

CALIFORNIA  
ENVIRONMENTAL  
CONSULTANTS



RECEIVED  
DEC 07 1988

Nov. 21 st 1988

HAZARDOUS MATERIALS  
WASTE PROGRAM

Mr. Dino Gonis  
President  
West Coast Tank Testing  
5899 Santa Teresa Blvd.  
Suite 117  
San Jose, CA 95123

Refer. : 1. Soil And Ground Water (Grab) Sampling;  
&  
2. Soil Sampling of Aerated Stock Piles;  
At  
2345 East 14th Street, Oakland, California.

Dear Mr. Gonis:

At your request, California Environmental Consultants (CEC), collected soil and ground water (grab) samples from three soil borings, located adjacent to the excavated tank area, at Taxi-Taxi Stand, 2345 East 14th, Street, Oakland, California.

The three aerated stock piles of excavated soil from the underground tank areas was also sampled.

1. Soil and Ground Water (Grab) Sampling:

Based upon the reasonably assumed geohydrologic site conditions, two soil borings (B1 & B2) were located downgradient and/or transgradient and as close as possible to the excavated underground gasoline tank area. Third soil boring (B3) was located downgradient and/or transgradient of excavated waste oil tank area. Due to limited site clearance for the truck mounted drilling rig, soil boring B3, could not be located close to the excavated waste oil tank area.

The location of the soil borings and excavated tank areas, is shown in the enclosed site plan, Figure 1.

Hollow stem auger and split- spoon sampling set-up was employed at this site. Upon reaching first available ground water, grab samples were collected by using clear lucite bailer. For specific drilling, soil and ground water sampling details, please see Appendix A.

During soil sample collection, soils were logged and any peculiar



CALIFORNIA ENVIRONMENTAL CONSULTANTS

change in soil color and or odor, if any, suggesting possible contamination were noted ( Appendix B ).

Soon after sample collection, the ends of brass sleeves containing soil samples were aluminum wrapped, capped, taped, labeled and placed in on-site ice chest, containing Blue Ice.

Air free ground water samples (grab) from each boring location were collected in two 40 milliter volatile organic analysis (VOA) glass bottles, fitted with teflon lined screw caps.

Soil and water samples accompanied by Sample Chain of Custody Records, were sent on ice, directly from the site to a State Certified Hazardous Waste Testing Laboratory.

## 2. Soil Sampling Of Aerated Stock Piles:

CEC collected three soil samples from the three existing aerated stock piles. The stock piles are reported to have been aerated at site and are proposed to be used as backfill in the excavated trench areas.

Soil samples SP-1, SP-2 (from gasoline stock-pile area) and SP-3 (from waste oil stock-pile area) were sent on ice to the Hazardous Waste Testing Laboratory, accompanied by Sample Chain Of Custody Records.

### Analytical Tests:

Appendix C includes a copy of chain of custody records with appropriate required analytical tests.

Aerated soil samples SP-1 and SP-2 (from the gasoline stock-pile area) and two soil samples (B1-15 & B2-15) from 15 feet depths (corresponding to soil-ground water interface) collected adjoining the gasoline tank area were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH G) by GCFID technique; EPA Test Method 5030 and 8015. These samples were also analyzed for Benzene, Toluene, Xylenes & Ethylbenzene (BTX&E) by EPA Test Method 8020. Corresponding water samples collected from borings B1 and B2 (B1-W & B2-W) were analyzed for TPH G (EPA Method 5030 and 8015); and BTXE (EPA Test Method 802).

Aerated soil sample SP-3 (from the waste oil stock-pile area) and soil sample B3-15 and water sample B3-W adjoining waste oil tank area were analyzed for Total Petroleum Hydrocarbons as Gasoline & Diesel (TPH G&D) by GCFID (5030) technique; Chlorinated



CALIFORNIA ENVIRONMENTAL CONSULTANTS

Hydrocarbons (CL HC; soil -8010 and water -601); BTXE (soil -8020 and water -602); and Oil and Grease (O & G; 503D&E).

Analytical Results:

A copy of the analytical test results, as received from the laboratory is enclosed, Appendix C.

Gasoline Tank Area:

Soils from the aerated stock piles adjacent to the gasoline tank area, indicated concentration of Total Petroleum Hydrocarbon as Gasoline varying from trace (1.3 parts per million; ppm) to a low of 13 ppm.

In soil sample B1-15, Total Petroleum Hydrocarbons as Gasoline (TPH G), Benzene (B) and Xylenes (X) were detected at trace concentration levels of 3.4 parts per million (ppm), 0.31 ppm, and 0.14 ppm, respectively. Soil sample B2-15, indicated concentration levels of TPH G, BTX&E at detected levels of 83 ppm, 1.6 ppm, 1.1 ppm, 1.8 ppm, and 9.6 ppm, respectively.

Grab water samples B1-W and B2-W indicated presence of TPH G, BTX&E at concentration levels of 67,000 parts per billion (ppb), 14,000 ppb, 2400 ppb, 2500 ppb, 9100 ppb and 110,000 ppb, 17,000 ppb, 2600 ppb, 3000 ppb and 12,000 ppb, respectively.

Wast Oil Tank Area:

Aerated stock pile sample SP-3 indicated a high concentration level of Total Oil (as Oil and Grease) at detected level of 13,000 parts per million. }

Soil sample B3-15 collected from the waste oil tank area showed concentration levels of Oil & Grease (O & G) at 88 milligrams per kilogram (equivalent of 88 ppm). BTX&E were also detected at concentration levels of 360 ppb, 650 ppb, 470 ppb and 850 ppb, respectively.

Water sample from this location (B3-W) indicated O & G at concentration level of 290 milligram per liter (equivalent of 290 ppm). BTX&E were detected at concentration levels of 490 ppb, 160 ppb, 770 ppb and 1,300 ppb, respectively.

No chlorinated hydrocarbons were detected either in soil and or ground water samples and are shown by "N.D" (not detected) symbol in front of each chemical compound in the analytical report (Appendix C).



CALIFORNIA ENVIRONMENTAL CONSULTANTS

Conclusion:

The detected levels of petroleum hydrocarbons and associated products are above the California Regional Water Quality Control Board's action levels.

Based upon the test results of the three soil and ground water (grab) samples collected adjoining the excavated tank areas, CEC conclude that soil and shallow water adjacent to the tank locations have been impacted. Considering the high concentration levels, site remediation efforts (soil removal, on-site treatment- aeration, ground water monitoring and pumping, if necessary) would need to be carried out at this site.

Aerated soil stock piled adjacent to the gasoline tank area do indicate varying concentration level of hydrocarbons. Additional aeration is likely to lower the detected levels of hydrocarbons. High concentration of oil and grease are detected in the aerated stock pile adjacent to the waste oil area. This stock pile is recommended not to be used as a backfill in the trench area.

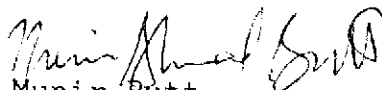
Additional soil and water samples are recommended to be collected to define the spread of contaminants, both laterally and vertically.

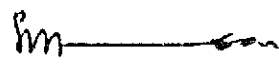
CEC recommend that all the concerned regulatory agencies including the Alameda Health Care Services (Hazardous Materials Division) be notified of the present test results.

Should you have any questions regarding this report, please let us know. We will be glad to assist you.

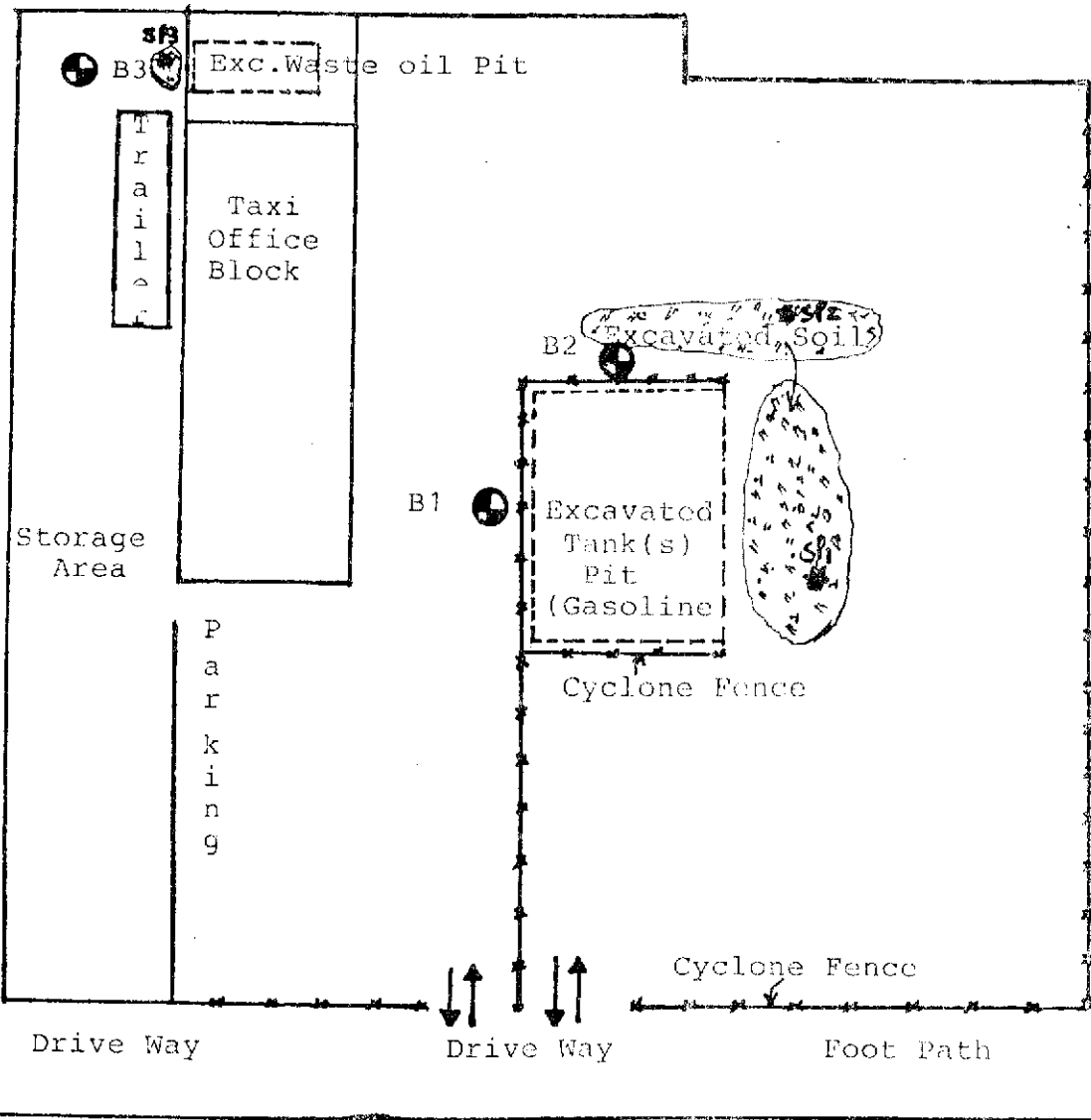
SINCERELY

CALIFORNIA ENVIRONMENTAL CONSULTANTS

  
Munir Butt  
Sr. Hydrogeologist  
(CGP No. 222)

  
Tanweer Shah  
Geoenvironmental Engineer

Property Line



Foot Path

East 14th Street

Drive Way

Drive Way

Foot Path

Miller Street



CALIFORNIA ENVIRONMENTAL CONSULTANTS

Site Plan Showing location of Three Borings at 245 East 14th Street, Oakland, CA.  
 Scale 1"=25' 0 12.5 25

FIGURE NO.

1

CEC/SBW

PROJECT NO.



CALIFORNIA ENVIRONMENTAL CONSULTANTS

## DRILLING - SOIL SAMPLING - GROUND WATER (grab) SAMPLING:

Per recommended procedures outlined by the California Regional Water Quality Control Board of San Francisco Bay Region (CRWQCB-SFBR) and the guidelines established by the Santa Clara Valley Water District (SCVWD) and Leaking Underground Fuel Tank Field Manual (LUFT) prepared by the State Water Resources Control Board, the field procedures for drilling and logging of the soil borings and collecting of soil and ground water (grab) samples were followed.

### DRILLING

Drilling of soil borings was performed by using the hollow-stem auger method. With the hollow-stem auger method, a center stem and bit (attached to the stem) was inserted into the hollow auger, while drilling. This set-up prevents the drill cuttings from entering into the hollow-stem auger. An eight inch hollow-stem auger (outside diameter) was used at the dill site.

### SOIL SAMPLING

Upon reaching a predetermined sampling interval, the center stem and bit was removed, leaving the hollow-stem auger in place. A split-spoon sampler containing clean brass sleeves, was inserted. After obtaining the soil sample from the appropriate depth, the center stem and bit was replaced and drilling resumed.

The drilling auger, all boring tools and samplers were washed and steam cleaned prior to the start of drilling. At each boring location clean augers, cutting bit, stems and soil samplers were used. Soil samplers containing brass sleeves were cleaned with trisodium phosphate (TSP) solution followed by a rinse of distilled water, after each sampling interval.

Soil samples collected during drilling operation were collected at every 5 feet intervals, upto soil-water interface. Soil samples were logged at site and any peculiar colors/stains and/or any odor suggesting possible contamination, were noted. The relatively undisturbed soil samples collected in the clean brass sleeves were immediately aluminum wrapped, capped, tapped, labeled and placed in on-site ice-chest containing Blue Ice. Since samples were analyzed for volatile and semi-volatile organic organic compounds, soil samples sent to a State Certified Hazardous Waste Testing Laboratory, accompanied by Sample Chain of Custody Records, maintained refrigeration.



CALIFORNIA ENVIRONMENTAL CONSULTANTS

#### GROUND WATER (grab) SAMPLING:

After completion of drilling of soil boring upto soil-ground water interface, grab water samples were collected. A clean two-inch diameter teflon bailer was used for retrieving of grab water samples. At each boring location, the water samples were collected in two 40 mililiter volatile organic analysis (VOA), glass bottles, fitted with teflon lined screw caps. Air free water samples, were labeled and immediately placed in on-site ice-chest, containing Blue Ice. Water samples accompanied by Sample Chain of Custody Records, maintained refrigeration, untill their delivery to a State Certified Hazardous Waste Testing Laboratory.

The sampler (teflon bailer) was thoroughly cleaned in TSP and distilled water, prior to moving from one boring location to another. Any detectable sheen and /or odor/color, if any, was noted.







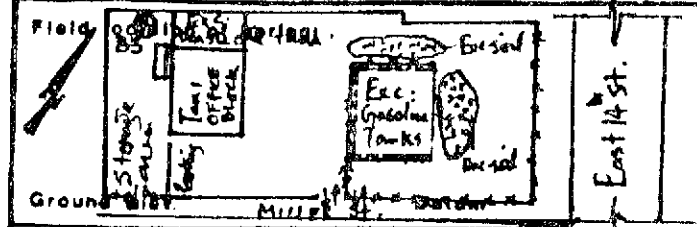


# LOG OF EXPLORATORY BORING

PROJECT No. CME-55 Date Oct 3, 88 BORING No. B3  
 CLIENT West Coast Tank Tasting  
 LOCATION 2345 East 14th Street Sheet 1  
 LOGGED BY TS DRILLED Hew Drilling of 1

Drilling method Solid Stem Auger  
CME-55 Mobile Drill Rig Hole dia. 6 inches

Casing installation data \_\_\_\_\_



Peckel Torr vane TSF	Peckel Penetrometer TSF	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth Ft.	Sample	Soil Group Symbol (U.S.C.S.)
			1.94 inch dia brass sleeves				
		2					CL
		2					
		3	B3-5		5		CL
		2					
		3					
		7	B3-10		10		CL
		5					
		8					
		12	B3-15		15		CL

Water level	21ft	16 ft.
Time	10.35 AM	
Date	10.03.88	

**DESCRIPTION**

0-9" Asphalt/Base rock, dry.

Dry to damp black silty clay w/ sand. Some discoloration (reddish) & oily odor.

Blackish to brown damp silty clay, soft. w/ some reddish sand.

Damp, brown silty clay w/ reddish sand. soft to med. stiff. Oily odor.

Damp, greenish and brown silty clay w/ fines. Med stiff. Oily odor. Some discoloration observed.

Water encountered at 21 feet. Boring bottom.



**CHAIN OF SAMPLE CUSTODY RECORD**

Collector: Tanner Shob Date Sampled: 10.03.88 Time: 2:30pm  
 Location of Sampling: 2345 East 14<sup>th</sup> Street, Oakland, CA  
 Project Number: CEC/SBW 9.88.2 Survey Number: \_\_\_\_\_  
 Sample Type: SOIL  
 Container Type and Condition: Brass Sleeves 2 inch dia 6 inch long in Ice  
 Contract Laboratory Record/Name: SEQUOIA ANALYTICAL LAB 2549 Middlefield St, Hayward, CA 94605

Sample ID	Field Information
<u>B<sub>1</sub>-15'</u>	<u>Soil Sample from boring B<sub>1</sub> from 15' depth</u>
<u>B<sub>2</sub>-15'</u>	<u>Soil Sample from Boring B<sub>2</sub> from 15' depth</u>
<u>B<sub>3</sub>-15'</u>	<u>Soil Sample from Boring B<sub>3</sub> from 15' depth</u>

Analysis Requested: I Analyze ~~both~~ B<sub>1</sub>-15 and B<sub>2</sub>-15 samples individually by:  
 ① Total Petroleum Hydrocarbon TPH G, EPA Test Method 5030  
 ② B, T, X & E by EPA Test Method 8020

II Analyze B<sub>3</sub>-15 by ① EPA 5030  
 ② EPA Method 8010 and 8020.  
 Results Needed By: ③ Oil & Grease 503 D & E.

Travel Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Travel Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Duplicate Samples:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Duplicates to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Field Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Field Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Background Soil Sample:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Background Soil Sample to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Chain of Custody:

1. <u>[Signature]</u> Field Personnel	<u>Oct 3, 88</u> Date
2. _____ Courier	<u>Oct 3, 88</u> Date
3. <u>B. Uy</u> Lab	<u>10/3/88 2:30</u> Date

(Three brass sleeves - 2" dia x length)



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 10/03/88  
Date Received: 10/03/88  
Date Analyzed: 10/12/88  
Date Reported: 10/31/88

Project: #CEC-SBW 9-88-2

TOTAL PETROLEUM FUEL  
HYDROCARBONS WITH BTEX DISTINCTION

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Low to Medium Boiling Point Hydrocarbons</u> ppm	<u>Benzene</u> ppm	<u>Toluene</u> ppm	<u>Ethyl Benzene</u> ppm	<u>Xylenes</u> ppm
8100025	B1-15'	3.4	0.31	N.D.	N.D.	0.14
8100026	B2-15'	83	1.6	1.1	1.8	9.6

Detection Limits:            1.0            0.05            0.1            0.1            0.1

Method of Analysis: EPA 5030 or 3810/8015/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 10/03/88  
Date Received: 10/03/88  
Date Extracted: 10/06/88  
Date Reported: 10/31/88  
Project: #CEC/SBW 9-88-2

## TOTAL OIL AND GREASE

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Detection Limit</u> mg/kg	<u>Gravimetric Petroleum Oil</u> mg/kg
8100027	B3-15'	30	88

Method of Analysis: EPA 3550 with trichlorotrifluoroethane and gravimetric determination.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 10/03/88  
Date Received: 10/03/88  
Date Analyzed: 10/06/88  
Date Reported: 10/31/88

Project: #CEC/SBW 9-88-2

## HALOGENATED VOLATILE ORGANICS

Sample Number

8100027

Sample Description

Soil, B3-15'

<u>Analyte</u>	<u>Detection Limit</u>	<u>Sample Results</u>
	µg/kg	µg/kg
Bromodichloromethane.....	25	N.D.
Bromoform.....	25	N.D.
Bromomethane.....	25	N.D.
Carbon tetrachloride.....	25	N.D.
Chlorobenzene.....	25	N.D.
Chloroethane.....	130	N.D.
2-Chloroethylvinyl ether.....	25	N.D.
Chloroform.....	25	N.D.
Chloromethane.....	25	N.D.
Dibromochloromethane.....	25	N.D.
1,2-Dichlorobenzene.....	50	N.D.
1,3-Dichlorobenzene.....	50	N.D.
1,4-Dichlorobenzene.....	50	N.D.
1,1-Dichloroethane.....	25	N.D.
1,2-Dichloroethane.....	25	N.D.
1,1-Dichloroethene.....	25	N.D.
trans-1,2-Dichloroethene.....	25	N.D.
1,2-Dichloropropane.....	25	N.D.
cis-1,3-Dichloropropene.....	25	N.D.
trans-1,3-Dichloropropene.....	25	N.D.
Methylene chloride.....	50	N.D.
1,1,2,2-Tetrachloroethane.....	25	N.D.
Tetrachloroethene.....	25	N.D.
1,1,1-Trichloroethane.....	25	N.D.
1,1,2-Trichloroethane.....	25	N.D.
Trichloroethene.....	25	N.D.
Trichlorofluoromethane.....	25	N.D.
Vinyl chloride.....	50	N.D.

Method of Analysis: EPA 5030/8010

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 10/03/88  
Date Received: 10/03/88  
Date Analyzed: 10/06/88  
Date Reported: 10/31/88  
Project: #CEC/SBW 9-88-2

## AROMATIC VOLATILE ORGANICS

### Sample Number

8100027

### Sample Description

Soil, B3-15'

<u>Analyte</u>	<u>Detection Limit</u> µg/kg	<u>Sample Results</u> µg/kg
Benzene.....	25	360
Chlorobenzene.....	25	N.D.
1,4-Dichlorobenzene.....	50	N.D.
1,3-Dichlorobenzene.....	50	N.D.
1,2-Dichlorobenzene.....	50	N.D.
Ethyl Benzene.....	25	470
Toluene.....	25	650
Xylenes.....	25	850

Method of Analysis: EPA 5030/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director

CHAIN OF SAMPLE CUSTODY RECORD

Collector: Tanner Shah Date Sampled: 10-03-88 Time: 2:30PM

Location of Sampling: 2345 East 14th Street, Oakland, CA

Project Number: CEC/SBW 9.88.2 Survey Number: \_\_\_\_\_

Sample Type: Grab Ground Water

Container Type and Condition: Six number 40ml Vials

Contract Laboratory Record/Name: Sereno Analytical Lab, 2549 Middlefield Rd, Redwood City, CA 94063

Sample ID	Field Information
<u>B<sub>1</sub>-W</u>	<u>Grab Ground Water Sample from boring B<sub>1</sub></u>
<u>B<sub>2</sub>-W</u>	<u>Grab Ground Water Sample from boring B<sub>2</sub></u>
<u>B<sub>3</sub>-W</u>	<u>Grab Ground Water Sample from boring B<sub>3</sub></u>

Analysis Requested: I Analyze water samples ~~B<sub>1</sub>-W~~ B<sub>1</sub>-W and B<sub>2</sub>-W

- ① TPH G by EPA Test Method 5030
- ② B, T, X & C by EPA Test Method 602

II Analyze water sample B<sub>3</sub>-W by:

- ① EPA Method 5030 and

Results Needed By: ② EPA 601 ③ EPA 602, ④ EPA 503 A, B, C

Travel Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Travel Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Duplicate Samples:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Duplicates to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Field Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Field Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Background Soil Sample:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Background Soil Sample to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Chain of Custody:

1. [Signature]  
Field Personnel

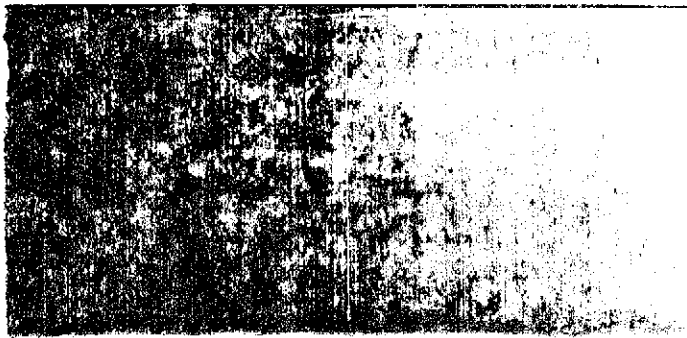
2. [Signature]  
Courier

3. B. U.  
Lab

[Signature] Oct 3, 88  
Date

[Signature] Oct 3, 88  
Date

10/3/88 2:30  
Date







# SEQUOIA ANALYTICAL

680 Chesapeake Drive · Redwood City, CA 94063  
(415) 364-9222 · FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 10/03/88  
Date Received: 10/03/88  
Date Analyzed: 10/06/88  
Date Reported: 10/31/88  
Project: #CEC-SRW 9-88-2

TOTAL PETROLEUM FUEL  
HYDROCARBONS WITH BTEX DISTINCTION

<u>Sample Number</u>	<u>Sample Description</u> Water	<u>Low to Medium Boiling Point Hydrocarbons</u> ppb	<u>Benzene</u> ppb	<u>Toluene</u> ppb	<u>Ethyl Benzene</u> ppb	<u>Xylenes</u> ppb
8100017	B1-W	67000	14000	2400	2500	9100
8100018	B2-W	110000	17000	2600	3000	12000

Detection Limits:                    50                    0.5                    0.5                    0.5                    0.5

Method of Analysis: EPA 5030/8015/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 10/03/88  
Date Received: 10/03/88  
Date Extracted: 10/28/88  
Date Reported: 10/31/88  
Project: #CEC/SBW 9-88-2

## TOTAL OIL AND GREASE

<u>Sample Number</u>	<u>Sample Description</u> Water	<u>Detection Limit</u> ppm	<u>Gravimetric Petroleum Oil</u> ppm
8100019	B3-W	5.0	290

Method of Analysis: EPA 3550 with trichlorotrifluoroethane and gravimetric determination.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 10/03/88  
Date Received: 10/03/88  
Date Analyzed: 10/06/88  
Date Reported: 10/31/88

Project: #CEC/SBW 9-88-2

## HALOGENATED VOLATILE ORGANICS

<u>Sample Number</u>	<u>Sample Description</u>
8100019	Water, B3-W

<u>Analyte</u>	<u>Detection Limit</u>	<u>Sample Results</u>
	µg/L	µg/L
Bromodichloromethane.....	50	N.D.
Bromoform.....	50	N.D.
Bromomethane.....	50	N.D.
Carbon tetrachloride.....	50	N.D.
Chlorobenzene.....	50	N.D.
Chloroethane.....	250	N.D.
2-Chloroethylvinyl ether.....	50	N.D.
Chloroform.....	25	N.D.
Chloromethane.....	25	N.D.
Dibromochloromethane.....	25	N.D.
1,2-Dichlorobenzene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.
1,1-Dichloroethane.....	25	N.D.
1,2-Dichloroethane.....	25	N.D.
1,1-Dichloroethene.....	50	N.D.
trans-1,2-Dichloroethene.....	50	N.D.
1,2-Dichloropropane.....	25	N.D.
cis-1,3-Dichloropropene.....	250	N.D.
trans-1,3-Dichloropropene.....	250	N.D.
Methylene chloride.....	100	N.D.
1,1,2,2-Tetrachloroethane.....	25	N.D.
Tetrachloroethene.....	25	N.D.
1,1,1-Trichloroethane.....	25	N.D.
1,1,2-Trichloroethane.....	25	N.D.
Trichloroethene.....	25	N.D.
Trichlorofluoromethane.....	50	N.D.
Vinyl chloride.....	100	N.D.

Method of Analysis: EPA 5030/8010

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 10/03/88  
Date Received: 10/03/88  
Date Analyzed: 10/06/88  
Date Reported: 10/31/88

Project: #CEC/SBW 9-88-2

## AROMATIC VOLATILE ORGANICS

### Sample Number

8100019

### Sample Description

Water, B3-W

<u>Analyte</u>	<u>Detection Limit</u> µg/L	<u>Sample Results</u> µg/L
Benzene.....	25	490
Chlorobenzene.....	50	N.D.
1,4-Dichlorobenzene.....	100	N.D.
1,3-Dichlorobenzene.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.
Ethyl Benzene.....	25	770
Toluene.....	25	160
Xylenes.....	25	1300

Method of Analysis: EPA 5030/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director



**CHAIN OF SAMPLE CUSTODY RECORD**

Collector: Tanmeer Shah Date Sampled: 11-02-88 Time: 11 A.M.

Location of Sampling: 2345 East 14<sup>th</sup> Street, Oakland, CA

Project Number: CEC/SB-9-88-2-1 Survey Number: \_\_\_\_\_

Sample Type: Soil

Container Type and Condition: Brass Sleeves 2 inch dia 6 inch long on ice

Contract Laboratory Record/Name: SEQUOIA ANALYTICAL LAB, 680 Chesapeake St, Redwood City, CA 94063

Sample ID	Field Information
<u>SP1</u>	<u>Soil Sample from aerated Pile 1 (Gardline)</u>
<u>SP2</u>	<u>Soil Sample from aerated Pile 2 (Purdine)</u>
<u>SP3</u>	<u>Soil Sample from aerated Pile 3 (Wastewater)</u>

Analysis Requested: I Analyse SP1 + SP2 samples individually by:  
 ① Total Petroleum Hydrocarbons TPH G EPA Test Method 5030  
 ② B, T, X & E by EPA Test Method 8020

③ Analyse SP3 by ① EPA 5030 ② EPA 8010 & 8020 ③ Oil and Grease 5030 & E

Results Needed By: NOVEMBER 4, 88 (48 HOUR RUSH!)

Travel Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Travel Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Duplicate Samples:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Duplicates to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Field Blank:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Field Blank to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Background Soil Sample:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Background Soil Sample to be Analyzed Separately:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Chain of Custody:

- Field Personnel: [Signature]
- Courier: [Signature]
- Lab: [Signature]

NOV 2, 88  
 Date  
NOV 2, 88  
 Date  
11/2/88 10:55 AM  
 Date

(Three brass sleeves - 2" dia & length)



# SEQUOIA ANALYTICAL

680 Chesapeake Drive · Redwood City, CA 94063  
(415) 364-9222 · FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 11/02/88  
Date Received: 11/02/88  
Date Analyzed: 11/03/88  
Date Reported: 11/07/88  
Project: CEC/SBW9.88.2.1

TOTAL PETROLEUM FUEL  
HYDROCARBONS WITH BTEX DISTINCTION

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Low to Medium Boiling Point Hydrocarbons</u> ppm	<u>Benzene</u> ppm	<u>Toluene</u> ppm	<u>Ethyl Benzene</u> ppm	<u>Xylenes</u> ppm
8110126	SP1	1.3	N.D.	N.D.	N.D.	N.D.
8110127	SP2	13	N.D.	N.D.	N.D.	N.D.

Detection Limits: 1.0 0.05 0.1 0.1 0.1

Method of Analysis: EPA 5030 or 3810/8015/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 11/02/88  
Date Received: 11/02/88  
Date Analyzed: 11/03/88  
Date Reported: 11/07/88  
Project: CEC/SBW9.88.2.1

## HALOGENATED VOLATILE ORGANICS

Sample Number

8110128

Sample Description

Soil, SP3

<u>Analyte</u>	<u>Detection Limit</u>	<u>Sample Results</u>
	µg/kg	µg/kg
Bromodichloromethane.....	5.0	N.D.
Bromoform.....	5.0	N.D.
Bromomethane.....	5.0	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	25	N.D.
2-Chloroethylvinyl ether.....	5.0	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	5.0	N.D.
Dibromochloromethane.....	5.0	N.D.
1,2-Dichlorobenzene.....	10	N.D.
1,3-Dichlorobenzene.....	10	N.D.
1,4-Dichlorobenzene.....	10	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
trans-1,2-Dichloroethene.....	5.0	N.D.
1,2-Dichloropropane.....	5.0	N.D.
cis-1,3-Dichloropropene.....	5.0	N.D.
trans-1,3-Dichloropropene.....	5.0	N.D.
Methylene chloride.....	10	N.D.
1,1,2,2-Tetrachloroethane.....	5.0	N.D.
Tetrachloroethene.....	5.0	N.D.
1,1,1-Trichloroethane.....	5.0	N.D.
1,1,2-Trichloroethane.....	5.0	N.D.
Trichloroethene.....	5.0	N.D.
Trichlorofluoromethane.....	5.0	N.D.
Vinyl chloride.....	10	N.D.

Method of Analysis: EPA 5030/8010

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California Environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 11/02/88  
Date Received: 11/02/88  
Date Analyzed: 11/03/88  
Date Reported: 11/07/88  
Project: CEC/SBW9.88.2.1

## AROMATIC VOLATILE ORGANICS

<u>Sample Number</u>	<u>Sample Description</u>
8110128	Soil, SP3

<u>Analyte</u>	<u>Detection Limit</u> µg/kg	<u>Sample Results</u> µg/kg
benzene.....	5.0	N.D.
chlorobenzene.....	5.0	N.D.
,4-Dichlorobenzene.....	10	N.D.
,3-Dichlorobenzene.....	10	N.D.
,2-Dichlorobenzene.....	10	N.D.
ethyl Benzene.....	5.0	N.D.
oluene.....	5.0	N.D.
ylenes.....	5.0	N.D.

Method of Analysis: EPA 5030/8020

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director





# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
(415) 364-9222 • FAX (415) 364-9233

California environmental Consultants  
1117 Happy Valley Avenue  
San Jose, CA 95129  
Attn: Munir Butt

Date Sampled: 11/02/88  
Date Received: 11/02/88  
Date Extracted: 11/02/88  
Date Reported: 11/07/88  
Project: CRC/53W9-88-2.1

## TOTAL OIL AND GREASE

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Detection Limit</u> mg/kg	<u>Gravimetric Petroleum Oil</u> mg/kg
8110128	SP3	30	1300

Method of Analysis: EPA 3550 with trichlorotrifluoroethane and gravimetric determination.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton  
Laboratory Director