TOSCO
Marketing
Company

2000 Crow Canyon Place
Suite 400
San Ramon, CA 94583
925.277.2305
fax: 925.277.2361

**Environmental
Compliance
Department**

#521

November 20, 2000

Mr. Barney Chan
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Site activities
Tosco/76 Products Service Station #5043
449 Hegenberger Rd
Oakland, CA

Dear Mr. Chan:

This letter is in response to your October 25, 2000 request for information from our dual phase extraction test that was conducted in 1999. Please find attached a copy of that report generated by the contractor, TRC/Alton. Although this is only a data summary report, it is clear from the data that the technique is useful. The test, however, is expensive. It may be appropriate to do this type of process on an annual basis, but how effective it might be over time needs to be evaluated.

If you have any questions or comments, please feel free to call me at 925-277-2384.

Sincerely,

David B. De Witt
Environmental Project Manager

Cc: Dave Vossler, Gettler-Ryan, Inc.

TRC Alton Geoscience

5052 Commercial Circle
Concord, California 94520
Telephone 925-688-1200
Facsimile 925-688-0388

January 5, 2000

41-0239-01

Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

ATTN: MR. DAVID DEWITT

SITE: TOSCO 76 SERVICE STATION 5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

RE: DUAL-PHASE VACUUM EXTRACTION EVENT REPORT

Dear Mr. DeWitt:

Please find enclosed the results of a Dual-Phase Extraction Event conducted at Tosco 76 Service Station 5043, located at 449 Hegenberger Road, Oakland, California. The contents of this report include:

Summary Sheet

Figure: Site Plan

Tables: (1) Mobile Treatment System Vacuum Extraction Data
(2) Well Data

Charts: (1) Influent TPH Concentrations and Total Vapor-Phase Hydrocarbons Versus Time
(2) Benzene and MTBE Vapor-Phase Concentrations Versus Time for MW-6

Appendix: Dual-Phase Vacuum Extraction Field Sheets and Analytical Laboratory Data Sheets

If you have any questions please call me at (925) 688-2474.

Sincerely,

Tom Seeliger
Associate

p:/projects/tosco/5043/5043mts.doc

25501 SS x BP
x QM TRANSMITTAL
3 4 5

Alton Geoscience, Inc.

Dual-Phase Extraction Test Report

Summary Sheet

Tosco 76 Service Station 5043
449 Hegenberger Road
Oakland, California

BAAQMD# NA
NPDES# NA

DUAL-PHASE EXTRACTION PERFORMANCE

Date(s) of Event(s):	**11/19/99 - 11/24/99**
Total Operating Hours:	**120**
Technology Used:	**High-vacuum liquid-ring pump with Thermal Oxidizer**
Extraction Wells with Max/Min Vapor Concentration (ppmv):	**MW-6 (11,400 / 230)** **MW-7 (2400 / 300)**
Max/Min Flow Rate for Extraction Wells (cfm):	**MW-6 (323 / 138)** **MW-7 (159 / 150)**
Max/Min Vacuum for Extraction Wells (in Hg):	**MW-6 (26 / 22)** **MW-7 (24 / 22)**
Total Recovery Volume by Vapor (gallons/pounds): of hydrocarbons	**52.45 / 328.36**
Total Recovery Volume by Water (gallons): * no estimate to the # of hydrocarbon removed	* **< 1,000 #**

LABORATORY ANALYSIS OF GROUND WATER SAMPLES

Sample Date(s): 11/24/99
Well Number (s): MW-6

Well ID	Date	Time Sampled	Sample Result (ug/L)					
			TPH-G	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-6	11/24/99	8:30	6,500,000	9,500	47,000	29,000	310,000	N.D.<25,000

LABORATORY ANALYSIS OF VAPOR SAMPLES

Sample Date(s): 11/19-11/24/99
Well Number (s): MW-6

Well ID	Date	Time Sampled	Sample Result (ppmv)					
			TPH-G	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-6	11/19/99	8:30	1,300	36	97	44	230	33
MW-6	11/20/99	8:30	1,000	12	75	25	150	20
MW-6	11/21/99	8:30	1,100	11	60	20	120	7.6
MW-6	11/22/99	8:30	160	2.2	7.7	1.7	11	N.D.<6.9
MW-6	11/23/99	8:30	180	3.0	12	3.2	19	3.0
MW-6	11/24/99	8:00	300	4.1	16	4.7	32	3.5

ADDITIONAL INFORMATION:

= The <1,000 gallons of water generated during the 11/19-24/99 dual-phase extraction event vapor extraction test was removed from the site by vacuum truck.

ppmv	= parts per million by volume
cfm	= cubic feet per minute
in Hg	= inches of mercury
TPH-G	= total petroleum hydrocarbons as gasoline
MTBE	= Methyl Tert-Butyl Ether
ug/L	= micrograms per liter
N.D.	= not detectable

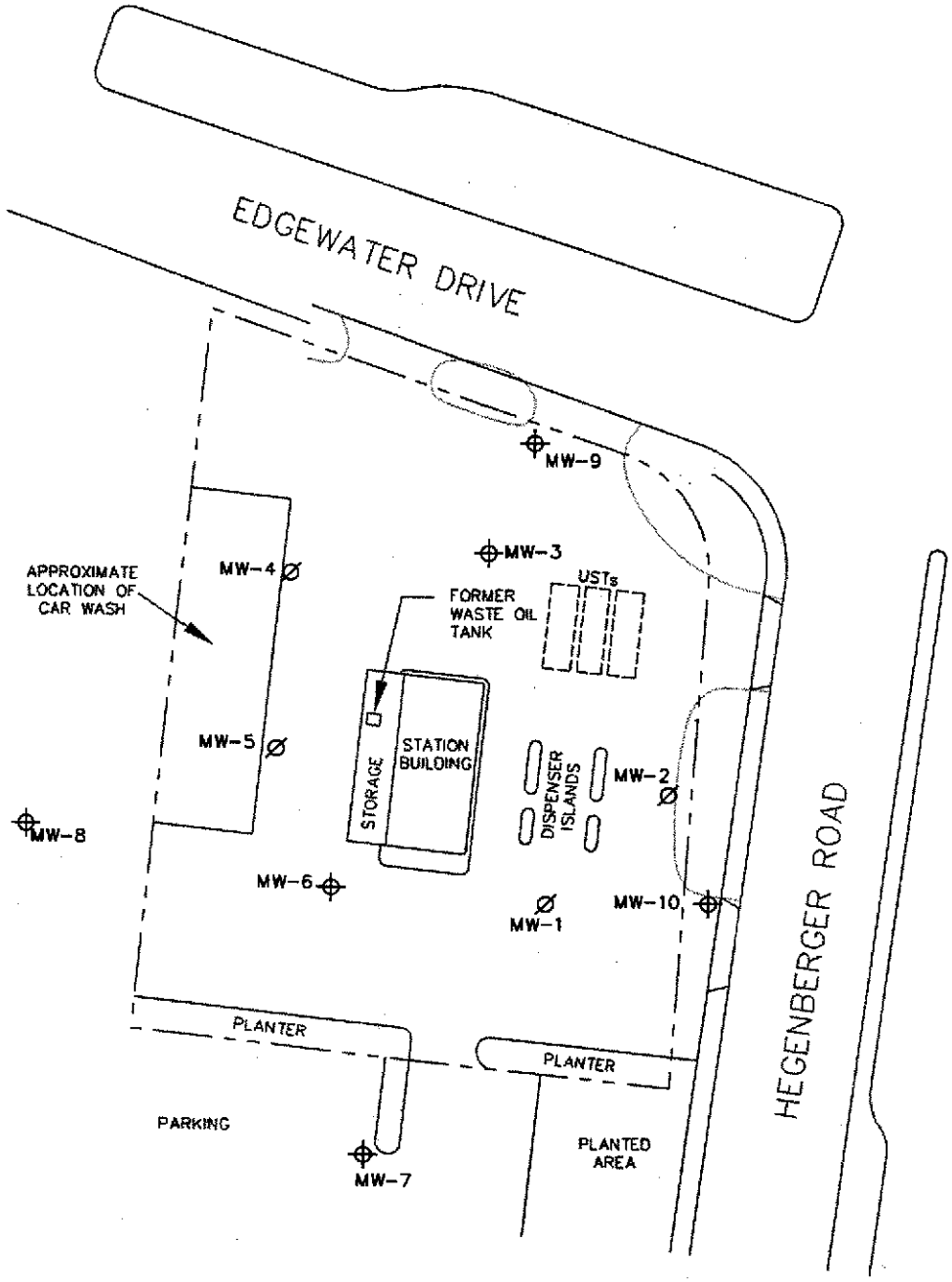
Prepared by: Chris Smiga — Chris Smiga

Approved by: Tracy R. Walker — Tracy Walker, RG

REGISTERED GEOLOGIST ★ TRACY WALKER ★ No. 6808 Exp. 12/31/01 ★ STATE OF CALIFORNIA ★

Alton Project No: 41-0239

Submittal Date: 5-Jan-00



LEGEND

- Monitoring Well
- Destroyed Well
- Approximate Property Boundary

APPROXIMATE SCALE (FEET)

0 60 120

SOURCE: Gettler-Ryan Inc. and MPDS Services, Inc.

ALTON GEOSCIENCE
Northern California

SITE PLAN

Tosco 76 Service Station No. 5043
449 Hegenberger Road
Oakland, California

FIGURE

Table 1

MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA

Tosco 76 Service Station 5043 11/19/99 - 11/24/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					EXTRACTION WELL(S) OPEN
		INLET BLOWER VACUUM (IN OF Hg)	INLET FLOW (CFM)	CONCENTRATION* (undiluted) (PPMV)	CUMULATIVE HYDROCARBON RECOVERY (POUNDS)	(GAL) **	
11/19/99 8:30	0	26.0	159.0	11400	0.00	0.00	MW-6
11/19/99 9:00	0.5	26.0	159.0	6200	11.63	1.86	MW-6
11/19/99 9:30	1.0	25.0	159.0	2440	17.34	2.77	MW-6
11/19/99 10:00	1.5	25.0	159.0	4400	21.86	3.49	MW-6
11/19/99 10:30	2.0	25.0	159.0	4200	27.54	4.40	MW-6
11/19/99 11:00	2.5	25.0	159.0	2400	31.90	5.10	MW-6
11/19/99 11:30	3.0	25.0	159.0	2200	34.94	5.58	MW-6
11/19/99 12:00	3.5	25.0	159.0	2200	37.85	6.05	MW-6
11/19/99 12:30	4.0	25.0	159.0	2400	40.89	6.53	MW-6
11/19/99 13:00	4.5	25.0	159.0	2200	43.93	7.02	MW-6
11/19/99 13:30	5.0	24.0	163.0	3000	47.41	7.57	MW-6
11/19/99 14:00	5.5	24.0	168.0	3400	51.81	8.28	MW-6
11/19/99 14:30	6.0	24.0	163.0	4400	57.17	9.13	MW-6
11/19/99 15:00	6.5	24.0	163.0	4200	63.00	10.06	MW-6
11/19/99 15:30	7.0	24.0	163.0	3400	68.15	10.89	MW-6
11/19/99 16:00	7.5	24.0	163.0	3400	72.75	11.62	MW-6
11/19/99 16:30	8.0	24.0	168.0	3200	77.29	12.35	MW-6
11/19/99 17:00	8.5	24.0	168.0	2200	81.06	12.95	MW-6
11/19/99 17:30	9.0	24.0	168.0	1900	83.93	13.41	MW-6
11/19/99 18:00	9.5	24.0	168.0	2280	86.84	13.87	MW-6
11/19/99 18:30	10.0	24.0	168.0	3240	90.70	14.49	MW-6
11/19/99 19:00	10.5	24.0	163.0	2780	94.84	15.15	MW-6
11/19/99 19:30	11.0	24.0	165.5	2600	98.51	15.74	MW-6
11/19/99 20:00	11.5	24.0	163.0	2800	102.20	16.33	MW-6
11/19/99 20:30	12.0	24.0	163.0	2820	106.00	16.93	MW-6
11/19/99 21:00	12.5	24.0	163.0	2720	109.76	17.53	MW-6
11/19/99 21:30	13.0	24.0	163.0	2710	113.44	18.12	MW-6
11/19/99 22:00	13.5	24.0	163.0	2730	117.12	18.71	MW-6

Table 1

MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA

Tosco 76 Service Station 5043 11/19/99 - 11/24/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					
		INLET BLOWER VACUUM (IN OF Hg)	INLET FLOW (CFM)	CONCENTRATION* (undiluted) (PPMV)	CUMULATIVE HYDROCARBON RECOVERY (POUNDS)	CUMULATIVE HYDROCARBON RECOVERY (GAL) **	EXTRACTION WELL(S) OPEN
11/19/99 22:30	14.0	24.0	163.0	2740	120.83	19.30	MW-6
11/19/99 23:00	14.5	24.0	163.0	2730	124.63	19.89	MW-6
11/19/99 23:30	15.0	24.0	159.0	2400	127.96	20.44	MW-6
11/20/99 0:00	15.5	24.0	163.0	2630	131.33	20.98	MW-6
11/20/99 0:30	16.0	24.0	163.0	2610	134.68	21.55	MW-6
11/20/99 1:00	16.5	24.0	163.0	2570	138.39	22.11	MW-6
11/20/99 1:30	17.0	24.0	163.0	2540	141.85	22.66	MW-6
11/20/99 2:00	17.5	24.0	163.0	2270	145.11	23.18	MW-6
11/20/99 2:30	18.0	24.0	163.0	2160	148.11	23.66	MW-6
11/20/99 3:00	18.5	24.0	163.0	1660	150.70	24.07	MW-6
11/20/99 3:30	19.0	24.0	163.0	1620	152.92	24.43	MW-6
11/20/99 4:00	19.5	24.0	163.0	1620	155.11	24.78	MW-6
11/20/99 4:30	20.0	24.0	163.0	1600	157.29	25.13	MW-6
11/20/99 5:00	20.5	24.0	163.0	1500	159.39	25.46	MW-6
11/20/99 5:30	21.0	24.0	183.0	1000	161.19	25.75	MW-6
11/20/99 6:00	21.5	24.0	186.0	700	162.49	25.96	MW-6
11/20/99 6:30	22.0	24.0	186.0	700	163.58	26.13	MW-6
11/20/99 7:00	22.5	24.0	186.0	690	164.65	26.30	MW-6
11/20/99 7:30	23.0	24.0	186.0	500	165.57	26.45	MW-6
11/20/99 8:00	23.5	24.0	186.0	540	166.38	26.58	MW-6
11/20/99 8:30	24.0	24.0	183.0	540	167.20	26.71	MW-6
11/20/99 9:00	24.5	25.0	183.0	500	167.99	26.84	MW-6
11/20/99 9:30	25.0	25.0	183.0	490	168.75	26.96	MW-6
11/20/99 10:00	25.5	25.0	183.0	470	169.48	27.07	MW-6
11/20/99 10:30	26.0	25.0	183.0	480	170.20	27.19	MW-6
11/20/99 11:00	26.5	25.0	183.0	480	170.93	27.31	MW-7
11/20/99 11:30	27.0	25.0	183.0	480	171.66	27.42	MW-7
11/20/99 12:00	27.5	25.0	183.0	400	172.33	27.53	MW-6

Table 1

MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA

Tosco 76 Service Station 5043 11/19/99 - 11/24/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					EXTRACTION WELL(S) OPEN
		INLET BLOWER VACUUM (IN OF Hg)	INLET FLOW (CFM)	CONCENTRATION* (undiluted) (PPMV)	CUMULATIVE HYDROCARBON RECOVERY (POUNDS)	(GAL) **	
11/20/99 13:00	28.5	25.0	183.0	400	173.55	27.72	MW-6
11/20/99 13:30	29.0	25.0	183.0	400	174.15	27.82	MW-6
11/20/99 14:00	29.5	25.0	183.0	400	174.76	27.92	MW-6
11/20/99 14:30	30.0	25.0	187.0	380	175.36	28.01	MW-6
11/20/99 15:00	30.5	25.0	187.0	380	175.95	28.11	MW-6
11/20/99 15:30	31.0	25.0	187.0	400	176.56	28.20	MW-6
11/20/99 16:00	31.5	25.0	187.0	360	177.15	28.30	MW-6
11/20/99 16:30	32.0	25.0	187.0	300	177.66	28.38	MW-6
11/20/99 17:00	32.5	25.0	187.0	300	178.13	28.46	MW-6
11/20/99 17:30	33.0	25.0	187.0	280	178.58	28.53	MW-6
11/20/99 18:00	33.5	25.0	187.0	300	179.03	28.60	MW-6
11/20/99 18:30	34.0	25.0	187.0	300	179.50	28.67	MW-6
11/20/99 19:00	34.5	25.0	187.0	290	179.96	28.75	MW-6
11/20/99 19:30	35.0	24.0	198.0	340	180.46	28.83	MW-6
11/20/99 20:00	35.5	24.0	200.0	440	181.10	28.93	MW-6
11/20/99 20:30	36.0	24.0	200.0	440	181.84	29.05	MW-6
11/20/99 21:00	36.5	24.0	205.0	920	182.98	29.23	MW-6
11/20/99 21:30	37.0	24.0	203.0	1000	184.61	29.49	MW-6
11/20/99 22:00	37.5	24.0	205.0	1120	186.41	29.78	MW-6
11/20/99 22:30	38.0	24.0	208.0	1090	188.30	30.08	MW-6
11/20/99 23:00	38.5	24.0	216.0	1110	190.24	30.39	MW-6
11/20/99 23:30	39.0	24.0	213.0	1060	192.17	30.70	MW-6
11/21/99 0:00	39.5	24.0	218.0	1040	194.06	31.00	MW-6
11/21/99 0:30	40.0	24.0	213.0	1030	195.91	31.30	MW-6
11/21/99 1:00	40.5	24.0	216.0	1070	197.78	31.59	MW-6
11/21/99 1:30	41.0	24.0	216.0	1060	199.69	31.90	MW-6
11/21/99 2:00	41.5	24.0	216.0	1110	201.64	32.21	MW-6
11/21/99 2:30	42.0	24.0	216.0	1110	203.63	32.53	MW-6

Table 1

MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA

Tosco 76 Service Station 5043 11/19/99 - 11/24/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					EXTRACTION WELL(S) OPEN
		INLET BLOWER VACUUM (IN OF Hg)	INLET FLOW (CFM)	CONCENTRATION* (undiluted) (PPMV)	CUMULATIVE HYDROCARBON RECOVERY (POUNDS)	(GAL) **	
11/21/99 3:00	42.5	24.0	205.0	680	205.20	32.78	MW-6
11/21/99 3:30	43.0	24.0	209.0	640	206.34	32.96	MW-6
11/21/99 4:00	43.5	24.0	216.0	440	207.29	33.11	MW-6
11/21/99 4:30	44.0	24.0	221.0	400	208.05	33.24	MW-6
11/21/99 5:00	44.5	24.0	228.0	400	208.80	33.35	MW-6
11/21/99 5:30	45.0	24.0	221.0	350	209.50	33.47	MW-6
11/21/99 6:00	45.5	24.0	228.0	360	210.16	33.57	MW-6
11/21/99 6:30	46.0	24.0	223.0	330	210.81	33.68	MW-6
11/21/99 7:00	46.5	24.0	235.0	380	211.48	33.78	MW-6
11/21/99 7:30	47.0	24.0	235.0	350	212.20	33.90	MW-6
11/21/99 8:00	47.5	24.0	238.0	340	212.87	34.01	MW-6
11/21/99 8:30	48.0	24.0	238.0	320	213.53	34.11	MW-6
11/21/99 9:00	48.5	24.0	238.0	300	214.14	34.21	MW-6
11/21/99 9:30	49.0	24.0	251.0	450	214.90	34.33	MW-6
11/21/99 10:00	49.5	24.0	260.0	400	215.80	34.47	MW-6
11/21/99 10:30	50.0	24.0	260.0	390	216.66	34.61	MW-6
11/21/99 11:00	50.5	24.0	258.0	390	217.50	34.74	MW-6
11/21/99 11:30	51.0	24.0	258.0	400	218.34	34.88	MW-6
11/21/99 12:00	51.5	24.0	258.0	300	219.10	35.00	MW-6
11/21/99 12:30	52.0	24.0	258.0	310	219.75	35.10	MW-6
11/21/99 13:00	52.5	24.0	258.0	300	220.40	35.21	MW-6
11/21/99 13:30	53.0	24.0	258.0	290	221.04	35.31	MW-6
11/21/99 14:00	53.5	24.0	258.0	350	221.72	35.42	MW-6
11/21/99 14:30	54.0	24.0	258.0	350	222.47	35.54	MW-6
11/21/99 15:00	54.5	24.0	258.0	300	223.17	35.65	MW-6
11/21/99 15:30	55.0	24.0	238.0	310	223.80	35.75	MW-6
11/21/99 16:00	55.5	24.0	238.0	310	224.41	35.85	MW-6
11/21/99 16:30	56.0	24.0	238.0	300	225.01	35.94	MW-6

Table 1

MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA

Tosco 76 Service Station 5043 11/19/99 - 11/24/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					
		INLET BLOWER VACUUM (IN OF Hg)	INLET FLOW (CFM)	CONCENTRATION* (undiluted) (PPMV)	CUMULATIVE HYDROCARBON RECOVERY (POUNDS)	CUMULATIVE HYDROCARBON RECOVERY (GAL) **	EXTRACTION WELL(S) OPEN
11/21/99 17:00	56.5	24.0	251.0	300	225.62	36.04	MW-6
11/21/99 17:30	57.0	24.0	251.0	290	226.24	36.14	MW-6
11/21/99 18:00	57.5	24.0	251.0	300	226.86	36.24	MW-6
11/21/99 18:30	58.0	24.0	251.0	310	227.49	36.34	MW-6
11/21/99 19:00	58.5	24.0	251.0	300	228.13	36.44	MW-6
11/21/99 19:30	59.0	24.0	251.0	300	228.75	36.54	MW-6
11/21/99 20:00	59.5	24.0	277.0	230	229.34	36.64	MW-6
11/21/99 20:30	60.0	24.0	289.0	360	230.03	36.75	MW-6
11/21/99 21:00	60.5	24.0	291.0	370	230.91	36.89	MW-6
11/21/99 21:30	61.0	24.0	298.0	500	231.97	37.06	MW-6
11/21/99 22:00	61.5	24.0	323.0	850	233.72	37.33	MW-6
11/21/99 22:30	62.0	24.0	315.0	1050	236.23	37.74	MW-6
11/21/99 23:00	62.5	24.0	313.0	930	238.82	38.15	MW-6
11/21/99 23:30	63.0	24.0	156.0	920	240.62	38.44	MW-6
11/22/99 0:00	63.5	24.0	156.0	940	241.83	38.63	MW-6
11/22/99 0:30	64.0	24.0	156.0	930	243.04	38.82	MW-6
11/22/99 1:00	64.5	24.0	156.0	930	244.25	39.02	MW-6
11/22/99 1:30	65.0	24.0	156.0	930	245.45	39.21	MW-6
11/22/99 2:00	65.5	24.0	156.0	980	246.69	39.41	MW-6
11/22/99 2:30	66.0	24.0	156.0	970	247.95	39.61	MW-6
11/22/99 3:00	66.5	24.0	156.0	940	249.19	39.81	MW-6
11/22/99 3:30	67.0	24.0	156.0	950	250.42	40.00	MW-6
11/22/99 4:00	67.5	24.0	156.0	940	251.64	40.20	MW-6
11/22/99 4:30	68.0	24.0	156.0	940	252.86	40.39	MW-6
11/22/99 5:00	68.5	24.0	156.0	950	254.09	40.59	MW-6
11/22/99 5:30	69.0	24.0	156.0	950	255.32	40.79	MW-6
11/22/99 6:00	69.5	24.0	156.0	940	256.54	40.98	MW-6
11/22/99 6:30	70.0	24.0	156.0	940	257.76	41.18	MW-6

Table 1

MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA

Tosco 76 Service Station 5043 11/19/99 - 11/24/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					EXTRACTION WELL(S) OPEN
		INLET BLOWER VACUUM (IN OF Hg)	INLET FLOW (CFM)	CONCENTRATION* (undiluted) (PPMV)	CUMULATIVE HYDROCARBON RECOVERY (POUNDS)	(GAL) **	
11/22/99 7:00	70.5	24.0	156.0	940	258.98	41.37	MW-6
11/22/99 7:30	71.0	24.0	156.0	940	260.20	41.57	MW-6
11/22/99 8:00	71.5	24.0	162.0	1040	261.51	41.77	MW-6
11/22/99 8:30	72.0	24.0	162.0	1040	262.91	42.00	MW-6
11/22/99 9:00	72.5	24.0	162.0	1020	264.30	42.22	MW-6
11/22/99 9:30	73.0	24.0	162.0	1020	265.67	42.44	MW-6
11/22/99 10:00	73.5	24.0	162.0	1020	267.04	42.66	MW-6
11/22/99 10:30	74.0	24.0	162.0	1040	268.43	42.88	MW-6
11/22/99 11:00	74.5	24.0	162.0	1020	269.82	43.10	MW-6
11/22/99 11:30	75.0	24.0	162.0	1040	271.20	43.32	MW-6
11/22/99 12:00	75.5	24.0	162.0	1020	272.59	43.54	MW-6
11/22/99 13:00	76.5	24.0	163.0	1040	275.37	43.99	MW-6
11/22/99 14:00	77.5	24.0	163.0	1090	278.26	44.45	MW-6
11/22/99 15:00	78.5	24.0	163.0	1010	281.10	44.90	MW-6
11/22/99 16:00	79.5	24.0	163.0	1100	283.96	45.36	MW-6
11/22/99 17:00	80.5	24.0	163.0	890	286.66	45.79	MW-6
11/22/99 18:00	81.5	24.0	163.0	790	288.93	46.16	MW-6
11/22/99 19:00	82.5	24.0	156.0	740	290.96	46.48	MW-6
11/22/99 20:00	83.5	24.0	159.0	710	292.86	46.78	MW-6
11/22/99 21:00	84.5	24.0	166.0	660	294.71	47.08	MW-6
11/22/99 22:00	85.5	24.0	166.0	640	296.50	47.36	MW-6
11/22/99 23:00	86.5	24.0	149.0	640	298.18	47.63	MW-6
11/23/99 0:00	87.5	24.0	169.0	620	299.85	47.90	MW-6
11/23/99 1:00	88.5	22.0	150.0	580	301.44	48.15	MW-6
11/23/99 2:00	89.5	22.0	146.0	620	302.91	48.39	MW-6
11/23/99 3:00	90.5	22.0	150.0	910	304.79	48.69	MW-7
11/23/99 3:30	91.0	22.0	150.0	430	305.63	48.82	MW-7
11/23/99 4:00	91.5	22.0	159.0	300	306.10	48.90	MW-7

Table 1

MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA

Tosco 76 Service Station 5043 11/19/99 - 11/24/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					
		INLET BLOWER VACUUM (IN OF Hg)	INLET FLOW (CFM)	CONCENTRATION* (undiluted) (PPMV)	CUMULATIVE HYDROCARBON RECOVERY		EXTRACTION WELL(S) OPEN
					(POUNDS)	(GAL) **	
11/23/99 5:00	92.5	24.0	156.0	400	307.01	49.04	MW-6
11/23/99 6:00	93.5	24.0	140.0	350	307.94	49.19	MW-6
11/23/99 7:00	94.5	24.0	140.0	340	308.74	49.32	MW-6
11/23/99 8:00	95.5	24.0	140.0	340	309.53	49.45	MW-6
11/23/99 9:00	96.5	24.0	140.0	340	310.32	49.57	MW-6
11/23/99 10:00	97.5	24.0	140.0	320	311.09	49.69	MW-6
11/23/99 11:00	98.5	24.0	140.0	340	311.86	49.82	MW-6
11/23/99 12:00	99.5	24.0	140.0	340	312.65	49.94	MW-6
11/23/99 13:00	100.5	24.0	140.0	340	313.44	50.07	MW-6
11/23/99 14:00	101.5	24.0	140.0	340	314.23	50.20	MW-6
11/23/99 15:00	102.5	24.0	140.0	340	315.02	50.32	MW-6
11/23/99 16:00	103.5	24.0	140.0	340	315.81	50.45	MW-6
11/23/99 17:00	104.5	24.0	140.0	300	316.56	50.57	MW-6
11/23/99 18:00	105.5	24.0	138.0	290	317.24	50.68	MW-6
11/23/99 19:00	106.5	24.0	138.0	280	317.90	50.78	MW-6
11/23/99 20:00	107.5	24.0	140.0	260	318.52	50.88	MW-6
11/23/99 21:00	108.5	24.0	140.0	260	319.12	50.98	MW-6
11/23/99 22:00	109.5	24.0	140.0	260	319.73	51.07	MW-6
11/23/99 23:00	110.5	24.0	140.0	260	320.33	51.17	MW-6
11/24/99 0:00	111.5	24.0	140.0	270	320.95	51.27	MW-6
11/24/99 1:00	112.5	24.0	140.0	280	321.59	51.37	MW-6
11/24/99 2:00	113.5	24.0	150.0	280	322.27	51.48	MW-6
11/24/99 3:00	114.5	24.0	140.0	270	322.93	51.59	MW-6
11/24/99 4:00	115.5	24.0	140.0	260	323.55	51.68	MW-6
11/24/99 5:00	116.5	24.0	140.0	280	324.17	51.78	MW-6
11/24/99 6:00	117.5	24.0	140.0	280	324.83	51.89	MW-6
11/24/99 7:00	118.5	24.0	140.0	700	325.97	52.07	MW-6
11/24/99 8:00	119.5	24.0	140.0	680	327.57	52.33	MW-6

Table 1

MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA

Tosco 76 Service Station 5043 11/19/99 - 11/24/99

DATE & TIME	OPERATING TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					EXTRACTION WELL(S) OPEN
		INLET BLOWER VACUUM (IN OF Hg)	INLET FLOW (CFM)	CONCENTRATION* (undiluted) (PPMV)	CUMULATIVE HYDROCARBON RECOVERY (POUNDS)	(GAL) **	
11/24/99 8:30	120.0	24.0	140.0	680	328.36	52.45	
		TOTAL HYDROCARBONS RECOVERED			328.36	52.45	
		TOTAL WATER RECOVERED (GAL)			<1,000		

GAL = gallons

CFM = cubic feet per minute

PPMV = parts per million per volume

IN OF HG = inches of mercury

* = Concentrations are based on field measurements taken with a Horiba Hydrocarbon Analyzer.

** = Based on hydrocarbon density of 6.26 pounds/gallon.

Table 2

WELL DATA

Tosco 76 Service Station 5043

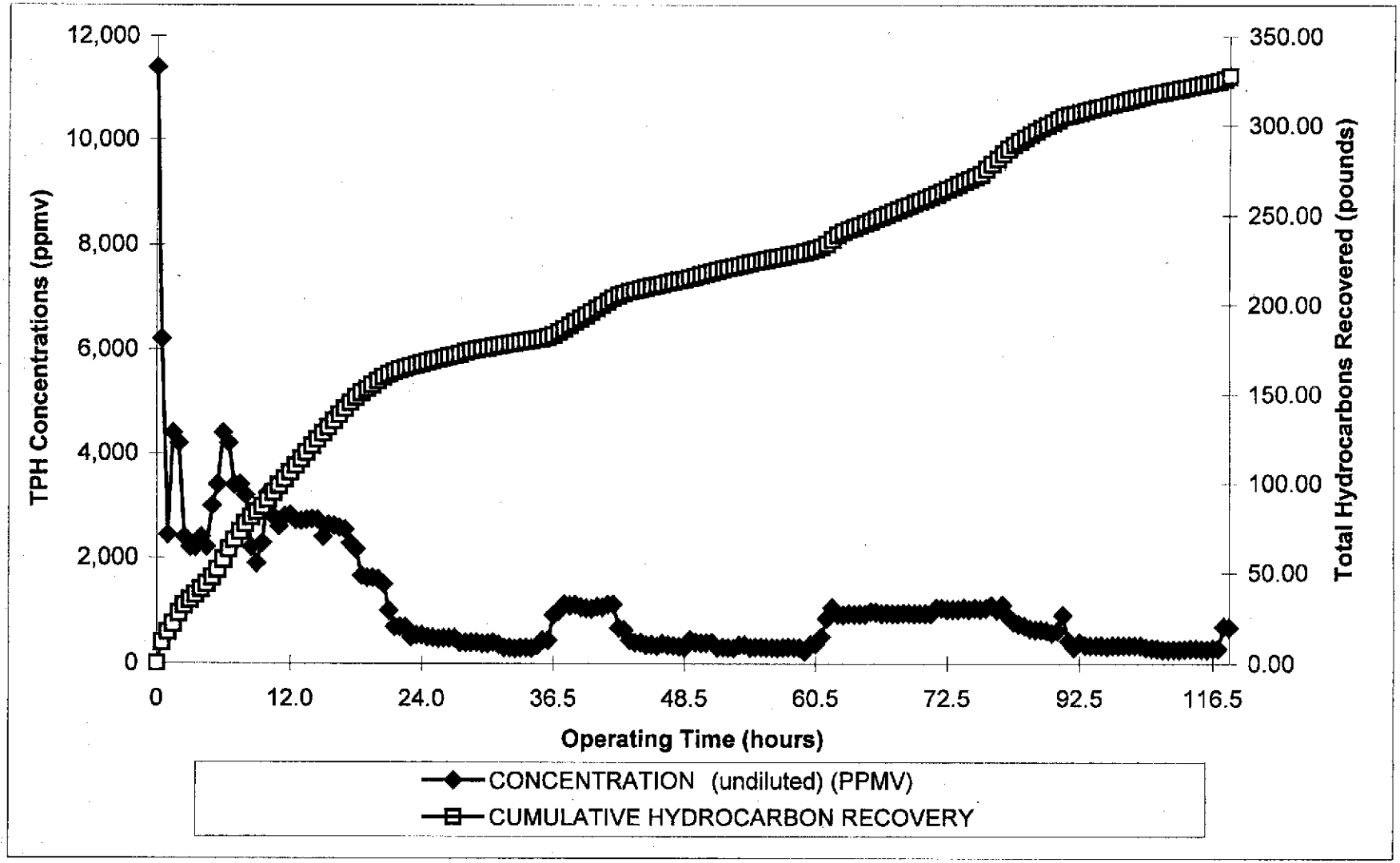
11/19/99 - 11/24/99

Date & Time	Inlet Blower Vacuum (Inches of H2O)	Wellhead Vacuum (Inches of H2O)			Well Depth to Water (Feet)			
		MW-3	MW-7	MW-10	MW-3	MW-6	MW-7	MW-10
11/19/99 8:00	*	*	*	*	2.50	3.40	2.10	3.85
11/19/99 8:30	354.12	0	0	0	2.30	*	3.00	3.70
11/19/99 10:00	340.50	0	0	0	2.30	*	3.00	3.70
11/19/99 12:00	340.50	0	0	0	2.30	*	3.00	3.70
11/19/99 14:00	326.88	0	0	0	2.30	*	3.30	3.70
11/19/99 16:00	326.88	0	0	0	2.30	*	3.50	3.70
11/19/99 18:00	326.88	0	*	0	2.30	*	3.50	3.70
11/19/99 21:00	326.88	0	*	0	2.30	*	*	3.70
11/20/99 0:00	326.88	0	*	0	2.30	*	*	3.70
11/20/99 3:00	326.88	0	*	0	2.25	*	*	3.80

* = Indicates reading not taken.

Influent TPH Concentrations and Total Vapor-Phase Hydrocarbons Versus Time

Tosco 76 Service Station 5043 11/19/99 - 11/24/99



p:/projects/tosco/5043/toscooak5043.xls

CHART 1

Benzene and MTBE Vapor-Phase Concentrations Vs. Time for MW-6

Tosco 76 Service Station 5043

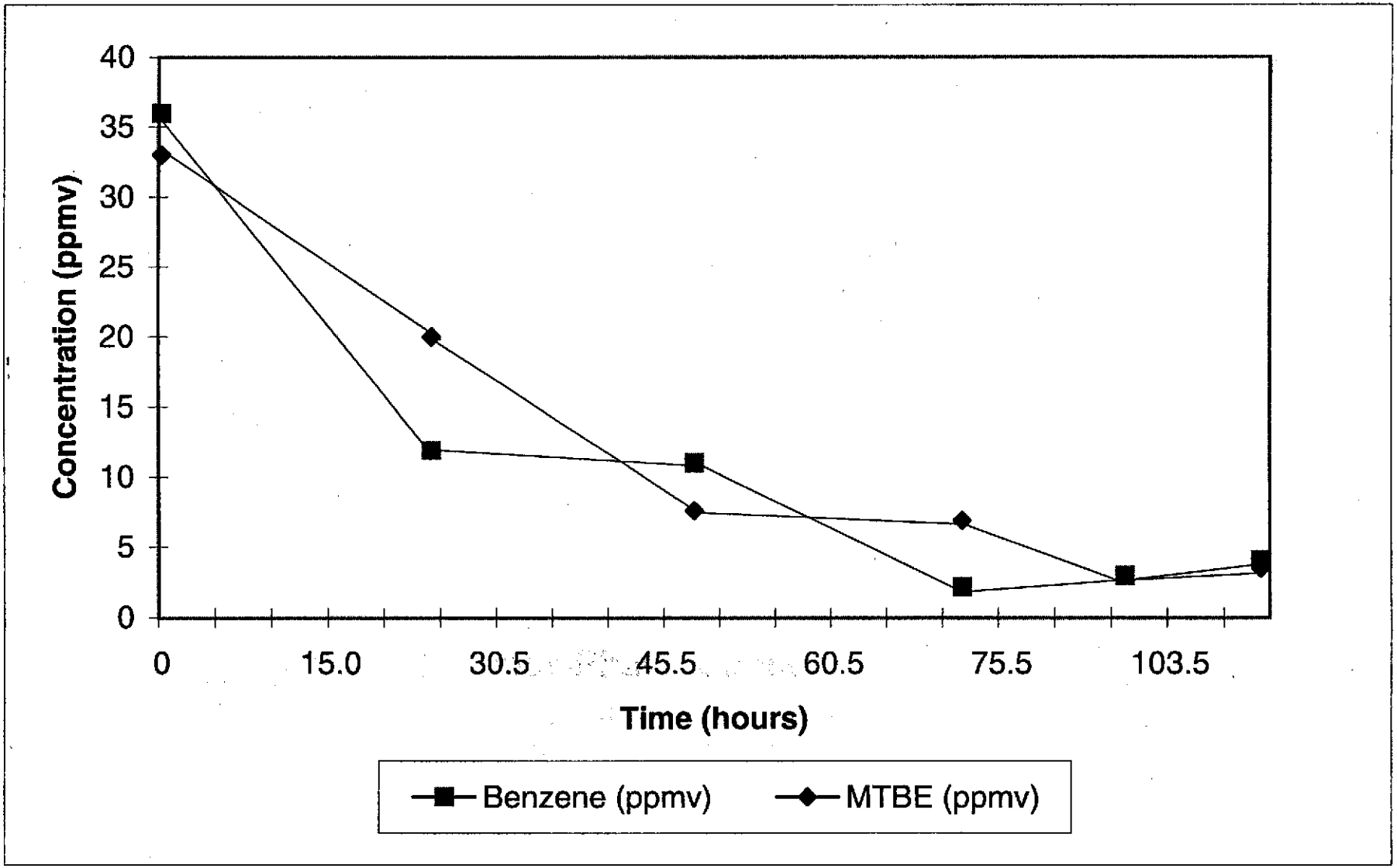


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CHART 2

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: UA01
Technician: C Briggs / S. Van Gorder

Client: Tosco
Site: Tosco 5043
Date: 11-19-99

	Cumulative Wells and System Operation	Extraction Well # 1	Extraction Well # 2	Extraction Well # 3	Extraction Well # 4
Well ID:		MW-6			
DTW (ft):		3.4			
Depth to FP (ft):		3.5			
Screen Int. (ft):					
Casing Diam. (in):					
DO (mg/L):		19430			

Time ( )	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	Well 1 Flow Rate (cfm)	Well 1 HC Conc. (ppmv)	Well 1 Vacuum (in. of Hg)	Well 1 Stinger Depth (ft)	Well 2 Flow Rate (cfm)	Well 2 HC Conc. (ppmv)	Well 2 Vacuum (in. of Hg)	Well 2 Stinger Depth (ft)	Well 3 Flow Rate (cfm)	Well 3 HC Conc. (ppmv)	Well 3 Vacuum (in. of Hg)	Well 3 Stinger Depth (ft)	Well 4 Flow Rate (cfm)	Well 4 HC Conc. (ppmv)	Well 4 Vacuum (in. of Hg)	Well 4 Stinger Depth (ft)
830 pm		11400	26	159		1420		1				3												
900		6200	1	159		1410		1				3												
30		2440	25	159		1430		1				5												
1000		4400	1	159		1421						7												
30		4200	25	159		1421						7												
1100		2900	1	159		1420																		
30		2200	25	159		1400																		
am 1200		2200	1	159		1430																		
30		2400	25	159		1421																		
110		2200		159		1425																		
30		3000	24	163		1425						10												
200		3400		168		1410																		
30		4900		163		1400																		
300		4200		163		1410																		
30		3400		163		1410																		
400		3400		163		1400		1				9 ft												
30		3200		168		1410																		
500		2200		168		1400		1																
30		1900		168		1410		1																
600		2280		168		1408		1				10 ft												
30		2040		168		1410		1				10 ft												
700		2780	24	163		1400		1				10 ft												
30		2606	24	165.5		1400		1				10 ft												
800		2800	24	163		1410		1				10 ft												
30 am		2820	24	163		1400		1				10 ft												

Notes:

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: VA01
Technician: [illegible] S. Van Gorder

Client: Tosco
Site: 5043
Date: 11-19-11-20

	Cumulative Wells and System Operation	Extraction Well # 1	Extraction Well # 2	Extraction Well # 3	Extraction Well # 4
Well ID:		MW6			
DTW (ft):					
Depth to FP (ft):					
Screen Int. (ft):					
Casing Diam. (in):					
DO (mg/L):					

Time ( )	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	Well # 1 Flow Rate (cfm)	Well # 1 HC Conc. (ppmv)	Well # 1 Vacuum (in. of Hg)	Well # 1 Stinger Depth (ft)	Well # 2 Flow Rate (cfm)	Well # 2 HC Conc. (ppmv)	Well # 2 Vacuum (in. of Hg)	Well # 2 Stinger Depth (ft)	Well # 3 Flow Rate (cfm)	Well # 3 HC Conc. (ppmv)	Well # 3 Vacuum (in. of Hg)	Well # 3 Stinger Depth (ft)	Well # 4 Flow Rate (cfm)	Well # 4 HC Conc. (ppmv)	Well # 4 Vacuum (in. of Hg)	Well # 4 Stinger Depth (ft)
9:00 pm		2720	24	163		1400		1				10												
30		2710	24	163		1410		1				10												
10:00		2730	24	163		1400		1				10												
30		2740	24	163		1400		1				10												
11:00		2730	24	163		1400		1				10												
30		2400	24	159		1400		1				10												
12:00 am		2630	24	163		1400		1				10												
30		2610	24	163		1410		1				10												
1:00		2570	24	167		1400		1				10												
30		2540	24	163		1400		1				10												
2:00		2270	24	163		1400		1				10												
30		2160	24	163		1410		1				10												
3:00		1660	24	163		1400		1				9												
30		1620	24	163		1400		1				8												
4:00		1620	24	163		1395		1				10												
30		1600	24	163		1400		1				10												
5:00		1500	24	163		1400		1				10												
30		1000	24	183		1410		1				10												
6:00		700	24	186		1400						10												
30		700	24	186		1400						10												
7:00		690	24	186		1410						10												
30		500	24	186		1400						10												
8:00		540	24	186		1400						10												
30		540	24	183		1410						10												
9:00 am		500	25	183		1410						9												

Notes:

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: UA01
Technician: CBriese / S. Van Gorder

Client: Bosco
Site: 5043
Date: 11-20-99

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID:									MW6				MW7											
DTW (ft):																								
Depth to FP (ft):																								
Screen Int. (ft):																								
Casing Diam. (in):																								
DO (mg/L):																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
930		490	25	183		1410		1				8 ft												
1000		470	25	183		1400						1												
1030		480	25	183		1405							200 cfm											
1100		480	25	183		1400		1 & 2					150	2400	24	3ft								
1130		480	25	183		1400		1 & 2					150	400	24	3ft								
1200 pm		400	25	183		1410						10ft												
100		400	25	183		1400																		
130		400	25	183		1400																		
200		400	25	183		1400						7ft												
90		380		180		1400																		
300		380		187		1410																		
330		400		187		1400																		
400		360		187																				
430		300		187								8ft												
500		300		187																				
530		280		187																				
600		300		187																				
630		300		187								10ft												
700		290	25	187																				
730		340	24	198		1400						10 ft												
800		440	24	200		1400						10 ft												
830		440	24	200		1410						10 ft												
900		420	24	205		1400						10 ft												
930		1000	24	203		1400						10 ft												
1000		1120	24	205		1405						12 ft												

Notes:

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: UA01
Technician: S. VAN GORDER / CBrewis

Client: Tosco
Site: 5043
Date: 11/20/99 - 11/21/99

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID:									MW 6															
DTW (ft):																								
Depth to FP (ft):																								
Screen Int. (ft):																								
Casing Diam. (in):																								
DO (mg/L):																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
10:30		1090	24	208		1400		1				10 FT.												
11:00		1110	24	216		1400		1				10 FT.												
11:30		1060	24	213		1416		1				10 FT												
✱ 12:00 AM		1040	24	218		1400		1				10 FT.												
12:30		1030	24	213		1410		1				10 FT.												
1:00		1070	24	216		1400		1				10 FT.												
1:30		1080	24	216		1400		1				10 FT.												
2:00		1110	24	216		1410		1				10 FT												
2:30		1110	24	216		1410		1				10 FT.												
3:00		680	24	205		1410		1				10												
3:30		640	24	209		1400		1				10												
4:00		440	24	216		1400		1				10												
4:30		400	24	221		1400		1				10												
5:00		400	24	228		1400		1				10												
5:30		350	24	221		1416		1				10												
6:00		360	24	228		1400		1				10												
6:30		330	24	223		1405		1				10												
7:00		380	24	235		1400		1				10												
7:30		350	24	235		1400		1																
8:00		340		238		1400		1																
8:30		320		238		1400		1																
9:00		300		238		1400		1																
9:30		450		241		1405		1																
10:00		460		260		1405		1																
10:30		390		260		1405		1																

Notes:

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: UA01
Technician: CB / SVC

Client: Tosco
Site: 5043
Date: 11-21 - 11-22

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID:	MW 6								MW-6															
DTW (ft):																								
Depth to FP (ft):																								
Screen Int. (ft):																								
Casing Diam. (in):																								
DO (mg/L):																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth
1100		590	24	258		1400		1				9 ft												
50		400		258																				
1200		300		258																				
30		310		258																				
100		300		258																				
30		290		258																				
200		350		258																				
30		350		258																				
300		300		258																				
30		310		258								10 ft												
400		310		237																				
30		280		238																				
500		280		251																				
30		290		251																				
600		300		251																				
30		310		251																				
700		300		251																				
30		300		251																				
800		230	24	207		1400						10 ft.												
30		360	24	289		1400						10 ft												
900		370	24	291		1400						12 ft												
30		400	24	318		1400						10 ft.												
1000		850	24	323		1400						10												
30		1050	24	315		1400						10												
1100		930	24	313		1400						10												

Notes:

6 of

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: UA01
Technician: SEAN VG / C.B.

Client: Tosco
Site: 5043
Date: 11/22

	Cumulative Wells and System Operation	Extraction Well # 1	Extraction Well # 2	Extraction Well # 3	Extraction Well # 4
Well ID:	MW6	MW6			
DTW (ft):					
Depth to FP (ft):					
Screen Int. (ft):					
Casing Diam. (in):					
DO (mg/L):					

Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
11:30		920	~~310~~	24		1410		1				10												
12:00 AM		940	~~275~~	24		1400		1				16												
12:30		930	~~258~~	24		1400		1																
1:00		930	~~259~~	24		1400		1																
1:30		930	~~240~~	24		1400		1																
2:00		980	~~240~~	24		1400		1																
2:30		970	~~241~~	24		1400		1																
3:00		940	↑	24		1400		1																
3:30		950	156	24		1400		1																
4:00		940		24		1410		1																
4:30		940		24		1410		1																
5:00		950		24		1400		1																
5:30		950	↓	24		1400		1																
6:00		940																						
6:30		940																						
7:00		940																						
7:30		940																						
8:00		1040	162	24		1400																		
8:30		1040	162	24																				
9:00		1020	162	24																				
9:30		1020	162	24																				
10:00		1020	162	24																				
10:30		1040	162	24																				
11:00		1020	162	24																				
11:30		1040	162	24																				

Notes:

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: UA01
Technician: Dan / Steve

Client: Todco
Site: 5043
Date: 11-22

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID:	MW6								MW6															
DTW (ft):																								
Depth to FP (ft):																								
Screen Int. (ft):																								
Casing Diam. (in):																								
DO (mg/L):																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
1200		1020	24	162	1	1400		1				10.4												
~~1230~~																								
100		1040	24	163		1400																		
~~130~~																								
200		1090	24	163		1410																		
~~230~~																								
300		1010	24	163		1400																		
~~330~~																								
400		1100	24	163		1400																		
~~430~~																								
500		890	24	163		1405																		
~~530~~																								
600		790	24	168		1400																		
~~630~~																								
700		740	24	156		1400																		
~~730~~																								
800		710	24	159		1400																		
~~830~~																								
900		660	24	166		1410																		
~~930~~																								
1000		640	24	166		1410																		
~~1030~~																								
1100		640	24	149		1400																		
~~1130~~																								
1200 pm		620	24	169		1400																		

Notes:

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: UA01
Technician: SEAN VG / COLIN B.

Client: TOSCO
Site: 5043
Date: 11/23/99

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID:	~~MW~~								MW6				MW 7											
DTW (ft):													from 3:00 - 4:00 AM											
Depth to FP (ft):																								
Screen Int. (ft):																								
Casing Diam. (in):																								
DO (mg/L):																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
1:00 AM		580	~~22~~	150		1460		1	150	580	~~22~~	10 ft												
2:00		625	22	146		1405		1	146	620	~~22~~	10 ft												
~~2:30~~													~~150~~	~~300~~	~~2~~	~~5 ft~~								
3:00		910	~~22~~	150		1400		2				10 ft.				10 ft.								
~~3:30~~		430	22	150		1400		2				10 ft.				10 ft.								
4:00		300	22	159		1405		2																
5:00		400	24	156		1410		1																
6:00		350	24	140		1400		1																
7:00		340	24	140		1400		1																
8:00		340	24	140		1400		1																
9:00		340	24	140		1400		1																
10:00		320	24	140		1405		1				10 ft												
11:00		340	~~340~~	140		1400		1																
12:00 PM		340	24	140		1400		1																
1:00		340	24	140		1400		1																

Notes:

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: UA01
Technician: Scott / C. Brew

Client: Tosco
Site: 504 3
Date: 11-23 11-24

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID:	MW 6								MW-6															
DTW (ft):																								
Depth to FP (ft):																								
Screen Int. (ft):																								
Casing Diam. (in):																								
DO (mg/L):																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
200pm		340	24	140		1400		1																
300pm		340	24	140				1																
400		340	24	140				1																
500		300	24	140				1																
600		290	24	138				1																
700		280	24	138		1400		1																
800		260	24	140				1																
900		260	24	140				1																
1000		260	24	140				1																
1100		260	24	140				1																
000		270	24	140		1400		1																
0100		280	24	140				1																
0200		290	24	150				1																
0300		270	24	140				1																
0400		260	24	140				1																
0500		280	24	140		1400		1																
0600		280	24	140				1																
0700		760	24	140				1																
0800		680	24	140		1400		1																
0900		680	24	140		1400		1																

Notes:

Dual-Phase Vacuum Extraction Field Sheet

Project No.: 41-0239-01
Task No.: VA01
Technician: Sean U. Collin B

3 monitoring 1 mon. 2 mon

Client: TOSCO
Site: 5043
Date: 11-19-98

	Cumulative Wells and System Operation								Extraction Well # 1				Extraction Well # 2				Extraction Well # 3				Extraction Well # 4			
Well ID:									MW7				MW3				MW 10							
DTW (ft):									2.10				2.5				3.85							
Depth to FP (ft):									2.9 sheen															
Screen Int. (ft):																								
Casing Diam. (in):																								
DO (mg/L):																								
Time	Total Well Flow Rate (cfm)	Total Well Inf. Conc. (ppmv)	Total Well Vacuum (in. of Hg)	System Flowrate (cfm)	System Inf. Conc (ppm)	System Temp (deg. F)	System Eff. Conc. (ppmv)	Extraction wells open:	mc Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	mc Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	inc Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow Rate (cfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Dep
8:30									0.0			3.4	0.0			2.3	0.0			3.7				
																				3.				
10:00									0.0			3ft	0			2.3	0			3.7				
12:00									0.0			3ft	0			2.3	0			3.7				
2:00									0.0			3.3	0			2.3	0			3.7				
4:00									0.0			3.5	0			2.3	0			3.7				
																2.0								
6:00												3.5	0			2.3	0			3.7				
																2.3								
9:00													0			2.3	0			3.7				
													0			2.3	0							
12:00													0			2.3	0			3.7				
3:00													0			2.25	0			3.8				
6:00																								

Notes:

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

7 December, 1999

Chris Smiga
Alton Geoscience - Concord
5052 Commercial Circle
Concord, CA 94510

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 19-Nov-99 17:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Fegley

Julianne Fegley
Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Chris Smiga	07-Dec-99 12:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6	W911523-01	Air	19-Nov-99 08:30	19-Nov-99 17:25

Julianne Fegley, Project Manager

Sequoia Analytical

404 N. Wiget Lane
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FAX (925) 988-9673

Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Chris Smiga	07-Dec-99 12:32

Total Purgeable Hydrocarbons (C6-C12) and BTEX in Air by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (W911523-01) Air	**Sampled: 19-Nov-99 08:30**	**Received: 19-Nov-99 17:25**							**P-02**
Purgeable Hydrocarbons	**1300**	2.4	ppmv	1	9K19011	20-Nov-99	20-Nov-99	DHS LUFT	
Benzene	**36**	0.016	"	"	"	"	"	"	
Toluene	**97**	0.013	"	"	"	"	"	"	
Ethylbenzene	**44**	0.012	"	"	"	"	"	"	
Xylenes (total)	**230**	0.012	"	"	"	"	"	"	
Methyl tert-butyl ether	**33**	0.69	"	"	"	"	"	"	

Julianne Fegley, Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Chris Smiga	07-Dec-99 12:33

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9K19011: Prepared 19-Nov-99 Using EPA 5030B [P/T]										
LCS (9K19011-BS1)										
Benzene	1.91	0.10	mg/m³ Air	2.00		95.5	70-130			
Toluene	1.87	0.10	"	2.00		93.5	70-130			
Ethylbenzene	1.89	0.10	"	2.00		94.5	70-130			
Xylenes (total)	5.86	0.10	"	6.00		97.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	*5.86*		"	*6.00*		*97.7*	*70-130*			
LCS Dup (9K19011-BSD1)										
Benzene	1.96	0.10	mg/m³ Air	2.00		98.0	70-130	2.58	20	
Toluene	1.91	0.10	"	2.00		95.5	70-130	2.12	20	
Ethylbenzene	1.89	0.10	"	2.00		94.5	70-130	0	20	
Xylenes (total)	5.88	0.10	"	6.00		98.0	70-130	0.341	20	
Surrogate: a,a,a-Trifluorotoluene	*6.08*		"	*6.00*		*101*	*70-130*			

Julianne Fegley, Project Manager

Sequoia Analytical

404 N. Wiget Lane
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FAX (925) 988-9673

Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Chris Smiga	07-Dec-99 12:32

Notes and Definitions

P-02	Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons <C6
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Julianne Fegley, Project Manager

Ship To: Atlon Geosciences
Attn: Chris Smyja

W91523

CHAIN OF CUSTODY RECORD

Boring/ Well No.	Sample No.	Depth	Date	Time	Sample Type: Water	Sample Type: Solid	Sample Type: Other	Comp.	Grab.	Sample Containers: Vol.	Sample Containers: No.	Sample Containers: Type	Sample Containers: Pres.	Analysis: TPH-G ✓	Analysis: BTEX ✓	Analysis: MTBE ✓	Remarks
MW-6	1	GW	11-9-99	1330 hrs			X		X		1			✓	✓	✓	BTA
																	TOSCO 5043
																	Standard T.A.T. ok per Chris Smyja 11/22/99

Total Number of Samples Shipped:

Shipper's Signature:

	Signature	Company	Date	Time
Relinquished by:	Collin Brain	Atlon Geosciences	11-19-99	2:15 pm
Received by:	Will K	Sig. Da	11-19-99	
Relinquished by:	Will K	Sig. Da	11-19-99	17:25
Received by:	(WC)	SCA-WC	11/19	17:25
Relinquished by:				
Received by:				

Special Instructions / Shipment / Handling/ Storage Requirements:

☐ TRC
21 Technology Drive
Irvine, California 92618

☐ TRC
5052 Commercial Circle
Concord, California 92618

The material(s) listed are received for analysis and/or treatability evaluation and remain the property of the client and not TRC Environmental Solutions, Inc. At the conclusion of the test work, all remaining material(s) will be returned to the client for eventual disposal at a licensed facility.

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

8 December, 1999

Tom Seeliger
Alton Geoscience - Concord
5052 Commercial Circle
Concord, CA 94510

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 22-Nov-99 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Fegley
Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	08-Dec-99 17:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW6 (11/20)	W911556-01	Air	20-Nov-99 08:30	22-Nov-99 16:00
MW6 (11/21)	W911556-02	Air	21-Nov-99 08:30	22-Nov-99 16:00
MW6 (11/22)	W911556-03	Air	22-Nov-99 08:30	22-Nov-99 16:00

Julianne Fegley, Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	08-Dec-99 17:07

Total Purgeable Hydrocarbons (C6-C12) and BTEX in Air by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW6 (11/20) (W911556-01) Air	**Sampled: 20-Nov-99 08:30**		**Received: 22-Nov-99 16:00**						**A-01,P-02**
Purgeable Hydrocarbons	**1000**	2.4	ppmv	1	9K19011	23-Nov-99	23-Nov-99	DHS LUFT	
Benzene	**12**	0.016	"	"	"	"	"	"	
Toluene	**75**	0.013	"	"	"	"	"	"	
Ethylbenzene	**25**	0.012	"	"	"	"	"	"	
Xylenes (total)	**150**	0.012	"	"	"	"	"	"	
Methyl tert-butyl ether	**20**	1.4	"	"	"	"	"	"	
MW6 (11/21) (W911556-02) Air	**Sampled: 21-Nov-99 08:30**		**Received: 22-Nov-99 16:00**						**P-02**
Purgeable Hydrocarbons	**1100**	2.4	ppmv	1	9K19011	23-Nov-99	23-Nov-99	DHS LUFT	
Benzene	**11**	0.016	"	"	"	"	"	"	
Toluene	**60**	0.013	"	"	"	"	"	"	
Ethylbenzene	**20**	0.012	"	"	"	"	"	"	
Xylenes (total)	**120**	0.012	"	"	"	"	"	"	
Methyl tert-butyl ether	**7.6**	1.4	"	"	"	"	"	"	
MW6 (11/22) (W911556-03) Air	**Sampled: 22-Nov-99 08:30**		**Received: 22-Nov-99 16:00**						**P-02**
Purgeable Hydrocarbons	**160**	2.4	ppmv	1	9K19011	23-Nov-99	23-Nov-99	DHS LUFT	
Benzene	**2.2**	0.016	"	"	"	"	"	"	
Toluene	**7.7**	0.013	"	"	"	"	"	"	
Ethylbenzene	**1.7**	0.012	"	"	"	"	"	"	
Xylenes (total)	**11**	0.012	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	6.9	"	"	"	"	"	"	

Julianne Fegley, Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	08-Dec-99 17:10

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9K19011: Prepared 19-Nov-99 Using EPA 5030B [P/T]										
LCS (9K19011-BS1)										
Benzene	1.91	0.10	mg/m³ Air	2.00		95.5	70-130			
Toluene	1.87	0.10	"	2.00		93.5	70-130			
Ethylbenzene	1.89	0.10	"	2.00		94.5	70-130			
Xylenes (total)	5.86	0.10	"	6.00		97.7	70-130			
Surrogate: α,α,α-Trifluorotoluene	*5.86*		"	*6.00*		*97.7*	*70-130*			
LCS Dup (9K19011-BSD1)										
Benzene	1.96	0.10	mg/m³ Air	2.00		98.0	70-130	2.58	20	
Toluene	1.91	0.10	"	2.00		95.5	70-130	2.12	20	
Ethylbenzene	1.89	0.10	"	2.00		94.5	70-130	0	20	
Xylenes (total)	5.88	0.10	"	6.00		98.0	70-130	0.341	20	
Surrogate: α,α,α-Trifluorotoluene	*6.08*		"	*6.00*		*101*	*70-130*			

Julianne Fegley, Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	08-Dec-99 17:07

Notes and Definitions

A-01	The Hold Time violation is the difference between 72 HR and 3 days ok per Alan
P-02	Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons <C6
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Julianne Fegley, Project Manager

Ship To: [illegible]

Attn: [illegible]

W911556

Tosco 5043

CHAIN OF CUSTODY RECORD

Boring/ Well No.	Sample No.	Depth	Date	Time	Sample Type: Water	Solid	Other	Comp.	Grab.	Sample Containers: Vol.	No.	Type	Pres.	Analysis: TPH-G	BTEX	MTBE					Remarks
MW6	1		11-20	830am			X		✓					✓	✓	✓					-01
MW6	2		11-21	830am			X		✓					✓	✓	✓					-02
MW6	3		11-22	830am			X		✓					✓	✓	✓					-03

Total Number of Samples Shipped: 3 Shipper's Signature:

	Signature	Company	Date	Time
Relinquished by:	[illegible]	Alton Geoscience	11-22-99	
Received by:	[illegible]	Sequoia Analytical	11-22-99	11:25
Relinquished by:	[illegible]	Sequoia Analytical	11-22-99	16:00
Received by:	[illegible]	Seq-WC	11/22	16:00
Relinquished by:				
Received by:				

Special Instructions / Shipment / Handling/ Storage Requirements:

The material(s) listed are received for analysis and/or treatability evaluation and remain the property of the client and not TRC Environmental Solutions, Inc. At the conclusion of the test work, all remaining material(s) will be returned to the client for eventual disposal at a licensed facility.

☐ TRC
21 Technology Drive
Irvine, California 92618

☐ TRC
5052 Commercial Circle
Concord, California 92618

Sequoia
Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

10 December, 1999

Tom Seeliger
Alton Geoscience - Concord
5052 Commercial Circle
Concord, CA 94510

RE: No Project

Enclosed are the results of analyses for samples received by the laboratory on 23-Nov-99 17:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Fegley
Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

Alton Geoscience - Concord	Project: No Project	
5052 Commercial Circle	Project Number: Tosco 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	10-Dec-99 09:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6	W911597-01	Air	23-Nov-99 08:30	23-Nov-99 17:35

Julianne Fegley, Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

Alton Geoscience - Concord	Project: No Project	
5052 Commercial Circle	Project Number: Tosco 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	10-Dec-99 09:04

Total Purgeable Hydrocarbons (C6-C12) and BTEX in Air by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (W911597-01) Air	**Sampled: 23-Nov-99 08:30**	**Received: 23-Nov-99 17:35**							**P-02**
Purgeable Hydrocarbons	**180**	2.4	ppmv	1	9K19011	24-Nov-99	24-Nov-99	DHS LUFT	
Benzene	**3.0**	0.016	"	"	"	"	"	"	
Toluene	**12**	0.013	"	"	"	"	"	"	
Ethylbenzene	**3.2**	0.012	"	"	"	"	"	"	
Xylenes (total)	**19**	0.012	"	"	"	"	"	"	
Methyl tert-butyl ether	**3.0**	1.4	"	"	"	"	"	"	

Julianne Fegley, Project Manager

Sequoia Analytical

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Alton Geoscience - Concord	Project: No Project	
5052 Commercial Circle	Project Number: Tosco 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	10-Dec-99 09:05

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9K19011: Prepared 19-Nov-99 Using EPA 5030B [P/T]										
LCS (9K19011-BS1)										
Benzene	1.91	0.10	mg/m³ Air	2.00		95.5	70-130			
Toluene	1.87	0.10	"	2.00		93.5	70-130			
Ethylbenzene	1.89	0.10	"	2.00		94.5	70-130			
Xylenes (total)	5.86	0.10	"	6.00		97.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	*5.86*		"	*6.00*		*97.7*	*70-130*			
LCS Dup (9K19011-BSD1)										
Benzene	1.96	0.10	mg/m³ Air	2.00		98.0	70-130	2.58	20	
Toluene	1.91	0.10	"	2.00		95.5	70-130	2.12	20	
Ethylbenzene	1.89	0.10	"	2.00		94.5	70-130	0	20	
Xylenes (total)	5.88	0.10	"	6.00		98.0	70-130	0.341	20	
Surrogate: a,a,a-Trifluorotoluene	*6.08*		"	*6.00*		*101*	*70-130*			

Juliannne Fegley, Project Manager

Sequoia Analytical

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Alton Geoscience - Concord	Project: No Project	
5052 Commercial Circle	Project Number: Tosco 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	10-Dec-99 09:04

Notes and Definitions

P-02	Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons <C6
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Julianne Fegley, Project Manager

CHAIN OF CUSTODY RECORD

Ship To: Alton Geoscience
Attn: Tom Seelye

W911597

Boring/ Well No.	Sample No.	Depth	Date	Time	Sample Type: Water	Sample Type: Solid	Sample Type: Other	Comp.	Grab.	Sample Containers: Vol.	Sample Containers: No.	Sample Containers: Type	Sample Containers: Pres.	Analysis: TPH-G	Analysis: BTEX	Analysis: MTBE	Remarks
MW-6	1		11-23-99	830AM			V		V					V	V		O/A

Total Number of Samples Shipped: 1 Shipper's Signature:

	Signature	Company	Date	Time
Relinquished by:	Collin Brian	Alton Geoscience	11-23-99	
Received by:	[illegible]	Seq Anc	11-23-99	16:25
Relinquished by:	[illegible]	Seq Anc	11-23-99	17:35
Received by:	[illegible]	SGAR WC	11/23	17:35
Relinquished by:				
Received by:				

Special Instructions / Shipment / Handling/ Storage Requirements:

The material(s) listed are received for analysis and/or treatability evaluation and remain the property of the client and not TRC Environmental Solutions, Inc. At the conclusion of the test work, all remaining material(s) will be returned to the client for eventual disposal at a licensed facility.

☐ TRC
21 Technology Drive
Irvine, California 92618

☐ TRC
5052 Commercial Circle
Concord, California 92618

Sequoia
Analytical

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Tom Seeliger
Alton Geoscience - Concord
5052 Commercial Circle
Concord, CA 94510

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 24-Nov-99 12:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Fegley
Project Manager

Sequoia Analytical

404 N. Wiget Lane
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Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	27-Dec-99 12:22

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6	W911615-01	Water	24-Nov-99 08:30	24-Nov-99 12:05
MW-6	W911615-02	Air	24-Nov-99 08:00	24-Nov-99 12:05

JuLianne Fegley, Project Manager

Sequoia Analytical

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Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	27-Dec-99 12:22

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (W911615-01) Water Sampled: 24-Nov-99 08:30 Received: 24-Nov-99 12:05									**P-01**
Purgeable Hydrocarbons	**6500000**	500000	ug/l	10000	9K30001	30-Nov-99	30-Nov-99	EPA	
Benzene	**9500**	5000	"	"	"	"	"	8015M/8020	
Toluene	**47000**	5000	"	"	"	"	"	"	
Ethylbenzene	**29000**	5000	"	"	"	"	"	"	
Xylenes (total)	**310000**	5000	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	25000	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*103 %*	*70-130*		"	"	"	"	
MW-6 (W911615-02) Air Sampled: 24-Nov-99 08:00 Received: 24-Nov-99 12:05									**P-02**
Purgeable Hydrocarbons	**1200**	50	mg/m³ Air	1	9K19011	24-Nov-99	24-Nov-99	DHS LUFT	
Benzene	**13**	0.50	"	"	"	"	"	"	
Toluene	**61**	0.50	"	"	"	"	"	"	
Ethylbenzene	**20**	0.50	"	"	"	"	"	"	
Xylenes (total)	**140**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**13**	5.0	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*717 %*	*70-130*		"	"	"	"	*S-04*

Julianne Fegley, Project Manager

Sequoia Analytical

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Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	27-Dec-99 12:22

Total Purgeable Hydrocarbons (C6-C12) and BTEX in Air by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (W911615-02) Air	**Sampled: 24-Nov-99 08:00**	**Received: 24-Nov-99 12:05**							**P-02**
Purgeable Hydrocarbons	**300**	2.4	ppmv	1	9K19011	24-Nov-99	24-Nov-99	DHS LUFT	
Benzene	**4.1**	0.016	"	"	"	"	"	"	
Toluene	**16**	0.013	"	"	"	"	"	"	
Ethylbenzene	**4.7**	0.012	"	"	"	"	"	"	
Xylenes (total)	**32**	0.012	"	"	"	"	"	"	
Methyl tert-butyl ether	**3.5**	0.69	"	"	"	"	"	"	

Julianne Fegley, Project Manager

Sequoia Analytical

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Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	27-Dec-99 12:22

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9K19011: Prepared 19-Nov-99 Using EPA 5030B [P/T]										
Blank (9K19011-BLK1)										
Purgeable Hydrocarbons	ND	10	mg/m³ Air							
Benzene	ND	0.10	"							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
Xylenes (total)	ND	0.10	"							
Methyl tert-butyl ether	ND	0.50	"							
Surrogate: a,a,a-Trifluorotoluene	*5.76*		"	*6.00*		*96.0*	*70-130*			
Blank (9K19011-BLK2)										
Purgeable Hydrocarbons	ND	10	mg/m³ Air							
Benzene	ND	0.10	"							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
Xylenes (total)	ND	0.10	"							
Methyl tert-butyl ether	ND	0.50	"							
Surrogate: a,a,a-Trifluorotoluene	*5.80*		"	*6.00*		*96.7*	*70-130*			
Blank (9K19011-BLK3)										
Purgeable Hydrocarbons	ND	10	mg/m³ Air							
Benzene	ND	0.10	"							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
Xylenes (total)	ND	0.10	"							
Methyl tert-butyl ether	ND	1.0	"							
Surrogate: a,a,a-Trifluorotoluene	*5.72*		"	*6.00*		*95.3*	*70-130*			
Blank (9K19011-BLK4)										
Purgeable Hydrocarbons	ND	10	mg/m³ Air							
Benzene	ND	0.10	"							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
Xylenes (total)	ND	0.10	"							

Julianne Fegley, Project Manager

Sequoia Analytical

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Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	27-Dec-99 12:22

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9K19011: Prepared 24-Nov-99 Using EPA 5030B [P/T]										
Blank (9K19011-BLK4)										
Methyl tert-butyl ether	ND	1.0	mg/m³ Air							
Surrogate: a,a,a-Trifluorotoluene	*5.36*		"	*6.00*		*89.3*	*70-130*			
LCS (9K19011-BS1)										
Benzene	1.91	0.10	mg/m³ Air	2.00		95.5	70-130			
Toluene	1.87	0.10	"	2.00		93.5	70-130			
Ethylbenzene	1.89	0.10	"	2.00		94.5	70-130			
Xylenes (total)	5.86	0.10	"	6.00		97.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	*5.86*		"	*6.00*		*97.7*	*70-130*			
LCS (9K19011-BS2)										
Benzene	4.32	0.10	mg/m³ Air	4.00		108	70-130			
Toluene	4.38	0.10	"	4.00		110	70-130			
Ethylbenzene	4.52	0.10	"	4.00		113	70-130			
Xylenes (total)	13.7	0.10	"	12.0		114	70-130			
Surrogate: a,a,a-Trifluorotoluene	*6.28*		"	*6.00*		*105*	*70-130*			
LCS (9K19011-BS3)										
Benzene	4.00	0.10	mg/m³ Air	4.00		100	70-130			
Toluene	4.00	0.10	"	4.00		100	70-130			
Ethylbenzene	3.88	0.10	"	4.00		97.0	70-130			
Xylenes (total)	12.0	0.10	"	12.0		100	70-130			
Surrogate: a,a,a-Trifluorotoluene	*6.22*		"	*6.00*		*104*	*70-130*			
LCS (9K19011-BS4)										
Benzene	4.24	0.10	mg/m³ Air	4.00		106	70-130			
Toluene	4.24	0.10	"	4.00		106	70-130			
Ethylbenzene	4.16	0.10	"	4.00		104	70-130			
Xylenes (total)	12.8	0.10	"	12.0		107	70-130			
Surrogate: a,a,a-Trifluorotoluene	*6.14*		"	*6.00*		*102*	*70-130*			

Julianne Fegley, Project Manager

Sequoia Analytical

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Walnut Creek, CA 94598
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Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	27-Dec-99 12:22

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9K19011: Prepared 19-Nov-99 Using EPA 5030B [P/T]										
LCS Dup (9K19011-BSD1)										
Benzene	1.96	0.10	mg/m³ Air	2.00		98.0	70-130	2.58	20	
Toluene	1.91	0.10	"	2.00		95.5	70-130	2.12	20	
Ethylbenzene	1.89	0.10	"	2.00		94.5	70-130	0	20	
Xylenes (total)	5.88	0.10	"	6.00		98.0	70-130	0.341	20	
Surrogate: a,a,a-Trifluorotoluene	*6.08*		*"*	*6.00*		*101*	*70-130*			
Batch 9K30001: Prepared 30-Nov-99 Using EPA 5030B [P/T]										
Blank (9K30001-BLK1)										
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*31.3*		*"*	*30.0*		*104*	*70-130*			
LCS (9K30001-BS1)										
Benzene	20.0	0.50	ug/l	20.0		100	70-130			
Toluene	20.1	0.50	"	20.0		101	70-130			
Ethylbenzene	19.9	0.50	"	20.0		99.5	70-130			
Xylenes (total)	62.0	0.50	"	60.0		103	70-130			
Surrogate: a,a,a-Trifluorotoluene	*30.4*		*"*	*30.0*		*101*	*70-130*			
Matrix Spike (9K30001-MS1)					**Source: W911614-08**					
Benzene	19.6	0.50	ug/l	20.0	ND	98.0	70-130			
Toluene	20.0	0.50	"	20.0	ND	100	70-130			
Ethylbenzene	17.7	0.50	"	20.0	ND	88.5	70-130			
Xylenes (total)	61.2	0.50	"	60.0	ND	102	70-130			
Surrogate: a,a,a-Trifluorotoluene	*29.6*		*"*	*30.0*		*98.7*	*70-130*			

Julianne Fegley, Project Manager

Sequoia Analytical

404 N. Wiget Lane
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FAX (925) 988-9673

Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	27-Dec-99 12:22

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9K30001: Prepared 30-Nov-99 Using EPA 5030B [P/T]										
Matrix Spike Dup (9K30001-MSD1)					**Source: W911614-08**					
Benzene	19.7	0.50	ug/l	20.0	ND	98.5	70-130	0.509	20	
Toluene	20.1	0.50	"	20.0	ND	101	70-130	0.499	20	
Ethylbenzene	20.3	0.50	"	20.0	ND	101	70-130	13.7	20	
Xylenes (total)	62.3	0.50	"	60.0	ND	104	70-130	1.78	20	
Surrogate: a,a,a-Trifluorotoluene	*30.6*		*"*	*30.0*		*102*	*70-130*			

Julianne Fegley, Project Manager

Sequoia Analytical

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Alton Geoscience - Concord	Project: Tosco	
5052 Commercial Circle	Project Number: Tosco # 5043	**Reported:**
Concord CA, 94510	Project Manager: Tom Seeliger	27-Dec-99 12:22

Notes and Definitions

P-01	Chromatogram Pattern: Gasoline C6-C12
P-02	Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons <C6
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Juliante Fegley, Project Manager

TOSCO

☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9000 FAX (916) 921-0100
☒ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673
☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342
☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

Consultant Company: IRC (Alton Geoscience)	Project Name: Tosco Service Station No. 5043
Address: 5052 Commercial Circle	TOSCO Engineer (required) Dave DeLuitt
City: Concord State: CA Zip Code: 94520	
Telephone: 925-688-1200 FAX #: 925-688-0388	Site #, City, State: 5043, Oakland, CA
Report To: Tom Seliger Sampler: Collin Briese	QC Data: ☒ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Work Days ☐ 5 Work Days ☐ 3 Work Days ☐ 2 Work Days ☐ 1Work Day ☐ 2-8 Hours

CODE: ☐ Misc. ☐ Detect. ☐ Eval. ☒ Remed. ☐ Demol. ☐ Closure

☐ Drinking Water ☐ Waste Water ☒ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH (EPA 8015 Mod. Gas)	BTEX (EPA 8020)	MTBE (EPA 8020)	TPH (EPA 8015 Mod. Diesel)	Volatile Organics (EPA 8260)	MTBE Confirmation (EPA 8260)				Comments
1. MW-6	11-24-99/830AM	H2O	4	VOA	-01	X	X	X							
2. MW-6	11-24-99/810AM	Air	1	Tedlar	-02	X	X	X							
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															

Relinquished By:	Date: 11-24-99	Time: 1205PM 1000AM	Received By:	Date: 11/30	Time: 12:05
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment_____ Page ___ of ___

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported? ☐ Yes ☐ No If no, what analyses are still needed? _____

2) Was the report issued within the requested turnaround time? ☐ Yes ☐ No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client Yellow - Sequoia White - Sequoia

RECEIVED 00 NOV 21 PM 3:59