

CALCULATION SHEET

DATE 5/5/89

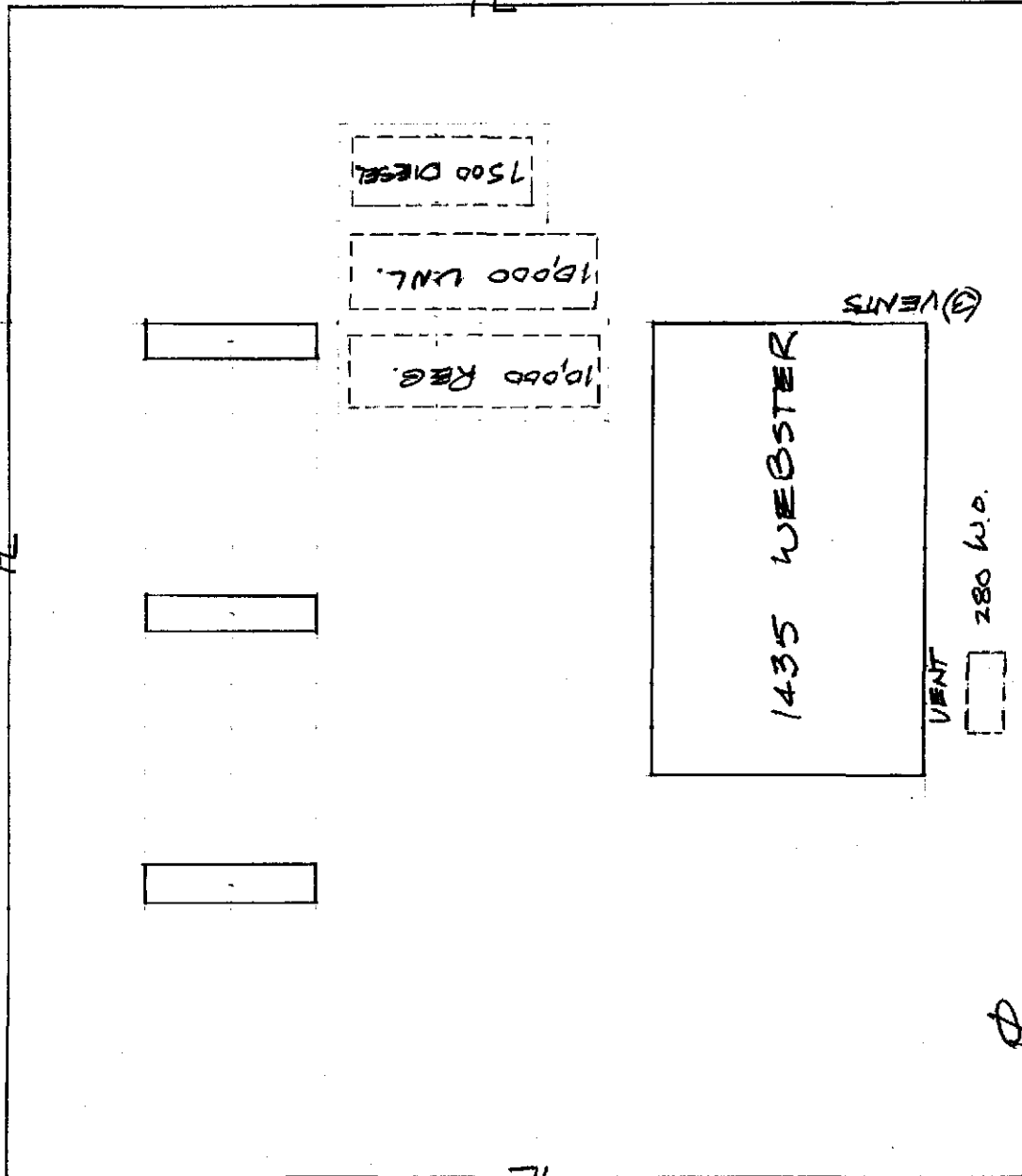
DESIGN BY _____ DATE _____ CHECKED BY _____ SHEET NO. _____

PROJECT TANK REMOVALS JOB NO. _____

SUBJECT 1435 WEBSTER ALAMEDA CALCULATION NO. _____ FILE NO. _____

TAYLOR ST.

WEBSTER ST.



(3) VENTS

VENT 280 W.D.





Soil Sampling Report
Job# 89-04-034
2 OCT 89

TANK TESTING & MAINTENANCE SERVICES

35 SOUTH LINDEN • SOUTH SAN FRANCISCO, CALIFORNIA 94080-6407
(415) 952-0327 • FAX (415) 952-7631

Contractor's State Lic. # 247322

Olympian Oil Company
260 Michele Court
South San Francisco, CA 94080

Attention: Ms. Janet Heikel

Subject: Underground Tank Removals.
Soil Sampling Report.

Site address: 1435 Webster Street, Alameda, California

Sampling date: 12 SEP 89

Reporting Date: 21 SEP 89

I - Summary of Sampling:

Soil sampling was performed at the above mentioned site at the locations shown on the attached drawing. Sampling followed the removal of three underground fuel storage tanks, and one waste oil tank.

Backfill soil was sand. Native soil, encountered at approximately 14 feet below local grade elevation, consisted of a orange-brown fine sandy silty-clay mix.

Water was not encountered in the excavation. (Some moisture was observed in a 2'x2'x2' deep excavation at an approximate depth of 15.5 feet).

All sampling was performed in accordance with the requirements of Alameda County Health Agency, under the direct guidance and supervision of Mr. Ariu Levi, Hazardous Materials Specialist.

All samples were delivered under chain of custody to Sequoia Analytical Laboratory in Redwood City, California (DHS#145) for analysis. Samples were analyzed on a one week rush turnaround.

II - Sampling Details:

A - Diesel and Gasoline Tanks Excavation:

Six soil samples were collected in the excavation where 2-10,000 gallons gasoline [1-Unleaded Gasoline (Tank 2), and 1-Regular Leaded Gasoline (Tank 3)], and 1-7,500 gallons diesel (Tank 1) empty tanks had been removed.

All six samples were collected at depths varying between 11 and 14 feet below local grade elevation, or roughly 12 to 24 inches below tank bottoms.

Sample ID:

1 Fill = Fill end of the Diesel tank (tank 1), at 14 feet below grade. Sample was analyzed for Total Petroleum Hydrocarbons (TPH) as Diesel.

1 End = End opposite the fill of the diesel tank (tank 1), at 11 feet below grade. Sample was analyzed for Total Petroleum Hydrocarbons (TPH) as Diesel.

2 Fill = Fill end of the Unleaded Gasoline tank (tank 2), at 14 feet below grade. Sample was analyzed for Total Petroleum Hydrocarbons (TPH) as Gasoline with Benzene, Toluene, Ethyl benzene, and Xylenes distinctions.

2 End SW = End opposite the fill of the Unleaded Gasoline tank (tank 2), at 11 feet below grade, in the Side Wall of the excavation. Sample was analyzed for Total Petroleum Hydrocarbons (TPH) as Gasoline with Benzene, Toluene, Ethyl benzene, and Xylenes distinctions.

3 Fill SW = Fill end of the Regular Gasoline tank (tank 3), at 13 feet below grade, in the Side Wall of the excavation. Sample was analyzed for Total Petroleum Hydrocarbons (TPH) as Gasoline with Benzene, Toluene, Ethyl benzene, and Xylenes distinctions, and Lead (Pb).

3 End = End opposite the fill of the Regular Gasoline tank (tank 3), at 12 feet below grade. Sample was analyzed for Total Petroleum Hydrocarbons

(TPH) as Gasoline with Benzene, Toluene, Ethyl benzene, and Xylenes distinctions, and Lead (Pb).

B - Waste Oil tank Excavation:

One soil sample labeled W.O. was collected in the bottom (center) of the waste oil tank excavation, at a depth of approximately 7 feet below local grade elevation.

Samples were analyzed for Total Petroleum Hydrocarbons (TPH) as Gasoline with Benzene, Toluene, Ethyl benzene, and Xylenes distinctions, TPH as Diesel, Metals: Cd, Cr, Pb, Zn, Total Oil and Grease (EPA 503D&E), EPA 8010, and EPA 8020.

C - Piping Islands:

One soil sample was collected from each of the two piping islands. Soil samples were collected at an approximate depth of 18 inches below the location of the previously removed dispensing pumps.

Sample ID:

I - 1 = Island closest to Taylor Street

I - 2 = Inside island away from Taylor Street

Samples were analyzed for Total Petroleum Hydrocarbons (TPH) as Gasoline with Benzene, Toluene, Ethyl benzene, and Xylenes distinctions, TPH as Diesel.

D - Excavated Soil:

Two composite samples, consisting of four (4) samples each, were collected out of the two piles of excavated soil. Location and designation (A1-A4, B1-B4) of the samples is as shown on the attached drawing.

Samples were analyzed for Total Petroleum Hydrocarbons (TPH) as Gasoline with Benzene, Toluene, Ethyl benzene, and Xylenes distinctions, TPH as Diesel.

III - Sampling Procedure:

Soil sampling was performed at the above mentioned address at the locations designated on the attached drawing. Sampling was done in accordance with accepted sampling techniques. Samples were collected in approved containers (brass liners), properly labelled and sealed (aluminum foil, plastic caps, and tape), placed on ice, and transported under chain of custody to an approved laboratory for analysis. Original results of the analyses are provided with this report.

IV - Analytical Results [Over 100 PPM]:

Sample ID...	TPH G (ppm)	TPH D (ppm)	TOG (ppm)
End 3 SW	110	-	-
I - 1	-	200	-
I - 2	110	90	-
B1 - B4	220	430	-
W.O.	N.D.	23	650
Detection Limits	1.0	1.0	30.0

TPH G = Total Petroleum Hydrocarbons as Gasoline

TPH D = Total Petroleum Hydrocarbons as Diesel

TOG = Total Oil and Grease

N.D. = Non Detected

ppm = parts per million

V - Discussion of Results:

Tank Excavation:

One sample, labelled 'End 3 SW', collected at the fill end of tank No. 3, at a depth of 13 feet, in the sidewall of the excavation, reported 110 parts per million of total petroleum hydrocarbons as gasoline.

Excavated Soil:

Excavated soil was stockpiled on site, awaiting the results of the soil analyses. This soil, with a rough estimated volume of 100 cubic yards (cu yds), was designated pile A and pile B for sampling purposes ... with each pile containing approximately 50 cu yds of soil (see attached drawing). Samples A1 thru A4 reported 16 ppm of TPH D and Non Detectable levels of TPH G. Samples B1 thru B4 reported 430 ppm of TPH D and 220 ppm of TPH G. We suspect to have one spot of high level contamination in part B of the pile. Therefore we would recommend on site bio-remediation of the two piles to levels below 100 parts per million for both TPH as Diesel and as Gasoline. One remediation is complete and confirmed by certified lab analysis, we would recommend to backfill the excavation with that same treated soil. We consider this method to be the most cost effective, and environmentally safe for the limited amounts of contamination encountered.

Islands:

As expected, contamination levels varying between 90 and 200 parts per million of total petroleum hydrocarbons were encountered in the areas directly below the locations previously occupied by the dispensing pumps. Accutite would recommend to perform limited excavation in these two areas, once the canopy, has been demolished. Boundaries of these excavations will be sampled for the determination of the lateral extent of contamination.

The excavated soil from these two areas, will be treated with the rest of the excavated soil, as required to be backfilled in its original excavation.

Waste Oil tank excavation:

Soil sampled did not reflect any of the symptoms usually associated with waste oil contamination, i.e. discoloration of the soil, hydrocarbon smell, or oily consistency. However this sample 'W.O.' reported 650 ppm of total oil and grease. Accutite recommends this excavation be resample to confirm the levels.

If/when levels are confirmed to be over 100 parts per million, we would recommend further excavation for the determination of the lateral extent

of contamination. Excavated soil will be treated on site and replaced in its original excavation.

VI - Recommendations:

A- A copy of this report should be mailed to the following agencies for their review and comments:

Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621
Attention: Mr. Ariu Levi

B- Verify downgradient direction of water flow at the site, based on previous work performed in the immediate vicinity, then install one down gradient monitoring well at the site.

C- Detailing and implementation of the above referenced clean up proposal, after its approval by the regulating agencies.

For more informations regarding the job progress and the soil sampling please do not hesitate to contact the undersigned at Accutite Engineering, (415) 952-5551.

Report Prepared by:
Accutite Tank Testing & Maintenance Services

Eddy Tabet

Eddy A. Tabet, P.E.
Accutite Engineering



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Accutite	Client Project ID: Olympic	Sampled: Sep 12, 1989
35 South Linden Avenue	Sample Descript: Soil, WO	Received: Sep 12, 1989
South San Francisco, CA 94080		
Attention: Eddy Tabet	Lab Number: 909-1370	Reported: Sep 23, 1989

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.1	0.43
Chromium	0.05	21
Lead	0.05	26
Zinc	0.1	45

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

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager



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Accutite	Client Project ID: Olympic	Sampled: Sep 12, 1989
35 South Linden Avenue	Sample Descript: Soil	Received: Sep 12, 1989
South San Francisco, CA 94080	Analysis for: Lead	
Attention: Eddy Tabet	First Sample #: 909-1375	Reported: Sep 23, 1989

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
909-1375	Fill 3 SW	0.05	22
909-1376	End 3	0.05	3.2

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

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Project Manager

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Accutite
35 South Linden Avenue
South San Francisco, CA 94080
Attention: Eddy Tabet

Client Project ID: Olympic
Matrix Descript: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 909-1370

Sampled: Sep 12, 1989
Received: Sep 12, 1989
Analyzed: Sep 20, 1989
Reported: Sep 23, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
909-1370	WO	N.D.	N.D.	N.D.	N.D.	N.D.
909-1373	Fill 2	18	N.D.	N.D.	N.D.	N.D.
909-1374	End 2 SW	N.D.	N.D.	N.D.	N.D.	N.D.
909-1375	End 3 SW	110	N.D.	0.22	N.D.	3.4
909-1376	End 3	1.5	N.D.	N.D.	N.D.	N.D.
909-1377	I1	2.7	N.D.	N.D.	N.D.	N.D.
909-1378	I2	110	N.D.	0.55	1.2	9.3
909-1379	B1,B2,B3, B4 Comp.	220	N.D.	N.D.	N.D.	1.5
909-1380	A1,A2,A3, A4 Comp.	N.D.	N.D.	N.D.	N.D.	N.D.

Detection Limits:

1.0

0.05

0.1

0.1

0.1

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

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Project Manager



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Accutite	Client Project ID: Olympic	Sampled: Sep 12, 1989
35 South Linden Avenue	Matrix Descript: Soil	Received: Sep 12, 1989
South San Francisco, CA 94080	Analysis Method: EPA 3550/8015	Extracted: Sep 17, 1989
Attention: Eddy Tabet	First Sample #: 909-1370	Analyzed: Sep 18, 1989
		Reported: Sep 23, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
909-1370	WO	23
909-1371	Fill 1	25
909-1372	End 1	8.3
909-1377	I1	200
909-1378	I2	90
909-1379	B1,B2,B3, B4 Comp.	430
909-1380	A1,A2,A3, A4 Comp.	16

Detection Limits: 1.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

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Accutite	Client Project ID: Olympic	Sampled: Sep 12, 1989
35 South Linden Avenue	Sample Descript: Soil, WO	Received: Sep 12, 1989
South San Francisco, CA 94080	Analysis Method: EPA 5030/8010	Analyzed: Sep 14, 1989
Attention: Eddy Tabet	Lab Number: 909-1370	Reported: Sep 23, 1989

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results 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.....	25.0	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.....	10.0	N.D.
1,3-Dichlorobenzene.....	10.0	N.D.
1,4-Dichlorobenzene.....	10.0	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
Total 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.....	10.0	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.....	10.0	N.D.

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

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Project Manager



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Accutite	Client Project ID: Olympic	Sampled: Sep 12, 1989
35 South Linden Avenue	Sample Descript: Soil, WO	Received: Sep 12, 1989
South San Francisco, CA 94080	Analysis Method: EPA 8270	Extracted: Sep 18, 1989
Attention: Eddy Tabet	Lab Number: 909-1370	Analyzed: Sep 18, 1989
		Reported: Sep 23, 1989

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene.....	100.0	N.D.
Acenaphthylene.....	100.0	N.D.
Aniline.....	100.0	N.D.
Anthracene.....	100.0	N.D.
Benzidine.....	2,500.0	N.D.
Benzoic Acid.....	500.0	N.D.
Benzo(a)anthracene.....	100.0	N.D.
Benzo(b)fluoranthene.....	100.0	N.D.
Benzo(k)fluoranthene.....	100.0	N.D.
Benzo(g,h,i)perylene.....	100.0	N.D.
Benzo(a)pyrene.....	100.0	N.D.
Benzyl alcohol.....	100.0	N.D.
Bis(2-chloroethoxy)methane.....	100.0	N.D.
Bis(2-chloroethyl)ether.....	100.0	N.D.
Bis(2-chloroisopropyl)ether.....	100.0	N.D.
Bis(2-ethylhexyl)phthalate.....	500.0	N.D.
4-Bromophenyl phenyl ether.....	100.0	N.D.
Butyl benzyl phthalate.....	100.0	N.D.
4-Chloroaniline.....	100.0	N.D.
2-Chloronaphthalene.....	100.0	N.D.
4-Chloro-3-methylphenol.....	100.0	N.D.
2-Chlorophenol.....	100.0	N.D.
4-Chlorophenyl phenyl ether.....	100.0	N.D.
Chrysene.....	100.0	N.D.
Dibenz(a,h)anthracene.....	100.0	N.D.
Dibenzofuran.....	100.0	N.D.
Di-N-butyl phthalate.....	500.0	N.D.
1,3-Dichlorobenzene.....	100.0	N.D.
1,4-Dichlorobenzene.....	100.0	N.D.
1,2-Dichlorobenzene.....	100.0	N.D.
3,3-Dichlorobenzidine.....	500.0	N.D.
2,4-Dichlorophenol.....	100.0	N.D.
Diethyl phthalate.....	100.0	N.D.
2,4-Dimethylphenol.....	100.0	N.D.
Dimethyl phthalate.....	100.0	N.D.
4,6-Dinitro-2-methylphenol.....	500.0	N.D.
2,4-Dinitrophenol.....	500.0	N.D.



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Accutite	Client Project ID: Olympic	Sampled: Sep 12, 1989
35 South Linden Avenue	Sample Descript: Soil, WO	Received: Sep 12, 1989
South San Francisco, CA 94080	Analysis Method: EPA 8270	Extracted: Sep 18, 1989
Attention: Eddy Tabet	Lab Number: 909-1370	Analyzed: Sep 18, 1989
		Reported: Sep 23, 1989

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene.....	100.0	N.D.
2,6-Dinitrotoluene.....	100.0	N.D.
Di-N-octyl phthalate.....	100.0	N.D.
Fluoranthene.....	100.0	N.D.
Fluorene.....	100.0	N.D.
Hexachlorobenzene.....	100.0	N.D.
Hexachlorobutadiene.....	100.0	N.D.
Hexachlorocyclopentadiene.....	100.0	N.D.
Hexachloroethane.....	100.0	N.D.
Indeno(1,2,3-cd)pyrene.....	100.0	N.D.
Isophorone.....	100.0	N.D.
2-Methylnaphthalene.....	100.0	N.D.
2-Methylphenol.....	100.0	N.D.
4-Methylphenol.....	100.0	N.D.
Naphthalene.....	100.0	N.D.
2-Nitroaniline.....	500.0	N.D.
3-Nitroaniline.....	500.0	N.D.
4-Nitroaniline.....	500.0	N.D.
Nitrobenzene.....	100.0	N.D.
2-Nitrophenol.....	100.0	N.D.
4-Nitrophenol.....	500.0	N.D.
N-Nitrosodiphenylamine.....	100.0	N.D.
N-Nitroso-di-N-propylamine.....	100.0	N.D.
Pentachlorophenol.....	500.0	N.D.
Phenathrene.....	100.0	100
Phenol.....	100.0	N.D.
Pyrene.....	100.0	340
1,2,4-Trichlorobenzene.....	100.0	N.D.
2,4,5-Trichlorophenol.....	500.0	N.D.
2,4,6-Trichlorophenol.....	100.0	N.D.

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

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager



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Accutite	Client Project ID: Olympic	Sampled: Sep 12, 1989
35 South Linden Avenue	Matrix Descript: Soil	Received: Sep 12, 1989
South San Francisco, CA 94080	Analysis Method: SM 503 D&E (Gravimetric)	Extracted: Sep 19, 1989
Attention: Eddy Tabet	First Sample #: 909-1370	Analyzed: Sep 19, 1989
		Reported: Sep 23, 1989

TOTAL RECOVERABLE OIL & GREASE

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
909-1370	WO	650

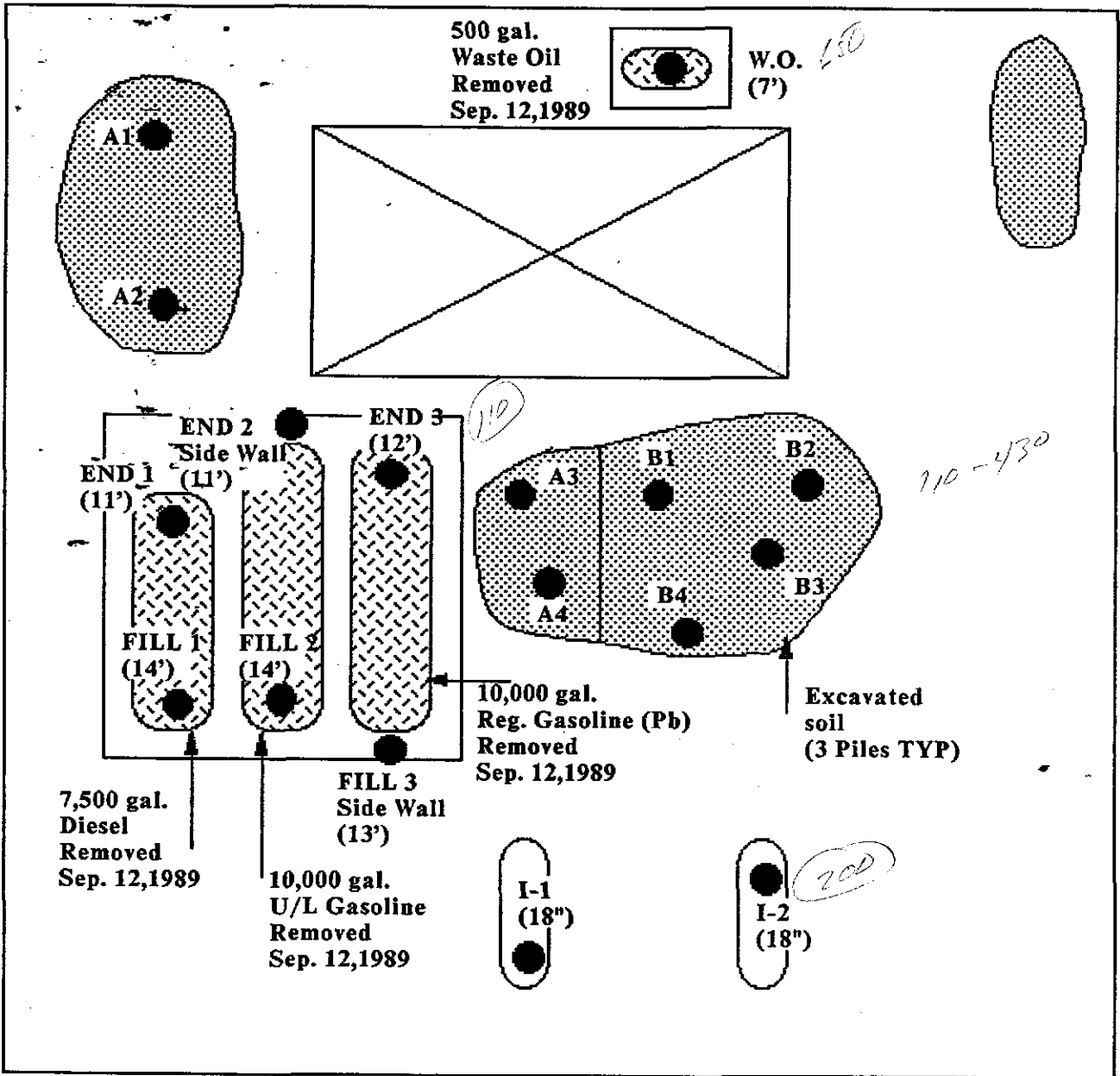
Detection Limits: 30.0

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

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

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Revisions	Date	Page	1435 Webster Street Alameda, California	By: ACCUTITE
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		of		
		1		
SCALE: None			Location of Soil Sampling @ Tank Removal	35 South Linden Avenue South San Francisco California 94080



SEQUOIA ANALYTICAL

Chain of Custody Report

Company: ACCUTITE

Project Name: OLYMPIC

Address: 35 So. LINDEN
So. SAN FRANCISCO, CA 94080

Project Location: ALAMEDA

Attention to: EDDY TABEL

Special Instructions:
P.O. 033941

Telephone: (415) 952-5551

I. Sample Tracking

Sample Collection:
Date 9/12/89 Time 1:30 a.m./p.m.
Collected by: Hacy Schilling

Laboratory Delivery:
Date 9/12/89 Time 3:25 a.m./p.m.
Delivered by: Hacy Schilling
Received in Laboratory by: Brenda W. Oliver

II. Turnaround Status

8 hr 1 Work Day 2 Work Days 3 Work Days 5 Work Days 10 Work Days 15 Work Days

Sample Description	Number/Type of Containers	Analyses Requested
ND		Cd, Cr, Pb & Zn; Volatile TOG, TPH Gw/BTX & EE, TPHD
Fill 1		} TPHD
End 1		
Fill 2		} TPH G w/BTX & EE
End 2 SW		
Fill 3 SW		} TPH G w/BTX & EE
End 3		
B1, 2, 3, 4 & Composite		} 8015 Modified: hold until further
I 2		