

RESNA
Working To Restore Nature

3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
Fax: (408) 264-2435

FAXED
12/30/92

TRANSMITTAL SHEET

DOCUMENT SENT TO: BRIT Johnson

Facsimile Number: (510) 569-4757

DOCUMENT SENT FROM: Rob Campbell
RESNA San Jose Office
3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
Fax: (408) 264-2435

Date Sent: 12/30/92 Time Sent: 9:50

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SEQUOIA ANALYTICAL

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

RESNA	Client Project ID: ARCO 4494, Oakland	Sampled: Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix: Soil	Received: Dec 9, 1992
San Jose, CA 95118	Analysis Method: EPA 5030/8015/8020	Reported: Dec 16, 1992
Attention: Joel Coffman	First Sample #: 212-1545	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.
		212-1545 S-4.5-B21	212-1546 S-10-B21	212-1547 S-5.5-B22	212-1548 S-10-B22	212-1549 S-5-B23	212-1550 S-10-B23
Purgeable Hydrocarbons	1.0	2.3	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	0.0050	0.010	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.0050	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.0050	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.0050	0.0070	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		Non-Gas Mix < C8	--	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92
Instrument Identification:	GCHP-7	GCHP-6	GCHP-7	GCHP-7	GCHP-7	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%)	110	95	97	98	98	99

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
 Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
 Maria Lee
 Project Manager

2121545.RES <1>



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RESNA	Client Project ID: ARCO 4494, Oakland	Sampled: Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix: Soil	Received: Dec 9, 1992
San Jose, CA 95118	Analysis Method: EPA 5030/8015/8020	Reported: Dec 16, 1992
Attention: Joel Coffman	First Sample #: 212-1551	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D.	Sample I.D.
		212-1551 S-4.5-B24	212-1552 S-9.5-B24
Purgeable Hydrocarbons	1.0	1.8	N.D.
Benzene	0.0050	N.D.	N.D.
Toluene	0.0050	0.034	N.D.
Ethyl Benzene	0.0050	0.039	N.D.
Total Xylenes	0.0050	0.22	N.D.

Chromatogram Pattern:

Weathered Gas

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Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	12/10/92	12/10/92
Instrument Identification:	GCHP-7	GCHP-7
Surrogate Recovery, %: (QC Limits = 70-130%)	106	95

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
Maria Lee
Project Manager

2121545.RES <2>



SEQUOIA ANALYTICAL

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

RESNA	Client Project ID: ARCO 4494, Oakland	Sampled: Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix: TCLP Extract of Soil	Received: Dec 9, 1992
San Jose, CA 95118	Analysis Method: EPA 5030/8020	Reported: Dec 16, 1992
Attention: Joel Coffman	First Sample #: 212-1545	

BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample	Sample	Sample	Sample	Sample	Sample
		I.D.	I.D.	I.D.	I.D.	I.D.	I.D.
		212-1545 S-4.5-B21	212-1546 S-10-B21	212-1547 S-5.5-B22	212-1548 S-10-B22	212-1549 S-5-B23	212-1550 S-10-B23
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Quality Control Data

Report Limit Multiplication Factor:	20	20	20	20	20	20
Date Analyzed:	12/11/92	12/11/92	12/11/92	12/11/92	12/14/92	12/14/92
Instrument Identification:	GCHP-2	GCHP-2	GCHP-2	GCHP-2	GCHP-3	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	101	102	103	104	88	78

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
 Maria Lee
 Project Manager

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SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
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RESNA	Client Project ID: ARCO 4494, Oakland	Sampled: Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Matrix: TCLP Extract of Soil	Received: Dec 9, 1992
San Jose, CA 95118	Analysis Method: EPA 5090/6020	Reported: Dec 16, 1992
Attention: Joel Coffman	First Sample #: 212-1551	

BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 212-1551 S-4.5-B24	Sample I.D. 212-1552 S-9.5-B24
Benzene	0.50	N.D.	N.D.
Toluene	0.50	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.

Quality Control Data

Report Limit Multiplication Factor:	20	20
Date Analyzed:	12/14/92	12/14/92
Instrument Identification:	GCHP-2	GCHP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	102	106

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Maria Lee
 Maria Lee
 Project Manager

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SEQUOIA ANALYTICAL

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(415) 364-9600 • FAX (415) 364-9233

RESNA	Client Project ID: ARCO 4494, Oakland	Sampled: Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Descript: Soil	Received: Dec 9, 1992
San Jose, CA 95118	Analysis for: Lead by STLC	Extracted: Dec 10, 1992
Attention: Joel Coffman	First Sample #: 212-1545	Analyzed: Dec 14, 1992
		Reported: Dec 16, 1992

LABORATORY ANALYSIS FOR: Lead by STLC

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
212-1546	S-4.8-B21	0.10	0.31
212-1546	S-10-B21	0.10	N.D.
212-1547	S-8.5-B22	0.10	N.D.
212-1548	S-10-B22	0.10	N.D.
212-1549	S-5-B23	0.10	N.D.
212-1550	S-10-B23	0.10	N.D.
212-1551	S-4.5-B24	0.10	N.D.
212-1552	S-9.5-B24	0.10	N.D.

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

SEQUOIA ANALYTICAL

Maria Lee
Maria Lee
Project Manager

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SEQUOIA ANALYTICAL

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 (415) 364-9800 • FAX (415) 364-9233

RESNA	Client Project ID: ARCO 4494, Oakland	Sampled: Dec 8, 1992
3315 Almaden Expwy., Suite 34	Sample Descript: Soil	Received: Dec 9, 1992
San Jose, CA 95118	Analysis for: Organic Lead by STLC	Extracted: Dec 15, 1992
Attention: Joel Coffman	First Sample #: 212-1545	Analyzed: Dec 15, 1992
		Reported: Dec 16, 1992

LABORATORY ANALYSIS FOR: Organic Lead by STLC

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
212-1545	S-4.5-B21	0.050	N.D.
212-1546	S-10-B21	0.050	N.D.
212-1547	S-5.5-B22	0.050	N.D.
212-1548	S-10-B22	0.050	N.D.
212-1549	S-5-B23	0.050	N.D.
212-1550	S-10-B23	0.050	N.D.
212-1551	S-4.5-B24	0.050	N.D.
212-1552	S-6.5-B24	0.050	N.D.

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

SEQUOIA ANALYTICAL

Maria Lee
 Maria Lee
 Project Manager

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SEQUOIA ANALYTICAL

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RESNA

Client Project ID: ARCO 4494, Oakland

3315 Almaden Expwy., Suite 34

San Jose, CA 95118

Attention: Joel Coffman

QC Sample Group: 2121545-52

Reported: Dec 16, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl- benzene	Xylenes
	Method:	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Dec 10, 1992	Dec 10, 1992	Dec 10, 1992	Dec 10, 1992
QC Sample #:	GBLK121092	GBLK121092	GBLK121092	GBLK121092
	MS/MSD	MS/MSD	MS/MSD	MS/MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.20	0.20	0.20	0.60
Conc. Matrix Spike:	0.22	0.21	0.21	0.65
Matrix Spike % Recovery:	110	105	105	108
Conc. Matrix Spike Dup.:	0.22	0.22	0.22	0.65
Matrix Spike Duplicate % Recovery:	110	110	110	108
Relative % Difference:	0.0	4.6	4.6	0.0

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

SEQUOIA ANALYTICAL

Maria Lee
Maria Lee
Project Manager

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

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RESNA

Client Project ID: ARCO 4494, Oakland

3315 Almaden Expwy., Suite 34

San Jose, CA 95118

Attention: Joel Coffman

QC Sample Group: 2121545-52

Reported: Dec 16, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl- benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Dec 11, 1992	Dec 11, 1992	Dec 11, 1992	Dec 11, 1992
QC Sample #:	GBLK121192	GBLK121192	GBLK121192	GBLK121192
	MS/MSD	MS/MSD	MS/MSD	MS/MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	10	10	10	31
Matrix Spike % Recovery:	100	100	100	103
Conc. Matrix Spike Dup.:	10	10	10	30
Matrix Spike Duplicate % Recovery:	100	100	100	100
Relative % Difference:	0.0	0.0	0.0	3.3

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

SEQUOIA ANALYTICAL

Maria Lee
Maria Lee
Project Manager

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

2121545.RES <3>



SEQUOIA ANALYTICAL

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RESNA

Client Project ID: ARCO 4494, Oakland

3315 Almaden Expwy., Suite 34

San Jose, CA 95118

Attention: Joel Coffman

QC Sample Group: 2121545-52

Reported: Dec 16, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Ethy- benzene			
	Benzene	Toluene	Xylenes	
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992
QC Sample #:	GBLK121492	GBLK121492	GBLK121492	GBLK121492
	MS/MSD	MS/MSD	MS/MSD	MS/MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	30
Conc. Matrix Spike:	9.7	9.7	9.7	29
Matrix Spike % Recovery:	97	97	97	97
Conc. Matrix Spike Dup.:	9.7	9.6	9.7	30
Matrix Spike Duplicate % Recovery:	97	96	97	100
Relative % Difference:	0.0	1.0	0.0	3.4

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

SEQUOIA ANALYTICAL

Maria Lee
Maria Lee
Project Manager

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

2121545.RES <9>



SEQUOIA ANALYTICAL

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RESNA

Client Project ID: ARCO 4494, Oakland

3315 Almaden Expwy., Suite 34

San Jose, CA 95118

Attention: Joel Coffman

QC Sample Group: 2121545-52

Reported: Dec 16, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl- benzene	Xylenes	Lead STLC	Organic Lead
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 7421	LUFT
Analyst:	M. Nipp	M. Nipp	M. Nipp	M. Nipp	S. Chin	K.V.S.
Reporting Units:	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
Date Analyzed:	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992	Dec 14, 1992	Dec 5, 1992
QC Sample #:	GBLK121492	GBLK121492	GBLK121492	GBLK121492	212-1405	212-0586
	MS/MSD	MS/MSD	MS/MSD	MS/MSD		
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	0.13	N.D.
Spike Conc. Added:	10	10	10	30	0.50	25
Conc. Matrix Spike:	10	9.8	9.9	30	0.65	22
Matrix Spike % Recovery:	100	98	99	100	104	88
Conc. Matrix Spike Dup.:	10	9.7	9.8	29	0.65	22
Matrix Spike Duplicate % Recovery:	100	97	98	97	104	88
Relative % Difference:	0.0	1.0	1.0	3.4	0.0	0.0

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

SEQUOIA ANALYTICAL

Maria Lee
Maria Lee
Project Manager

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

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