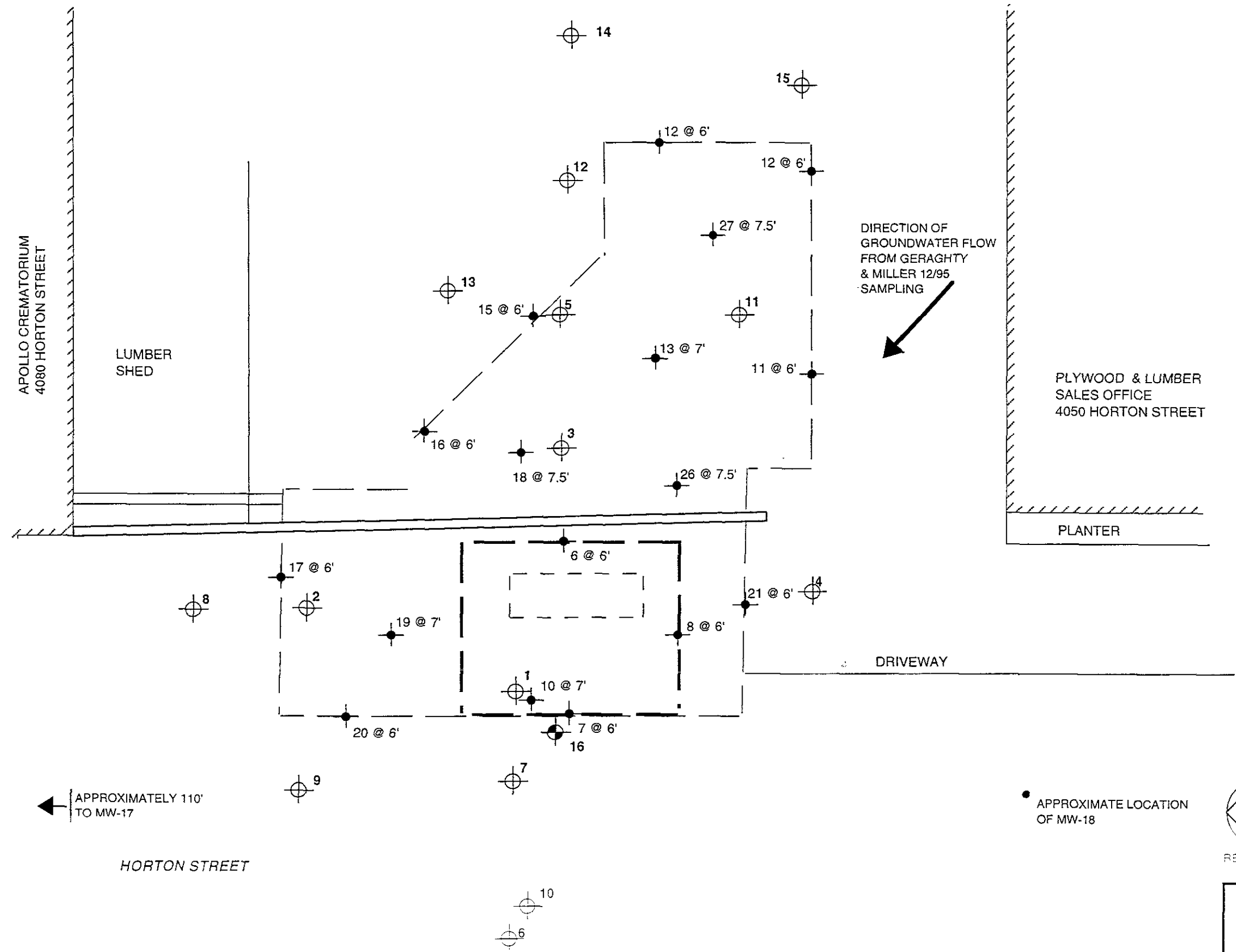
<0.5 = Analyte not detected above the stated **laboratory reporting limit**

* = Sample exhibits fuel pattern which **does not resemble standard**

** = Sample was filtered by the laboratory **prior to analysis**



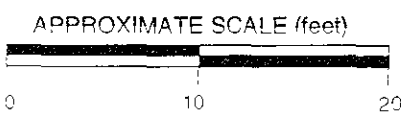
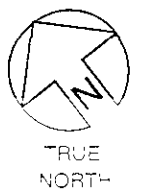
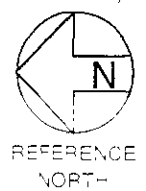
VICINITY MAP



EXPLANATION	
	CONFIRMATION SAMPLE 6/94
	TEST BORING 6/92
	TEST BORING 1/95
	APPROXIMATE LOCATION OF FORMER TANK EXCAVATION TO 9' DEEP
	APPROXIMATE EXTENT OF LEAD CONTAMINATED SOIL EXCAVATION TO 7' DEEP
	APPROXIMATE EXTENT OF GASOLINE CONTAMINATED SOIL EXCAVATION TO 7.5' DEEP
	26 @ 7.5' SAMPLE DEPTH IN FEET SAMPLE NUMBER

← APPROXIMATELY 110'
TO MW-17

● APPROXIMATE LOCATION
OF MW-18



SITE PLAN

Subsurface Consultants	2080 HORTON STREET EMERYVILLE, CALIFORNIA		PLATE
	JOB NUMBER 851 002	DATE 1/29/96	APPROVED <i>MM</i> 1



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Subsurface Consultants
171 12th Street
Suite 201
Oakland, CA 94608

Date: 29-JAN-96
Lab Job Number: 124145
Project ID: 851.002
Location: Plywood & Lumber Sales

Reviewed by: _____

Reviewed by: _____

This package may be reproduced only in its entirety.



TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 851.002
Location: Plywood & Lumber Sales

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
124145-001	B-16 @ 8	25537	01/22/96	01/24/96	01/24/96	

Analyte	Units	124145-001
Diln Fac:		1
Gasoline	mg/Kg	<1
Surrogate		
Trifluorotoluene	%REC	96
Bromobenzene	%REC	90



BTXE

Client: Subsurface Consultants
Project#: 851.002
Location: Plywood & Lumber Sales

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
124145-001	B-16 @ 8	25537	01/22/96	01/24/96	01/24/96	

Analyte	Units	124145-001
Diln Fac:		1
Benzene	ug/Kg	<5
Toluene	ug/Kg	<5
Ethylbenzene	ug/Kg	<5
m,p-Xylenes	ug/Kg	<5
o-Xylene	ug/Kg	<5
Surrogate		
Trifluorotoluene	%REC	94
Bromobenzene	%REC	84

Client: Subsurface Consultants

Laboratory Login Number: 124145

 Project Name: Plywood & Lumber Sales
 Project Number: 851.002

Report Date: 29 January 96

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

METHOD: SMWW 17:5520EF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
124145-001	B-16 @ 8	Soil	22-JAN-96	22-JAN-96	26-JAN-96	ND	mg/Kg	50	TR	25579

ND = Not Detected at or above Reporting Limit (RL).



TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 851.002
Location: Plywood & Lumber Sales

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
124145-001	B-16 @ 8	25561	01/22/96	01/25/96	01/27/96	

Analyte	Units	124145-001
Diln Fac:		1
Diesel Range	mg/Kg	<1
Surrogate		
Hexacosane	%REC	65



Volatile Organics by GC/MS		
Client: Subsurface Consultants	Analysis Method: EPA 8240	
Project#: 851.002	Prep Method: EPA 5030	
Location: Plywood & Lumber Sales		
Field ID: B-16 @ 8	Sampled:	01/22/96
Lab ID: 124145-001	Received:	01/22/96
Matrix: Soil	Extracted:	01/22/96
Batch#: 25474	Analyzed:	01/22/96
Units: ug/Kg		
Diln Fac: 1		
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	60	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	90	79-122

SAMPLE ID: B-16 @ 8
 LAB ID: 124145-001
 CLIENT: Subsurface Consultants
 PROJECT ID: 851.002
 LOCATION: Plywood & Lumber Sales
 MATRIX: Soil

DATE SAMPLED: 01/22/96
 DATE RECEIVED: 01/22/96
 DATE REPORTED: 01/29/96

Metals Analytical Report

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	QC Batch	Method	Analysis Date
Chromium (total)	76	0.48	25548	EPA 6010A	01/26/96
Lead	5.9	0.14	25548	EPA 6010A	01/26/96



Lab #: 124145

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons			
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)		
Project#: 851.002	Prep Method: LUFT		
Location: Plywood & Lumber Sales			
METHOD BLANK			
Matrix: Soil	Prep Date:	01/25/96	
Batch#: 25561	Analysis Date:	01/27/96	
Units: mg/Kg			
Diln Fac: 1			

MB Lab ID: QC13691

Analyte	Result	
Diesel Range	<1.0	
Surrogate	%Rec	Recovery Limits
Hexacosane	61	60-140



Lab #: 124145

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 851.002	Prep Method: LUFT
Location: Plywood & Lumber Sales	
LABORATORY CONTROL SAMPLE	
Matrix: Soil	Prep Date: 01/25/96
Batch#: 25561	Analysis Date: 01/27/96
Units: mg/Kg	
Diln Fac: 1	

LCS Lab ID: QC13692

Analyte	Result	Spike Added	%Rec #	Limits
Diesel Range	34.7	49.5	70	60-140
Surrogate	%Rec	Limits		
Hexacosane	70	60-140		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits



Lab #: 124145

BATCH QC REPORT

EPA 8240 Volatile Organics	
Client: Subsurface Consultants	Analysis Method: EPA 8240
Project#: 851.002	Prep Method: EPA 5030
Location: Plywood & Lumber Sales	
METHOD BLANK	
Matrix: Soil	Prep Date: 01/22/96
Batch#: 25474	Analysis Date: 01/22/96
Units: ug/Kg	
Diln Fac: 1	

MB Lab ID: QC13376

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	10
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	94	68-125
Toluene-d8	93	87-125
Bromofluorobenzene	89	79-122



Lab #: 124145

BATCH QC REPORT

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EPA 8240 Volatile Organics	
Client: Subsurface Consultants	Analysis Method: EPA 8240
Project#: 851.002	Prep Method: EPA 5030
Location: Plywood & Lumber Sales	
LABORATORY CONTROL SAMPLE	
Matrix: Soil	Prep Date: 01/22/96
Batch#: 25474	Analysis Date: 01/22/96
Units: ug/Kg	
Diln Fac: 1	

LCS Lab ID: QC13375

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	49.4	50	99	51-180
Trichloroethene	54.5	50	109	73-141
Benzene	55.07	50	110	78-142
Toluene	53.75	50	108	76-150
Chlorobenzene	55.63	50	111	83-129
Surrogate	%Rec	Limits		
1,2-Dichloroethane-d4	93	68-126		
Toluene-d8	101	87-125		
Bromofluorobenzene	94	79-122		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

Lab #: 124145

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics	
Client: Subsurface Consultants	Analysis Method: EPA 8240
Project#: 851.002	Prep Method: EPA 5030
Location: Plywood & Lumber Sales	
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: ZZZZZZ	Sample Date: 01/19/96
Lab ID: 124128-008	Received Date: 01/19/96
Matrix: Soil	Prep Date: 01/22/96
Batch#: 25474	Analysis Date: 01/22/96
Units: ug/Kg	
Diln Fac: 1	

MS Lab ID: QC13395

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5.000	62.64	125	51-180
Trichloroethene	50	<5.000	54.41	109	73-141
Benzene	50	<5.000	53.13	106	78-142
Toluene	50	<5.000	51.91	104	76-150
Chlorobenzene	50	<5.000	54.32	109	83-129
Surrogate	%Rec	Limits			
1,2-Dichloroethane-d4	84	68-126			
Toluene-d8	100	87-125			
Bromofluorobenzene	89	79-122			

MSD Lab ID: QC13396

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	59.67	119	51-180	5	<22
Trichloroethene	50	52.23	104	73-141	4	<24
Benzene	50	50.65	101	78-142	5	<21
Toluene	50	49.2	98	76-150	5	<21
Chlorobenzene	50	51.47	103	83-129	5	<21
Surrogate	%Rec	Limits				
1,2-Dichloroethane-d4	85	68-126				
Toluene-d8	100	87-125				
Bromofluorobenzene	88	79-122				

Column to be used to flag recovery and RPD values with an asterisk
 > Values outside of QC limits
 RPD: 0 out of 5 outside limits
 Spike Recovery: 0 out of 10 outside limits



Lab #: 124145

BATCH QC REPORT

Page 1 of 1

TVH-Total Volatile Hydrocarbons			
Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	851.002	Prep Method:	EPA 5030
Location:	Plywood & Lumber Sales		
METHOD BLANK			
Matrix:	Soil	Prep Date:	01/24/96
Batch#:	25537	Analysis Date:	01/24/96
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC13614

Analyte	Result	
Gasoline	<1.0	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	95	52-127
Bromobenzene	79	45-140

Lab #: 124145

BATCH QC REPORT

Page 1 of 1

TVH-Total Volatile Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 851.002	Prep Method: EPA 5030
Location: Plywood & Lumber Sales	
LABORATORY CONTROL SAMPLE	
Matrix: Soil	Prep Date: 01/24/96
Batch#: 25537	Analysis Date: 01/24/96
Units: mg/Kg	
Diln Fac: 1	

LCS Lab ID: QC13612

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	9.8	10	98	80-120
Surrogate	%Rec	Limits		
Trifluorotoluene	110	52-127		
Bromobenzene	92	45-140		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

Lab #: 124145

BATCH QC REPORT

Page 1 of 1

BTXE		
Client: Subsurface Consultants	Analysis Method: EPA 8020	
Project#: 851.002	Prep Method: EPA 5030	
Location: Plywood & Lumber Sales		
METHOD BLANK		
Matrix: Soil	Prep Date: 01/24/96	
Batch#: 25537	Analysis Date: 01/24/96	
Units: ug/Kg		
Diln Fac: 1		

MB Lab ID: QC13614

Analyte	Result	
Benzene	<5.0	
Toluene	<5.0	
Ethylbenzene	<5.0	
m,p-Xylenes	<5.0	
o-Xylene	<5.0	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	94	43-114
Bromobenzene	75	47-112

Lab #: 124145

BATCH QC REPORT

Page 1 of 1

BTXE			
Client: Subsurface Consultants	Analysis Method: EPA 8020		
Project#: 851.002	Prep Method: EPA 5030		
Location: Plywood & Lumber Sales			
LABORATORY CONTROL SAMPLE			
Matrix: Soil	Prep Date: 01/24/96		
Batch#: 25537	Analysis Date: 01/24/96		
Units: ug/Kg			
Diln Fac: 1			

LCS Lab ID: QC13613

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	101.7	100	102	80-120
Toluene	103.4	100	103	80-120
Ethylbenzene	102.4	100	102	80-120
m,p-Xylenes	201	200	101	80-120
o-Xylene	107.5	100	108	80-120
Surrogate	%Rec	Limits		
Trifluorotoluene	95	43-114		
Bromobenzene	81	47-112		

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits
 Spike Recovery: 0 out of 5 outside limits



Lab #: 124145

BATCH QC REPORT

Page 1 of 1

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 851.002	Prep Method: EPA 5030
Location: Plywood & Lumber Sales	
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: ZZZZZZ	Sample Date: 01/18/96
Lab ID: 124123-002	Received Date: 01/19/96
Matrix: Soil	Prep Date: 01/25/96
Batch#: 25537	Analysis Date: 01/25/96
Units: ug/Kg dry weight	Moisture: 13%
Diln Fac: 1	

MS Lab ID: QC13615

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Benzene	114.9	<5.747	120.2	105	75-125
Toluene	114.9	<5.747	120.9	105	75-125
Ethylbenzene	114.9	<5.747	118.9	103	75-125
m,p-Xylenes	229.9	<5.747	241.6	105	75-125
o-Xylene	114.9	<5.747	126.4	110	75-125
Surrogate	%Rec	Limits			
Trifluorotoluene	93	43-114			
Bromobenzene	87	47-112			

MSD Lab ID: QC13616

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Benzene	114.9	118.4	103	75-125	2	<20
Toluene	114.9	119.1	104	75-125	2	<20
Ethylbenzene	114.9	117.6	102	75-125	1	<20
m,p-Xylenes	229.9	237.8	103	75-125	2	<20
o-Xylene	114.9	125.2	109	75-125	1	<20
Surrogate	%Rec	Limits				
Trifluorotoluene	91	43-114				
Bromobenzene	86	47-112				

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Q C B a t c h R e p o r t

Client: Subsurface Consultants
 Project Name: Plywood & Lumber Sales
 Project Number: 851.002

Laboratory Login Number: 124145
 Report Date: 29 January 96

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

QC Batch Number: 25579

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	50	mg/Kg	SMWW 17:5520EF	26-JAN-96

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	87%	SMWW 17:5520EF	26-JAN-96
BSD	88%	SMWW 17:5520EF	26-JAN-96

		Control Limits
Average Spike Recovery	87%	80% - 120%
Relative Percent Difference	1.6%	< 20%

TEH-Tot Ext Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 851.002	Prep Method: EPA 3520
Location: Plywood & Lumber Sales	

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
124145-002	B-16	25512	01/22/96	01/23/96	01/24/96	

Analyte	Units	124145-002
Diln Fac:		1
Diesel Range	ug/L	600 YZ
Surrogate		
Hexacosane	%REC	80

Y: Sample exhibits fuel pattern which does not resemble standard
 Z: Sample exhibits unknown single peak or peaks



Lab #: 124145

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons			
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)		
Project#: 851.002	Prep Method: EPA 3520		
Location: Plywood & Lumber Sales			
METHOD BLANK			
Matrix: Water	Prep Date:	01/23/96	
Batch#: 25512	Analysis Date:	01/24/96	
Units: ug/L			
Diln Fac: 1			

MB Lab ID: QC13517

Analyte	Result	
Diesel Range	<50	
Surrogate	%Rec	Recovery Limits
Hexacosane	129	60-140



Lab #: 124145

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 851.002	Prep Method: EPA 3520
Location: Plywood & Lumber Sales	
BLANK SPIKE/BLANK SPIKE DUPLICATE	
Matrix: Water	Prep Date: 01/23/96
Batch#: 25512	Analysis Date: 01/24/96
Units: ug/L	
Diln Fac: 1	

BS Lab ID: QC13518

Analyte	Spike Added	BS	%Rec #	Limits
Diesel Range	2475	2466	100	60-140
Surrogate	%Rec	Limits		
Hexacosane	136	60-140		

BSD Lab ID: QC13519

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel Range	2475	2488	101	60-140	1	<35
Surrogate	%Rec	Limits				
Hexacosane	137	60-140				

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 851.002
Location: Plywood & Lumber Sales

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: B-16
Lab ID: 124145-002
Matrix: Water
Batch#: 25490
Units: ug/L
Diln Fac: 1

Sampled: 01/22/96
Received: 01/22/96
Extracted: 01/23/96
Analyzed: 01/23/96

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	23	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	8.1	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	8.3	5.0
cis-1,2-Dichloroethene	15	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	14	10
1,1,1-Trichloroethane	7	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	190	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	46	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	8.5	5.0
Toluene	15	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	17	5.0
Styrene	ND	5.0
m,p-Xylenes	29	5.0
o-Xylene	ND	5.0
Surrögate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	107	68-126
Toluene-d8	104	87-125
Bromofluorobenzene	99	79-122

Lab #: 124145

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics			
Client: Subsurface Consultants	Analysis Method: EPA 8240		
Project#: 851.002	Prep Method: EPA 5030		
Location: Plywood & Lumber Sales			
METHOD BLANK			
Matrix: Water	Prep Date: 01/23/96		
Batch#: 25490	Analysis Date: 01/23/96		
Units: ug/L			
Diln Fac: 1			

MB Lab ID: QC13438

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	107	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	97	79-122

Lab #: 124145

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics	
Client: Subsurface Consultants	Analysis Method: EPA 8240
Project#: 851.002	Prep Method: EPA 5030
Location: Plywood & Lumber Sales	
LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 01/23/96
Batch#: 25490	Analysis Date: 01/23/96
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC13437

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	57	50	114	51-180
Trichloroethene	50.15	50	100	73-141
Benzene	53.83	50	108	78-142
Toluene	50.71	50	101	76-150
Chlorobenzene	51.93	50	104	83-129
Surrogate	%Rec	Limits		
1,2-Dichloroethane-d4	103	68-126		
Toluene-d8	99	87-125		
Bromofluorobenzene	97	79-122		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

Lab #: 124145

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics	
Client: Subsurface Consultants	Analysis Method: EPA 8240
Project#: 851.002	Prep Method: EPA 5030
Location: Plywood & Lumber Sales	
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: ZZZZZZ	Sample Date: 01/17/96
Lab ID: 124125-016	Received Date: 01/18/96
Matrix: Water	Prep Date: 01/23/96
Batch#: 25490	Analysis Date: 01/23/96
Units: ug/L	
Diln Fac: 1	

MS Lab ID: QC13439

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5.000	64.81	130	51-180
Trichloroethene	50	<5.000	50.93	102	73-141
Benzene	50	<5.000	53.76	108	78-142
Toluene	50	<5.000	51.81	103	76-150
Chlorobenzene	50	<5.000	50.73	101	83-129
Surrogate	%Rec	Limits			
1,2-Dichloroethane-d4	104	68-126			
Toluene-d8	104	87-125			
Bromofluorobenzene	96	79-122			

MSD Lab ID: QC13440

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	59.33	119	51-180	9	<14
Trichloroethene	50	52.89	106	73-141	4	<14
Benzene	50	57.27	115	78-142	6	<11
Toluene	50	53.26	106	76-150	3	<13
Chlorobenzene	50	54.34	109	83-129	7	<13
Surrogate	%Rec	Limits				
1,2-Dichloroethane-d4	107	68-126				
Toluene-d8	101	87-125				
Bromofluorobenzene	98	79-122				

* Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits
 RPD: 0 out of 5 outside limits
 Spike Recovery: 0 out of 10 outside limits



TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 851.002
Location: Plywood & Lumber Sales

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
124145-002	B-16	25480	01/22/96	01/23/96	01/23/96	

Analyte	Units	124145-002
Diln Fac:		1
Gasoline	ug/L	1100
Surrogate		
Trifluorotoluene	%REC	83
Bromobenzene	%REC	82

BTXE

Client: Subsurface Consultants
 Project#: 851.002
 Location: Plywood & Lumber Sales

Analysis Method: EPA 8020
 Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
124145-002	B-16	25480	01/22/96	01/23/96	01/23/96	

Analyte	Units	124145-002
Diln Fac:		1
Benzene	ug/L	60
Toluene	ug/L	19
Ethylbenzene	ug/L	19
m,p-Xylenes	ug/L	32
o-Xylene	ug/L	1.9
Surrogate		
Trifluorotoluene	%REC	126
Bromobenzene	%REC	104

Lab #: 124145

BATCH QC REPORT

Page 1 of 1

TVH-Total Volatile Hydrocarbons			
Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	851.002	Prep Method:	EPA 5030
Location:	Plywood & Lumber Sales		
METHOD BLANK			
Matrix:	Water	Prep Date:	01/22/96
Batch#:	25480	Analysis Date:	01/22/96
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC13406

Analyte	Result	
Gasoline	<50	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	90	69-120
Bromobenzene	87	70-122

Client: Subsurface Consultants

Laboratory Login Number: 124145

 Project Name: Plywood & Lumber Sales
 Project Number: 851.002

Report Date: 29 January 96

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) METHOD: SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
124145-002	B-16	Water	22-JAN-96	22-JAN-96	26-JUN-96	ND	mg/L	5	TR	25580

ND = Not Detected at or above Reporting Limit (RL).



Lab #: 124145

BATCH QC REPORT

Page 1 of 1

BTXE

Client: Subsurface Consultants
Project#: 851.002
Location: Plywood & Lumber Sales

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 25480
Units: ug/L
Diln Fac: 1

Prep Date: 01/22/96
Analysis Date: 01/22/96

MB Lab ID: QC13406

Analyte	Result	
Benzene	<0.5	
Toluene	<0.5	
Ethylbenzene	<0.5	
m,p-Xylenes	<0.5	
o-Xylene	<0.5	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	101	58-130
Bromobenzene	100	62-131



Lab #: 124145

BATCH QC REPORT

Page 1 of 1

TVH-Total Volatile Hydrocarbons			
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)		
Project#: 851.002	Prep Method: EPA 5030		
Location: Plywood & Lumber Sales			
LABORATORY CONTROL SAMPLE			
Matrix: Water	Prep Date:	01/22/96	
Batch#: 25480	Analysis Date:	01/22/96	
Units: ug/L			
Diln Fac: 1			

LCS Lab ID: QC13409

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	2025	2000	101	80-120
Surrogate	%Rec	Limits		
Trifluorotoluene	79	69-120		
Bromobenzene	89	70-122		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

Lab #: 124145

BATCH QC REPORT

Page 1 of 1

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 851.002	Prep Method: EPA 5030
Location: Plywood & Lumber Sales	
BLANK SPIKE/BLANK SPIKE DUPLICATE	
Matrix: Water	Prep Date: 01/22/96
Batch#: 25480	Analysis Date: 01/22/96
Units: ug/L	
Diln Fac: 1	

BS Lab ID: QC13407

Analyte	Spike Added	BS	%Rec #	Limits
Benzene	20	21.2	106	80-120
Toluene	20	21.7	109	80-120
Ethylbenzene	20	21.4	107	80-120
m,p-Xylenes	40	43.7	109	80-120
o-Xylene	20	21.8	109	80-120
Surrogate	%Rec	Limits		
Trifluorotoluene	101	58-130		
Bromobenzene	101	62-131		

BSD Lab ID: QC13408

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Benzene	20	21.7	109	80-120	2	<20
Toluene	20	22.1	111	80-120	2	<20
Ethylbenzene	20	21.8	109	80-120	2	<20
m,p-Xylenes	40	44.3	111	80-120	1	<20
o-Xylene	20	22.2	111	80-120	2	<20
Surrogate	%Rec	Limits				
Trifluorotoluene	102	58-130				
Bromobenzene	101	62-131				

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Q C B a t c h R e p o r t

Client: Subsurface Consultants
 Project Name: Plywood & Lumber Sales
 Project Number: 851.002

Laboratory Login Number: 124145
 Report Date: 29 January 96

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

QC Batch Number: 25580

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	5	mg/L	SMWW 17:5520BF	26-JUN-96

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	82%	SMWW 17:5520BF	26-JUN-96
BSD	86%	SMWW 17:5520BF	26-JUN-96

		Control Limits
Average Spike Recovery	84%	80% - 120%
Relative Percent Difference	3.8%	< 20%

SAMPLE ID: B-16
 LAB ID: 124145-002
 CLIENT: Subsurface Consultants
 PROJECT ID: 851.002
 LOCATION: Plywood & Lumber Sales
 MATRIX: Water

DATE SAMPLED: 01/22/96
 DATE RECEIVED: 01/22/96
 DATE REPORTED: 01/29/96

Metals Analytical Report

Compound	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
Chromium (total)	68000	1000	25493	EPA 6010A	01/23/96
Lead	120	3.0	25493	EPA 6010A	01/23/96

CLIENT: Subsurface Consultants
 JOB NUMBER: 124145

DATE REPORTED: 01/29/96

 BATCH QC REPORT
 BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS % Recovery	BSD % Recovery	Average Recovery	RPD	QC Batch	Method	Analysis Date
Chromium (total)	200	215	208	ug/L	108	104	106	3	25493	EPA 6010A	01/23/96
Chromium (total)	200	196	202	ug/L	98	101	100	3	25548	EPA 6010A	01/26/96
Lead	500	511	504	ug/L	102	101	102	1	25493	EPA 6010A	01/23/96
Lead	500	506	518	ug/L	101	104	103	2	25548	EPA 6010A	01/26/96

CLIENT: Subsurface Consultants
 JOB NUMBER: 124145

DATE REPORTED: 01/29/96

 BATCH QC REPORT
 PREP BLANK

Compound	Result	Reporting Limit	Units	QC Batch	Method	Analysis Date
Chromium (total)	ND	10	ug/L	25493	EPA 6010A	01/23/96
Chromium (total)	ND	0.5	mg/Kg	25548	EPA 6010A	01/26/96
Lead	ND	3	ug/L	25493	EPA 6010A	01/23/96
Lead	ND	0.15	mg/Kg	25548	EPA 6010A	01/26/96

ND = Not Detected at or above reporting limit



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Subsurface Consultants
171 12th Street
Suite 201
Oakland, CA 94608

Date: 05-FEB-96
Lab Job Number: 124254
Project ID: 851.002
Location: Plywood & Lumber Sales

Reviewed by: _____

Reviewed by: _____

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Curtis & Tompkins, Ltd.

SAMPLE ID: B-16
LAB ID: 124254-001
CLIENT: Subsurface Consultants
PROJECT ID: 851.002
LOCATION: Plywood & Lumber Sales
MATRIX: Filtrate

DATE SAMPLED: 01/22/96
DATE RECEIVED: 01/22/96
DATE REPORTED: 02/05/96

Metals Analytical Report

Compound	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
Chromium (total)	56000	200	25733	EPA 6010A	02/05/96
Lead	ND	3.0	25733	EPA 6010A	02/05/96

ND = Not detected at or above reporting limit



Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 124254

DATE REPORTED: 02/05/96

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	QC Batch	Method	Analysis Date
Chromium (total)	ND	10	ug/L	25733	EPA 6010A	02/05/96
Lead	ND	3	ug/L	25733	EPA 6010A	02/05/96

ND = Not Detected at or above reporting limit