

RO 243

June 15, 2004

TRC Project No. 42016501

Don Hwang Alameda County Health Services 1131 Harbor Bay Parkway Alameda, CA 94502-6577

RE: Quarterly Status Report - Fourth Quarter 2003

76 Service Station #0018, 6201 Claremont Avenue, Oakland, California

Alameda County

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the Fourth Quarter 2003 quarterly status report for the subject site, shown on the attached Figure 3.

PREVIOUS ASSESSMENTS

The subject site is an active service station located on the northern corner of the intersection of Claremont and College Avenues in Oakland, California. The nearest surface water is Claremont Creek, approximately 0.1 mile northeast of the site.

March 1997: Karpealian Engineering Inc. (KEI) collected soil and grab groundwater samples during underground storage tank (UST) and product line replacement activities. A groundwater sample collected from the former gasoline UST excavation contained 6,100 parts per billion (ppb) total petroleum hydrocarbons as gasoline and 54 ppb benzene.

March 1998: Tosco was issued a Notice of Responsibility by the Alameda County Health Care Services Agency.

December 2000: Gettler-Ryan Inc. installed three groundwater monitoring wells to depths of 30 to 30.5 feet below ground surface (bgs). Groundwater samples contained low maximum concentrations of total petroleum hydrocarbons calculated as gasoline (TPH-g), benzene, and methyl tertiary butyl ether (MTBE).

October 2003: Site environmental consulting responsibilities were transferred to TRC.

SENSITIVE RECEPTORS

Surface water (Claremont Creek) is located 0.1 miles northeast of the site. A sensitive receptor survey has not been performed for this site.

Quarterly Status Report – Fourth Quarter 2003 76 Service Station #0018, Oakland, California June 15, 2004 Page 2

MONITORING AND SAMPLING

Three wells are currently monitored quarterly. All wells were sampled this quarter. The groundwater gradient and flow direction were 0.008 foot/foot to the southwest.

CHARACTERIZATION STATUS

Total purgeable petroleum hydrocarbons (TPPH) were detected in monitoring well MW-1 at a concentration of 97 micrograms per liter ($\mu g/l$). TPPH was not detected above the reporting limit in the other wells sampled this quarter. These levels were consistent with recent historical data.

Benzene was not detected above the reporting limit. These levels were consistent with recent historical data.

MTBE was detected in monitoring well MW-1 at a concentration of 29 µg/l. MTBE was not detected above the reporting limit in the other wells sampled this quarter. These levels are consistent with recent historical data.

REMEDIATION STATUS

Remediation is not currently being conducted at the site.

RECENT CORRESPONDENCE

No correspondence this quarter.

CURRENT QUARTER ACTIVITIES

November 13, 2003: TRC performed groundwater monitoring and sampling. Wastewater generated from well purging and equipment cleaning was stored at TRC's groundwater monitoring facility in Concord, California, and transported by Onyx to the ConocoPhillips Refinery in Rodeo, California, for treatment and disposal.

NEXT QUARTER ACTIVITIES

Await agency directives for additional assessment work, if any.

Continue quarterly monitoring and sampling to assess plume stability and concentration trends at key wells.



Quarterly Status Report – Fourth Quarter 2003 76 Service Station #0018, Oakland, California June 15, 2004 Page 3

If you have any questions regarding this report, please call Roger Batra at (925) 688-2466.

Sincerely,

TRC

Roger Batra

Senior Project Manager

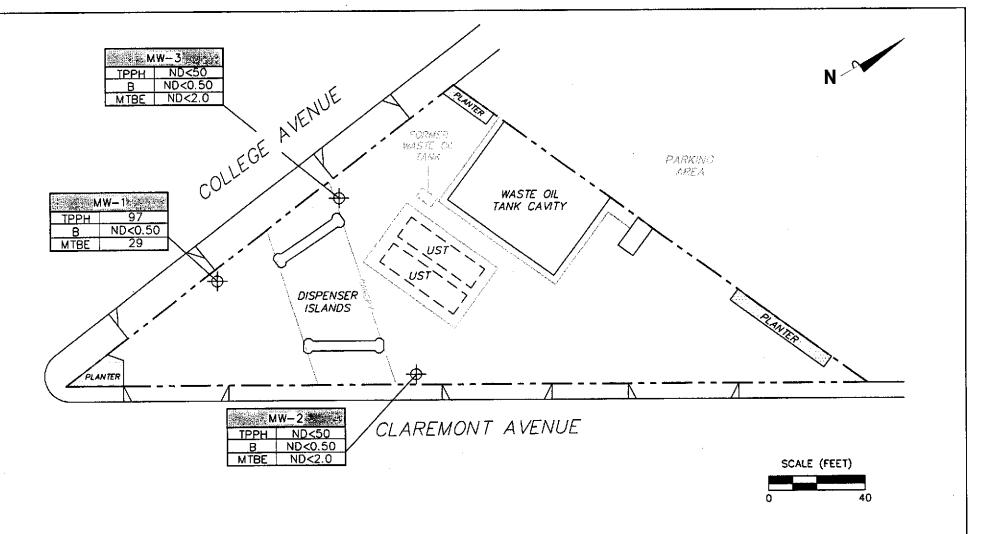
Reger Bonto

Barbara Moed, R.G. Senior Project Geologist No. 7529
Exp. 7/31/05

Attachments:

Figure 3 – Dissolved Phase Hydrocarbon Concentrations Map, November 13, 2003, from Fourth Quarter 2003 Fluid Level Monitoring and Sampling Report, dated January 8, 2004 by TRC.

cc: Thomas Kosel, ConocoPhillips (hard copy and electronic upload)



NOTES:

B = benzene. TPPH = total purgeable petroleum hydrocarbons. MTBE = methyl tertiary butyl ether. $\mu g/l = micrograms$ per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. TPPH and MTBE results obtained using EPA Method 82608.

TRC

LEGEND

建设Well	No.	,
TPPH	µg/l	T
В	μg/I	
MTBE	µg/	

Monitoring Well with Dissolved—Phase Hydrocarbon Concentrations (µg/l)

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS MAP November 13, 2003

> 76 Station 0018 6201 Claremont Avenue Oakland, California

RO 243

Alomeda County

IAN 3 0 2004

Environmental Medith



January 8, 2004

ConocoPhillips Company 76 Broadway Sacramento, CA 95818

ATTN:

MR. THOMAS H. KOSEL

SITE:

76 STATION 0018

6201 CLAREMONT AVENUE OAKLAND, CALIFORNIA

RE:

QUARTERLY MONITORING REPORT OCTOBER THROUGH DECEMBER 2003

Dear Mr. Kosel:

Please find enclosed our Quarterly Monitoring Report for 76 Station 0018, located at 6201 Claremont Avenue, Oakland, California. If you have any questions regarding this report, please call us at (949) 753-0101.

Sincerely,

TRC

Anju Farfan

QMS Operations Manager

CC:

Mr. Don Huang, Alameda County Health Care Service Division

Barbara Moed, TRC

Enclosures

20-0400/0018R01.QMS



FOURTH QUARTER 2003 FLUID LEVEL MONITORING AND GROUNDWATER SAMPLING REPORT

January 8, 2004

76 STATION 0018 6201 Claremont Avenue Oakland, California

Prepared For:

Mr. Thomas H. Kosel CONOCOPHILLIPS COMPANY 76 Broadway Sacramento, California 95818

By:

Senior Project Geologist, Irvine Operations

GROUNDWATER MONITORING REPORT

	LIST OF ATTACHMENTS
Summary Sheet	Summary of Gauging and Sampling Activities
Tables	Table Key Table 1: Summary of Groundwater Levels and Chemical Analysis Results Table 2: Historic Groundwater Levels and Chemical Analysis Results Table 3: Summary of Additional Chemical Analysis Results
Figures	Figure 1: Vicinity Map Figure 2: Groundwater Elevation Contour Map Figure 3: Dissolved-Phase Hydrocarbon Concentration Map
Graphs	Benzene Concentrations vs. Time Hydrographs
Field Activities	General Field Procedures Groundwater Sampling Field Notes
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Disposal Documents	Statement of Authorized Transportation and Disposal
Statement	Limitations

Summary of Gauging and Sampling Activities October 2003 through December 2003 76 Station 0018

6201 Claremont Boulevard Oakland, CA

Site Information:	
Site:	76 Station 6201 Claremont Boulevard Oakland, CA
Project Coordinator/Phone Number:	Thomas H. Kosel/916-588-7666
Groundwater wells onsite:	3
Groundwater wells offsite:	0
ield Activity:	
Sampling consultant:	TRC
Date(s) sampled:	11/13/2003
Groundwater wells gauged:	3
Groundwater wells sampled:	3
Purging method:	submersible pump
Treatment/disposal method during sampling event:	Onyx/Rodeo Unit 100
Free product pumpouts other than sampling event:	No.
Treatment/Disposal method during free product pumpouts:	N/A
ite Hydrogeology:	
Minimum depth to groundwater (feet bgs);	21.52
Maximum depth to groundwater (feet bgs):	23.02
Average groundwater elevation (feet relative to mean sea level):	186.98
Average change in groundwater elevations since previous event (feet):	-0.18
Groundwater gradient and flow direction:	0.008 ft/ft, Southwest
Previous gradient and/or flow direction (and date):	(9/4/2003)
roundwater Condition (Benzene Maximum Contaminant Level [MCL] = 1.0 μ	ıg/l)
Wells with benzene concentrations below MCL:	3
Wells with benzene concentrations at or above MCL:	0
Minimum benzene concentration (µg/l):	ND
Maximum benzene concentration (μg/l):	ND
Minimum MTBE concentration (μg/l);	ND
Maximum MTBE concentration (µg/l):	
** ** *	29 (MW-1)
Minimum TPPH concentration (μg/l):	ND
Maximum TPPH concentration (μg/l):	97 (MW-1)
Groundwater wells with free product:	0
Minimum free product thickness (feet):	0
Maximum free product thickness (feet):	0
dditional Information:	

This report presents the results of groundwater monitoring and sampling activities performed by TRC. Please contact the primary consultant for other specific information on this site.

TABLES

TABLE KEY

ABBREVIATIONS / SYMBOLS

LPH = liquid-phase hydrocarbons

 $\mu g/l$ = micrograms per liter mg/l = milligrams per liter

ND = not detected at or above laboratory detection limit

DTSC = Department of Toxic Substances Control

N/A = not applicable

Trace = less than 0.01 foot of LPH in well

USTs = underground storage tanks

-- e not analyzed, measured, or collected

TPH-G = total petroleum hydrocarbons with gasoline distinction BTEX = benzene, toluene, ethylbenzene, and total xylenes TPH-D = total petroleum hydrocarbons with diesel distinction

TRPH = total recoverable petroleum hydrocarbons

MTBE = methyl tertiary butyl ether
TAME = tertiary amyl methyl ether
ETBE = ethyl tertiary butyl ether

DIPE = di-isopropyl ether
TBA = tertiary butyl alcohol
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene

1,2-DCE = cis- and trans-1,2-Dichloroethene

PCE = tetrachloroethene TCA = trichloroethane TCE = trichloroethene

PCB = polychlorinated biphenyls

TPPH = total purgeable petroleum hydrocarbons

NOTES

Elevations are in feet above mean sea level.

Groundwater elevation for wells with LPH is calculated as follows:

Surface elevation – depth to water + (0.75 x LPH thickness).

Concentration Graphs have been modified to plot non-detect results at the reporting limit stated in the official laboratory report. All non-detect results prior to the Second Quarter 2000 were plotted at $0.1 \,\mu g/l$ for graphical display.

J = estimated concentration, value is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL)

REFERENCE

TRC began groundwater monitoring and sampling activities in October 2003. Historical data for 76 Station 0018 was provided by Gettler-Ryan Inc., Dublin, California, in an excel table received in September 2003.

Table 1
SUMMARY OF GROUNDWATER LEVELS AND CHEMICAL ANALYSIS RESULTS
November 13, 2003
76 Station 0018

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)		
MW-1		(Screen L	iterval in fe	et: 10.0-30	.0)									
11/13/20	03 208.15	21.52	0.00	186.63	-0.06	_	97	ND<0.50	5.0	0.82	3.5		29	
MW-2		(Screen I	iterval in fe	et: 10.0-30	.0)									
11/13/20	03 210.27	23.02	0.00	187.25	-0.27		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
MW-3		(Screen I	nterval in fee	et: 10.0-30	.0)									
11/13/20	03 208.98	21.93	0.00	187.05	-0.22		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	_	ND<2.0	

Table 2
HISTORIC GROUNDWATER LEVELS AND CHEMICAL ANALYSIS RESULTS
August 2000 Through November 2003

76 Station 0018

								Obtain	711 0010					
Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μ g /l)	(μg/l)	(μ g /l)	(μg/l)	
MW-1	C	Screen Inte	erval in feet	: 10.0-30.0))									
2/9/200	208.15	20.16	0.00	187.99		330		1.3	ND	1.0	4.6	140	150	
5/11/20	01 208.15	17.68	0.00	190.47	2.48	1250	_	ND	ND	ND	ND	145	122	
8/10/20	01 208.15	20.38	0.00	187.77	-2.70	580		ND<0.50	ND<0.50	ND<0.50	ND<0.50	110	150	
11/7/20	01 208.15	22.68	0.00	185.47	-2.30	250	_	ND<0.50	1.5	ND<0.50	ND<0.50	120	100	
2/6/200	208.15	16.20	0.00	191.95	6.48	790	-	ND<2.5	12	8.8	ND<2.5	90	72	
5/8/200	208.15	17.54	0.00	190.61	-1.34	890		ND<2.5	ND<2.5	ND<2.5	ND<2.5	87	81	
8/9/200	208.15	20.21	0.00	187.94	-2.67	450		ND<0.50	ND<0.50	ND<0,50	ND<1.0	100	100	
11/29/20	002 208.15	22.33	0.00	185.82	-2.12	110		ND<0.50	ND<0.50	ND<0.50	ND<1.0	72	72	
2/3/200	3 208.15	16.41	0.00	191.74	5.92	540		ND<0.50	ND<0.50	ND<0.50	ND<1.0	40	40	
5/5/200	208.15	16.09	0.00	192.06	0.32	670		ND<2.5	ND<2.5	ND<2.5	ND<5.0	57	57	
9/4/200	3 208.15	21.46	0.00	186.69	-5.37			_						No analysis; past holding time
11/13/ 2 0	003 208.15	21.52	0.00	186.63	-0.06		97	ND<0.50	5.0	0.82	3.5		29	
MW-2	(\$	Screen Inte	rval in feet:	10.0-30.0))						6			
8/24/20	00 210.27	19.69	0.00	190.58		ND		ND	ND	ND	ND	ND	ND	
11/16/ 2 0	000 210.27	21.61	0.00	188.66	-1.92	ND		ND	ND	ND	ND	ND	ND	
2/9/200	1 210.27	21.52	0.00	188.75	0.09	ND		ND	ND	ND	ND	ND	ND	
5/11/200	01 210.27	18.76	0.00	191.51	2.76	ND		ND	ND	ND	ND	ND	ND	
8/10/200	01 210.27	21.65	0.00	188.62	-2.89	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<2.0	
11/7/200	01 210.27	24.25	0.00	186.02	-2.60	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<1.0	
2/6/200	2 210.27	18.22	0.00	192.05	6.03	ND<50	-	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
5/8/200	2 210.27	18.63	0.00	191.64	-0.41	ND<50	_	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0		
8/9/200	210,27	21.53	0.00	188.74	-2.90	ND<50	_	ND<0.50	ND<0,50	ND<0.50	ND<1.0	ND<2.0	ND<2.0	
11/29/20	02 210.27	23.73	0.00	186.54	-2.20	ND<50	***	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0	ND<2.0	
2/3/200	3 210.27	17.43	0.00	192.84	6.30	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0	ND<2.0	
5/5/200	3 210.27	17.15	0.00	193.12	0.28	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0	ND<2.0	

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Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μ g /l)	(μg/l)	(μ g /l)	
MW-2 9/4/200 11/13/20			0.00	187.52 187.25	-5,60 -0.27		- ND< 5 0	 ND<0.50	_ ND<0.50	 ND<0.50	 ND<1.0		 ND<2.0	No analysis; past holding time
MW-3	CS.	Screen Inte	rval in feet:	10.0-30.0	`									
8/24/20	•		0.00	190.30		ND		ND	ND	ND	ND	4.7/2.32	2.3	
11/16/20	00 208.98	20.56	0.00	188.42	-1.88	ND	-	ND	ND	ND	ND	ND	ND	
2/9/200	1 208.98	20,45	0.00	188.53	0.11	ND	-	ND	ND	ND	ND	ND	ND	
5/11/20	01 208.98	17.75	0.00	191.23	2.70	ND	-	ND	ND	ND	ND	ND	ND	
8/10/20	01 208.98	20.70	0.00	188.28	-2.95	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<2.0	
11/7/20	01 208.98	23.02	0.00	185.96	-2.32	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	1.5	
2/6/200	208.98	17.19	0.00	191.79	5.83	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
5/8/200	208.98	17.59	0.00	191.39	-0.40	ND<50	••	ND<0.50	ND<0,50	ND<0.50	ND<0.50	ND<5.0		
8/9/200	208.98	20.48	0.00	188.50	-2.89	ND<50	-	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0	ND<2.0	
11/29/20	02 208.98	22.64	0.00	186.34	-2.16	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0	ND<2.0	
2/3/200	3 208.98	16.46	0.00	192.52	6.18	ND<50	-	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<2.0	ND<2.0	
5/5/200	3 208.98	16.16	0,00	192.82	0,30	ND<50	-	ND<0.50	ND<0.50	ND<0.50	ND<1.0	2.6	2.6	
9/4/200	3 208.98	21.71	0.00	187.27	-5.55					-				No analysis; past holding time
11/13/20	03 208.98	21.93	0.00	187,05	-0.22		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	

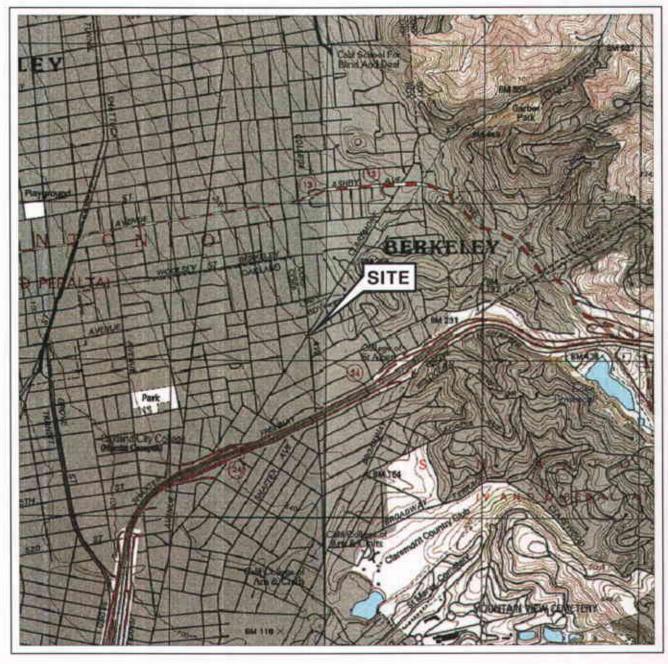
Table 3
SUMMARY OF ADDITIONAL CHEMICAL ANALYSIS RESULTS
76 Station 0018

Date Sampled	EDC	EDB	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	Ethanol 8015B	Ethanol 8260B	1,2 DCE
	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/ l)	(mg/l)	(μ g /l)	(μg/l)
MW-1									
2/9/2001	_	ND	ND	ND	ND	ND		ND	ND
5/11/2001		ND	ND	ND	ND	ND		ND	ND
8/10/2001		ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0		ND<1,000	ND<2.0
11/7/2001		ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0		ND<500	ND<1.0
2/6/2002	_	ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0	-	ND<500	ND<2.0
5/8/2002		ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0		ND<500	ND<2.0
8/9/2002		ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2,0		ND<500	ND<2.0
11/29/2002		ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0		ND<500	ND<2.0
2/3/2003		ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0		ND<500	ND<2.0
5/5/2003		ND<10	ND<10	ND<500	ND<10	ND<10		ND<2,500	ND<10
11/13/2003	ND<2.0	ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0		ND<500	
MW-2									
8/24/2000			ND	ND	ND	ND		ND	
11/16/2000	-		ND	ND	ND	ND		ND	
2/9/2001		ND	ND	ND	ND	ND		ND	ND
5/11/2001	_	ND	ND	ND	ND	ND		ND	ND
8/10/2001	-	ND<2,0	ND<2.0	ND<100	ND<2.0	ND<2.0		ND<1,000	ND<2.0
11/7/2001		ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0		ND<500	ND<1.0
8/9/2002		_			**				
11/29/2002		**				**	-		
2/3/2003						**			
5/5/2003					_				
11/13/2003				**				ND<500	
MW-3									
8/24/2000	-		ND	ND	ND	ND	ND		
11/16/2000	**		ND	ND	ND	ND	ND		

0018

Page 1 of 2

Date Sampled	EDC	EDB	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	Ethanol 8015B	Ethanol 8260B	1,2 DCE		
	(μg/l)	(μg/l)	(μ g /l)	(μg/l)	(μg/l)	(µg/l)	(mg/l)	(μg/ l)	(µg/l)		
MW-3 2/9/2001	continued		ND	ND	ND	ND	ND				
5/11/2001	1		ND	ND	ND	ND	ND				
8/10/2001	1		ND<2.0	ND<100	ND<2.0	ND<2.0	ND<1,000				
11/7/2001	1		ND<1.0	ND<20	ND<1.0	ND<1.0	ND<500				
8/9/2002	?	ND				44	**		ND		
11/29/200)2 –	ND							ND		
2/3/2003	-	ND<2.0	**						ND<2.0		
5/5/2003	-	ND<1.0			-				ND<1.0		
11/13/200	3							ND<500			





SOURCE:

United States Geological Survey 7.5 Minute Topographic Map: Oakland East & Oakland West Quadrangles



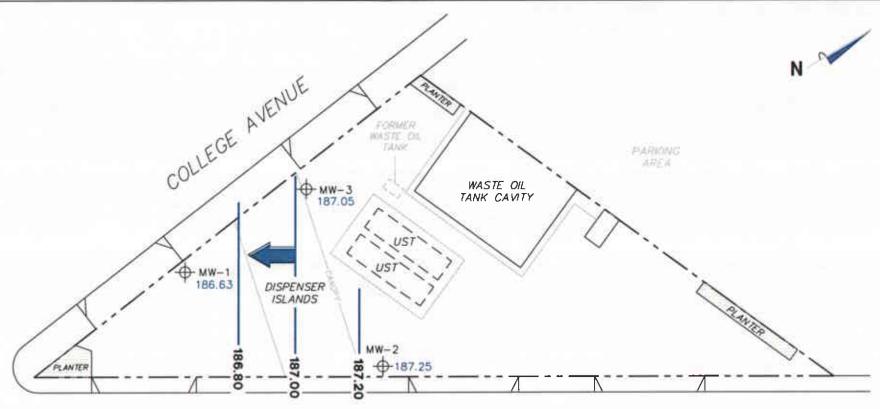


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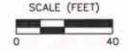


VICINITY MAP

76 Station 0018 6201 Claremont Avenue Oakland, California



CLAREMONT AVENUE



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level. UST = underground storage tank.



LEGEND

MW-3

Monitoring Well with

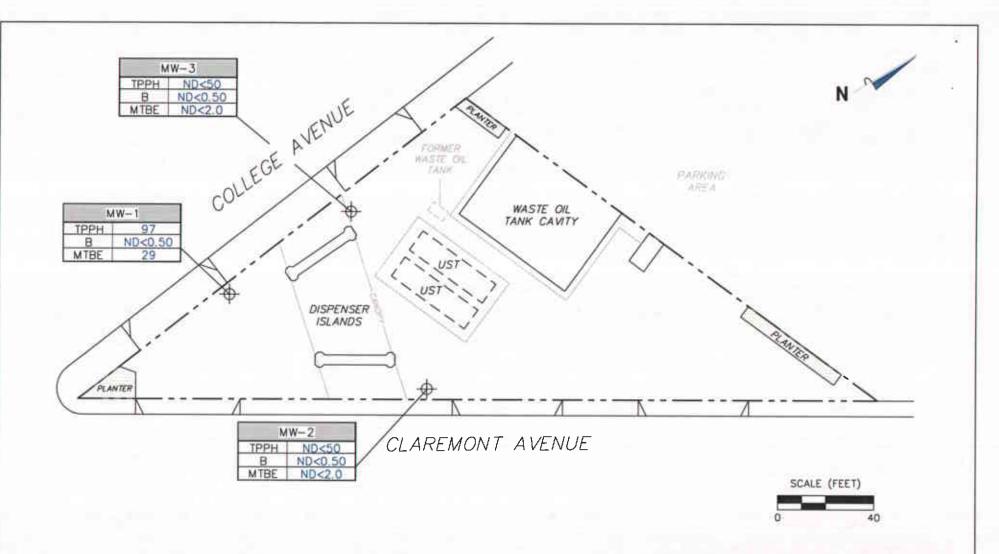
Groundwater Elevation (feet)

187.20 — Groundwater Elevation Contour

General Direction of Groundwater Flow

GROUNDWATER ELEVATION CONTOUR MAP November 13, 2003

76 Station 0018 6201 Claremont Avenue Oakland, California



NOTES:

B = benzene. TPPH = total purgeable petroleum hydrocarbons. MTBE = methyl tertiary butyl ether. $\mu g/I$ = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. TPPH and MTBE results obtained using EPA Method 8260B.



LEGEND

| Well No. | M | Di | B | μg/l | H | Co

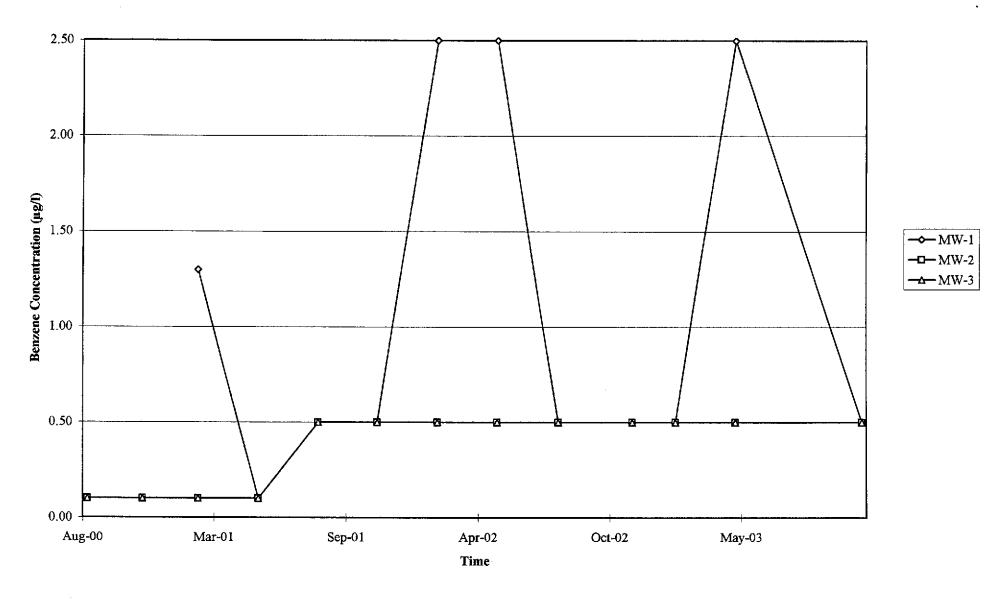
Monitoring Well with Dissolved—Phase Hydrocarbon Concentrations (µg/I)

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS MAP November 13, 2003

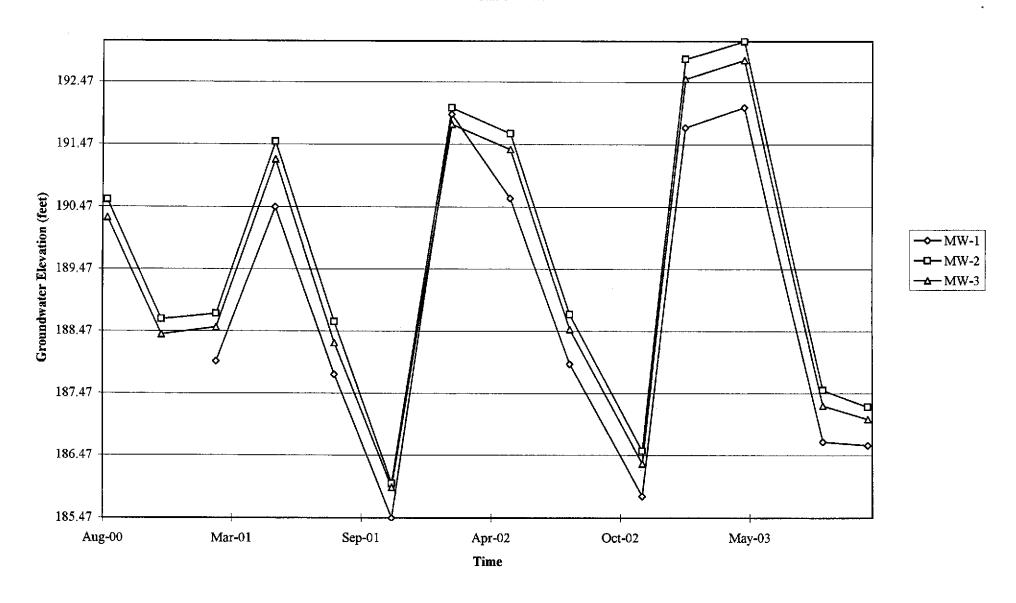
76 Station 0018 6201 Claremont Avenue Oakland, California

GRAPHS

Graph 1
Benzene Concentrations vs. Time
76 Station 0018



Graph 2 Hydrograph 76 Station 0018



GENERAL FIELD PROCEDURES

Groundwater Monitoring and Sampling Assignments

For each site, TRC technicians are provided with a Technical Service Request (TSR) that specifies activities required to complete the groundwater monitoring and sampling assignment for the site. TSRs are based on client directives, instructions from the primary environmental consultant for the site, regulatory requirements, and TRC's previous experience with the site.

Fluid Level Measurements

Initial site activities include determination of well locations based on a site map provided with the TSR. Well boxes are opened and caps are removed. Indications of well or well box damage, or of pressure buildup in the well are noted.

Fluid levels in each well are measured using a coated cloth tape equipped with an electronic interface probe, which distinguishes between liquid phase hydrocarbon (LPH) and water. The depth to LPH (if it is present), to water, and to the bottom of the well are measured from the top of the well casing (surveyors mark or notch if present) to the nearest 0.01 foot. If the difference between the measured top of water and the measured bottom of the well casing is less than 0.67 foot, the well is considered to be dry, and is not sampled. If the well contains 0.67 foot or more of water, an attempt is made to bail and/or sample as specified on the TSR.

Wells that are found to contain LPH are not purged or sampled. Instead, one casing volume of fluid is bailed from the well and the well is re-sealed. Bailed fluids are placed in a container separate from normal purge water, and properly disposed.

Purging and Groundwater Parameter Measurement

TSR instructions may specify that a well not be purged (no-purge sampling), be purged using low-flow methods, or be purged using conventional pump and/or bail methods. Conventional purging generally consists of pumping or bailing until a minimum of three casing volumes of water have been removed or until the well has been pumped dry. Pumping is generally accomplished using submersible electric or pneumatic diaphragm pumps.

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurement are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate. Groundwater parameters specified by the TSR are measured continuously until they become stable in general accordance with EPA guidelines.

Purge water is generally collected in labeled drums for disposal. Drums may be left on site for disposal by others, or transported to a collection location for eventual transfer to a licensed treatment or recycling facility. In some cases, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

Groundwater Sample Collection

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled.

Samples are collected by lowering a new, disposable, ½-inch to 4-inch polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

After filling, all containers are labeled with project number (or site number), well designation, sample date, and the samplers initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

Sequence of Gauging, Purging, and Sampling

The sequence in which monitoring activities are conducted are specified on the TSR. In general, wells are gauged beginning with the least-affected well and ending with the well that has highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected well to the most-affected well.

Decontamination

In order to reduce the possibility of cross-contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated to a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liqui-nox and water and rinsing twice. The final rinse is in deionized water.

Exceptions

Additional tasks or non-standard procedures, if any, that may be requested or required for a particular site, and noted on the site TSR, are documented in field notes on the following pages.

FIELD MONITORING DATA SHEET



JEREMY LLEX

Technician:	

Date: 1-13-03

Site # CO19 Project Manager KATHE DESKIN

Fidmon xls 9/23/01

Page ____of ___

Well#	Grade	тос	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
1W-2	l Olado	·	29.53		Ø	0	1445	2"
1W-1		V	29.71	21.52	-6	-0	1438	2"
NW-3		V .	29.90	21.93	٥	9	1510	2 "
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<u></u>				.5 .				
								
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T CERTI			MANIFES		DRUM IN)			FIC CONTROL

GROUNDWATER SAMPLING FIELD NOTES

			Technician:	JEREN	7_1			
Site: 00	19	 	Project No.:	4105	00-01		Date: 1(-	13-03
Well No.:	MN-	2		Purge Method:	Sub			
Depth to Wate	r (feet):	23,02	<u> </u>		uct (feet):)		
Total Depth (fe	eet):	24.53	_	LPH & Water I	Recovered (gal	ions): -{	-	
Water Column	(feet):	6.51	_	Casing Diame	ter (Inches):	2"		
80% Recharge	e Depth (fe	eet): 24.3	2	1 Well Volume	e (gallons):		· · · · · · · · · · · · · · · · · · ·	
Time Start	Time Stop	Depth To Water	Volume Purged	Conduc- tivity	Temperature	Hq	Turbidity	D.O.
		(feet)	(gallons)	(uS/cm) 680	(F,C) 15,4	7.51		
			1		······································			
			2	508	16-2	7:72	· -	
	=		3	490	16.8	7.10		
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Stat 23		Sampled	Ī	otal Gallons Pu			Time Sam I4 4	
<u> </u>	.,,,,	<u>-</u>		1				
Well No.:					l;			
•				•	luct (feet):			
					Recovered (ga	ılions):		
Water Colum				Casing Diame			·	
80% Recharg	je Depth (f	eet):	_	1 Well Volum	e (gallons):	<u></u>		
Time Start	Time Stop		Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature	рН	Turbidity	D.O.
				·				
Sta	। tic at Time	Sampled		⊢ Fotal Gallons Pt	⊥ urged		Time San	npled
Comments:								
20			··-					
				<u> </u>				

GROUNDWATER SAMPLING FIELD NOTES

Project No.:	410 500 O				
			•	Date: 11-1	ર
	Purge Method:	<u> </u>	8		
	Depth to Produ	uct (feet):	Ð		
			_		
<u>*</u>					
and the constant in the	Conduc- tivity	Temperature	рΗ	Turbidity	D.O.
(99.001.0)	1	19.7	7.22		
2	-	19.2	7.13		
3	_i		0.91		
					
				· · · · · · · · · · · · · · · · · · ·	
Т	otal Gallons Pur	rged			
	<u> </u>			H38	
	Purge Method	I:	SUB		
<u> </u>	Depth to Prod	uct (feet):	-0		•
2_	LPH & Water	Recovered (gal	··-·-	2	
	Casing Diame	eter (Inches):	2"		
<u> </u>	1 Well Volume	e (gallons):	<u>t</u>		
	Conduc- tivity (uS/cm)	Temperature	рН	Turbidity	D.O.
ì	640	[8,9]	6.92		
2		19.3	6.76	-	
3	574	18.6	6.7C		
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	1	! !			
		and the second s	1 .	Time Sample	-d
	Total Gallons Pu	irged 3		1510	cu
	Purged (gallons) 2 3 Volume Purged (gallons) (gallons)	Depth to Productivity (gallons) Purge Method Depth to Productivity (gallons) Purge Method Depth to Productivity (gallons) Purge Method Depth to Productivity (gallons) Volume Conductivity (gallons) Casing Diame 1 Well Volume Conductivity (gallons) Volume Conductivity (gallons) Coff Coff Coff Coff Coff Coff Coff Co	Depth to Product (feet):	Depth to Product (feet): Depth to Product (feet): Depth & Water Recovered (gallons): D	Depth to Product (feet):



Submission#: 2003-11-0570

TRC Alton Geoscience

December 01, 2003

21 Technology Drive Irvine, CA 92718

Attn.:

Anju Farfan

Project#:

41050001FA20

Project:

Conoco Phillips #0018

Site:

6201 Claremont Blvd. Oakland

Attached is our report for your samples received on 11/14/2003 15:21

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

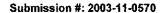
Please note that any unused portion of the samples will be discarded after 12/29/2003 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,

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

haema

Dimple Sharma Project Manager





TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

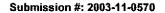
Conoco Phillips #0018

Received: 11/14/2003 15:21

Site: 6201 Claremont Blvd. Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab#
MW-1	11/14/2003 14:38	Water	1
MW-2	11/13/2003 14:45	Water	2
MVV-3	11/13/2003 15:10	Water	3





TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #0018

Received: 11/14/2003 15:21

Site: 6201 Claremont Blvd. Oakland

Prep(s): 5030B Test(s): 8260B Sample ID: MW-1 Lab ID: 2003-11-0570 - 1 Sampled: 11/14/2003 14:38 Extracted: 11/22/2003 15:12 Matrix: Water QC Batch#: 2003/11/22-18.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	97	50	ug/L	1.00	11/22/2003 15:12	
Benzene	ND	0.50	ug/L	1.00	11/22/2003 15:12	
Toluene	5.0	0.50	ug/L	1.00	11/22/2003 15:12	
Ethylbenzene	0.82	0.50	ug/L	1.00	11/22/2003 15:12	
Total xylenes	3.5	1.0	ug/L	1.00	11/22/2003 15:12	
tert-Butyl alcohol (TBA)	ND	100	ug/L	1.00	11/22/2003 15:12	
Methyl tert-butyl ether (MTBE)	29	2.0	ug/L	1.00	11/22/2003 15:12	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	11/22/2003 15:12	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	11/22/2003 15:12	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	11/22/2003 15:12	
1,2-DCA	ND	2.0	ug/L	1.00	11/22/2003 15:12	
EDB	ND	2.0	ug/L	1.00	11/22/2003 15:12	
Ethanol	ND	500	ug/L	1.00	11/22/2003 15:12	
Surrogate(s)						
1,2-Dichloroethane-d4	87.8	76	%	1.00	11/22/2003 15:12	
Toluene-d8	93.4	88	%	1.00	11/22/2003 15:12	



TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

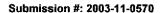
Conoco Phillips #0018

Received: 11/14/2003 15:21

Site: 6201 Claremont Blvd. Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID: Sampled:	MW-2 11/13/2003 14:45	Lab ID: Extracted:	2003-11-0570 - 2 11/22/2003 15:35
Matrix:	Water	QC Batch#:	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	11/22/2003 15:35	
Benzene	ND	0.50	ug/L	1.00	11/22/2003 15:35	
Toluene	ND	0.50	ug/L	1.00	11/22/2003 15:35	
Ethylbenzene	ND	0.50	ug/L	1.00	11/22/2003 15:35	
Total xylenes	ND	1.0	ug/L	1.00	11/22/2003 15:35	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	11/22/2003 15:35	
Ethanol	ND	500	ug/L	1.00	11/22/2003 15:35	
Surrogate(s)						
1,2-Dichloroethane-d4	91.6	76	%	1.00	11/22/2003 15:35	
Toluene-d8	92.5	88	%	1.00	11/22/2003 15:35	





TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #0018

Received: 11/14/2003 15:21

Site: 6201 Claremont Blvd. Oakland

 Prep(s):
 5030B
 Test(s):
 8260B

 Sample ID:
 MW-3
 Lab ID:
 2003-11-0570 - 3

 Sampled:
 11/13/2003 15:10
 Extracted:
 11/22/2003 15:58

Matrix: VVater QC Batch#: 2003/11/22-1B.65

Compound Conc. RL Unit Dilution Analyzed Flag Gasoline 1.00 ND 50 ug/L 11/22/2003 15:58 Benzene 1.00 ND 0.50 ug/L 11/22/2003 15:58 Toluene ND 0.50 ug/L 1.00 11/22/2003 15:58 Ethylbenzene ND 1.00 0.50 ug/L 11/22/2003 15:58 Total xylenes ND 1.0 1.00 ug/L 11/22/2003 15:58 Methyl tert-butyl ether (MTBE) ND 2.0 ug/L 1.00 11/22/2003 15:58 Ethanol ND 1.00 500 ug/L 11/22/2003 15:58 Surrogate(s) 1.2-Dichloroethane-d4 1.00 93.0 76 % 11/22/2003 15:58 Toluene-d8 % 1.00 92.6 88 11/22/2003 15:58



TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #0018

Received: 11/14/2003 15:21

Site: 6201 Claremont Blvd. Oakland

	Batch QC Report	
Prep(s): 5030B		Test(s): 8260B
 Method Blank MB: 2003/11/22-1B.65-033	Water	QC Batch # 2003/11/22-1B.65 Date Extracted: 11/22/2003 10:33

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	11/22/2003 10:33	
tert-Butyl alcohol (TBA)	ND	100	ug/L	11/22/2003 10:33	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	11/22/2003 10:33	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	11/22/2003 10:33	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	11/22/2003 10:33	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	11/22/2003 10:33	
1,2-DCA	ND	2.0	ug/L	11/22/2003 10:33	
EDB	ND	2.0	ug/L	11/22/2003 10:33	
Benzene	ND	0.5	ug/L	11/22/2003 10:33	
Toluene	ND	0.5	ug/L	11/22/2003 10:33	
Ethylbenzene	ND	0.5	ug/L	11/22/2003 10:33	
Total xylenes	ND	1.0	ug/L	11/22/2003 10:33	
Ethanol	ND	500	ug/L	11/22/2003 10:33	
Surrogates(s)					
1,2-Dichloroethane-d4	82.2	76-114	%	11/22/2003 10:33	
Toluene-d8	93.2	88-110	%	11/22/2003 10:33	





TRC Alton Geoscience Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 41050001FA20

Conoco Phillips #0018

Received: 11/14/2003 15:21

Site: 6201 Claremont Blvd. Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2003/11/22-1B.65

LCS

2003/11/22-1B 65-048

Extracted: 11/22/2003

Analyzed: 11/22/2003 09:47

LCSD

2003/11/22-1B.65-010

Extracted: 11/22/2003

Analyzed: 11/22/2003 10:10

Compound	Conc. ug/L E		Exp.Conc.	Exp.Conc. Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	18.7	21.7	25	74.8	86.8	14.9	65-165	20		
Benzene	20.5	24.1	25	82.0	96.4	16.1	69-129	20		
Toluene	20.8	23.5	25	83.2	94.0	12.2	70-130	20		
Surrogates(s)		ŀ		İ						
1,2-Dichloroethane-d4	423	423	500	84.6	84.6		76-114	i i		
Toluene-d8	464	462	500	92.8	92.4	1 1	88-110			



STL San Francisco

Sample Receipt Checklist

Submission #:2003- <u> </u>	•
checklist completed by: (initials) <u>UL</u> Date: [, , , , , , , , , , , , , , , , , , ,
Courier name: STL San Francisco Client	. Not
Custody seals intact on shipping container/samples	YesNoPresent
Chain of custody present?	YesNo
Chain of custody signed when relinquished and received?	YesNo
Chain of custody agrees with sample labels?	Yes_1No
	YesNo
Samples in proper container/bottle?	YesNo
Sample containers intact?	YesNo
Sufficient sample volume for indicated test?	YesNo
All samples received within holding time?	Temp:°C YesNo
Container/Temp Blank temperature in compliance (4° C ± 2)?	Ice Present YesNo
Water - VOA vials have zero headspace?	No VOA vials submittedYesNo
Water - pH acceptable upon receipt? PYes □ No □ pH adjusted - Preservative used: □ HNO₃ □ HCl □ H₂SO₄ □ Na For any item check-listed "No", provided detail of discrepancy in o	aOH ☐ ZnOAc –Lot #(s)
Comments:	
Project Management [Routing for instruction of in	dicated discrepancy(ies)]
Project Manager: (initials) Date:/03	
Client contacted: ☐ Yes ☐ No	
Summary of discussion:	
Corrective Action (per PM/Client):	
	<i></i>

STL-San Francisco

ConocoPhillips Chain Of Custody Record

80295

1220 Quarry Lane

Pleasanton, CA 94566

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS:

CONOCOPHILLIPS Attn: Dee Hutchinson 3611 South Harbor, Suite 200 ConocoPhillips Cost Object

ConocoPhillips Work Order Number

DATE: 11-13-03

Santa Ana, CA, 92704 (925) 484-1919 (925) 484-1096 fax CONOCOPHILLIPS SITE NUMBER GLOBAL ID NO .: SAMPLING COMPANY: Valid Value ID: TO600102231 TRC 0019 ADDRESS: Blud. 21 Technology Drive, Irvine, CA 92618 Oakland 6201 Clarement PROJECT CONTACT (Hardcopy or PDF Report to): EDF DELIVERABLE TO (RP or Designee): LAB USE ONLY Anju Farfan TELEPHONE: Peter Thomson, 949-753-0101 949-341-7440 afarfan@trcsolutions.com 949-753-0111 pthomson@trcsolutions.com SAMPLER NAME(S) (Print): CONSULTANT PROJECT NUMBER REQUESTED ANALYSES 41050001/FA20 JEREMY KEARNS TURNAROUND TIME (CALENDAR DAYS): 3 8260B - TPHg / L. .

Oxygenates
8260B - TPHg / BTEX / 8

"...anates + methanol (8015M) 8015M / 8021B - TPHg/BTEX/MtBE 🔀 14 DAYS 🔲 7 DAYS 🔲 72 HOURS 🔲 48 HOURS 🔲 24 HOURS 🔲 LESS THAN 24 HOURS OTCLP BTEX/MTBE/EPHANSL FIELD NOTES: Š Š 8260B - TPH9/BTEX/MIBE CHECK BOX IF EDD ISNEEDED | V SPECIAL INSTRUCTIONS OR NOTES: Container/Preservative □Total □STLC 2978 4 8270C - Semi-Volatiles or PID Readings *5*0 or Laboratory Notes STEX/MTBE TPP# * Fleld Point name only required if different from Sample ID Lead Sample Identification/Field Point TEMPERATURE ON RECEIPT C° SAMPLING NO. OF MATRIX CONT. Name* DATE TIME ONLY 1439 3 G, w. Mw -1 3 WW-2 1445 3 1510 NW-3 Received by: (Signature) Received by: (Signature)

TRC Customer Focused Solutions 5052 Commercial Circle Concord, CA 94520-1248

Statement of Authorized Transportation and Disposal

This is to certify that non-hazardous groundwater produced during purging and
sampling of monitoring wells at ConocoPhillips site number 0016 was accumulated
at TRC's groundwater monitoring facility at Concord, California, for transportation by
Onyx Transportation, Inc. to the ConocoPhillips Refinery at Rodeo California for
disposal. TRC records indicate that approximately gallons of purge water
from the site were transferred to the purge water holding tank on
11/13/03 The contents of the holding tank were transported to the
Unit 100 Water Treatment Facility at the Rodeo Refinery on

Disposal at the facility was authorized by ConocoPhillips in accordance with "ESD Standard Operating Procedures – Water Quality and Compliance", as revised on February 7, 2003. The procedure requires that TRC dispose only of monitoring well purge water from sites for which TRC services are under contract by ConocoPhillips. The non-hazardous nature of the purge water is confirmed quarterly by analysis by an independent certified laboratory of a random sample from the TRC holding facility. The sample is analyzed for all analytes and parameters that might affect the ConocoPhillips NPDES permit for ultimate disposal of the water. Documentation of compliance with ConocoPhillips requirements is provided by an ESD Form R-149, which is on file with ConocoPhillips.

If any purge water collected at the site is suspected of containing potentially hazardous material such as liquid-phase hydrocarbons, that water was accumulated separately in a drum for transpportation and disposal by Filter Recycling, Inc.

In-witness of this statement

Dennis E. Jensen

QM\$ Program Manager

LIMITATIONS

The fluid level monitoring and groundwater sampling activities summarized in this report have been performed under the responsible charge of a California Registered Geologist or Registered Civil Engineer and have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, express or implied, is made regarding the conclusions and professional opinions presented in this report. The conclusions are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.