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11 November 1997

Mr. William Wick, Esq.
Crosby, Heafey, Roach & May
1999 Harrision Street
Oakland, California 94612-3400

Subject: Groundwater Sampling Results for July 1997
4200 Alameda Avenue, Oakland, California
(EKI 930040.04)

Dear Mr. Wick:

Erler & Kalinowski, Inc. ("EKI") is pleased to submit this summary of analytical results of groundwater samples collected in July 1997 at the property located at 4200 Alameda Avenue in Oakland, California ("the site"). These analytical results represent the second semiannual monitoring event for 1997.

GROUNDWATER MONITORING WELL SAMPLING PROCEDURES

EKI sampled the five existing monitoring wells at the site on 24 July 1997. Prior to collecting water samples, EKI measured depths to groundwater, the depths to floating product, if any, and the total depths of wells to determine the casing volume of each well to be purged. Any floating product present was first purged with a peristaltic pump. A compilation of hydrocarbon thickness and groundwater elevation measurements performed at the site is presented in Table 1.

A hand bailer was then used to purge groundwater from each well. The peristaltic pump tubing and bailer were cleaned in a 55-gallon drum with Alconox® soap and distilled water before use at each well. The wells were purged until three casing volumes were removed or the until the well dewatered. Groundwater purge records are included as Attachment A.

EKI used a new disposable polyethylene bailer to collect groundwater samples from each monitoring well. Water samples were collected in 40 mL glass vials and preserved with hydrochloric acid ("HCl") for analysis of volatile organic compounds ("VOCs"), purgeable petroleum hydrocarbons, and benzene, toluene, ethyl benzene, and total

xylenes ("BTEX"). Water samples were collected in 1 liter amber glass bottles for analysis of total extractable petroleum hydrocarbons. Collected water samples were placed in a cooled container and transported to Sequoia Analytical Laboratory under chain-of-custody procedures.

SUMMARY OF GROUNDWATER SAMPLING RESULTS FOR JANUARY 1997

Immiscible hydrocarbons were noted in three of the five monitoring wells constructed at the site. Wells MW-1, MW-4 and MW-5 contained measurable amounts of floating hydrocarbons. An electronic interface probe was used to measure the thickness of floating hydrocarbons in these wells. On 24 July 1997, floating hydrocarbons measured 0.01 feet thick in well MW-1, 0.94 feet thick in well MW-4, and 2.95 feet thick in well MW-5.

Groundwater samples collected from the five monitoring wells were analyzed for the following compounds:

- Total purgeable petroleum hydrocarbons with BTEX by modified EPA Method 8015 and EPA Method 8020
- Extractable hydrocarbons by modified EPA Method 8015
- Halogenated volatile organic compounds by EPA Method 8010

Groundwater sample analytical results are summarized in Tables 2 through 4 and shown on Figures 1 and 2. Copies of laboratory analytical reports are included as Attachment B. Review of these tables and figures indicates that chemical concentrations in groundwater at the site remain essentially unchanged from the results of previous sampling events.

Total Petroleum Hydrocarbons in Groundwater

Total petroleum hydrocarbons ("TPH") in groundwater samples were quantitated against both gasoline and diesel standards. Sequoia Analytical found that the chromatogram patterns of extractable hydrocarbons did not resemble that of a diesel fuel in groundwater samples collected from most of the wells. The laboratory analytical reports (Attachment B) describe most fuel fingerprints of the petroleum hydrocarbons as weathered crude oil

or unidentified petroleum hydrocarbons with carbon chain lengths in the range of C_9 to C_{40}.

Reported concentrations are set forth in Table 2 and shown on Figure 1. However, these results should not be interpreted as the levels of TPH solely dissolved in groundwater. Immiscible hydrocarbons were observed in groundwater samples collected from the monitoring wells. Measured TPH concentrations likely include quantitation of TPH in both immiscible and soluble phases.

BTEX and Halogenated VOCs in Groundwater

BTEX and certain halogenated VOCs were detected in groundwater samples collected from the site. The detected concentrations for July 1997 are set forth in Tables 3 and 4 and shown on Figure 2. The actual dissolved concentrations of these chemicals in groundwater are unknown, however. Because BTEX and halogenated VOCs can be expected to partition between groundwater and immiscible hydrocarbons, measured concentrations of these chemicals may be largely associated with immiscible hydrocarbons in groundwater at the site.

QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

To provide a check on monitoring well sampling techniques, EKI collected duplicate samples from MW-5. Differences in concentrations of VOCs and total petroleum hydrocarbons between duplicate samples indicate that acceptable precision was achieved.

One trip blank was included in the cooler containing groundwater samples transported to the laboratory. No VOCs or purgeable petroleum hydrocarbons were detected in the trip blank sample.

Review of matrix spike, matrix spike duplicate, and laboratory control spike analytical results included with the laboratory reports (Attachment B) indicate that acceptable accuracy and precision were achieved.

Please call if you have questions or wish to discuss this report in greater detail.

Very truly yours,

ERLER & KALINOWSKI, INC.

Andrew N. Safford, P.E.
Project Manager

Theodore G. Erler, P.E.
President

attachment

TABLE 1
SUMMARY OF WATER LEVEL MEASUREMENTS
4200 Alameda Avenue, Oakland, California

Well ID	Reference Elevation (ft, msl); (a)	Sample Date	Depth to Hydrocarbon (ft)	Depth to Groundwater (ft)	Thickness of Hydrocarbon (ft)	Groundwater Surface Elevation (ft, msl); (b)
MW-1	15	7/26/95	-	10.07	-	4.93
		8/28/95	-	10.75	-	4.25
		9/12/95	11.03	11.05	0.02	3.97
		1/2/96	-	10.38	-	4.62
		1/3/96	-	10.23	-	4.77
	14.86 (c)	5/8/96	-	8.77	-	6.09
		6/3/96	-	8.99	-	5.87
		6/24/96	-	9.36	-	5.50
		7/8/96	-	9.76	-	5.10
		8/7/96	10.41	10.42	0.01	4.45
		9/4/96	10.66	10.70	0.04	4.20
		9/18/96	10.88	10.94	0.06	3.97
		10/1/96	11.02	11.11	0.09	3.83
	14.58 (d)	11/7/96	11.75	11.91	0.16	2.82
		12/6/96	11.86	11.93	0.07	2.72
		1/8/97	12.01	12.17	0.16	2.56
		1/24/97	-	10.95	-	3.63
		1/27/97	-	9.57	-	5.01
		2/4/97	-	9.08	-	5.50
		3/7/97	-	9.70	-	4.88
		4/8/97	10.80	10.83	0.03	3.78
		5/8/97	11.10	11.12	0.02	3.48
		6/6/97	12.51	9.78	2.73	4.03
		7/24/97	10.32	10.31	0.01	4.28
		9/3/97	10.52	10.46	0.06	4.12

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Well ID	Reference Elevation (ft, msl); (a)	Sample Date	Depth to Hydrocarbon (ft)	Depth to Groundwater (ft)	Thickness of Hydrocarbon (ft)	Groundwater Surface Elevation (ft, msl); (b)
MW-2	14.10	7/26/95	-	6.39	-	7.71
		8/28/95	-	8.10	-	6.00
		9/12/95	-	8.63	-	5.47
		1/2/96	-	7.89	-	6.21
		1/3/96	-	7.39	-	6.71
	14.12 (c)	5/8/96	-	6.43	-	7.69
		6/3/96	-	7.04	-	7.08
		6/24/96	-	7.78	-	6.34
		7/8/96	-	7.97	-	6.15
		8/7/96	8.08	8.09	0.01	6.04
		9/4/96	8.64	8.66	0.02	5.48
		9/18/96	8.76	8.78	0.02	5.36
		10/1/96	-	8.64	-	5.48
		11/7/96	8.84	8.87	0.03	5.28
		12/6/96	8.23	8.26	0.03	5.89
		1/8/97	-	7.24	-	6.88
		1/24/97	-	7.12	-	7.00
		1/27/97	-	7.31	-	6.81
		2/4/97	-	7.03	-	7.09
		3/7/97	-	7.01	-	7.11
		4/8/97	8.35	8.38	0.03	5.77
		5/8/97	7.86	7.87	0.01	6.26
		6/6/97	-	7.76	-	6.36
		7/24/97	7.99	7.98	0.01	6.14
		9/3/97	-	7.94	-	6.18

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MW-3	12.59	7/26/95	-	8.65	-	3.94
		8/28/95	-	9.27	-	3.32
		9/12/95	-	9.55	-	3.04
		1/2/96	-	4.06	-	8.53
		1/3/96	-	3.83	-	8.76
		5/8/96	-	5.92	-	6.67
		6/3/96	-	7.05	-	5.54
		6/24/96	-	8.62	-	3.97
		7/8/96	8.85	8.86	0.01	3.74
		8/7/96	9.28	9.29	0.01	3.31
		9/4/96	-	9.60	-	2.99
		9/18/96	-	9.78	-	2.81
		10/1/96	-	9.78	-	2.81
		11/7/96	-	7.96	-	4.63
		12/6/96	-	7.20	-	5.39
		1/8/97	-	4.34	-	8.25
		1/24/97	-	3.81	-	8.78
		1/27/97	-	3.92	-	8.67
		2/4/97	-	4.84	-	7.75
		3/7/97	-	6.34	-	6.25
		4/8/97	-	7.81	-	4.78
		5/8/97	-	7.94	-	4.65
		6/6/97	-	7.90	-	4.69
		7/24/97	-	9.41	-	3.18
		9/3/97	-	7.43	-	5.16

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MW-4	13.47	7/26/95	-	9.95	-	3.52
		8/28/95	10.54	10.75	0.21	2.91
		9/12/95	10.72	11.13	0.41	2.71
		1/2/96	10.57	11.29	0.72	2.83
		1/3/96	11.23	11.23	0.00	2.24
	13.18 (c)	5/8/96	8.94	9.62	0.02	4.17
		6/3/96	9.14	9.83	0.02	3.97
		6/24/96	9.22	9.68	0.46	3.91
		7/8/96	9.41	9.92	0.51	3.72
		8/7/96	9.91	10.54	0.63	3.21
		9/4/96	10.27	11.06	0.79	2.83
		9/18/96	10.47	11.42	0.95	2.62
		10/1/96	10.60	11.57	0.97	2.48
		11/7/96	10.90	12.35	1.45	2.14
		12/6/96	10.57	11.72	1.15	2.50
		1/8/97	8.61	9.46	0.85	4.49
		1/24/97	8.41	9.16	0.75	4.70
		1/27/97	8.01	8.04	0.03	5.17
		2/4/97	8.12	8.35	0.23	5.04
		3/7/97	9.04	9.43	0.39	4.10
		4/8/97	9.59	10.02	0.43	3.55
		5/8/97	9.86	10.27	0.41	3.28
		6/6/97	10.65	10.13	0.52	3.00
		7/24/97	11.55	10.61	0.94	2.48
		9/3/97	11.69	10.68	1.01	2.40

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MW-5	13.41	7/25/95	8.83	8.88	0.05	4.58
		8/28/95	9.30	11.32	2.02	3.91
		9/12/95	9.48	11.99	2.51	3.68
		1/2/96	8.63	10.93	2.30	4.55
		1/3/96	11.17	11.17	0.00	2.24
	14.41 (c)	5/8/96	8.10	13.34	0.02	5.79
		6/3/96	8.81	13.89	0.02	5.09
		6/24/96	8.84	11.21	2.37	5.33
		7/8/96	9.33	11.96	0.02	4.82
		8/7/96	9.90	13.10	3.20	4.19
		9/4/96	10.35	13.55	3.20	3.74
		9/18/96	10.58	13.74	3.16	3.51
		10/1/96	10.67	16.00	5.33	3.21
	14.08 (d)	11/7/96	10.70	13.59	2.89	3.09
		12/6/96	10.39	12.66	2.27	3.46
		1/8/97	8.96	10.84	1.88	4.93
		1/24/97	8.71	10.92	2.21	5.15
		1/27/97	8.76	9.23	0.47	5.27
		2/4/97	8.46	9.00	0.54	5.57
		3/7/97	9.01	10.47	1.46	4.93
		4/8/97	9.57	11.61	2.04	4.31
		5/8/97	9.65	12.05	2.40	4.19
		6/6/97	12.51	9.78	2.73	4.03
		7/24/97	13.25	10.30	2.95	3.49
		9/3/97	13.12	10.39	2.73	3.42

Notes:

(a) Elevations are expressed in feet above mean sea level ("msl").

(b) Groundwater elevations have been adjusted for effect of floating hydrocarbons, if any, measured in wells. A specific gravity of 0.9 was assumed when compensating for the depression of the groundwater surface due to floating hydrocarbons.

(c) Reference elevations are based on survey measurements conducted by MacLeod and Associates, Inc. on 20 June 1996 following grading and paving of the site upon completing demolition and excavation activities.

(d) Monitoring well MW-1 casing was trimmed 0.275 feet and monitoring well MW-5 casing was trimmed 0.328 feet on 1 October 1996 to allow additional clearance for locking seals below surface completion of these wells.

TABLE 2
TOTAL PETROLEUM HYDROCARBON (TPH) ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
4200 Alameda Avenue, Oakland, California

Well ID	Sample Date	TPH (as gasoline) Concentration (a)		TPH (as diesel) Concentration (a)	
		(ug/L)	Description of Chromatogram Pattern	(ug/L)	Description of Chromatogram Pattern
MW-1	7/26/95	**11,000**	Pattern characteristic of gasoline	**29,000**	Unidentifiable pattern of hydrocarbons in C_9-C_{30} range
	6/24/96	**7,800**	Pattern characteristic of gasoline	**39,000**	Pattern characteristic of diesel in the C_9-C_{14} range
	1/24/97	**7,900**	Pattern characteristic of gasoline	**30,000**	Unidentifiable pattern of hydrocarbons in C_9-C_{24} range
	7/24/97	**8,200**	Pattern characteristic of gasoline	**24,000**	Unidentifiable pattern of hydrocarbons in C_9-C_{24} range
MW-2	7/26/95	**3,600**	Pattern characteristic of gasoline	**22,000**	Unidentifiable pattern of hydrocarbons in C_9-C_{39} range
	6/24/96	**2,700**	Pattern characteristic of gasoline	**12,000**	Unidentifiable pattern of hydrocarbons in C_9-C_{36} range
	1/24/97	**4,300**	Pattern characteristic of gasoline	**7,200**	Pattern characteristic of weathered diesel or unidentified hydrocarbons in C_9-C_{24} range
	7/24/97	**2,000**	Pattern characteristic of gasoline	**5,400**	Unidentifiable pattern of hydrocarbons in C_9-C_{24} range
	7/24/97 dup	**2,000**	Pattern characteristic of gasoline	**6,200**	Unidentifiable pattern of hydrocarbons in C_9-C_{24} range
MW-3	7/25/95	**200**	Pattern characteristic of gasoline and unidentified hydrocarbons greater than C_8	**5,600**	Unidentified pattern of hydrocarbons in C_9-C_{38} range
	7/25/95 dup	**180**	Pattern characteristic of gasoline and unidentified hydrocarbons greater than C_{10}	**7,000**	Unidentified pattern of hydrocarbons in C_9-C_{38} range
	6/24/96	**57**	Pattern characteristic of gasoline	**4,900**	Unidentified pattern of hydrocarbons in C_9-C_{38} range
	1/24/97	**170**	Pattern characteristic of gasoline and unidentified hydrocarbons greater than C_8	**2,100**	Pattern characteristic of weathered diesel or unidentified hydrocarbons in C_9-C_{24} range

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4200 Alameda Avenue, Oakland, California

Well ID	Sample Date	TPH (as gasoline) Concentration (a)		TPH (as diesel) Concentration (a)	
		(ug/L)	Description of Chromatogram Pattern	(ug/L)	Description of Chromatogram Pattern
MW-3	7/24/97	1,500	Pattern characteristic of gasoline and unidentified hydrocarbons in C_6-C_{12} range	1,500	Unidentifiable pattern of hydrocarbons in C_9-C_{24} range
MW-4	7/25/95	1,400	Pattern characteristic of gasoline	24,000	Pattern characteristic of crude oil
	6/24/96	5,500	Pattern characteristic of gasoline and unidentified hydrocarbons greater than C_{11}	850,000	Unidentified pattern of hydrocarbons in C_9-C_{40} range
	1/24/97	3,500	Pattern characteristic of gasoline and unidentified hydrocarbons greater than C_8	33,000	Pattern characteristic of weathered diesel or unidentified hydrocarbons in C_9-C_{24} range
	7/24/97	3,400	Pattern characteristic of gasoline	6,400,000	Pattern characteristic of weathered diesel or unidentified hydrocarbons in C_9-C_{24} range
MW-5	7/26/95	4,800	Pattern characteristic of gasoline and unidentified hydrocarbons greater than C_{10}	7,500	Unidentified pattern of hydrocarbons in C_9-C_{34} range
	6/24/96	2,000	Pattern characteristic of gasoline	520,000	Unidentified pattern of hydrocarbons in C_9-C_{40} range
	6/24/96 dup	2,200	Pattern characteristic of gasoline	360,000	Unidentified pattern of hydrocarbons in C_9-C_{40} range
	1/24/97	2,700	Pattern characteristic of gasoline and unidentified hydrocarbons greater than C_8	89,000	Pattern characteristic of weathered diesel or unidentified hydrocarbons in C_9-C_{24} range
	1/24/97 dup	4,200	Pattern characteristic of gasoline and unidentified hydrocarbons greater than C_8	25,000	Pattern characteristic of weathered diesel or unidentified hydrocarbons in C_9-C_{24} range
	7/24/97	3,000	Pattern characteristic of gasoline	3,000,000	Pattern characteristic of weathered diesel or unidentified hydrocarbons in C_9-C_{24} range

Notes:

(a) Immiscible hydrocarbons present in groundwater samples. Measured constituents likely include quantitation of constituents in both immiscible and soluble phases.

TABLE 3
BENZENE, TOLUENE, ETHYL BENZENE, TOTAL XYLENES (BTEX)
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
4200 Alameda Avenue, Oakland, California

Well ID	Sample Date	BTEX Concentration (ug/L); (b)			
		Benzene	Toluene	Ethyl Benzene	Total Xylenes
MW-1	7/26/95	630	1,300	140	870
	6/24/96	530	1,000	130	860
	1/24/97	470	540	130	830
	7/24/97	480	310	120	720
MW-2	7/26/95	36	37	130	660
	6/24/96	19	<10 (a)	170	340
	1/24/97	31	11	120	250
	7/24/97	25	5.9	56	150
	7/24/97 dup	62	2.3	<0.5	<0.5
MW-3	7/25/95	6.2	<0.5	<0.5	<0.5
	7/25/95 dup	6.2	<0.5	<0.5	<0.5
	6/24/96	6.3	<0.5	<0.5	<0.5
	1/24/97	5.2	0.59	<0.5	1.0
MW-4	7/25/95	64	12	28	49
	6/24/96	140	13	87	150
	1/24/97	170	25	60	100
	7/24/97	86	<10	72	94
MW-5	7/26/95	78	160	56	190
	6/24/96	97	160	48	150
	6/24/96 dup	95	150	50	160
	1/24/97	100	190	62	190
	1/24/97 dup	99	190	63	200
	7/24/97	100	210	69	210

Notes:

(a) Less than symbol ("<") denotes that compound was not present above the detection limit shown.

(b) Immiscible hydrocarbons present in groundwater samples. Measured constituents likely include quantitation of constituents in both immiscible and soluble phases.

TABLE 4
HALOGENATED VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS OF GROUNDWATER SAMPLES

4200 Alameda Avenue, Oakland, California

Well ID	Sample Date	Halogenated Volatile Organic Compound Concentration (ug/L); (b)											
		Chlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	1,1,1-trichloroethane	1,1-dichloroethane	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-dichloroethene	trans-1,2-dichloroethe	Vinyl Chloride
MW-1	7/26/95	<50	<50	<50	<50	<50	130	<100	<50	<50	2,300	91	3,100
	6/24/96	<50	<50	<50	<50	<50	88	<100	<50	<50	2,800	110	3,100
	1/24/97	41	43	<20	66	<20	68	31	<20	<20	750	68	1,100
	7/24/97	31	42	10	72	<10	34	21	<10	<10	480	50	650
MW-2	7/26/95	7.3	48	1.5	8	<1.3	4.8	5.8	<1.3	<1.3	<1.3	<1.3	<2.5
	6/24/96	7.4	88	4.0	18	<2.5	15	6.2	<2.5	3.8	20	<2.5	4.1
	1/24/97	<1.2	79	4.5	19	<1.2	7.9	11	<1.2	<1.2	2.0	<1.2	<2.5
	7/24/97	5.5	88	4.2	18	<2.5	4.0	7.4	<2.5	<2.5	<2.5	<2.5	<2.5
	7/24/97 dup	6.1	73	3.9	16	<1.0	4.3	7.4	<1.0	<1.0	1.4	<1.0	<1.0
MW-3	7/25/95	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5
	7/25/95 dup	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5
	6/24/96	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	<0.5	<0.5	<0.5	<0.5	<0.5
	1/24/97	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0
	7/24/97	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0
MW-4	7/25/95	<50	<50	<50	<50	<50	<50	<50	<50	<50	2,000	50	3,500
	6/24/96	<100	<100	<100	<100	<100	<100	<100	<100	<100	3,100	<100	4,200
	1/24/97	28	29	<25	<25	<25	42	43	<25	<25	1,500	49	2,000
	7/24/97	93	370	<50	160	<50	<50	<100	<50	<50	1,200	<50	1,900

TABLE 4
HALOGENATED VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS OF GROUNDWATER SAMPLES

4200 Alameda Avenue, Oakland, California

Well ID	Sample Date	Halogenated Volatile Organic Compound Concentration (ug/L); (b)											
		Chlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	1,1,1-trichloroethane	1,1-dichloroethane	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-dichloroethene	trans-1,2-dichloroethe	Vinyl Chloride
MW-5	7/26/95	<100	<100	<100	<100	<100	**160**	<200	<100	<100	**3,700**	**130**	**5,200**
	6/24/96	<100	<100	<100	<100	<100	**150**	<100	<100	<100	**2,800**	**160**	**4,200**
	6/24/96 dup	<100	<100	<100	<100	<100	**140**	<100	<100	<100	**2,800**	**170**	**4,100**
	1/24/97	<100	<100	<100	<100	<100	**190**	<100	<100	<100	**670**	**220**	**4,300**
	1/24/1997 dup	<100	<100	<100	<100	<100	**230**	<100	<100	<100	**840**	**260**	**4,900**
	7/24/97	<50	<50	<50	<50	<50	**210**	<100	<50	<50	**620**	**200**	**3,800**

Notes:

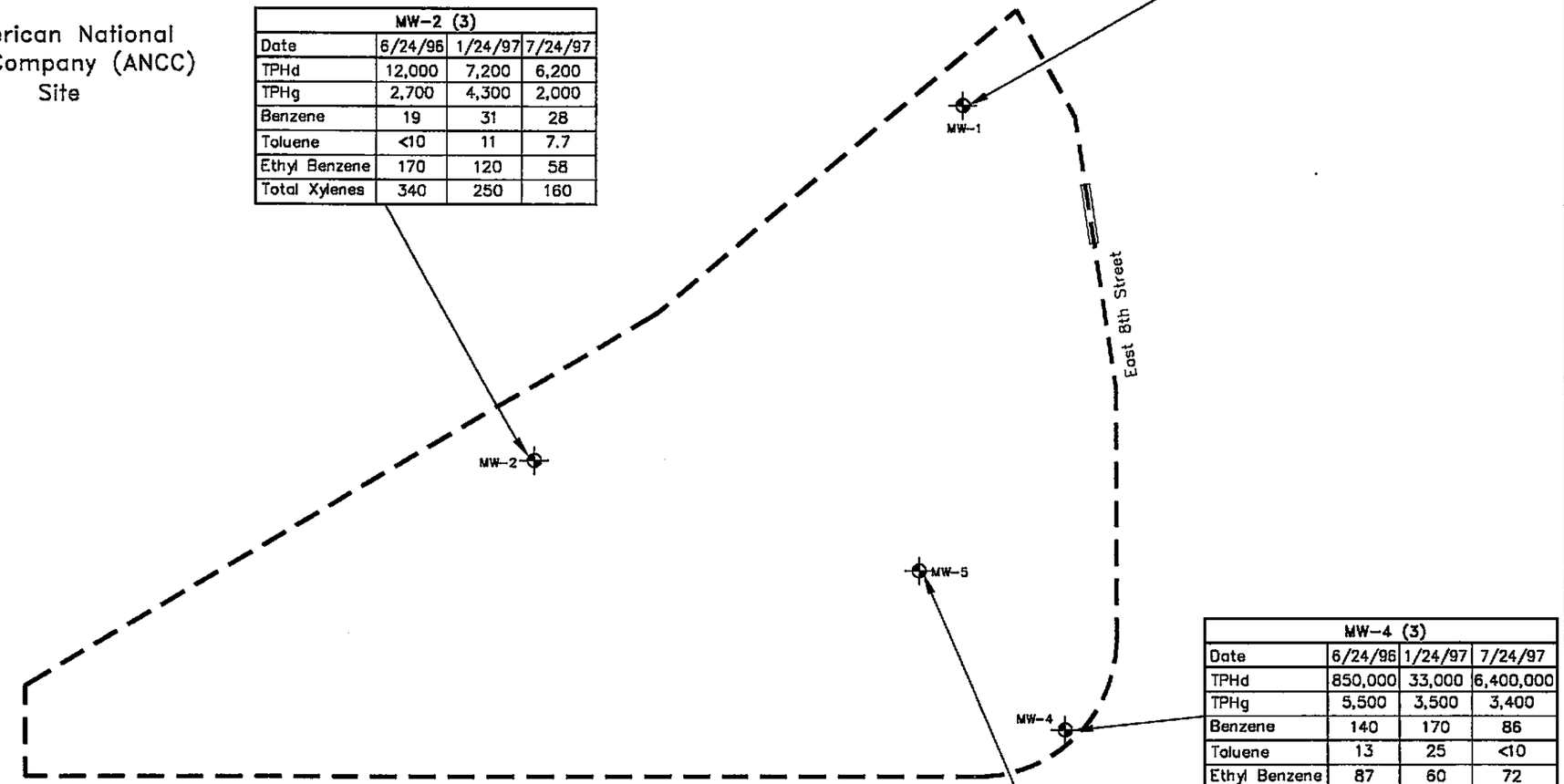
(a) Less than symbol ("<") denotes that compound was not present above the detection limit shown.

(b) Immiscible hydrocarbons present in groundwater samples. Measured constituents likely include quantitation of constituents in both immiscible and soluble phases.

American National Can Company (ANCC) Site

MW-1 (3)			
Date	6/24/96	1/24/97	7/24/97
TPHd	39,000	30,000	24,000
TPHg	7,800	7,900	8,200
Benzene	530	470	480
Toluene	1,000	540	310
Ethyl Benzene	130	130	120
Total Xylenes	860	830	720

MW-2 (3)			
Date	6/24/96	1/24/97	7/24/97
TPHd	12,000	7,200	6,200
TPHg	2,700	4,300	2,000
Benzene	19	31	28
Toluene	<10	11	7.7
Ethyl Benzene	170	120	58
Total Xylenes	340	250	160



MW-4 (3)			
Date	6/24/96	1/24/97	7/24/97
TPHd	850,000	33,000	6,400,000
TPHg	5,500	3,500	3,400
Benzene	140	170	86
Toluene	13	25	<10
Ethyl Benzene	87	60	72
Total Xylenes	150	100	94

MW-3 (3)			
Date	6/24/96	1/24/97	7/24/97
TPHd	4,900	2,100	1,500
TPHg	57	170	62
Benzene	6.3	5.2	2.3
Toluene	<0.5	0.59	<0.5
Ethyl Benzene	<0.5	<0.5	<0.5
Total Xylenes	<0.5	1.0	<0.5

MW-5 (3)			
Date	6/24/96	1/24/97	7/24/97
TPHd	520,000	89,000	3,000,000
TPHg	2,000	4,200	3,000
Benzene	97	100	100
Toluene	160	190	210
Ethyl Benzene	48	63	69
Total Xylenes	150	200	210

N

0 40 80

(Approximate Scale in Feet)

LEGEND

Site Boundary

Monitoring Well

Abbreviations

TPHd Total Petroleum Hydrocarbons as Diesel Fuel

TPHmo Total Petroleum Hydrocarbons as Motor Oil

TPHg Total Petroleum Hydrocarbons as Gasoline

Notes:

1. All locations are approximate.
2. Concentrations in ug/L (ppb).
3. Immiscible hydrocarbons present in groundwater samples. Measured concentrations likely include quantitation of constitutents in both the immiscible and soluble phases.

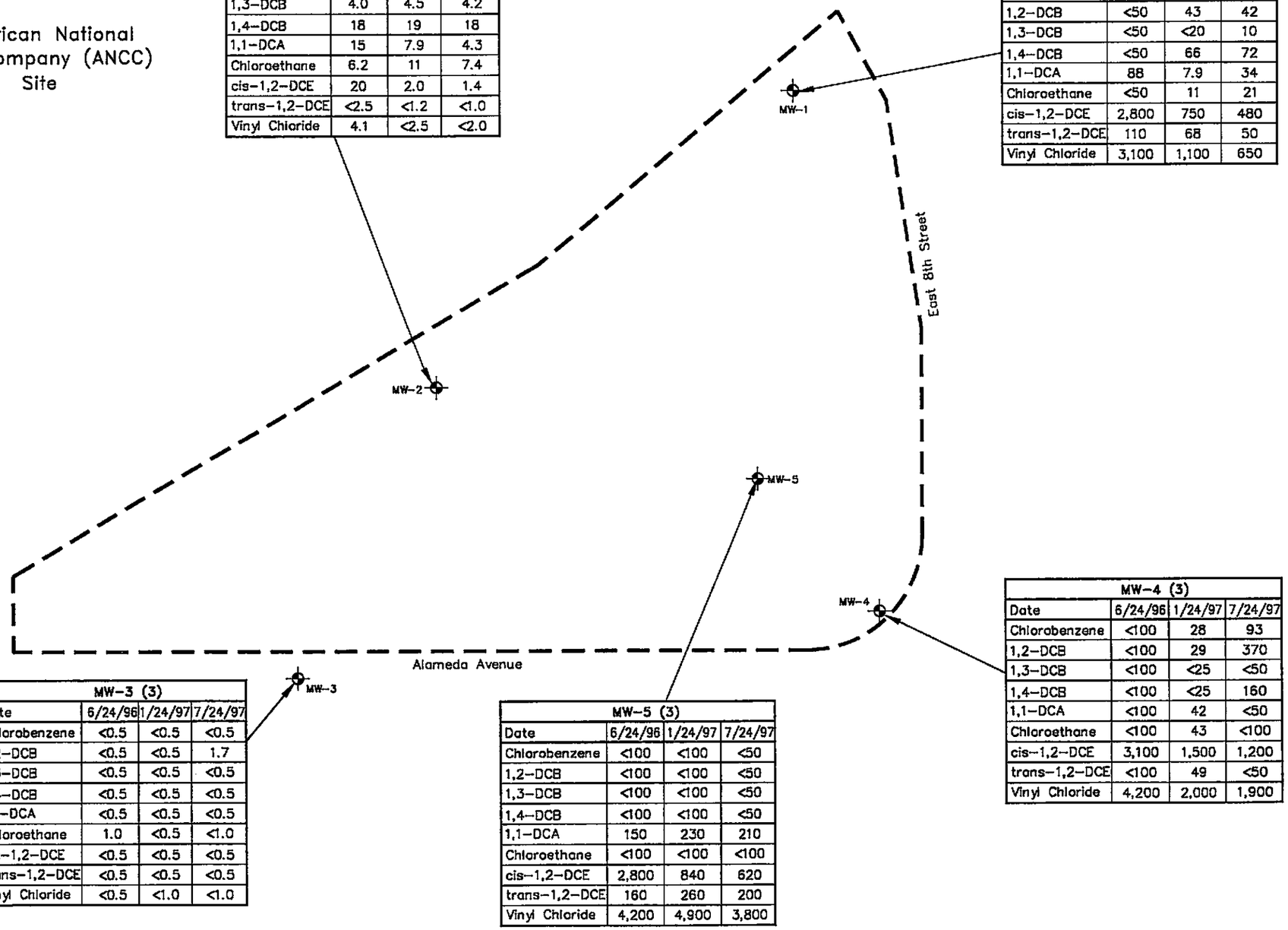
Erler & Kalinowski, Inc.

Petroleum Hydrocarbons and BTEX in Groundwater

4200 Alameda Avenue
Oakland, CA
November 1997
EKI 930040.04
Figure 1

97 Nov 11 14:17:07 G:\930040.04\NOV97\Tph-01.dwg

American National Can Company (ANCC) Site



MW-2 (3)			
Date	6/24/96	1/24/97	7/24/97
Chlorobenzene	7.4	<1.2	6.1
1,2-DCB	88	79	88
1,3-DCB	4.0	4.5	4.2
1,4-DCB	18	19	18
1,1-DCA	15	7.9	4.3
Chloroethane	6.2	11	7.4
cis-1,2-DCE	20	2.0	1.4
trans-1,2-DCE	<2.5	<1.2	<1.0
Vinyl Chloride	4.1	<2.5	<2.0

MW-1 (3)			
Date	6/24/96	1/24/97	7/24/97
Chlorobenzene	<50	41	31
1,2-DCB	<50	43	42
1,3-DCB	<50	<20	10
1,4-DCB	<50	66	72
1,1-DCA	88	7.9	34
Chloroethane	<50	11	21
cis-1,2-DCE	2,800	750	480
trans-1,2-DCE	110	68	50
Vinyl Chloride	3,100	1,100	650

MW-3 (3)			
Date	6/24/96	1/24/97	7/24/97
Chlorobenzene	<0.5	<0.5	<0.5
1,2-DCB	<0.5	<0.5	1.7
1,3-DCB	<0.5	<0.5	<0.5
1,4-DCB	<0.5	<0.5	<0.5
1,1-DCA	<0.5	<0.5	<0.5
Chloroethane	1.0	<0.5	<1.0
cis-1,2-DCE	<0.5	<0.5	<0.5
trans-1,2-DCE	<0.5	<0.5	<0.5
Vinyl Chloride	<0.5	<1.0	<1.0

MW-5 (3)			
Date	6/24/96	1/24/97	7/24/97
Chlorobenzene	<100	<100	<50
1,2-DCB	<100	<100	<50
1,3-DCB	<100	<100	<50
1,4-DCB	<100	<100	<50
1,1-DCA	150	230	210
Chloroethane	<100	<100	<100
cis-1,2-DCE	2,800	840	620
trans-1,2-DCE	160	260	200
Vinyl Chloride	4,200	4,900	3,800

MW-4 (3)			
Date	6/24/96	1/24/97	7/24/97
Chlorobenzene	<100	28	93
1,2-DCB	<100	29	370
1,3-DCB	<100	<25	<50
1,4-DCB	<100	<25	160
1,1-DCA	<100	42	<50
Chloroethane	<100	43	<100
cis-1,2-DCE	3,100	1,500	1,200
trans-1,2-DCE	<100	49	<50
Vinyl Chloride	4,200	2,000	1,900

N

0 40 80

(Approximate Scale in Feet)

LEGEND

Site Boundary

Monitoring Well

Abbreviations

1,2-DCB	1,2-dichlorobenzene
1,3-DCB	1,3-dichlorobenzene
1,4-DCB	1,4-dichlorobenzene
1,1-DCA	1,1-dichloroethane
cis-1,2-DCE	cis-1,2-dichloroethene
trans-1,2-DCE	trans-1,2-dichloroethane

Notes:

1. All locations are approximate.
2. Concentrations in ug/L (ppb).
3. Immiscible hydrocarbons present in groundwater samples. Measured concentrations likely include quantitation of constitutents in both the immiscible and soluble phases.

Erler & Kalinowski, Inc.

Halogenated Volatile Organic Compounds in Groundwater

4200 Alameda Avenue
Oakland, CA
November 1997
EKI 930040.04

Figure 2

97 Nov 11 14:18:34 G:\930040.04\NOV97\Voc-02.dwg

Daily Inspection Report No. _____

Erler & Kalinowski, Inc.

Sheet: 1 of _____
Date: 7/24/97
Project: EKOTEK
EKI Job No.: 930040.04

Contractor: —
EKI Staff On-site: ROGER D. LICON
Weather: CLEAR
Temperature: _____ F Max _____ F Min
Work Hours: 8:35 to 13:30 Memos Issued: _____
Photos: —
Special Conditions, Delays, Changes: —

Accidents, Damage: —

Sampling, Testing: WATER/PRODUCT LEVELS PURGE & SAMPLE 5 WELLS.

Visitors to Site: —

Work Report (Work done, Personnel/Equipment working): 8:35 ARRIVE ON SITE REVIEW HEALTH & SAFETY PLAN, OPEN WELLS.
9:14 START MEASURING WATER/PRODUCT LEVELS
9:40 STARTED PURGING MW-3 — PURGED DRY W/ 3½ INCH BAILER. WENT ON TO MW-2, THEN MW-1, MW-4 & MW-5. MW-1, MW-2 & MW-3 HAVE TRACES OF SHEEN ON BAILED WATER. MW-4 & MW-5 HAVE A LAYER OF FREE PRODUCT.
12:01 COLLECTED SAMPLES FROM MW-3 WITH A DISPOSABLE BAILER & PLACED SAMPLES IN COOLER WITH ICE. WENT ON TO COLLECT SAMPLES FROM MW-2 (DUPLICATES) MW-1, MW-4 & MW-5. EQUIPMENT RINSATE BLANKS WERE COLLECTED FROM A BAILER (ERB).
PURGE WATER, DERON WATER & PPE & BAILERS WERE DRUMMED & LEFT ON SITE.
14:10 I LOCKED THE GATE & LEFT THE SITE.

Distribution: Project Inspection File (orig)
Project Manager

By: Roger D. Licon

GROUNDWATER LEVEL SURVEY

Erler & Kalinowski, Inc.

Job Name: EKOTEK

Date: 7/24/97

EKI Job No.: 930040.04

Personnel: R-D-LLOA

Well Number: 15.00	14.10	12.59	13.47	13.41	TOC				
Condition of well: MW-1	MW-2	MW-3	MW-4	MW-5					
Type of Cover: FLUSH →				→					
Covered?	Yes	Yes	Yes	Yes	Yes				
Locked?	Yes	Yes	Yes	Yes	Yes				
Sealed?	Yes	Yes	Yes	Yes	Yes				
Standing water?	NO	NO	NO	NO	NO				
Dia. of casing, INCHES	4	4	4	4	4				
Measuring point	MARK, TOP OF PVC CASING →				→				
Elevation of well									
Time opened	9:03	8:56	8:59	9:00	9:02				
Time of measurement	9:23	9:17	9:14	9:26	9:33				
Depth probe used	MMC →				→				
Depth to water	10.32	7.99	9.41	11.55	13.25				
Depth TO PRODUCT, ~~OF WELL~~	10.31	7.98	—	10.61	10.30				
~~Conductivity~~ vs. Depth, mMhos/cm	0.01	0.01	0.00	0.94	2.95	← PRODUCT THICKNESS			
Temperature vs. Depth Deg. C.	3	2	1	4	5				

COMMENTS:

GW Elev. 4.69' 6.11' 3.18 1.92 0.16'

Erler & Kalinowski, Inc.

GROUNDWATER PURGE SAMPLE FORM

PROJECT NAME: ~~EKOTEK~~ DATE: 7/24/97

PROJECT NUMBER: 930040.04 WELL NUMBER: MW-1 PERSONNEL: B-D-L Lein

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
16.30	-	10.31	=	5.99	*	0.64	=	3.83

Mult. for casing diam. = 2-inch=0.16; (4-inch=0.64; 6-inch=1.44 gals/ft.

No. of bailers prior to start of purge: 8

PURGE METHOD: 3½ BAILER

PURGE DEPTH: TO BOTTOM

START TIME: 10:36 END TIME: 10:43

TOTAL GALLONS PURGED: 10

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity		
pH		
pH		
Turbidity		
Temperature		
Depth Probe		

SAMPLES:

Field I.D.	Time Collected	Containers & Preservation
MW-1	12:40	4 VOAs + HCL 1-1L. AMBER

COMMENTS:

Time	10:43						
Volume Purged (gallons)	10						
Temperature (degrees F or C)	—						
pH	—						
Specific Conductivity (millimhos)	—						
Turbidity/Color (NTU)	CLEAR						
Odor	—						
Depth to Water during purge (feet)	16.00						
Number of Casing Volumes removed	2.61						
Purge Rate (gallons/minute)	—						

Erler & Kalinowski, Inc.

GROUNDWATER PURGE SAMPLE FORM

PROJECT NAME: EKOTEK DATE: 7/23/97

PROJECT NUMBER: 93C040.04 WELL NUMBER: MW-2 PERSONNEL: RDL, ...

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
16.36	-	7.98	=	8.38	*	0.64	=	5.36

Mult. for casing diam. = 2-inch=0.16; (4)-inch=0.64; 6-inch=1.44 gals/ft.

No. of bailers prior to start of purge: 0

PURGE METHOD: 3½ BAILER

PURGE DEPTH: VARIABLE

START TIME: 10:15 END TIME: 10:25

TOTAL GALLONS PURGED: 11

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity		
pH		
pH		
Turbidity		
Temperature		
Depth Probe		

SAMPLES:

Field I.D.	Time Collected	Containers & Preservation
MW-2A	12:20	3 VOAs + HCl, 1-1L. Amber
MW-2B	12:23	" "

COMMENTS:

SHEEN PRESENT

Time	10:25						
Volume Purged (gallons)	11						
Temperature (degrees F or (C))	—						
pH	—						
Specific Conductivity (millimhos)	—						
Turbidity/Color (NTU)	CLEAR						
Odor	—						
Depth to Water during purge (feet)	16.0						
Number of Casing Volumes removed	2.05						
Purge Rate (gallons/minute)	—						

GROUNDWATER PURGE SAMPLE FORM

Erler & Kalinowski, Inc.

PROJECT NAME: ELOTEX
PROJECT NUMBER: 930040.04 WELL NUMBER: MW-3
DATE: 7/24/97
PERSONNEL: EDL/CM

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
12.70	-	9.41	=	3.29	*	0.64	=	2.106

Mult. for casing diam. = 2-inch=0.16; (4)-inch=0.64; 6-inch=1.44 gals/ft.

No. of bailers prior to start of purge: 0

PURGE METHOD: 3½ INCH BAILER

PURGE DEPTH: BOTTOM

START TIME: 9:40 END TIME: 9:48

TOTAL GALLONS PURGED: 1.5

INSTRUMENT CALIBRATION

Instrument	Field Standard measure	Field Standard measure
Conductivity		
pH		
pH		
Turbidity		
Temperature		
Depth Probe		

SAMPLES:

Field I.D.	Time Collected	Containers & Preservation
MW-3	12:01	2-1L. AMBERS 4 - VOA's + HCl

COMMENTS:

Time	9:48						
Volume Purged (gallons)	1.5						
Temperature (degrees F or C)	–						
pH	–						
Specific Conductivity (millimhos)	–						
Turbidity/Color (NTU)	–						
Odor	–						
Depth to Water during purge (feet)	12.5ft						
Number of Casing Volumes removed	0.71						
Purge Rate (gallons/minute)	–						

Erler & Kalinowski, Inc.

GROUNDWATER PURGE SAMPLE FORM

PROJECT NAME: Exxon DATE: 7/24/97

PROJECT NUMBER: 930040.04 WELL NUMBER: MW-4 PERSONNEL: RDL, cm

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
14.76	-	10.61	=	4.15	*	0.64	=	2.66

Mult. for casing diam. = 2-inch=0.16; 4-inch=0.64; 6-inch=1.44 gals/ft.

No. of bailers prior to start of purge: _____

PURGE METHOD: 3½ INCH PVC BAILER

PURGE DEPTH: TO BOTTOM

START TIME: 10:50 END TIME: 11:05

TOTAL GALLONS PURGED: 8

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity		
pH		
pH		
Turbidity		
Temperature		
Depth Probe		

SAMPLES:

Field I.D.	Time Collected	Containers & Preservation
MW-4	12:51	1-1L. glass 4 - VOAs + HCl

COMMENTS: FREE PRODUCT PRESENT

Time	11:05						
Volume Purged (gallons)	8						
Temperature (degrees F or C)	—						
pH	—						
Specific Conductivity (millimhos)	—						
Turbidity/Color (NTU)	Cloudy >200.						
Odor	FREE PRODUCT Yes						
Depth to Water during purge (feet)	14.5						
Number of Casing Volumes removed	3.01						
Purge Rate (gallons/minute)	—						

Erler & Kalinowski, Inc.

GROUNDWATER PURGE SAMPLE FORM

PROJECT NAME: EXCOTEK DATE: 7/24/97

PROJECT NUMBER: 930040.04 WELL NUMBER: MW-5 PERSONNEL: RSklar

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
15.99	-	10.30	=	5.69	*	0.64	=	3.64

Mult. for casing diam. = 2-inch=0.16; 4-inch=0.64; 6-inch=1.44 gals/ft.

No. of bailers prior to start of purge: _____

PURGE METHOD: 3½ INCH BAILER

PURGE DEPTH: TO BOTTOM

START TIME: 11:16 END TIME: 11:43

TOTAL GALLONS PURGED: 8.5

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity		
pH		
pH		
Turbidity		
Temperature		
Depth Probe		

SAMPLES:

Field I.D.	Time Collected	Containers & Preservation
MW-5	13:31	4 VOAs + HCl, 1-1L. AMBER
ERB	13:24	4 VOAs + HCl, 1-1L. AMBER

COMMENTS: FREE PRODUCT PRESENT THROUGHOUT

Time	11:43						
Volume Purged (gallons)	8.5						
Temperature (degrees F or C)	—						
pH	—						
Specific Conductivity (millimhos)	—						
Turbidity/Color (NTU)	FREE PRODUCT						
Odor	YES!						
Depth to Water during purge (feet)	15.80						
Number of Casing Volumes removed	2.3						
Purge Rate (gallons/minute)	—						

SEQUOIA ANALYTICAL CHAIN OF CUSTODY

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

Company Name: Erler & Kalinowski, Inc.	Project Name: 1700 40.04
Address: 1730 S. Amphlett Blvd. #320	Billing Address (if different):
City: San Mateo State: CA Zip Code:	
Telephone: 415-578-1172 FAX #:	P.O. #: 1200 40.04
Report To: Andy Safford Sampler: Roger Lin	QC Data: ☒ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days ☐ 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	EPA 8010	EPA 8015 TEPH/HVOCs	TPH as Fuel						Comments
1. MW-5	7/24/17 13:51	Water	4/1	VOA/Amber		✓	✓	✓						Free product!
2. MW-1	12:40		4/1	VOA/Amber		✓	✓	✓						Free product!
3. MW-4	12:57		4/1	VOA/Amber		✓	✓	✓						Free product!
4. MW-2A	12:20		4/1	VOA/Amber		✓	✓	✓						[illegible]
5. MW-3	12:01		4/1	VOA/Amber		✓	✓	✓						[illegible]
6. ERB	13:21		4/1	VOA/Amber		✓	✓	✓						
7. MW-2B	12:33		4/1	VOA/Amber		✓	✓	✓						"
8.														
9.														
10.														

Relinquished By: [signature]	Date: 7/24/17	Time: 17:15	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: [signature]	Date: 7/24/17	Time: 1715

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment ________ Page __ of __

Pink - Client
Yellow - Sequoia
White - Sequoia

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 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

COPY

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Andy Safford

Client Proj. ID: 930040.04
Sample Descript: MW-5
Matrix: LIQUID
Analysis Method: EPA 8010
Lab Number: 9707E14-01

Sampled: 07/24/97
Received: 07/24/97

Analyzed: 08/01/97
Reported: 08/07/97

QC Batch Number: GC073197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	100	N.D.
Carbon Tetrachloride	50	N.D.
Chlorobenzene	50	N.D.
Chloroethane	100	N.D.
2-Chloroethylvinyl ether	100	N.D.
Chloroform	50	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	50	N.D.
1,2-Dichlorobenzene	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
1,1-Dichloroethane	**50**	**210**
1,2-Dichloroethane	50	N.D.
1,1-Dichloroethene	50	N.D.
cis-1,2-Dichloroethene	**50**	**620**
trans-1,2-Dichloroethene	**50**	**200**
1,2-Dichloropropane	50	N.D.
cis-1,3-Dichloropropene	50	N.D.
trans-1,3-Dichloropropene	50	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	N.D.
1,1,2-Trichloroethane	50	N.D.
Trichloroethene	50	N.D.
Trichlorofluoromethane	50	N.D.
Vinyl chloride	**100**	**3800**

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	99

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 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

Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-5	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-01	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50000**	**3000000**
Chromatogram Pattern:		
Unidentified HC		**C9-C24**
Weathered Diesel		**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

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

Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-5	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-01	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4B

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons	**50000**	**5800000**
Chromatogram Pattern:		
Unidentified HC		**C9-C40**
Weathered	**C9-C24**	**Diesel**

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

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-5	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-01	Reported: 08/07/97

QC Batch Number: GC080497BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	3000
Benzene	10	100
Toluene	10	210
Ethyl Benzene	10	69
Xylenes (Total)	10	210
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	75

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-1	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-02	Reported: 08/07/97

QC Batch Number: GC080197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	10	N.D.
Bromoform	10	N.D.
Bromomethane	20	N.D.
Carbon Tetrachloride	10	N.D.
Chlorobenzene	**10**	**31**
Chloroethane	**20**	**21**
2-Chloroethylvinyl ether	20	N.D.
Chloroform	10	N.D.
Chloromethane	20	N.D.
Dibromochloromethane	10	N.D.
1,2-Dichlorobenzene	**10**	**42**
1,3-Dichlorobenzene	**10**	**10**
1,4-Dichlorobenzene	**10**	**72**
1,1-Dichloroethane	**10**	**34**
1,2-Dichloroethane	10	N.D.
1,1-Dichloroethene	10	N.D.
cis-1,2-Dichloroethene	**10**	**480**
trans-1,2-Dichloroethene	**10**	**50**
1,2-Dichloropropane	10	N.D.
cis-1,3-Dichloropropene	10	N.D.
trans-1,3-Dichloropropene	10	N.D.
Methylene chloride	100	N.D.
1,1,2,2-Tetrachloroethane	10	N.D.
Tetrachloroethene	10	N.D.
1,1,1-Trichloroethane	10	N.D.
1,1,2-Trichloroethane	10	N.D.
Trichloroethene	10	N.D.
Trichlorofluoromethane	10	N.D.
Vinyl chloride	**20**	**650**

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	99

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-1	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/05/97
Attention: Andy Safford	Lab Number: 9707E14-02	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	500	24000
Chromatogram Pattern: **Unidentified HC**		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	155 Q

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

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Andy Safford

Client Proj. ID: 930040.04
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9707E14-02

Sampled: 07/24/97
Received: 07/24/97
Extracted: 07/30/97
Analyzed: 08/05/97
Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP5B

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons	500	26000
Chromatogram Pattern: **Unidentified HC**		C9-C40

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	155 Q

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-1	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-02	Reported: 08/07/97

QC Batch Number: GC080197BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2500	8200
Benzene	25	480
Toluene	25	310
Ethyl Benzene	25	120
Xylenes (Total)	25	720
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	110

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

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Andy Safford

Client Proj. ID: 930040.04
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: EPA 8010
Lab Number: 9707E14-03

Sampled: 07/24/97
Received: 07/24/97

Analyzed: 08/04/97
Reported: 08/07/97

QC Batch Number: GC080197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	100	N.D.
Carbon Tetrachloride	50	N.D.
Chlorobenzene	**50**	**93**
Chloroethane	100	N.D.
2-Chloroethylvinyl ether	100	N.D.
Chloroform	50	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	50	N.D.
1,2-Dichlorobenzene	**50**	**370**
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	**50**	**160**
1,1-Dichloroethane	50	N.D.
1,2-Dichloroethane	50	N.D.
1,1-Dichloroethene	50	N.D.
cis-1,2-Dichloroethene	**50**	**1200**
trans-1,2-Dichloroethene	50	N.D.
1,2-Dichloropropane	50	N.D.
cis-1,3-Dichloropropene	50	N.D.
trans-1,3-Dichloropropene	50	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	N.D.
1,1,2-Trichloroethane	50	N.D.
Trichloroethene	50	N.D.
Trichlorofluoromethane	50	N.D.
Vinyl chloride	**100**	**1900**

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	90

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-4	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/05/97
Attention: Andy Safford	Lab Number: 9707E14-03	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	188000	6400000
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.

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Andy Safford

Client Proj. ID: 930040.04
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9707E14-03

Sampled: 07/24/97
Received: 07/24/97
Extracted: 07/30/97
Analyzed: 08/05/97
Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4A

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons	188000	19000000
Chromatogram Pattern: **Weathered**	C9-C40	Crude Oil

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-4	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-03	Reported: 08/07/97

QC Batch Number: GC080197BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**1000**	**3400**
Benzene	**10**	**86**
Toluene	10	N.D.
Ethyl Benzene	**10**	**72**
Xylenes (Total)	**10**	**94**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	110

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-2A	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-04	Reported: 08/07/97

QC Batch Number: GC073197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	5.0	N.D.
Carbon Tetrachloride	2.5	N.D.
Chlorobenzene	**2.5**	**5.5**
Chloroethane	**5.0**	**7.4**
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	**2.5**	**88**
1,3-Dichlorobenzene	**2.5**	**4.2**
1,4-Dichlorobenzene	**2.5**	**18**
1,1-Dichloroethane	**2.5**	**4.0**
1,2-Dichloroethane	2.5	N.D.
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	2.5	N.D.
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	5.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	86

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-2A	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-04	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	100	5400
Chromatogram Pattern: **Unidentified HC**		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	300 Q

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-2A	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-04	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4A

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons	100	6500
Chromatogram Pattern: **Unidentified HC**		C9-C40

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	300 Q

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

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Andy Safford

Client Proj. ID: 930040.04
Sample Descript: MW-2A
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9707E14-04

Sampled: 07/24/97
Received: 07/24/97

Analyzed: 08/01/97
Reported: 08/07/97

QC Batch Number: GC080197BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	2000
Benzene	5.0	25
Toluene	5.0	5.9
Ethyl Benzene	5.0	56
Xylenes (Total)	5.0	150
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	84

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-3	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-05	Reported: 08/07/97

QC Batch Number: GC073197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	**0.50**	**1.7**
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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

Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Andy Safford

Client Proj. ID: 930040.04
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9707E14-05

Sampled: 07/24/97
Received: 07/24/97
Extracted: 07/30/97
Analyzed: 07/31/97
Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	**1500**
Chromatogram Pattern: **Unidentified HC**		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	167 Q

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-3	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 07/31/97
Attention: Andy Safford	Lab Number: 9707E14-05	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP5B

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons	50	2300
Chromatogram Pattern:		
Unidentified HC		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	167 Q

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-3	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-05	Reported: 08/07/97

QC Batch Number: GC080197BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**62**
Benzene	**0.50**	**2.3**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Gas & Unidentified HC		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	127

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: ERB	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-06	Reported: 08/07/97

QC Batch Number: GC073197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	103

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: ERB	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-06	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP19B

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	94

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

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: ERB	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-06	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP19B

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons Chromatogram Pattern:	50	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	94

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: ERB	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-06	Reported: 08/07/97

QC Batch Number: GC080197BTEX03A
Instrument ID: GCHP03

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	108

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

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402

Attention: Andy Safford

Client Proj. ID: 930040.04
Sample Descript: MW-2B
Matrix: LIQUID
Analysis Method: EPA 8010
Lab Number: 9707E14-07

Sampled: 07/24/97
Received: 07/24/97

Analyzed: 08/01/97
Reported: 08/07/97

QC Batch Number: GC073197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	2.0	N.D.
Carbon Tetrachloride	1.0	N.D.
Chlorobenzene	**1.0**	**6.1**
Chloroethane	**2.0**	**7.4**
2-Chloroethylvinyl ether	2.0	N.D.
Chloroform	1.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	1.0	N.D.
1,2-Dichlorobenzene	**1.0**	**73**
1,3-Dichlorobenzene	**1.0**	**3.9**
1,4-Dichlorobenzene	**1.0**	**16**
1,1-Dichloroethane	**1.0**	**4.3**
1,2-Dichloroethane	1.0	N.D.
1,1-Dichloroethene	1.0	N.D.
cis-1,2-Dichloroethene	**1.0**	**1.4**
trans-1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	1.0	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	1.0	N.D.
Trichloroethene	1.0	N.D.
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	105

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

SEQUOIA ANALYTICAL - ELAP #1210

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

Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-2B	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/05/97
Attention: Andy Safford	Lab Number: 9707E14-07	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	200	6200
Chromatogram Pattern: **Unidentified HC**		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	280 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-2B	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/05/97
Attention: Andy Safford	Lab Number: 9707E14-07	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4A

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons	**200**	**16000**
Chromatogram Pattern: **Weathered**	**C9-C40**	**Crude Oil**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	280 Q

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled: 07/24/97
1730 South Amphlett, Ste 320	Sample Descript: MW-2B	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-07	Reported: 08/07/97

QC Batch Number: GC080497BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	2000
Benzene	5.0	28
Toluene	5.0	7.7
Ethyl Benzene	5.0	58
Xylenes (Total)	5.0	160
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	87

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

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

Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-08	Reported: 08/07/97

QC Batch Number: GC080197BTEX03A
Instrument ID: GCHP03

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	113

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 07/31/97
Attention: Andy Safford	Lab Number: 9707E14-08	Reported: 08/07/97

QC Batch Number: GC073197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	79

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

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-08	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4B

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	82

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

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	Extracted: 07/30/97
	Analysis Method: EPA 8015 Mod	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-08	Reported: 08/07/97

QC Batch Number: GC0730970HBPEXA
Instrument ID: GCHP4B

Fuel Fingerprint

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable Hydrocarbons Chromatogram Pattern:	50	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	82

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

SEQUOIA ANALYTICAL - ELAP #1210

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 08/01/97
Attention: Andy Safford	Lab Number: 9707E14-09	Reported: 08/07/97

QC Batch Number: GC073197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	81

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-09	Reported: 08/07/97

QC Batch Number: GC080497BTEX21A
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	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Proj. ID: 930040.04	Sampled:
1730 South Amphlett, Ste 320	Sample Descript: Method Blank	Received: 07/24/97
San Mateo, CA 94402	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 08/04/97
Attention: Andy Safford	Lab Number: 9707E14-10	Reported: 08/07/97

QC Batch Number: GC080197801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	81

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.
1730 South Amphlett, Ste 320
San Mateo, CA 94402
Attention: Andy Safford

Client Proj. ID: 930040.04

Lab Proj. ID: 9707E14

Received: 07/24/97

Reported: 08/07/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 5 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

8010: Chloroethane for #2 is reported from GCHP08 on 8/5/97. The QC batch number is GC080597801008A.

Q - Surrogate diluted out.
#Q - Surrogate coelution was confirmed.

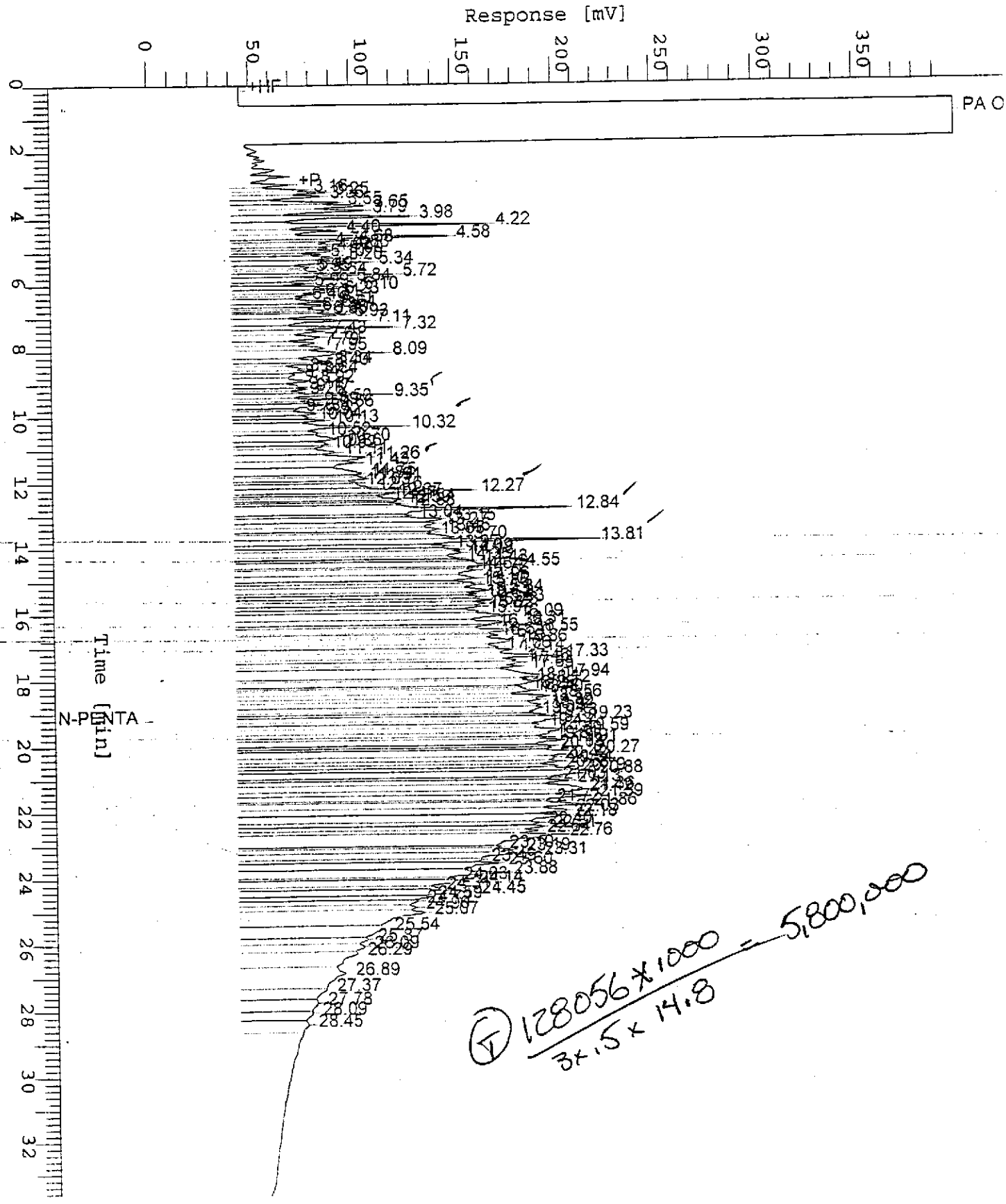
SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Chromatogram

Sample Name : DW9707E14-1 (500:10*100) RS1
FileName : S:\GHP_04\0803\731B031.raw
Method : TPH04A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: MW-5
Date : 8/4/97 07:45
Time of Injection: 8/1/97 14:48
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV

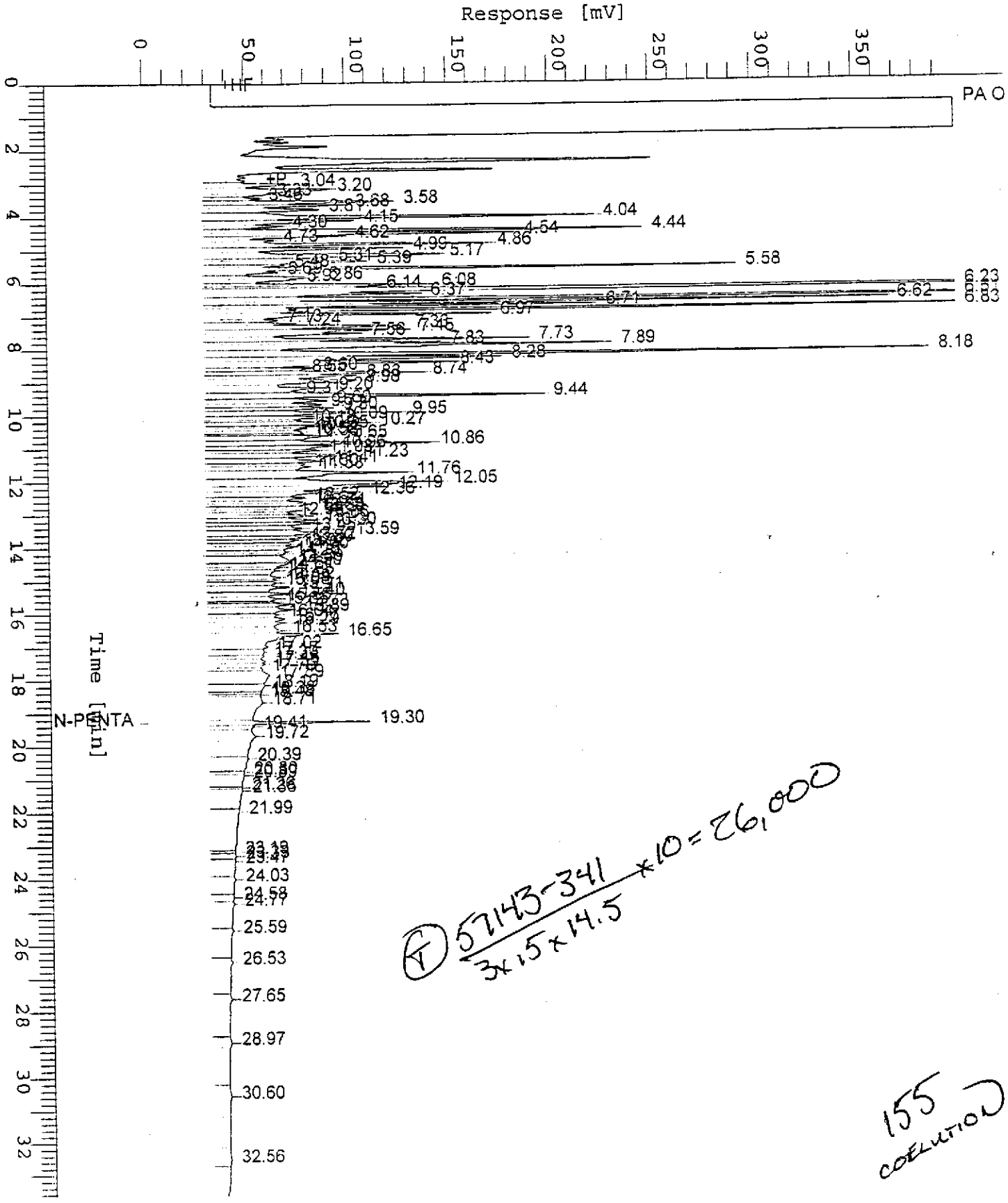


$$\frac{128056 \times 1000}{3 \times 1.5 \times 14.8} = 5,800,000$$

Chromatogram

Sample Name : DW9707E14-2 (500:1*10)
FileName : S:\GHP_05\0810\805B005.raw
Method : TPH05A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: MW-1
Date : 8/5/97 11:41
Time of Injection: 8/5/97 11:07
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



(T) $\frac{57143-341}{3\times1.5\times14.5} \times 10 = 26,000$

155
COELUTION

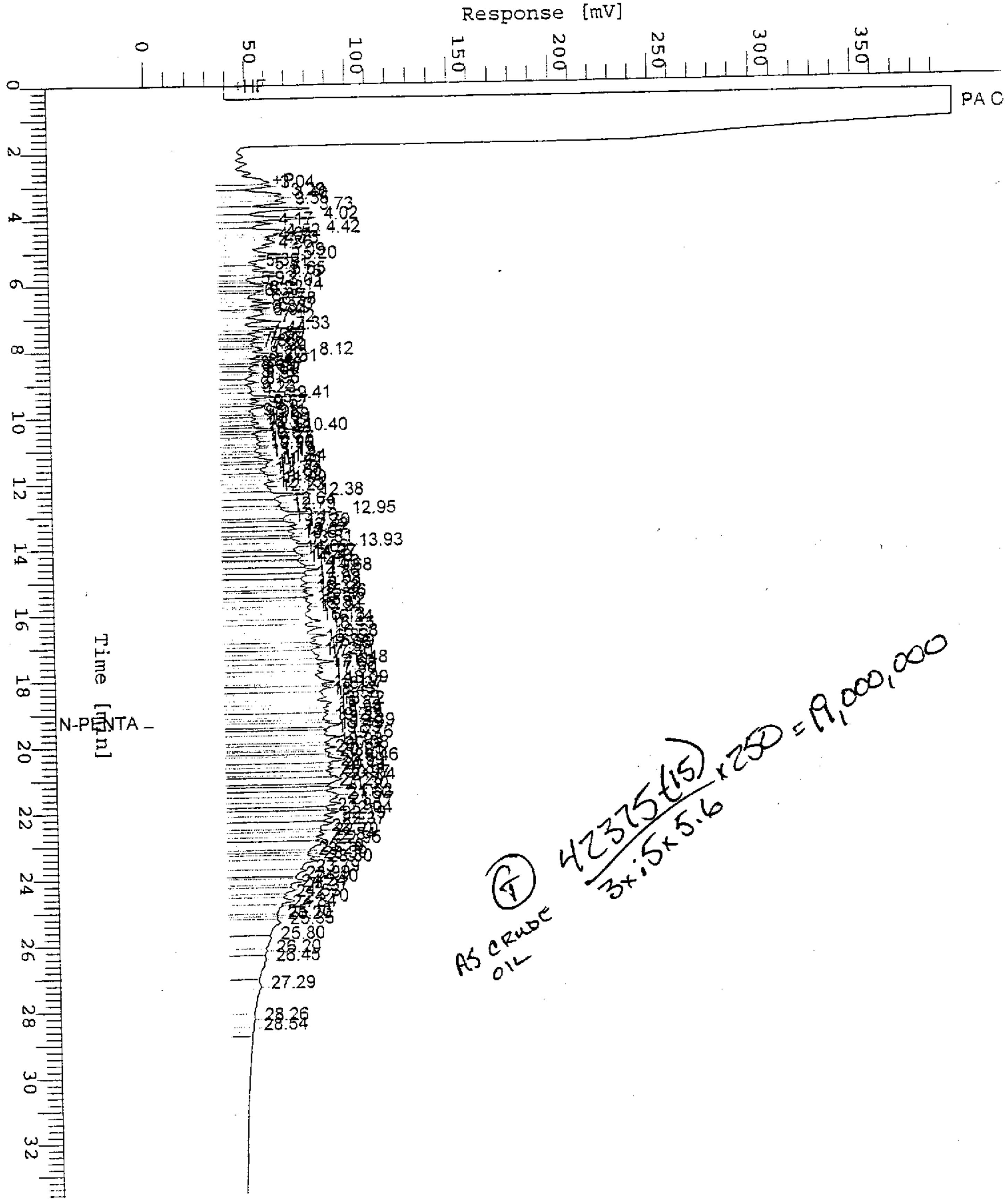
Chromatogram

Sample Name : DW9707E14-3 (500:15*250) RS1
FileName : S:\GHP_04\0810\804A026.raw
Method : TPH04A
Start Time : 0.00 min
Scale Factor: 0.0

End Time : 33.65 min
Plot Offset: 0 mV

Sample #: MW-4
Date : 8/5/97 10:58
Time of Injection: 8/5/97 10:24
Low Point : 0.00 mV
Plot Scale: 400.0 mV

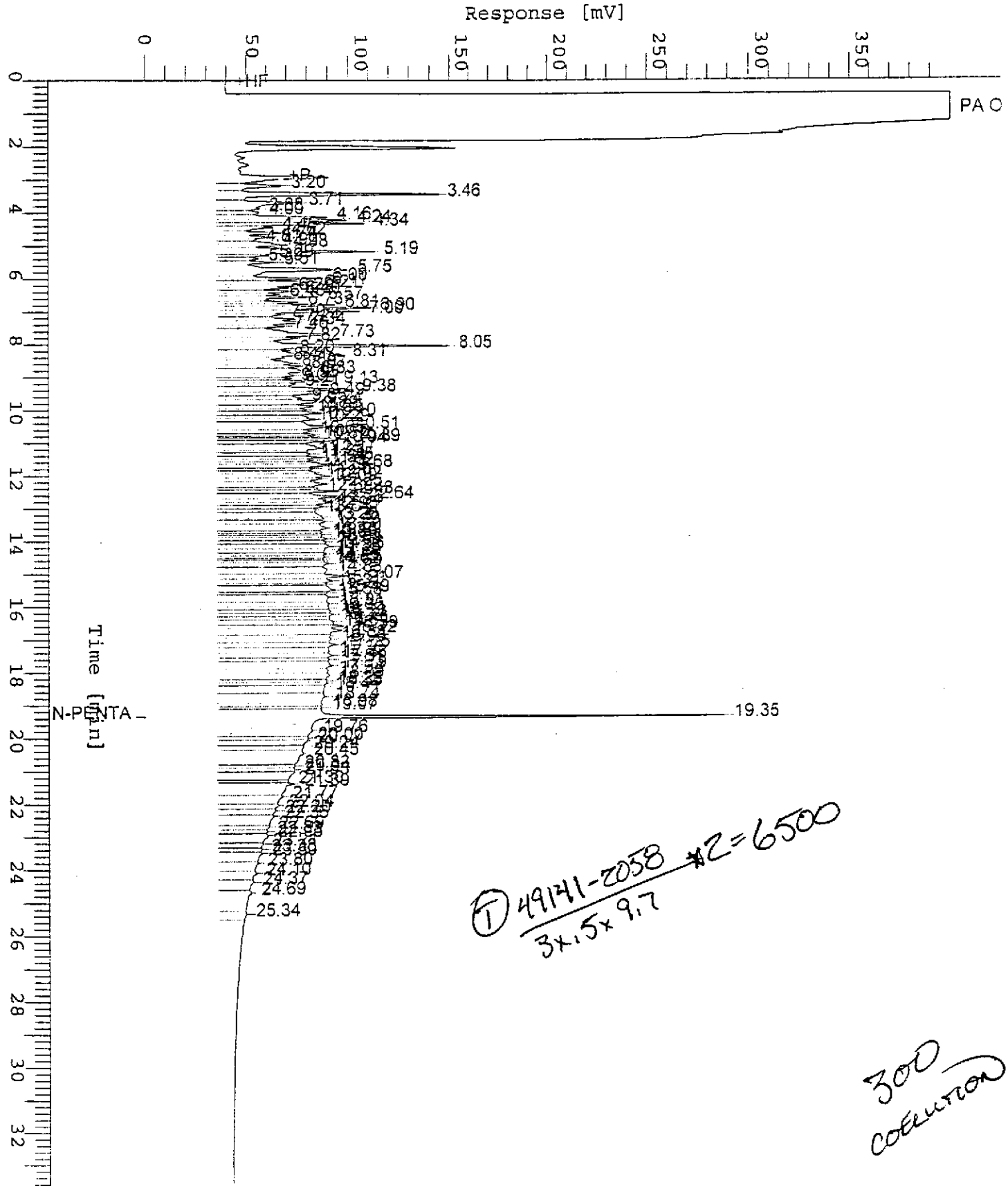
High Point : 400.00 mV



Chromatogram

Sample Name : DW9707E14-4 (500:1*2) RS1
FileName : S:\GHP_04\0810\804A019.raw
Method : TPH04A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: MW-2A
Date : 8/4/97 23:42
Time of Injection: 8/4/97 23:07
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



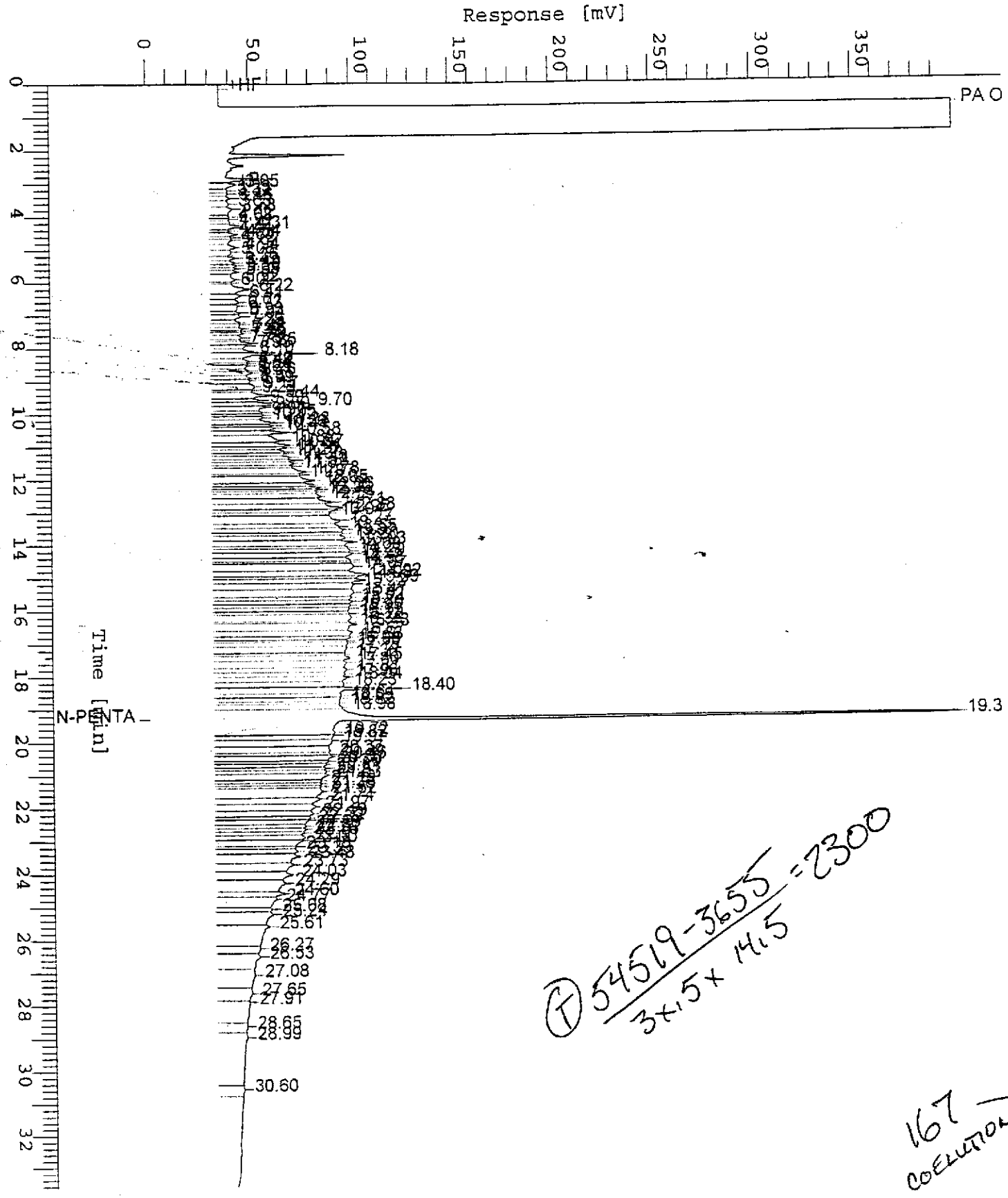
(T) 49141-2058 / 3x1.5x9.7 *2 = 6500

300 COELUTION

Chromatogram

Sample Name : DW9707E14-5 (500:1)
FileName : S:\GHP_05\0803\730B021.raw
Method : TPH05A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: MW-3
Date : 7/31/97 10:36
Time of Injection: 7/31/97 10:02
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



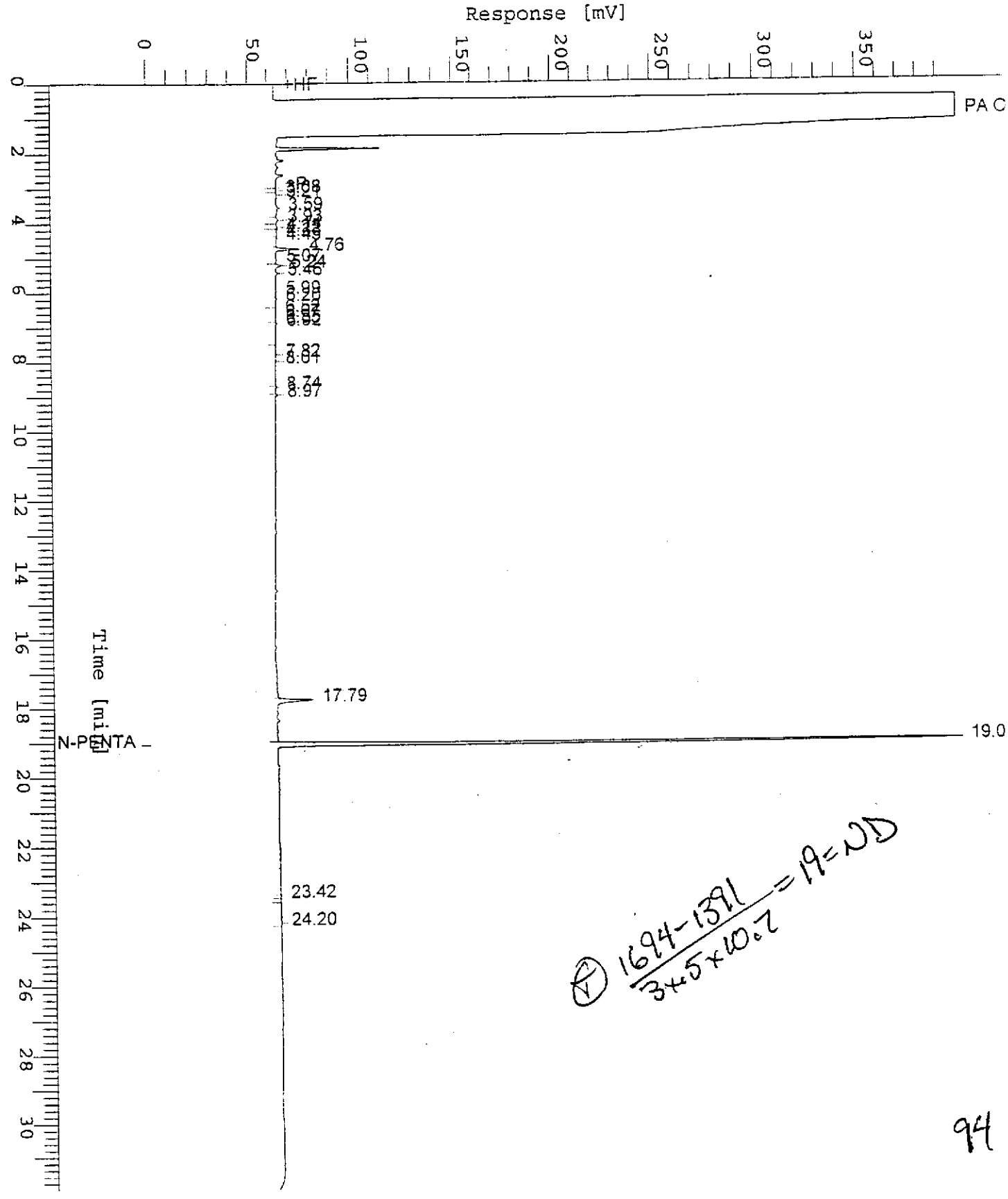
$\frac{54519 - 3655}{3 \times 1.5 \times 14.5} = 2300$

167
COELUTION

Chromatogram

Sample Name : DW9707E14-6 (500:1) RS1
FileName : S:\GHP_19\0810\804B006.raw
Method : TPH19A
Start Time : 0.00 min End Time : 31.99 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: ERB
Date : 8/4/97 14:54
Time of Injection: 8/4/97 14:22
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



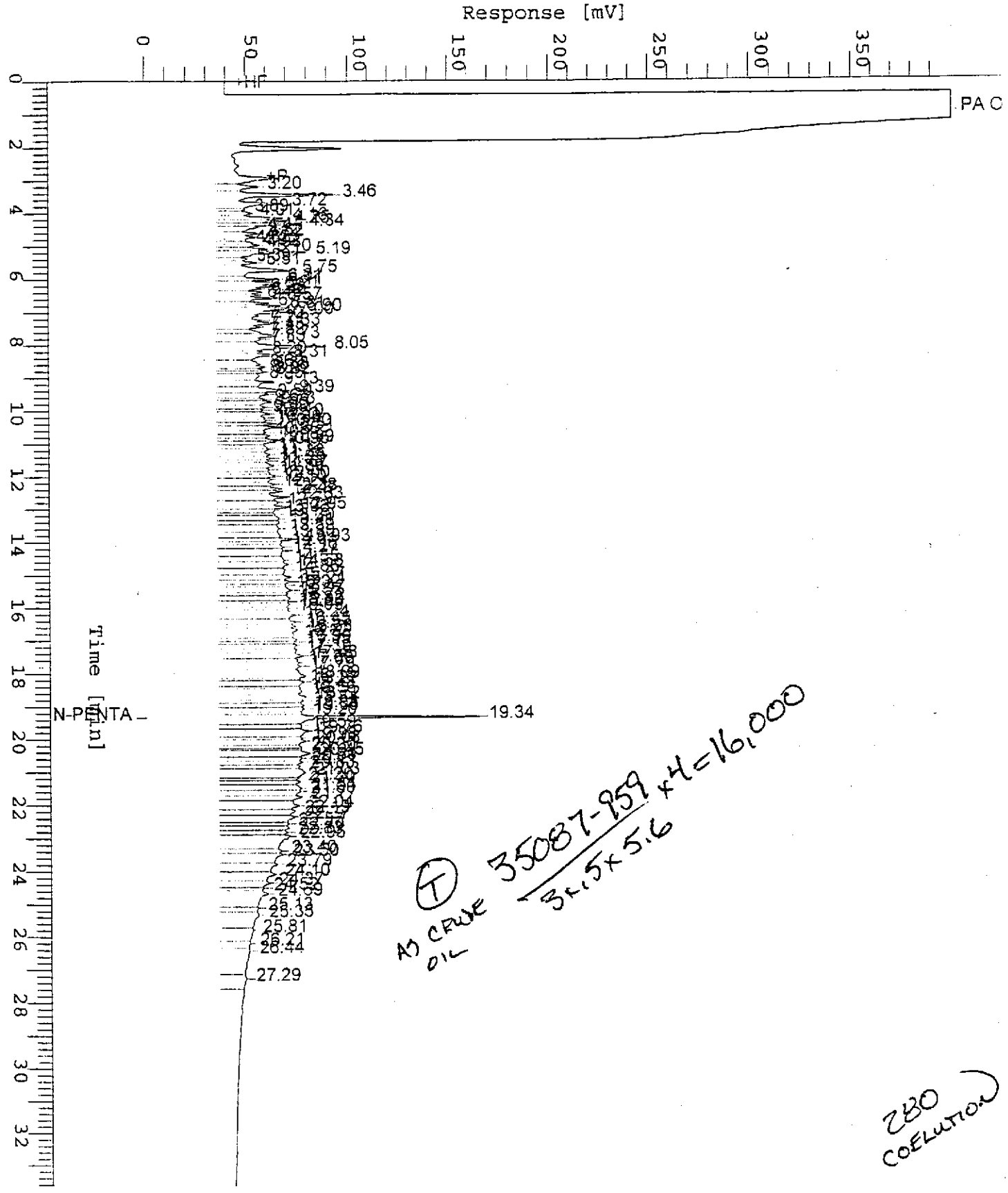
$\frac{1694-1391}{3+5\times 10.7} = 19=2D$

94

Chromatogram

Sample Name : DW9707E14-7 (500:1*4) RS2
FileName : S:\GHP_04\0810\804A027.raw
Method : TPH04A
Start Time : 0.00 min End Time : 33.65 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: MW-2B Page 1 of 1
Date : 8/5/97 11:40
Time of Injection: 8/5/97 11:06
Low Point : 0.00 mV High Point : 400.00 mV
Plot Scale: 400.0 mV



(T) AS CRUDE OIL 35087-959 / 3.5×5.6 ×4=16,000

280 COELUTION

Sequoia Analytical

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Erler & Kalinowski, Inc.	Client Project ID:	930040.04	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript.:	MW-5	
Attention: Andy Safford	Work Order #:	9707E14 -01, 07, 09	Reported: Aug 8, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC080497BTEX21A	GC080497BTEX21A	GC080497BTEX21A	GC080497BTEX21A	GC080497BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9707C22-07-MSD	9707C22-07-MSD	9707C22-07-MSD	9707C22-07-MSD	9707C22-07-MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	08/04/97	08/04/97	08/04/97	08/04/97	8/4/97
Analyzed Date:	08/04/97	08/04/97	08/04/97	08/04/97	8/4/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.0	8.0	8.1	24	46
MS % Recovery:	80	80	81	80	77
Dup. Result:	8.6	8.7	8.7	26	48
MSD % Recov.:	86	87	87	87	80
RPD:	7.2	8.4	7.1	8.0	4.3
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	LCS080497-LCS	LCS080497-LCS	LCS080497-LCS	LCS080497-LCS	LCS080497-LCS
Prepared Date:	08/04/97	08/04/97	08/04/97	08/04/97	8/4/97
Analyzed Date:	08/04/97	08/04/97	08/04/97	08/04/97	8/4/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.6	9.6	9.6	29	52
LCS % Recov.:	96	96	96	97	87
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Mike Gregory
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

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Erler & Kalinowski, Inc.	Client Project ID:	930040.04	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript.:	MW-1	
Attention: Andy Safford	Work Order #:	9707E14-02-06, 08	Reported: Aug 8, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC080197BTEX03A	GC080197BTEX03A	GC080197BTEX03A	GC080197BTEX03A	GC080197BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9707C22-05-MSD	9707C22-05-MSD	9707C22-05-MSD	9707C22-05-MSD	9707C22-05-MSD
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	08/01/97	08/01/97	08/01/97	08/01/97	08/01/97
Analyzed Date:	08/01/97	08/01/97	08/01/97	08/01/97	08/01/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.6	8.8	8.6	25	69
MS % Recovery:	86	88	86	83	115
Dup. Result:	8.8	9.0	8.9	25	71
MSD % Recov.:	88	90	89	83	118
RPD:	2.3	2.2	3.4	0.0	2.9
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	LCS080197-LCS	LCS080197-LCS	LCS080197-LCS	LCS080197-LCS	LCS080197-LCS
Prepared Date:	08/01/97	08/01/97	08/01/97	08/01/97	08/01/97
Analyzed Date:	08/01/97	08/01/97	08/01/97	08/01/97	08/01/97
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.9	8.9	9.0	25	71
LCS % Recov.:	89	89	90	83	118
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930040.04	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript.:	MW-3	
Attention: Andy Safford	Work Order #:	9707E14-01, 04, 05, 07, 09	Reported: Aug 8, 1997

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC073197801009A	GC073197801009A	GC073197801009A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan
MS/MSD #:	9707E14-05-MSD	9707E14-05-MSD	9707E14-05-MSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	07/31/97	07/31/97	07/31/97
Analyzed Date:	07/31/97	07/31/97	07/31/97
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Result:	23	22	23
MS % Recovery:	92	88	92
Dup. Result:	22	22	22
MSD % Recov.:	88	88	88
RPD:	4.4	0.0	4.4
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS080197-LCS	LCS080197-LCS	LCS080197-LCS
Prepared Date:	08/01/97	08/01/97	08/01/97
Analyzed Date:	08/01/97	08/01/97	08/01/97
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	21	21	23
LCS % Recov.:	84	84	92

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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

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

Erler & Kalinowski, Inc.	Client Project ID:	930040.04	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript.:	MW-3	
Attention: Andy Safford	Work Order #:	9707E14-06, 08	Reported: Aug 8, 1997

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC073197801009A	GC073197801009A	GC073197801009A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan
MS/MSD #:	9707E14-05-MSD	9707E14-05-MSD	9707E14-05-MSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	07/31/97	07/31/97	07/31/97
Analyzed Date:	07/31/97	07/31/97	07/31/97
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Result:	23	22	23
MS % Recovery:	92	88	92
Dup. Result:	22	22	22
MSD % Recov.:	88	88	88
RPD:	4.4	0.0	4.4
RPD Limit:	0-25	0-25	0-25
LCS #:	LCS073197-LCS	LCS073197-LCS	LCS073197-LCS
Prepared Date:	07/31/97	07/31/97	07/31/97
Analyzed Date:	07/31/97	07/31/97	07/31/97
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	21	21	22
LCS % Recov.:	84	84	88
MS/MSD Control Limits	60-140	60-140	60-140
LCS Control Limits	65-135	70-130	70-130

SEQUOIA ANALYTICAL

Mike Gregory
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

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

Erler & Kalinowski, Inc.	Client Project ID:	930040.04	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript.:	XSD	
Attention: Andy Safford	Work Order #:	9707E14-02, 03, 10	Reported: Aug 8, 1997

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC080197801009A	GC080197801009A	GC080197801009A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan
MS/MSD #:	9707F19-01-XSD	9707F19-01-XSD	9707F19-01-XSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	08/01/97	08/01/97	08/01/97
Analyzed Date:	08/02/97	08/02/97	08/02/97
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	125 µg/L	125 µg/L	125 µg/L
Result:	100	100	100
MS % Recovery:	80	80	80
Dup. Result:	110	120	130
MSD % Recov.:	88	96	104
RPD:	9.5	18	26
RPD Limit:	0-25	0-25	0-25
LCS #:	LCS080497-LCS	LCS080497-LCS	LCS080497-LCS
Prepared Date:	08/04/97	08/04/97	08/04/97
Analyzed Date:	08/04/97	08/04/97	08/04/97
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	20	20	23
LCS % Recov.:	80	80	92
MS/MSD Control Limits	60-140	60-140	60-140
LCS Control Limits	65-135	70-130	70-130

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930040.04	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript.:	XSD	
Attention: Andy Safford	Work Order #:	9707E14-02	Reported: Aug 8, 1997

* For Chloroethane Run

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC080597801008A	GC080597801008A	GC080597801008A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	9707F68-02-XSD	9707F68-02-XSD	9707F68-02-XSD
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	08/04/97	08/04/97	08/04/97
Analyzed Date:	08/05/97	08/05/97	08/05/97
Instrument I.D.#:	GCHP8	GCHP8	GCHP8
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Result:	27	25	25
MS % Recovery:	108	100	100
Dup. Result:	28	26	26
MSD % Recov.:	112	104	104
RPD:	3.6	3.9	3.9
RPD Limit:	0-25	0-25	0-25
LCS #:	LCS080597-LCS	LCS080597-LCS	LCS080597-LCS
Prepared Date:	08/05/97	08/05/97	08/05/97
Analyzed Date:	08/05/97	08/05/97	08/05/97
Instrument I.D.#:	GCHP8	GCHP8	GCHP8
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	27	26	25
LCS % Recov.:	108	104	100
MS/MSD Control Limits	60-140	60-140	60-140
LCS Control Limits	65-135	70-130	70-130

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	930040.04	
1730 So. Amphlett Blvd., Suite 320	Matrix:	LIQUID	
San Mateo, CA 94402	Sample Descript.:	MW-3	
Attention: Andy Safford	Work Order #:	9707E14-01-08	Reported: Aug 8, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0730970HBPEXA
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3510
Analyst:	B. Sullivan
MS/MSD #:	9707E14-05
Sample Conc.:	1500
Prepared Date:	07/30/97
Analyzed Date:	07/31/97
Instrument I.D.#:	GCHP5
Conc. Spiked:	1000 µg/L
Result:	1800
MS % Recovery:	30
Dup. Result:	2400
MSD % Recov.:	90
RPD:	29
RPD Limit:	0-50

LCS #:	LCS073097-LCS
Prepared Date:	07/30/97
Analyzed Date:	07/31/97
Instrument I.D.#:	GCHP5
Conc. Spiked:	1000 µg/L
LCS Result:	770
LCS % Recov.:	77

MS/MSD	50-150
LCS	60-140
Control Limits	

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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CHAIN OF CUSTODY

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Company Name: ERLER & KALINOWSKI, INC.	Project Name: 970040.04
Address: 1730 S. AMPHLETT BLVD. #320	Billing Address (if different):
City: SAN MATEO State: CA Zip Code:	
Telephone: 415-578-1172 FAX #:	P.O. #: 930040.04
Report To: ANDY SAFFORD Sampler: ROGER LION	QC Data: ☒ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours

☐ Drinking Water ☐ Waste Water ☐ Other

Analyses Requested: 9707E14

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	EPA 8010 Halocs	EPA 8015m TEPH d	TPPH & BTEX Fuel Finger.	Comments
1. MW-5	7/24/97 13:31	WATER	4/1	VOA/Glass	1	✓	✓	✓	FREE PRODUCT!
2. MW-1	12:40		4/1	VOA/Amber	2	✓	✓	✓	FREE PRODUCT!
3. MW-4	12:57		4/1	VOA/Amber/Glass	3	✓	✓	✓	FREE PRODUCT!
4. MW-2A	12:20		4/1	VOA/Amber	4	✓	✓	✓	SHEEN
5. MW-3	1201		4/1	VOA/Amber	5	✓	✓	✓	SHEEN MS/MSD
6. ERB	13:24		4/1	VOA/Amber	6	✓	✓	✓	
7. MW-2B	12:26		4/1	VOA/Amber	7	✓	✓	✓	SHEEN
8.									
9.									
10.									

Relinquished By: Roger Lion	Date: 7/24/97	Time: 17:15	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 7/24/97	Time: 1715

Were Samples Received In Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment_____ Page __ of __

Pink - Client
Yellow - Sequoia
White - Sequoia