

**GeoStrategies Inc.**2140 WEST WINTON AVENUE  
HAYWARD, CALIFORNIA 94545

(510) 352-4800

**FACSIMILE COVER SHEET**

TO: Dennis Byrne

COMPANY: ACHA

FROM: Clyde Galantine

DATE: 2-24-92

RE: 4411 Foothill Rd Oakland Shell

COMMENTS: Waste Oil Tank removal results  
SW-1 = excavation sample SWS-1A-D → stockpile

9 pages including cover.

If there are any problems with this transmission, please call (510) 352-4800.



# SEQUOIA ANALYTICAL

880 Chesapeake Drive • Redwood City, CA 94063  
 (415) 384-8800 • FAX (415) 384-9233

Gettler Ryan 2150 W. Winton Avenue Hayward, CA 94545 Attention: John Werfal	Client Project ID: 7681.01, Shell, Oakland Matrix Descript: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 202-0900	Sampled: Feb 5, 1992 Received: Feb 6, 1992 Analyzed: Feb 7, 1992 Reported: Feb 21, 1992
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## 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)
202-0900	BW-1	N.D.	N.D.	N.D.	N.D.	N.D.
2020901 A-D	BWS1 A-D	5.2	0.011	0.0060	0.012	0.018

Detection Limits:	1.0	0.0050	0.0050	0.0050	0.0050
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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.

SEQUOIA ANALYTICAL

*V. Tague*  
 Vickie Tague  
 Project Manager



# SEQUOIA ANALYTICAL

600 Chesapeake Drive • Redwood City, CA 94063  
(415) 384-9800 • FAX (415) 384-9233

Gettler Ryan 2150 W. Winton Avenue Hayward, CA 94545 Attention: John Worfal	Client Project ID: 7681.01, Shell, Oakland Matrix Descript: Soil Analysis Method: EPA 8000/8015 First Sample #: 202-0900	Sampled: Feb 5, 1992 Received: Feb 6, 1992 Extracted: Feb 7, 1992 Analyzed: Feb 7, 1992 Reported: Feb 21, 1992
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## TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
202-0900	SW-1	N.D.
2020901 A-D	SW81 A-D	14

Detection Limits:

1.0

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

SEQUOIA ANALYTICAL

*V. Tague*  
Vicki Tague  
Project Manager

Please Note:

Sample SW81 A-D does not appear to contain diesel fuel. Higher boiling point compounds predominate.

2020900.GET <2>



# SEQUOIA ANALYTICAL

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Gettler Ryan 2150 W. Winton Avenue Hayward, CA 94545 Attention: John Werfal	Client Project ID: 7681.01, Shell, Oakland Matrix Descript: Soil Analysis Method: SM 5520 E&F (Gravimetric) First Sample #: 202-0900	Sampled: Feb 8, 1992 Received: Feb 8, 1992 Extracted: Feb 10, 1992 Analyzed: Feb 10, 1992 Reported: Feb 21, 1992
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## TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
202-0900	BW-1	N.D.
2020901 A-D	BWS1 A-D	130

Detection Limits: 30

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

SEQUOIA ANALYTICAL

  
Vickie Tegue  
Project Manager

2020900.GET <3>



# SEQUOIA ANALYTICAL

880 Chesapeake Drive • Redwood City, CA 94063  
 (415) 364-8600 • FAX (415) 364-8233

Gettler Ryan 2150 W. Winton Avenue Hayward, CA 94545 Attention: John Worfal	Client Project ID: 7881.01, Shell, Oakland Sample Descript: Soil, SW-1 Analysis Method: EPA 8240 Lab Number: 202-0900	Sampled: Feb 5, 1992 Received: Feb 6, 1992 Analyzed: Feb 10, 1992 Reported: Feb 21, 1992
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## VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone.....	500	N.D.
Benzene.....	100	N.D.
Bromodichloromethane.....	100	N.D.
Bromoform.....	100	N.D.
Bromomethane.....	100	N.D.
2-Butanone.....	500	N.D.
Carbon disulfide.....	100	N.D.
Carbon tetrachloride.....	100	N.D.
Chlorobenzene.....	100	N.D.
Chloroethane.....	100	N.D.
2-Chloroethyl vinyl ether.....	500	N.D.
Chloroform.....	100	N.D.
Chloromethane.....	100	N.D.
Dibromochloromethane.....	100	N.D.
1,1-Dichloroethane.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.
1,1-Dichloroethane.....	100	N.D.
cis-1,2-Dichloroethane.....	100	N.D.
trans-1,2-Dichloroethane.....	100	N.D.
1,2-Dichloropropane.....	100	N.D.
cis-1,3-Dichloropropane.....	100	N.D.
trans-1,3-Dichloropropane.....	100	N.D.
Ethylbenzene.....	100	N.D.
2-Hexanone.....	500	N.D.
Methylene chloride.....	250	N.D.
4-Methyl-2-pentanone.....	500	N.D.
Styrene.....	100	N.D.
1,1,2,2-Tetrachloroethane.....	100	N.D.
Tetrachloroethane.....	100	N.D.
Toluene.....	100	N.D.
1,1,1-Trichloroethane.....	100	N.D.
1,1,2-Trichloroethane.....	100	N.D.
Trichloroethane.....	100	N.D.
Trichlorofluoromethane.....	100	N.D.
Vinyl acetate.....	100	N.D.
Vinyl chloride.....	100	N.D.
Total Xylenes.....	100	N.D.

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

SEQUOIA ANALYTICAL

*Vicida Tapia*  
 Vicida Tapia  
 Project Manager



# SEQUOIA ANALYTICAL

660 Chesapeake Drive • Redwood City, CA 94063  
 (415) 864-8600 • FAX (415) 864-8233

Gettler Ryan 2150 W. Winton Avenue Hayward, CA 94545 Attention: John Werfal	Client Project ID: 7661.01, Shell, Oakland Sample Descript: Sol., SW/51 A-D Analysis Method: EPA 8240 Lab Number: 202-0901 A-D	Sampled: Feb 5, 1992 Received: Feb 6, 1992 Analyzed: Feb 10, 1992 Reported: Feb 21, 1992
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## VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone.....	500	N.D.
Benzene.....	100	N.D.
Bromodichloromethane.....	100	N.D.
Bromofom.....	100	N.D.
Bromomethane.....	100	N.D.
2-Butanone.....	500	N.D.
Carbon disulfide.....	100	N.D.
Carbon tetrachloride.....	100	N.D.
Chlorobenzene.....	100	N.D.
Chloroethane.....	100	N.D.
2-Chloroethyl vinyl ether.....	500	N.D.
Chlorofom.....	100	N.D.
Chloromethane.....	100	N.D.
Dibromochloromethane.....	100	N.D.
1,1-Dichloroethane.....	100	N.D.
1,2-Dichloroethane.....	100	N.D.
1,1-Dichloroethene.....	100	N.D.
cis-1,2-Dichloroethene.....	100	N.D.
trans-1,2-Dichloroethene.....	100	N.D.
1,2-Dichloropropene.....	100	N.D.
cis-1,3-Dichloropropene.....	100	N.D.
trans-1,3-Dichloropropene.....	100	N.D.
Ethylbenzene.....	100	N.D.
2-Hexanone.....	500	N.D.
Methylene chloride.....	250	N.D.
4-Methyl-2-pentanone.....	500	N.D.
Styrene.....	100	N.D.
1,1,2,2-Tetrachloroethane.....	100	N.D.
Tetrachloroethane.....	100	N.D.
Toluene.....	100	N.D.
1,1,1-Trichloroethane.....	100	N.D.
1,1,2-Trichloroethane.....	100	N.D.
Trichloroethane.....	100	N.D.
Trichlorofluoromethane.....	100	N.D.
Vinyl acetate.....	100	N.D.
Vinyl chloride.....	100	N.D.
Total Xylenes.....	100	N.D.

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

SEQUOIA ANALYTICAL

*V. Tague*  
 Vickie Tague  
 Project Manager



# SEQUOIA ANALYTICAL

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

Gettler Ryan 2150 W. Winton Avenue Hayward, CA 94545 Attention: John Werfal	Client Project ID: 7681.01, Shell, Oakland
QC Sample Group: 2020900-1	Reported: Feb 21, 1992

## QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl benzene	Xylenes	High Boiling Point Hydrocarbons	Total Recoverable Petroleum Oil
	Method: Analyst: Reporting Units: Date Analyzed: QC Sample #:	EPA 8080 C. Donohue mg/kg Feb 7, 1992 GBLJ020792	EPA 8080 C. Donohue mg/kg Feb 7, 1992 GBLJ020792	EPA 8080 C. Donohue mg/kg Feb 7, 1992 GBLJ020792	EPA 8080 C. Donohue mg/kg Feb 7, 1992 GBLJ020792	EPA 8015 R. Lee mg/kg Feb 6, 1992 DBLK020692
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60	15	1000
Conc. Matrix Spike:	0.21	0.20	0.19	0.57	12	940
Matrix Spike % Recovery:	105	100	95	95	80	94
Conc. Matrix Spike Dup.:	0.21	0.20	0.19	0.57	14	910
Matrix Spike Duplicate % Recovery:	105	100	95	95	93	91
Relative % Difference:	0.0	0.0	0.0	0.0	15	3.2

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

*Vickie Tague*  
 Vickie Tague  
 Project Manager

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$



# SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063  
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Gettler Ryan 2150 W. Winton Avenue Hayward, CA 94545 Attention: John Werfal	Client Project ID: 7661.01, Shell, Oakland Method (units): EPA 8240 (µg/L, purged) Analyst(s): G. Meyer QC Sample #: 201-3617	Q.C. Sample Dates  Analyzed: Feb 3, 1992 Reported: Feb 21, 1992
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## QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloroethene	N.D.	50	53	106	51	104	1.9
Trichloroethene	N.D.	50	51	102	46	92	10
Benzene	N.D.	50	52	104	51	102	1.9
Toluene	N.D.	50	52	104	49	98	5.9
Chlorobenzene	N.D.	50	56	112	52	104	7.4

SEQUOIA ANALYTICAL

*Vicke Tague*  
 Vicke Tague  
 Project Manager

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$





**SHELL OIL COMPANY**  
RETAIL ENVIRONMENTAL ENGINEERING - WEST

**CHAIN OF CUSTODY RECORD**

Serial No.: \_\_\_\_\_

Date: \_\_\_\_\_  
Page 1 of 1

Site Address: 4411 Foothill Blvd Oakland

WIC#: 204-5508-3400

Shell Engineer: Dan Kirk Phone No. 685-3850  
(510) 685-3943

Consultant Name & Address: Gettler-Ryan / GeoStrategies  
7681.01 2150 W. Winton Ave.  
Hayward, California 94545

Consultant Contact: John Verfal Phone No. 783-7500  
Fax #: 783-1089

Comments: W.O. Tank pull  
~ 40-50 yd<sup>3</sup> stockpile

Sampled By: Clyde Galantini  
Printed Name: Clyde Galantini

**Analysis Required**

TPH (EPA 8015 Mod. Gas)  
TPH (EPA 8015 Mod. Diesel)  
BTEX (EPA 8020/602)  
Volatile Organics (EPA 8240)  
Test for Disposal  
Oil & Grease - 5520 E&F

LAB: Sequoia

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
Quarterly Monitoring <input type="checkbox"/>	5461	24 hours <input type="checkbox"/>
Site Investigation SW-1 <input checked="" type="checkbox"/>	5441	48 hours <input type="checkbox"/>
Soil for disposal SWS-1A-D <input checked="" type="checkbox"/>	5442	15 days <input checked="" type="checkbox"/> (Normal)
Water for disposal <input type="checkbox"/>	5443	Other <input type="checkbox"/>
Air Sample - Sys O&M <input type="checkbox"/>	5452	
Water Sample - Sys O&M <input type="checkbox"/>	5453	
Other <input type="checkbox"/>		

NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.

Sample ID	Date	Soil	Water	Air	No. of count	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Oil & Grease - 5520 E&F	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SW-1	2-5-92	X			1	X	X	X	X	X		2 1/2"		N		5441 Investigate
SWS-1A-D	2-5-92	X			4	X	X	X	X	X		"		Y		5442 Disposal

Relinquished By (signature): <u>Clyde Galantini</u>	Printed name: <u>Clyde Galantini</u>	Date: <u>2-5-92</u> Time: <u>15:50</u>	Received (signature): <u>Refrigerator #2</u>	Printed name: <u>CSJ</u>	Date: <u>2-5-92</u> Time: <u>15:50</u>
Relinquished By (signature): <u>Frank Cline</u>	Printed name: <u>Frank Cline</u>	Date: <u>2-6-92</u> Time: <u>12:00</u>	Received (signature): <u>[Signature]</u>	Printed name: <u>Frank Cline</u>	Date: <u>2-6-92</u> Time: <u>12:00</u>
Relinquished By (signature): <u>[Signature]</u>	Printed name: <u>Frank Cline</u>	Date: <u>2-6-92</u> Time: <u>15:15</u>	Received (signature): <u>Sophia Patigea</u>	Printed name: <u>SOPHIA PATIGEA</u>	Date: <u>2-6</u> Time: <u>3:15</u>

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

Last Revision Date: 10/15/91