

5/4/92



**Harding Lawson Associates**

Engineering and Environmental Services

1355 Willow Way, Suite 109, Concord, California 94520  
(510) 687-9660

STD 1109

MS. SUSAN  
HUGO

569-4757

Addressee's Fax Phone # : \_\_\_\_\_ HLA Fax # : (510) 687-9673

To : Susan Hugo From : Jeanna Hudson

Subject : Soil analyses from 500 Grand Oakland

Date : \_\_\_\_\_

HLA Job Number : 02251, 223.03

Non-chargeable : \_\_\_\_\_

Number of Pages (including this cover sheet) : 10

Circulate to : 1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_

Instructions/Remarks : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Outreach to 10 TPH  
0.5 ppm Benzene*

\* \* \* \* \*

**IF YOU DID NOT RECEIVE ALL PAGES**

**PLEASE CALL (510) 687-9660**

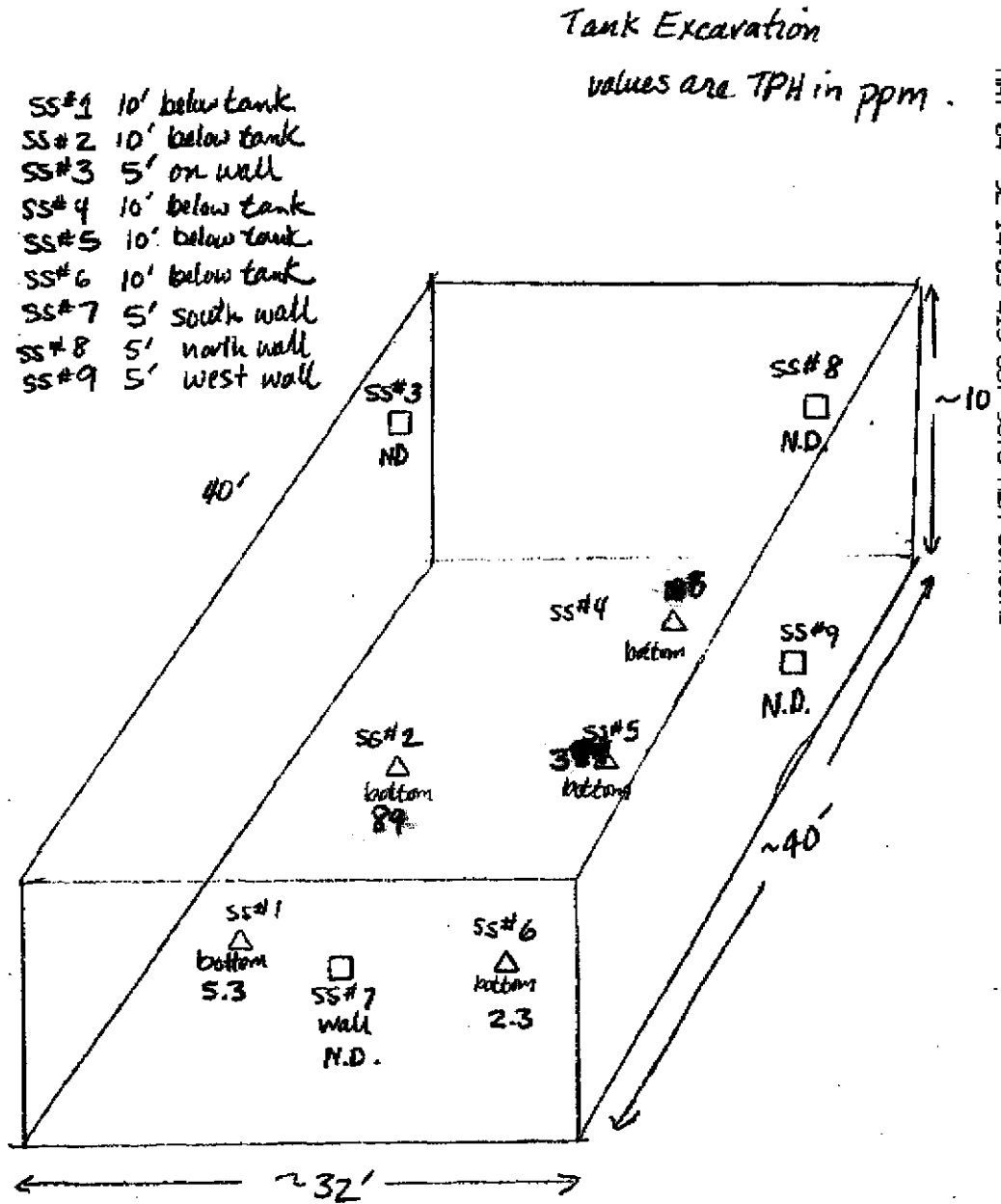
*A subsidiary of Harding Associates • Offices Nationwide*

SHEET \_\_\_\_\_ OF \_\_\_\_\_  
 JOB NO. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 PROJECT 500 Grand Avenue Cellulose  
 SUBJECT over Excavation  
 COMPUTED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

△ bottom sample  
 □ wall sample

Scale ~ 1" = 10'

N  
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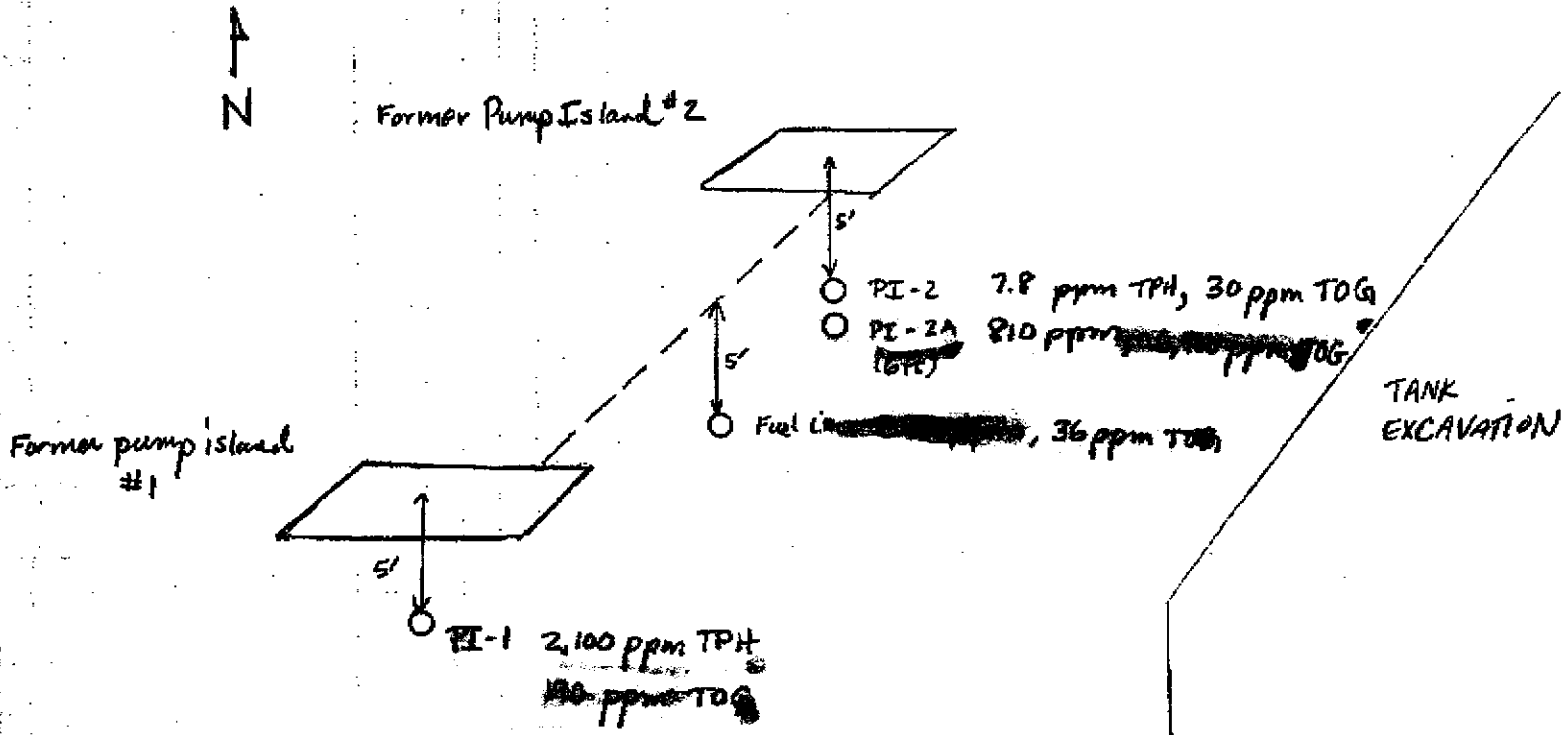




Harding Lawson Associates  
Engineering  
and  
Environmental Services

SHEET \_\_\_\_\_ OF \_\_\_\_\_  
JOB NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
COMPUTED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

PROJECT 500 Grand Avenue Oakland  
SUBJECT Over excavation





# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689

HARDING ASSOC.  
JSH  
APR 30 1992

Harding Lawson Associates	Client Project ID: 2251, 223. 03	Sampled: Apr 14, 1992
1355 Willow Way, Suite 109	Matrix Descript: Soil	Received: Apr 14, 1992
Concord, CA 94520	Analysis Method: EPA 5030/8015/8020	Analyzed: Apr 20, 1992
Attention: Jeanna S. Hudson	First Sample #: 204-0538	Reported: Apr 27, 1992

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

Sample Number	Sample Description	Low/Medium B.P.	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl	Xylenes mg/kg (ppm)
		Hydrocarbons mg/kg (ppm)			Benzene mg/kg (ppm)	
204-0538	SS 1	5.3	N.D.	0.038	0.016	0.12
204-0540	SS 3	N.D.	N.D.	N.D.	N.D.	0.011
204-0543	SS 6	2.3	0.0057	N.D.	N.D.	0.017
204-0544	SS 7	N.D.	N.D.	N.D.	N.D.	N.D.
204-0545	SS 8	N.D.	N.D.	N.D.	N.D.	N.D.
204-0546	SS 9	N.D.	0.0059	N.D.	N.D.	N.D.

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

Scott A. Chieffo  
Project Manager

2040538.HLA <1>



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1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689

Harding Lawson Associates	Client Project ID: 2251, 223. 03	Sampled: Apr 14, 1992
1355 Willow Way, Suite 109	Matrix Descript: Soil	Received: Apr 14, 1992
Concord, CA 94520	Analysis Method: EPA 5030/8015/8020	Analyzed: Apr 20, 1992
Attention: Jeanna S. Hudson	First Sample #: 204-0539	Reported: Apr 27, 1992

## 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)
204-0539	SS 2	●	●	0.38	0.15	1.4

Detection Limits:	2.0	0.010	0.010	0.010
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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. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

*Scott A. Chierro*  
Scott A. Chierro  
Project Manager

2040539.HLA <2>



# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 886-9600 • FAX (510) 886-9689

Harding Lawson Associates	Client Project ID: 2251, 223. 03	Sampled: Apr 14, 1992
1355 Willow Way, Suite 109	Matrix Descript: Soil	Received: Apr 14, 1992
Concord, CA 94520	Analysis Method: EPA 5030/8015/8020	Analyzed: Apr 20, 1992
Attention: Joanna S. Hudson	First Sample #: 204-0541	Reported: Apr 27, 1992

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

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons	Benzene	Toluene	Ethyl Benzene	Xylenes
		mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)
204-0541	SS 4			0.21	0.17	1.1

<b>Detection Limits:</b>	20		0.10	0.10	0.10
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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. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

*Scott A. Chiffie*  
by Scott A. Chiffie  
Project Manager

2040538.HLA <3>



# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689

Harding Lawson Associates	Client Project ID: 2251, 223. 03	Sampled: Apr 14, 1992
1355 Willow Way, Suite 109	Matrix Descript: Soil	Received: Apr 14, 1992
Concord, CA 94520	Analysis Method: EPA 5030/8015/8020	Analyzed: Apr 20, 1992
Attention: Jeanna S. Hudson	First Sample #: 204-0542	Reported: Apr 27, 1992

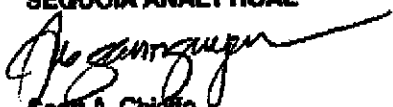
## TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

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)
204-0542	SS 5			0.028	0.040	0.15

<b>Detection Limits:</b>	<b>5.0</b>	<b>0.025</b>	<b>0.025</b>	<b>0.025</b>	<b>0.025</b>
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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. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

  
Scott A. Chieffo  
Project Manager

2040538.HLA <4>



# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689

Harding Lawson Associates (Concord) 1355 Willow Way, Suite 109 Concord, CA 94520 Attention: Jeanna Hudson	Client Project ID: #2251,223.03, Texaco, 500 Grand Matrix Descript: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 204-0605	Sampled: Apr 15, 1992 Received: Apr 15, 1992 Analyzed: 4/15-16/92 Reported: Apr 17, 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)
204-0605	PI-1			60	32	160
204-0606	PI-2A			1.1	2.0	11

Detection Limits:	100	0.50	0.50	0.50	0.50
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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. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

*Belinda C. Vega*  
Belinda C. Vega  
Laboratory Director

2040605.HLA <1>





# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689

Harding Lawson Associates (Concord) 1355 Willow Way, Suite 109 Concord, CA 94620 Attention: Jeanna Hudson	Client Project ID: #2251,223.03, Texaco, 500 Grand Matrix Descript: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 204-0606	Sampled: Apr 15, 1992 Received: Apr 15, 1992 Analyzed: 4/15-16/92 Reported: Apr 17, 1992
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## TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P.	Benzene	Toluene	Ethyl Benzene	Xylenes
		Hydrocarbons mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)	mg/kg (ppm)
204-0606	Pt-2	7.8	0.013	0.013	0.035	0.077

<b>Detection Limits:</b>	<b>1.0</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>	<b>0.0050</b>
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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

*Belinda C. Vega*  
Belinda C. Vega  
Laboratory Director

2040606.HLA <2>



# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689

Harding Lawson Associates (Conc	Client Project ID: #2251,223.03, Texaco, 500 Grand	Sampled: Apr 15, 1992
1355 Willow Way, Suite 109	Matrix Descript: Soil	Received: Apr 15, 1992
Concord, CA 94520	Analysis Method: EPA 5030/8015/8020	Analyzed: 4/15-16/92
Attention: Jeanna Hudson	First Sample #: 204-0608	Reported: Apr 17, 1992

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

Sample Number	Sample Description	Low/Medium B.P.	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl	Xylenes mg/kg (ppm)
		Hydrocarbons mg/kg (ppm)			Benzene mg/kg (ppm)	
204-0608	Fuel Line			2.9	3.6	21

<b>Detection Limits:</b>	<b>50</b>	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>
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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. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

### SEQUOIA ANALYTICAL

*Belinda C. Vega*  
Belinda C. Vega  
Laboratory Director

2040608.HLA <3>