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Alameda County
JAN 07 2004
Environmental Health

December 11, 2003

ConocoPhillips Company
76 Broadway
Sacramento, CA 95818

ATTN: MR. DAVID B. DeWITT

SITE: 76 STATION 1871
96 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

RE: QUARTERLY MONITORING REPORT
OCTOBER THROUGH DECEMBER 2003

Dear Mr. DeWitt:

Please find enclosed our Quarterly Monitoring Report for 76 Station, located at 96 MacArthur Boulevard, 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: Alameda County Health Care Services DH
Barbara Moed, TRC

Enclosures
1871R01.QMS

21 Technology Drive • Irvine, California 92618
Telephone 949-727-9336 • Fax 949-727-7399

TRC

Customer-Focused Solutions

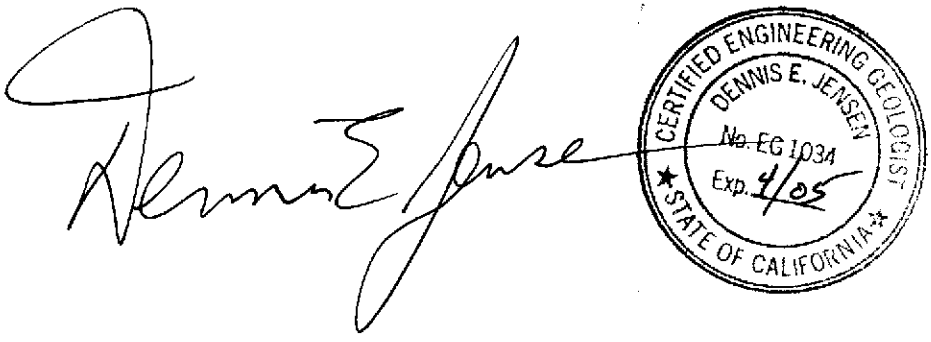
FOURTH QUARTER 2003
FLUID LEVEL MONITORING AND
GROUNDWATER SAMPLING REPORT
December 11, 2003

76 STATION 1871
96 MacArthur Boulevard
Oakland, California

Prepared For:

Mr. David B. DeWitt
CONOCOPHILLIPS COMPANY
76 Broadway
Sacramento, California 95818

By:



Senior Project Geologist, Irvine Operations

21 Technology Drive • Irvine, California 92618
Telephone 949-727-9336 • Fax 949-727-7399

GROUNDWATER MONITORING REPORT

LIST OF ATTACHMENTS	
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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 1871
96 MacArthur
Oakland, CA

Site Information:

Site:	76 Station 96 MacArthur Oakland, CA
Project Coordinator/Phone Number:	David DeWitt/916-558-7666
Groundwater wells onsite:	1
Groundwater wells offsite:	6

Field Activity:

Sampling consultant:	TRC
Date(s) sampled:	10/2/03
Groundwater wells gauged:	7
Groundwater wells sampled:	7
Purging method:	submersible pump
Treatment/disposal method during sampling event:	ConocoPhillips Rodeo Refinery
Free product pumpouts other than sampling event:	No
Treatment/Disposal method during free product pumpouts:	N/A

Site Hydrogeology:

Minimum depth to groundwater (feet bgs):	7.63
Maximum depth to groundwater (feet bgs):	16.28
Average groundwater elevation (feet relative to mean sea level):	68.77
Average change in groundwater elevations since previous event (feet):	-0.57
Groundwater gradient and flow direction:	0.02 ft/ft, southwest
Previous gradient and/or flow direction (and date):	(7/16/03)

Groundwater Condition (Benzene Maximum Contaminant Level [MCL] = 1.0 µg/l)

Wells with benzene concentrations below MCL:	6
Wells with benzene concentrations at or above MCL:	1
Minimum benzene concentration (µg/l):	ND
Maximum benzene concentration (µg/l):	1400 (MW-1)
Minimum MTBE concentration (µg/l):	ND
Maximum MTBE concentration (µg/l):	22000 (MW-7)
Minimum TPPH concentration (µg/l):	ND
Maximum TPPH concentration (µg/l):	45000 (MW-1)
Groundwater wells with free product:	0
Minimum free product thickness (feet):	0
Maximum free product thickness (feet):	0

Additional 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
µg/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
DNA	=	data not available
Trace	=	less than 0.01 foot of LPH in well
USTs	=	underground storage tanks
--	=	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 µg/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 1871 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

October 2, 2003

76 Station 1871

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		**(Screen Interval in feet: 9.5-24.5)**												
10/2/03	86.99	14.95	0.00	72.04	-0.69	--	45000	1400	32	2900	7600	--	3200	
MW-6		**(Screen Interval in feet: 5.0-25.0)**												
10/2/03	79.67	9.92	0.00	69.75	-0.49	--	200	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	220	
MW-7		**(Screen Interval in feet: 5.0-25.0)**												
10/2/03	80.67	9.89	0.00	70.78	-0.70	--	17000	ND<100	ND<100	ND<100	ND<200	--	22000	
MW-8		**(Screen Interval in feet: 5.0-25.0)**												
10/2/03	81.71	10.41	0.00	71.30	-0.78	--	75	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	78	
MW-9		**(Screen Interval in feet: DNA)**												
10/2/03	82.07	16.28	0.00	65.79	-0.74	--	820	ND<5.0	ND<5.0	ND<5.0	ND<10	--	990	
MW-10		**(Screen Interval in feet: DNA)**												
10/2/03	74.98	7.63	0.00	67.35	-0.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
MW-11		**(Screen Interval in feet: DNA)**												
10/2/03	77.31	12.96	0.00	64.35	0.02	--	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

October 2, 2003

76 Station 1871

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	**(Screen Interval in feet: 9.5-24.5)**													
1/25/93	81.18	--	0.00	--	--	120000	--	2100	4600	4900	22000	--	--	
4/29/93	81.18	13.71	0.00	67.47	--	100000	--	850	2000	4300	19000	--	--	
7/16/93	81.18	14.51	0.00	66.67	-0.80	29000	--	590	560	980	4200	--	--	
10/19/93	81.18	15.20	0.00	65.98	-0.69	67000	--	1400	2600	2900	5000	--	--	
1/20/94	81.18	15.17	0.00	66.01	0.03	92000	--	1200	3000	3400	17000	--	--	
4/13/94	81.18	14.44	0.00	66.74	0.73	51000	--	1000	2600	3200	15000	--	--	
7/13/94	81.18	14.88	0.00	66.30	-0.44	35000	--	550	150	1400	5700	--	--	
10/10/94	81.18	15.55	0.00	65.63	-0.67	52000	--	1000	810	3300	12000	--	--	
1/10/95	81.18	12.44	0.00	68.74	3.11	810	--	16	18	59	250	--	--	
4/17/95	81.18	12.68	0.00	68.50	-0.24	48000	--	880	530	2500	11000	--	--	
7/24/95	81.18	13.97	0.00	67.21	-1.29	48000	--	1500	420	2700	9700	--	--	
10/23/95	81.18	14.85	0.00	66.33	-0.88	47000	--	780	210	2100	11000	270	--	
1/18/96	81.18	14.21	0.00	66.97	0.64	30000	--	1500	500	3500	13000	2400	--	
4/18/96	86.24	13.40	0.00	72.84	5.87	66000	--	2700	2200	3100	13000	57000	--	
7/24/96	86.24	14.15	0.00	72.09	-0.75	5600	--	2100	ND	160	160	24000	--	
10/24/96	86.24	14.85	0.00	71.39	-0.70	110000	--	7500	8000	3300	14000	58000	--	
1/28/97	86.24	11.25	0.00	74.99	3.60	94000	--	7700	19000	3100	15000	120000	--	
7/29/97	86.24	14.67	0.00	71.57	-3.42	ND	--	ND	ND	ND	ND	70000	--	
1/14/98	86.24	12.27	0.00	73.97	2.40	85000	--	6100	10000	3000	17000	110000	--	
7/1/98	86.24	14.32	0.00	71.92	-2.05	110000	--	8700	12000	2700	15000	110000	--	
6/18/99	86.24	13.93	0.00	72.31	0.39	49000	--	6900	6500	380	12000	72000	47000	
1/21/00	86.24	15.05	0.00	71.19	-1.12	63700	--	5520	2000	2640	13100	57100	--	
7/10/00	86.24	13.97	0.00	72.27	1.08	67800	--	9910	4120	3330	16100	67400	54000	
1/4/01	86.24	14.92	0.00	71.32	-0.95	63900	--	6270	784	2,670	12,900	--	38100	
7/16/01	86.24	14.32	0.00	71.92	0.60	66000	--	7100	330	2300	9800	36000	41000	

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 continued														
1/31/02	86.99	13.54	0.00	73.45	1.53	42000	--	5800	1800	2000	8200	26000	26000	
4/11/02	86.99	13.64	0.00	73.35	-0.10	58000	--	2900	1200	1800	10000	--	19000	
7/11/02	86.99	13.96	0.00	73.03	-0.32	--	5900	330	ND<10	230	600	3400	3400	
10/15/02	86.99	14.71	0.00	72.28	-0.75	--	470	16	ND<2.5	14	16	390	390	
1/14/03	86.99	12.77	0.00	74.22	1.94	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	49	49	
4/16/03	86.99	13.18	0.00	73.81	-0.41	--	510	57	0.62	29	61	160	160	
7/16/03	86.99	14.26	0.00	72.73	-1.08	--	27000	260	23	730	3200	1200	1200	
10/2/03	86.99	14.95	0.00	72.04	-0.69	--	45000	1400	32	2900	7600	--	3200	
MW-2	**(Screen Interval in feet: DNA)**													
11/3/92	76.61	--	--	--	--	140	--	2.2	ND	ND	2	--	--	
1/25/93	76.61	--	--	--	--	2100	--	56	1.1	90	140	--	--	
4/29/93	76.61	9.73	0.00	66.88	--	1500	--	290	ND	33	11	--	--	
7/16/93	76.61	10.17	0.00	66.44	-0.44	510	--	17	0.6	3.2	2.5	--	--	
10/19/93	76.61	11.18	0.00	65.43	-1.01	670	--	24	1.1	7.7	23	--	--	
1/20/94	76.61	11.12	0.00	65.49	0.06	820	--	97	ND	12	ND	--	--	
4/13/94	76.61	10.12	0.00	66.49	1.00	550	--	71	ND	5.1	1.3	--	--	
7/13/94	76.61	10.86	0.00	65.75	-0.74	2000	--	490	ND	17	13	--	--	
10/10/94	76.61	11.48	0.00	65.13	-0.62	2300	--	340	ND	25	ND	--	--	
1/10/95	76.61	8.71	0.00	67.90	2.77	850	--	3.8	ND	8.5	1.3	--	--	
4/17/95	76.61	8.90	0.00	67.71	-0.19	1300	--	4.7	ND	8.3	1.2	--	--	
7/24/95	76.61	9.94	0.00	66.67	-1.04	960	--	20	ND	4.2	6.2	--	--	
10/23/95	76.61	10.70	0.00	65.91	-0.76	ND	--	ND	ND	ND	ND	19	--	
1/18/96	76.61	10.11	0.00	66.50	0.59	900	--	300	86	7.6	18	4300	--	
4/18/96	81.66	9.27	0.00	72.39	5.89	18000	--	3600	680	890	4100	19000	--	
7/24/96	81.66	10.02	0.00	71.64	-0.75	100000	--	13000	21000	2700	16000	120000	--	
10/24/96	81.66	10.78	0.00	70.88	-0.76	800	--	110	17	11	20	20000	--	
1/28/97	81.66	7.70	0.00	73.96	3.08	45000	--	2400	2900	2000	7600	29000	--	
7/29/97	81.66	10.28	0.00	71.38	-2.58	ND	--	1.2	0.72	0.63	0.62	17000	--	
1/14/98	81.66	8.63	0.00	73.03	1.65	14000	--	1000	150	790	3300	23000	--	

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-2 continued														
7/1/98	81.66	9.53	0.00	72.13	-0.90	2700	--	100	ND	180	78	7100	--	
6/18/99	--	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
MW-3 (Screen Interval in feet: DNA)														
11/3/92	77.48	--	--	--	--	2100	--	120	15	38	200	--	--	
1/25/93	77.48	--	--	--	--	2300	--	80	1	55	52	--	--	
4/29/93	77.48	11.37	0.00	66.11	--	4500	--	1700	ND	200	140	--	--	
7/16/93	77.48	12.09	0.00	65.39	-0.72	4000	--	1100	28	52	70	--	--	
10/19/93	77.48	12.69	0.00	64.79	-0.60	3800	--	42	ND	50	56	--	--	
1/20/94	77.48	12.65	0.00	64.83	0.04	4200	--	11	ND	21	15	--	--	
4/13/94	77.48	12.02	0.00	65.46	0.63	4200	--	210	ND	36	53	--	--	
7/13/94	77.48	12.46	0.00	65.02	-0.44	1800	--	16	16	ND	21	--	--	
10/10/94	77.48	12.98	0.00	64.50	-0.52	4300	--	11	ND	12	ND	--	--	
1/10/95	77.48	10.42	0.00	67.06	2.56	310	--	4.6	ND	3.5	2.1	--	--	
4/17/95	77.48	10.42	0.00	67.06	0.00	7800	--	ND	4.6	300	450	--	--	
7/24/95	77.48	11.76	0.00	65.72	-1.34	3200	--	170	ND	22	16	--	--	
10/23/95	77.48	12.50	0.00	64.98	-0.74	3900	--	55	ND	19	11	4500	--	
1/18/96	77.48	11.79	0.00	65.69	0.71	2200	--	270	33	26	18	5500	--	
4/18/96	82.55	11.30	0.00	71.25	5.56	6000	--	1800	ND	100	230	48000	--	
7/24/96	82.55	12.17	0.00	70.38	-0.87	ND	--	2500	ND	ND	ND	71000	--	
10/24/96	82.55	12.65	0.00	69.90	-0.48	3800	--	660	ND	15	ND	65000	--	
1/28/97	82.55	9.50	0.00	73.05	3.15	4400	--	250	13	87	47	54000	--	
7/29/97	82.55	11.99	0.00	70.56	-2.49	ND	--	3500	ND	220	ND	75000	--	
1/14/98	82.55	10.30	0.00	72.25	1.69	ND	--	430	ND	100	380	37000	--	
7/1/98	82.55	11.70	0.00	70.85	-1.40	ND	--	430	ND	ND	ND	45000	--	
6/18/99	--	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
MW-4 (Screen Interval in feet: DNA)														
4/18/96	82.04	9.83	0.00	72.21	--	ND	--	630	ND	ND	ND	18000	--	
7/24/96	82.04	10.47	0.00	71.57	-0.64	ND	--	ND	ND	ND	5.2	3900	--	
10/24/96	82.04	11.14	0.00	70.90	-0.67	ND	--	ND	ND	ND	ND	6300	--	

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-4 continued														
1/28/97	82.04	7.94	0.00	74.10	3.20	1200	--	490	ND	17	6.8	16000	--	
7/29/97	82.04	10.86	0.00	71.18	-2.92	50	--	1.5	0.61	0.73	0.78	15000	--	
1/14/98	82.04	8.73	0.00	73.31	2.13	ND	--	ND	ND	ND	ND	5200	--	
7/1/98	82.04	10.51	0.00	71.53	-1.78	ND	--	ND	ND	ND	ND	640	--	
6/18/99	82.04	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
MW-5 (Screen Interval in feet: DNA)														
4/18/96	81.80	9.65	0.00	72.15	--	31000	--	5500	1400	1700	8100	66000	--	
7/24/96	81.80	10.80	0.00	71.00	-1.15	32000	--	6400	ND	1600	6100	120000	--	
10/24/96	81.80	11.40	0.00	70.40	-0.60	17000	--	6900	ND	970	130	84000	--	
1/28/97	81.80	7.76	0.00	74.04	3.64	19000	--	6100	62	82	310	160000	--	
7/29/97	81.80	11.58	0.00	70.22	-3.82	ND	--	ND	ND	ND	ND	71000	--	
1/14/98	81.80	9.08	0.00	72.72	2.50	ND	--	3600	ND	ND	ND	80000	--	
7/1/98	81.80	11.25	0.00	70.55	-2.17	6400	--	2100	21	120	330	61000	--	
6/18/99	81.80	--	--	--	--	--	--	--	--	--	--	--	--	Well was destroyed
MW-6 (Screen Interval in feet: 5.0-25.0)														
6/18/99	78.91	9.30	0.00	69.61	--	2100	--	21	29	ND	47	97000	71000	
1/21/00	78.91	9.37	0.00	69.54	-0.07	1880	--	143	31.2	106	196	41200	48800	
7/10/00	78.91	8.94	0.00	69.97	0.43	5710	--	869	209	301	1430	22200	19500	
1/4/01	78.91	9.21	0.00	69.70	-0.27	ND	--	ND	ND	ND	ND	--	9510	
7/16/01	78.91	9.42	0.00	69.49	-0.21	4800	--	200	21	150	440	29000	34000	
1/31/02	78.91	8.50	0.00	70.41	0.92	12000	--	250	92	500	1500	26000	31000	
4/11/02	79.67	9.08	0.00	70.59	0.18	3600	--	42	32	39	280	120000	--	
7/11/02	79.67	9.70	0.00	69.97	-0.62	--	12000	ND<100	ND<100	ND<100	ND<200	--	15000	
10/15/02	79.67	9.96	0.00	69.71	-0.26	--	1300	ND<10	ND<10	ND<10	ND<20	--	3200	
1/14/03	79.67	8.31	0.00	71.36	1.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	120	
4/16/03	79.67	8.21	0.00	71.46	0.10	--	270	ND<0.50	ND<0.50	ND<0.50	1.3	--	15	
7/16/03	79.67	9.43	0.00	70.24	-1.22	--	290	39	0.6	ND<0.50	15	--	150	
10/2/03	79.67	9.92	0.00	69.75	-0.49	--	200	ND<1.0	ND<1.0	ND<1.0	ND<2.0	--	220	
MW-7 (Screen Interval in feet: 5.0-25.0)														

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-7	continued													
6/18/99	79.92	8.70	0.00	71.22	--	ND	--	ND	ND	ND	ND	16000	13000	
1/21/00	79.92	9.30	0.00	70.62	-0.60	ND	--	ND	ND	ND	ND	12300	18200	
7/10/00	79.92	8.72	0.00	71.20	0.58	ND	--	ND	ND	ND	ND	16900	13800	
1/4/01	79.92	9.17	0.00	70.75	-0.45	ND	--	ND	ND	ND	0.719	--	37.3	
7/16/01	79.92	9.02	0.00	70.90	0.15	ND	--	ND	ND	ND	ND	7200	4700	
1/31/02	79.92	7.91	0.00	72.01	1.11	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	8900	9900	
4/11/02	80.67	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
7/11/02	80.67	--	--	--	--	--	--	--	--	--	--	--	--	Inaccessible
10/15/02	80.67	9.81	0.00	70.86	--	--	ND<5000	ND<50	ND<50	ND<50	ND<100	--	12000	
1/14/03	80.67	7.89	0.00	72.78	1.92	--	ND<25000	ND<250	ND<250	ND<250	ND<500	--	33000	
4/16/03	80.67	8.04	0.00	72.63	-0.15	--	ND<25000	ND<250	ND<250	ND<250	ND<500	--	37000	
7/16/03	80.67	9.19	0.00	71.48	-1.15	--	25000	ND<250	ND<250	ND<250	ND<500	--	38000	
10/2/03	80.67	9.89	0.00	70.78	-0.70	--	17000	ND<100	ND<100	ND<100	ND<200	--	22000	
MW-8	**(Screen Interval in feet: 5.0-25.0)**													
6/18/99	80.96	9.10	0.00	71.86	--	ND	--	ND	ND	ND	ND	290	160	
1/21/00	80.96	10.00	0.00	70.96	-0.90	ND	--	ND	ND	ND	1.09	224	221	
7/10/00	80.96	7.94	0.00	73.02	2.06	ND	--	ND	ND	ND	ND	234	223	
1/4/01	80.96	9.76	0.00	71.20	-1.82	3790	--	141	8.92	128	375	--	34200	
7/16/01	80.96	9.15	0.00	71.81	0.61	ND	--	ND	ND	ND	ND	66	70	
1/31/02	80.96	7.99	0.00	72.97	1.16	5900	--	86	ND<10	630	390	670	700	
4/11/02	81.71	9.00	0.00	72.71	-0.26	250	--	2.0	ND<0.50	38	2.2	410	--	
7/11/02	81.71	9.60	0.00	72.11	-0.60	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	120	
10/15/02	81.71	10.60	0.00	71.11	-1.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	21	
1/14/03	81.71	8.63	0.00	73.08	1.97	--	ND<250	2.6	ND<2.5	18	ND<5.0	--	430	
4/16/03	81.71	8.98	0.00	72.73	-0.35	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	18	
7/16/03	81.71	9.63	0.00	72.08	-0.65	--	110	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	140	
10/2/03	81.71	10.41	0.00	71.30	-0.78	--	75	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	78	
MW-9	**(Screen Interval in feet: DNA)**													
1/31/02	82.07	14.72	0.00	67.35	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	680	910	

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-9 continued														
4/11/02	82.07	14.85	0.00	67.22	-0.13	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	620	--	
7/11/02	82.07	15.39	0.00	66.68	-0.54	--	580	ND<5.0	ND<5.0	ND<5.0	ND<10	--	580	
10/15/02	82.07	16.16	0.00	65.91	-0.77	--	570	ND<5.0	ND<5.0	ND<5.0	ND<10	--	1400	
1/14/03	82.07	14.75	0.00	67.32	1.41	--	ND<200	ND<2.0	ND<2.0	ND<2.0	ND<4.0	--	220	
4/16/03	82.07	14.51	0.00	67.56	0.24	--	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<10	--	860	
7/16/03	82.07	15.54	0.00	66.53	-1.03	--	ND<2500	ND<25	ND<25	ND<25	ND<50	--	1300	
10/2/03	82.07	16.28	0.00	65.79	-0.74	--	820	ND<5.0	ND<5.0	ND<5.0	ND<10	--	990	
MW-10	**(Screen Interval in feet: DNA)**													
1/31/02	74.98	8.02	0.00	66.96	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	1.2	
4/11/02	74.98	7.60	0.00	67.38	0.42	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
7/11/02	74.98	8.91	0.00	66.07	-1.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.1	
10/15/02	74.98	11.49	0.00	63.49	-2.58	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/14/03	74.98	8.47	0.00	66.51	3.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/16/03	74.98	7.92	0.00	67.06	0.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
7/16/03	74.98	7.03	0.00	67.95	0.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/2/03	74.98	7.63	0.00	67.35	-0.60	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
MW-11	**(Screen Interval in feet: DNA)**													
1/31/02	77.31	11.71	0.00	65.60	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<1.0	
4/11/02	77.31	11.95	0.00	65.36	-0.24	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
7/11/02	77.31	12.79	0.00	64.52	-0.84	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/15/02	77.31	13.67	0.00	63.64	-0.88	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/14/03	77.31	13.31	0.00	64.00	0.36	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
4/16/03	77.31	14.08	0.00	63.23	-0.77	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
7/16/03	77.31	12.98	0.00	64.33	1.10	--	65	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/2/03	77.31	12.96	0.00	64.35	0.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
Trip Blank	**(Screen Interval in feet: DNA)**													
1/14/98	--	--	--	--	--	ND	--	ND	ND	ND	ND	ND	--	
7/1/98	--	--	--	--	--	ND	--	ND	ND	ND	ND	ND	--	
6/18/99	--	--	--	--	--	ND	--	ND	ND	ND	ND	ND	--	

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
Trip Blank continued														
1/21/00	--	--	--	--	--	ND	--	ND	ND	ND	ND	14.6	--	
7/10/00	--	--	--	--	--	ND	--	ND	ND	ND	ND	ND	--	
1/4/01	--	--	--	--	--	ND	--	ND	ND	ND	ND	ND	--	
7/16/01	--	--	--	--	--	ND	--	ND	ND	ND	ND	ND	--	
1/31/02	--	--	--	--	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
4/11/02	--	--	--	--	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
7/11/02	--	--	--	--	--	--	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
10/15/02	--	--	--	--	--	--	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
1/14/03	--	--	--	--	--	--	--	ND<0.50	2.1	ND<0.50	1.1	--	ND<2.0	
4/16/03	--	--	--	--	--	--	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
7/16/03	--	--	--	--	--	--	--	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 1871

Date Sampled	TPH-D	EDB	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	Ethanol 8015B	Ethanol 8260B	H-Alkalinity	1,2 DCE
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)
MW-1										
6/18/99	--	ND	ND	ND	ND	ND	ND	--	ND	--
7/16/01	--	ND	ND	ND	ND	ND	ND	--	--	--
1/14/03	--	ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	--	--
7/16/03	--	--	--	--	--	--	ND<10000	--	--	--
10/2/03	--	--	--	--	--	--	--	ND<25000	--	--
MW-4										
4/18/96	110	--	--	--	--	--	--	--	--	--
7/24/96	ND	--	--	--	--	--	--	--	--	--
10/24/96	ND	--	--	--	--	--	--	--	--	--
1/28/97	210	--	--	--	--	--	--	--	--	--
7/29/97	ND	--	--	--	--	--	--	--	--	--
1/14/98	ND	--	--	--	--	--	--	--	--	--
7/1/98	ND	--	--	--	--	--	--	--	--	--
MW-6										
6/18/99	--	ND	ND	ND	ND	ND	ND	--	--	ND
7/16/01	--	ND	ND	ND	ND	ND	ND	--	--	ND
7/11/02	--	ND<100	ND<100	ND<1000	ND<200	ND<100	ND<5000	--	--	ND<100
1/14/03	--	ND<2.0	ND<2.0	ND<100	ND<2.0	ND<2.0	ND<500	--	--	ND<2.0
7/16/03	--	--	--	--	--	--	ND<500	--	--	--
10/2/03	--	--	--	--	--	--	--	ND<1000	--	--
MW-7										
6/18/99	--	ND	ND	ND	ND	ND	ND	--	--	ND
7/16/01	--	ND	ND	ND	ND	ND	ND	--	--	ND
1/14/03	--	ND<1000	ND<1000	ND<50000	ND<1000	ND<1000	ND<250000	--	--	ND<1000
7/16/03	--	--	--	--	--	--	ND<250000	--	--	--
10/2/03	--	--	--	--	--	--	--	ND<100000	--	--

Date Sampled	TPH-D	EDB	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	Ethanol 8015B	Ethanol 8260B	H-Alkalinity	1,2 DCE
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)
MW-8										
6/18/99	--	ND	ND	ND	ND	ND	ND	--	--	ND
7/16/01	--	ND	ND	ND	ND	ND	ND	--	--	ND
1/14/03	--	ND<10	ND<10	ND<500	ND<10	ND<10	ND<2500	--	--	ND<10
7/16/03	--	--	--	--	--	--	ND<500	--	--	--
10/2/03	--	--	--	--	--	--	--	ND<500	--	--
MW-9										
10/2/03	--	--	--	--	--	--	--	ND<5000	--	--
MW-10										
1/31/02	--	ND<7.1	ND<7.1	ND<140	ND<7.1	ND<7.1	ND<3600	--	--	ND<7.1
1/14/03	--	ND<8.0	ND<8.0	ND<400	ND<8.0	ND<8.0	ND<2000	--	--	ND<8.0
7/16/03	--	--	--	--	--	--	ND<25000	--	--	--
10/2/03	--	--	--	--	--	--	--	ND<500	--	--
MW-11										
10/2/03	--	--	--	--	--	--	--	ND<500	--	--

FIGURES

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

SCALE 1: 24,000

N

SOURCE:

United States Geological Survey
7.5 Minute Topographic Map:
Oakland West Quadrangle

VICINITY MAP

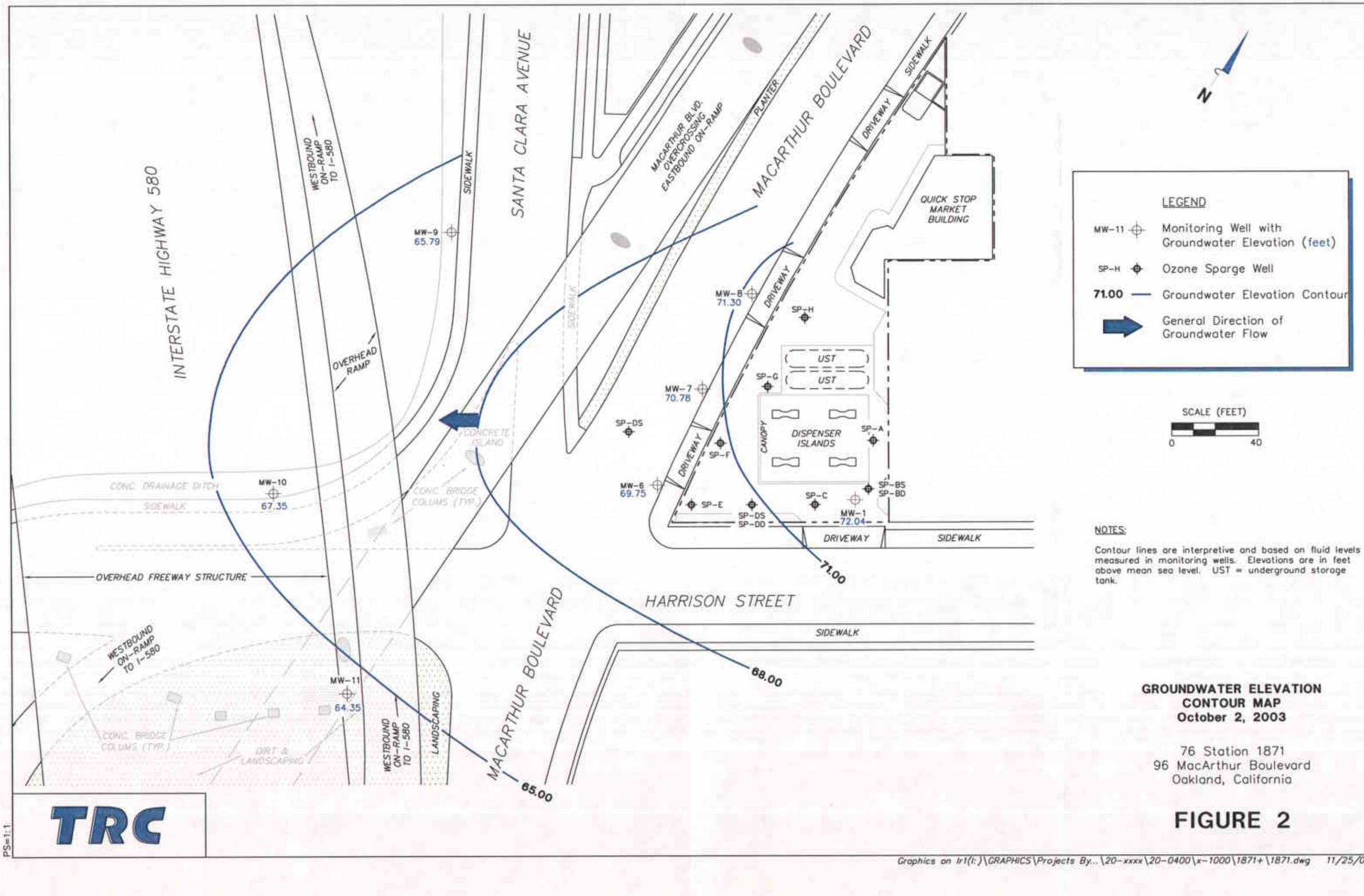
76 Station 1871
96 MacArthur Boulevard
Oakland, California

TRC

PS = 1:1

FIGURE 1

Graphics on Ir1(i:)\VICINITY MAPS\1871vm.dwg 11/17/03 cme



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.

GROUNDWATER ELEVATION CONTOUR MAP
October 2, 2003

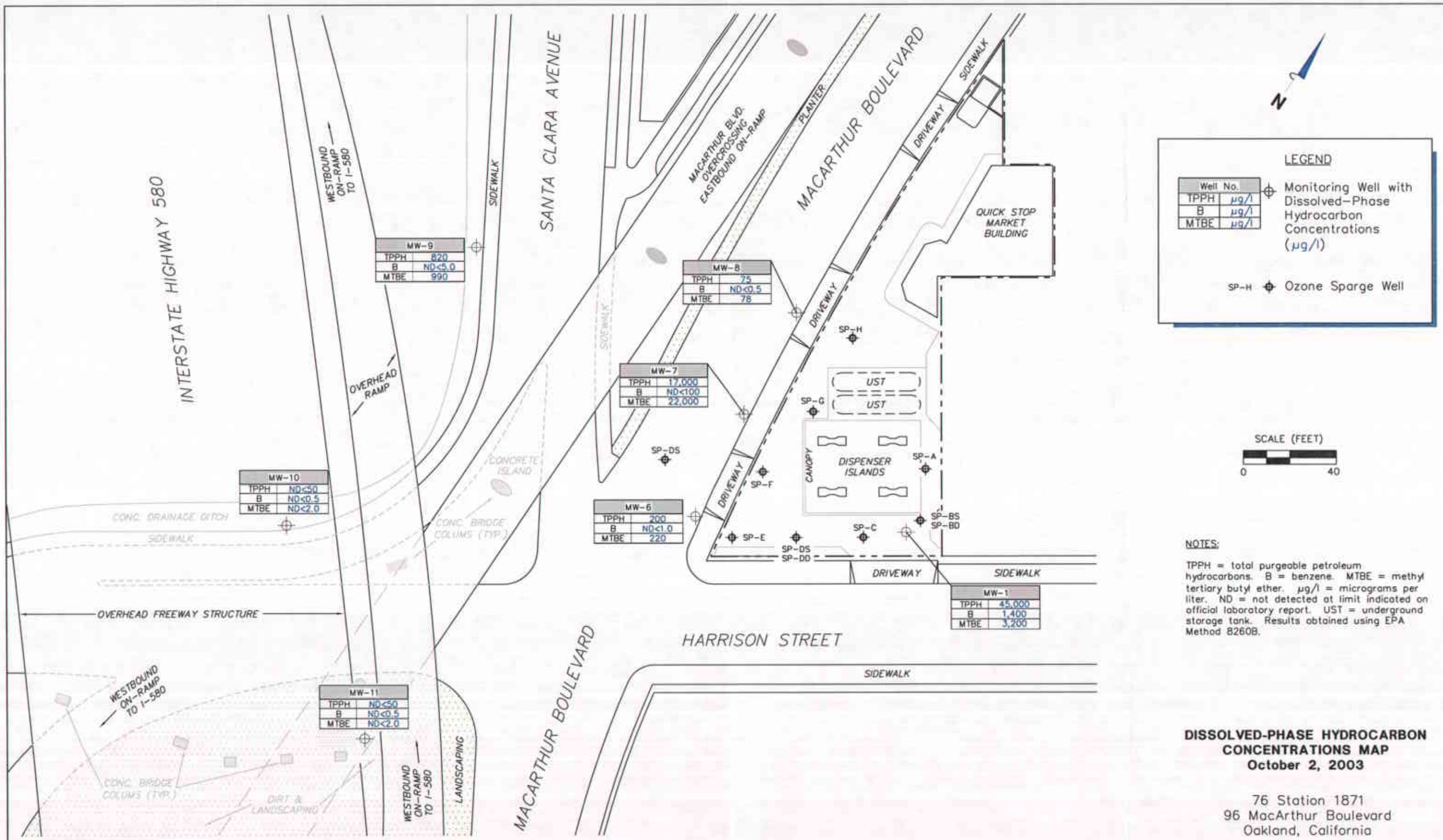
76 Station 1871
96 MacArthur Boulevard
Oakland, California

FIGURE 2

TRC

PS=1:1

Graphics on lr1(I:)\GRAPHICS\Projects By...\20-xxxx\20-0400\x-1000\1871+\1871.dwg 11/25/03 cr



NOTES:

TPPH = total purgeable petroleum hydrocarbons. B = benzene. MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. UST = underground storage tank. Results obtained using EPA Method 8260B.

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS MAP
October 2, 2003

76 Station 1871
96 MacArthur Boulevard
Oakland, California

FIGURE 3

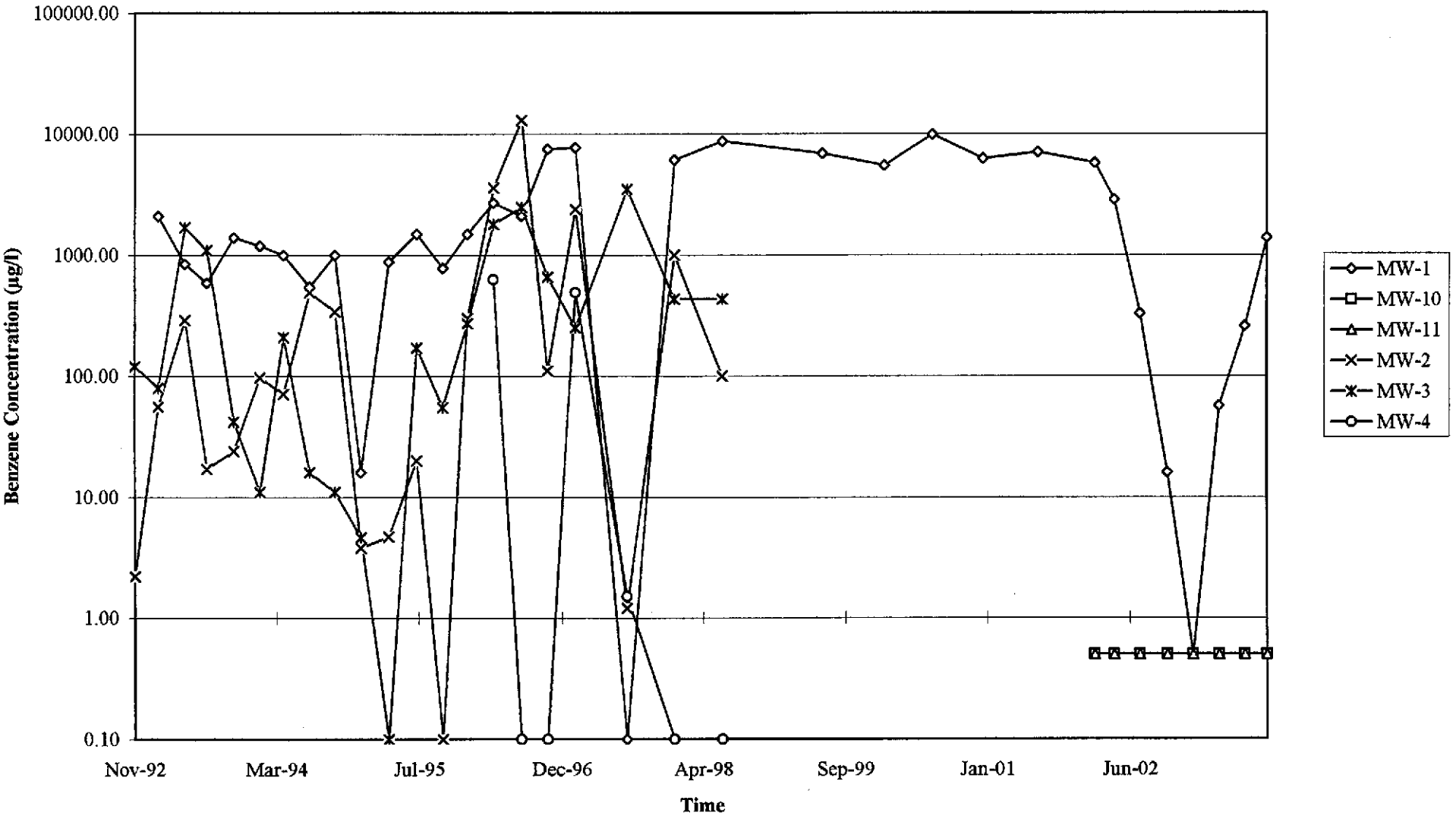
TRC

PS=1:1

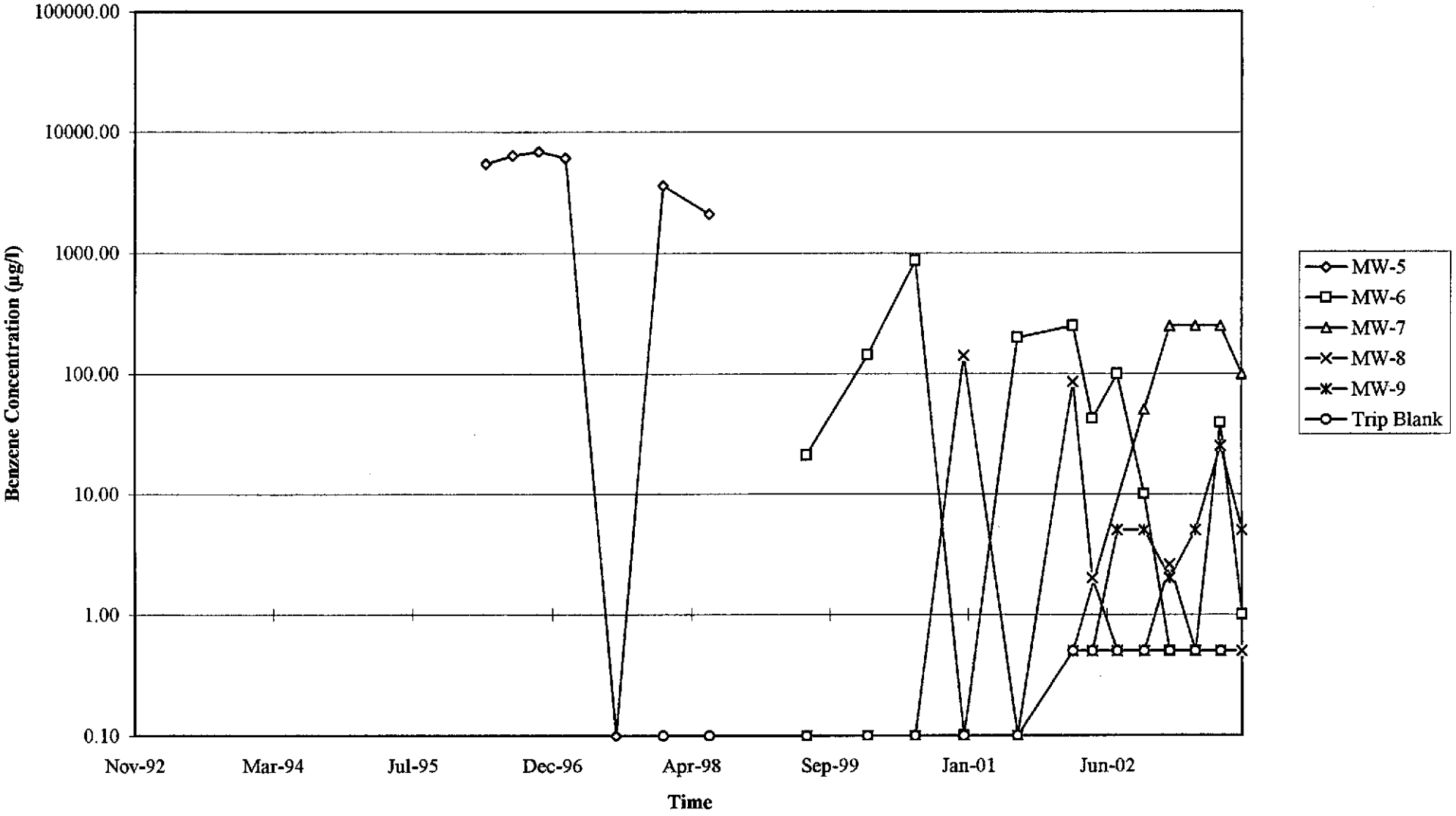
Graphics on Ir1(I:)\GRAPHICS\Projects By...\20-xxxx\20-0400\x-1000\1871+\1871.dwg 11/25/03 cr

GRAPHS

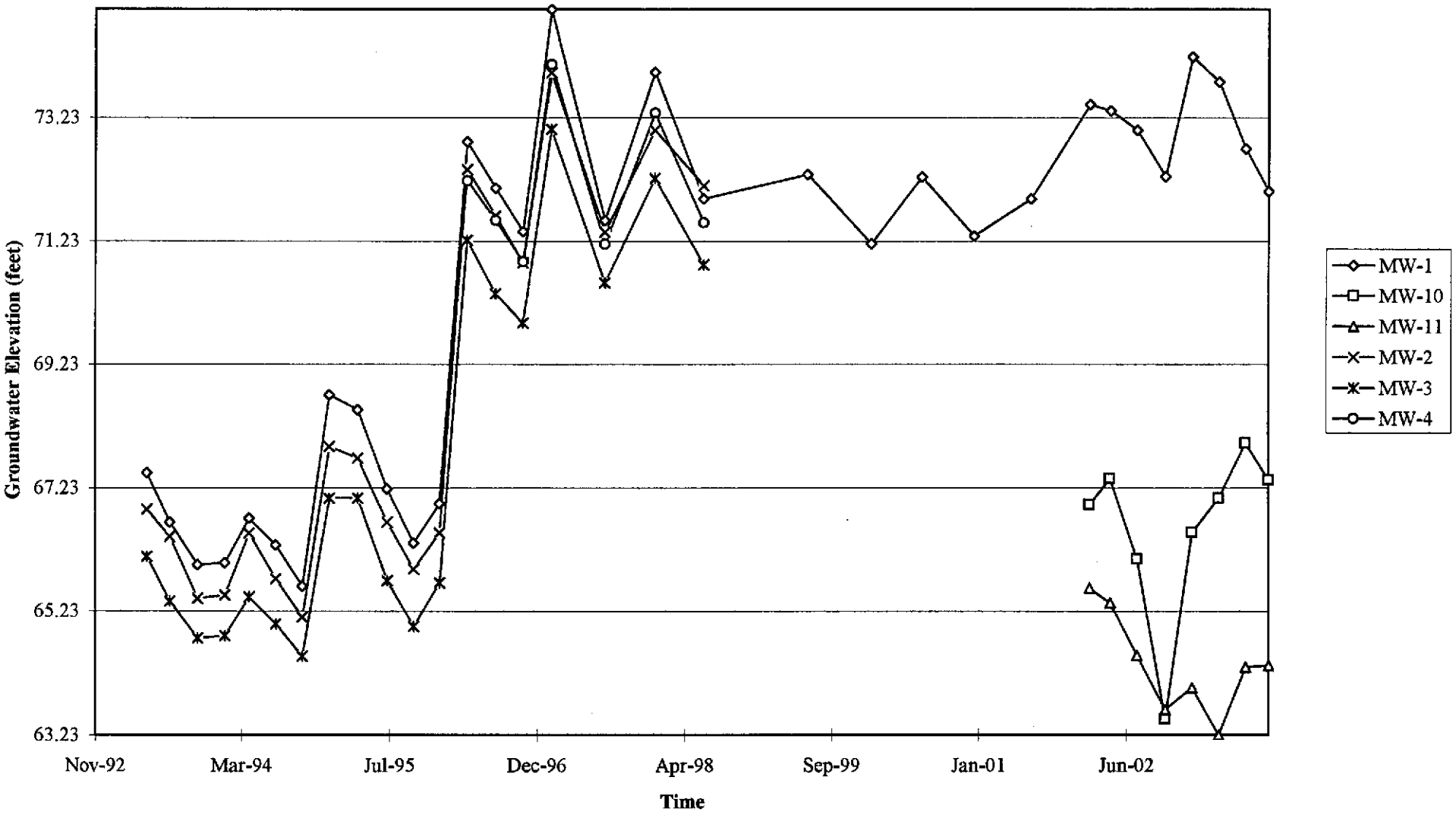
Graph 1
Benzene Concentrations vs. Time
76 Station 1871



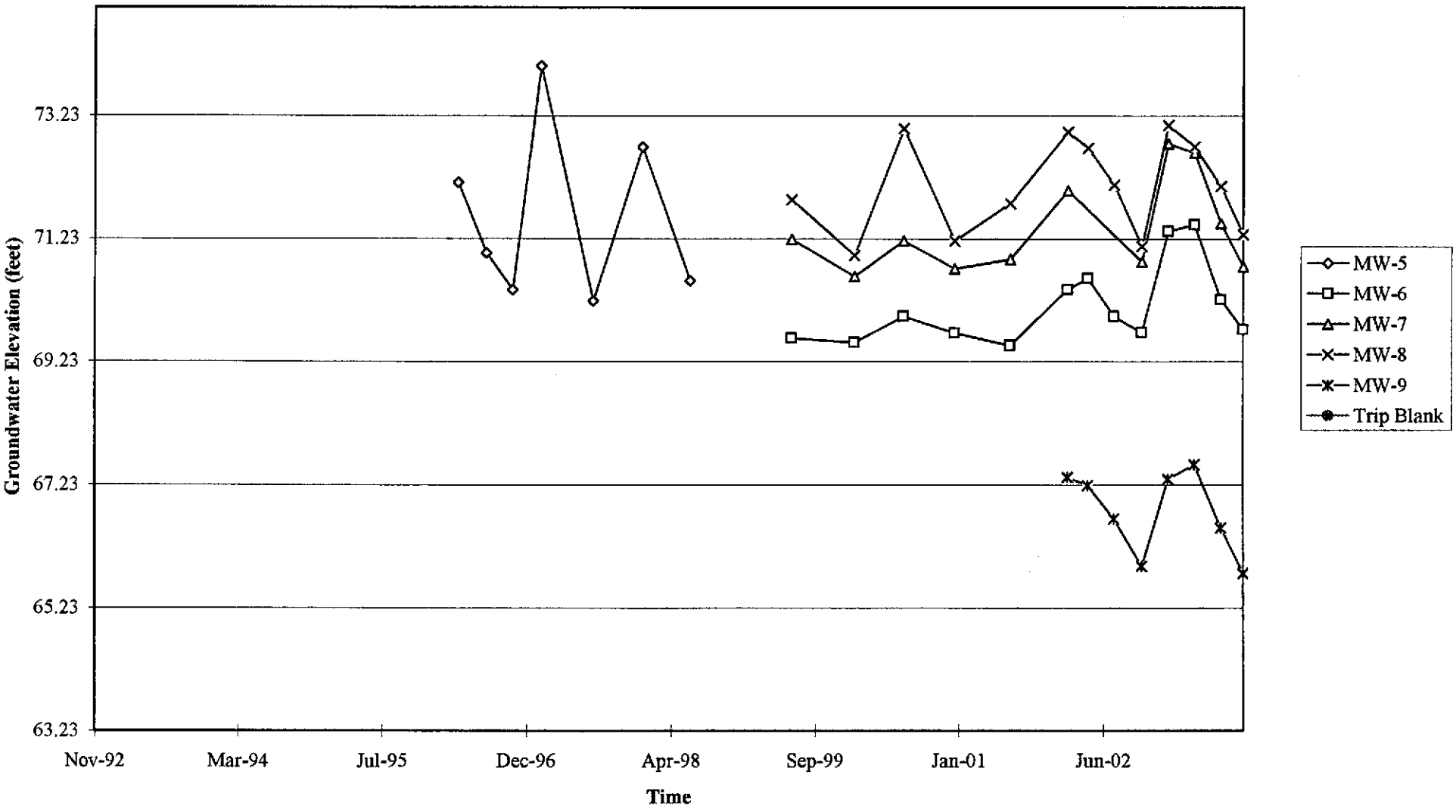
Graph 2
Benzene Concentrations vs. Time
76 Station 1871



Graph 3
Hydrograph
76 Station 1871



Graph 4
Hydrograph
76 Station 1871



GENERAL FIELD PROCEDURES

General field procedures used during fluid level monitoring and groundwater sampling activities are described below.

FLUID LEVEL MONITORING

Fluid levels are monitored in the wells using an electronic interface probe with conductance sensors. The depth to liquid-phase hydrocarbons (LPH) and water is measured relative to the well box top or top of casing. Well box or casing elevations are surveyed to within 0.02 foot relative to a county or city benchmark.

GROUNDWATER SAMPLING

Groundwater monitoring wells are purged and sampled in accordance with standard regulatory protocol. Typically, monitoring wells that contain no LPH are purged of groundwater prior to sampling so that fluids collected are representative of fluids within the formation. Temperature, pH, and specific conductance are typically measured after each well casing volume has been removed. Purging is considered complete when the specified number of casing volumes of fluid have been removed and the three (3) parameters (pH, conductivity, and temperature) have stabilized (see groundwater sampling field notes for volume removed). Samples for laboratory analysis are collected without further purging if the well does not recharge within 2 hours to 80% of its volume before purging.

The purge water is either (1) pumped directly into a licensed vacuum truck; or (2) treated and disposed onsite using the TRC Alton Geoscience Mobile Groundwater Treatment Trailer; or (3) temporarily stored in labeled drums prior to transport to a treatment/recycling facility. If an automatic recovery system (ARS) is operating at the site, purged water may be pumped into the ARS for treatment.

In monitoring wells that are purged and contain measurable LPH, the purged water and LPH removed from wells will be either pumped directly into a licensed vacuum truck and removed from the site, or temporarily stored in labeled drums pending transport to an approved treatment/recycling facility.

With respect to wells that have been designated as "no purge", the wells will be sampled without bailing or pumping fluids from the well prior to collecting the sample. In addition, no purge samples are typically collected from active pumping wells.

GROUNDWATER SAMPLE COLLECTION

Groundwater samples are collected by lowering a ½ to 4-inch-diameter, bottom-fill, disposable polyethylene bailer to just below the static water level in the well. The samples are carefully transferred from the check-valve-equipped bailer to the container specified by the laboratory method. The sample containers are filled to zero headspace and fitted with Teflon-sealed caps. Each sample is labeled with the project number, well number, sample date, and sampler's initials, then transported to a state-certified laboratory for analysis. Samples remain chilled prior to and during shipment to an analytical laboratory.

Chain of custody protocol is followed for all groundwater samples selected for laboratory analysis. The chain of custody form(s) accompanies the samples from the sampling locality to the laboratory, providing a continuous record of possession prior to analysis. When a freight or overnight carrier ships samples, the carrier is noted on the chain of custody form.

DECONTAMINATION

Nitrile gloves are worn at all times during monitoring, sampling, and purging activities. Typically, gloves are changed between each well. All monitoring, sampling, and purging equipment that could contact well fluids is either dedicated to a particular well or cleaned prior to each use in a Liqui-nox solution followed by two rinses: the first rinse in tap water and the final rinse in deionized water.

FIELD MONITORING DATA SHEET

TRC

Technician: Carrillo/Cormier Task #: 410500-01 FA20 Date: 10-02-03

Site # 1871 Project Manager Kathy Page 1 of 1

Well #	Grade	TOC	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
MW-9		X	19.60	16.28	0	0	1556	2
MW-10			19.93	7.63			1709	2
MW-7			24.47	9.89			1330	2
MW-6			24.49	9.92			1420	2
MW-11			30.00	12.96			1700	2
MW-8			24.46	10.41			1447	2
MW-1			23.97	14.95	0	0	1732	4

FIELD DATA COMPLETE QA/QC COC WELL BOX CONDITION SHEETS

WTT CERTIFICATE MANIFEST DRUM INVENTORY TRAFFIC CONTROL

Fldmon.xls 9/23/01

GROUNDWATER SAMPLING FIELD NOTES

Technician: Carrillo/Cormier

Site: 1271 Project No.: 210500-01 Date: 10-2-03

Well No. MW-8 Purge Method: SUB

Depth to Water (feet): 10.41 Depth to Product (feet): 0

Total Depth (feet) 24.46 LPH & Water Recovered (gallons): 0

Water Column (feet): 14.05 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 13.22 Borehole Diameter (Inches): —

1 Borehole Volume (gallons): 2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (mS/cm)	Temperature (F C)	pH	ORP Turbidity	D.O.
1317			2	722	21.0	7.39	188	28.5
			4	721	21.5	7.21	192	27.2
	1321		6	718	21.5	7.06	197	23.6

Static at Time Sampled	Total Gallons Purged	Sample Time
1250	6	1447

Comments:

Well No. MW-11 Purge Method: SUB

Depth to Water (feet): 12.96 Depth to Product (feet): 0

Total Depth (feet) 30.00 LPH & Water Recovered (gallons): 0

Water Column (feet): 17.04 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 16.36 Borehole Diameter (Inches): —

1 Borehole Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (mS/cm)	Temperature (F C)	pH	ORP Turbidity	D.O.
1336			3	7.34	20.5	7.39	202	23.2
			6	721	18.0	7.43	230	33.2
	1343		9	718	18.5	7.51	255	33.7

Static at Time Sampled	Total Gallons Purged	Sample Time
1769	9	1700

Comments:

NOT RECOVER IN 2HRS

Borehole Volume Constants	Casing/Borehole Diameter	2"/8"	4"/8"	4"/10"	6"/10"	6"/12"
	Borehole Constant (gal/ft)	0.88	1.19	(1.63)	2.16	(3.07)

GROUNDWATER SAMPLING FIELD NOTES

Technician: Carrillo/Robinson

Site: 1871 Project No.: 410500-01 Date: 10-2-03

Well No. MW-9 Purge Method: SUB

Depth to Water (feet): 16.20 Depth to Product (feet): 0

Total Depth (feet) 19.60 LPH & Water Recovered (gallons): 0

Water Column (feet): 3.12 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 17.10 Borehole Diameter (Inches): —

1 Borehole Volume (gallons): 1

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F°)	pH	~~Turbidity~~ ORP	D.O.
1357			1	1293	17.9	7.35	201	28.4
			2	1160	18.0	7.38	203	29.2
	1359		3	1143	18.1	7.40	203	29.5

Static at Time Sampled	Total Gallons Purged	Sample Time
16.35	3	1556

Comments:

Well No. MW-10 Purge Method: SUB

Depth to Water (feet): 7.63 Depth to Product (feet): 0

Total Depth (feet) 19.93 LPH & Water Recovered (gallons): 0

Water Column (feet): 12.30 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 10.09 Borehole Diameter (Inches): —

1 Borehole Volume (gallons): 2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F°)	pH	~~Turbidity~~ ORP	D.O.
1410			2	662	17.9	7.42	192	25.7
			4	690	17.7	7.36	203	25.1
	1413		6	685	17.7	7.31	213	24.8

Static at Time Sampled	Total Gallons Purged	Sample Time
13.82	6	1709

Comments:

NOT RECOVER in 2HRS (80%)

Borehole Volume Constants	Casing/Borehole Diameter	2"/8"	4"/8"	4"/10"	6"/10"	6"/12"
	Borehole Constant (gal/ft)	0.88	1.19	(1.63)	2.16	(3.07)

GROUNDWATER SAMPLING FIELD NOTES

Technician: Canullo / Cormier

Site: 1871 Project No.: 410500-01 Date: 10-2-03

Well No. MW-7 Purge Method: SUB

Depth to Water (feet): 9.89 Depth to Product (feet): SUB 0

Total Depth (feet) 24.47 LPH & Water Recovered (gallons): 0

Water Column (feet): 14.58 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 12.80 Borehole Diameter (Inches): —

1 Borehole Volume (gallons): 2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F°C)	pH	~~Turbidity~~ ORP	D.O.
1240			2	914	21.7	7.87	109	2.82
			4	932	20.5	7.15	148	2.74
	1249		6	927	20.4	7.14	153	2.43

Static at Time Sampled	Total Gallons Purged	Sample Time
12.28	6	1330

Comments:

Well No. MW-6 Purge Method: SUB

Depth to Water (feet): 9.92 Depth to Product (feet): 0

Total Depth (feet) 24.49 LPH & Water Recovered (gallons): 0

Water Column (feet): 14.57 Casing Diameter (Inches): 2

80% Recharge Depth(feet): 12.83 Borehole Diameter (Inches): —

1 Borehole Volume (gallons): 2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F°C)	pH	~~Turbidity~~ ORP	D.O.
1305			2	943	21.0	7.18	139	2.62
			4	829	21.7	7.13	161	3.36
	1309		6	9.07	21.4	7.08	175	1.55

Static at Time Sampled	Total Gallons Purged	Sample Time
11.42	6	1420

Comments:

Borehole Volume Constants	Casing/Borehole Diameter	2"/8"	4"/8"	4"/10"	6"/10"	6"/12"
	Borehole Constant (gal/ft)	0.88	1.19	(1.63)	2.16	(3.07)

GROUNDWATER SAMPLING FIELD NOTES

Technician: carrillo/cormier

Site: 1871 Project No.: 410500-01 Date: 10-2-03

Well No. MW-1 Purge Method: SUB

Depth to Water (feet): 14.95 Depth to Product (feet): 0

Total Depth (feet) 23.97 LPH & Water Recovered (gallons): 0

Water Column (feet): 9.07 Casing Diameter (Inches): 4

80% Recharge Depth(feet): 16.71 Borehole Diameter (Inches): —

1 Borehole Volume (gallons): 6

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (~~uS~~/cm)	Temperature (F, C)	pH	~~Turbidity~~ ORP	D.O
1524			6	575	21.3	7.77	80.1	45.7
			12	572	21.7	7.37	21.2	26.8
	1532		18	568	22.2	7.28	21.0	25.1

Static at Time Sampled	Total Gallons Purged	Sample Time
1545	18	1732

Comments: LESS THAN .01 OF(LPH) AFTER PURGE
NOT RECOVER 80% IN 24HRS

Well No. _____ Purge Method: _____

Depth to Water (feet): _____ Depth to Product (feet): _____

Total Depth (feet) _____ LPH & Water Recovered (gallons): _____

Water Column (feet): _____ Casing Diameter (Inches): _____

80% Recharge Depth(feet): _____ Borehole Diameter (Inches): _____

1 Borehole Volume (gallons): _____

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH	Turbidity	D.O

Static at Time Sampled	Total Gallons Purged	Sample Time

Comments:

Borehole Volume Constants	Casing/Borehole Diameter	2"/8"	4"/8"	4"/10"	6"/10"	6"/12"
	Borehole Constant (gal/ft)	0.88	1.19	(1.63)	2.16	(3.07)

SEVERN TRENT STL

Submission#: 2003-10-0212

TRC Alton Geoscience

October 17, 2003

21 Technology Drive
Irvine, CA 92718

Attn.: Anju Farfan

Project#: 410500-01
Project: ConocoPhillips #1871
Site: 96 MacArthur

Attached is our report for your samples received on 10/03/2003 14:46
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 11/17/2003 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: asalimpour@stl-inc.com

Sincerely,

Afsaneh Salimpour

Afsaneh Salimpour
Project Manager

SEVERN TRENT STL

Submission #: 2003-10-0212

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience
Attn.: Anju Farfan

21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-9	10/02/2003 15:56	Water	1
MW-10	10/02/2003 17:09	Water	2
MW-7	10/02/2003 13:30	Water	3
MW-6	10/02/2003 14:20	Water	4
MW-11	10/02/2003 17:00	Water	5
MW-8	10/02/2003 14:47	Water	6
MW-1	10/02/2003 17:32	Water	7

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-9**	Lab ID:	2003-10-0212 - 1
Sampled:	10/02/2003 15:56	Extracted:	10/10/2003 15:00
Matrix:	Water	QC Batch#:	2003/10/10-01.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	820	500	ug/L	10.00	10/10/2003 15:00	g
Benzene	ND	5.0	ug/L	10.00	10/10/2003 15:00	
Toluene	ND	5.0	ug/L	10.00	10/10/2003 15:00	
Ethylbenzene	ND	5.0	ug/L	10.00	10/10/2003 15:00	
Total xylenes	ND	10	ug/L	10.00	10/10/2003 15:00	
Methyl tert-butyl ether (MTBE)	990	20	ug/L	10.00	10/10/2003 15:00	
Ethanol	ND	5000	ug/L	10.00	10/10/2003 15:00	
Surrogate(s)						
1,2-Dichloroethane-d4	118.5	76-114	%	10.00	10/10/2003 15:00	sh
Toluene-d8	100.6	88-110	%	10.00	10/10/2003 15:00	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

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Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-10**	Lab ID:	2003-10-0212 - 2
Sampled:	10/02/2003 17:09	Extracted:	10/10/2003 15:22
Matrix:	Water	QC Batch#:	2003/10/10-01.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/10/2003 15:22	
Benzene	ND	0.50	ug/L	1.00	10/10/2003 15:22	
Toluene	ND	0.50	ug/L	1.00	10/10/2003 15:22	
Ethylbenzene	ND	0.50	ug/L	1.00	10/10/2003 15:22	
Total xylenes	ND	1.0	ug/L	1.00	10/10/2003 15:22	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	10/10/2003 15:22	
Ethanol	ND	500	ug/L	1.00	10/10/2003 15:22	
Surrogate(s)						
1,2-Dichloroethane-d4	100.2	76-114	%	1.00	10/10/2003 15:22	
Toluene-d8	95.6	88-110	%	1.00	10/10/2003 15:22	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

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Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-7**	Lab ID:	2003-10-0212 - 3
Sampled:	10/02/2003 13:30	Extracted:	10/10/2003 15:44
Matrix:	Water	QC Batch#:	2003/10/10-01.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	17000	10000	ug/L	200.00	10/10/2003 15:44	g
Benzene	ND	100	ug/L	200.00	10/10/2003 15:44	
Toluene	ND	100	ug/L	200.00	10/10/2003 15:44	
Ethylbenzene	ND	100	ug/L	200.00	10/10/2003 15:44	
Total xylenes	ND	200	ug/L	200.00	10/10/2003 15:44	
Methyl tert-butyl ether (MTBE)	22000	400	ug/L	200.00	10/10/2003 15:44	
Ethanol	ND	100000	ug/L	200.00	10/10/2003 15:44	
Surrogate(s)						
1,2-Dichloroethane-d4	106.4	76-114	%	200.00	10/10/2003 15:44	
Toluene-d8	99.8	88-110	%	200.00	10/10/2003 15:44	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

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Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-6**	Lab ID:	2003-10-0212 - 4
Sampled:	10/02/2003 14:20	Extracted:	10/10/2003 16:06
Matrix:	Water	QC Batch#:	2003/10/10-01.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	200	100	ug/L	2.00	10/10/2003 16:06	g
Benzene	ND	1.0	ug/L	2.00	10/10/2003 16:06	
Toluene	ND	1.0	ug/L	2.00	10/10/2003 16:06	
Ethylbenzene	ND	1.0	ug/L	2.00	10/10/2003 16:06	
Total xylenes	ND	2.0	ug/L	2.00	10/10/2003 16:06	
Methyl tert-butyl ether (MTBE)	220	4.0	ug/L	2.00	10/10/2003 16:06	
Ethanol	ND	1000	ug/L	2.00	10/10/2003 16:06	
Surrogate(s)						
1,2-Dichloroethane-d4	127.2	76-114	%	2.00	10/10/2003 16:06	sh
Toluene-d8	101.3	88-110	%	2.00	10/10/2003 16:06	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

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Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-11**	Lab ID:	2003-10-0212 - 5
Sampled:	10/02/2003 17:00	Extracted:	10/10/2003 16:29
Matrix:	Water	QC Batch#:	2003/10/10-01.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/10/2003 16:29	
Benzene	ND	0.50	ug/L	1.00	10/10/2003 16:29	
Toluene	ND	0.50	ug/L	1.00	10/10/2003 16:29	
Ethylbenzene	ND	0.50	ug/L	1.00	10/10/2003 16:29	
Total xylenes	ND	1.0	ug/L	1.00	10/10/2003 16:29	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	10/10/2003 16:29	
Ethanol	ND	500	ug/L	1.00	10/10/2003 16:29	
Surrogate(s)						
1,2-Dichloroethane-d4	104.9	76-114	%	1.00	10/10/2003 16:29	
Toluene-d8	95.9	88-110	%	1.00	10/10/2003 16:29	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

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21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-8**	Lab ID:	2003-10-0212 - 6
Sampled:	10/02/2003 14:47	Extracted:	10/10/2003 16:51
Matrix:	Water	QC Batch#:	2003/10/10-01.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	75	50	ug/L	1.00	10/10/2003 16:51	g
Benzene	ND	0.50	ug/L	1.00	10/10/2003 16:51	
Toluene	ND	0.50	ug/L	1.00	10/10/2003 16:51	
Ethylbenzene	ND	0.50	ug/L	1.00	10/10/2003 16:51	
Total xylenes	ND	1.0	ug/L	1.00	10/10/2003 16:51	
Methyl tert-butyl ether (MTBE)	78	2.0	ug/L	1.00	10/10/2003 16:51	
Ethanol	ND	500	ug/L	1.00	10/10/2003 16:51	
Surrogate(s)						
1,2-Dichloroethane-d4	97.4	76-114	%	1.00	10/10/2003 16:51	
Toluene-d8	96.2	88-110	%	1.00	10/10/2003 16:51	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

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Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-1**	Lab ID:	2003-10-0212 - 7
Sampled:	10/02/2003 17:32	Extracted:	10/9/2003 19:48
Matrix:	Water	QC Batch#:	2003/10/09-01.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	45000	2500	ug/L	50.00	10/09/2003 19:48	
Benzene	1400	25	ug/L	50.00	10/09/2003 19:48	
Toluene	32	25	ug/L	50.00	10/09/2003 19:48	
Ethylbenzene	2900	25	ug/L	50.00	10/09/2003 19:48	
Total xylenes	7600	50	ug/L	50.00	10/09/2003 19:48	
Methyl tert-butyl ether (MTBE)	3200	100	ug/L	50.00	10/09/2003 19:48	
Ethanol	ND	25000	ug/L	50.00	10/09/2003 19:48	
Surrogate(s)						
1,2-Dichloroethane-d4	92.4	76-114	%	50.00	10/09/2003 19:48	
Toluene-d8	88.4	88-110	%	50.00	10/09/2003 19:48	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

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Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/10/09-01.62**

MB: 2003/10/09-01.62-050 — Date Extracted: 10/09/2003 11:18

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/09/2003 11:18	
Benzene	ND	0.5	ug/L	10/09/2003 11:18	
Toluene	ND	0.5	ug/L	10/09/2003 11:18	
Ethylbenzene	ND	0.5	ug/L	10/09/2003 11:18	
Total xylenes	ND	1.0	ug/L	10/09/2003 11:18	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	10/09/2003 11:18	
Ethanol	ND	500	ug/L	10/09/2003 11:18	
Surrogates(s)					
1,2-Dichloroethane-d4	80.8	76-114	%	10/09/2003 11:18	
Toluene-d8	88.0	88-110	%	10/09/2003 11:18	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/10/10-01.62**

MB: 2003/10/10-01.62-028 — Date Extracted: 10/10/2003 14:28

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/10/2003 14:28	
Benzene	ND	0.5	ug/L	10/10/2003 14:28	
Toluene	ND	0.5	ug/L	10/10/2003 14:28	
Ethylbenzene	ND	0.5	ug/L	10/10/2003 14:28	
Total xylenes	ND	1.0	ug/L	10/10/2003 14:28	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	10/10/2003 14:28	
Ethanol	ND	500	ug/L	10/10/2003 14:28	
Surrogates(s)					
1,2-Dichloroethane-d4	102.2	76-114	%	10/10/2003 14:28	
Toluene-d8	99.0	88-110	%	10/10/2003 14:28	

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike | **Water** | **QC Batch # 2003/10/09-01.62**

LCS 2003/10/09-01.62-049 Extracted: 10/09/2003 Analyzed: 10/09/2003 09:49

LCSD 2003/10/09-01.62-011 Extracted: 10/09/2003 Analyzed: 10/09/2003 10:11

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	21.8	21.5	25.0	87.2	86.0	1.4	69-129	20		
Toluene	21.7	21.7	25.0	86.8	86.8	0.0	70-130	20		
Methyl tert-butyl ether (MTBE)	19.4	20.2	25.0	77.6	80.8	4.0	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	428	423	500	85.6	84.6		76-114			
Toluene-d8	451	443	500	90.2	88.6		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike **Water** **QC Batch # 2003/10/10-01.62**

LCS 2003/10/10-01.62-044 Extracted: 10/10/2003 Analyzed: 10/10/2003 13:44

LCSD 2003/10/10-01.62-006 Extracted: 10/10/2003 Analyzed: 10/10/2003 14:06

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	17.9	19.3	25.0	71.6	77.2	7.5	69-129	20		
Toluene	18.0	19.6	25.0	72.0	78.4	8.5	70-130	20		
Methyl tert-butyl ether (MTBE)	18.3	18.8	25.0	73.2	75.2	2.7	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	512	502	500	102.4	100.4		76-114			
Toluene-d8	489	487	500	97.8	97.4		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

TRC Alton Geoscience

Attn.: Anju Farfan

21 Technology Drive
Irvine, CA 92718
Phone: (949) 341-7440 Fax: (949) 753-0111

Project: 410500-01
ConocoPhillips #1871

Received: 10/03/2003 14:46

Site: 96 MacArthur

Legend and Notes

Analysis Flag

o

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

Result Flag

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

sh

Surrogate recovery was higher than QC limit due to matrix interference.

SEVERN TRENT STL

STL San Francisco

Sample Receipt Checklist

Submission #:2003- 10 - 0212

Checklist completed by: (initials) DSH Date: 10 / 07 /03

Courier name: ☐ STL San Francisco ☐ Client World Courier

Custody seals intact on shipping container/samples		Yes___ No___ Not Present ✓
Chain of custody present?		Yes ✓ No___
Chain of custody signed when relinquished and received?		Yes ✓ No___
Chain of custody agrees with sample labels?		Yes___ No ✓
Samples in proper container/bottle?	2 coolers rec'd:	Yes ✓ No___
Sample containers intact?	4.7, 4.8°C	Yes ✓ No___
Sufficient sample volume for indicated test?		Yes ✓ No___
All samples received within holding time?		Yes ✓ No___
Container/Temp Blank temperature in compliance (4^0 C ± 2)?	Temp: 4.7 °C	Yes ✓ No___
	Ice Present	Yes ✓ No___
Water - VOA vials have zero headspace?	No VOA vials submitted___	Yes ✓ No___

(if bubble is present, refer to approximate bubble size and itemize in comments as **S** (small ~O), **M** (medium ~ O) or **L** (large ~ O)

Water - **pH acceptable upon receipt?** ☒ Yes ☐ No

☐ **pH adjusted**– Preservative used: ☐ HNO_3 ☐ HCl ☐ H_2SO_4 ☐ NaOH ☐ ZnOAc –**Lot #(s)** _____

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: ID's on bottles vary slightly: MW-9 (COC) is SW-9 (bottles), MW-10 is SW-10, MW-8 is SW-8. Logged in w/ IDs on COC

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) AG Date: 10/17/03

Client contacted: ☑ Yes ☐ No

Summary of discussion: I spoke w Kathy

Corrective Action (per PM/Client):

2003-10-0212 **ConocoPhillips Chain Of Custody Record** 78077

STL-San Francisco
1220 Quarry Lane
Pleasanton, CA 94566
(925) 484-1919 (925) 484-1096 fax

ConocoPhillips Site Manager:
INVOICE REMITTANCE ADDRESS: CONOCOPHILLIPS
Attn: Dee Hutchinson
3611 South Harbor, Suite 200
Santa Ana, CA, 92704

ConocoPhillips Work Order Number
ConocoPhillips Cost Object

DATE: 10-2-03
PAGE: 1 of 1

SAMPLING COMPANY:	TRC
Valid Value ID:	
CONOCOPHILLIPS SITE NUMBER	1871
GLOBAL ID NO.:	T0600101493
ADDRESS:	21 Technology Drive, Irvine, CA 92618
SITE ADDRESS (Street and City):	96 MacArthur
PROJECT CONTACT (Hardcopy or PDF Report to):	Anju Farfan
EDF DELIVERABLE TO (RP or Designee):	Chris Rentz, crentz@trcsolutions.com
PHONE NO.:	949-753-0101
E-MAIL:	
LAB USE ONLY	
TELEPHONE:	949-341-7440
FAX:	949-753-0111
E-MAIL:	afarfan@trcsolutions.com
SAMPLER NAME(S) (Print):	CAmullo
CONSULTANT PROJECT NUMBER	410500-01

TURNAROUND TIME (CALENDAR DAYS):
☒ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED ☑

* Field Point name only required if different from Sample ID

REQUESTED ANALYSES

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	8015m - TPHd Extractable	8260B - [illegible]/BTEX/MtBE/ETHANOL	8260B - TPHg / BTEX / 8 Oxygenates	8260B - TPHg / BTEX / 8 oxygenates + methanol (8015M)	8260B - Full Scan VOCs (does not include oxygenates)	8270C - Semi-Volatiles	8015M / 8021B - TPHg/BTEX/MtBE	Lead ☐Total ☐STLC ☐TCLP	TPPH By: 8260B	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	MW-9	10-2-03	1556	GW	3		X							X	SW-9
	MW-10	↓	1709	↓	↓		↓							↓	SW-10
	MW-7	↓	1330	↓	↓		↓							↓	
	MW-6	↓	1420	↓	↓		↓							↓	
	MW-11	↓	1700	↓	↓		↓							↓	
	MW-8	↓	1447	↓	↓		↓							↓	SW-8
	MW-1	↓	1732	↓	↓		↓							↓	

TEMPERATURE ON RECEIPT C°: 4.7 °C

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	Mike Romaldy (ROMUALDEZ)	10-03-03	1340
Mike Romaldy	[signature] STL SF	10-03-03	1446

9/19/03 Revision

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 1871 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 54 gallons of purge water from the site were transferred to the purge water holding tank on 10/2/03. The contents of the holding tank were transported to the Unit 100 Water Treatment Facility at the Rodeo Refinery on 11/3/03.

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.

In witness of this statement

Dennis E. Jensen 12/11/03
Dennis E. Jensen date
QMS 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.