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Shaw™ Shaw Environmental, Inc.

4005 Port Chicago Hwy
Concord, California 94520

Approved by
JUL 16 2005
Environmental Health

May 27, 2005

Mr. Don Hwang
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Re: **Dual-Phase Extraction Report
76 Service Station #0746
3943 Broadway
Oakland, CA**

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please call me at (916) 558-7609.

Sincerely,

Shelby Suzanne Lathrop
Project Manager
Shaw Environmental, Inc.
Approved service provider of ConocoPhillips -Risk Management & Remediation
Cell: 707-592-1146

Client Contact Information:
ConocoPhillips
76 Broadway
Sacramento, California 95818
Client office: 916-558-7609
Client fax: 916-558-7639

Attachment
cc: Liz Sewell, ConocoPhillips



May 24, 2005

TRC Project No. 42-0163-03

Mr. Don Hwang
Alameda County Health Services
1131 Harbor Bay Parkway, Suite 250
Oakland, California 94502

SITE: 76 SERVICE STATION NO. 0746
3943 BROADWAY
OAKLAND, CALIFORNIA
ALAMEDA COUNTY

SUBJECT: DUAL-PHASE EXTRACTION REPORT

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC submits this report of dual-phase extraction (DPE) activities for ConocoPhillips Station No. 0746, located at 3943 Broadway in Oakland, California. This action was performed in accordance with the work plan submitted by TRC on September 23, 2004. The work was conducted on April 5-8, 2005, and consisted of 68 continuous hours of DPE.

1.0 FIELD ACTIVITIES

1.1 Scope of Work

A 68-hour DPE event was performed on April 5-8, 2005. The DPE event was implemented to attempt to remove residual vapor-phase, adsorbed-phase and dissolved-phase hydrocarbons remaining in site soils. The event was originally scheduled to last 72-hours, but was terminated 4 hours prior to scheduled shut-down time do to limited space for extracted groundwater.

1.2 Pre-Field Activities

A notification letter dated March 30, 2005 was sent to the Bay Area Quality Management District (BAAQMD). A site-specific health and safety plan was prepared for TRC personnel.

1.3 Procedures

TRC used a mobile treatment system (MTS) to extract hydrocarbon vapors from wells RW-1, MW-3, and MW-5. Liquid- and vapor-phase hydrocarbons were removed from the extraction wells and separated at the MTS. The liquids were automatically transferred into an aboveground storage

Dual-Phase Extraction Report

76 Service Station No. 0746

May 24, 2005

tank and the hydrocarbon vapors were abated using a catalytic/thermal oxidizer. The exclusion zone was constructed with consideration of the station refueling activities. As a result, refueling activities continued without interruption during the DPE event.

The extraction wells were fitted with a custom wellhead seal and connected with flexible hose to convey soil vapors to the MTS unit. The MTS consists of a truck-mounted high vacuum (28 inches of Hg) liquid ring pump and thermal oxidizer, moisture knockout tank, air particulate filters, and all necessary piping and gauges. Abated soil vapors were discharged to the atmosphere.

A TRC operator was onsite throughout the course of the event to record system airflow rates [cubic feet per minute (cfm)], applied vacuum in the conveyance piping [inches of mercury (inches Hg)], and influent soil vapor screening data [parts per million by volume (ppmv)]. A Horiba™ organic vapor analyzer (OVA) was used to screen influent soil vapor concentrations.

Three influent soil vapor samples were collected in Tedlar™ bags and submitted to a certified analytical laboratory under chain-of-custody documentation. Samples were analyzed for the presence of total petroleum hydrocarbons calculated as gasoline (TPH-g), benzene, toluene, ethyl benzene, and total xylenes (BTEX compounds), methyl tertiary butyl ether (MTBE), and ethanol using Environmental Protection Agency (EPA) Method 8260B.

1.4 Results

During the event, the MTS unit operated continuously for a total of 68 hours. In order to maximize vapor-phase hydrocarbon recovery during the event, vapor extraction was focused on the most productive well (MW-3) when combined influent concentrations had dropped to asymptotic levels. The resulting short-term spike in influent concentration can be seen on Figure 3.

Refer to Table 1 for tabulated MTS data, and Appendix A for field data sheets. The average flow rate was 32 cfm and average applied vacuum was 20 inches Hg. OVA screening for influent concentrations of total petroleum hydrocarbons was performed during the event. Total petroleum hydrocarbon concentrations were measured with the OVA at the beginning and conclusion of the event at 6,750 ppmv and 500 ppmv, respectively. Total estimated hydrocarbon mass removal and hydrocarbon concentration are plotted versus time in Figure 3.

Laboratory analytical results are presented in Table 2, *Summary Sheet*. All certified analytical reports and chain-of-custody documentation are presented in Appendix B. Vapor-phase TPH-g concentrations ranged from 5,600 ppmv to 1,100 ppmv. Benzene concentrations ranged from 22 ppmv to 3.9 ppmv. MTBE concentrations range from 5.3 ppmv to 2.9 ppmv. Laboratory analytical TPH-g and benzene concentrations are plotted versus time in Figure 4. Vapor-phase TPH and benzene concentrations decreased during the event. Influent soil vapor concentration data (measured every 30 minutes throughout the course of the event) was used to calculate mass

Dual-Phase Extraction Report

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removed during the DPE event. Table 1 presents the results. Approximately 39 pounds of hydrocarbons were removed from the extraction wells in 68 hours of continuous operation. A total of 6,500 gallons of groundwater were removed from the subsurface.

1.5 Waste Disposal

Groundwater generated during the course of DPE activities was transported by Onyx Environmental to the ConocoPhillips refinery in Rodeo, California, for treatment and disposal. A copy of the waste manifest is included in Appendix C.

2.0 EVALUATION OF FINDINGS

This event was successful at removing a substantial amount of vapor-phase petroleum hydrocarbons from the subsurface in a relatively short time period. Influent vapor concentrations decreased over the course of the event and appeared to reach asymptotic levels.

The influent concentrations and mass removal rates indicate that further short-term DPE treatment may be an effective means of reducing source material in the vicinity of RW-1, MW-3, and MW-5.

Hydrocarbon concentrations in groundwater were lower after the MTS event for two of the wells (RW-1 and MW-5). MW-3 exhibited an increase in dissolved-phase hydrocarbon concentration. The increase could be due to hydraulic influence attracting nearby groundwater of greater hydrocarbon impact than that typically encountered at MW-3. These results do not contraindicate the potential success of DPE as a viable technology for reducing groundwater concentrations at the site, and a longer DPE event (three to five days) may result in declining influent concentrations.

3.0 RECOMMENDATIONS

Given the localized area of hydrocarbon-impacted soil (in the vicinity of MW-3, MW-5, and RW-1) and the results of the short-term DPE event, TRC recommends that DPE be considered as a viable potential remediation technique for the site. Short-term MTS treatment is proposed as more cost-effective than installation of a dedicated DPE remediation system, provided the number of short-term treatment events is relatively limited.

TRC recommends evaluation of dissolved gasoline trends over the next 3 – 6 months for any longer-term effects related to this event. Remediation alternatives for the site, including a possible additional long-term DPE event of three to five days, will in the interim be discussed with the lead regulatory agency, and a plan towards site closure will be developed by the fourth quarter of 2005.

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May 24, 2005

4.0 LIST OF ATTACHMENTS

Figures: 1) Vicinity Map
 2) Site Plan
 3) System Concentration and Hydrocarbon Recovery Versus Time
 4) Vapor-Phase TPH and Benzene Concentrations Versus Time

Tables: 1) Mobile Treatment System Vacuum Extraction Data
 2) Mobile Treatment System - Summary Sheet

Appendices: A) MTS Field Sheets
 B) Laboratory Analytical Reports
 C) Waste Manifest

Should you have any questions regarding this report, please contact us at (925) 688-1200.

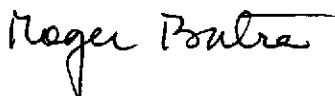
Sincerely,
TRC



Mark Trevor
Project Geologist

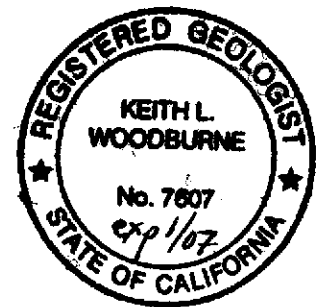


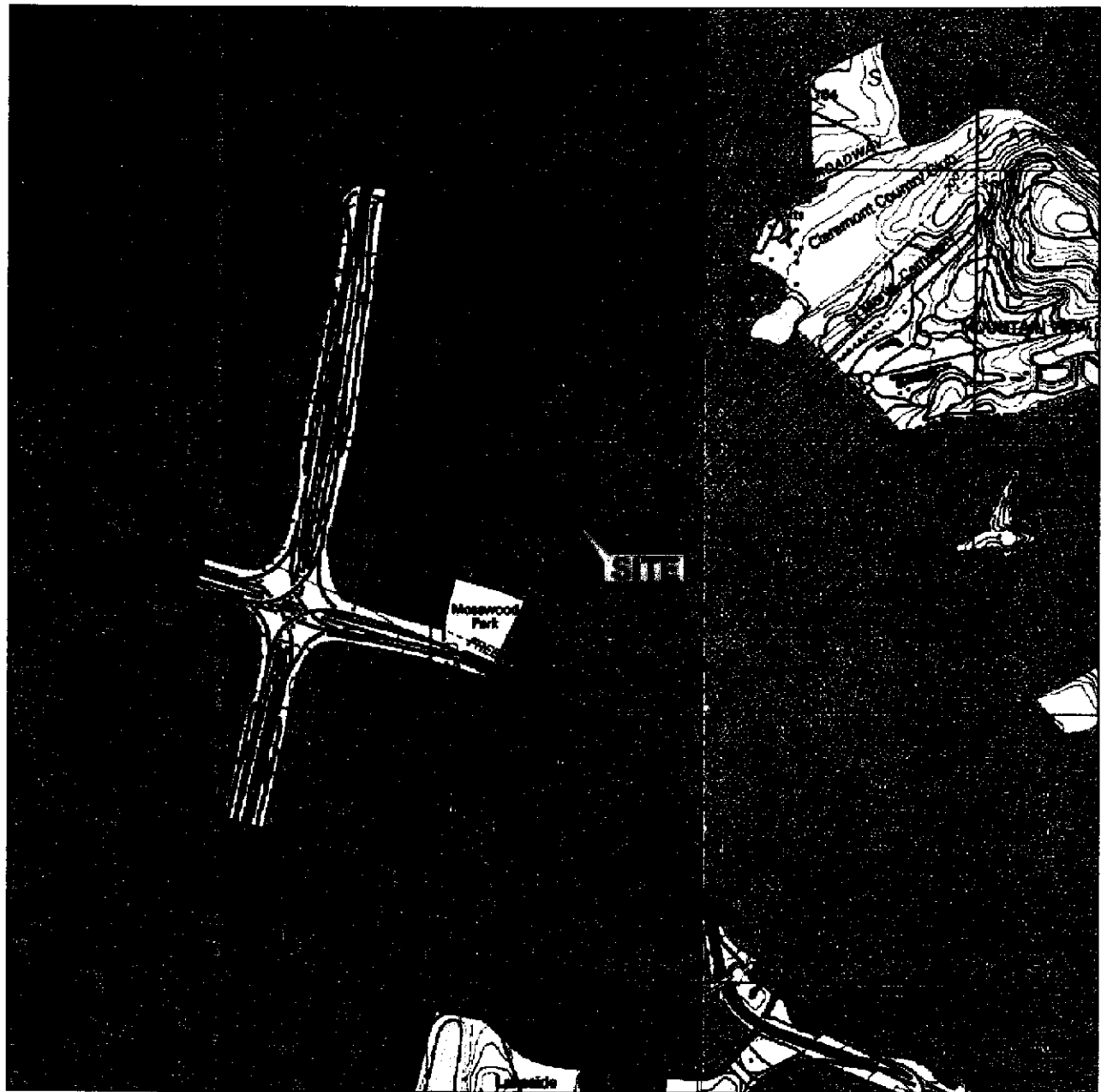
Keith Woodburne, R.G.
Senior Project Geologist



Roger Batra
Senior Project Manager

cc: Shelby Lathrop, ConocoPhillips (electronic upload)





1 MILE 3/4 1/2 1/4 0 1 MILE



SCALE 1 : 24,000



SOURCE:

United States Geological Survey
7.5 Minute Topographic Maps:
Oakland East and Oakland West
Quadrangles, California



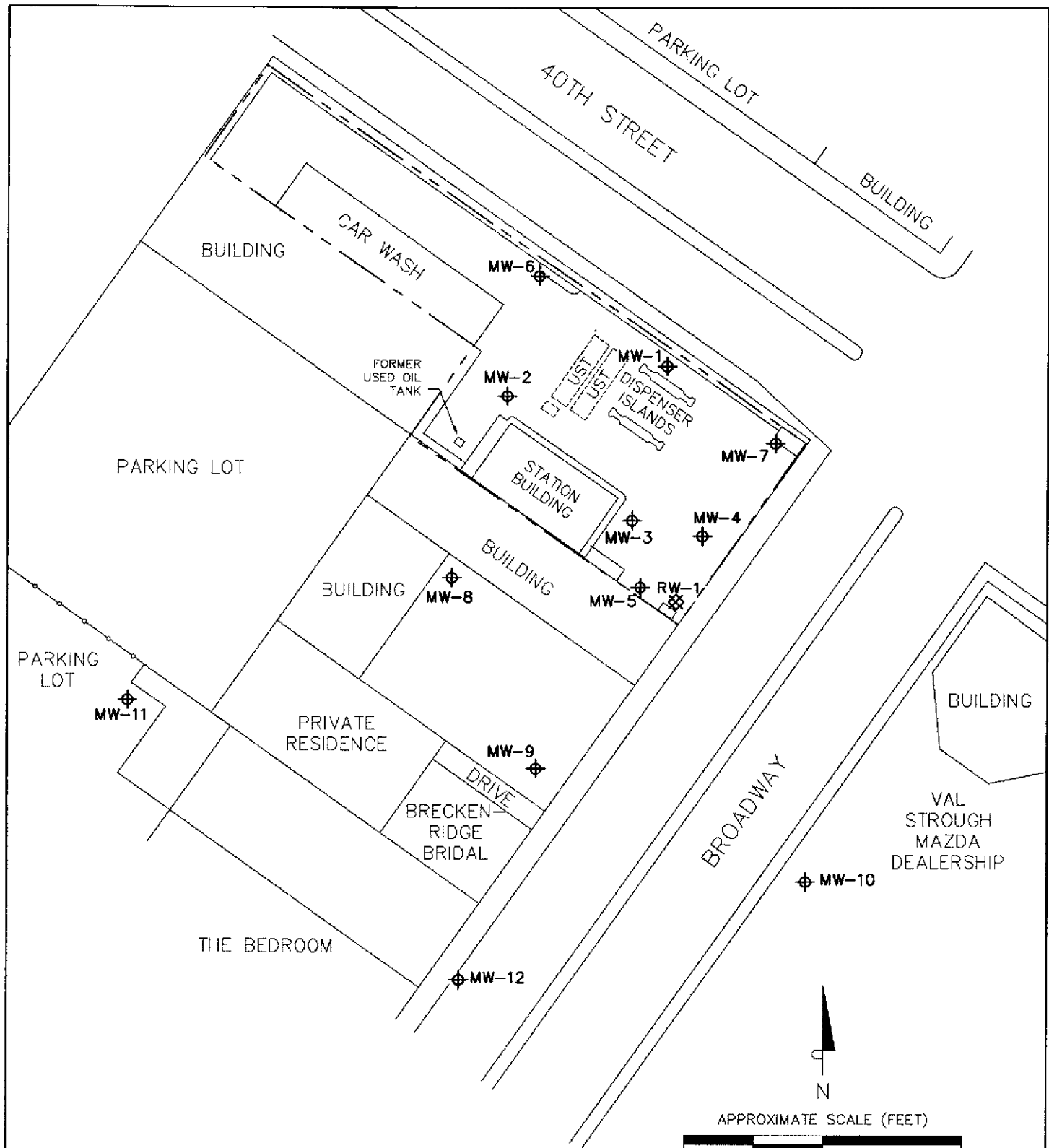
QUADRANGLE
LOCATIONS

VICINITY MAP

76 Service Station #0746
3943 Broadway
Oakland, California

TRC

FIGURE 1



LEGEND	
	Property boundary
	Fence
	MW-12 Groundwater monitoring well
	RW-1 Groundwater recovery well

SITE PLAN
 76 Service Station #0746
 3943 Broadway
 Oakland, California

SOURCE: Site plan by Gettler-Ryan, May 2000; revised per client-provided as-built drawing, February 2004.

SYSTEM CONCENTRATION AND HYDROCARBON RECOVERY VERSUS TIME

ConocoPhillips 0746
3943 Broadway, Oakland CA
April 5-8, 2005

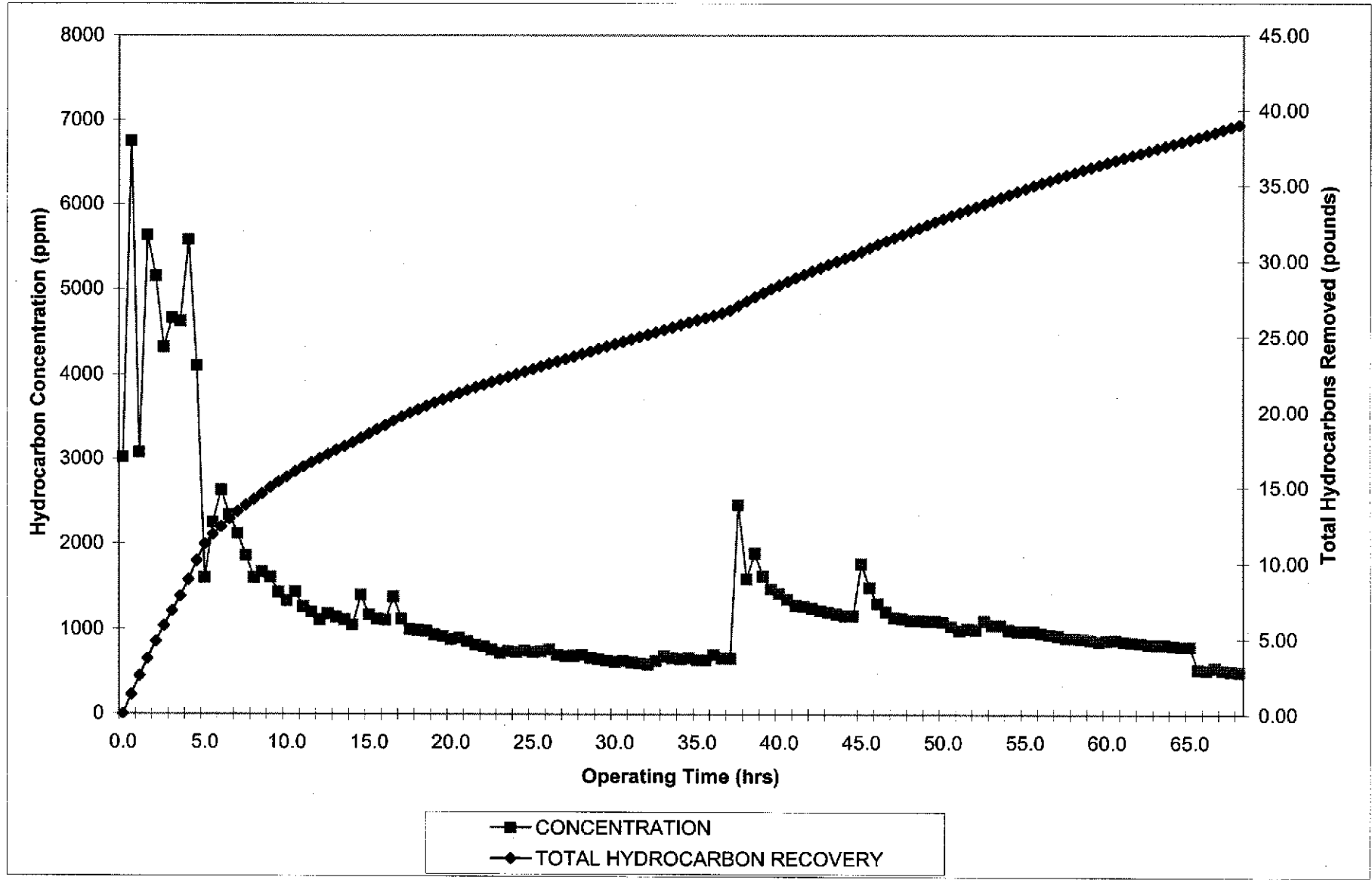


FIGURE 3

Vapor - Phase TPH and Benzene Concentrations Versus Time

ConocoPhillips 0746
3943 Broadway, Oakland, CA
April 5-8, 2005

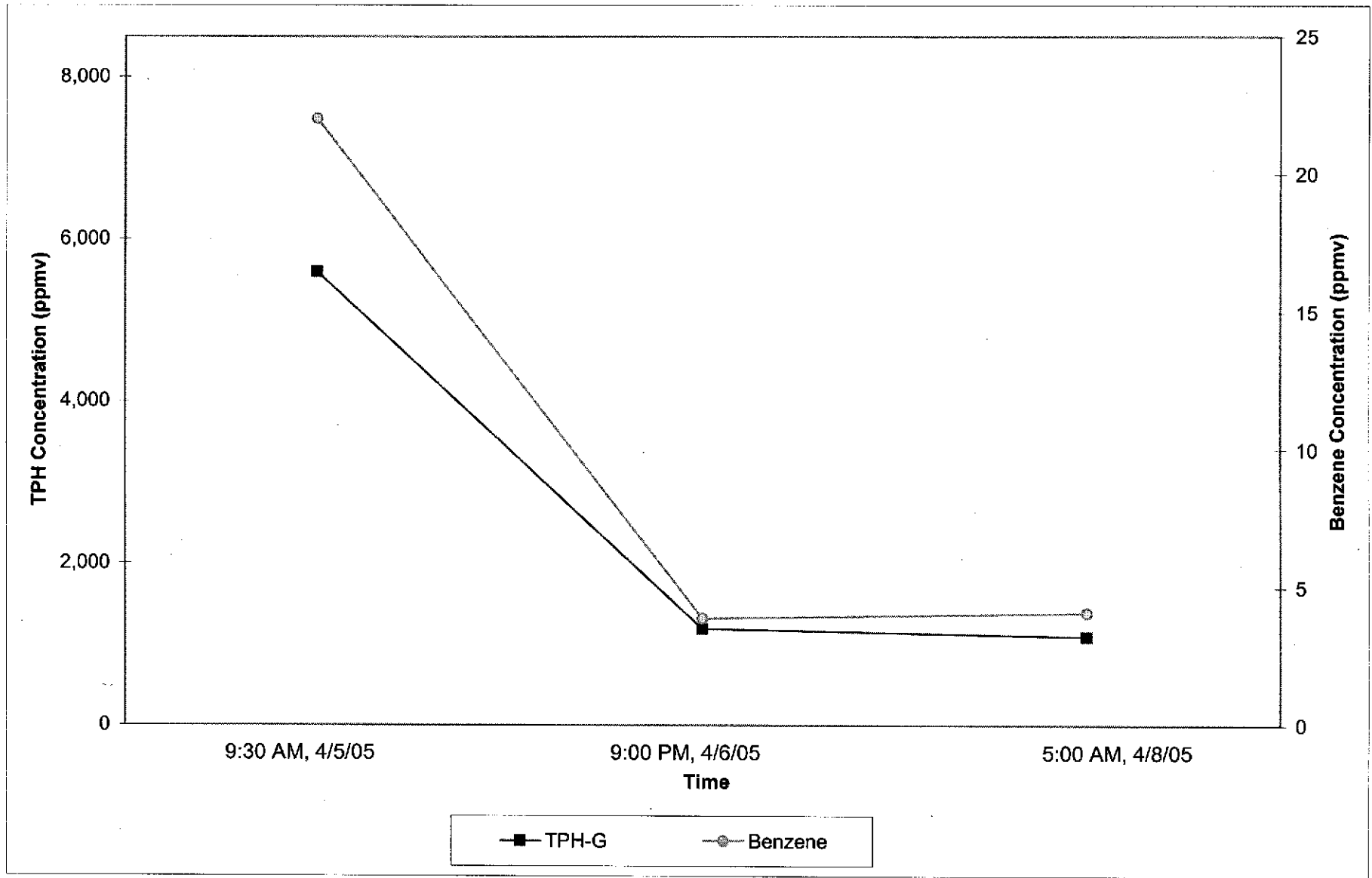


FIGURE 4

Table 1
MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA
ConocoPhillips 0746
 3943 Broadway, Oakland CA
 April 5-8, 2005

DATE	TIME	ELAPSED TIME (MINUTES)	TOTAL TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					EXTRACTION WELL OPEN
				INLET BLOWER VACUUM (IN OF Hg)	SYSTEM INLET FLOW* (CFM)	CONCENTRATION** (PPMV)	CUMULATIVE HYDROCARBON RECOVERY		
							POUNDS	GALLONS*	
05-Apr-05	9:00	0.0	0.0	19.0	50	3020	0.00	0.00	RW-1, MW-3, MW-5
05-Apr-05	9:30	30.00	0.50	22.0	28	6750	1.30	0.21	RW-1, MW-3, MW-5
05-Apr-05	10:00	30.00	1.00	18.5	45	3080	2.52	0.40	RW-1, MW-3, MW-5
05-Apr-05	10:30	30.00	1.50	20.7	32	5830	3.67	0.59	RW-1, MW-3, MW-5
05-Apr-05	11:00	30.00	2.00	20.2	31	5150	4.83	0.77	RW-1, MW-3, MW-5
05-Apr-05	11:30	30.00	2.50	19.8	32	4320	5.85	0.93	RW-1, MW-3, MW-5
05-Apr-05	12:00	30.00	3.00	20.0	31	4680	6.81	1.09	RW-1, MW-3, MW-5
05-Apr-05	12:30	30.00	3.50	20.0	31	4620	7.79	1.24	RW-1, MW-3, MW-5
05-Apr-05	13:00	30.00	4.00	20.0	31	5580	8.87	1.42	RW-1, MW-3, MW-5
05-Apr-05	13:30	30.00	4.50	19.0	45	4100	10.13	1.62	RW-1, MW-3, MW-5
05-Apr-05	14:00	30.00	5.00	15.0	67	1600	11.22	1.79	RW-1, MW-3, MW-5
05-Apr-05	14:30	30.00	5.50	20.5	31	2250	11.86	1.89	RW-1, MW-3, MW-5
05-Apr-05	15:00	30.00	6.00	20.0	31	2630	12.38	1.98	RW-1, MW-3, MW-5
05-Apr-05	15:30	30.00	6.50	19.5	31	2340	12.90	2.06	RW-1, MW-3, MW-5
05-Apr-05	16:00	30.00	7.00	19.5	31	2120	13.37	2.14	RW-1, MW-3, MW-5
05-Apr-05	16:30	30.00	7.50	20.0	32	1860	13.80	2.20	RW-1, MW-3, MW-5
05-Apr-05	17:00	30.00	8.00	20.0	32	1600	14.18	2.26	RW-1, MW-3, MW-5
05-Apr-05	17:30	30.00	8.50	20.0	37	1670	14.56	2.33	RW-1, MW-3, MW-5
05-Apr-05	18:00	30.00	9.00	20.0	37	1610	14.98	2.39	RW-1, MW-3, MW-5
05-Apr-05	18:30	30.00	9.50	20.0	34	1430	15.35	2.45	RW-1, MW-3, MW-5
05-Apr-05	19:00	30.00	10.00	20.0	37	1330	15.68	2.50	RW-1, MW-3, MW-5
05-Apr-05	19:30	30.00	10.50	19.5	37	1440	16.03	2.56	RW-1, MW-3, MW-5
05-Apr-05	20:00	30.00	11.00	20.0	34	1260	16.36	2.61	RW-1, MW-3, MW-5
05-Apr-05	20:30	30.00	11.50	20.0	34	1200	16.64	2.66	RW-1, MW-3, MW-5
05-Apr-05	21:00	30.00	12.00	20.0	34	1110	16.91	2.70	RW-1, MW-3, MW-5
05-Apr-05	21:30	30.00	12.50	19.5	36	1180	17.18	2.74	RW-1, MW-3, MW-5
05-Apr-05	22:00	30.00	13.00	19.5	34	1140	17.46	2.79	RW-1, MW-3, MW-5
05-Apr-05	22:30	30.00	13.50	19.5	35	1110	17.73	2.83	RW-1, MW-3, MW-5
05-Apr-05	23:00	30.00	14.00	19.3	33	1050	17.98	2.87	RW-1, MW-3, MW-5
05-Apr-05	23:30	30.00	14.50	20.0	34	1400	18.26	2.92	RW-1, MW-3, MW-5
06-Apr-05	0:00	30.00	15.00	19.5	34	1170	18.55	2.96	RW-1, MW-3, MW-5
06-Apr-05	0:30	30.00	15.50	19.2	37	1120	18.83	3.01	RW-1, MW-3, MW-5
06-Apr-05	1:00	30.00	16.00	19.2	37	1110	19.11	3.05	RW-1, MW-3, MW-5
06-Apr-05	1:30	30.00	16.50	19.5	33	1380	19.41	3.10	RW-1, MW-3, MW-5
06-Apr-05	2:00	30.00	17.00	19.2	33	1120	19.69	3.15	RW-1, MW-3, MW-5
06-Apr-05	2:30	30.00	17.50	19.3	36	1000	19.94	3.19	RW-1, MW-3, MW-5
06-Apr-05	3:00	30.00	18.00	19.1	35	990	20.18	3.22	RW-1, MW-3, MW-5
06-Apr-05	3:30	30.00	18.50	19.2	34	980	20.41	3.26	RW-1, MW-3, MW-5
06-Apr-05	4:00	30.00	19.00	19.6	33	940	20.63	3.30	RW-1, MW-3, MW-5
06-Apr-05	4:30	30.00	19.50	19.5	35	920	20.85	3.33	RW-1, MW-3, MW-5
06-Apr-05	5:00	30.00	20.00	19.5	34	880	21.06	3.36	RW-1, MW-3, MW-5
06-Apr-05	5:30	30.00	20.50	19.6	34	900	21.27	3.40	RW-1, MW-3, MW-5
06-Apr-05	6:00	30.00	21.00	19.6	33	860	21.47	3.43	RW-1, MW-3, MW-5
06-Apr-05	6:30	30.00	21.50	19.4	34	820	21.66	3.46	RW-1, MW-3, MW-5
06-Apr-05	7:00	30.00	22.00	20.2	32	800	21.84	3.49	RW-1, MW-3, MW-5
06-Apr-05	7:30	30.00	22.50	20.0	32	760	22.01	3.52	RW-1, MW-3, MW-5
06-Apr-05	8:00	30.00	23.00	19.5	34	720	22.18	3.54	RW-1, MW-3, MW-5
06-Apr-05	8:30	30.00	23.50	19.5	34	740	22.35	3.57	RW-1, MW-3, MW-5
06-Apr-05	9:00	30.00	24.00	19.5	34	730	22.52	3.60	RW-1, MW-3, MW-5
06-Apr-05	9:30	30.00	24.50	19.5	34	750	22.69	3.62	RW-1, MW-3, MW-5

Table 1
MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA
ConocoPhillips 0746
3943 Broadway, Oakland CA
April 5-8, 2005

DATE	TIME	ELAPSED TIME (MINUTES)	TOTAL TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					EXTRACTION WELL OPEN
				INLET BLOWER VACUUM (IN.OF.Hg)	SYSTEM INLET FLOW* (CFM)	CONCENTRATION** (PPMV)	CUMULATIVE HYDROCARBON RECOVERY		
							POUNDS	GALLONS*	
06-Apr-05	10:00	30.00	25.00	19.5	34	730	22.86	3.65	RW-1, MW-3, MW-5
06-Apr-05	10:30	30.00	25.50	19.5	34	740	23.03	3.68	RW-1, MW-3, MW-5
06-Apr-05	11:00	30.00	26.00	19.5	34	760	23.21	3.71	RW-1, MW-3, MW-5
06-Apr-05	11:30	30.00	26.50	19.5	34	700	23.38	3.73	RW-1, MW-3, MW-5
06-Apr-05	12:00	30.00	27.00	19.5	33	680	23.54	3.76	RW-1, MW-3, MW-5
06-Apr-05	12:30	30.00	27.50	19.5	35	690	23.69	3.79	RW-1, MW-3, MW-5
06-Apr-05	13:00	30.00	28.00	19.5	35	700	23.86	3.81	RW-1, MW-3, MW-5
06-Apr-05	13:30	30.00	28.50	19.0	37	660	24.03	3.84	RW-1, MW-3, MW-5
06-Apr-05	14:00	30.00	29.00	19.5	37	650	24.19	3.86	RW-1, MW-3, MW-5
06-Apr-05	14:30	30.00	29.50	19.0	37	630	24.35	3.89	RW-1, MW-3, MW-5
06-Apr-05	15:00	30.00	30.00	19.5	37	620	24.51	3.92	RW-1, MW-3, MW-5
06-Apr-05	15:30	30.00	30.50	19.5	37	630	24.67	3.94	RW-1, MW-3, MW-5
06-Apr-05	16:00	30.00	31.00	19.5	37	610	24.83	3.97	RW-1, MW-3, MW-5
06-Apr-05	16:30	30.00	31.51	19.5	37	600	24.98	3.99	RW-1, MW-3, MW-5
06-Apr-05	17:00	30.00	32.01	19.5	37	590	25.13	4.01	RW-1, MW-3, MW-5
06-Apr-05	17:30	30.00	32.51	19.5	37	630	25.28	4.04	RW-1, MW-3, MW-5
06-Apr-05	18:00	30.00	33.01	19.5	36	680	25.45	4.07	RW-1, MW-3, MW-5
06-Apr-05	18:30	30.00	33.51	19.5	36	660	25.61	4.09	RW-1, MW-3, MW-5
06-Apr-05	19:00	30.00	34.01	19.5	36	650	25.77	4.12	RW-1, MW-3, MW-5
06-Apr-05	19:30	30.00	34.51	19.5	36	660	25.93	4.14	RW-1, MW-3, MW-5
06-Apr-05	20:00	30.00	35.01	20.5	31	640	26.08	4.17	RW-1, MW-3, MW-5
06-Apr-05	20:30	30.00	35.51	20.0	32	640	26.22	4.19	RW-1, MW-3, MW-5
06-Apr-05	21:00	30.00	36.01	19.5	34	700	26.37	4.21	RW-1, MW-3, MW-5
06-Apr-05	21:30	30.00	36.51	18.7	39	660	26.54	4.24	RW-1, MW-3, MW-5
06-Apr-05	22:00	30.00	37.01	18.4	39	660	26.72	4.27	RW-1, MW-3, MW-5
06-Apr-05	22:30	30.00	37.51	18.5	22	2460	27.04	4.32	MW-3
06-Apr-05	23:00	30.00	38.01	21.0	23	1590	27.35	4.37	MW-3
06-Apr-05	23:30	30.00	38.51	20.6	23	1890	27.62	4.41	MW-3
07-Apr-05	0:00	30.00	39.01	20.7	23	1620	27.90	4.46	MW-3
07-Apr-05	0:30	30.00	39.51	20.5	25	1470	28.15	4.50	MW-3
07-Apr-05	1:00	30.00	40.01	20.5	25	1420	28.40	4.54	MW-3
07-Apr-05	1:30	30.00	40.51	20.4	26	1350	28.64	4.58	MW-3
07-Apr-05	2:00	30.00	41.01	20.3	26	1280	28.87	4.61	MW-3
07-Apr-05	2:30	30.00	41.51	20.3	26	1270	29.10	4.65	MW-3
07-Apr-05	3:00	30.00	42.01	20.3	26	1250	29.32	4.68	MW-3
07-Apr-05	3:30	30.00	42.51	20.3	26	1220	29.54	4.72	MW-3
07-Apr-05	4:00	30.00	43.01	20.3	26	1200	29.76	4.75	MW-3
07-Apr-05	4:30	30.00	43.51	20.3	26	1180	29.97	4.79	MW-3
07-Apr-05	5:00	30.00	44.01	20.3	26	1160	30.18	4.82	MW-3
07-Apr-05	5:30	30.00	44.51	20.0	23	1160	30.37	4.85	MW-3
07-Apr-05	6:00	30.00	45.01	21.0	23	1770	30.60	4.89	MW-3
07-Apr-05	6:30	30.00	45.51	21.0	23	1490	30.86	4.93	MW-3
07-Apr-05	7:00	30.00	46.01	20.7	26	1300	31.09	4.97	MW-3
07-Apr-05	7:30	30.00	46.51	20.5	26	1210	31.31	5.00	MW-3
07-Apr-05	8:00	30.00	47.01	20.3	28	1140	31.53	5.04	MW-3
07-Apr-05	8:30	30.00	47.51	20.3	28	1130	31.75	5.07	MW-3
07-Apr-05	9:00	30.00	48.01	20.3	28	1110	31.98	5.11	MW-3
07-Apr-05	9:30	30.00	48.51	20.3	28	1110	32.17	5.14	MW-3
07-Apr-05	10:00	30.00	49.01	20.3	28	1100	32.38	5.17	MW-3
07-Apr-05	10:30	30.00	49.51	20.3	28	1100	32.59	5.21	MW-3

Table 1
MOBILE TREATMENT SYSTEM VACUUM EXTRACTION DATA
ConocoPhillips 0746
3943 Broadway, Oakland CA
April 5-8, 2005

DATE	TIME	ELAPSED TIME (MINUTES)	TOTAL TIME (HOURS)	TOTAL SYSTEM MEASUREMENTS					EXTRACTION WELL OPEN
				INLET BLOWER VACUUM (IN OF Hg)	SYSTEM INLET FLOW* (CFM)	CONCENTRATION** (PPMV)	CUMULATIVE HYDROCARBON RECOVERY		
							POUNDS	GALLONS*	
07-Apr-05	11:00	30.00	50.01	20.3	28	1090	32.80	5.24	MW-3
07-Apr-05	11:30	30.00	50.51	20.3	28	1040	33.01	5.27	MW-3
07-Apr-05	12:00	30.00	51.01	20.3	28	990	33.20	5.30	MW-3
07-Apr-05	12:30	30.00	51.51	20.5	28	1010	33.39	5.33	MW-3
07-Apr-05	13:00	30.00	52.01	20.5	28	1000	33.58	5.36	MW-3
07-Apr-05	13:30	30.00	52.51	20.5	28	1100	33.78	5.40	MW-3
07-Apr-05	14:00	30.00	53.01	20.5	28	1050	33.99	5.43	MW-3
07-Apr-05	14:30	30.00	53.51	20.5	28	1050	34.19	5.46	MW-3
07-Apr-05	15:00	30.00	54.01	20.5	29	1000	34.39	5.49	MW-3
07-Apr-05	15:30	30.00	54.51	20.5	29	980	34.58	5.52	MW-3
07-Apr-05	16:00	30.00	55.01	20.5	29	980	34.78	5.56	MW-3
07-Apr-05	16:30	30.00	55.51	20.5	29	980	34.97	5.59	MW-3
07-Apr-05	17:00	30.00	56.01	20.5	29	960	35.16	5.62	MW-3
07-Apr-05	17:30	30.00	56.51	20.5	28	940	35.35	5.65	MW-3
07-Apr-05	18:00	30.00	57.01	20.5	28	930	35.53	5.68	MW-3
07-Apr-05	18:30	30.00	57.51	20.3	28	900	35.70	5.70	MW-3
07-Apr-05	19:00	30.00	58.01	20.3	28	900	35.87	5.73	MW-3
07-Apr-05	19:30	30.00	58.51	20.3	27	890	36.04	5.76	MW-3
07-Apr-05	20:00	30.00	59.01	20.3	27	880	36.21	5.78	MW-3
07-Apr-05	20:30	30.00	59.51	20.2	27	860	36.37	5.81	MW-3
07-Apr-05	21:00	30.00	60.01	20.2	27	870	36.53	5.83	MW-3
07-Apr-05	21:30	30.00	60.51	20.2	28	880	36.69	5.86	MW-3
07-Apr-05	22:00	30.00	61.01	20.2	26	860	36.85	5.89	MW-3
07-Apr-05	22:30	30.00	61.51	20.2	26	850	37.00	5.91	MW-3
07-Apr-05	23:00	30.00	62.01	20.2	27	840	37.15	5.94	MW-3
07-Apr-05	23:30	30.00	62.51	20.2	27	830	37.31	5.96	MW-3
08-Apr-05	0:00	30.00	63.01	20.2	27	820	37.46	5.98	MW-3
08-Apr-05	0:30	30.00	63.51	20.2	27	820	37.61	6.01	MW-3
08-Apr-05	1:00	30.00	64.01	20.2	28	810	37.76	6.03	MW-3
08-Apr-05	1:30	30.00	64.51	21.2	26	800	37.91	6.06	MW-3
08-Apr-05	2:00	30.00	65.01	21.2	26	800	38.05	6.08	MW-3
08-Apr-05	2:30	30.00	65.51	18.1	44	530	38.21	6.10	RW-1, MW-3, MW-5
08-Apr-05	3:00	30.00	66.01	17.9	44	520	38.37	6.13	RW-1, MW-3, MW-5
08-Apr-05	3:30	30.00	66.51	17.8	47	550	38.54	6.16	RW-1, MW-3, MW-5
08-Apr-05	4:00	30.00	67.01	17.8	47	520	38.71	6.18	RW-1, MW-3, MW-5
08-Apr-05	4:30	30.00	67.51	17.8	47	510	38.87	6.21	RW-1, MW-3, MW-5
08-Apr-05	5:00	30.00	68.01	17.7	46	500	39.03	6.24	RW-1, MW-3, MW-5
TOTAL HYDROCARBONS RECOVERED							39.03	6.24	
TOTAL WATER RECOVERED (GALLONS)							6,500		

Notes

TPH = total petroleum hydrocarbons
 CFM = cubic feet per minute
 IN of Hg = inches of mercury
 ppmv = : per million by volume
 -- = Unit down for extraction well transfer

* = Based on hydrocarbon density of 6.26 pounds per gallon.
 ** = Based on field Horiba OVA readings.

Table 2

TRC

Vacuum Extraction Event Report

Summary Sheet

76 Station 0746
3943 Broadway
Oakland, California

BAAQMD # 262
NPDES# NA

VACUUM EXTRACTION PERFORMANCE	
Date(s) of Event(s):	April 5-8, 2005
Total Operating Hours:	68.00
Technology Used:	High-vacuum liquid-ring pump with Thermal Oxidizer
Total System Max/Min Influent Vapor Concentration (ppmv):	6,750 / 500
Total System Max/Min Flow Rate (cfm):	67 / 22
Total Max/Min Vacuum (in Hg):	22 / 15
Total Recovery Volume by Vapor (pounds/gallons):	39 / 6.2

LABORATORY ANALYSIS OF VAPOR SAMPLES

Well ID	Date	Time Sampled	Sample Result (ppmv)						Comments
			TPH-G *	Benzene*	Toluene*	Ethyl Benzene*	Total Xylenes*	MTBE*	
RW-1, MW-3, MW-5	05-Apr-05	9:30 AM	5,600	22	8.3	13	31	2.9	Influent
RW-1, MW-3, MW-5	06-Apr-05	9:00 PM	1200	3.9	15	8.2	33	3.4	Influent
RW-1, MW-3, MW-5	08-Apr-05	5:00 PM	1100	4.1	4.8	4.7	23	5.3	Influent

Well ID	Date	Time Sampled	Sample Result (ppmv)						Comments
			TPH-G *	Benzene*	Toluene*	Ethyl Benzene*	Total Xylenes*	MTBE*	
RW-1	29-Nov-04	8:35 AM	4,500	46	ND<1.0	34	3.6	140	pre MTS
RW-1	09-May-05	13:12 PM	2,100	18	0.98	37	10	25	post MTS
MW-3	29-Nov-05	10:00 AM	9,000	5.9	ND<5	45	ND<10	550	pre MTS
MW-3	09-May-05	12:02 PM	12,000	130	58	410	1,200	680	post MTS
MW-5	29-Nov-04	NA	LPH	LPH	LPH	LPH	LPH	LPH	pre MTS
MW-5	09-May-05	12:18 PM	59,000	1,400	770	2,700	8,200	ND<50	post MTS

ADDITIONAL INFORMATION:

* = Analyzed by EPA method 8260B
 PPMV = parts per million by volume
 ug/L = micrograms per liter
 cfm = cubic feet per minute
 in Hg = inches of mercury
 TPH-g = total petroleum hydrocarbons as gasoline
 MtBE = Methyl tert-Butyl Ether
 N.D. = not detectable
 NA = not tested

LPH = liquid-phase hydrocarbons in well
 Note: Total system concentration and flow measurements are taken on the pressure side of the blower after dilution.

Prepared by: _____

Mark Trevor, Project Geologist

TRC Project No: 42-0163-03

Approved by: _____

Keith Woodburne, R.G., Senior Project Geologist

TRC MTS FIELD DATA

Client: CONOCO PHILLIPS
 Site: 76-0746
 Date: 4/15/05

Customer-Focused Solutions

MTS Unit #: 0934

Laptop Unit #: 3

Sheet: 1 of 1A

Project No.: 42-0163-03

Task No.: UAD3

Technician: LEC, RLG (AUM) 6:11:30 AM

CUMULATIVE WELLS			EXTRACTION WELL # 1				EXTRACTION WELL # 2			
TOTALIZER START (gallons):	Time:		WELL ID:							
TOTALIZER END (gallons):	Time:		DTW (ft):							
STACK HC CONCENTRATION (ppmv):	Time:	<u>9:30 AM</u>	DEPTH to FP (ft):							
			TOTAL DEPTH(ft):							
			CASING DIAM. (in):							

Time (24 hr.)	VACUUM SIDE DATA					PRESSURE SIDE DATA					EXTRACTION WELL # 1					EXTRACTION WELL # 2					
	Total Well Flow Rate (scfm)	Total Well Inf. Conc. (ppmv)	Manifold Vacuum (in. of Hg)	H2O Temp	Temp	System Flow DP (in. H2O)	System Flow Rate (scfm)	System Inf. Conc. (ppm)	System Temp (deg. F)	Extraction wells open:	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	
12:00						1.55		720													
9:00	.15		19.0	92	100	.35	50	3020	1442	1,2,3				6.5							
9:30			22.0			.13	28	6750	1446												
10:00			18.5			.35	45	3080	1448												
10:30			20.7	123	131	.20	32	5630	1467		.01	6	3110	22.7		.08	19	13,100	22.0		
11:00			20.2			.18	31	5150	1444												
11:30	61		19.8	138	148	.20	32	4320	1447	1,2,3											
12:00	60		20.0	138	149	.18	31	4660	1451	2,3											
12:30	61		20.0	142	152	.18	31	4610	1443	2,3						.08	19	4350	21.5		
13:00	61		20.0	140	152	.18	31	5580	1445	1,2,3											
13:30	61		19.0	145	156	.35	45	4100	1441		.02	9	1900	21.0	10	.08	19	5560	21.25		
14:00	61		15.0	138	142	.75	67	1600	1445												
14:30	61		20.5	135	150	.18	31	2250	1450												
15:00	60		20.0	138	152	.18	31	2030	1442		.04	12	3660	21.25		.08	19	2350	21.0		
15:30	60		19.5	142	154	.18	31	2340	1444												
16:00	60		19.5	142	154	.18	31	2120	1443												
16:30	59		20.0	142	154	.20	32	1860	1445												
17:00	59		20.0	142	154	.20	32	1600	1441												
17:30	59		20.0	145	154	.25	37	1670	1446		.02	9	2120	21.5	8.5	.10	22	1370	21.0		
18:00	59		20.0	145	154	.25	37	1610	1443												

NOTES: 60" manifold 9:00 AM to 61" 10:30 / VAPOR SAMPLE AT 0930
1150 SHOT OFF RW-1 PER PM, - 1250 PUT RW-1 ON LINE, 1340 LOWERED VACUUM TO 15.0 PER PM
1430 CLOSED DILUTION DUE TO WATER STILL 3.5 GPM AT 15.0", PINCHED DOWN ON MANIFOLD VALVES

TRC MTS FIELD DATA

Client: **CONOCO PHILLIPS**
 Site: **76 STATION - 0746**
 Date: **4/5/05 → 4/06/05**

Customer-Focused Solutions

MTS Unit #: **0934**

Laptop Unit #: **3**

Sheet: **2 A 1**
 Project No.: **42-0163-03**
 Task No.: **UA03**
 Technician: **LEE (28 9:30 PM)**

CUMULATIVE WELLS														EXTRACTION WELL # 1					EXTRACTION WELL # 2					
TOTALIZER START (gallons):														WELL ID: RW-1					WELL ID: MW-5					
TOTALIZER END (gallons):														DTW (ft):					DTW (ft):					
STACK HC CONCENTRATION (ppmv):														DEPTH to EP (ft):					DEPTH to EP (ft):					
Time: 22500														TOTAL DEPTH (ft):					TOTAL DEPTH (ft):					
Time: 22500														CASING DIAM. (in): 6"					CASING DIAM. (in): 2"					
Time (24 hr.)	VACUUM SIDE DATA							PRESSURE SIDE DATA																
	Total Well Flow DP (in. H2O)	Total Well Flow Rate (scfm)	Total Well Inf. Conc. (ppmv)	Manifold Vacuum (in. of Hg)	H2O TEMP	VAPOR TEMP	System Flow DP (in. H2O)	System Flow Rate (scfm)	System Inf. Conc. (ppm)	System Temp (deg. F)	Extraction wells open:	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)			
1830	58			20.0	141	150	.23	34	1430	1444	123													
1900	57			20.0	140	149	.25	37	1330	1443		.02	9	1560	21.5	8	.15	28	970	21.0				
1930	57			19.5	140	150	.25	37	1440	1444														
2000	57			20.0	140	149	.23	34	1260	1447														
2030	56			20.0	140	149	.23	34	1200	1445														
2100	56			20.0	138	148	.23	34	1110	1448		.02	9	1200	21.5		.10	22	740	21.0				
2130	56			19.2	138	146	.25	38	1180	1443														
2200	56			19.5	138	146	.22	34	1140	1442														
2230	56			19.5	136	145	.23	35	1110	1446														
2300	56			19.3	136	145	.21	33	1050	1445		.02	9	1120	22.5		.09	21	680	22.2				
2330	56			20.0	110	122	.20	34	1400	1443														
0000	56			19.5	124	132	.21	34	1170	1446														
30	57			19.2	133	138	.26	37	1120	1447														
100	57			19.2	135	140	.25	37	1110	1445		.02	9	1010	21.8		.11	23	720	20.8				
130	57			19.5	135	142	.21	33	1380	1447														
200	56			19.2	139	146	.21	33	1120	1446														
2130	56			19.3	138	145	.25	36	1000	1449														
300	56			19.1	138	145	.24	35	990	1444		.02	9	940	21.7		.11	23	580	20.6				
330	53			19.2	136	145	.23	34	980	1445														
400	54			19.6	135	145	.21	33	940	1447														

NOTES: **ADDED Seal H2O while taking 23:00 INDIVIDUALS (Seely) RG**

Client: Comoco Phillips
 Site: 76 0246
 Date: 4/6/05

TRC MTS FIELD DATA

Customer-Focused Solutions

MTS Unit #: 0934 Laptop Unit #: 3

Sheet: 3 A
 Project No.: 42 016303
 Task No.: VA03
 Technician: RG, LEE

CUMULATIVE WELLS				EXTRACTION WELL #1				EXTRACTION WELL #2			
TOTALIZER START (gallons):		Time:		WELL ID:	<u>Rw-1</u>			<u>MW-5</u>			
TOTALIZER END (gallons):		Time:		DTW (ft):							
STACK HC CONCENTRATION (ppmv):	<u>"0"</u>	Time:	<u>7:00 AM</u>	DEPTH to FP (ft):							
				TOTAL DEPTH (ft):							
				CASING DIAM. (in):	<u>6"</u>			<u>24</u>			

Time (24 hr.)	VACUUM SIDE DATA						PRESSURE SIDE DATA					EXTRACTION WELL #1					EXTRACTION WELL #2				
	Total Well Flow (scfm)	Total Well Inf. Conc. (ppmv)	Manifold Vacuum (in. of Hg)	H2O Temp	H2O Temp	System Flow DP (in. H2O)	System Flow Rate (scfm)	System Inf. Conc. (ppmv)	System Temp (deg. F)	Extraction wells open:	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	
4:30	54		19.5	136	146	.23	35	920	1444	123											
5:00	54		19.5	135	146	.22	34	880	1445	11	.02	9	890	21.7	8'	.10	22	550	20.5	1'	
5:30	54		19.6	135	146	.22	34	900	1448												
6:00	54		19.6	135	146	.21	33	860	1446												
6:30	54		19.7	135	146	.22	34	820	1448												
7:00	54		20.2	123	130	.20	32	800	1445		.02	9	830	22.3		.09	22	480	21.0		
7:30	54		20.0	130	135	.20	32	760	1445												
8:00	56		19.5	135	142	.22	34	720	1445												
8:30	58		19.5	135	142	.22	34	740	1448												
9:00	60		19.5	140	145	.22	34	730	1446		.02	9	770	22.0		.10	22	420	21.0		
9:30	58		19.5	140	148	.22	34	750	1447												
10:00	59		19.5	142	150	.22	34	730	1444												
10:30	UNIT DOWN FOR PROPANE DELIVERY																				
11:00	60		19.5	140	150	.22	34	760	1446		.02	9	740	22.0		.10	22	400	21.0		
11:30	60		19.5	140	150	.22	34	700	1448												
12:00	59		19.5	140	150	.21	33	680	1442												
12:30	60		19.5	140	151	.23	35	690	1443												
13:00	59		19.5	140	150	.23	35	700	1444		.02	9	960	21.7		.10	22	420	20.7		
13:30	59		19.0	140	150	.25	37	660	1448												
14:00	59		19.5	138	149	.25	37	650	1440												

NOTES: ADDED Seal H2O 6:45 am / 6930 TANK LEVEL CHECK 60.5" / 4/6/05 - 1025 SHUT DOWN UNIT FOR PROPANE 92.7 gal.
1045 UNIT BACK IN SERVICE

TRC MTS FIELD DATA

Client: **CONOCO PHILLIPS**

Site: **76 STATION - 0746**

Date: **4/6/05 → 4/7/05**

Customer-Focused Solutions

MTS Unit #: **0934**

Laptop Unit #: **3**

Sheet: **4A**

Project No.: **42-016303**

Task No.: **UA03**

Technician: **CR, RG**

CUMULATIVE WELLS		EXTRACTION WELL # 1			EXTRACTION WELL # 2		
TOTALIZER START (gallons):	Time:	WELL ID:	RW-1		EXTRACTION WELL # 2		
TOTALIZER END (gallons):	Time:	DTW (ft):			MW-5		
STACK HC CONCENTRATION (ppmv):	Time: 15:30 - "0"	DEPTH to FP (ft):					
TABLE TEMP		TOTAL DEPTH (ft):	22' 40"				
		CASING DIAM. (in):	6"		2"		

Time (24 hr.)	VACUUM SIDE DATA						PRESSURE SIDE DATA					EXTRACTION WELL # 1					EXTRACTION WELL # 2				
	Total Well Flow Rate (scfm)	Total Well Inf. Conc. (ppmv)	Manifold Vacuum (in. of Hg)	H ₂ O TEMP	VAPOR TEMP TO O ₂	System Flow DP (in. H ₂ O)	System Flow Rate (scfm)	System Inf. Conc. (ppm)	System Temp (deg. F)	Extraction wells open:	Flow DP (in. H ₂ O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow DP (in. H ₂ O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	
1430	59°		19.0	135°	146°	.25	37	630	1447	123											
1500	59°		19.5	135°	146°	.25	37	620	1448		.02	9	650	21.7		.08	19	370	21.0		
1530	58°		19.5	135°	146°	.25	37	630	1443												
1600	58°		19.5	135°	146°	.25	37	610	1448												
1630	58°		19.5	135°	146°	.25	37	600	1448												
1700	57°		19.5	135°	144°	.25	37	590	1449		.02	9	580	21.7		.12	24	330	20.7		
1730	57°		19.5	135°	144°	.25	37	630	1441												
1800	57°		19.5	135°	145°	.24	36	630	1448												
1830	56°		19.5	135°	145°	.24	36	660	1444												
1900	55°		19.5	135°	145°	.24	36	650	1449		.02	9	560	21.6		.11	23	340	20.6		
19:30	54°		19.5	135°	145°	.24	36	660	1444												
20:00	54°		20.5	116°	124°	.17	31	640	1442												
20:30	54°		20.0	125°	127°	.19	32	640	1445												
21:00	54°		19.5	131°	136°	.22	34	640	1444		.02	9	660	22.0		.11	23	350	21.0		
21:30	57°		18.7	135°	139°	.29	39	700	1446												
22:00	57°		18.4	135°	141°	.29	39	660	1445	✓											
22:30	59°		18.5	134°	141°	.29	39	660	1451	123	.02	9	660	21.8	↓	.13	26	370	20.5	✓	
23:00	58°		21.0	137°	145°	.10	22	2460	1450	23											
23:30	58°		20.6	140°	148°	.11	23	1590	1446	only											
23:55	58°		20.6	140°	149°	.11	23	1890	1447	↓											

NOTES: 1525 STL LAB PICKED UP VAPOR SAMPLE
 Added Seal H₂O
 Increased well VAC RW-1, MW-3
 21:00 Pulled individuals AT least 4-5 min each "well" RG

Client: Conoco Phillips
 Site: 76 STATION 0746
 Date: 4/7/05

TRC MTS FIELD DATA

Customer-Focused Solutions

MTS Unit #: 0934 Laptop Unit #: 3

Sheet: 5
 Project No.: 42 016303
 Task No.: UAG3
 Technician: RG, LEE

CUMULATIVE WELLS		EXTRACTION WELL # 1				EXTRACTION WELL # 2			
TOTALIZER START (gallons):	Time:	WELL ID: <u>MW-3</u>							
TOTALIZER END (gallons):	Time:	DTW (ft):							
STACK HC CONCENTRATION (ppmv):	Time: <u>0700</u>	DEPTH to FP (ft):							
	<u>10"</u>	TOTAL DEPTH(ft): <u>22.4'</u>							
		CASING DIAM. (in):							

Time (24 hr.)	VACUUM SIDE DATA					PRESSURE SIDE DATA					EXTRACTION WELL # 1					EXTRACTION WELL # 2				
	Total Well Flow DP (in. H2O)	Total Well Flow Rate (scfm)	Total Well Inf. Conc. (ppmv)	Manifold Vacuum (in. of Hg)	H2O Temp	System Flow DP (in. H2O)	System Flow Rate (scfm)	System Inf. Conc. (ppmv)	System Temp (deg. F)	Extraction wells open	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Singer Depth (ft)	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Singer Depth (ft)
23245				20.6		.11	23	1660	1450	#1 (only)					15'					
2350				20.6		.11	23	1640	1450	↓				20'						
00100				20.7	140°	.11	23	1620	1445	↓				20'						
0005				20.7		.12	24	2200	1446	↓				15'						
0010				20.7		.11	23	1700	1450	↓				↓						
0015				20.6		.12	25	1580	1457	↓				↓						
0030	58°			20.5	140	.12	25	1470	1450	↓				↓						
1:00				20.5		.13	26	1420	1446	↓				↓						
1:30				20.4		.13	26	1350	1444	↓				↓						
2:00	58°			20.3	140°	.13	26	1280	1457	↓				↓						
2:30				20.3		.13	26	1270	1446	↓				↓						
3:00				20.3		.13	26	1250	1450	↓				↓						
3:30				20.3		.13	26	1220	1441	↓				↓						
4:00	57°			20.3	140°	.13	26	1200	1444	↓				↓						
4:30				20.3		.13	26	1180	1450	↓				↓						
5:00				20.3		.13	26	1160	1451	↓				↓						
5:30				20.0	115°	.11	23	1160	1442	↓				↓						
6:00				21.0	122°	.10	23	1770	1442	↓				↓						
6:30				21.0	120°	.10	23	1490	1442	↓				↓						
7:00	58			20.7	132	.13	26	1300	1451	↓				↓						

NOTES: 1) NOTE this Singer has (6) 4" holes) EXTENDING ABOUT (4") (8") (14") FROM START END! RG,
 MW-3 ADDED Seal H2O 5:15 AM 5:55 Unit Shut Down VAC → BACK up 15 min later Seal H2O Valve WAS Shut off

TRC MTS FIELD DATA

Client: CONOCO PHILLIPS
 Site: 76 STATION - 0746
 Date: 4/7/05

Customer-Focused Solutions
 MTS Unit #: 0934

Laptop Unit #: 3

Sheet: 61
 Project No.: 42 016303
 Task No.: UM07
 Technician: LEE

CUMULATIVE WELLS											EXTRACTION WELL # 1					EXTRACTION WELL # 2						
TOTALIZER START (gallons):		Time:									WELL ID: <u>MW-3</u>											
TOTALIZER END (gallons):		Time:									DTW (ft):											
STACK HC CONCENTRATION (ppmv):		Time: <u>1230</u>		<u>HDRIBR - "0"</u>							DEPTH to FP (ft):											
<u>MONITORED INLET TEMP</u>											TOTAL DEPTH (ft):											
VACUUM SIDE DATA											PRESSURE SIDE DATA											
Time (24 hr.)	Total Well Flow DP (in. H2O)	Total Well Flow Rate (scfm)	Total Well Inf. Conc. (ppmv)	Manifold Vacuum (in. of Hg)	SEAL H2O TEMP	WATER TO EX TEMP	System Flow DP (in. H2O)	System Flow Rate (scfm)	System Inf. Conc. (ppm)	System Temp (deg. F)	Extraction wells open:	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	
0730	58			20.5	140	144	.13	26	1210	1452	1 2					15'						
0800	58			20.25	142	146	.15	28	1140	1450												
0830	58			20.25	142	148	.15	28	1130	1452												
0900	58			20.25	142	149	.15	28	1110	1446												
0930	58			20.25	142	149	.15	28	1110	1442												
1000	58			20.25	142	150	.15	28	1100	1440												
1030	59			20.25	144	152	.15	28	1100	1441												
1100	59			20.25	145	153	.15	28	1090	1444												
1130	59			20.25	140	149	.15	28	1040	1450												
1200	59			20.25	140	149	.15	28	990	1451												
1230	59			20.5	140	149	.15	28	1010	1445												
1300	59			20.5	140	149	.15	28	1000	1446												
1330	60			20.5	140	159	.15	28	1100	1450												
1400	60			20.5	140	154	.15	28	1050	1454												
1430	60			20.5	140	152	.15	28	1050	1451												
1500	60			20.5	140	160	.16	29	1000	1447												
1530	60			20.5	141	152	.16	29	980	1446												
1600	60			20.5	142	152	.16	29	980	1442												
1630	60			20.5	142	152	.16	29	980	1450												
1700	60			20.5	142	151	.16	29	960	1451												

NOTES:

Client: CANOCO PHILLIPS
 Site: 76 STA. -0746
 Date: 4/7/05

TRC MTS FIELD DATA

Customer-Focused Solutions

MTS Unit #: 0934

Laptop Unit #: J

Sheet: 7A

Project No.: 42 016303

Task No.: UA03

Technician: LEE RG

CUMULATIVE WELLS				EXTRACTION WELL #1					EXTRACTION WELL #2					
TOTALIZER START (gallons):	Time:	WELL ID:	MW-3					MW-5						
TOTALIZER END (gallons):	Time:	DTW (ft):												
STACK HC CONCENTRATION (ppmv):	Time:	DEPTH to FP (ft):												
<u>MANIFOLD INLET TEMP</u>				CASING DIAM. (in):	<u>2"</u>					<u>2"</u>				

Time (24 hr.)	VACUUM SIDE DATA						PRESSURE SIDE DATA						EXTRACTION WELL #1					EXTRACTION WELL #2				
	Total Well Flow DP (in. H2O)	Total Well Flow Rate (scfm)	Total Well Inf. Conc. (ppmv)	Manifold Vacuum (in. of Hg)	SEAL H2O TEMP	WATER TO EX TEMP	System Flow DP (in. H2O)	System Flow Rate (scfm)	System Inf. Conc. (ppm)	System Temp (deg. F)	Extraction wells open:	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	
1730	59			20.5	140	148	.15	28	990	1447	1					15'						
1800	59			20.5	140	148	.15	28	930	1442	1											
1830	58			20.25	140	146	.15	28	900	1449	1											
1900	58			20.25	140	146	.15	28	900	1444	1											
19:30	58			20.3	138	145	.14	27	890	1442	1											
20:00	56			20.3	138	144	.14	27	880	1446	1											
20:30	57			20.2	138	143	.14	27	860	1444	1											
21:00	56			20.2	137	141	.14	27	870	1441	1											
21:30	56			20.2	137	142	.15	28	880	1445	1											
22:00	56			20.2	136	140	.13	26	860	1445	1											
22:30	56			20.2	136	140	.13	26	850	1446	1											
23:00	56			20.2	136	142	.14	27	840	1449	1											
23:30	54			20.2	137	143	.14	27	830	1442	1											
24:00	56			20.2	138	144	.14	27	820	1447	1											
00:30	56			20.2	138	144	.14	27	820	1443	1											
1:00	56			20.2	140	147	.15	28	810	1449	1											
1:30	55			21.2	108°	126°	.12	26	800	1445	1											
2:00	55			21.2	118°	129°	.12	26	800	1450	1											
2:05	58°			17.5	123°	133°	.43	50	540	1443	1, 2, 3											
2:30	56°			18.1	125°	135°	.35	44	530	1450	1, 2, 3											

NOTES: ADDED SEAL H2O 1:20 AM
 (Well # 3 is RW-1 Slinger 7')
 (Well # 2 is MW-5 " 15')
 (Well # 1 is MW-3 " 15')
2:05 AM Restricted All 3 wells

Conoco Phillips
 70 STATION
 70 STATION #0746
 4/8/05

TRC MTS FIELD DATA

Sheet: 8 A

Client: 70 STATION
 Site: 70 STATION #0746
 Date: 4/8/05

Customer-Focused Solutions
 MTS Unit #: 0934

Laptop Unit #: 3

Project No.: 42 016303
 Task No.: VA03
 Technician: RG

CUMULATIVE WELLS					EXTRACTION WELL #1					EXTRACTION WELL #2				
TOTALIZER START (gallons):					WELL ID: MMW-3					MMW-5				
TOTALIZER END (gallons):					DTW (ft):									
STACK HC CONCENTRATION (ppmv): "0"					DEPTH to FP (ft):									
Time: 3:30 AM RG					TOTAL DEPTH (ft):									
					CASING DIAM. (in): 2"					2"				

Time (24 hr.)	VACUUM SIDE DATA						PRESSURE SIDE DATA					EXTRACTION WELL #1					EXTRACTION WELL #2				
	Total Well Flow OP (in. H2O)	Total Well Flow Rate (scfm)	Total Well Inf. Conc. (ppmv)	Manifold Vacuum (in. of Hg)	H2O SW Temp?	Temp	System Flow OP (in. H2O)	System Flow Rate (scfm)	System Inf. Conc. (ppmv)	System Temp (deg. F)	Extraction wells open:	Flow DP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow OP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)
3:00	56°			17.9	126°	136°	.75	44	520	1444	123	.13	26	780	20.8	15'	.12	24	290	21.0	1'
3:30	58°			17.8	129°	138°	.41	47	550	1443	↓										
4:00	57°			17.8	128°	138°	.41	47	520	1446	↓										
4:30	57°			17.8	128°	138°	.41	47	510	1449		.14	27	770	20.9	↓	.12	24	270	21.0	↓
5:00	57°			17.7	128°	138°	.40	46	500	1450		.14	27	760	20.9	↓	.12	24	270	21.0	↓

NOTES:

VAPOR EXTRACTION TEST

Form #152 - Effective Date: 2-13-92

Project No. 42-0163-03
 Task No. UA03
 Start Time. 4-5-05 (9:00) VAC START
1st well lands (wood)

Site: 76-0746
 Date: 4/5/05
 Stop Time: _____

1/2

Well I.D.	Extraction Well		Observation Wells			
	Flow Rate (cfm)	HG Cond. (ppm)	Vacuum (inch H2O)			
	<u>RW-1</u>	<u>NW-5</u>	<u>MW-3</u>	<u>RW-1</u>	<u>MW-5</u>	<u>MW-3</u>
Distance (feet)						
Casing Dia. (inches)						
Screen Interval (ft)		<u>1W - 120 ft</u>				
Time (min)	Flow Rate (cfm)	HG Cond. (ppm)	Vacuum (inch H2O)			
<u>Yours</u> 0:00	<u>2100</u>	<u>OFF</u>	<u>18.5</u>	<u>19.5</u>		
0:05	<u>1800</u>	<u>OFF</u>	<u>15.5</u>	<u>19.0</u>		
0:10	<u>1430</u>	<u>16.5</u>	<u>10.0</u>	<u>9.5</u>		
0:15	<u>1530</u>	<u>14.0</u>	<u>10.0</u>	<u>12.0</u>		
0:20	<u>1630</u>	<u>14.0</u>	<u>9.0</u>	<u>9.0</u>		
0:25	<u>1730</u>	<u>14.0</u>	<u>9.0</u>	<u>9.0</u>		
0:30	<u>1830</u>	<u>14.0</u>	<u>9.0</u>	<u>9.0</u>		
0:35	<u>1930</u>	<u>14.0</u>	<u>9.0</u>	<u>10.0</u>		
0:40	<u>2030</u>	<u>14.0</u>	<u>9.0</u>	<u>10.0</u>		
0:45	<u>2130</u>	<u>14.0 HG</u>	<u>5 HG</u>	<u>6 HG</u>		
0:50	<u>2230</u>	<u>13.5 HG</u>	<u>5 HG</u>	<u>6 HG</u>		
<u>4/6/05</u> 0:55	<u>2330</u>	<u>13.0 HG</u>	<u>4.5 HG</u>	<u>5.5 HG</u>		
1:00	<u>130</u>	<u>5.0 HG</u>	<u>(5.0) 62.0 H2O</u>	<u>5.0 HG (62.0 H2O)</u>		
1:10	<u>230</u>	<u>5.0 HG</u>	<u>7.0 HG</u>	<u>7.0 HG</u>		
1:20	<u>230</u>	<u>7.0 HG</u>	<u>7.0 HG</u>	<u>7.0 HG</u>		
1:30	<u>2135</u>	<u>96.0 H2O</u>	<u>84.00 H2O</u>	<u>94.00 H2O</u>	<u>(I adjusted to this well head RG)</u>	
1:40	<u>3115</u>	<u>75.00 H2O</u>	<u>70.00 H2O</u>	<u>95.00 H2O</u>		
1:50	<u>500</u>	<u>67.00 "</u>	<u>70.00 "</u>	<u>90.00 "</u>		
2:00	<u>700</u>	<u>75.00 "</u>	<u>68.00 "</u>	<u>95.00 "</u>		
2:30	<u>800</u>	<u>60.0</u>	<u>70.00</u>	<u>90.0</u>		
3:00	<u>900</u>	<u>65.0</u>	<u>70.0</u>	<u>90.0</u>		
3:30	<u>1000</u>	<u>65.0</u>	<u>65.0</u>	<u>90.0</u>		
4:00	<u>1100</u>	<u>65.0</u>	<u>65.0</u>	<u>90.0</u>		
4:30	<u>1200</u>	<u>70.0</u>	<u>75.0</u>	<u>88.0</u>		
5:00	<u>1300</u>	<u>90.0</u>	<u>75.0</u>	<u>88.0</u>		
6:00	<u>1400</u>	<u>90.0</u>	<u>65.0</u>	<u>85.0</u>		
7:00	<u>1500</u>	<u>90.0</u>	<u>65.0</u>	<u>85.0</u>		
8:00	<u>1600</u>	<u>8.0</u>	<u>5.0</u>	<u>8.0</u>	<u>READING IN HG DUE TO PROBLEM WITH H2O GAUGE</u>	
9:00	<u>1700</u>	<u>8.5</u>	<u>5.0</u>	<u>8.0</u>		
10:00	<u>1800</u>	<u>6.0</u>	<u>5.0</u>	<u>10.0</u>		
12:00	<u>1900</u>	<u>5.0</u>	<u>5.0</u>	<u>9.0</u>		
14:00	<u>2000</u>	<u>5.5</u>	<u>5.2</u>	<u>9.5</u>		
16:00	<u>2130</u>	<u>9.0</u>	<u>5.0</u>	<u>10</u>		
18:00	<u>2330</u>			<u>11.2</u>	<u>10'</u>	
20:00	<u>2335</u>			<u>10.0</u>	<u>15'</u>	
25:00	<u>2345</u>			<u>10.0</u>	<u>15'</u>	
30:00	<u>2350</u>			<u>9.0</u>	<u>20'</u>	
<u>4/7/05</u> 40:00	<u>00:00</u>			<u>10.0</u>	<u>20'</u>	
50:00	<u>00:15</u>			<u>11.2</u>	<u>15'</u>	
60:00	<u>00:30</u>			<u>11.5</u>	<u>15'</u>	
70:00	<u>1000</u>			<u>11.5 HG</u>		
80:00	<u>2000</u>			<u>11.5</u>		
90:00	<u>4000</u>			<u>11.5</u>		
100:00	<u>5000</u>			<u>11.5</u>		
	<u>6000</u>			<u>11.3</u>		
	<u>8000</u>			<u>11.0</u>		
	<u>0800</u>			<u>11.0</u>		

See Next Page
(For R015)

TD Stamp

TD = total depth of stamp

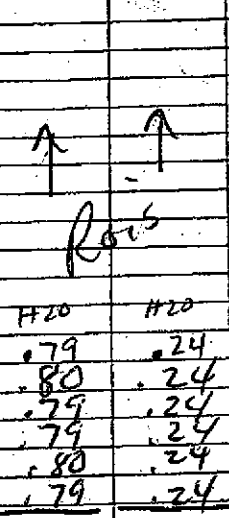
VAPOR EXTRACTION TEST

Project No. 42 016303
 Task No. U405
 Start Time. _____

Site: 76 SW. 0746
 Date: 4/7/05
 Stop Time: 4/8/05 (5:00 AM)

2/2
 Tankat limit
 6500
 gal.

		Extraction Well		Observation Wells			
Well I.D.	MW-3	MW-5	RW-1	RW1	MW5		
Distance (feet)							
Casing Dia. (Inches)	2"						
Screen Interval (ft)							
Time (min)	Flow Rate (cfm)	HC Conc. (ppm)	Vacuum (inch H2O)				
0:00 0:00	11.0 HG						
0:05	10.0	11.0					
0:10	11.0	11.5					
0:15	12.00	11.5					
0:20	13.00	11.5					
0:25	14.00	12.0					
0:30	15.00	12.0					
0:35	16.00	12.0					
0:40	17.00	11.5					
0:45	18.00	11.5					
0:50	19.00	11.0					
0:55	20.00	11.4					
1:00	21.00	11.2					
1:10	22.00	11.0					
1:20	23.00	11.0					
4/8/05 1:30	00.00	11.0					
1:40	1.00	11.0					
1:50	2.00	11.0 HG					
2:00	2.30	10.4 "	6.0 HG	9.0 HG			
2:30	3.00	10.4 "	6.0 HG	9.1 HG			
3:00	4.500	10.4 "	8.0 HG	9.5 HG			
3:30	5.00	10.4 "	2.5 "	10.0 "			
4:00							
4:30							
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							
12:00							
14:00							
16:00							
18:00							
20:00							
25:00							
30:00							
40:00							
50:00							
60:00							
70:00							
80:00							
90:00							
100:00							





MTS FIELD DATA

Continuation Sheet

1/B

Site: 0746
Date: 4/4/05

Customer-Focused Solutions

Project No.: 42-0163-03

Extraction Well #					Extraction Well # <u>3</u>					Extraction Well #					Extraction Well #						
Well ID:					<u>MW-3</u>																
DTW (ft):					<u>7.85</u>																
DEPTH TO FP (ft):																					
TOTAL DEPTH (ft):																					
CASING DIA. (in):					<u>2"</u>																
Time (24 hr.)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	
<u>12:00</u>																					
<u>9:00</u>																					
<u>9:30</u>																					
<u>10:00</u>																					
<u>10:30</u>						<u>.04</u>	<u>13</u>	<u>11490</u>	<u>22.6</u>												
<u>11:00</u>																					
<u>11:30</u>																					
<u>12:00</u>																					
<u>12:30</u>						<u>.06</u>	<u>16</u>	<u>2620</u>	<u>21.5</u>												
<u>13:00</u>						<u>.06</u>	<u>16</u>	<u>6700</u>	<u>21.5</u>												
<u>13:30</u>																					
<u>14:00</u>																					
<u>14:30</u>																					
<u>15:00</u>						<u>.08</u>	<u>19</u>	<u>4890</u>	<u>21.5</u>												
<u>15:30</u>																					
<u>16:00</u>																					
<u>16:30</u>																					
<u>17:00</u>						<u>.08</u>	<u>19</u>	<u>4440</u>	<u>21.0</u>												
<u>17:30</u>																					
<u>18:00</u>																					

Notes:

(The table above is crossed out with a large 'X')

(A vertical arrow points downwards from the 10:30 row to the 17:00 row in the second column of the table.)

(A handwritten note "NO SAMPLED" is written above the 10:30 row.)



MTS FIELD DATA

Continuation Sheet

2B

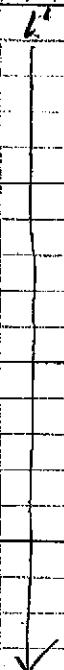
Site: 76 STATION- 0746

Customer-Focused Solutions

Date: 4/5/05

Project No.: 42-0163-03

Extraction Well #						Extraction Well #					Extraction Well #					Extraction Well #					
Well ID:						MW-3															
DTW (ft):																					
DEPTH TO FP (ft):																					
TOTAL DEPTH (ft.):																					
CASING DIA. (in):						2"															
Time (24 hr.)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	
1830										1'											
1900						.08	19	3220	21.0												
1930																					
2000																					
2030																					
2100						.08	19	3120	21.0												
2130																					
2200																					
2230																					
2300						.07	17	3200	22.5												
2330																					
0000																					
0030																					
1:00						.08	18	2700	21.2												
1:30																					
2:00																					
2:30																					
3:00						.09	20	2540	20.8												
3:30																					
4:00																					



Cont'd

Notes:



MTS FIELD DATA

Continuation Sheet

3/B

Site: 76 0746
Date: 4/6/05

Customer-Focused Solutions

Project No.: 42016303

Extraction Well #						Extraction Well # <u>3</u>						Extraction Well #						Extraction Well #					
Well ID:						<u>MW-3</u>																	
DTW (ft):																							
DEPTH TO FP (ft):																							
TOTAL DEPTH (ft):																							
CASING DIA. (in):						<u>2"</u>																	
Time (24 hr.)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)			
<u>4:30</u>										<u>1'</u>													
<u>5:00</u>						<u>.09</u>	<u>21</u>	<u>2470</u>	<u>21.0</u>														
<u>5:30</u>																							
<u>6:00</u>																							
<u>6:30</u>																							
<u>7:00</u>						<u>.09</u>	<u>22</u>	<u>2250</u>	<u>21.2</u>														
<u>7:30</u>																							
<u>8:00</u>																							
<u>8:30</u>																							
<u>9:00</u>						<u>.10</u>	<u>22</u>	<u>2170</u>	<u>21.0</u>														
<u>9:30</u>																							
<u>10:00</u>																							
<u>10:30</u>																							
<u>11:00</u>						<u>.10</u>	<u>22</u>	<u>2110</u>	<u>21.0</u>														
<u>11:30</u>																							
<u>12:00</u>																							
<u>12:30</u>																							
<u>13:00</u>						<u>.10</u>	<u>22</u>	<u>1980</u>	<u>21.0</u>														
<u>13:30</u>																							
<u>14:00</u>																							

Notes:



MTS FIELD DATA

Continuation Sheet

4B

Site: 76 STATION - 0746

Date: 4/6/05

Customer-Focused Solutions

Project No.: 42 016303

Extraction Well #						Extraction Well # 3						Extraction Well #						Extraction Well #					
Well ID:						MW-3																	
DTW (ft):																							
DEPTH TO FP (ft):																							
TOTAL DEPTH (ft):						22.40'																	
CASING DIA. (in):						2"																	
Time (24 hr.)	Flow AP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow AP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow AP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)	Flow AP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Stinger Depth (ft)			
1430																							
1500																							
1530						11.2	24	1980	21.0	1'													
1600																							
1630																							
1700																							
1730						.10	22	1840	21.0														
18:00																							
18:30																							
19:00																							
19:30						.10	22	1760	20.8														
20:00																							
20:30																							
21:00																							
21:30						.10	22	1810	21.0														
22:00																							
22:30										✓													
23:00						11.2	24	1800	20.8	1'													
23:30						.10	22	2460	21.0	10'													
23:35						.11	23	1590	20.6	10'													
						.11	23	1890	20.6	15'													

Notes:



MTS FIELD DATA

Continuation Sheet

7B + 8B

Site: 70 Station # 0746
Date: 4/7-8/05 4/8/05

Customer-Focused Solutions

Project No.: 42016303

Extraction Well #						Extraction Well # 3						Extraction Well #						Extraction Well #																													
Well ID:												RW-1																																			
DTW (ft):																																															
DEPTH TO FP (ft):																																															
TOTAL DEPTH (ft):																																															
CASING DIA. (in):												6"																																			
Time (24 hr.)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)	Flow ΔP (in. H2O)	Flow Rate (scfm)	HC Conc. (ppmv)	Vacuum (in. of Hg)	Slinger Depth (ft)																											
2:05										7'																																					
2:30																																															
3:00						.01	6	380	22.3																																						
3:30																																															
4:00																																															
4:30																																															
5:00						.02	9	350	22.0																																						
						.02	9	340	21.9																																						

Notes:

TRC/Alton Geoscience-Concord

April 20, 2005

1590 Solano Way, Suite A
Concord, CA 94520

Attn.: Roger Batra
Project: Conoco Phillips # 0746
Site: 3942 Broadway, Oakland
Oakland

Attached is our report for your samples received on 04/06/2005 16:20
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after
05/21/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,
please call me at (925) 484-1919.

You can also contact me via email. My email address is: dsharma@stl-inc.com

Sincerely,



Dimple Sharma
Project Manager

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips # 0746

Received: 04/06/2005 16:20

Site: 3942 Broadway, Oakland
Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
INFLUENT VAPOR RW-1 MW-3 MW-5	04/05/2005 09:30	Air	1

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/12/2005 11:17

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips # 0746

Received: 04/06/2005 16:20

Site: 3942 Broadway, Oakland
Oakland

Prep(s): 5030B Test(s): 8260B
 Sample ID: **INFLUENT VAPOR RW-1 MW-3 MW-5** Lab ID: 2005-04-0126 - 1
 Sampled: 04/05/2005 09:30 Extracted: 4/7/2005 09:00
 Matrix: Air QC Batch#: 2005/04/07-1A.64
 Analysis Flag: L2 (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	5600	1.6	ppmv	5.00	04/07/2005 09:00	
Benzene	22	1.6	ppmv	5.00	04/07/2005 09:00	
Toluene	8.3	1.3	ppmv	5.00	04/07/2005 09:00	
Ethylbenzene	13	1.2	ppmv	5.00	04/07/2005 09:00	
Total xylenes	31	1.2	ppmv	5.00	04/07/2005 09:00	
Methyl tert-butyl ether (MTBE)	2.9	0.70	ppmv	5.00	04/07/2005 09:00	
Ethanol	ND	130	ppmv	5.00	04/07/2005 09:00	
Surrogate(s)						
1,2-Dichloroethane-d4	109.2	72-128	%	5.00	04/07/2005 09:00	
Toluene-d8	95.3	80-113	%	5.00	04/07/2005 09:00	

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/12/2005 11:17

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips # 0746

Received: 04/06/2005 16:20

Site: 3942 Broadway, Oakland
Oakland

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2005/04/07-1A.64-042

Water

Test(s): 8260B

QC Batch # 2005/04/07-1A.64

Date Extracted: 04/07/2005 07:42

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	04/07/2005 07:42	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/07/2005 07:42	
Benzene	ND	0.5	ug/L	04/07/2005 07:42	
Toluene	ND	0.5	ug/L	04/07/2005 07:42	
Ethylbenzene	ND	0.5	ug/L	04/07/2005 07:42	
Total xylenes	ND	1.0	ug/L	04/07/2005 07:42	
Ethanol	ND	50	ug/L	04/07/2005 07:42	
Surrogates(s)					
1,2-Dichloroethane-d4	111.2	73-130	%	04/07/2005 07:42	
Toluene-d8	99.6	81-114	%	04/07/2005 07:42	

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/12/2005 11:17

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips # 0746

Received: 04/06/2005 16:20

Site: 3942 Broadway, Oakland
Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2005/04/07-1A.64

LCS 2005/04/07-1A.64-021

Extracted: 04/07/2005

Analyzed: 04/07/2005 07:21

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	21.6		25	86.4			65-165	20		
Benzene	21.7		25	86.8			69-129	20		
Toluene	20.8		25	83.2			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	544		500	108.8			73-130			
Toluene-d8	510		500	102.0			81-114			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/12/2005 11:17

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips # 0746

Received: 04/06/2005 16:20

Site: 3942 Broadway, Oakland
Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD)

Water

QC Batch # 2005/04/07-1A.64

MS/MSD

Lab ID: 2005-04-0004 - 002

MS: 2005/04/07-1A.64-053

Extracted: 04/07/2005

Analyzed: 04/07/2005 11:53

Dilution: 1.00

MSD: 2005/04/07-1A.64-015

Extracted: 04/07/2005

Analyzed: 04/07/2005 12:15

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	108	104	78.1	25	119.6	103.6	14.3	65-165	20		
Benzene	22.7	24.1	ND	25	90.8	96.4	6.0	69-129	20		
Toluene	20.7	22.9	ND	25	82.8	91.6	10.1	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	556	554		500	111.1	110.8		73-130			
Toluene-d8	495	513		500	99.1	102.5		81-114			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/12/2005 11:17

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips # 0746

Received: 04/06/2005 16:20

Site: 3942 Broadway, Oakland
Oakland

Legend and Notes

Analysis Flag

L2

Reporting limits were raised due to high level of analyte present
in the sample.

TRC/Alton Geoscience-Concord

April 21, 2005

1590 Solano Way, Suite A
Concord, CA 94520

Attn.: Roger Batra
Project: Conoco Phillips #0746
Site: 3943 Broadway, Oakland

Attached is our report for your samples received on 04/07/2005 17:58
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after
05/22/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,
please call me at (925) 484-1919.

You can also contact me via email. My email address is: dsharma@stl-inc.com

Sincerely,



Dimple Sharma
Project Manager

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips #0746

Received: 04/07/2005 17:58

Site: 3943 Broadway, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
COMBINED INFLUENT VAPOR	04/06/2005 21:00	Air	1

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/13/2005 12:57

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips #0746

Received: 04/07/2005 17:58

Site: 3943 Broadway, Oakland

Prep(s): 5030B Test(s): 8260B
Sample ID: **COMBINED INFLUENT VAPOR** Lab ID: 2005-04-0182 - 1
Sampled: 04/06/2005 21:00 Extracted: 4/8/2005 12:00
Matrix: Air QC Batch#: 2005/04/08-1A.64
Analysis Flag: L2 (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	1200	3.1	ppmv	10.00	04/08/2005 12:00	
Benzene	3.9	3.1	ppmv	10.00	04/08/2005 12:00	
Toluene	15	2.6	ppmv	10.00	04/08/2005 12:00	
Ethylbenzene	8.2	2.3	ppmv	10.00	04/08/2005 12:00	
Total xylenes	33	2.3	ppmv	10.00	04/08/2005 12:00	
Methyl tert-butyl ether (MTBE)	3.4	1.4	ppmv	10.00	04/08/2005 12:00	
Ethanol	ND	250	ppmv	10.00	04/08/2005 12:00	
Surrogate(s)						
1,2-Dichloroethane-d4	117.3	72-128	%	1.00	04/08/2005 12:00	
Toluene-d8	98.0	80-113	%	1.00	04/08/2005 12:00	

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips #0746

Received: 04/07/2005 17:58

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2005/04/08-1A.64

MB: 2005/04/08-1A.64-035

Date Extracted: 04/08/2005 08:35

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	04/08/2005 08:35	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/08/2005 08:35	
Benzene	ND	0.5	ug/L	04/08/2005 08:35	
Toluene	ND	0.5	ug/L	04/08/2005 08:35	
Ethylbenzene	ND	0.5	ug/L	04/08/2005 08:35	
Total xylenes	ND	1.0	ug/L	04/08/2005 08:35	
Ethanol	ND	50	ug/L	04/08/2005 08:35	
Surrogates(s)					
1,2-Dichloroethane-d4	113.8	73-130	%	04/08/2005 08:35	
Toluene-d8	98.6	81-114	%	04/08/2005 08:35	

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips #0746

Received: 04/07/2005 17:58

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2005/04/08-1A.64

LCS 2005/04/08-1A.64-014

Extracted: 04/08/2005

Analyzed: 04/08/2005 08:14

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	25.3		25	101.2			65-165	20		
Benzene	25.3		25	101.2			69-129	20		
Toluene	23.5		25	94.0			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	536		500	107.2			73-130			
Toluene-d8	490		500	98.0			81-114			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/13/2005 12:57

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips #0746

Received: 04/07/2005 17:58

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD)

Water

QC Batch # 2005/04/08-1A.64

MS/MSD

Lab ID: 2005-04-0017 - 001

MS: 2005/04/08-1A.64-029

Extracted: 04/08/2005

Analyzed: 04/08/2005 09:29

Dilution: 1.00

MSD: 2005/04/08-1A.64-051

Extracted: 04/08/2005

Analyzed: 04/08/2005 09:51

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	213	213	167	25	184.0	852.0	129.	65-165	20	M3	M3,R2
Benzene	25.6	26.8	1.43	25	96.7	107.2	10.3	69-129	20		
Toluene	22.2	23.7	ND	25	88.8	94.8	6.5	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	552	543		500	110.4	108.6		73-130			
Toluene-d8	489	479		500	97.8	95.8		81-114			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/13/2005 12:57

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: Conoco Phillips #0746

Received: 04/07/2005 17:58

Site: 3943 Broadway, Oakland

Legend and Notes

Analysis Flag

L2

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

M3

Sample > 4x spike concentration.

R2

Analyte RPD was out of QC limits due to sample heterogeneity.

TRC/Alton Geoscience-Concord

April 21, 2005

1590 Solano Way, Suite A
Concord, CA 94520

Attn.: Roger Batra

Project#: 41050001FA20

Project: Conoco Phillips #0746

Site: 3943 Broadway, Oakland

Attached is our report for your samples received on 04/08/2005 17:10


This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 05/23/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: dsharma@stl-inc.com

Sincerely,



Dimple Sharma
Project Manager

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 41050001FA20

Conoco Phillips #0746

Received: 04/08/2005 17:10

Site: 3943 Broadway, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
INFLUENT VAPOR MW-3 MW-5 RW-1	04/08/2005 05:00	Air	1
EFFLUENT VAPOR (STACK)	04/08/2005 05:00	Air	2

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

04/12/2005 12:43

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 41050001FA20

Conoco Phillips #0746

Received: 04/08/2005 17:10

Site: 3943 Broadway, Oakland

Prep(s): 5030B Test(s): 8260B
 Sample ID: **INFLUENT VAPOR MW-3 MW-5 RW-1** Lab ID: 2005-04-0238 - 1
 Sampled: 04/08/2005 05:00 Extracted: 4/9/2005 10:18
 Matrix: Air QC Batch#: 2005/04/09-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	1100	0.31	ppmv	1.00	04/09/2005 10:18	
Benzene	4.1	0.31	ppmv	1.00	04/09/2005 10:18	
Toluene	4.8	0.26	ppmv	1.00	04/09/2005 10:18	
Ethylbenzene	4.7	0.23	ppmv	1.00	04/09/2005 10:18	
Total xylenes	23	0.23	ppmv	1.00	04/09/2005 10:18	
Methyl tert-butyl ether (MTBE)	5.3	0.14	ppmv	1.00	04/09/2005 10:18	
Ethanol	ND	25	ppmv	1.00	04/09/2005 10:18	
Surrogate(s)						
1,2-Dichloroethane-d4	117.9	72-128	%	1.00	04/09/2005 10:18	
Toluene-d8	98.5	80-113	%	1.00	04/09/2005 10:18	

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 41050001FA20
Conoco Phillips #0746

Received: 04/08/2005 17:10

Site: 3943 Broadway, Oakland

Prep(s): 5030B	Test(s): 8260B
Sample ID: EFFLUENT VAPOR (STACK)	Lab ID: 2005-04-0238 - 2
Sampled: 04/08/2005 05:00	Extracted: 4/9/2005 09:56
Matrix: Air	QC Batch#: 2005/04/09-1B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	ND	0.31	ppmv	1.00	04/09/2005 09:56	
Benzene	ND	0.31	ppmv	1.00	04/09/2005 09:56	
Toluene	ND	0.26	ppmv	1.00	04/09/2005 09:56	
Ethylbenzene	ND	0.23	ppmv	1.00	04/09/2005 09:56	
Total xylenes	ND	0.23	ppmv	1.00	04/09/2005 09:56	
Methyl tert-butyl ether (MTBE)	ND	0.14	ppmv	1.00	04/09/2005 09:56	
Ethanol	ND	25	ppmv	1.00	04/09/2005 09:56	
Surrogate(s)						
1,2-Dichloroethane-d4	115.9	72-128	%	1.00	04/09/2005 09:56	
Toluene-d8	95.2	80-113	%	1.00	04/09/2005 09:56	

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 41050001FA20
Conoco Phillips #0746

Received: 04/08/2005 17:10

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2005/04/09-1B.64

MB: 2005/04/09-1B.64-018

Date Extracted: 04/09/2005 08:18

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	04/09/2005 08:18	
Benzene	ND	0.5	ug/L	04/09/2005 08:18	
Toluene	ND	0.5	ug/L	04/09/2005 08:18	
Ethylbenzene	ND	0.5	ug/L	04/09/2005 08:18	
Total xylenes	ND	1.0	ug/L	04/09/2005 08:18	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/09/2005 08:18	
Ethanol	ND	50	ug/L	04/09/2005 08:18	
Surrogates(s)					
1,2-Dichloroethane-d4	112.6	73-130	%	04/09/2005 08:18	
Toluene-d8	99.4	81-114	%	04/09/2005 08:18	

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 41050001FA20
Conoco Phillips #0746

Received: 04/08/2005 17:10

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2005/04/09-1B.64

LCS 2005/04/09-1B.64-056

Extracted: 04/09/2005

Analyzed: 04/09/2005 07:56

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	26.0		25	104.0			65-165	20		
Benzene	26.0		25	104.0			69-129	20		
Toluene	24.2		25	96.8			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	528		500	105.6			73-130			
Toluene-d8	503		500	100.6			81-114			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.st-inc.com * CA DHS ELAP# 2496

04/12/2005 12:43

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 41050001FA20

Conoco Phillips #0746

Received: 04/08/2005 17:10

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD)

Water

QC Batch # 2005/04/09-1B.64

MS/MSD

Lab ID: 2005-04-0097 - 003

MS: 2005/04/09-1B.64-013

Extracted: 04/09/2005

Analyzed: 04/09/2005 09:13

Dilution: 1.00

MSD: 2005/04/09-1B.64-034

Extracted: 04/09/2005

Analyzed: 04/09/2005 09:34

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	27.7	28.0	ND	25	110.8	112.0	1.1	65-165	20		
Benzene	28.2	26.8	ND	25	112.8	107.2	5.1	69-129	20		
Toluene	26.0	25.1	ND	25	104.0	100.4	3.5	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	562	578		500	112.4	115.6		73-130			
Toluene-d8	507	505		500	101.4	101.0		81-114			

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04/12/2005 12:43

TRC/Alton Geoscience-Concord

May 16, 2005

1590 Solano Way, Suite A
Concord, CA 94520

Attn.: Roger Batra

Project#: 42016308

Project: Conoco Phillips # 0746

Site: 3943 Broadway, Oakland

Attached is our report for your samples received on 05/10/2005 17:10

This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 06/24/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: dsharma@stl-inc.com

Sincerely,



Dimple Sharma
Project Manager

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 42016308

Conoco Phillips # 0746

Received: 05/10/2005 17:10

Site: 3943 Broadway, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-3	05/09/2005 12:02	Water	1
MW-5	05/09/2005 12:18	Water	2
RW-1	05/09/2005 13:12	Water	3

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05/15/2005 13:35

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 42016308
Conoco Phillips # 0746

Received: 05/10/2005 17:10

Site: 3943 Broadway, Oakland

Prep(s): 5030B Test(s): 8260B
 Sample ID: MW-3 Lab ID: 2005-05-0292 - 1
 Sampled: 05/09/2005 12:02 Extracted: 5/14/2005 02:49
 Matrix: Water QC Batch#: 2005/05/13-2A.62
 Analysis Flag: L2, pH: <2 (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	12000	500	ug/L	10.00	05/14/2005 02:49	
Benzene	130	5.0	ug/L	10.00	05/14/2005 02:49	
Toluene	58	5.0	ug/L	10.00	05/14/2005 02:49	
Ethylbenzene	410	5.0	ug/L	10.00	05/14/2005 02:49	
Total xylenes	1200	10	ug/L	10.00	05/14/2005 02:49	
Methyl tert-butyl ether (MTBE)	680	5.0	ug/L	10.00	05/14/2005 02:49	
Ethanol	ND	500	ug/L	10.00	05/14/2005 02:49	
Surrogate(s)						
1,2-Dichloroethane-d4	104.8	73-130	%	10.00	05/14/2005 02:49	
Toluene-d8	96.6	81-114	%	10.00	05/14/2005 02:49	

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 42016308
Conoco Phillips # 0746

Received: 05/10/2005 17:10

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2005/05/13-1A.62-003

Water

Test(s): 8260B

QC Batch # 2005/05/13-1A.62

Date Extracted: 05/13/2005 10:03

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/13/2005 10:03	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/13/2005 10:03	
Benzene	ND	0.5	ug/L	05/13/2005 10:03	
Toluene	ND	0.5	ug/L	05/13/2005 10:03	
Ethylbenzene	ND	0.5	ug/L	05/13/2005 10:03	
Total xylenes	ND	1.0	ug/L	05/13/2005 10:03	
Ethanol	ND	50	ug/L	05/13/2005 10:03	
Surrogates(s)					
1,2-Dichloroethane-d4	88.2	73-130	%	05/13/2005 10:03	
Toluene-d8	96.6	81-114	%	05/13/2005 10:03	

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 42016308
Conoco Phillips # 0746

Received: 05/10/2005 17:10

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2005/05/13-2A.62

MB: 2005/05/13-2A.62-044

Date Extracted: 05/13/2005 20:44

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	05/13/2005 20:44	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/13/2005 20:44	
Benzene	ND	0.5	ug/L	05/13/2005 20:44	
Toluene	ND	0.5	ug/L	05/13/2005 20:44	
Ethylbenzene	ND	0.5	ug/L	05/13/2005 20:44	
Total xylenes	ND	1.0	ug/L	05/13/2005 20:44	
Ethanol	ND	50	ug/L	05/13/2005 20:44	
Surrogates(s)					
1,2-Dichloroethane-d4	104.8	73-130	%	05/13/2005 20:44	
Toluene-d8	94.0	81-114	%	05/13/2005 20:44	

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 42016308
Conoco Phillips # 0746

Received: 05/10/2005 17:10

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2005/05/13-1A.62

LCS 2005/05/13-1A.62-037

Extracted: 05/13/2005

Analyzed: 05/13/2005 09:37

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	24.2		25	96.8			65-165	20		
Benzene	24.0		25	96.0			69-129	20		
Toluene	23.2		25	92.8			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	435		500	87.0			73-130			
Toluene-d8	470		500	94.0			81-114			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

05/15/2005 13:35

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 42016308
Conoco Phillips # 0746

Received: 05/10/2005 17:10

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2005/05/13-2A.62

LCS 2005/05/13-2A.62-018

Extracted: 05/13/2005

Analyzed: 05/13/2005 20:18

LCSD

Compound	Conc. ug/L		Exp. Conc.	Recovery %		RPD	Ctrl. Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	26.5		25	106.0			65-165	20		
Benzene	22.9		25	91.6			69-129	20		
Toluene	21.9		25	87.6			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	511		500	102.2			73-130			
Toluene-d8	484		500	96.8			81-114			

Severn Trent Laboratories, Inc.

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05/15/2005 13:35

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 42016308

Conoco Phillips # 0746

Received: 05/10/2005 17:10

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD)

Water

QC Batch # 2005/05/13-1A.62

MS/MSD

Lab ID: 2005-05-0122 - 003

MS: 2005/05/13-1A.62-059

Extracted: 05/13/2005

Analyzed: 05/13/2005 11:59

Dilution: 1.00

MSD: 2005/05/13-1A.62-025

Extracted: 05/13/2005

Analyzed: 05/13/2005 12:25

Dilution: 1.00

Compound	Conc. ug/L		Spk.Level ug/L	Recovery %			Limits %		Flags		
	MS	MSD		Sample	MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	36.1	33.6	11.5	25	98.4	88.4	10.7	65-165	20		
Benzene	25.3	25.2	ND	25	101.2	100.8	0.4	69-129	20		
Toluene	25.3	24.1	ND	25	101.2	96.4	4.9	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	404	404		500	80.8	80.8		73-130			
Toluene-d8	486	474		500	97.2	94.8		81-114			

Severn Trent Laboratories, Inc.

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Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

05/15/2005 13:35

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A
Concord, CA 94520
Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 42016308
Conoco Phillips # 0746

Received: 05/10/2005 17:10

Site: 3943 Broadway, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD)

Water

QC Batch # 2005/05/13-2A.62

MS/MSD

Lab ID: 2005-05-0072 - 001

MS: 2005/05/13-2A.62-006

Extracted: 05/13/2005

Analyzed: 05/13/2005 22:06

Dilution: 1.00

MSD: 2005/05/13-2A.62-032

Extracted: 05/13/2005

Analyzed: 05/13/2005 22:32

Dilution: 1.00

Compound	Conc. ug/L		Spk.Level	Recovery %			Limits %		Flags		
	MS	MSD		Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS
Methyl tert-butyl ether	50.5	55.5	24.7	25	103.2	123.2	17.7	65-165	20		
Benzene	25.3	27.3	ND	25	101.2	109.2	7.6	69-129	20		
Toluene	23.6	24.5	ND	25	94.4	98.0	3.7	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	484	525		500	96.8	105.0		73-130			
Toluene-d8	470	495		500	94.0	99.0		81-114			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

05/15/2005 13:35

Gas/BTEX Fuel Oxygenates by 8260B

TRC/Alton Geoscience-Concord

Attn.: Roger Batra

1590 Solano Way, Suite A

Concord, CA 94520

Phone: (925) 688-1200 Fax: (925) 688-0388

Project: 42016308

Conoco Phillips # 0746

Received: 05/10/2005 17:10

Site: 3943 Broadway, Oakland

Legend and Notes

Analysis Flag

L2

Reporting limits were raised due to high level of analyte present in the sample.

STL-San Francisco

1220 Quarry Lane

Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

ConocoPhillips Chain Of Custody Record

114762

ConocoPhillips Site Manager: Shelby Lathrop

INVOICE REMITTANCE ADDRESS:

CONOCOPHILLIPS
Attn: Dee Hutchinson
3611 South Harbor, Suite 200
Santa Ana, CA. 92704

ConocoPhillips Work Order Number

ConocoPhillips Cost Object

DATE: 5/9/05

PAGE: 1 of 1

2005-05-0292

SAMPLING COMPANY: TRC		Valid Value ID: TRCC	CONOCOPHILLIPS SITE NUMBER: 0746	GLOBAL ID NO.: TO600101471
ADDRESS: 1690 Solano Way, Suite A Concord, CA 94520		SITE ADDRESS (Street and City): 3943 Broadway, Oakland		CONOCOPHILLIPS SITE MANAGER: Shelby Lathrop
PROJECT CONTACT (Hardcopy or PDF Report to): Roger Batra		EDF DELIVERABLE TO (RP or Designer):		LAB USE ONLY
TELEPHONE: (925)600-2466	FAX: (925)688-0380	E-MAIL: rbatra@trcsolutions.com		
SAMPLER NAME(S) (First): Tim Johnson		CONSULTANT PROJECT NUMBER: 48018308		

TURNAROUND TIME (CALENDAR DAYS): <input type="checkbox"/> 14 DAYS <input type="checkbox"/> 7 DAYS <input type="checkbox"/> 72 HOURS <input checked="" type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS		REQUESTED ANALYSES		
SPECIAL INSTRUCTIONS OR NOTES:		CHECK BOX IF EDD IS NEEDED <input type="checkbox"/>		
		8015M - TPHd Extractable	8260B - TPHg/BTEX/AMBE	8260B - TPHg/BTEX/7B
		OXYGENATES	8260B - MTBE/BTEX / 8 oxygenates + methanol (8015M)	8260B - Full Scan VOCs (does not include oxygenates)
		B270C - Semi-Volatiles	8015M / 8021B - TPHg/BTEX/AMBE	Lead DTOTL DTCLP
				External by 8260B

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

3

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	8015M - TPHd Extractable	8260B - TPHg/BTEX/AMBE	8260B - TPHg/BTEX/7B	OXYGENATES	8260B - MTBE/BTEX / 8 oxygenates + methanol (8015M)	8260B - Full Scan VOCs (does not include oxygenates)	B270C - Semi-Volatiles	8015M / 8021B - TPHg/BTEX/AMBE	Lead DTOTL DTCLP	External by 8260B	TEMPERATURE ON RECEIPT C°
		DATE	TIME													
	MW-3	5/9/05	1202	GW	6	X									X	
	MW-5		1218	GW	6	X									X	
	RW-1		1312	GW	0	X									X	

Received by (Signature): <i>[Signature]</i>	Received by (Signature): <i>Refrigerator</i>	Date: 5/9/05	Time: 1630
Received by (Signature): <i>[Signature]</i>	Received by (Signature): <i>[Signature]</i>	Date: 5-10-05	Time: 1558
Received by (Signature): <i>[Signature]</i>	Received by (Signature): <i>[Signature]</i>	Date: 5-10-05	Time: 1710

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 29, 2004
76 Station 0746

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
MW-1														
11/29/04	80.54	7.27	0.00	73.27	0.27	--	58	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	44	
MW-2														
11/29/04	81.32	--	--	--	--	--	--	--	--	--	--	--	--	Unable to open
MW-3														
11/29/04	81.41	9.15	0.00	72.26	0.14	--	9000	5.9	ND<5.0	45	ND<10	--	550	
MW-4														
11/29/04	81.48	9.01	0.00	72.47	-0.52	--	120	ND<0.50	ND<0.50	0.52	ND<1.0	--	0.55	
MW-5														
11/29/04	81.38	9.16	0.21	72.38	0.14	--	--	--	--	--	--	--	--	LPH in well
MW-6														
11/29/04	79.94	7.01	0.00	72.93	0.53	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	4.8	
MW-7														
11/29/04	81.64	8.21	0.00	73.43	0.11	--	62	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.6	
MW-8														
11/29/04	81.41	9.88	0.00	71.53	0.16	--	1500	ND<10	ND<10	ND<10	ND<20	--	1600	
MW-9														
11/29/04	80.53	9.55	0.00	70.98	-0.17	--	690	0.72	ND<0.50	1.3	ND<1.0	--	160	
MW-10														
11/29/04	81.61	12.58	0.00	69.03	-1.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.72	
MW-11														
11/29/04	78.18	10.96	0.00	67.22	-0.86	--	63	ND<0.50	ND<0.50	1.0	2.5	--	ND<0.50	
MW-12														
11/29/04	79.61	12.17	0.00	67.44	-2.33	--	64	0.68	ND<0.50	1.2	3.0	--	0.71	

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
November 29, 2004
76 Station 0746


Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground- water Elevation (feet)	Change in Elevation (feet)	TPH-G (µg/l)	TPPH 8260B (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl- benzene (µg/l)	Total Xylenes (µg/l)	MTBE 8021B (µg/l)	MTBE 8260B (µg/l)	Comments
RW-1 continued 11/29/04	80.63	8.23	0.00	72.40	0.08	--	4500	46	ND<1.0	34	3.6	--	140	

WATER QUALITY & COMPLIANCE			
Responsible Dept: ESD	Orig. Issue: 12/1/94	Latest Revision: 12/17/03	Page: 1

Form R-149: Authorization for Receipt of Remediation Wastewater @ ConocoPhillips's San Francisco Refinery at Rodeo

WASTEWATER TREATMENT PLANT (UNIT 100) OPERATORS:

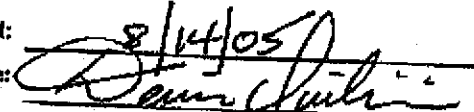
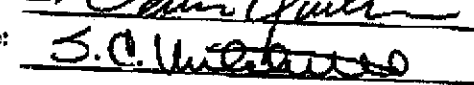
This form below, if approved, serves as an acceptance document to process the wastewater at the San Francisco Refinery Wastewater Treatment Plant, Unit 100. The Requester is required to supply all of the necessary analytical and completely fill out the following table:

Requester's Name/Signature:	Name: Ed Ralston	Signature: 
Company:	ConocoPhillips	
Address:	76 Broadway, Sacramento, CA. 95818	
Telephone/Fax:	Phone: 916-558-7633	FAX: 916-558-7639
Station No. and Location:	COP #250746, 3943 Broadway, Oakland, CA	
Description of Water Source:	Purge Water - DPE test	
Total Volume of Water/Solids Expected:	Water: 8,000 gallons	Solids: <u>minimal</u>
Expected per-Delivery Volume/Frequency:	Volume: 8,000 gallons	Frequency: one time discharge
Pesticides/Fish Toxicity Expected:	Pesticides: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Fish Tox: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Maximum Rate of Disposal (ESD)	8000 Gallons per Week	

The remediation wastewater described above has been reviewed for Federal and California Hazardous Waste characteristics.

This water is (circle one): recommended / not recommended for processing at the WWTP.

This form is valid until:

ESD Signature:  Date Recommended: 5/16/05
 Operations Signature:  Date Approved: 5/17/05

TRUCK DRIVERS: Please provide a copy of this R-149 form upon delivery of wastewater to Unit 100.

Driver's info:

Truck No. _____	pH at site _____
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UNIT 100 OPERATORS: Please fill out the portion below and forward this completed form to ESD in Room 111 of the Administration Building.

Date and time of delivery:

Delivered on: ___/___/___	@ ___ AM / PM
_____ gallons or _____ bbl	pH _____

NO FREE PRODUCT ACCEPTED

GRAVITY OFF-LOAD ONLY

Any questions? Call: (510) 245-4403, (510); (510) 245-4465 or FAX (510) 245-4476.
 ONYX/Mark Laliberte: FAX: (707) 745-0510; DIRECT: (707) 748-3722; CELL: (510) 715-6532
 TRC: Dennis Jensen; 21 Technology Drive, Irvine, CA 92618; (949) 753-0101 (office); (949) 753-0111 (fax); djensen@trcsolutions.com