EXXON COMPANY, U.S.A.
P.O. BOX 4032 • CONCORD, CA 94524-4032

MARKETING DEPARTMENT • ENVIRONMENTAL ENGINEERING

MARLA D. GUENSLER
SENIOR ENGINEER
(510) 246-8776
(510) 246-8798 FAX

March 12, 1996

Mr. Barney Chan
Alameda County Health Agency, Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 350
Oakland, CA 94621

RE: Former Exxon RAS #7-3006/720 High St., Oakland, CA

Dear Mr. Chan:

Attached for your review and comment is a letter report entitled ***Quarterly Groundwater Monitoring and Remediation Status Report, Fourth Quarter 1995*** for the above referenced site. This report, prepared by Environmental Resolutions, Inc., of Novato, California, details the results of the groundwater monitoring sampling and remediation sampling events which occurred in the fourth quarter 1995.

If you have any questions or comments, please contact me at (510) 246-8776.

Sincerely,

Marla D. Guensler
Senior Engineer

MDG/jb

attachment: ERI Report Dated January 30, 1996

cc: w/attachment:
Mr. Richard Hiett - San Francisco Bay Region CRWQCB

w/o attachment:
Mr. Marc Briggs - ERI, Novato

ENVIRONMENTAL RESOLUTIONS, INC.

January 30, 1996
ERI 201013.R04

Ms. Marla Guensler
Exxon Company, U.S.A.
2300 Clayton Road, Suite 640
Concord, California 94524-2032

Subject: Quarterly Groundwater Monitoring and Remediation Status Report, Fourth Quarter 1995, Former Exxon Service Station 7-3006, 720 High Street, Oakland, California.

Ms. Guensler:

At the request of Exxon Company, U.S.A. (Exxon), Environmental Resolutions, Inc. (ERI) performed remedial activities and groundwater monitoring for the fourth quarter 1995 at the subject site (Plate 1). The purpose of ongoing remedial activities at the site is to remove residual hydrocarbons from soil and dissolved hydrocarbons from groundwater. The purpose of quarterly monitoring is to evaluate fluctuations in hydrocarbon concentrations in groundwater, to evaluate the capture zone caused by groundwater pumping, and to evaluate the effectiveness of remedial actions.

GROUNDWATER MONITORING AND SAMPLING

On November 1, 1995, ERI measured the depth to water (DTW) in monitoring wells MW1 through MW4, and MW6 through MW15 and subjectively analyzed water in these wells for the presence of liquid phase hydrocarbons. Monitoring well MW5 was previously destroyed. No measurable liquid phase hydrocarbons or sheen were observed on groundwater from wells MW1, MW7, MW9 through MW11, and MW14. Monitoring wells MW2 through MW4, MW6, MW8, MW12, MW13, and MW15 had a sheen and therefore were not purged or sampled. ERI's groundwater sampling protocol is attached (Attachment A).

The groundwater appears to flow southwest beneath the site towards the groundwater interceptor trench with an approximate gradient of 0.021 (Plate 2). Monitoring and sampling data for 1994 and 1995 are summarized in Table 1.

Laboratory Analyses and Results

Groundwater samples were submitted to Sequoia Analytical (California State Certification Number 1210) in Redwood City, California, under chain of custody protocol. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tert-butyl ether (MTBE), and total extractable petroleum hydrocarbons as diesel (TEPHd). Samples collected from MW7 and MW14 were also analyzed for Stoddard Solvent. The specific methods of analysis are listed in the notes in Table 1. The results of analysis are listed in Table 1 and are shown on Plate 2. The laboratory analysis reports and chain of custody records are attached (Attachment B).

SOIL AND GROUNDWATER REMEDIATION

Air Sparging/Soil Vapor Extraction

The air sparging/soil vapor extraction system (AS/VES) consists of eight air sparging wells for air injection, vadose wells for vapor extraction, a water knock-out tank, the ERI 3000 vacuum blower unit, and three vapor-phase carbon absorbers. The system is equipped with a catalytic hydrocarbon detector between carbon absorbers #2 and #3 which automatically shuts the system down when concentrations in the vapor stream exceed the set point (10 parts per million by volume [ppmv]). Additionally, the system is equipped with a high liquid level shutdown to turn the system off if the water level in the knock-out tank reaches the specified level. The AS/VES is operated in a continuous mode.

ERI initiated operation of the AS/VES on January 9, 1995. Vapor samples were collected daily through January 18, 1995. ERI submitted a Source Test Report (dated January 20, 1995) to the Bay Area Air Quality Management District (BAAQMD) requesting the vapor monitoring schedule be revised. The BAAQMD approved a revised monitoring schedule to bi-weekly in their letter dated January 30, 1995.

Cumulative operational and performance data are presented in Table 2. Copies of the Reports of Laboratory Analysis and Chain of Custody Records for AS/VES samples collected during fourth quarter 1995 are attached (Attachment B). Analyses detected maximum TPHg influent vapor concentrations of 4,600 milligrams per cubic meter (mg/cuM). Hydrocarbon concentrations above laboratory detection limits were not emitted to the atmosphere. ERI's standard operating procedures for calculating pounds of hydrocarbons in an air stream is attached (Attachment C).

On October 13, October 26, and November 20, 1995, two 500-pound vapor phase carbon absorbers were replaced. The system is currently operating within permit conditions.

Groundwater Extraction And Treatment

The groundwater remediation system (GRS) is designed to treat separate-phase and dissolved petroleum hydrocarbons in groundwater extracted from the interceptor trench beneath the site. Pneumatic pumps are installed in extraction wells RW2 and RW5 to recover groundwater from the interceptor trench. Subsurface and above-ground collection piping are used to transfer extracted groundwater to a holding tank. A transfer pump and poly-vinyl chloride (PVC) piping are used to direct the water stream from the holding tank through water filters, an airstripper, and subsequently through liquid-phase granular activated carbon (GAC) canisters connected in series. The treated groundwater is discharged to the sanitary sewer regulated by East Bay Municipal Utilities District (EBMUD).

Between September 18, 1995 and December 18, 1995, the system recovered 19,754 gallons of groundwater from beneath the site. System flow rates, total volume extracted, and influent, intermediate, and effluent sample concentrations are presented in Table 3. Copies of the Reports of Laboratory Analysis and Chain of Custody Records for water treatment system samples collected during fourth quarter 1995 are attached (Attachment B). Analyses detected maximum TPHg influent

concentrations of 8,900 parts per billion (ppb). Hydrocarbon concentrations above laboratory detection limits were not discharged to the sanitary sewer.

No liquid phase absorbers were replaced during the fourth quarter 1995. The system is currently operating within permit conditions.

SUMMARY AND STATUS OF INVESTIGATION

Based on data collected to date, it appears the system is effectively removing residual hydrocarbons in soil and dissolved hydrocarbons in groundwater; however, because of increased influent vapor concentrations, the carbon consumption rate has increased. ERI estimates approximately 1,372 pounds of hydrocarbons were removed by the air sparging/vapor extraction system during the fourth quarter 1995 (Attachment C and Table 2), and 2,027 pounds total since start-up. ERI estimates the groundwater extraction system removed approximately 0.61 pounds of hydrocarbons during the fourth quarter 1995 (Table 3) and less than 2.3 pounds to date. The air-sparging/vapor extraction and groundwater extraction systems were each functioning as of the beginning of the first quarter 1996. ERI will continue to operate the remedial systems and monitor groundwater at the site during the first quarter 1996.

LIMITATIONS

This report was prepared in accordance with generally accepted standards of environmental geological practice in California at the time this investigation was performed. This report has been prepared for Exxon Company, U.S.A. and any reliance on this report by third parties shall be at such party's sole risk.

If you have any questions or comments regarding this report, please call (415) 382-5991.

Sincerely,
Environmental Resolutions, Inc.

Marc A. Briggs
Project Manager

Steve M. Zigan
R.G. 4333
H.G. 133

Enclosures:

Table 1:	Cumulative Groundwater Monitoring and Sampling Data
Table 2:	Cumulative Hydrocarbon Removal and Emissions for Soil Vapor Extraction System
Table 3:	Operation and Performance Data for Groundwater Remediation System
Plate 1:	Site Vicinity Map
Plate 2:	Generalized Site Plan
Attachment A:	Groundwater Sampling Protocol
Attachment B:	Laboratory Analysis Reports and Chain of Custody Records
Attachment C:	ERI SOP-25 "Hydrocarbons Removed from a Vadose Well"

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	B	T	E	X	MTBE	TEPHd	VOCs
		<	feet	>	<			parts per billion				>
MW1												
(12.87)	01/20/94	NLPH	9.25	3.62#								
	02/02-03/94	NLPH	8.60	4.27	<50	<0.5	<0.5	<0.5	0.7	NA	70	NA
	03/10/94	NLPH	8.31	4.56#								
	04/22/94	NLPH	7.95	4.92#								
	05/10-11/94	NLPH	7.48	5.39	<50	<0.5	<0.5	<0.5	1.6	NA	100	NA
	06/27/94	NLPH	7.65	5.22#								
	08/31/94	NLPH	9.39	3.48#								
	09/29/94	NLPH	9.83	3.04	<50	<0.5	<0.5	<0.5	<0.5	NA	<50	NA
	10/25/94	NLPH	10.19	2.68	<50	<0.5	<0.5	<0.5	<0.5	<50	NA	NA
	11/30/94	NLPH	8.97	3.90#								
	12/27/94	NLPH	7.44	5.43#								
	02/06/95	NLPH	5.71	7.16	<50	0.52	<0.5	<0.5	<0.5	100	NA	NA
	06/07/95	NLPH	7.62	5.25	<50	<0.5	<0.5	<0.5	<0.5	3.5	81	NA
	09/18/95	NLPH	10.02	2.85	<50	<0.5	<0.5	<0.5	<0.5	6.0	82	NA
	11/01/95	NLPH	10.74	2.13	<50	<0.5	<0.5	<0.5	<0.5	8.9	160	NA
MW2												
(12.98)	01/20/94	NM [NR]	NM	---								
	02/02-03/94	NM [NR]	NM	---								
	03/10/94	[8 c.]	6.96	6.29#								
	04/22/94	[10 c.]	NM	---								
	05/10-11/94	[5 c.]	NM	---								
	06/27/94	Sheen	7.10	5.88#								
	08/31/94	Sheen	8.58	4.40#								
	09/29/94	Sheen	9.11	3.87#								
	10/25/94	Sheen	7.76	5.22#								
	11/30/94	NM	7.33	5.65#								

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Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	B	T	E	X	MTBE	TEPHd	VOCs
		<	feet	>	<	parts per billion						>
MW2 cont.												
(12.98)	12/27/94	Sheen	6.77	6.21#								
	02/06/95	Sheen	5.00	7.98#								
	06/07/95	Sheen	7.14	5.84#								
	09/18/95	Sheen	10.82	2.16#								
	11/01/95	Sheen	11.65	1.33#								
MW3												
(12.92)	01/20/94	Sheen	8.24	4.70#								
	02/02-03/94	Sheen	7.68	5.26#								
	03/10/94	Sheen	7.24	5.68#								
	04/22/94	Sheen	6.79	6.13#								
	05/10-11/94	Sheen	6.43	6.49#								
	06/27/94	0.01 [NR]	6.97	5.95#								
	08/31/94	Sheen	8.41	4.51#								
	09/29/94	Sheen	8.97	3.95#								
	10/25/94	Sheen	9.43	3.49#								
	11/28/94	NM	7.19	5.73#								
	12/27/94	Sheen	6.64	6.28#								
	02/06/95	Sheen	4.87	8.05#								
	06/07/95	Sheen	7.05	5.87#								
	09/18/95	Sheen	10.61	2.31#								
	11/01/95	Sheen	11.58	1.34#								
MW4												
(12.77)	01/20/94	NM [NR]	NM	---								
	02/02-03/94	NM [1 c.]	NM	—								
	03/10/94	[8 c.]	7.12	5.65#								

See Notes on page 10 of 10

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	B	T	E	X	MTBE	TEPHd	VOCs
		<	feet	..... >	<			parts per billion		.....		..... >
MW4 cont.	04/22/94	[10 c.]	NM	---								
(12.77)	05/10-11/94	[5 c.]	NM	---								
	06/27/94	0.01 [NR]	6.50	6.27#								
	08/31/94	0.02 [NR]	7.84	4.93#								
	09/29/94	0.03 [NR]	8.43	4.37#								
	10/25/94	Sheen	9.24	3.53#								
	11/30/94	NM	6.77	6.00#								
	12/27/94	Sheen	6.14	6.63#								
	02/06/95	Sheen	4.87	7.90#								
	06/07/95	Sheen	6.91	5.86#								
	09/18/95	Sheen	9.59	3.18"								
	11/01/95	Sheen	11.52	1.25"								
MW5												
(8.38)	07/18/89	Well Destroyed										
MW6												
(14.27)	01/20/94	NM [NR]	NM	---								
	02/02-03/94	NM [NR]	NM	---								
	03/10/94	[¼ c.]	7.82	6.45#								
	04/22/94	[10 c.]	NM	---								
	05/10-11/94	[3 c.]	NM	---								
	06/27/94	Sheen	7.77	6.50#								
	08/31/94	Sheen	9.02	5.25#								
	09/29/94	Sheen	9.51	4.76#								
	10/25/94	Sheen	9.93	4.34#								
	11/30/94	NM	8.05	6.22#								
	12/27/94	NM	7.54	6.73#								

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TABLE 1
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Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW (feet)	Elev.	TPHg (parts per billion)	B	T	E	X	MTBE	TEPHd	VOCs
MW6 (cont.)	02/06/95	Sheen	5.86	8.41#								
(14.27)	06/07/95	Sheen	8.07	6.20#								
	09/18/95	Sheen	10.54	3.73#								
	11/01/95	Sheen	11.41	2.86#								
MW7												
(14.84)	01/20/94	NLPH	8.67	6.17#								
	02/02-03/94	NLPH	8.47	6.37	2,900	79	5.0	8.2	21	NA	1,300	NA
		Additional Analysis TOG:				470[1]						
	03/10/94	NLPH	8.24	6.60#								
	04/22/94	NLPH	7.95	6.89#								
	05/10-11/94	NLPH	7.53	7.31#	2,400	88	5.6	5.2	15	NA	1,300	NA
		Additional Analysis TOG:				1,400						
	06/27/94	NLPH	8.01	6.83#								
	08/31/94	NLPH	9.19	5.65#								
	09/29/94	NLPH	9.65	5.19	1,900	71	3.1	3.5	7.8	NA	56	NA
	10/25/94	NLPH	9.96	4.88	1,400	51	1.5	24	6.8	NA	89	NA
	11/30/94	NM	7.78	7.06#						NA		
	12/27/94	NM	7.51	7.33#								
	02/06/95	NLPH	5.79	9.05	2,500	130	<10	<10	<10	NA	1,300	ND
		Additional Analysis Stoddard Solvent:			1,100							
	06/07/95	NLPH	7.73	7.11	2,400	91	5.0	7.6	14	39	1,200	NA
		Additional Analysis Stoddard Solvent:			1,000							
	09/18/95	NLPH	9.81	5.03	1,800	17	<5.0	<5.0	<5.0	<25	1,100	NA
		Additional Analysis Stoddard Solvent:			870							
	11/01/95	NLPH	10.56	4.28	3,000	2.7	11	25	<2.5	<13	1,700	NA
		Additional Analysis Stoddard Solvent:			1,400							

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TABLE 1
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Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	B	T	E	X	MTBE	TEPHd	VOCs
		<	feet	>	<			parts per billion				>
MW8												
(13.45)	01/20/94	Sheen	8.90	4.55#								
	02/02-03/94	Sheen	8.58	4.87#								
	03/10/94	NLPH	7.16	6.29#								
	04/22/94	Sheen	7.34	6.11#								
	05/10-11/94	Sheen	7.04	6.41#								
	06/27/94	Sheen	6.01	7.44#								
	08/31/94	Sheen	9.26	4.19#								
	09/29/94	Sheen	9.76	3.72#								
	10/25/94	Sheen	10.05	3.40#								
	11/30/94	NM	7.68	5.77#								
	12/27/94	Sheen	7.11	6.34#								
	02/06/95	Sheen	5.39	8.06#								
	06/07/95	Sheen	7.53	5.92#								
	09/18/95	Sheen	9.84	3.61#								
	11/01/95	Sheen	10.47	2.98#								
MW9												
(14.64)	01/20/94	NM	NM	---								
	02/02-03/94	NM	NM	---								
	03/10/94	NLPH	6.90	7.74#								
	04/22/94	NLPH	7.38	7.26#								
	05/10-11/94	NLPH	6.96	7.68#								
	06/27/94	NLPH	7.65	6.99#								
	08/31/94	NLPH	8.87	5.77#								
	09/29/94	NLPH	9.19	5.45	<50	<0.5	<0.5	<0.5	<0.5	NA	<50	NA
	10/25/94	NLPH	9.66	4.98	<50	<0.5	<0.5	<0.5	<0.5	NA	<50	NA
	11/30/94	NM	8.38	6.26#								

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TABLE 1
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Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	B	T	E	X	MTBE	TEPHd	VOCs
		<	feet	>	<			parts per billion				>
MW9 cont.	12/27/94	NLPH	7.29	7.35#								
(14.64)	02/06/95	NLPH	5.74	8.90	<50	<0.5	<0.5	<0.5	<0.5	NA	56	NA
	06/07/95	NLPH	8.33	6.31	<50	<0.5	<0.5	<0.5	<0.5	<2.5	72	NA
	09/18/95	NLPH	9.28	5.36	<50	<0.5	<0.5	<0.5	<0.5	<2.5	60	NA
	11/01/95	NLPH	10.09	4.55	<50	<0.5	<0.5	<0.5	<0.5	<2.5	61	NA
MW10												
(14.05)	01/20/94	NLPH	8.40	5.65#								
	02/02-03/94	NLPH	8.00	6.05	<50	<0.5	1.0	<0.5	1.8	NA	<50	NA
	03/10/94	NLPH	7.56	6.49#								
	04/22/94	NLPH	7.35	6.70#								
	05/10-11/94	NLPH	7.06	6.99	<50	<0.5	<0.5	<0.5	<0.5	NA	<50	NA
	06/27/94	NLPH	7.59	6.46#								
	08/31/94	NLPH	8.73	5.32#								
	09/29/94	NLPH	9.07	4.98	<50	<0.5	<0.5	<0.5	<0.5	NA	<50	NA
	10/25/94	NLPH	9.41	4.64	<50	<0.5	<0.5	<0.5	<0.5	NA	<50	NA
	11/30/94	NM	7.62	6.43#								
	12/27/94	NLPH	7.01	7.04#								
	02/06/95	NLPH	5.60	8.45	<50	<0.5	<0.5	<0.5	<0.5	<50	NA	NA
	06/07/95	NLPH	7.12	6.93	<50	<0.5	<0.5	<0.5	<0.5	<2.5	<50	NA
	09/18/95	NLPH	8.54	5.51	<50	<0.5	<0.5	<0.5	<0.5	<2.5	<50	NA
	11/01/95	NLPH	9.44	4.61	<50	<0.5	<0.5	<0.5	<0.5	<2.5	<50	NA
MW11												
(13.55)	01/20/94	NLPH	9.61	3.94#								
	02/02-03/94	NLPH	9.56	3.99	<50	<0.5	1.0	<0.5	0.9	NA	160	NA
	03/10/94	NLPH	8.59	4.96#								
	04/22/94	NLPH	8.47	5.08#								

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TABLE 1
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Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	B	T	E	X	MTBE	TEPHd	VOCs
		<	feet	>	<			parts per billion				>
MW11 cont.	05/10-11/94	NLPH	8.12	5.43	<50	<0.5[3]	<0.5	<0.5	3.2	NA	100[2]	NA
(13.55)	06/27/94	NLPH	8.65	4.90#								
	08/31/94	NLPH	9.80	3.75#								
	09/29/94	NLPH	10.16	3.39	<50	<0.5	<0.5	<0.5	<0.5	NA	<50	NA
	10/25/94	NLPH	10.48	3.07	<50	<0.5	<0.5	<0.5	<0.5	NA	<50	NA
	11/30/94	NM	8.55	5.00#								
	12/27/94	NLPH	7.98	5.57#								
	02/06/95	NLPH	6.49	7.06	<50	<0.5	<0.5	<0.5	<0.5	NA	160	NA
	06/07/95	NLPH	7.98	5.57	<50	<0.5	<0.5	<0.5	<0.5	42	50	NA
	09/18/95	NLPH	10.12	3.43	<50	<0.5	<0.5	<0.5	<0.5	32	56	NA
	11/01/95	NLPH	10.75	2.80	<50	<0.5	<0.5	<0.5	<0.5	35	170	NA
MW12												
(12.61)	01/20/94	NLPH	7.81	4.80#								
	02/02-03/94	NLPH	7.22	5.39	48,000	4,000	2,700	2,900	9,900	NA	18,000	NA
	03/10/94	NLPH	6.16	6.45#								
	04/22/94	NLPH	6.31	6.30#								
	05/10-11/94	NLPH	6.16	6.45	46,000	3,000[3]	1,600	2,900	9,100	NA	8,200	NA
	06/27/94	NLPH	6.55	6.06#								
	08/31/94	NLPH	7.97	4.64#								
	09/29/94	Sheen	8.52	4.09#								
	10/25/94	Sheen	8.74	3.87#								
	11/30/94	NM	8.73	3.88#								
	12/30/94	NLPH	6.17	6.44#								
	02/06/95	Sheen	4.44	8.17#								
	06/07/95	Sheen	6.59	6.02#								
	09/18/95	Sheen	8.96	3.65#								
	11/01/95	Sheen	10.75	1.86#								

See Notes on page 10 of 10

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Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPHg	B	T	E	X	MTBE	TEPHd	VOCs
		<	feet	>	<			parts per billion				>
MW13												
(14.20)	01/20/94	NLPH	9.08	5.12#								
	02/02-03/94	NLPH	8.75	5.45	41,000	3,800	1,500	2,700	9,500	NA	8,100	NA
	03/10/94	Sheen	7.46	6.74#								
	04/22/94	Sheen	7.78	6.42#								
	05/10-11/94	NLPH	7.61	6.59	39,000	3,400	930	2,400	8,900	NA	15,000	NA
	06/27/94	NLPH	7.97	6.23								
	08/31/94	NLPH	9.21	4.99								
	09/29/94	NLPH	9.61	4.59	57,000	2,100	470	2,600	8,100	NA	320	NA
	10/25/94	Sheen	9.93	4.27								
	11/30/94	NM	8.16	6.04#								
	12/27/94	NM	7.61	6.59#								
	02/06/95	Sheen	5.89	8.31#								
	06/07/95	Sheen	8.05	6.15#								
	09/18/95	Sheen	9.94	4.26#								
	11/01/95	Sheen	10.48	3.72#								
MW14												
(15.18)	01/20/94	NM	NM	---								
	02/02-03/94	Not Accessible										
	03/10/94	NLPH	7.84	7.34#								
	04/22/94	NLPH	8.00	7.18#								
	05/10-11/94	NLPH	7.93	7.25	300	2.7	7.9	2.0	27	NA	1,100[2]	NA
		Additional Analysis:		210								
	06/27/94	NLPH	8.19	6.99#								
	08/31/94	NLPH	9.44	5.74#								
	09/29/94	NLPH	9.82	5.36	300	<0.5	<0.5	0.9	1.3	1,600	NA	NA
	10/25/94	NLPH	9.99	5.19	200	<0.5	<0.5	0.8	<0.5	210	NA	NA

See Notes on page 10 of 10

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Well ID # (TOC)	Sampling Date	SUBJ	DTW (feet)	Elev.	TPHg (parts per billion)	B	T	E	X	MTBE	TEPHd	VOCs
MW14 cont.	11/30/94	NM	8.16	6.61#								
(15.18)	12/27/94	Sheen	8.15	7.03#								
	02/06/95	NLPH	7.18	8.00	360	<1.0	<1.0	<1.0	<1.0	NA	1,200	NA
	Additional Analysis TOG:				400							
	06/07/95	NLPH	7.70	7.48	670	<0.5	<0.5	3.6	<0.5	<2.5	1,100	NA
	Additional Analysis Stoddard Solvent:				450							
	09/18/95	NLPH	9.88	5.30	1,300	<2.0	<2.0	<2.0	3.0	<10	1,900	NA
	Additional Analysis Stoddard Solvents:				1,200							
	11/01/95	NLPH	10.56	4.62	1,100	<2.5	<2.5	3.2	3.1	<13	2,700	NA
	Additional Analysis Stoddard Solvents:				1,600							
MW15												
(13.73)	01/20/94	NLPH	7.48	6.25#								
	02/02-03/94	NLPH	7.30	6.43	4,300	24	6.7	170	26	NA	1,200	NA
	03/10/94	NLPH	7.32	6.41#								
	04/22/94	NLPH	6.67	7.06#								
	05/10-11/94	NLPH	5.81	7.92	3,900	16	<0.5	150	13	NA	1,400	NA
	06/27/94	NLPH	6.14	7.59#								
	08/31/94	NLPH	7.20	6.53#								
	09/29/94	NLPH	7.76	5.97	2,500	51	15	48	3.6	NA	420	NA
	10/25/94	Sheen	8.19	5.54#								
	11/30/94	NM	8.57	5.16#								
	12/27/94	NLPH	6.49	7.24#								
	02/06/95	Sheen	4.97	8.76#								
	06/07/95	Sheen	7.14	6.59#								
	09/18/95	Sheen	9.00	4.73#								
	11/01/95	Sheen	10.67	3.06#								

See Notes on page 10 of 10

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Notes:

SUBJ	=	Results of subjective evaluation, liquid-phase hydrocarbon thickness (HT) in feet
NLPH	=	No liquid phase hydrocarbons present in well
TOC	=	Elevation of top of well casing; relative to mean sea level
DTW	=	Depth to water
Elev.	=	Elevation of groundwater. If liquid-phase hydrocarbons present, elevation adjusted using TOC - [DTW - (PT x 0.8)].
[ ]	=	amount recovered
gal.	=	gallons
c.	=	cups
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using modified EPA method 5030/8015.
BTEX	=	Benzene, Toluene, Ethylbenzene, and total Xylenes analyzed using EPA method 5030/8020.
TEPHd	=	Total extractable petroleum hydrocarbons as diesel analyzed using EPA method 3510/8015.
MTBE	=	Methyl tert-butyl ether analyzed using modified EPA method 5030/8020.
VOCs	=	Volatile organic compounds analyzed using EPA method 601.
TOG	=	Total oil and grease analyzed using Standard Method 5520.
NR	=	No liquid-phase hydrocarbons removed from well
NM	=	Not Measured
ND	=	Not Detected at or above the laboratory method detection limits
NA	=	Not Analyzed
---	=	Not Applicable
<	=	Less than the indicated detection limit shown by the laboratory
#	=	Well monitored but not sampled
1	=	A peak eluting earlier than benzene and suspected to be methyl tert-butyl ether was present

TABLE 2
CUMULATIVE HYDROCARBON REMOVAL AND EMISSIONS FOR
SOIL VAPOR EXTRACTION SYSTEM
Former Exxon Service Station 7-3006
720 High Street
Oakland, California

2010DATA.XLS
Revision: 1/26/96

DATE	SAMPLE ID	TEMP deg F	PRESS in H2O	AIR FLOW cu ft/min	HC Inf ppmv	HC Eff ppmv	HC Inf Conc* mg/cu M	LB HC for Period	LB HC Cumulative	Benzene Inf Conc* mg/cu M	LB Benzene per Period	LB Benzene Cumulative	LB Benzene Emitted per Day
1/9/95	A-INF	70		160			210			39			
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			
1/10/95	A-INF	70		160			110	2.30	2.3	22	0.44	0.4	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014
1/11/95	A-INF	70		160			70	1.29	3.6	12	0.24	0.7	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014
1/12/95	A-INF	70		160			< 10	0.57	4.2	< 0.1	0.09	0.8	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014
1/13/95	A-INF	70		160			< 10	0.14	4.3	< 0.1	0.00	0.8	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014
1/14/95	A-INF	70		160			< 10	0.14	4.5	< 0.1	0.00	0.8	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014
1/15/95	A-INF	70		158			< 10	0.14	4.6	< 0.1	0.00	0.8	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014
1/16/95	A-INF	70		151			< 10	0.14	4.7	< 0.1	0.00	0.8	
	A-INT						10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014
1/17/95	A-INF	70		155			< 10	0.14	4.9	0.13	0.00	0.8	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014
1/18/95	A-INF	70		155			100	0.77	5.6	12	0.08	0.9	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014
1/19/95		70		155	15	0	68	1.17	6.8				
1/20/95		70		155	14.4	0	66	0.93	7.7				

See notes on Page 4 of 4

TABLE 2
CUMULATIVE HYDROCARBON REMOVAL AND EMISSIONS FOR
SOIL VAPOR EXTRACTION SYSTEM
Former Exxon Service Station 7-3006
720 High Street
Oakland, California

DATE	SAMPLE ID	TEMP deg F	PRESS in H2O	AIR FLOW cu ft/min	HC Inf ppmv	HC Eff ppmv	HC Inf Conc* mg/cu M	LB HC for Period	LB HC Cumulative	Benzene Inf Conc* mg/cu M	LB Benzene per Period	LB Benzene Cumulative	LB Benzene Emitted per Day
2/1/95	A-INF	70		147			39	13.19	20.9	3.5	1.47	2.3	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0013
2/14/95		70		147									
2/17/95		70		155	9	0	41	8.67	29.6				
2/27/95		70		151									
3/13/95	A-INF	70		176			< 10	14.21	43.8	0.42	1.14	3.5	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0016
3/31/95		70		116	2.3	0	10	2.01	45.8				
4/4/95		70		84	129	0.8	587	76.68	122.5				
4/12/95	A-INF	70		176			95	24.88	147.4	6.4	1.62	5.1	
	A-INT						< 10			0.38			
	A-EFF						< 10			< 0.1			< 0.0016
4/19/95	A-INF	70		109			210	13.65	161.0	7.6	0.63	5.7	
	A-INT						47			12			
	A-EFF						< 10			< 0.1			< 0.0010
4/20/95	Replaced 2 ea x 500 lb canisters = 1000 lbs of Carbon												
4/26/95	A-INF	70		84			400	18.49	179.5	9.1	0.64	6.4	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0008
5/1/95	Installed third 500 lb canister in series												
5/1/95	A-INF	70		168			Insufficient sample for analyses						
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0015
5/15/95		70		84									
5/19/95	A-INF	70		105			140	52.68	232.2	3.5	1.23	7.6	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0009
6/6/95	A-INF	70		178			36	20.12	252.3	0.22	0.53	8.1	
	A-INT						< 10			0.1			
	A-EFF						< 10			< 0.1			< 0.0016
6/8/95		70		164									
6/23/95	System Down - hydrocarbon vapor detector shut down												
6/27/95	Replaced one 500 lb carbon canister												

See notes on Page 4 of 4

TABLE 2
CUMULATIVE HYDROCARBON REMOVAL AND EMISSIONS FOR
SOIL VAPOR EXTRACTION SYSTEM
Former Exxon Service Station 7-3006
720 High Street
Oakland, California

DATE	SAMPLE ID	TEMP deg F	PRESS in H2O	AIR FLOW cu ft/min	HC Inf ppmv	HC Eff ppmv	HC Inf Conc* mg/cu M	LB HC for Period	LB HC Cumulative	Benzene Inf Conc* mg/cu M	LB Benzene per Period	LB Benzene Cumulative	LB Benzene Emitted per Day
6/27/95	A-INF	70		164			440	76.72	329.0	4.9	0.83	8.9	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0015
7/3/95	A-EFF						< 10			< 0.1			
7/10/95	Replaced one 500 lb carbon canister												
7/10/95	A-INF	70		168			230	64.89	393.9	2.8	0.75	9.7	
	A-INT						120			2.8			
	A-EFF						< 10			< 0.1			< 0.0015
7/19/95	Replaced 2 ea x 500 lb canisters = 1000 lbs of Carbon												
7/25/95	Collect samples and shut system down pending results												
7/25/95	A-INF	70		205			67	37.29	431.2	< 0.5	0.41	10.1	
	A-INT						< 100			< 1			
	A-EFF						< 10			< 0.1			< 0.0018
7/28/95	System down - could not restart												
7/31/95	Restart system												
7/31/95	A-INF	70		164			500	28.17	459.4	14	0.72	10.8	
	A-INT						12			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0015
8/9/95	Replaced one 500 lb carbon canister												
8/15/95	System down - Remove hydrocarbon vapor detector and send to manufacture for calibration												
9/11/95	Replaced hydrocarbon vapor detector - Restarted system												
9/13/95	System Down - hydrocarbon vapor detector shut down												
9/18/95	Replaced 2 ea x 500 lb canisters = 1000 lbs of carbon												
9/18/95	A-INF	70		164			980	196.08	655.5	13	3.58	14.4	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0015
9/20/95	System Down - hydrocarbon vapor detector shut down												
9/25/95	Restarted system												
9/25/95	A-INF	70		164			NA			2.4			
	A-INT						NA			< 0.1			
	A-EFF						NA			< 0.1			

See notes on Page 4 of 4

TABLE 2
CUMULATIVE HYDROCARBON REMOVAL AND EMISSIONS FOR
SOIL VAPOR EXTRACTION SYSTEM
Former Exxon Service Station 7-3006
720 High Street
Oakland, California

DATE	SAMPLE ID	TEMP deg F	PRESS in H2O	AIR FLOW cu ft/min	HC Inf ppmv	HC Eff ppmv	HC Inf Conc* mg/cu M	LB HC for Period	LB HC Cumulative	Benzene Inf Conc* mg/cu M	LB Benzene per Period	LB Benzene Cumulative	LB Benzene Emitted per Day
10/13/95	Replaced 2 ea x 500 lb canisters = 1000 lbs of carbon												
10/13/95	A-INF	70		168			2000	444.04	1,099.5	100	16.84	31.2	
	A-INT						< 10			< 0.05			
	A-EFF						< 10			< 0.05			< 0.0008
10/26/95	Replaced 2 ea x 500 lb canisters = 1000 lbs of carbon												
10/26/95		70		168	165	0	751	269.69	1,369.2				
11/6/95													
11/20/95	Replaced 2 ea x 500 lb canisters = 1000 lbs of carbon												
11/20/95	A-INF1	70		170			180	176.60	1,545.8	3.6	1.04	32.3	
	A-INF2						82			2			
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0015
11/26/95	System down												
12/4/95	Restart system	70		168	18.5	0.5	84	12.03	1,557.8				
12/18/95	A-INF	70		151			4600	469.45	2,027.3	50	10.10	42.4	
	A-INT						< 10			< 0.1			
	A-EFF						< 10			< 0.1			< 0.0014

Notes:

A-INF	= Air Influent	A-INF1	= Air Influent before stripper	HC	= Hydrocarbon
A-INT	= Air Intermediate	A-INF2	= Air Influent after stripper	ug/l	= micrograms per liter
A-EFF	= Air Effluent			mg/cuM	= milligrams per cubic meter
NA	= Not Analyzed			lb	= pounds
				acfm	= actual cubic feet per minute

*If value is below laboratory detection limit, detection limit value is used.
*Values calculated using ERI SOP-25 "Hydrocarbons Removed from a Vadose Well" (Attachment C)

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM
Former Exxon Service Station, 7-3006
720 High Street
Oakland, California

Revised 1/23/96

Date	Total Flow [gal]	Average Flowrate [gpd]	Sample ID	Analytical Data						TPHg Removed		Benzene Removed	
				TPHg [ug/l]	B [ug/l]	T [ug/l]	E [ug/l]	X [ug/l]	Arsenic [mg/l]	Per Period [lb]	Cumlative [lb]	Per Period [lb]	Cumlative [lb]
1/9/95	0		W-INF	3400	630	190	100	460	NA				
	- -	- -	W-INT	<50	<0.5	<0.5	<0.5	<0.5	NA				
	- -	- -	W-EFF	<50	<0.5	<0.5	<0.5	<0.5	0.0076				
1/10/95	- -	- -	- -										
1/11/95	795	398	- -	- -	- -	- -	- -	- -	- -				
1/13/95	1065	135	System shut down pending EBMUD arsenic revision (discharge limit of 0.0012 ppm)										
1/23/95	1065	0	- -	- -	- -	- -	- -	- -	- -				
2/13/95	1065	0	- -	- -	- -	- -	- -	- -	- -				
2/14/95	1065	0	- -	- -	- -	- -	- -	- -	- -				
2/17/95	1065	0	- -	- -	- -	- -	- -	- -	- -				
2/27/95	1065	0	- -	- -	- -	- -	- -	- -	- -				
3/7/95	1065	0	EBMUD arsenic revision (discharge limit of 0.05 ppm)										
3/13/95	10800	1623	W-INF	110	7.4	0.5	0.53	6	NA	0.1581	0.1581	0.0287	0.0287
			W-INT	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	<0.005				
3/21/95	11660	108	W-INF	<50	4.5	<0.5	<0.5	5.5	NA	0.0006	0.1587	0.0000	0.0288
			W-INT	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	0.0059				
			System shut down - 55-gallon liquid phase carbon canister (leak)										
3/30/95	11760	11	Replaced one 55-gallon liquid phase carbon canister (leak)										
4/4/95	11760		Replaced one 55-gallon liquid phase carbon canister (leak) - Started system										
4/4/95	12660	180	W-INF	220	66	11	4.8	16	NA	0.0011	0.1598	0.0003	0.0291
			W-INT	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	0.0096				

See Notes page 4 of 4.

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM
Former Exxon Service Station, 7-3006
720 High Street
Oakland, California

Date	Total Flow [gal]	Average Flowrate [gpd]	Sample ID	Analytical Data						TPHg Removed		Benzene Removed	
				TPHg [ug/l]	B [ug/l]	T [ug/l]	E [ug/l]	X [ug/l]	Arsenic [mg/l]	Per Period [lb]	Cumlative [lb]	Per Period [lb]	Cumlative [lb]
4/12/95	53200	5068	W-INF	770	110	19	<5.0	160	NA	0.1674	0.3273	0.0298	0.0588
			W-INT	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	<0.005				
4/19/95	73710	2930	W-INF	400	47	5.4	<0.5	40	NA	0.1001	0.4274	0.0134	0.0723
			W-INT	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	0.0055				
4/26/95	82820	1301	W-INF	1500	190	44	12	150	NA	0.0722	0.4996	0.0090	0.0813
			W-INT	200	31	3.2	<0.5	15	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	0.008				
5/9/95	83750	72	Replaced two 55-gallon liquid phase carbon canisters (leaks)										
5/26/95	97840	829	W-INF	680	210	16	5.8	28	NA	0.1366	0.6362	0.0251	0.1063
			W-INT	<50	0.94	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	NA				
6/6/95			Added two 55-gallon liquid phase carbon canisters in series										
6/6/95			Replaced one 55-gallon liquid phase carbon canister (leak)										
6/8/95			W-INF	2800	660	300	54	340	NA				
			W-INT1	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-INT2	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF1	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF2	<50	<0.5	<0.5	<0.5	<0.5	NA				
6/27/95	125010	849	W-INF1	4500	1700	99	35	220	NA	0.5871	1.2233	0.2165	0.3228
			W-INF2	810	420	20	7.9	58	NA				
			W-INT1	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-INT2	<50	0.53	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF2	<50	<0.5	<0.5	<0.5	<0.5	NA				
7/10/95	131370	489	Replaced two 55-gallon liquid phase carbon canisters										

See Notes page 4 of 4.

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM
Former Exxon Service Station, 7-3006
720 High Street
Oakland, California

Date	Total Flow [gal]	Average Flowrate [gpd]	Sample ID	Analytical Data TPHg [ug/l]	B [ug/l]	T [ug/l]	E [ug/l]	X [ug/l]	Arsenic [mg/l]	TPHg Removed Per Period [lb]	TPHg Removed Cumlative [lb]	Benzene Removed Per Period [lb]	Benzene Removed Cumlative [lb]
7/11/95	131690	320	W-INF1	1600	530	15	<10	59	NA	0.1700	1.3933	0.0621	0.3850
			W-INF2	630	270	7.0	<5.0	25	NA				
			W-INT1	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-INT2	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	0.041				
			Additional Analyses: ND Purgeable Volatile Organics, ND Priority Pollutant Metals, except for 12 ppb nickel and 8.0 ppb zinc										
7/25/95	141550	704	System down pending results of air samples										
7/28/95			System Down - Could not Restart										
7/31/95			Restart System										
8/15/95			System Down - Remove hydrocarbon vapor detector and send to manufacturer for calibration										
9/11/95			Replaced hydrocarbon vapor detector - Restarted System										
9/13/95			System Down - hydrocarbon vapor detector shut down										
9/18/95			Restart System										
9/18/95	148550	244	W-INF1	1900	590	33	16	120	NA	0.2462	1.6395	0.0788	0.4637
			W-INF2	490	150	7.6	3.1	30	NA				
			W-INT	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	NA				
9/20/95			System Down - hydrocarbon vapor detector shut down										
9/25/95			Restart System										
9/28/95			System Down - hydrocarbon vapor detector shut down										
10/13/95	151380	113	W-INF1	4900	1400	310	120	480	NA	0.0803	1.7197	0.0235	0.4872
			W-INF2	780	230	49	15	72	NA				
			W-INT	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	0.0079				
			Additional Analyses: ND Purgeable Volatile Organics										
10/26/95	154143	213											
11/6/95	157906	342											

See Notes page 4 of 4.

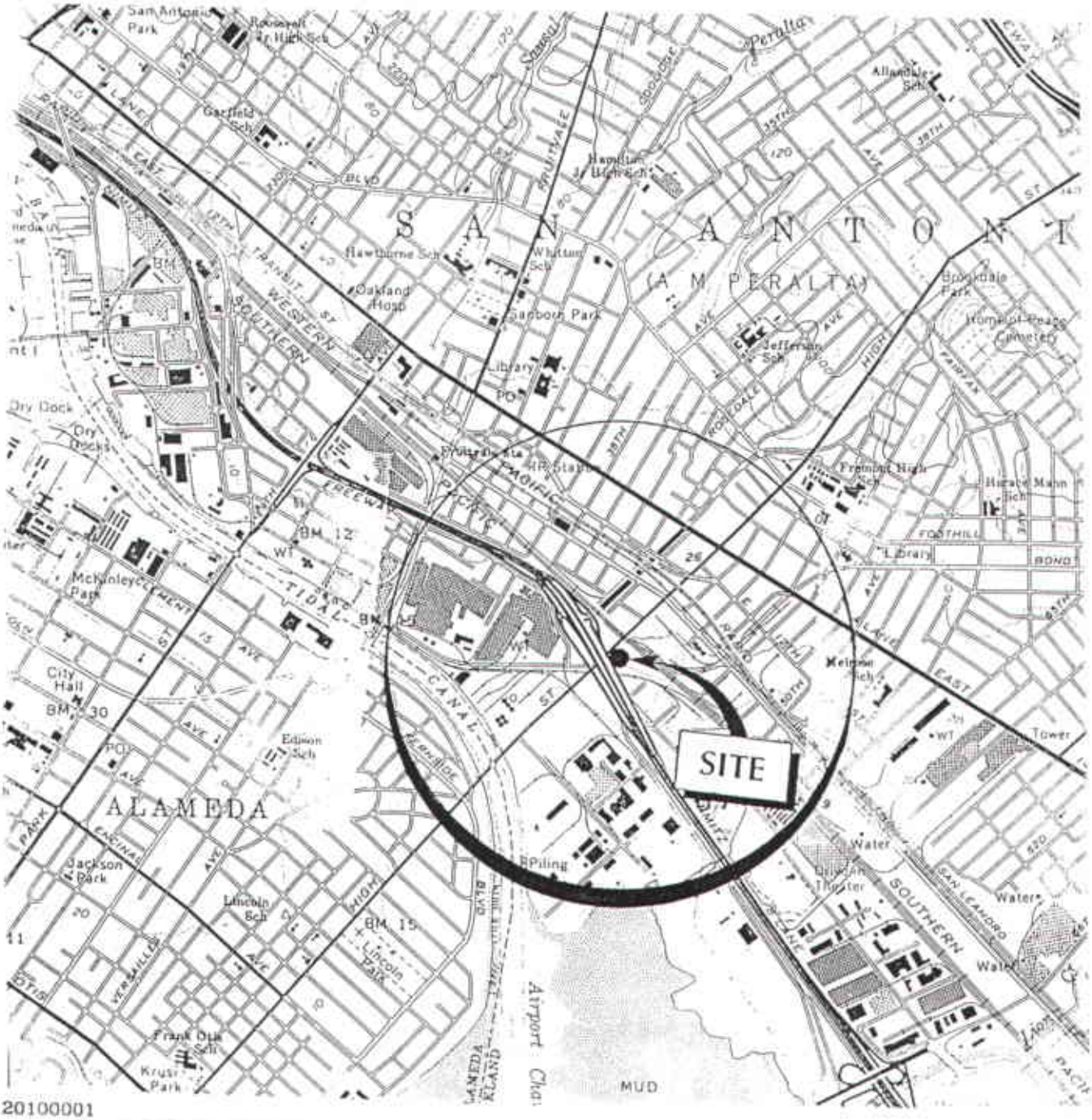
TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM
Former Exxon Service Station, 7-3006
720 High Street
Oakland, California

Date	Total Flow [gal]	Average Flowrate [gpd]	Sample ID	Analytical Data						TPHg Removed		Benzene Removed	
				TPHg [ug/l]	B [ug/l]	T [ug/l]	E [ug/l]	X [ug/l]	Arsenic [mg/l]	Per Period [lb]	Cumlative [lb]	Per Period [lb]	Cumlative [lb]
11/20/95	159664	126	W-INF1	630	140	<5.0	6.9	22	NA	0.1911	1.9108	0.0532	0.5404
			W-INF2	230	36	1.6	2.2	7.6	NA				
			W-INT	<50	<0.5	<0.5	<0.5	<0.5	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	NA				
11/27/95			System Down										
11/29/95	160361	77	Restart System										
12/4/95	161442	216											
12/18/95	168304	490	W-INF1	8900	1100	240	130	2200	NA	0.3435	2.2543	0.0447	0.5851
			W-INF2	3900	380	85	60	890	NA				
			W-INT	<50	1.3	<0.5	<0.5	5.1	NA				
			W-EFF	<50	<0.5	<0.5	<0.5	<0.5	NA				

W-INF W-INF1 = water influent before stripper
W-INF2 = water influent after stripper
W-INT W-INT1 W-INT2 = water intermediate
W-EFF W-EFF1 W-EFF2 = water effluent
TPHg = Total petroleum hydrocarbons as gasoline

B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes

NA = Not applicable
NS = Not sampled
ND = Not detected



N

APPROXIMATE SCALE

0 1/2 1

MILE

Source: U.S.G.S. 7-5 minute topographic quadrangle map Oakland/San Leandro, California Photorevised 1980

ENVIRONMENTAL RESOLUTIONS, INC.

PROJECT ERI 2010

SITE VICINITY MAP

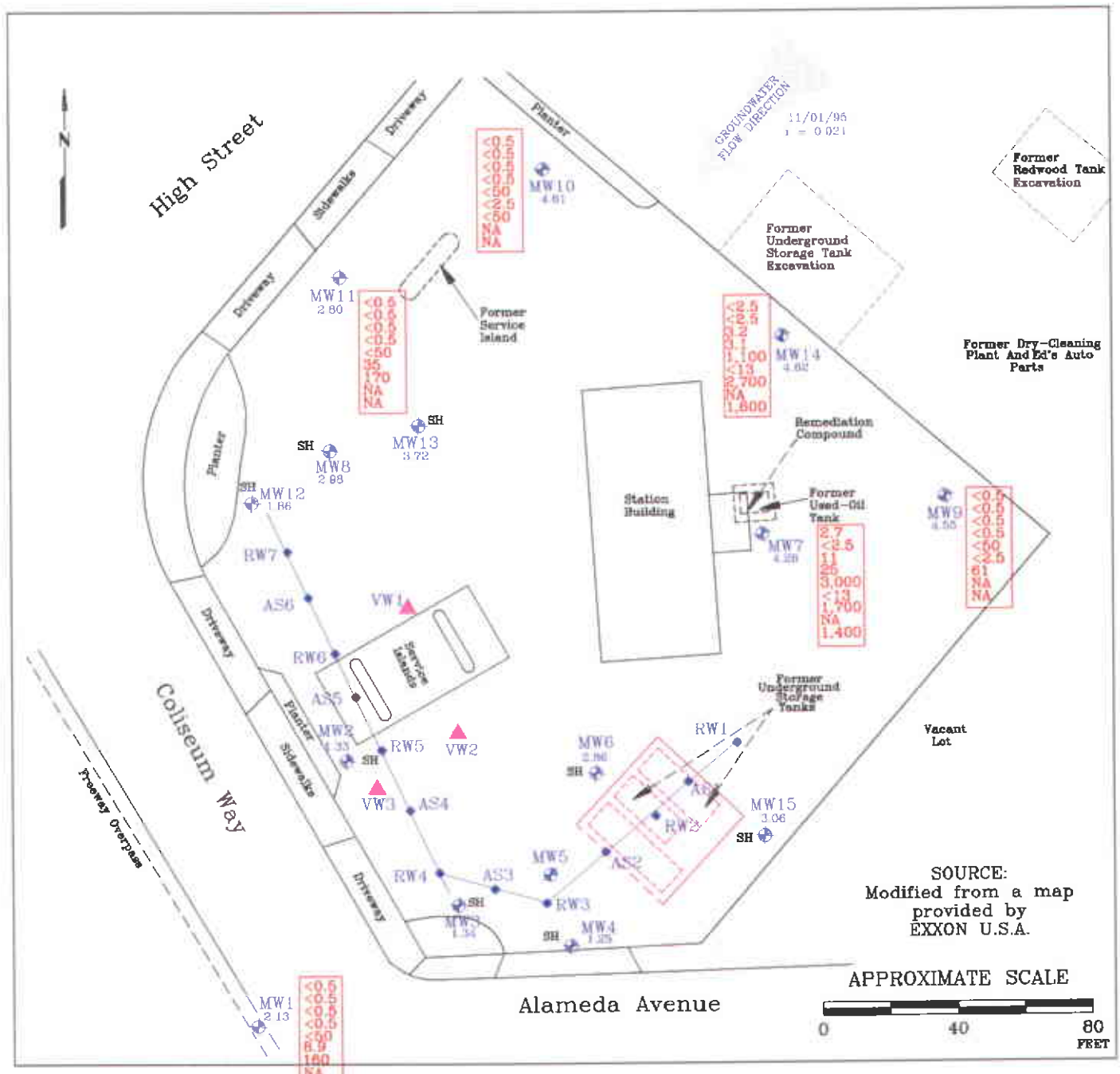
FORMER EXXON SERVICE STATION 7-3006

720 High Street

Oakland, California

PLATE

1



FN 20100002

EXPLANATION

MW15 ⊕ Groundwater Monitoring Well
3.06 = Elevation of groundwater in feet above mean sea level. (11/1/95)

MW5 ⊕ Groundwater Monitoring Well (Destroyed)

VW3 ▲ Vapor Well

RW7 ● Recovery Monitoring Well

Interceptor Trench

AS6 ● Air Sparging/Vapor Extraction Well

i = Interpreted magnitude of hydraulic gradient

Groundwater Concentrations in ug/L
Nov. 1, 1995

<2.5	Benzene
<2.5	Toluene
3.2	Ethylbenzene
3.1	Xylene
1,100	Total Petroleum Hydrocarbons as gasoline
<13	Methyl tert-butyl ether
2,700	Total Extractable Petroleum Hydrocarbons as diesel
NA	Volatile Organic Compounds
1,600	Stoddard Solvent

ND = Not Detected
NA = Not Analyzed
SH = Sheen

ERI ENVIRONMENTAL RESOLUTIONS, INC.

GENERALIZED SITE PLAN

FORMER EXXON SERVICE STATION 7-3006
720 High Street
Oakland, California

PROJECT NO. 2010

PLATE 2

DATE 1/16/96

ATTACHMENT A

GROUNDWATER SAMPLING PROTOCOL

GROUNDWATER SAMPLING PROTOCOL

The static water level and separate phase product level, if present, in each well that contained water and/or separate phase product are measured with a ORS Interface Probe, which is accurate to the nearest 0.01 foot. To calculate groundwater elevations and evaluate groundwater gradient, depth to water (DTW) levels are subtracted from wellhead elevations.

Water samples collected for subjective evaluation are collected by gently lowering approximately half the length of a clean Teflon® bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples were checked for measurable separate phase hydrocarbon product or sheen. Any separate phase product is removed from the well.

Before water samples are collected from the groundwater monitoring wells, the wells are purged until stabilization of the temperature, pH, and conductivity are obtained. Water samples from the wells that do not obtain stability of the temperature, pH, and conductivity are considered to be "grab samples". The quantity of water purged from each well is calculated as follows:

1 well casing volume = $\pi r^2 h(7.48)$ where:

r	=	radius of the well casing in feet.
h	=	column of water in the well in feet (depth to bottom - depth to water)
7.48	=	conversion constant from cubic feet to gallons

gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

After purging, each well was allowed to recharge to at least 80% of the initial water level. Water samples from wells that do not recover to at least 80% (due to slow recharging of the well) between purging and sampling are considered to be "grab samples". Water samples were collected with a new, disposable Teflon bailer, and were carefully poured into 40-milliliter (ml) glass vials, which are filled so as to produce a positive meniscus. Each vial is preserved with hydrochloric acid, sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace which would allow volatilization to occur. The samples are promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.

ATTACHMENT B

LABORATORY ANALYSIS REPORTS AND CHAIN OF CUSTODY RECORDS

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201013X, Exxon 7-3006
Sample Descript: W-12-MW10
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9511130-01

Sampled: 11/01/95
Received: 11/02/95
Extracted: 11/03/95
Analyzed: 11/06/95
Reported: 11/13/95

QC Batch Number: GC1103950HBPEXY
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	134

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

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Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201013X, Exxon 7-3006
Sample Descript: W-12-MW10
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9511130-01

Sampled: 11/01/95
Received: 11/02/95

Analyzed: 11/06/95
Reported: 11/13/95

QC Batch Number: GC110695BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	111

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201013X, Exxon 7-3006
Sample Descript: W-21-MW9
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9511130-02

Sampled: 11/01/95
Received: 11/02/95
Extracted: 11/03/95
Analyzed: 11/06/95
Reported: 11/13/95

QC Batch Number: GC1103950HBPEXY
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	61
Chromatogram Pattern:		
Unidentified HC		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	146

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: 201013X, Exxon 7-3006	Sampled: 11/01/95
359 Bel Marin Keys, Suite 20	Sample Descript: W-21-MW9	Received: 11/02/95
Novato, CA 94949	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 11/03/95
Attention: Marc Briggs	Lab Number: 9511130-02	Reported: 11/13/95

QC Batch Number: GC110395BTEX07A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	76

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

SEQUOIA ANALYTICAL - ELAP #1210

VMTClark

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: 201013X, Exxon 7-3006	Sampled: 11/01/95
359 Bel Marin Keys, Suite 20	Sample Descript: W-11-MW1	Received: 11/02/95
Novato, CA 94949	Matrix: LIQUID	Extracted: 11/03/95
	Analysis Method: EPA 8015 Mod	Analyzed: 11/09/95
Attention: Marc Briggs	Lab Number: 9511130-03	Reported: 11/13/95

QC Batch Number: GC1103950HBPEXY
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	160
Chromatogram Pattern:		
Unidentified HC		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	127

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201013X, Exxon 7-3006
Sample Descript: W-11-MW1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9511130-03

Sampled: 11/01/95
Received: 11/02/95

Analyzed: 11/06/95
Reported: 11/13/95

QC Batch Number: GC110695BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**8.9**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: 201013X, Exxon 7-3006	Sampled: 11/01/95
359 Bel Marin Keys, Suite 20	Sample Descript: W-17-MW11	Received: 11/02/95
Novato, CA 94949	Matrix: LIQUID	Extracted: 11/03/95
	Analysis Method: EPA 8015 Mod	Analyzed: 11/06/95
Attention: Marc Briggs	Lab Number: 9511130-04	Reported: 11/13/95

QC Batch Number: GC1103950HBPEXY
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	170
Chromatogram Pattern: **Unidentified HC**		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	136

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201013X, Exxon 7-3006
Sample Descript: W-17-MW11
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9511130-04

Sampled: 11/01/95
Received: 11/02/95

Analyzed: 11/09/95
Reported: 11/13/95

QC Batch Number: GC110995BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**35**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	73

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: 201013X, Exxon 7-3006	Sampled: 11/01/95
359 Bel Marin Keys, Suite 20	Sample Descript: W-15-MW14	Received: 11/02/95
Novato, CA 94949	Matrix: LIQUID	Extracted: 11/05/95
	Analysis Method: EPA 8015 Mod	Analyzed: 11/09/95
Attention: Marc Briggs	Lab Number: 9511130-05	Reported: 11/13/95

QC Batch Number: GC1105950HBPEXZ
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	100	2700
Chromatogram Pattern: **Unidentified HC**		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

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

SEQUOIA ANALYTICAL - ELAP #1210

VMTClark

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201013X, Exxon 7-3006
Sample Descript: W-15-MW14
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9511130-05

Sampled: 11/01/95
Received: 11/02/95

Analyzed: 11/06/95
Reported: 11/13/95

QC Batch Number: GC110695BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**250**	**1100**
Methyl t-Butyl Ether	13	N.D.
Benzene	2.5	N.D.
Toluene	2.5	N.D.
Ethyl Benzene	**2.5**	**3.2**
Xylenes (Total)	**2.5**	**3.1**
Chromatogram Pattern:		
Weathered Gas		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	91

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201013X, Exxon 7-3006
Sample Descript: W-15-MW14
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9511130-05

Sampled: 11/01/95
Received: 11/02/95
Extracted: 11/05/95
Analyzed: 11/09/95
Reported: 11/13/95

QC Batch Number: GC1105950HBPEXZ
Instrument ID: GCHP4B

Fuel Fingerprint : Stoddard Solvent

Analyte	Detection Limit ug/L	Sample Results ug/L
Extract HC as Stoddard Solvent	100	1600
Chromatogram Pattern: **Unidentified HC**		C9-C13

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	Q

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

SEQUOIA ANALYTICAL - ELAP #1210

VMT Clark

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201013X, Exxon 7-3006
Sample Descript: W-26-MW7
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9511130-06

Sampled: 11/01/95
Received: 11/02/95
Extracted: 11/03/95
Analyzed: 11/08/95
Reported: 11/13/95

QC Batch Number: GC1103950HBPEXY
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	1700
Chromatogram Pattern: **Unidentified HC**		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	117

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201013X, Exxon 7-3006
Sample Descript: W-26-MW7
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9511130-06

Sampled: 11/01/95
Received: 11/02/95

Analyzed: 11/08/95
Reported: 11/13/95

QC Batch Number: GC110895BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**250**	**3000**
Methyl t-Butyl Ether	13	N.D.
Benzene	**2.5**	**2.7**
Toluene	2.5	N.D.
Ethyl Benzene	**2.5**	**11**
Xylenes (Total)	**2.5**	**25**
Chromatogram Pattern:		
Unidentified HC		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: 201013X, Exxon 7-3006	Sampled: 11/01/95
359 Bel Marin Keys, Suite 20	Sample Descript: W-26-MW7	Received: 11/02/95
Novato, CA 94949	Matrix: LIQUID	Extracted: 11/05/95
	Analysis Method: EPA 8015 Mod	Analyzed: 11/08/95
Attention: Marc Briggs	Lab Number: 9511130-06	Reported: 11/13/95

QC Batch Number: GC1105950HBPEXZ
Instrument ID: GCHP5B

Fuel Fingerprint : Stoddard Solvent

Analyte	Detection Limit ug/L	Sample Results ug/L
Extract HC as Stoddard Solvent	50	1400
Chromatogram Pattern:		STD SOLVT

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	117

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

SEQUOIA ANALYTICAL - ELAP #1210

VMTClark

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Environmental Resolutions	Client Proj. ID: 201013X, Exxon 7-3006	Sampled: 11/01/95
359 Bel Marin Keys, Suite 20	Sample Descript: W-BB-MW10	Received: 11/02/95
Novato, CA 94949	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 11/03/95
Attention: Marc Briggs	Lab Number: 9511130-07	Reported: 11/13/95

QC Batch Number: GC110395BTEX07A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	109

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

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Environmental Resolutions	Client Project ID:	201013X, Exxon 7-3006	
359 Bel Marin Keys, Suite 20	Matrix:	Liquid	
Novato, CA 94949			
Attention: Marc Briggs	Work Order #:	9511130 -01-4, 6	Reported: Nov 15, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1103950HBPEXY
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3520
Analyst:	B. Ali
MS/MSD #:	951107504
Sample Conc.:	740
Prepared Date:	11/3/95
Analyzed Date:	11/5/95
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
Result:	1700
MS % Recovery:	96
Dup. Result:	1400
MSD % Recov.:	66
RPD:	19
RPD Limit:	0-50

LCS #:	BLK110395
Prepared Date:	11/3/95
Analyzed Date:	11/5/95
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
LCS Result:	1000
LCS % Recov.:	100

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

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Sequoia Analytical

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Environmental Resolutions	Client Project ID:	201013X, Exxon 7-3006	
359 Bel Marin Keys, Suite 20	Matrix:	Liquid	
Novato, CA 94949			
Attention: Marc Briggs	Work Order #:	9511130-05, 6	Reported: Nov 15, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC1105950HBPEXZ
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3520
Analyst:	B. Ali
MS/MSD #:	951118301
Sample Conc.:	3900
Prepared Date:	11/5/95
Analyzed Date:	11/8/95
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
Result:	4700
MS % Recovery:	80
Dup. Result:	32000
MSD % Recov.:	2810
RPD:	149
RPD Limit:	0-50

LCS #:	BLK110595
Prepared Date:	11/5/95
Analyzed Date:	11/7/95
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
LCS Result:	1100
LCS % Recov.:	110

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

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Environmental Resolutions	Client Project ID:	201013X, Exxon 7-3006	
359 Bel Marin Keys, Suite 20	Matrix:	Liquid	
Novato, CA 94949			
Attention: Marc Briggs	Work Order #:	9511130-01, 3, 5	Reported: Nov 15, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC110695BTEX06A	GC110695BTEX06A	GC110695BTEX06A	GC110695BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9510L1301	9510L1301	9510L1301	9510L1301
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/6/95	11/6/95	11/6/95	11/6/95
Analyzed Date:	11/6/95	11/6/95	11/6/95	11/6/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.9	8.8	8.7	26
MS % Recovery:	89	88	87	87
Dup. Result:	10	10	10	30
MSD % Recov.:	100	100	100	100
RPD:	12	13	14	14
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK110695	BLK110695	BLK110695	BLK110695
Prepared Date:	11/6/95	11/6/95	11/6/95	11/6/95
Analyzed Date:	11/6/95	11/6/95	11/6/95	11/6/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	11	11	32
LCS % Recov.:	110	110	110	107
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Please Note:
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201013X, Exxon 7-3006
Matrix: Liquid
Work Order #: 9511130-02, 7

Reported: Nov 15, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC110395BTEX07A	GC110395BTEX07A	GC110395BTEX07A	GC110395BTEX07A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	951100773	951100773	951100773	951100773
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/3/95	11/3/95	11/3/95	11/3/95
Analyzed Date:	11/3/95	11/3/95	11/3/95	11/3/95
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	11	11	33
MS % Recovery:	110	110	110	110
Dup. Result:	11	10	10	30
MSD % Recov.:	110	100	100	100
RPD:	0.0	9.5	9.5	9.5
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK110395	BLK110395	BLK110395	BLK110395
Prepared Date:	11/3/95	11/3/95	11/3/95	11/3/95
Analyzed Date:	11/3/95	11/3/95	11/3/95	11/3/95
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.9	8.9	9.0	26
LCS % Recov.:	89	89	90	87
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201013X, Exxon 7-3006
Matrix: Liquid
Work Order #: 9511130-04

Reported: Nov 15, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC110995BTEX06A	GC110995BTEX06A	GC110995BTEX06A	GC110995BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	951110606	951110606	951110606	951110606
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/9/95	11/9/95	11/9/95	11/9/95
Analyzed Date:	11/9/95	11/9/95	11/9/95	11/9/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.6	8.6	8.6	26
MS % Recovery:	86	86	86	87
Dup. Result:	8.3	8.2	8.2	25
MSD % Recov.:	83	82	82	83
RPD:	3.6	4.8	4.8	3.9
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK110995	BLK110995	BLK110995	BLK110995
Prepared Date:	11/9/95	11/9/95	11/9/95	11/9/95
Analyzed Date:	11/9/95	11/9/95	11/9/95	11/9/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.2	8.2	8.2	24
LCS % Recov.:	82	82	82	80
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

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Sequoia Analytical

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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201013X, Exxon 7-3006
Matrix: Liquid
Work Order #: 9511130-06

Reported: Nov 15, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC110895BTEX06A	GC110895BTEX06A	GC110895BTEX06A	GC110895BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	G. Garcia	G. Garcia	G. Garcia	G. Garcia
MS/MSD #:	951112002	951112002	951112002	951112002
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/8/95	11/8/95	11/8/95	11/8/95
Analyzed Date:	11/8/95	11/8/95	11/8/95	11/8/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	12	11	11	34
MS % Recovery:	120	110	110	113
Dup. Result:	12	11	11	34
MSD % Recov.:	120	110	110	113
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK110895	BLK110895	BLK110895	BLK110895
Prepared Date:	11/8/95	11/8/95	11/8/95	11/8/95
Analyzed Date:	11/8/95	11/8/95	11/8/95	11/8/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.4	8.3	8.5	25
LCS % Recov.:	84	83	85	83
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

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Sequoia Analytical
680 Chesapeake Dr.
Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Consultant's Name: Environmental Resolutions Inc — Page 1 of 2

Address: 359 Bel Marin Keys Blvd, Suite 20 Novato Ca 94949		**Site Location:** 720 High Street
Project #: 7-3006	**Consultant Project #:** 201013X	**Consultant Work Release #:** 19432503
Project Contact: Marc Briggs	**Phone #:** 415-382 9105	**Laboratory Work Release #:**
EXXON Contact: Marla Svensler	**Phone #:** 510 246 8776	**EXXON RAS #:** 7-3006
Sampled by (print): Peter Petro	**Sampler's Signature:**	Oakland, Ca
Shipment Method:	**Air Bill #:**	9511180

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☒ Standard (10 day)

ANALYSIS REQUIRED

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020/ 5030	TPH/ Diesel EPA 8015/ 3510	TRPH S.M. 5520	MTBE		Temperature: ____ Inbound Seal: Yes No Outbound Seal: Yes No
W-12-MW10	11/1/95	13:50	Water	HCl ICE	3	01	X			X		
W-12-MW10		13:53		ICE	2			X				
W-21-MW9		14:15		HCl ICE	3	02	X			X		
W-21-MW9		14:20		ICE	2			X				
W-11-MW1		14:35		HCl ICE	3	03	X			X		
W-11-MW1		14:40		ICE	2			X				
W-17-MW11		15:00		HCl ICE	3	04	X			X		
W-17-MW11		15:05		ICE	2			X				
W-15-MW14	"	15:15	"	HCl ICE	3	05	X			X		

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
[signature]	11/2/95		[signature] / SEQ	11/2/95	1000	
[signature]	11/2/95					
			[signature] / Sequoia	11/02/95	1148	

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011, Exxon 7-3006
Sample Descript: A-Inf
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9509B32-01

Sampled: 09/18/95
Received: 09/19/95

Analyzed: 09/20/95
Reported: 09/22/95

QC Batch Number: GC092095BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	100	980
Benzene	1.0	13
Toluene	1.0	4.4
Ethyl Benzene	1.0	1.8
Xylenes (Total)	1.0	8.5
Chromatogram Pattern:		Gas
Unidentified HC		<C8

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	85

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

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Environmental Resolutions	Client Proj. ID: 201011, Exxon 7-3006	Sampled: 09/18/95
359 Bel Marin Keys, Suite 20	Sample Descript: A-Int	Received: 09/19/95
Novato, CA 94949	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 09/20/95
Attention: Marc Briggs	Lab Number: 9509B32-02	Reported: 09/22/95

QC Batch Number: GC092095BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	92

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

SEQUOIA ANALYTICAL - ELAP #1210

VMT Clark

Vickie Tague Clark
Project Manager

Sequoia Analytical

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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011, Exxon 7-3006
Sample Descript: A-Eff
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9509B32-03

Sampled: 09/18/95
Received: 09/19/95

Analyzed: 09/20/95
Reported: 09/22/95

QC Batch Number: GC092095BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	87

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

SEQUOIA ANALYTICAL - ELAP #1210

MT Clark

Vickie Tague Clark
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201011, Exxon 7-3006
Matrix: Liquid
Work Order #: 9509B32 -01

Reported: Sep 22, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC092095BTEX03A	GC092095BTEX03A	GC092095BTEX03A	GC092095BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950973607	950973607	950973607	950973607
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/20/95	9/20/95	9/20/95	9/20/95
Analyzed Date:	9/20/95	9/20/95	9/20/95	9/20/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.5	9.3	9.2	28
MS % Recovery:	95	93	92	93
Dup. Result:	9.8	9.5	9.5	29
MSD % Recov.:	98	95	95	97
RPD:	3.1	2.1	3.2	3.5
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201011, Exxon 7-3006
Matrix: Liquid
Work Order #: 9509B32-02-3

Reported: Sep 22, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC092095BTEX17A	GC092095BTEX17A	GC092095BTEX17A	GC092095BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950973607	950973607	950973607	950973607
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/20/95	9/20/95	9/20/95	9/20/95
Analyzed Date:	9/20/95	9/20/95	9/20/95	9/20/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	11	11	33
MS % Recovery:	110	110	110	110
Dup. Result:	11	11	10	31
MSD % Recov.:	110	110	100	103
RPD:	0.0	0.0	9.5	6.3
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical
680 Chesapeake Dr.
Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Page 1 of 1

Consultant's Name: Environmental Resolutions Inc		
Address: 359 Bel Marin Keys Suite 20 Novato Ca 94949		Site Location: 720 High Street
Project #: 7-3006	Consultant Project #: 201011	Consultant Work Release #: 19432503
Project Contact: Mara Briggs	Phone #: 415 382 9105	Laboratory Work Release #:
EXXON Contact: Marla Guensler	Phone #: 510 246 8776	EXXON RAS #: 7-3006
Sampled by (print): G. Peter Petro	Sampler's Signature:	Oakland, Ca
Shipment Method:	Air Bill #:	

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☒ Standard (10 day)

ANALYSIS REQUIRED

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample # 9509B32	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520			Temperature: _____ Inbound Seal: Yes No Outbound Seal: Yes No
W-INF1	9/18/95		Water	HCE ICE	3		X					
W-INF2	"		"	"	2		X					
W-INT	"		"	"	3		X					
W-EFF	"		"	"	2		X					
A-INF	"	14:38	Air	none	1	01	X					
A-INT	"	14:40	"	none	1	02	X					
A-EFF	"	14:42	"	none	1	03	X					

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
	9/19	17:45		9/19	1745	
	9/19	2:30				
			Sequoia	9/19/95	1433	

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: A-EFF
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9511F34-01

Sampled: 11/20/95
Received: 11/21/95

Analyzed: 11/22/95
Reported: 11/30/95

QC Batch Number: GC112295BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	91

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

SEQUOIA ANALYTICAL - ELAP #1210

MTClark

Vickie Tague Clark
Project Manager

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Sequoia Analytical

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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: A-INT
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9511F34-02

Sampled: 11/20/95
Received: 11/21/95

Analyzed: 11/22/95
Reported: 11/30/95

QC Batch Number: GC112295BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: A-INF2
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9511F34-03

Sampled: 11/20/95
Received: 11/21/95

Analyzed: 11/22/95
Reported: 11/30/95

QC Batch Number: GC112295BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**82**
Benzene	**0.50**	**2.0**
Toluene	**0.50**	**0.93**
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	**0.50**	**1.6**
Chromatogram Pattern:		**Gas**
Unidentified HC		**<C8**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	110

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: A-INF1
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9511F34-04

Sampled: 11/20/95
Received: 11/21/95

Analyzed: 11/22/95
Reported: 11/30/95

QC Batch Number: GC112295BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	180
Benzene	0.50	3.6
Toluene	0.50	1.7
Ethyl Benzene	0.50	0.82
Xylenes (Total)	0.50	3.9
Chromatogram Pattern:		Gas
Unidentified HC		<C8

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	118

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

SEQUOIA ANALYTICAL - ELAP #1210

MT Clark

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201011X, Exxon 7-3006
Matrix: Liquid
Work Order #: 9511F34 -01-4
Reported: Dec 5, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC112295BTEX17A	GC112295BTEX17A	GC112295BTEX17A	GC112295BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9511B2702	9511B2702	9511B2702	9511B2702
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/22/95	11/22/95	11/22/95	11/22/95
Analyzed Date:	11/22/95	11/22/95	11/22/95	11/22/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	11	11	33
MS % Recovery:	110	110	110	110
Dup. Result:	8.6	8.4	8.7	27
MSD % Recov.:	86	84	87	90
RPD:	24	27	23	20
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK112295	BLK112295	BLK112295	BLK112295
Prepared Date:	11/22/95	11/22/95	11/22/95	11/22/95
Analyzed Date:	11/22/95	11/22/95	11/22/95	11/22/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	11	11	33
LCS % Recov.:	110	110	110	110
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical
680 Chesapeake Dr.
Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Page 1 of 1

Consultant's Name: Environmental Resolutions Inc.		
Address: 359 Bel Maria Keys Suite 20 Novato Ca 94949		**Site Location:** 720 High Street
Project #: 7-3006	**Consultant Project #:** 201011X	**Consultant Work Release #:** 19433118
Project Contact: Marc Briggs	**Phone #:** 415 382 9105	**Laboratory Work Release #:**
EXXON Contact: Marla Gruensler	**Phone #:** 510 246 8776	**EXXON RAS #:** 7-3006
Sampled by (print): Scott Graham	**Sampler's Signature:** Scott Graham	Oakland, Ca
Shipment Method:	**Air Bill #:**	

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☒ Standard (10 day)

ANALYSIS REQUIRED

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample # 9511F34	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520			Temperature: ____ Inbound Seal: Yes No Outbound Seal: Yes No
W-EFF	11/20/95	12:55	Water	HCl Ice	3		X					
W-INT	"	12:57	"	"	"		X					
W-INF2	"	12:59	"	"	"		X					
W-INF1	"	13:01	"	"	"		X					
A-EFF	"	13:55	Air	none	1	01A	X					
A-INT	"	13:57	"	"	1	02	X					
A-INF2	"	13:59	"	"	1	03	X					
A-INF1	"	14:00	"	"	1	04	X					

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
Scott Graham	11/21/95	11:53	Judith R Thurtle	11/21	11:53	
Judith R Thurtle	11/21/95	—		—	—	
—	—	—	Tony McMahon.	11/21/95	15:45	

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: A-INF
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9512D14-01

Sampled: 12/18/95
Received: 12/19/95

Analyzed: 12/20/95
Reported: 12/26/95

QC Batch Number: GC122095BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	4600
Benzene	5.0	50
Toluene	5.0	23
Ethyl Benzene	5.0	35
Xylenes (Total)	5.0	130
Chromatogram Pattern:		Gas
Unidentified HC		<C8

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	162 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

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Sequoia Analytical

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404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: A-INT
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9512D14-02

Sampled: 12/18/95
Received: 12/19/95

Analyzed: 12/20/95
Reported: 12/26/95

QC Batch Number: GC122095BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	93

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

SEQUOIA ANALYTICAL - ELAP #1210

VMTClark

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Proj. ID: 201011X, Exxon 7-3006	Sampled: 12/18/95
359 Bel Marin Keys, Suite 20	Sample Descript: A-EFF	Received: 12/19/95
Novato, CA 94949	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/20/95
Attention: Marc Briggs	Lab Number: 9512D14-03	Reported: 12/26/95

QC Batch Number: GC122095BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Lab Proj. ID: 9512D14

Received: 12/19/95
Reported: 12/26/95

LABORATORY NARRATIVE

Q: Surrogate recovery high due to coelution.

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Sequoia Analytical

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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201011X, Exxon 7-3006
Matrix: Liquid
Work Order #: 9512D14 -01

Reported: Dec 27, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122095BTEX02A	GC122095BTEX02A	GC122095BTEX02A	GC122095BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	951253304	951253304	951253304	951253304
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/20/95	12/20/95	12/20/95	12/20/95
Analyzed Date:	12/20/95	12/20/95	12/20/95	12/20/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	10	9.5	29
MS % Recovery:	110	100	95	97
Dup. Result:	9.5	9.5	9.1	27
MSD % Recov.:	95	95	91	90
RPD:	15	5.1	4.3	7.1
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK122095	BLK122095	BLK122095	BLK122095
Prepared Date:	12/20/95	12/20/95	12/20/95	12/20/95
Analyzed Date:	12/20/95	12/20/95	12/20/95	12/20/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	7.0	7.2	8.8	27
LCS % Recov.:	70	72	88	90
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201011X, Exxon 7-3006
Matrix: Liquid
Work Order #: 9512D14-02-3

Reported: Dec 27, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122095BTEX17A	GC122095BTEX17A	GC122095BTEX17A	GC122095BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	951253304	951253304	951253304	951253304
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/20/95	12/20/95	12/20/95	12/20/95
Analyzed Date:	12/20/95	12/20/95	12/20/95	12/20/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.4	9.3	9.0	26
MS % Recovery:	94	93	90	87
Dup. Result:	10	10	10	30
MSD % Recov.:	100	100	100	100
RPD:	6.2	7.3	11	14
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK122095	BLK122095	BLK122095	BLK122095
Prepared Date:	12/20/95	12/20/95	12/20/95	12/20/95
Analyzed Date:	12/20/95	12/20/95	12/20/95	12/20/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.6	9.7	9.7	29
LCS % Recov.:	96	97	97	97
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Please Note:
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Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Consultant's Name: Environmental Resolutions		Page 1 of 1
Address: 357 Bel Marin Keys Blvd, Suite G Novato		**Site Location:** 720 High St Oakland
Project #: 201011X	**Consultant Project #:**	**Consultant Work Release #:** 1943293
Project Contact: Marc Briggs	**Phone #:** 415 382 9105	**Laboratory Work Release #:**
EXXON Contact: Maria Gelfuso	**Phone #:** 510 246 8768	**EXXON RAS #:** 7300G
Sampled by (print): Peter Pesco	**Sampler's Signature:**	
Shipment Method:	**Air Bill #:**	

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☐ Standard (10 day)

ANALYSIS REQUIRED

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample # 9512 Di4	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520			Temperature: _____ Inbound Seal: Yes No Outbound Seal: Yes No
W-INF1	12/18		WATER	HCl	3		X					
W-INF2					3		X					
W-INT					3		X					
W-EFF					3		X					
A-INF			AIR	none	1	01	X					
A-INT					1	02	X					
A-EFF					1	03	X					

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
	12/19/95	3:00	S. Wright / Sequoia	12/19/95	3:00	
S. Wright	12/19/95	4:15				
				12/19/95	1615	

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

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Environmental Resolutions, Inc.
359 Bel Marin Keys Blvd. #20
Novato, CA 94945
Attention: Marc Briggs

Client Project ID: Exxon #7-3006 / #20 01
Sample Matrix: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 510-1060

Sampled: Oct 13, 1995
Received: Oct 13, 1995
Reported: Oct 23, 1995

QC Batch Number: GC101795 802005A | GC101795 802005A | GC101795 802004A | GC101795 802004A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 510-1060 W-INF 1	Sample I.D. 510-1061 W-INF 2	Sample I.D. 510-1062 W-INT	Sample I.D. 510-1063 W-EFF
Purgeable Hydrocarbons	50	4,900	780	N.D.	N.D.
Benzene	0.50	1,400	230	N.D.	N.D.
Toluene	0.50	310	49	N.D.	N.D.
Ethyl Benzene	0.50	120	15	N.D.	N.D.
Total Xylenes	0.50	480	72	N.D.	N.D.
Chromatogram Pattern:		Gasoline	Gasoline	--	--

Quality Control Data

Report Limit Multiplication Factor:	40	5.0	1.0	1.0
Date Analyzed:	10/17/95	10/17/95	10/17/95	10/17/95
Instrument Identification:	HP-5	HP-5	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	89	88	96	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, #1271

Kevin Van Slambrook
Project Manager

Sequoia Analytical

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Environmental Resolutions, Inc.	Client Project ID:	Exxon #7-3006 / #201011X	Sampled: Oct 13, 1995
359 Bel Marin Keys Blvd. #20	Sample Matrix:	Air	Received: Oct 13, 1995
Novato, CA 94945	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Oct 23, 1995
Attention: Marc Briggs	First Sample #:	510-1064	

QC Batch Number: GC101395 802004A | GC101395 802002A | GC101395 802002A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 510-1064 A-INF	Sample I.D. 510-1065 A-INT	Sample I.D. 510-1066 A-EFF
Purgeable Hydrocarbons	10	2,000	N.D.	N.D.
Benzene	0.050	100	N.D.	N.D.
Toluene	0.050	62	N.D.	N.D.
Ethyl Benzene	0.050	26	N.D.	N.D.
Total Xylenes	0.050	130	N.D.	N.D.
Chromatogram Pattern:		Gasoline	--	--

Quality Control Data

Report Limit Multiplication Factor:	100	1.0	1.0
Date Analyzed:	10/13/95	10/13/95	10/13/95
Instrument Identification:	HP-4	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	108	98	98

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

SEQUOIA ANALYTICAL, #1271

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Environmental Resolutions, Inc.	Client Project ID:	Exxon #7-3006 / #201011X	Sampled: Oct 13, 1995
359 Bel Marin Keys Blvd. #20	Sample Matrix:	Air	Received: Oct 13, 1995
Novato, CA 94945	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Oct 23, 1995
Attention: Marc Briggs	First Sample #:	510-1064	

QC Batch Number:	GC101395	GC101395	GC101395
	802004A	802002A	802002A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit ppmv	Sample I.D. 510-1064 A-INF	Sample I.D. 510-1065 A-INT	Sample I.D. 510-1066 A-EFF
Purgeable Hydrocarbons	2.3	460	N.D.	N.D.
Benzene	0.016	31	N.D.	N.D.
Toluene	0.013	16	N.D.	N.D.
Ethyl Benzene	0.012	6.0	N.D.	N.D.
Total Xylenes	0.012	30	N.D.	N.D.
Chromatogram Pattern:		Gasoline	--	--

Quality Control Data

Report Limit Multiplication Factor:	100	1.0	1.0
Date Analyzed:	10/13/95	10/13/95	10/13/95
Instrument Identification:	HP-4	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	108	98	98

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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Environmental Resolutions, Inc.	Client Project ID:	Exxon #7-3006 / #201011X	Sampled:	Oct 13, 1995
359 Bel Marin Keys Blvd. #20	Sample Descript:	Water, W-EFF	Received:	Oct 13, 1995
Novato, CA 94945	Analysis Method:	EPA 624		
Attention: Marc Briggs	Lab Number:	510-1063	Analyzed:	Oct 19, 1995
			Reported:	Oct 23, 1995

QC Batch Number: MS1019950624S2A
Instrument ID: GC/MS-2

PURGEABLES by GC/MS (EPA 624)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acetone	10	N.D.
Benzene	2.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	2.0	N.D.
2-Butanone	10	N.D.
Carbon disulfide	2.0	N.D.
Carbon tetrachloride	2.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethyl vinyl ether	10	N.D.
Chloroform	2.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	2.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	2.0	N.D.
cis-1,2-Dichloroethene	2.0	N.D.
trans-1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
cis-1,3-Dichloropropene	2.0	N.D.
trans-1,3-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
2-Hexanone	10	N.D.
Methylene chloride	5.0	N.D.
4-Methyl-2-pentanone	10	N.D.
Styrene	2.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	2.0	N.D.

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

Sequoia Analytical

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Environmental Resolutions, Inc.	Client Project ID:	Exxon #7-3006 / #201011X	Sampled:	Oct 13, 1995
359 Bel Marin Keys Blvd. #20	Sample Descript:	Water, W-EFF	Received:	Oct 13, 1995
Novato, CA 94945	Analysis Method:	EPA 624		
Attention: Marc Briggs	Lab Number:	510-1063	Analyzed:	Oct 19, 1995
			Reported:	Oct 23, 1995

QC Batch Number: MS1019950624S2A
Instrument ID: GC/MS-2

PURGEABLES by GC/MS (EPA 624)

Analyte	Detection Limit µg/L	Sample Results µg/L
Vinyl acetate	2.0	N.D.
Vinyl chloride	2.0	N.D.
Total Xylenes	2.0	N.D.

Surrogates	Control Limit %		% Recovery
1,2-Dichloroethane-d4	50	150	84
Toluene-d8	50	150	107
4-Bromofluorobenzene	50	150	96

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Sequoia Analytical

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Environmental Resolutions, Inc.	Client Project ID:	Exxon #7-3006 / #201011X	Sampled: Oct 13, 1995
359 Bel Marin Keys Blvd. #20	Sample Descript:	Water, W-EFF	Received: Oct 13, 1995
Novato, CA 94945			Analyzed: Oct 18, 1995
Attention: Marc Briggs	Lab Number:	510-1063	Reported: Oct 23, 1995

LABORATORY ANALYSIS

Analyte	Detection Limit mg/L (ppm)	Sample Results mg/L (ppm)	QC Batch Number	Instrument ID
Arsenic	0.10	N.D.	ME1017952007MDA	MV-3
Cadmium	0.010	N.D.	ME1017952007MDA	MV-3
Chromium	0.010	N.D.	ME1017952007MDA	MV-3
Copper	0.010	N.D.	ME1017952007MDA	MV-3
Lead	0.020	N.D.	ME1017952007MDA	MV-3
Mercury	0.00020	N.D.	ME1018952451MDA	MV-1
Nickel	0.020	0.026	ME1017952007MDA	MV-3
Silver	0.010	N.D.	ME1017952007MDA	MV-1
Zinc	0.020	N.D.	ME1017952007MDA	MV-3

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
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Environmental Resolutions, Inc.
359 Bel Marin Keys Blvd. #20
Novato, CA 94945
Attention: Marc Briggs

Client Project ID: Exxon #7-3006 / #201011X
Matrix: Liquid
QC Sample Group: 5101060-066
Reported: Oct 23, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101795	GC101795	GC101795	GC101795
Analy. Method:	802004A EPA 8020	802004A EPA 8020	802004A EPA 8020	802004A EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	5101062	5101062	5101062	5101062
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/17/95	10/17/95	10/17/95	10/17/95
Analyzed Date:	10/17/95	10/17/95	10/17/95	10/17/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	21	21	21	64
MS % Recovery:	105	105	105	107
Dup. Result:	20	20	21	62
MSD % Recov.:	100	100	105	103
RPD:	4.9	4.9	0.0	3.2
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	2LCS101795	2LCS101795	2LCS101795	2LCS101795
Prepared Date:	10/17/95	10/17/95	10/17/95	10/17/95
Analyzed Date:	10/17/95	10/17/95	10/17/95	10/17/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	20	20	20	61
LCS % Recov.:	98	101	102	102

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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Environmental Resolutions, Inc.
359 Bel Marin Keys Blvd. #20
Novato, CA 94945
Attention: Marc Briggs

Client Project ID: Exxon #7-3006 / #201011X
Matrix: Liquid
QC Sample Group: 5101060-066

Reported: Oct 23, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101795	GC101795	GC101795	GC101795
	802005A	802005A	802005A	802005A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	5100831	5100831	5100831	5100831
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/17/95	10/17/95	10/17/95	10/17/95
Analyzed Date:	10/17/95	10/17/95	10/17/95	10/17/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	18	18	18	55
MS % Recovery:	90	90	90	92
Dup. Result:	19	18	19	57
MSD % Recov.:	95	90	95	95
RPD:	5.4	0.0	5.4	3.6
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	3LCS101795	3LCS101795	3LCS101795	3LCS101795
Prepared Date:	10/17/95	10/17/95	10/17/95	10/17/95
Analyzed Date:	10/17/95	10/17/95	10/17/95	10/17/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	19	19	19	59
LCS % Recov.:	98	95	97	98

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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Environmental Resolutions, Inc.
359 Bel Marin Keys Blvd. #20
Novato, CA 94945
Attention: Marc Briggs

Client Project ID: Exxon #7-3006 / #201011X
Matrix: Liquid
QC Sample Group: 5101060-066
Reported: Oct 23, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101395	GC101395	GC101395	GC101395
Analy. Method:	802002A EPA 8020	802002A EPA 8020	802002A EPA 8020	802002A EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	5100653	5100653	5100653	5100653
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/13/95	10/13/95	10/13/95	10/13/95
Analyzed Date:	10/13/95	10/13/95	10/13/95	10/13/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	23	22	23	69
MS % Recovery:	115	110	115	115
Dup. Result:	23	22	23	70
MSD % Recov.:	115	110	115	117
RPD:	0.0	0.0	0.0	1.4
RPD Limit:	0-20	0-20	0-20	0-20
LCS #:	1LCS101395	1LCS101395	1LCS101395	1LCS101395
Prepared Date:	10/13/95	10/13/95	10/13/95	10/13/95
Analyzed Date:	10/13/95	10/13/95	10/13/95	10/13/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	24	24	24	73
LCS % Recov.:	122	118	122	122
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions, Inc.
359 Bel Marin Keys Blvd. #20
Novato, CA 94945
Attention: Marc Briggs

Client Project ID: Exxon #7-3006 / #201011X
Matrix: Liquid
QC Sample Group: 5101060-066
Reported: Oct 23, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101395	GC101395	GC101395	GC101395
Analy. Method:	802004A EPA 8020	802004A EPA 8020	802004A EPA 8020	802004A EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	5100155	5100155	5100155	5100155
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/13/95	10/13/95	10/13/95	10/13/95
Analyzed Date:	10/13/95	10/13/95	10/13/95	10/13/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	20	21	21	62
MS % Recovery:	100	105	105	103
Dup. Result:	20	21	20	61
MSD % Recov.:	100	105	100	102
RPD:	0.0	0.0	4.9	1.6
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	2LCS101395	2LCS101395	2LCS101395	2LCS101395
Prepared Date:	10/13/95	10/13/95	10/13/95	10/13/95
Analyzed Date:	10/13/95	10/13/95	10/13/95	10/13/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	20	21	21	62
LCS % Recov.:	100	103	104	103

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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Environmental Resolutions, Inc.
359 Bel Marin Keys Blvd. #20
Novato, CA 94945
Attention: Marc Briggs

Client Project ID: Exxon #7-3006 / #201011X
Matrix: Liquid
QC Sample Group: 5101060-066
Reported: Oct 23, 1995

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-benzene
QC Batch#:	MS101995	MS101995	MS101995	MS101995	MS101995
	0624S2A	0624S2A	0624S2A	0624S2A	0624S2A
Analy. Method:	EPA 624	EPA 624	EPA 624	EPA 624	EPA 624
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon
MS/MSD #:	5100715	5100715	5100715	5100715	5100715
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/19/95	10/19/95	10/19/95	10/19/95	10/19/95
Analyzed Date:	10/19/95	10/19/95	10/19/95	10/19/95	10/19/95
Instrument I.D.#:	GC/MS-2	GC/MS-2	GC/MS-2	GC/MS-2	GC/MS-2
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L	50 µg/L	50 µg/L
Result:	39	48	55	49	52
MS % Recovery:	77	96	109	98	104
Dup. Result:	39	49	55	50	54
MSD % Recov.:	78	98	110	100	108
RPD:	0.52	1.7	0.37	1.6	3.0
RPD Limit:	0-14	0-14	0-11	0-13	0-13

LCS #:	LCS101995	LCS101995	LCS101995	LCS101995	LCS101995
Prepared Date:	10/19/95	10/19/95	10/19/95	10/19/95	10/19/95
Analyzed Date:	10/19/95	10/19/95	10/19/95	10/19/95	10/19/95
Instrument I.D.#:	GC/MS-2	GC/MS-2	GC/MS-2	GC/MS-2	GC/MS-2
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L	50 µg/L	50 µg/L
LCS Result:	40	49	58	52	56
LCS % Recov.:	79	98	115	103	112

MS/MSD LCS Control Limits	DL-234	71-157	37-151	47-150	37-160

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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Sequoia Analytical

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Environmental Resolutions, Inc.
359 Bel Marin Keys Blvd. #20
Novato, CA 94945
Attention: Marc Briggs

Client Project ID: Exxon #7-3006 / #201011X
Matrix: Liquid
QC Sample Group: 5101060-066
Reported: Oct 23, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Cadmium	Chromium	Lead	Nickel	Zinc	Copper
QC Batch#:	ME101795	ME101795	ME101795	ME101795	ME101795	ME101795
	2007MDA	2007MDA	2007MDA	2007MDA	2007MDA	2007MDA
Analy. Method:	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7
Prep. Method:	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7
Analyst:	L. Huang	L. Huang	L. Huang	L. Huang	L. Huang	L. Huang
MS/MSD #:	-	-	-	-	-	-
Sample Conc.:	-	-	-	-	-	-
Prepared Date:	-	-	-	-	-	-
Analyzed Date:	-	-	-	-	-	-
Instrument I.D.#:	-	-	-	-	-	-
Conc. Spiked:	-	-	-	-	-	-
Result:	-	-	-	-	-	-
MS % Recovery:	-	-	-	-	-	-
Dup. Result:	-	-	-	-	-	-
MSD % Recov.:	-	-	-	-	-	-
RPD:	-	-	-	-	-	-
RPD Limit:	-	-	-	-	-	-

LCS #:	BLK101795	BLK101795	BLK101795	BLK101795	BLK101795	BLK101795
Prepared Date:	10/17/95	10/17/95	10/17/95	10/17/95	10/17/95	10/17/95
Analyzed Date:	10/18/95	10/18/95	10/18/95	10/18/95	10/18/95	10/18/95
Instrument I.D.#:	MV-3	MV-3	MV-3	MV-3	MV-3	MV-3
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result:	0.89	0.88	0.90	0.88	0.89	0.88
LCS % Recov.:	89	88	90	88	89	88

MS/MSD LCS Control Limits	75-125	75-125	75-125	75-125	75-125	75-125

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Please Note:
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** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical

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Environmental Resolutions, Inc.
359 Bel Marin Keys Blvd. #20
Novato, CA 94945
Attention: Marc Briggs

Client Project ID: Exxon #7-3006 / #201011X
Matrix: Liquid
QC Sample Group: 5101060-066
Reported: Oct 23, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Silver	Mercury
QC Batch#:	ME101795	ME101895
	2007MDA	2451MDA
Analy. Method:	EPA 272.1	EPA 245.1
Prep. Method:	EPA 200.7	EPA 245.1
Analyst:	T. Le	T. Le
MS/MSD #:	5101063	5101063
Sample Conc.:	N.D.	N.D.
Prepared Date:	10/17/95	10/18/95
Analyzed Date:	10/18/95	10/18/95
Instrument I.D.#:	MV-1	MV-1
Conc. Spiked:	1.0 mg/L	0.0020 mg/L
Result:	1.0	0.0021
MS % Recovery:	100	105
Dup. Result:	1.0	0.0021
MSD % Recov.:	100	105
RPD:	0.0	0.0
RPD Limit:	0-20	0-20

LCS #:	BLK101795	BLK101795
Prepared Date:	10/17/95	10/17/95
Analyzed Date:	10/18/95	10/18/95
Instrument I.D.#:	MV-3	MV-3
Conc. Spiked:	1.0 mg/L	0.0020 mg/L
LCS Result:	0.89	0.0020
LCS % Recov.:	89	100

MS/MSD LCS Control Limits	75-125	75-125

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

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

EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

9510261

Page ____ of ____

Consultant's Name: Environmental Resolutions Inc.			
Address: [illegible] Blvd Suite 20, Novato CA		Site Location: 720 High St, Oakland	
Project #: 2210IIX	Consultant Project #: 2210IIX	Consultant Work Release #: 19432503	
Project Contact: Marc Briggs	Phone #: 415 382 9105	Laboratory Work Release #:	
EXXON Contact: Marla Guensler	Phone #: 510 246 8776	EXXON RAS #: 7300G	
Sampled by (print): Peter [illegible]	Sampler's Signature: [signature]		
Shipment Method:	Air Bill #:		

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☒ Standard (10 day)

ANALYSIS REQUIRED

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	EPA 624	METAL	Temperature: ____ Inbound Seal: Yes No Outbound Seal: Yes No
W-INF 1	10/13/95	1:00	H2O	HCl	3	5101060	X					Arsenic
W-INF 2					3	5101061	X					Cadmium
W-INT					3	5101062	X					Chromium
W-EFF					6	5101063	X			X		Copper Lead
W-EFF					1						X	Mercury Nickel
												Silver Zinc
A-INF	10/13/95	12:30	AIR		1	5101064	X	Please Provide				
A-INT					1	5101065	X					
A-EFF					1	5101066	X	Unreliable by Tues Morning				

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
[signature]			[signature] / Seq.	10/13	1425	

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions	Client Project ID:	Exxon #7-3006 / #201011X	Sampled: Oct 13, 1995
359 Bel Marin Keys Blvd. #20	Sample Descript:	Water	Relogged: Nov 1, 1995
Novato, CA 94945	Analysis for:	Arsenic	Extracted: Nov 2, 1995
Attention: Marc Briggs	First Sample #:	510-1063	Analyzed: Nov 6, 1995
			Reported: Nov 16, 1995

LABORATORY ANALYSIS FOR: Arsenic

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L	QC Batch Number	Instrument ID
510-1063	W-Eff	0.0050	0.0079	ME1102952000MDA	MV-2

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Sequoia Analytical

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Environmental Resolutions
359 Bel Marin Keys Blvd. #20
Novato, CA 94945
Attention: Marc Briggs

Client Project ID: Exxon #7-3006 / #201011X
Matrix: Liquid
QC Sample Group: 5101063
Reported: Nov 16, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Arsenic
QC Batch#:	ME110295
	2000MDA
Analy. Method:	EPA 206.2
Prep. Method:	EPA 200.0
Analyst:	T. Le
MS/MSD #:	5102635
Sample Conc.:	N.D.
Prepared Date:	11/2/95
Analyzed Date:	11/6/95
Instrument I.D.#:	MV-2
Conc. Spiked:	0.10 mg/L
Result:	0.090
MS % Recovery:	90
Dup. Result:	0.093
MSD % Recov.:	93
RPD:	3.3
RPD Limit:	0-20

LCS #:	BLK110295
Prepared Date:	11/2/95
Analyzed Date:	11/6/95
Instrument I.D.#:	MV-2
Conc. Spiked:	0.10 mg/L
LCS Result:	0.11
LCS % Recov.:	110

MS/MSD LCS Control Limits	75-125

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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Sequoia Analytical

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REQUEST TO RELOG SAMPLES

(Please submit to sample control with a copy of the COC)

CLIENT: Environmental Resolutions, Inc. MATRIX: Water 9511003

PREVIOUSLY LOGGED SAMPLES

[X] TAT Change status to: 10 Day

Change status as of Day: 11/1/95 Time: 12:00 AM

[X] CHANGE ANALYSES

Add Analyses [X] Cancel Analyses [ ]

Sequoia Project ID: 9510261

Sample Number	Analyses
5101063	Arsenic by AA (needs D.L. < 0.050 mg/L) 5110012
	359 Del Mesa Keys Dr #20 Novato 94945

SAMPLES ON HOLD

Sample Description	Analyses

Client Authorization (Person/Date/Time): Marc Briggs 11/1/95 10:30 AM

Project Manager: Kevin Van Slambrook

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

EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Consultant's Name: Environmental Resolutions Inc.			Page ____ of ____
Address: 359 Bel Marin Keys Blvd Suite 20, Novato CA			**Site Location:** 720 High St, Oakland
Project #: 201011X	**Consultant Project #:** 201011X		**Consultant Work Release #:** 19432503
Project Contact: Marc Briggs	**Phone #:** 415 382 9105 PP		**Laboratory Work Release #:** 19514935
EXXON Contact: Marla Gronsler	**Phone #:** ~~415~~ 510 246 ~~8753~~ 8776		**EXXON RAS #:** 73006
Sampled by (print): Peter Petro	**Sampler's Signature:**		
Shipment Method:	**Air Bill #:**		

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☒ Standard (10 day)

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample #	ANALYSIS REQUIRED: TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	EPA 624	METAL	Temperature: ____ Inbound Seal: Yes No Outbound Seal: Yes No
W-INF 2	10/13/95	1:00	H2O	HCl Ice	3	5101060	X					Arsenic
W-INF 2	"	"	"	"	3	5101061	X					Cadmium
W-INT	"	"	"	"	3	5101062	X					Chromium
W-EFF	"	"	"	PP	6	5101063	X			X		Copper Lead
W-EFF	"	"	"	"	1						X	Mercury Nickel
												Silver Zinc
A-INF	10/13/95	12:30	AIR	VOA	1	5101064	X					
A-INT	"	"	"	"	1	5101065	X		Please Branch			
A-EFF	"	"	"	"	1	5101066	X		Verbal by Tom Morris			

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
			Charles Squ.	10/13	1425	

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: W-EFF
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9511F76-01

Sampled: 11/20/95
Received: 11/21/95

Analyzed: 11/27/95
Reported: 11/30/95

QC Batch Number: GC112795BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

RECEIVED
DEC 07 1995

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: W-INT
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9511F76-02

Sampled: 11/20/95
Received: 11/21/95

Analyzed: 11/27/95
Reported: 11/30/95

QC Batch Number: GC112795BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	90

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

SEQUOIA ANALYTICAL - ELAP #1210

VMTClark

Vickie Tague Clark
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: W-INF2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9511F76-03

Sampled: 11/20/95
Received: 11/21/95

Analyzed: 11/28/95
Reported: 11/30/95

QC Batch Number: GC112795BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**230**
Benzene	**0.50**	**36**
Toluene	**0.50**	**1.6**
Ethyl Benzene	**0.50**	**2.2**
Xylenes (Total)	**0.50**	**7.6**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: W-INF1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9511F76-04

Sampled: 11/20/95
Received: 11/21/95

Analyzed: 11/27/95
Reported: 11/30/95

QC Batch Number: GC112795BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**630**
Benzene	**5.0**	**140**
Toluene	5.0	N.D.
Ethyl Benzene	**5.0**	**6.9**
Xylenes (Total)	**5.0**	**22**
Chromatogram Pattern:		
Weathered Gas		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	73

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201011X, Exxon 7-3006
Matrix: Liquid
Work Order #: 9511F76 -01-2, 4
Reported: Dec 5, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC112795BTEX02A	GC112795BTEX02A	GC112795BTEX02A	GC112795BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9511B7901	9511B7901	9511B7901	9511B7901
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/27/95	11/27/95	11/27/95	11/27/95
Analyzed Date:	11/27/95	11/27/95	11/27/95	11/27/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.4	9.5	9.5	28
MS % Recovery:	94	95	95	93
Dup. Result:	9.3	9.6	9.6	28
MSD % Recov.:	93	96	96	93
RPD:	1.1	1.0	1.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK112795	BLK112795	BLK112795	BLK112795
Prepared Date:	11/27/95	11/27/95	11/27/95	11/27/95
Analyzed Date:	11/27/95	11/27/95	11/27/95	11/27/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.3	9.4	9.5	28
LCS % Recov.:	93	94	95	93
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201011X, Exxon 7-3006
Matrix: Liquid
Work Order #: 9511F76-03

Reported: Dec 5, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC112795BTEX17A	GC112795BTEX17A	GC112795BTEX17A	GC112795BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9511B7902	9511B7902	9511B7902	9511B7902
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/27/95	11/27/95	11/27/95	11/27/95
Analyzed Date:	11/27/95	11/27/95	11/27/95	11/27/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.7	10	10	30
MS % Recovery:	97	100	100	100
Dup. Result:	9.3	9.7	9.9	29
MSD % Recov.:	93	97	99	97
RPD:	4.2	3.0	1.0	3.4
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK112795	BLK112795	BLK112795	BLK112795
Prepared Date:	11/27/95	11/27/95	11/27/95	11/27/95
Analyzed Date:	11/27/95	11/27/95	11/27/95	11/27/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.4	9.5	9.8	29
LCS % Recov.:	94	95	98	97
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

VMTClark

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical
680 Chesapeake Dr.
Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Consultant's Name: Environmental Resolutions Inc — Page 1 of 1

Address: 359 Bel Marin Keys, Suite 20 Novato Ca 94949 — Site Location: 720 High Street

Project #: 7-3006 — Consultant Project #: 201011X — Consultant Work Release #: 19433118

Project Contact: Marc Briggs — Phone #: 415 382 9105 — Laboratory Work Release #:

EXXON Contact: Marla Guensler — Phone #: 510 246 8776 — EXXON RAS #: 7-3006

Sampled by (print): Scott Graham — Sampler's Signature: Scott Graham — Oakland, Ca

Shipment Method: — Air Bill #:

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☑ Standard (10 day)

ANALYSIS REQUIRED 9511F74

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520			Temperature: ____ Inbound Seal: Yes No Outbound Seal: Yes No
W-EFF	11/20/95	12:55	Water	HCl ice	3	1	X					
W-INT	"	12:57	"	"	"	2	X					
W-INF2	"	12:59	"	"	"	3	X					
W-INF1	"	13:01	"	"	"	4	X					
A-EFF	"	13:55	Air	none	1		X					
A-INT	"	13:57	"	"	1		X					
A-INF2	"	13:59	"	"	1		X					
A-INF1	"	14:00	"	"	1		X					

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
Scott Graham	11/21/95	11:53	Judith R Shutler	11/21	11:53	
Judith R Shutler	11/21/95	—	—	—	—	
—	—	—	Tony McMahon	11/21/95	15:45	

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: W-INF1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9512D52-01

Sampled: 12/18/95
Received: 12/19/95

Analyzed: 12/20/95
Reported: 12/26/95

QC Batch Number: GC122095BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	8900
Benzene	10	1100
Toluene	10	240
Ethyl Benzene	10	130
Xylenes (Total)	10	2200
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	81

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

RECEIVED
DEC 28 1995

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: W-INF2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9512D52-02

Sampled: 12/18/95
Received: 12/19/95

Analyzed: 12/20/95
Reported: 12/26/95

QC Batch Number: GC122095BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	3900
Benzene	5.0	380
Toluene	5.0	85
Ethyl Benzene	5.0	60
Xylenes (Total)	5.0	890
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	83

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: W-INT
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9512D52-03

Sampled: 12/18/95
Received: 12/19/95

Analyzed: 12/20/95
Reported: 12/26/95

QC Batch Number: GC122095BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	**0.50**	**1.3**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	**0.50**	**5.1**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

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

SEQUOIA ANALYTICAL - ELAP #1210

VMTClark

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949

Attention: Marc Briggs

Client Proj. ID: 201011X, Exxon 7-3006
Sample Descript: W-EFF
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9512D52-04

Sampled: 12/18/95
Received: 12/19/95

Analyzed: 12/20/95
Reported: 12/26/95

QC Batch Number: GC122095BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

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

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

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Environmental Resolutions
359 Bel Marin Keys, Suite 20
Novato, CA 94949
Attention: Marc Briggs

Client Project ID: 201011X, Exxon 7-3006
Matrix: Liquid
Work Order #: 9512D52 -01-4
Reported: Dec 27, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122095BTEX21A	GC122095BTEX21A	GC122095BTEX21A	GC122095BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	951253304	951253304	951253304	951253304
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/20/95	12/20/95	12/20/95	12/20/95
Analyzed Date:	12/20/95	12/20/95	12/20/95	12/20/95
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	9.2	8.4	24
MS % Recovery:	100	92	84	80
Dup. Result:	12	11	14	32
MSD % Recov.:	120	110	138	107
RPD:	18	18	49	29
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK122095	BLK122095	BLK122095	BLK122095
Prepared Date:	12/20/95	12/20/95	12/20/95	12/20/95
Analyzed Date:	12/20/95	12/20/95	12/20/95	12/20/95
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	11	11	33
LCS % Recov.:	110	110	110	110
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical
680 Chesapeake Dr.
Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Page 1 of 1

Consultant's Name: Environmental Resources		
Address: 357 Bel Marin Keys Blvd, Suite C Novato		Site Location: 720 High St Oakland
Project #: 201011X	Consultant Project #:	Consultant Work Release #: 1943293
Project Contact: Marc Briggs	Phone #: 415 382 9105	Laboratory Work Release #:
EXXON Contact: Maria Gelfuso	Phone #: 510 246 8768	EXXON RAS #: 73006
Sampled by (print): Peter Pesco	Sampler's Signature:	
Shipment Method:	Air Bill #:	

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ 96 hr ☐ Standard (10 day)

ANALYSIS REQUIRED

9512052

	Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520			Temperature: ____ Inbound Seal: Yes No Outbound Seal: Yes No
1	W-INF1	12/18		WATER	HCl	3	01	X					
2	W-INF2					3	02	X					
3	W-INT					3	03	X					
4	W-EFF					3	04	X					
5	A-INF			AIR	none	1		X					
6	A-INT					1		X					
7	A-EFF					1		X					

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED / AFFILIATION	Date	Time	Additional Comments
	12/19/95	3:00	S. Dwight/Sequoia	12/19/95	3:00	
S. Dwight	12/19/95	4:15				
				12/19/95	1615	

Pink - Client
Yellow - Sequoia
White - Sequoia

ATTACHMENT C

ERI SOP-25 "HYDROCARBONS REMOVED FROM A VADOSE WELL"

HYDROCARBON REMOVED FROM A VADOSE WELL SOP-25

Rev. JG'C

Rev. 1/29/95

POUNDS OF HYDROCARBON IN AN AIR STREAM

INPUT DATA:
1) Air flow rate acfm (usually by Pitot tube)
2) Air pressure at the flow measuring device (in inches of H_2O) (use {-} for vacuum)
3) Air temperature at the flow measuring device.
4) Hydrocarbon content of air (usually in mg/M^3) for ppmv you need molecular weight.
5) Length of time (usually hours) over which flow rate occurred)

From periodic measurements, a calculation of total pounds of hydrocarbons removed from a well or from a system are calculated. The input data listed above are measured at a point in time. To calculate quantities removed, some assumptions must be made about what was happening between measurements. The following assumptions will be used for the sake of consistency:

ASSUMPTIONS:
1) Air flow for the period equals the average of the initial and final reading for the period.
2) Pressure and temperature for the entire period will be the final reading.
3) Hydrocarbon concentration for the period equals the average of the initial and final reading.
4) The hours of operation can be taken from an hour meter, an electric meter or will be assumed to be equal to the time between measurements.
5) If the unit is found down - try to determine how many hours it did operate and use the data taken for the previous period to make the calculations. Restart the unit and then take data to start the next period.

SAMPLE DATA AND CALCULATIONS

Date	Time	Temp deg F	Press in H_2O	HC conc mg/M3	Air flow acfm	Calc. lb. rem.
1/6/95	11:00	70	-46	2000	120	
1/7/95	13:00	55	-50	1350	90	
1/8/95	10:00	80	-13	750	100	7.4

Calculate the pounds of hydrocarbon removed from the system during the basis period from 13:00 (1:00 pm) on the 7th to 10 am on the 8th. Pressure and temperature of the measurements (at the flow meter) must be corrected to the P and T used to report the HC concentration (which are P = 1 atm and T = 70 deg F). 1 atm = 14.7psia, 760 mm Hg, or 407 in H_2O. T_{abs} = 460 + T deg F

Hours of operation = 21, T = 80, P = -13, HC = (1350+750)/2 = 1050 mg/M^3, Flow = 95

$$21 \times 60 \times 95 \times \frac{(460+70)}{(460+80)} \times \frac{(407-13)}{407} \times \frac{28.3}{1000} \times \frac{1050}{1000} \times \frac{1}{454} = 7.4 \text{ lb}$$

$$\frac{\text{hr}}{\text{basis}} \times \frac{\text{min}}{\text{hr}} \times \frac{\text{cu ft}}{\text{min}} \times T_{Corr} \times P_{Corr} \times \frac{M^3}{\text{cu ft}} \times \frac{g}{M^3} \times \frac{lb}{g} = \frac{lb}{basis}$$

$$21 \times 60 \times 95 \times 0.98 \times 0.97 \times 0.0283 \times 1.050 \times 1/454 = 7.4 \text{ lb.}$$

cumulative lbs. (the running total) = the sum of all the previous periods.

Note: If results are given in ppm, an assumption about the molecular weight of the hydrocarbon must be made to get mg/M^3. ppmv x molecular wt. /22.4 = mg/M^3. (Use 102 for gasoline)