

Sacramento, California 95818

October 31, 2006

Mr. Barney Chan Alameda County Health Agency 1131 Harbor Bay Parkway Alameda, California 94502

Re: Report Transmittal Quarterly Report Third Quarter – 2006 76 Service Station #6419 6401 Dublin Boulevard, Dublin, CA

Dear Mr. Chan:

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

If you have any questions or need additional information, please contact

Shelby S. Lathrop (Contractor) ConocoPhillips Risk Management & Remediation 76 Broadway Sacramento, CA 95818 Phone: 916-558-7609 Fax: 916-558-7639

Sincerely,

mar H. Koal

Thomas Kosel Risk Management & Remediation

Attachment



October 31, 2006

TRC Project No. 42017010

Mr. Barney Chan Hazardous Materials Specialist Alameda County Health Care Services 1131 Harbor Bay Parkway Alameda, CA 94502-6577

#### RE: Quarterly Status Report - Third Quarter 2006 76 Service Station #6419, 6401 Dublin Boulevard, Dublin, California Alameda County

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the Third Quarter 2006 Status Report for the subject site, an active service station located on the western corner of Dublin Boulevard and Dougherty Road in Dublin, California. The site is bounded to the southeast by Dublin Boulevard, to the northeast by Dougherty Road, and to the northwest and southwest by a shopping center parking lot. Properties in the immediate site vicinity are commercial, including service stations and retail shopping facilities.

Current aboveground site facilities consist of two dispenser islands, a car wash, and a station building/convenience store. Two 12,000-gallon gasoline underground storage tanks (USTs) are located in the common pit immediately east of the station building.

#### **PREVIOUS ASSESSMENTS**

September 1993: Two 10,000-gallon gasoline USTs, one 550-gallon waste oil UST, and the associated product piping were removed from the site with confirmation sampling. Groundwater was observed entering the UST excavation. Concentrations of petroleum hydrocarbons in confirmation soil samples beneath the fuel USTs were non-detect to low. Concentrations of petroleum hydrocarbons and volatile organic compounds (VOCs) in confirmation soil samples beneath the waste oil UST were non-detect to low, and concentrations of metals were considered background levels. Petroleum hydrocarbon and lead concentrations in confirmation soil samples from the dispenser islands were non-detect, and low, respectively. Petroleum hydrocarbon and lead concentrations in confirmation soil samples from the piping trenches were non-detect, and low, respectively.

February 1994: Three onsite monitoring wells were installed.

June 1999: Four onsite monitoring wells were installed to a depth of approximately 19 feet below ground surface (bgs).

QSR – Third Quarter 2006 76 Service Station #6419, Dublin, California October 31, 2006 Page 2

November 1999: A four-inch diameter groundwater observation and extraction well (TPW-1) was installed in the gasoline UST pit backfill to allow purging of methyl tertiary butyl ether (MTBE) impacted groundwater.

September 2001: Two offsite monitoring wells were installed to a depth of 20 feet bgs.

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

December 2004: Offsite monitoring wells MW-8 and MW-9 were abandoned due to construction activities planned at those locations by Pin Brothers Fine Homes.

January 12, 2006: Onsite monitoring wells MW-2, MW-4, MW-6, and MW-7 were abandoned at the request of the City of Dublin in anticipation of street widening on both Dougherty Road and Dublin Boulevard.

#### SENSITIVE RECEPTORS

A sensitive receptor survey has not been conducted for this site.

#### MONITORING AND SAMPLING

Three onsite wells are currently monitored semi-annually during the first and third quarters. All three remaining site wells were gauged and sampled this quarter. The groundwater flow direction is toward the west at a calculated hydraulic gradient of 0.01 feet per foot. Historically, groundwater flow at the site is to the southwest. A graph of historical groundwater flow directions is included in this report.

#### CHARACTERIZATION STATUS

Total petroleum hydrocarbons as gasoline (TPH-g) were detected in two of the three remaining wells sampled at a maximum concentration of 780 micrograms per liter ( $\mu$ g/l) in onsite monitoring well MW-3. Benzene was not detected above laboratory reporting limits in any of the three remaining wells sampled. Methyl tertiary butyl ether (MTBE) was detected in all three wells sampled at a maximum concentration of 1,500  $\mu$ g/l in onsite monitoring well MW-3.

#### **REMEDIATION STATUS**

September 1993: Approximately 19,000 gallons of groundwater were removed from the UST excavation and properly disposed offsite. A hydrocarbon sheen was observed on the surface of the groundwater in the southwest corner of the excavation. Approximately 850 cubic yards of excavated soil was properly disposed offsite. Two 12,000-gallon and one 520-gallon double-wall glasteel replacement USTs were installed in the same pit.

QSR – Third Quarter 2006 76 Service Station #6419, Dublin, California October 31, 2006 Page 3

July 1998: A soil vapor extraction test was conducted. Approximately 0.53 pounds of TPH-g and 6.5 pounds of MTBE (approximately 1 gallon of gasoline/additive) were extracted during the fourday test. The effective radius of influence was thought to be less than 40 feet.

December 1999 through December 2002: Approximately 649,600 gallons of groundwater containing an estimated 130.21 pounds of MTBE were removed from the tank pit observation and extraction well and removed from the site. Batch extractions were ended February 5, 2003, based on asymptotic levels of cumulative pounds of MTBE removed. The purged groundwater was transported to, treated, and disposed of at the ConocoPhillips refinery located in Rodeo, California.

Remediation is not currently being conducted at the site.

#### **RECENT CORRESPONDENCE**

No correspondence this quarter.

#### **CURRENT QUARTER ACTIVITIES**

September 27, 2006: 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.

#### CONCLUSIONS AND RECOMMENDATIONS

TRC recommends installation of replacement monitoring wells, possibly within the right-of-way along Dougherty Road and Dublin Boulevard. However, additional well installation and offsite plume delineation is currently on hold pending completion of the current road widening project by the City of Dublin.

In the interim, TRC will pursue remedial alternatives for addressing onsite soil and groundwater impacts and will obtain groundwater monitoring data from the Former BP Station #11120 located at 6400 Dublin Road, approximately 100 feet southeast of the site, for plume delineation.

A work plan for initiation of remediation will be submitted by the end of the fourth quarter 2006. In addition, TRC will complete a sensitive receptor survey to determine if potential receptors exist in the site vicinity.

TRC recommends continuing semi-annual monitoring and sampling of existing site wells to assess plume stability and concentration trends onsite.

QSR – Third Quarter 2006 76 Service Station #6419, Dublin, California October 31, 2006 Page 4

If you have any questions regarding this report, please call me at (925) 688-2488.

ERED

KEITH L. DODBURNE

No. 7607

GEC

..... ...... ...

Sincerely, *TRC* 

Keith Woodburne, P.G.

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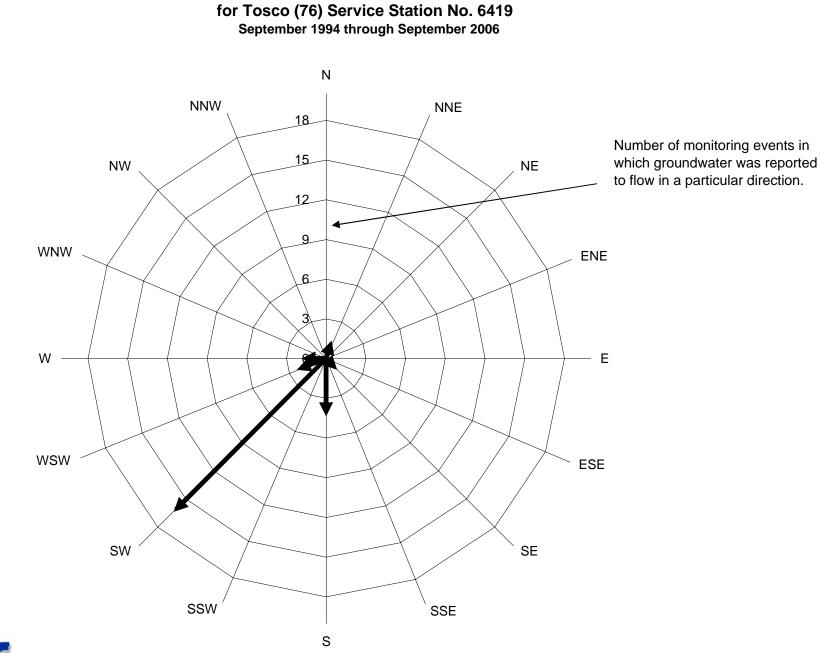
Senior Project Manager



Semi-Annual Monitoring Report, April 2006 through September 2006 (TRC, October 13, 2006) Historical Groundwater Flow Directions – September 1994 through September 2006

cc: Shelby Lathrop, ConocoPhillips (electronic upload only)





**Historical Groundwater Flow Directions** 





October 13, 2006

ConocoPhillips Company 76 Broadway Sacramento, CA 95818

ATTN: MR. THOMAS H. KOSEL

- SITE: 76 STATION 6419 6401 DUBLIN BOULEVARD DUBLIN, CALIFORNIA
- RE: SEMI-ANNUAL MONITORING REPORT APRIL THROUGH SEPTEMBER 2006

Dear Mr. Kosel:

Please find enclosed our Semi-Annual Monitoring Report for 76 Station 6419, located at 6401 Dublin Boulevard, Dublin, 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. Keith Woodburne, TRC (2 copies)

Enclosures 20-0400/6419R07.QMS

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### TRC

#### SEMI-ANNUAL MONITORING REPORT APRIL THROUGH SEPTEMBER 2006

76 STATION 6419 6401 Dublin Boulevard Dublin, California

Prepared For:

Mr. Thomas H. Kosel ConocoPhillips Company 76 Broadway Sacramento, California 95818

By:

No. EG 103 CALI

Senior Project Geologist, Irvine Operations October 13, 2006

LIST OF ATTACHMENTS											
Summary Sheet	Summary of Gauging and Sampling Activities										
Tables	Table Key										
	Contents of Tables										
	Table 1: Current Fluid Levels and Selected Analytical Results										
	Table 1a: Additional Current Analytical Results										
	Table 2: Historic Fluid Levels and Selected Analytical Results										
	Table 2a: Additional Historic Analytical Results										
Figures Figure 1: Vicinity Map											
	Figure 2: Groundwater Elevation Contour Map										
	Figure 3: Dissolved-Phase TPH-G (GC/MS) Concentration Map										
	Figure 4: Dissolved-Phase Benzene Concentration Map										
	Figure 5: Dissolved-Phase MTBE Concentration Map										
Graphs	Groundwater Elevations vs. Time										
	Benzene Concentrations vs. Time										
Field Activities	General Field Procedures										
	Field Monitoring Data Sheet – 9/27/06										
	Groundwater Sampling Field Notes – 9/27/06										
Laboratory	Official Laboratory Reports										
Reports	Quality Control Reports										
	Chain of Custody Records										
Statements	Purge Water Disposal										
	Limitations										

#### Summary of Gauging and Sampling Activities April through September 2006 76 Station 6419 6401 Dublin Boulevard Dublin, CA

Project Coordinator: <b>Thomas H</b> Telephone: <b>916-558-</b>		Water Sampling Co Compiled by: <b>Da</b>	
Date(s) of Gauging/Sampling Eve	ent: <b>09/27/06</b>		
Sample Points			
Groundwater wells: <b>3</b> onsir Purging method: <b>Bailer</b> Purge water disposal: <b>Onyx/Ro</b> Other Sample Points: <b>0</b>		Wells gauged: <b>3</b>	Wells sampled: 3
Liquid Phase Hydrocarbons ( Wells with LPH: 0 Maximum LPH removal frequency: n/a Treatment or disposal of water/L	thickness (feet): <b>n/</b>	a Method: <b>n/a</b>	
Hydrogeologic Parameters			
Depth to groundwater (below TO Average groundwater elevation (in Average change in groundwater elevation) Interpreted groundwater gradient Current event: 0.01 ft/ft, Previous event: 0.01 ft/ft,	relative to available loo elevation since previou t and flow direction: west	cal datum): <b>321.92</b>	
Selected Laboratory Results			
Wells with detected <b>Benzene:</b> Maximum reported benzene c		s above MCL (1.0 µg	g/l): <b>n/a</b>
Wells with <b>TPH-G by GC/MS</b> Wells with <b>MTBE</b>		imum: 780 µg/l (M imum: 1,500 µg/l	

#### Notes:

MW-2=Destroyed on 1/12/06, MW-4=Destroyed on 1/12/06, MW-6=Destroyed on 1/12/06, MW-7=Destroyed on 1/12/06,

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

<b>STANDARD</b>	AB	BREVL	ATIONS												
	=		alyzed, measured, or collected												
LPH	=		-phase hydrocarbons												
Trace			an 0.01 foot of LPH in well												
μg/l			grams per liter (approx. equivalent to parts per billion, ppb)												
mg/l	=		rams per liter (approx. equivalent to parts per million, ppm)												
ND<	=		letected at or above laboratory detection limit												
TOC	=		casing (surveyed reference elevation)												
		-													
<u>ANALYTES</u>															
BTEX		=	benzene, toluene, ethylbenzene, and (total) xylenes												
DIPE		<u></u>	di-isopropyl ether												
ETBE		=	ethyl tertiary butyl ether												
MTBE			methyl tertiary butyl ether												
PCB		=	polychlorinated biphenyls												
PCE		=	tetrachloroethene												
TBA		=	tertiary butyl alcohol												
TCA		=	trichloroethane												
TCE		=	trichloroethene												
TPH-G		=	total petroleum hydrocarbons with gasoline distinction												
TPH-G (GC/N	AS)	=	total petroleum hydrocarbons with gasoline distinction utilizing EPA Method 8260B												
TPH-D		= ,	total petroleum hydrocarbons with diesel distinction												
TRPH		=	total recoverable petroleum hydrocarbons												
TAME		=	tertiary amyl methyl ether												
1,1-DCA		=	1,1-dichloroethane												
1,2-DCA		=	1,2-dichloroethane (same as EDC, ethylene dichloride)												
1,1-DCE		=	1,1-dichloroethene												
1,2-DCE			1,2-dichloroethene (cis- and trans-)												

#### NOTES

- 1. Elevations are in feet above mean sea level. Depths are in feet below surveyed top-of-casing.
- Groundwater elevations for wells with LPH are calculated as: <u>Surface Elevation Measured Depth to Water + (Dp x LPH Thickness</u>), where Dp is the density of the LPH, if known. A value of 0.75 is used for gasoline and when the density is not known. A value of 0.83 is used for diesel.
- 3. Wells with LPH are generally not sampled for laboratory analysis (see General Field Procedures).
- 4. Comments shown on tables are general. Additional explanations may be included in field notes and laboratory reports, both of which are included as part of this report.
- 5. A "J" flag indicates that a reported analytical result is an estimated concentration value between the method detection limit (MDL) and the practical quantification limit (PQL) specified by the laboratory.
- 6. Other laboratory flags (qualifiers) may have been reported. See the official laboratory report (attached) for a complete list of laboratory flags.
- 7. Concentration graphs based on tables (presented following Figures) show non-detect results prior to the Second Quarter 2000 plotted at fixed values for graphical display. Non-detect results reported since that time are plotted at reporting limits stated in the official laboratory report.
- 8. Groundwater vs. Time graphs may be corrected for apparent level changes due to resurvey.

#### **REFERENCE**

TRC began groundwater monitoring and sampling for 76 Station 6419 in October 2003. Historical data compiled prior to that time were provided by Gettler-Ryan Inc.

#### Contents of Tables Site: 76 Station 6419

#### **Current Event**

Table 1	Well/ Date	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)		Comments	
Table 1a	Well/ Date	Ethanol (8260B)														
Historic D	ata															
Table 2	Well/ Date	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)		Comments	
Table 2a	Well/ Date	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Cadmium (dissolved)	Chromium (total)	Lead (total)	Nickel	Zinc (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen

#### Table 1

#### CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 27, 2006

76 Station 6419

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G (8015M)	TPH-G (GC/MS)	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)	(µg/l)	
<b>MW-1</b> 09/27/00	6 330.17		nterval in fe 0.00	eet: 4.0-19 322.12	<b>.0)</b> -1.00		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		1.4	
<b>MW-2</b> 09/27/00	6	(Screen I 	nterval in fe 	eet: 4.0-20 	.0) 									Destroyed on 1/12/06
<b>MW-3</b> 09/27/00	6 330.59		nterval in fe 0.00	eet: 4.0-20 322.05	<b>.0)</b> -0.80		780	ND<5.0	ND<5.0	ND<5.0	ND<5.0		1500	
<b>MW-4</b> 09/27/00	6	(Screen I 	nterval in fe 	eet: 4.0-19	.0) 									Destroyed on 1/12/06
<b>MW-5</b> 09/27/00	6 330.18	-	nterval in fe 0.00	eet: 4.0-19 321.58	•		300	ND<0.50	ND<0.50	ND<0.50	ND<0.50		860	
<b>MW-6</b> 09/27/00	6	(Screen I 	nterval in fe 	eet: 4.0-19 	.0) 									Destroyed on 1/12/06
<b>MW-7</b> 09/27/00	6	(Screen I 	nterval in fe 	eet: 4.0-19 	.0) 									Destroyed on 1/12/06

1

### Table 1 aADDITIONAL CURRENT ANALYTICAL RESULTS76 Station 6419

Date Ethanol Sampled (8260B)

(µg/l)

#### **MW-1**

09/27/06 ND<250

#### MW-3

09/27/06 ND<2500

#### **MW-5**

09/27/06 ND<250

## Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS March 1994 Through September 2006

#### 76 Station 6419

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation		TPH-G (GC/MS)	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)	(µg/l)	
<b>MW-1</b>	(5	Screen Inte	erval in feet	t: 4.0-19.0)				·						
03/14/9	4 330.45	7.27	0.00	323.18		1800		17	ND	ND	ND			
08/25/9	4 330.45	8.57	0.00	321.88	-1.30	9200		48	ND	540	ND			
09/30/9	4 330.45	8.78	0.00	321.67	-0.21	-								
10/20/9	4 330.45	8.98	0.00	321.47	-0.20									
11/18/9	4 330.45	7.69	0.00	322.76	1.29	5100		33	ND	560	38			
12/20/9	4 330.45	7.58	0.00	322.87	0.11									
01/17/9	5 330.45	6.03	0.00	324.42	1.55									
02/15/9	5 330.45	6.29	0.00	324.16	-0.26	3300		13	ND	180	5.2			
03/13/9	5 330.45	5.64	0.00	324.81	0.65									
04/06/9	5 330.45	5.62	0.00	324.83	0.02									
05/17/9	5 330.45	6.26	0.00	324.19	-0.64	130		0.75	ND	1.5	ND			
06/15/9	5 330.45	6.75	0.00	323.70	-0.49									
08/25/9	5 330.45	7.91	0.00	322.54	-1.16	490		9.1	ND	21	2			
11/28/9	5 330.45	9.03	0.00	321.42	-1.12	1400		18	3	98	3.6			
02/26/9	6 330.45	5.77	0.00	324.68	3.26	560		9.3	ND	22	ND	1300		
08/23/9	6 330.45	7.78	0.00	322.67	-2.01	ND		ND	ND	ND	ND	640		
02/17/9	7 330.23	5.73	0.00	324.50	1.83	120		1	0.95	ND	ND	280		
08/18/9	7 330.23	7.38	0.00	322.85	-1.65	ND		ND	ND	ND	ND	100		
02/02/9	8 330.23	5.10	0.00	325.13	2.28	ND		130	ND	ND	ND	32000		
08/24/9	8 330.23	6.73	0.00	323.50	-1.63	ND		ND	ND	ND	ND	26000	24000	
02/10/9	9 330.23	5.46	0.00	324.77	1.27	ND		ND	ND	ND	ND	84000	100000	
04/12/9	9 330.23	6.38	0.00	323.85	-0.92	ND		ND	ND	ND	ND	140000	120000	
05/21/9	9 330.21	5.95	0.00	324.26	0.41									

## Table 2HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTSMarch 1994 Through September 2006

#### 76 Station 6419

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation		TPH-G (GC/MS)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE (8021B)	MTBE (8260B)	Comments
<u>.</u>	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
<b>MW-1</b>	continued													
08/02/9	99 330.21	6.75	0.00	323.46	-0.80	ND		ND	ND	ND	ND	91000	140000	
02/11/0	330.21	6.44	0.00	323.77	0.31	ND		ND	ND	ND	ND	38000	39000	
07/26/0	00 330.18	7.08	0.00	323.10	-0.67	146		ND	ND	ND	ND	30900	42800	
02/02/0	330.18	6.99	0.00	323.19	0.09	ND		ND	ND	ND	ND	5380	6430	
05/16/0	)1													
08/24/0	330.18	7.72	0.00	322.46		ND<50		8.3	ND<0.50	ND<0.50	ND<0.50	10000	6600	
10/11/0	330.17	7.72	0.00	322.45	-0.01									
02/06/0	330.17	6.43	0.00	323.74	1.29	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	450	420	
07/30/0	330.17	7.45	0.00	322.72	-1.02		ND<1000	ND<10	ND<10	ND<10	ND<20		2400	
02/17/0	330.17	6.18	0.00	323.99	1.27		ND<250	ND<2.5	ND<2.5	ND<2.5	ND<5.0		600	
08/18/0	330.17	6.25	0.00	323.92	-0.07		3900	ND<20	ND<20	ND<20	ND<40		2700	
02/24/0	04 330.17	5.59	0.00	324.58	0.66		ND<1000	ND<10	ND<10	ND<10	ND<20		1400	
09/17/0	04 330.17	7.08	0.00	323.09	-1.49		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		14	
03/22/0	05 330.17	5.29	0.00	324.88	1.79		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		100	
09/29/0	05 330.17													Dry well
01/09/0	)6 330.17	7.05	0.00	323.12			ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2.8	
09/27/0	6 330.17	8.05	0.00	322.12	-1.00		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		1.4	
<b>MW-2</b>	()	Screen Int	erval in feet	: 4.0-20.0)	)									
03/14/9	94 330.40	7.23	0.00	323.17		ND		ND	2.8	1.1	8			
08/25/9	94 330.40	8.41	0.00	321.99	-1.18	ND		ND	ND	ND	ND			
09/30/9	94 330.40	8.73	0.00	321.67	-0.32									
10/20/9	94 330.40	8.92	0.00	321.48	-0.19									
11/18/9	94 330.40	7.67	0.00	322.73	1.25	ND		ND	ND	ND	ND			
12/20/9	94 330.40	7.48	0.00	322.92	0.19									
								D	<b>a</b> co					

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# Table 2HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTSMarch 1994 Through September 200676 Station 6419

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation		TPH-G (GC/MS)	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)	(µg/l)	
MW-2	continued													
01/17/9	330.40	6.00	0.00	324.40	1.48									
02/15/9	330.40	6.16	0.00	324.24	-0.16	ND		ND	ND	ND	ND			
03/13/9	5 330.40	5.59	0.00	324.81	0.57									
04/06/9	5 330.40	5.51	0.00	324.89	0.08									
05/17/9	330.40	6.15	0.00	324.25	-0.64	ND		ND	ND	ND	ND			
06/15/9	5 330.40	6.61	0.00	323.79	-0.46									
08/25/9	5 330.40	7.45	0.00	322.95	-0.84	ND		ND	ND	ND	ND			
11/28/9	5 330.40	8.85	0.00	321.55	-1.40	ND		ND	ND	ND	ND			
02/26/9	6 330.40	5.49	0.00	324.91	3.36	ND		ND	ND	ND	ND			
08/23/9	6 330.40	7.44	0.00	322.96	-1.95									SAMPLED ANNUALLY
02/17/9	330.27	5.64	0.00	324.63	1.67	ND		ND	ND	ND	ND	ND		
08/18/9	330.27	7.40	0.00	322.87	-1.76									
02/02/9	8 330.27	5.09	0.00	325.18	2.31	ND		ND	ND	ND	ND	62		
08/24/9	8 330.27	6.70	0.00	323.57	-1.61									
02/10/9	9 330.27	5.56	0.00	324.71	1.14	ND		ND	ND	ND	ND	130		
05/21/9	9 330.30	5.98	0.00	324.32	-0.39				<u></u>					
08/02/9	9 330.30	6.72	0.00	323.58	-0.74	ND		ND	ND	ND	ND	120		
02/11/0	0 330.30	6.43	0.00	323.87	0.29	ND		ND	ND	ND	ND	39		
07/26/0	0 330.24	7.03	0.00	323.21	-0.66	ND		ND	ND	ND	ND	89.9		
02/02/0	330.24	6.81	0.00	323.43	0.22	ND		ND	ND	ND	ND	20.1		
05/16/0														
08/24/0	330.24	7.57	0.00	322.67		ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	36		
10/11/0	330.24	7.62	0.00	322.62	-0.05									
02/06/0	330.24	6.40	0.00	323.84	1.22	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	23	21	

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## Table 2HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTSMarch 1994 Through September 2006

#### 76 Station 6419

Date Sampled		Depth to Water	LPH Thickness		Change in Elevation		TPH-G (GC/MS)	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)	(µg/l)	
MW-2	continued													
07/30/0	2 330.24	7.12	0.00	323.12	-0.72		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		11	
02/17/0	3 330.24	6.17	0.00	324.07	0.95		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		25	
08/18/0	3 330.24	6.36	0.00	323.88	-0.19		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2	
02/24/0	4 330.24	5.87	0.00	324.37	0.49		ND<100	ND<1.0	ND<1.0	ND<1.0	ND<2.0		100	
09/17/0	4 330.24	7.22	0.00	323.02	-1.35		120	ND<0.50	ND<0.50	ND<0.50	ND<1.0		70	
03/22/0	5 330.24	5.55	0.00	324.69	1.67		110	ND<0.50	1.3	0.68	2.4		29	
09/29/0	5 330.24	8.26	0.00	321.98	-2.71		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		23	
01/09/0	6 330.24	7.41	0.00	322.83	0.85		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		25	
09/27/0	6													Destroyed on 1/12/06
<b>MW-3</b>	(5	Screen Inte	erval in feet	: 4.0-20.0)										
03/14/9	4 331.11	7.93	0.00	323.18		1,50		ND	ND	ND	ND			
08/25/9	4 331.11	9.20	0.00	321.91	-1.27	130		ND	ND	ND	ND			
09/30/9	4 331.11	9.43	0.00	321.68	-0.23									
10/20/9	4 331.11	9.64	0.00	321.47	-0.21									
11/18/9	4 331.11	8.39	0.00	322.72	1.25	130		ND	ND	ND	ND			
12/20/9	4 331.11	8.20	0.00	322.91	0.19									
01/17/9	5 331.11	6.72	0.00	324.39	1.48									
02/15/9	5 331.11	6.93	0.00	324.18	-0.21	130		ND	ND	ND	ND			
03/13/9	5 331.11	6.30	0.00	324.81	0.63									
04/06/9	5 331.11	8.20	0.00	322.91	-1.90									
05/17/9	5 331.11	6.88	0.00	324.23	1.32	99		ND	ND	ND	ND			
06/15/9	5 331.11	7.35	0.00	323.76	-0.47									
08/25/9	5 331.11	8.20	0.00	322.91	-0.85	ND		ND	ND	ND	ND			
11/28/9	5 331.11	9.52	0.00	321.59	-1.32	ND		ND	ND	ND	ND			

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# Table 2HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTSMarch 1994 Through September 200676 Station 6419

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation		TPH-G (GC/MS)	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)	(µg/l)	
MW-3	continued													
02/26/9	6 331.11	6.25	0.00	324.86	3.27	ND		ND	ND	ND	ND			
08/23/9	6 331.11	7.98	0.00	323.13	-1.73									SAMPLED ANNUALLY
02/17/9	330.68	6.07	0.00	324.61	1.48	ND		ND	ND	ND	ND	68		
08/18/9	330.68	7.82	0.00	322.86	-1.75									
02/02/9	8 330.68	5.50	0.00	325.18	2.32	ND		ND	ND	ND	ND	100		
08/24/9	330.68	7.12	0.00	323.56	-1.62									
02/10/9	9 330.68	5.80	0.00	324.88	1.32	ND		ND	ND	ND	ND	92		
05/21/9	9 330.49	6.16	0.00	324.33	-0.55									
08/02/9	9 330.49	6.95	0.00	323.54	-0.79	ND		ND	ND	ND	ND	140		
02/11/0	0 330.49	6.71	0.00	323.78	0.24	ND		ND	ND	ND	ND	46		
07/26/0	0 330.60	7.35	0.00	323.25	-0.53	ND		ND	ND	ND	ND	927		
02/02/0	330.60	7.17	0.00	323.43	0.18	ND		ND	ND	ND	ND	2240		
05/16/0														
08/24/0	330.60	7.88	0.00	322.72		ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	2500		
10/11/0	330.59	7.83	0.00	322.76	0.04									
02/06/0	330.59	6.73	0.00	323.86	1.10	ND<1000		ND<10	ND<10	ND<10	ND<10	4300	3300	
07/30/0	330.59	7.38	0.00	323.21	-0.65		ND<2500	ND<25	ND<25	ND<25	ND<50		4900	
02/17/0	3 330.59	6.49	0.00	324.10	0.89		ND<2500	ND<25	ND<25	ND<25	ND<50		4400	
08/18/0	3 330.59	6.70	0.00	323.89	-0.21		4400	ND<20	ND<20	ND<20	ND<40		3300	
02/24/0	4 330.59	6.11	0.00	324.48	0.59		ND<2500	ND<25	ND<25	ND<25	ND<50		3000	
09/17/0	330.59	7.61	0.00	322.98	-1.50		ND<1300	ND<13	ND<13	ND<13	ND<25		2300	
03/22/0	5 330.59	5.79	0.00	324.80	1.82		ND<1300	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1600	
09/29/0	5 330.59	9.24	0.00	321.35	-3.45		680	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1600	
01/09/0	6 330.59	7.74	0.00	322.85	1.50		410		ND<0.50	ND<0.50	ND<1.0		1200	

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# Table 2HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTSMarch 1994 Through September 200676 Station 6419

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation		TPH-G (GC/MS)	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)	(µg/l)	
MW-3	continued													
09/27/0	6 330.59	8.54	0.00	322.05	-0.80		780	ND<5.0	ND<5.0	ND<5.0	ND<5.0		1500	
MW-4	(\$	Screen Inte	erval in feet	: 4.0-19.0)	)									
05/21/9	99 330.36	6.43	0.00	323.93		ND		ND	ND	ND	ND	960	910	
08/02/9	99 330.36	7.34	0.00	323.02	-0.91	ND		10	ND	13	11	ND		
02/11/0	0 330.36	6.92	0.00	323.44	0.42	ND		ND	ND	ND	ND	2700		
07/26/0	00 330.35	7.68	0.00	322.67	-0.77	ND		ND	ND	ND	ND	3710		
02/02/0	330.35	7.40	0.00	322.95	0.28	ND		ND	ND	ND	ND	5340		
08/24/0	330.35	8.14	0.00	322.21	-0.74	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	7800		
10/11/0	330.35	8.29	0.00	322.06	-0.15									
02/06/0	330.35	7.28	0.00	323.07	1.01	ND<100		ND<1.0	ND<1.0	ND<1.0	ND<1.0	2300	3100	
07/30/0	330.35	7.76	0.00	322.59	-0.48		ND<500	ND<5.0	ND<5.0	5.8	ND<10		1600	
02/17/0	330.35	6.85	0.00	323.50	0.91		ND<1000	ND<10	ND<10	ND<10	ND<20		2200	
08/18/0	330.35	7.30	0.00	323.05	-0.45		2000	ND<10	ND<10	ND<10	ND<20		1400	
02/24/0	330.35	6.55	0.00	323.80	0.75		ND<2000	ND<20	ND<20	ND<20	ND<40		2000	
09/17/0	330.35	8.00	0.00	322.35	-1.45		340	ND<2.5	ND<2.5	ND<2.5	ND<5.0		610	
03/22/0	330.35	6.37	0.00	323.98	1.63		ND<200	ND<0.50	ND<0.50	ND<0.50	ND<1.0		290	
09/29/0	330.35	9.43	0.00	320.92	-3.06		84	ND<0.50	ND<0.50	0.53	ND<1.0		57	
01/09/0	6 330.35	7.97	0.00	322.38	1.46		100	ND<0.50	ND<0.50	1.5	ND<1.0		150	
09/27/0														Destroyed on 1/12/06
<b>MW-5</b>	(\$	Screen Inte	erval in feet	: 4.0-19.0)	)									
05/21/9	99 330.20	5.99	0.00	324.21		ND		ND	ND	ND	ND	32	33	
08/02/9	9 330.20	6.83	0.00	323.37	-0.84	ND		ND	ND	ND	ND	230		
02/11/0	0 330.20	6.34	0.00	323.86	0.49	ND		ND	ND	ND	ND	98		

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### Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS March 1994 Through September 2006

#### 76 Station 6419

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation		TPH-G (GC/MS)	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)	(µg/l)	
MW-5	continued													
07/26/0	0 330.20	7.06	0.00	323.14	-0.72	ND		ND	ND	ND	ND	25.9		
02/02/0	330.20	6.81	0.00	323.39	0.25	ND		ND	ND	ND	ND	18		
08/24/0	330.20	) 7.60	0.00	322.60	-0.79	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	18		
10/11/0	330.18	3 7.34	0.00	322.84	0.24									
02/06/0	330.18	6.55	0.00	323.63	0.79	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	7.7	7.9	
07/30/0	330.18	3 7.15	0.00	323.03	-0.60		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		4.6	
02/17/0	3 330.18	6.27	0.00	323.91	0.88		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2.8	
08/18/0	3 330.18	6.57	0.00	323.61	-0.30		75	ND<0.50	ND<0.50	ND<0.50	ND<1.0		3.8	
02/24/0	330.18	5.88	0.00	324.30	0.69		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		3.3	
09/17/0	94 330.18	3 7.41	0.00	322.77	-1.53		ND<50	ND<0.50	ND<0.50	ND<0.50	1.4		6.0	
03/22/0	330.18	5.58	0.00	324.60	1.83		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		5.8	
09/29/0	330.18	9.42	0.00	320.76	-3.84		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		7.8	
01/09/0	6 330.18	3 7.93	0.00	322.25	1.49		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		14	
09/27/0	6 330.18	8 8.60	0.00	321.58	-0.67		300	ND<0.50	ND<0.50	ND<0.50	ND<0.50		860	
<b>MW-6</b>	(	Screen Int	erval in feet	t: 4.0-19.0)	)									
05/21/9	9 330.49	6.24	0.00	324.25	·	ND		ND	ND	ND	ND	2200	2300	
08/02/9	99 330.49	7.10	0.00	323.39	-0.86	ND		ND	ND	ND	ND	ND		
02/11/0	0 330.49	6.60	0.00	323.89	0.50	ND		ND	ND	ND	ND	2500		
07/26/0	0 330.49	7.31	0.00	323.18	-0.71	ND		ND	ND	ND	ND	4280		
02/02/0	)1 330.49	7.02	0.00	323.47	0.29	ND		ND	ND	ND	ND	1990		
08/24/0	)1 330.49	7.84	0.00	322.65	-0.82	ND<200		ND<2.0	ND<2.0	ND<2.0	ND<2.0	1100		
10/11/0	330.47	8.03	0.00	322.44	-0.21									
02/06/0	330.47	6.78	0.00	323.69	1.25	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	610	680	
07/30/0	330.47	7 7.40	0.00	323.07	-0.62		180	ND<0.50	ND<0.50	ND<0.50	ND<1.0		160	
								Dama	7 - 60					

### Table 2HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTSMarch 1994 Through September 2006

76 Station 6419

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation		TPH-G (GC/MS)	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)	(µg/l)	
MW-6	continued													
02/17/0	3 330.47	6.49	0.00	323.98	0.91		ND<250	ND<2.5	ND<2.5	ND<2.5	ND<5.0		400	
08/18/0	3 330.47	6.81	0.00	323.66	-0.32		320	ND<1.0	ND<1.0	ND<1.0	ND<2.0		280	
02/24/0	4 330.47	6.11	0.00	324.36	0.70		130	ND<1.0	ND<1.0	ND<1.0	ND<2.0		200	
09/17/0	4 330.47	7.64	0.00	322.83	-1.53		110	ND<1.0	ND<1.0	ND<1.0	ND<2.0		200	
03/22/0	5 330.47	5.81	0.00	324.66	1.83		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		83	
09/29/0	5 330.47	9.19	0.00	321.28	-3.38		110	ND<0.50	ND<0.50	ND<0.50	ND<1.0		140	
01/09/0	6 330.47	7.65	0.00	322.82	1.54		100	ND<0.50	ND<0.50	ND<0.50	ND<1.0		160	
09/27/0														Destroyed on 1/12/06
<b>MW-7</b>	(\$	Screen Inte	erval in feet	: 4.0-19.0)	1									
05/21/9	9 330.43	6.13	0.00	324.30		ND		ND	ND	ND	ND	22	22	
08/02/9	9 330.43	6.92	0.00	323.51	-0.79	ND		ND	ND	ND	ND	31		
02/11/0	0 330.43	6.50	0.00	323.93	0.42	ND		ND	ND	ND	ND	20		
07/26/0	0 330.43	7.18	0.00	323.25	-0.68	ND		ND	ND	ND	ND	17.9		
02/02/0	330.43	6.95	0.00	323.48	0.23	ND		ND	ND	ND	ND	ND		
08/24/0	330.43	7.72	0.00	322.71	-0.77	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.4		
10/11/0	330.41	7.87	0.00	322.54	-0.17									
02/06/0	330.41	6.62	0.00	323.79	1.25	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.9	3.2	
07/30/0	330.41		0.00				ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		4.3	
02/17/0	3 330.41		0.00				ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		4.7	
08/18/0	330.41	6.64	0.00	323.77			76	ND<0.50	ND<0.50	ND<0.50	ND<1.0		6.3	
02/24/0	330.41	6.01	0.00	324.40	0.63		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		6.2	
09/17/0	330.41	7.45	0.00	322.96	-1.44		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		8.7	
03/22/0	330.41	5.73	0.00	324.68	1.72		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		9.4	
09/29/0	330.41	8.94	0.00	321.47	-3.21		ND<50		ND<0.50	ND<0.50	ND<1.0		11	

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## Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS March 1994 Through September 2006

76 Station 6419

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation		TPH-G (GC/MS)	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)	(µg/l)	
<b>MW-7</b> 01/09/0	<b>continued</b> 06 330.41	7.43	0.00	322.98	1.51		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		7.6	
09/27/0	)6													Destroyed on 1/12/06
<b>MW-8</b>	(5	Screen Inte	erval in feet	: DNA)										
10/11/0	)1 329.97	7.57	0.00	322.40		ND<50	·	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	ND<2.0	
02/06/0	)2 329.97	6.35	0.00	323.62	1.22	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	ND<1.0	
07/30/0	)2 329.97	6.95	0.00	323.02	-0.60		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
02/17/0	)3 329.97	6.11	0.00	323.86	0.84		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
08/18/0	)3 329.97	6.33	0.00	323.64	-0.22		53	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2	
02/24/0	)4 329.97	13.37	0.00	316.60	-7.04		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<2.0	
09/17/0	)4 329.97	7.23	0.00	322.74	6.14		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		4.0	
03/22/0	)5 329.97													Abandoned
MW-9	(5	Screen Inte	erval in feet	:: DNA)										
10/11/0	)1 329.51	7.12	0.00	322.39		ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	22	15	
02/06/0	)2 329.51	5.94	0.00	323.57	1.18	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	19	14	
07/30/0	)2 329.51	6.53	0.00	322.98	-0.59		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		9	
02/17/0	329.51	5.63	0.00	323.88	0.90		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		4.9	
08/18/0	329.51	5.99	0.00	323.52	-0.36		57	ND<0.50	ND<0.50	ND<0.50	ND<1		6.2	
02/24/0	04 329.51	5.27	0.00	324.24	0.72		ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		5.6	
09/17/0	)4 329.51	6.80	0.00	322.71	-1.53		ND<50	ND<0.50	ND<0.50	ND<0.50	<sup>•</sup> ND<1.0		4.8	
03/22/0	)5 329.51													Abandoned

							76 Stat	ion 6419							
Date Sampled	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)		DIPE	ETBE	TAME	Cadmium (dissolved)		Lead (total)	Nickel	Zinc (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
MW-1															
03/14/94	810								ND	0.000012	ND	0.00003	0.039		
08/25/94	910			'					ND	ND	0.024	ND			
11/18/94	910								ND	0.067	ND	0.067			
02/15/95	660								ND	ND	ND	ND		4.3	
05/17/95	200								ND	ND	ND	0.021		1.2	
08/25/95														2.71	
11/28/95														3.25	
02/26/96														1.41	5.23
08/23/96															3.83
02/17/97														0.78	0.82
08/18/97														2.35	1.28
07/26/00		ND		ND	ND	ND	ND	ND							
05/16/01															1.54
08/24/01		ND<1000	ND<25000	ND<100	ND<100	ND<100	ND<100	ND<100						3.1	
02/06/02		ND<100	ND<2500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0							
07/30/02		ND<2000	ND<10000	ND<40	ND<40	ND<40	ND<40	ND<40							
02/17/03		ND<500	ND<2500	ND<10	ND<10	ND<10	ND<10	ND<10							
08/18/03		ND<4000	ND<20000	ND<80	ND<80	ND<80	ND<80	ND<80							
02/24/04		ND<2000	ND<10000	ND<40	ND<40	ND<40	ND<40	ND<40							
09/17/04		470	ND<50	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5							
03/22/05		ND<5.0	ND<50	ND<0.50	ND<0.5	ND<0.5	ND<0.5	ND<0.5							
01/09/06		ND<10	ND<250	ND<0,50	ND<0.50	ND<0.50	ND<0.50	ND<0.50							
09/27/06			ND<250												
MW-2															
02/15/95														1.9	
02/26/96														0.43	0.62
6410							Page	1 of 5							

Page 1 of 5

							76 Stati	ion 6419							
Date Sampled	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Cadmium (dissolved)		Lead (total)	Nickel	Zinc (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
MW-2	continued														
08/23/96															2.04
02/17/97														0.82	0.9
08/18/97															1.16
05/16/01															1.47
08/24/01														2.6	
02/06/02		ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0							
08/18/03			ND<500												
02/24/04			ND<1000												
09/17/04			ND<50												
03/22/05			ND<50												
09/29/05			ND<250												
01/09/06			ND<250												
MW-3															
02/15/95														2.6	
03/13/95														1.13	
08/25/95														1.86	
11/28/95														6.81	
02/26/96														1.11	16.83
08/23/96															3.29
02/17/97														0.8	0.8
08/18/97	·														1.43
05/16/01														2.6	1.65
08/24/01														2.60	
02/06/02		ND<670	ND<17000	ND<33	ND<33	ND<33	ND<33	ND<33							
08/18/03			ND<20000								<b></b> *				
02/24/04			ND<25000												
02,21,01															

						76 Stati	on 6419							
TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Cadmium (dissolved)	Chromium (total)	Lead (total)	Nickel	Zinc (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
continued		ND<1300		an en										
		ND<1300												
		ND<250												
		ND<250			*** ##									
		ND<2500												
													2.2	
	 ND<500		 ND<25	 ND<25	 ND<25		 ND<25							
													2.1	
	ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0							
		ND<50												
		ND<50												
		ND<250												
		ND<250												
		ND<250												
	(μg/l) continued        -	(μg/l) (μg/l) continued   	(8260B) (µg/l) (µg/l) (µg/l) continued ND<1300 ND<1300 ND<250 ND<250 ND<250 ND<250 ND<1000 ND<1000 ND<200 ND<200 ND<200 ND<250 ND<250 ND<250 ND<500 ND<500 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50 ND<50	$(\$260B) dibromide (EDB)$ $(\mu g/l) (\mu g/l) (\mu g/l) (\mu g/l)$ continued $ ND < 1300 ND < 1300 ND < 1300 ND < 1300 ND < 250 ND < 250 ND < 250 ND < 250 ND < 2500 ND < 250 ND < 250 ND < 250 ND < 2000 ND < 250 $	$(8260B) dibromide (EDC) (EDB)$ $(\mu g/l) (\mu g/l) (\mu g/l) (\mu g/l) (\mu g/l)$ $(\mu g/l) (\mu g/l) (\mu g/l) (\mu g/l)$ continued $ ND < 1300 $	$(8260B) \ dibromide \ (EDC) \ (\mu g/l) \ (\mu g$	TPH-D       TBA       Ethanol (8260B)       Ethylene- dibromide (EDC)       1,2-DCA (EDC)       DIPE       ETBE $(\mu g/l)$ continued                 ND<1300	( $\mu g/l$ )         continued       -       -       -       -       -       -       -         -       -       ND<1300	TPH-D       TBA       Ethano (8260B)       Ethylene dibromide (EDB)       1,2-DCA (EDC)       DIPE       ETBE       TAME       Cadmiun (dissolved)         ( $\mu$ g/l)       ( $\mu$ g/l)<	TPH-D         TBA         Ethalon (8260B)         Ethylen- dibromule (UpP)         Lp-DCA ( $\mu g/l)$ DIPE         ETBE         TAME         Cadmiun (dissolved)         Chromium (total)           ( $\mu g/l$ )         ( $\mu g/l$ ) <td>TPH-D         IBA         Ethanol         Lipbord         L2-DCA         DIPE         ETBE         TAME         Cadmium         Chronium         Lead (total)           (µg/)         µg/         µg/</td> <td>TPH-D         TBA         Ethylene (8260B)         Lephylene (browning (EDB)         DIPE         ETBE         TAM         Cadmium (dissolved)         Chromium (total)         Lead (total)         Nickel           (µq/)         (µg/)         (µg/)</td> <td>TPH-D         TBA         Ethylene (8260)         Lip-loca (browniad (EDB)         12-DCA (EDC)         DIPE         ETBE         TAME         Cadmium (disolved)         Chromium (total)         Lead (total)         Nickel         Zinc (total)           (µg/)         (</td> <td>IPH-D         IEAA         Ethioms (82608)         Ethioms binormade (EDC)         D.2-DC (EDC)         D.2-DC (EDC)        D.2-DC (EDC)</td>	TPH-D         IBA         Ethanol         Lipbord         L2-DCA         DIPE         ETBE         TAME         Cadmium         Chronium         Lead (total)           (µg/)         µg/         µg/	TPH-D         TBA         Ethylene (8260B)         Lephylene (browning (EDB)         DIPE         ETBE         TAM         Cadmium (dissolved)         Chromium (total)         Lead (total)         Nickel           (µq/)         (µg/)         (µg/)	TPH-D         TBA         Ethylene (8260)         Lip-loca (browniad (EDB)         12-DCA (EDC)         DIPE         ETBE         TAME         Cadmium (disolved)         Chromium (total)         Lead (total)         Nickel         Zinc (total)           (µg/)         (	IPH-D         IEAA         Ethioms (82608)         Ethioms binormade (EDC)         D.2-DC (EDC)         D.2-DC (EDC)        D.2-DC (EDC)

**MW-6** 

6419

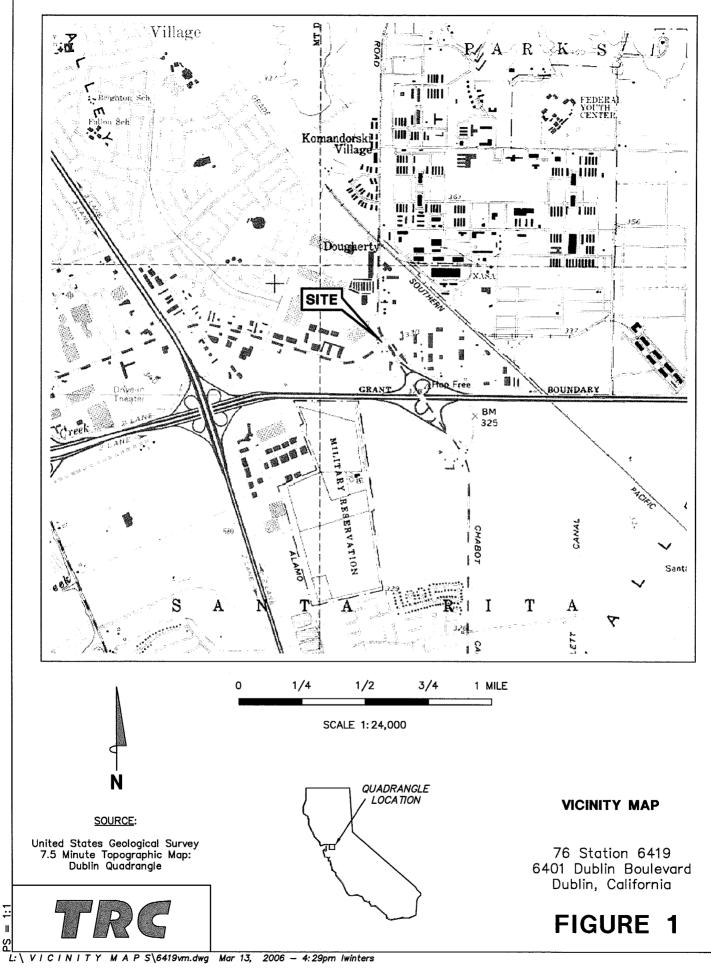
76 Station 6419															
Date Sampled	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Cadmium (dissolved)	Chromium (total)	Lead (total)	Nickel	Zinc (total)	Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
. <u></u>	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
<b>MW-6</b> c 05/21/99	ontinued 	ND<170				ND<8.3	ND<8.3	ND<8.3							
08/24/01														2.7	
02/06/02		ND<170	ND<4200	ND<8.3	ND<8.3	ND<8.3	ND<8.3	ND<8.3							
08/18/03			ND<1000				-								
02/24/04			ND<1000												
09/17/04			ND<100												
03/22/05			ND<50												
09/29/05			ND<250												
01/09/06			ND<250												
<b>MW-7</b>															
08/24/01														2.7	
02/06/02		ND<20	ND<500	ND<1.0	ND<1.0	1.4	ND<1.0	ND<1.0							
08/18/03			ND<500												
02/24/04			ND<500												
09/17/04			ND<50												
03/22/05			ND<50												
09/29/05			ND<250												
01/09/06			ND<250												
<b>MW-8</b>															
10/11/01		ND<20	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0							
02/06/02		ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0							
08/18/03			ND<500												
02/24/04			ND<500												and they
09/17/04			ND<50												

MW-9

6419

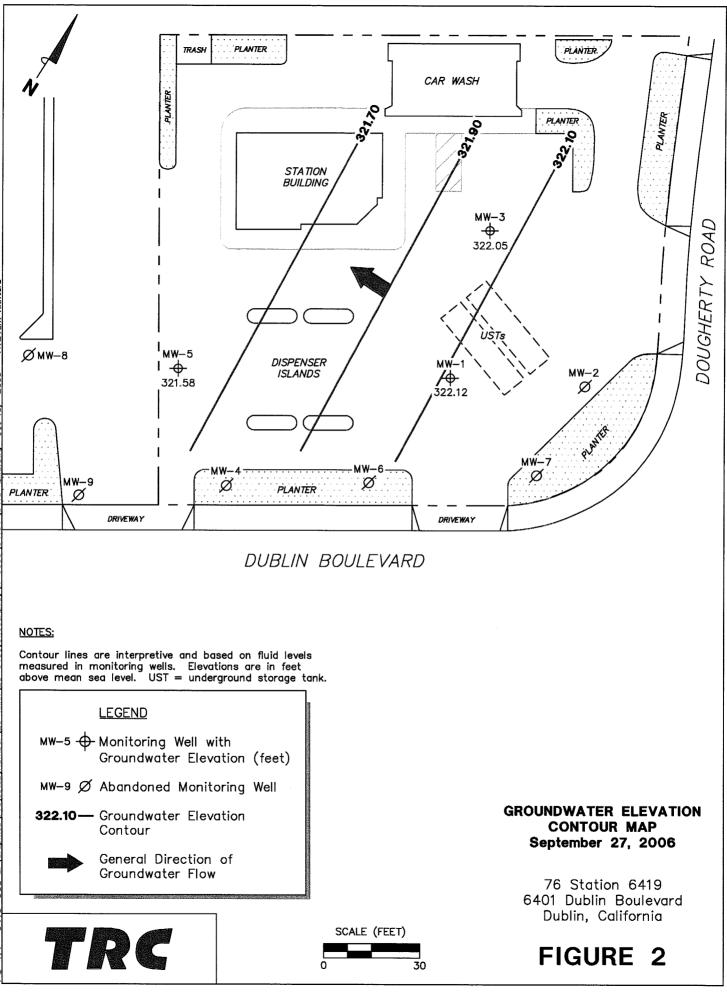
Date Sampled	TPH-D	TBA	Ethanol (8260B)	Ethylene- dibromide (EDB)	1,2-DCA (EDC)	DIPE	ETBE	TAME	Cadmium (dissolved)		Lead (total)	Nickel	Zinc (total	) Post-purge Dissolved Oxygen	Pre-purge Dissolved Oxygen
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
MW-9	continued														
10/11/01		ND<20	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0							
02/06/02		ND<20	ND<500	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0							
08/18/03			ND<500												
02/24/04			ND<500												
09/17/04			ND<50												

### FIGURES

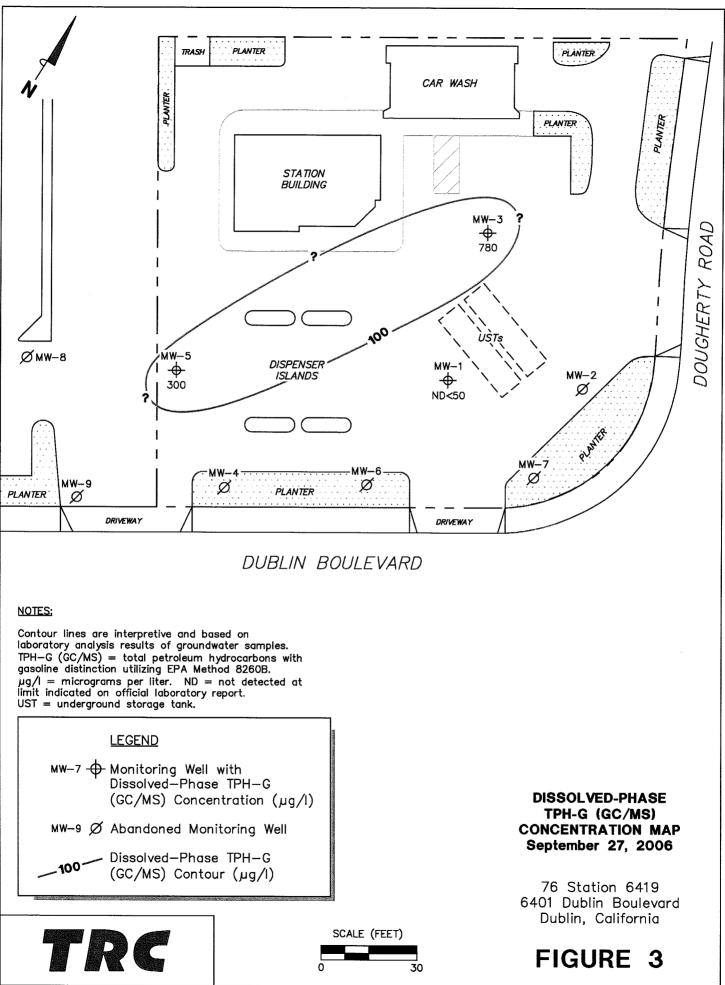


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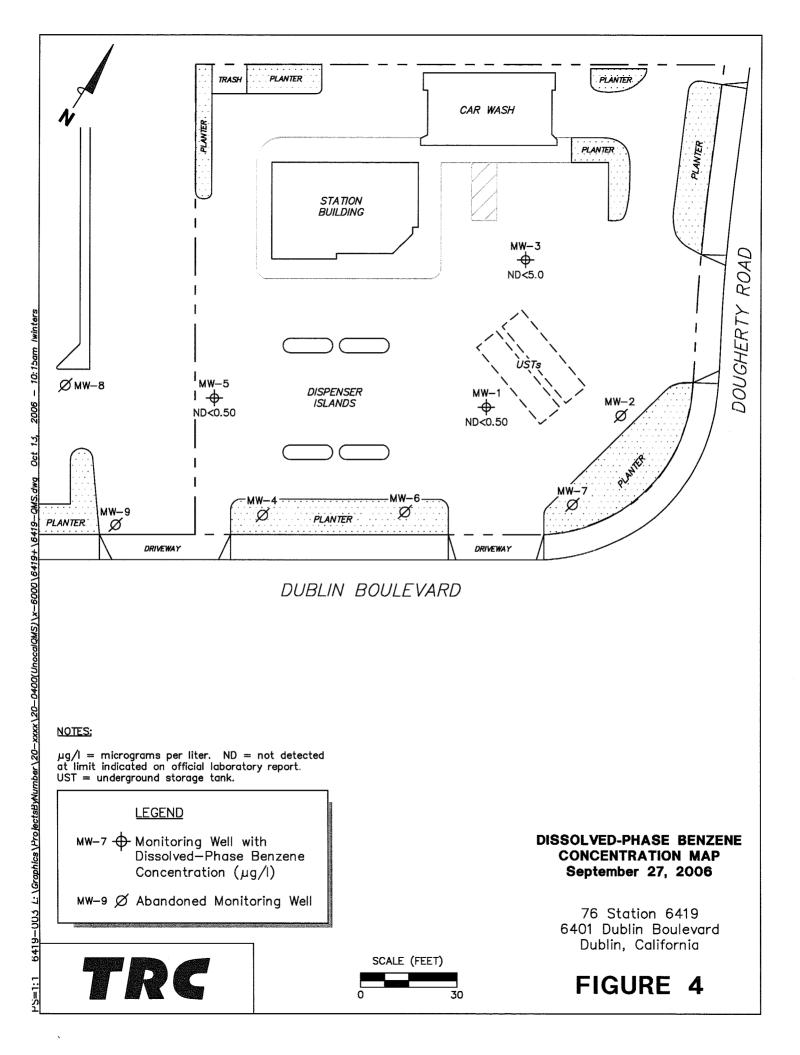
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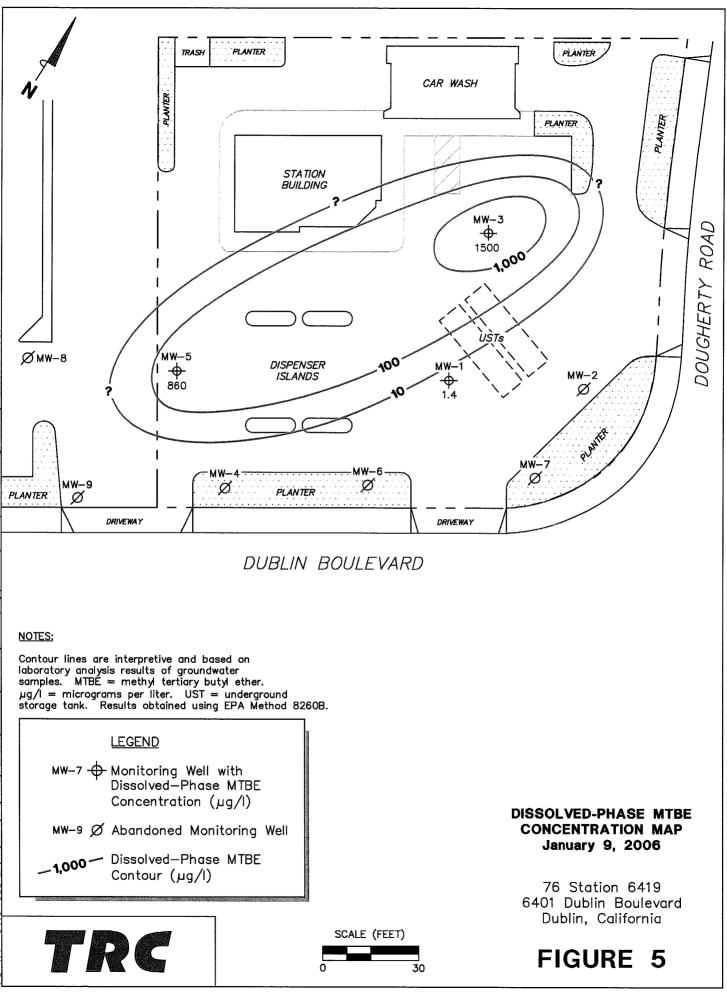


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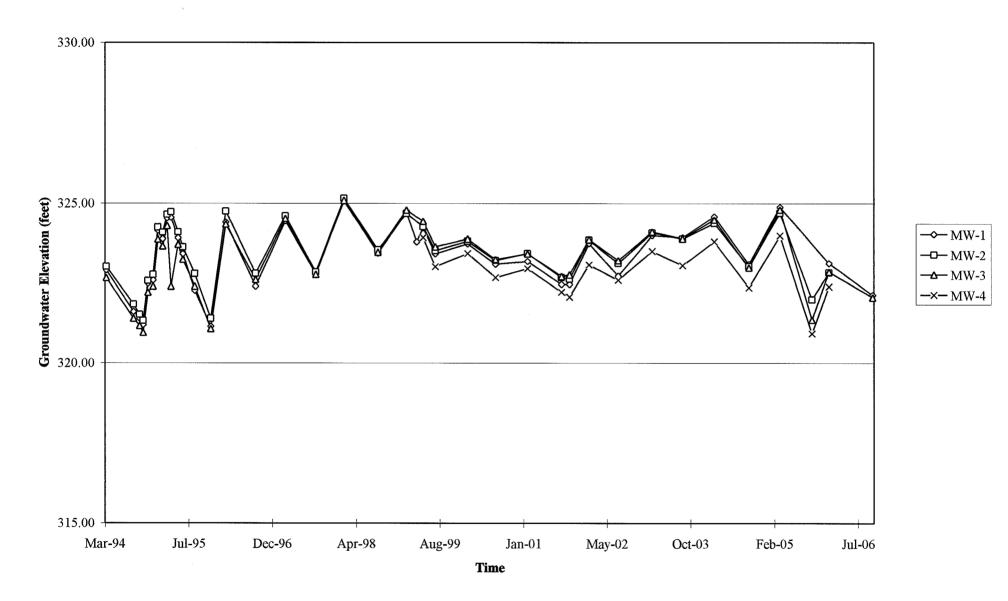
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### GRAPHS

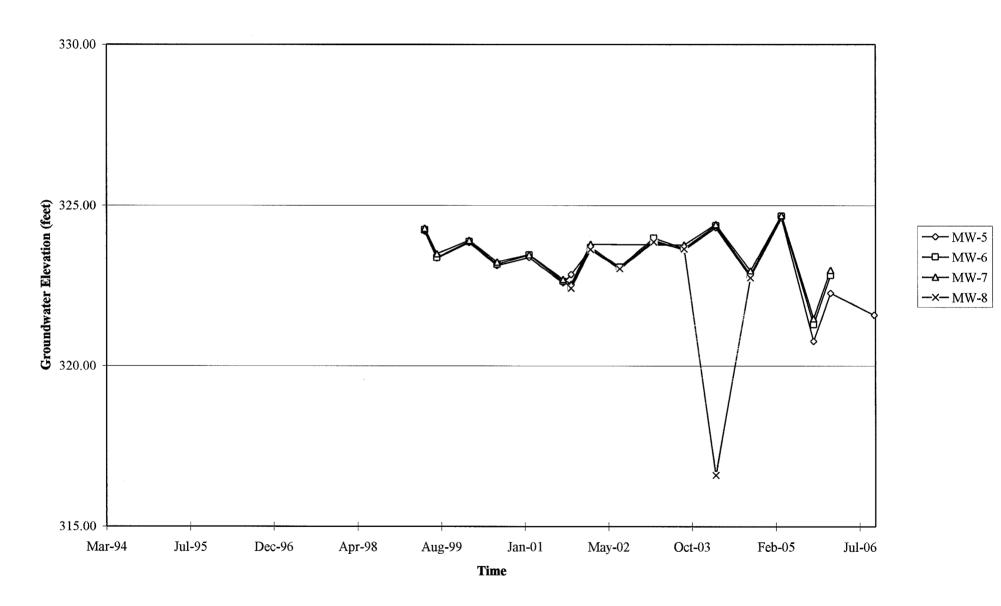
### Groundwater Elevations vs. Time 76 Station 6419



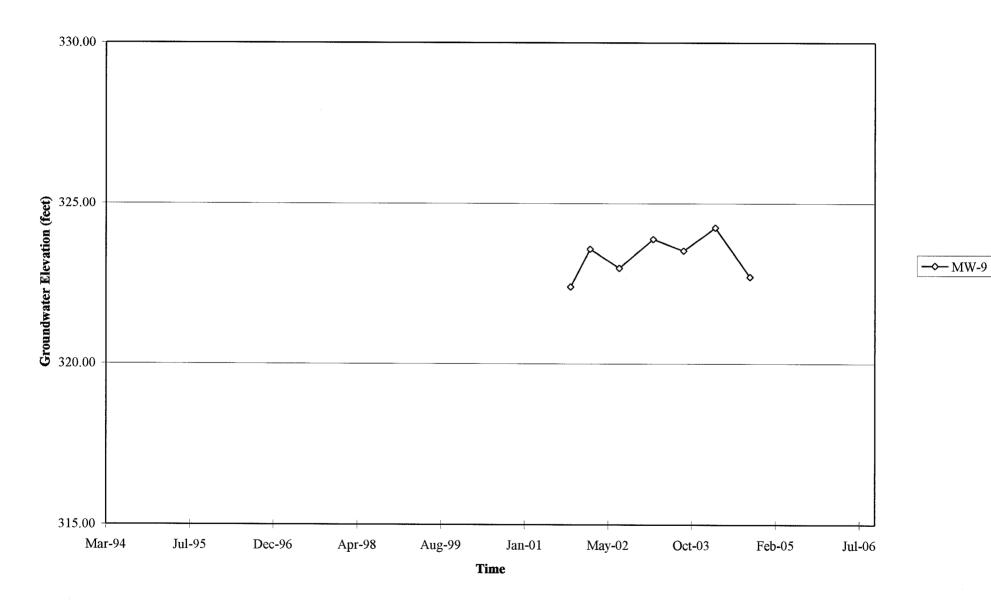
Elevations may have been corrected for apparent changes due to resurvey

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### Groundwater Elevations vs. Time 76 Station 6419

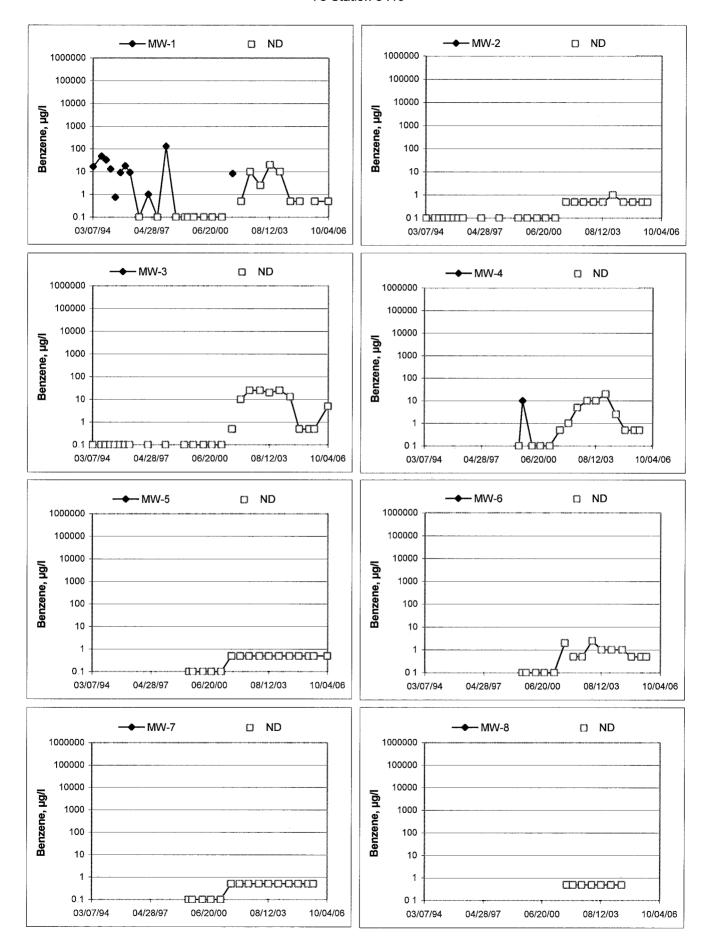


### Groundwater Elevations vs. Time 76 Station 6419

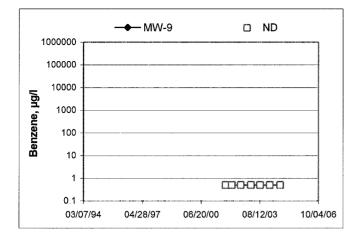


Elevations may have been corrected for apparent changes due to resurvey

#### Benzene Concentrations vs Time 76 Station 6419



### Benzene Concentrations vs Time 76 Station 6419



### 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. Unless otherwise instructed, a well with less than 0.67 foot between the measured top of water and the measured bottom of the well casing is considered 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 measurements 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, <sup>1</sup>/<sub>2</sub>-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, sample time, and the sampler's 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 the 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 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 wells, 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.

1/5/04 version

FIELD	MONITORING	DATA	SHEET
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	Technician: <u>Chrið</u> Site # <u>6419</u>			#/Task #:_ t Manager	Date: <u>9-27-0%</u> Page <u>6 of 1</u>		
Well # <u> Mw-1</u> <u> Mw-5</u> <u> Mw-3</u>	Time Gauged 1007 1013 1202		Total Depth 922 (9.20) 18.44	Depth to Water 8,05 8,60 8,54	Product Thickness (feet)	Time Sampled 1121 1121 1218	$\frac{\text{Misc. Well Notes}}{2^{\prime\prime}}$

FIELD DATA COMPLETE		COC W	ELL BOX CONDITION SHEETS	
	V	V		
WTT CERTIFICATE	MANIFEST	DRUM INVENTORY	TRAFFIC CONTROL	
<u>مەسەر بەر مەرەپىيە مەسەر بەرەپىيە مەسەر بەرەپىيە بەرەپىيە بەرەپىيە بەرەپىيە بەرەپىيە بەرەپىيە بەرەپىيە بەرەپە</u>		V		
		and the second secon		

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Field Mon Data Sheet xIs 7/28/2005

### **GROUNDWATER SAMPLING FIELD NOTES**

Technician: Chris

Site: 6419

Project No. 4106000 /

Date: 9-27-06

Well No. Mm-1

8.05 Depth to Water (feet) 9.22 Total Depth (feet)\_ Water Column (feet) Q 80% Recharge Depth(feet) 2 Purge Method Depth to Product (feet)

LPH & Water Recovered (gallons):\_\_\_ Casing Diameter (Inches):  $2^{\prime\prime}$ 1 Well Volume (gallons):

Æ

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (u\$/cm)	Temperature (F,C)	pН	D.O.	ORP	Turbidity
1116		· · · · · · · · · · · · · · · · · · ·	.18	1966	23.7	6.82			
	11.0		: 36	1744	24.0	7.05			
	1119		154	1736	24.1	7.13			
Stat	ic at Time Sa	ampled	Tota	al Gallons Pu	rged		Sample	Time	
C	8.2	0	- 54				1121		
Comments			·		I				

Well No. my - S
Depth to Water (feet) 8.60
Total Depth (feet) 19.20
Water Column (feet): 10-60
80% Recharge Depth(feet): 10.72

Purge Method <u>HB</u>
Depth to Product (feet):
LPH & Water Recovered (gallons):
Casing Diameter (Inches):2"
1 Well Volume (gallons): 2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS(cm)	Temperature (FO)	рН	D.O.	ORP	Turbidity
1190			2	2084	23,8	7.43			
			4	2354	23,1	7.27			
	1142		6	2457	23.0	7.22			
Stat	ic at Time Sa	ampled	Tota	al Gallons Pu	rged		Sample	Time	
	8.84	-	6			-lt	49		
Comments						- <u></u>	f		
					·				

GROUNDWATER	SAMPLING	FIELD	NOTES
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						0.20			
		Teo	hnician: _	Chris					
Site: <u>C4</u> K	7	Proj	iect No.:_4	106000	1		Date:	9-27	206
Well No	mm	-3		Purge Metho	od:	<u>B</u>			
Depth to Wa Total Depth					duct (feet): r Recovered (g				
Water Colur	nn (feet)	9.87		Casing Diam	neter (Inches):_	$\gamma n$			
		eet):iOS			ne (gallons):			<u></u>	
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	D.O.	ORP	Turbidity
1206			2	2378	24.4	7.27		1	1
	10.4		4	2373	24.1	7.14			
	1215		6	2349	23.7	7.15			
Statio	c at Time Sa	ampled		al Gallons Pur	ged		Sample	Time	
9	<u>, Da</u>		6				1218	)	
Comments:	· · · · · · · · · · · · · · · · · · ·								
L									
Well No				Purge Metho	d				

Depth to Water (feet):\_\_\_\_\_ Total Depth (feet)\_\_\_\_\_ Water Column (feet):\_\_\_\_\_

80% Recharge Depth(feet)

y

Depth to Product (feet):\_\_\_\_\_

LPH & Water Recovered (gallons):\_\_\_\_\_

Casing Diameter (Inches):\_\_\_\_\_

1 Well Volume (gallons)

Stati	c at Time Sa	impled	Tota	I Gallons Pu	rged		Sample	Time	•
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conduc- tivity (uS/cm)	Temperature (F,C)	рН	D.O.	ORP	Turbidit



Date of Report: 10/10/2006

Anju Farfan

TRC Alton Geoscience 21 Technology Drive Irvine, CA 92618-2302 RE: 6419 BC Lab Number: 0610050

Enclosed are the results of analyses for samples received by the laboratory on 09/27/06 21:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Hooker Client Service Rep

Authorized Signature



TRC Alton Ge 21 Technology Irvine CA, 926	v Drive		Project: 6419 Project Number: [none] Project Manager: Anju Farfan		<b>Reported:</b> 10/10/06 08:26
		Laboratory	/ Client Sample Cross R	eference	
Laboratory	Client Sample Informat	tion		······	
0610050-01	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 6419 MW-1 MW-1 Chris M. of TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:		Delivery Work Order: Global ID: T0600101443 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0610050-02	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 6419 MW-3 MW-3 Chris M. of TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:		Delivery Work Order: Global ID: T0600101443 Matrix: W Samle QC Type (SACode): CS Cooler ID:
0610050-03	COC Number: Project Number: Sampling Location: Sampling Point: Sampled By:	 6419 MW-5 MW-5 Chris M. of TRCI	Receive Date: Sampling Date: Sample Depth: Sample Matrix:		Delivery Work Order: Global ID: T0600101443 Matrix: W Samle QC Type (SACode): CS Cooler ID:

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



TRC Alton Geoscience	Project: 6419	
21 Technology Drive	Project Number: [none]	
Irvine CA, 92618-2302	Project Manager: Anju Farfan	<b>Reported:</b> 10/10/06 08:26

BCL Sample ID: 0610050-01	Client Sam	ple Name	e: 6419, MW-1	, MW-1, 9/27	/2006 11	I:21:00AM, Ch	ris M.					
					Prep	Run		Instru-		QC	MB	Lab
Constituent	Result Units	Units	PQL MC	L Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.50	EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240	ND	
Ethylbenzene	ND	ug/L	0.50	EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240	ND	
Methyl t-butyl ether	1.4	ug/L	0.50	EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240	ND	
Toluene	ND	ug/L	0.50	EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240	ND	
Total Xylenes	ND	ug/L	0.50	EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240	ND	
Ethanol	ND	ug/L	250	EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240	ND	V11
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240	ND	
1,2-Dichloroethane-d4 (Surrogate)	97.5	%	76 - 114 (LCL - U	CL) EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240		
Toluene-d8 (Surrogate)	101	%	88 - 110 (LCL - U	CL) EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240		
4-Bromofluorobenzene (Surrogate)	95.5	%	86 - 115 (LCL - U	CL) EPA-8260	10/04/06	10/05/06 07:50	DKC	MS-V12	1	BPJ0240		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



TRC Alton Geoscience	Project: 6419	
21 Technology Drive	Project Number: [none]	
Irvine CA, 92618-2302	Project Manager: Anju Farfan	<b>Reported:</b> 10/10/06 08:26

BCL Sample ID: 0610	0050-02	<b>Client Sam</b>	ole Nam	e: 6419, MW-3, N	/IW-3, 9/27	/2006 12	:18:00PM, Ch	ris M.					
						Prep	Run		Instru-		QC	MB	Lab
Constituent		Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene		ND	ug/L	5.0	EPA-8260	10/04/06	10/05/06 17:48	DKC	MS-V12	10	BPJ0187	ND	A01
Ethylbenzene		ND	ug/L	5.0	EPA-8260	10/04/06	10/05/06 17:48	DKC	MS-V12	10	BPJ0187	ND	A01
Methyl t-butyl ether		1500	ug/L	12	EPA-8260	10/04/06	10/06/06 09:42	DKC	MS-V12	25	BPJ0187	ND	A01
Toluene		ND	ug/L	5.0	EPA-8260	10/04/06	10/05/06 17:48	DKC	MS-V12	10	BPJ0187	ND	A01
Total Xylenes		ND	ug/L	5.0	EPA-8260	10/04/06	10/05/06 17:48	DKC	MS-V12	10	BPJ0187	ND	A01
Ethanol		ND	ug/L	2500	EPA-8260	10/04/06	10/05/06 17:48	DKC	MS-V12	10	BPJ0187	ND	A01, V11
Total Purgeable Petroleum Hydrocarbons		780	ug/L	500	EPA-8260	10/04/06	10/05/06 17:48	DKC	MS-V12	10	BPJ0187	ND	A01, A53
1,2-Dichloroethane-d4 (Surro	ogate)	93.2	%	76 - 114 (LCL - UCL)	EPA-8260	10/04/06	10/05/06 17:48	DKC	MS-V12	10	BPJ0187		
1,2-Dichloroethane-d4 (Surro	ogate)	93.9	%	76 - 114 (LCL - UCL)	EPA-8260	10/04/06	10/06/06 09:42	DKC	MS-V12	25	BPJ0187		
Toluene-d8 (Surrogate)		99.3	%	88 - 110 (LCL - UCL)	EPA-8260	10/04/06	10/06/06 09:42	DKC	MS-V12	25	BPJ0187		
Toluene-d8 (Surrogate)		99.0	%	88 - 110 (LCL - UCL)	EPA-8260	10/04/06	10/05/06 17:48	DKC	MS-V12	10	BPJ0187		
4-Bromofluorobenzene (Surr	rogate)	97.3	%	86 - 115 (LCL - UCL)	EPA-8260	10/04/06	10/05/06 17:48	DKC	MS-V12	10	BPJ0187		
4-Bromofluorobenzene (Surr	rogate)	98.9	%	86 - 115 (LCL - UCL)	EPA-8260	10/04/06	10/06/06 09:42	DKC	MS-V12	25	BPJ0187	and an inclusion of the second s	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



TRC Alton Geoscience	Project: 6419	
21 Technology Drive	Project Number: [none]	
Irvine CA, 92618-2302	Project Manager: Anju Farfan	<b>Reported:</b> 10/10/06 08:26

BCL Sample ID: 0610050	0-03 Client Sa	mple Nam	e: 6419, MW-5,	MW-5, 9/27	/2006 11	1:49:00AM, Ch	ris M.					
					Prep	Run		Instru-		QC	MB	Lab
Constituent	Result	Units	PQL MDL	Method	Date	Date/Time	Analyst	ment ID	Dilution	Batch ID	Bias	Quals
Benzene	ND	ug/L	0.50	EPA-8260	10/04/06	10/05/06 08:15	DKC	MS-V12	1	BPJ0240	ND	
Ethylbenzene	ND	ug/L	0.50	EPA-8260	10/04/06	10/05/06 08:15	DKC	MS-V12	1	BPJ0240	ND	
Methyl t-butyl ether	860	ug/L	5.0	EPA-8260	10/04/06	10/05/06 17:22	DKC	MS-V12	10	BPJ0240	ND	A01
Toluene	ND	ug/L	0.50	EPA-8260	10/04/06	10/05/06 08:15	DKC	MS-V12	1	BPJ0240	ND	
Total Xylenes	ND	ug/L	0.50	EPA-8260	10/04/06	10/05/06 08:15	DKC	MS-V12	1	BPJ0240	ND	
Ethanol	ND	ug/L	250	EPA-8260	10/04/06	10/05/06 08:15	DKC	MS-V12	1	BPJ0240	ND	V11
Total Purgeable Petroleum Hydrocarbons	300	ug/L	50	EPA-8260	10/04/06	10/05/06 08:15	DKC	MS-V12	1	BPJ0240	ND	A53
1,2-Dichloroethane-d4 (Surrogate	) 94.3	%	76 - 114 (LCL - UCL	) EPA-8260	10/04/06	10/05/06 08:15	DKC	MS-V12	1	BPJ0240		
1,2-Dichloroethane-d4 (Surrogate	) 97.1	%	76 - 114 (LCL - UCL	) EPA-8260	10/04/06	10/05/06 17:22	DKC	MS-V12	10	BPJ0240		
Toluene-d8 (Surrogate)	99.5	%	88 - 110 (LCL - UCL	) EPA-8260	10/04/06	10/05/06 17:22	DKC	MS-V12	10	BPJ0240		
Toluene-d8 (Surrogate)	99.3	%	88 - 110 (LCL - UCL	) EPA-8260	10/04/06	10/05/06 08:15	DKC	MS-V12	1	BPJ0240		
4-Bromofluorobenzene (Surrogate	99.3	%	86 - 115 (LCL - UCL	) EPA-8260	10/04/06	10/05/06 17:22	DKC	MS-V12	10	BPJ0240		
4-Bromofluorobenzene (Surrogate	97.0	%	86 - 115 (LCL - UCL	) EPA-8260	10/04/06	10/05/06 08:15	DKC	MS-V12	1	BPJ0240		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



TRC Alton Geoscience	Project: 6419	
21 Technology Drive	Project Number: [none]	
Irvine CA, 92618-2302	Project Manager: Anju Farfan	<b>Reported:</b> 10/10/06 08:26

**Quality Control Report - Precision & Accuracy** 

										Contro	ol Limits
			Source	Source		Spike			Percent		Percent
Constituent	Batch ID	QC Sample Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	<b>Recovery Lab Quals</b>
Benzene	BPJ0187	Matrix Spike	0609903-08	ND	29.700	25.000	ug/L		119		70 - 130
		Matrix Spike Duplicate	0609903-08	ND	29.600	25.000	ug/L	0.844	118	20	70 - 130
Toluene	BPJ0187	Matrix Spike	0609903-08	ND	26.520	25.000	ug/L		106		70 - 130
		Matrix Spike Duplicate	0609903-08	ND	26.750	25.000	ug/L	0.939	107	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BPJ0187	Matrix Spike	0609903-08	ND	9.5300	10.000	ug/L		95.3		76 - 114
		Matrix Spike Duplicate	0609903-08	ND	9.5100	10.000	ug/L		95.1		76 - 114
Toluene-d8 (Surrogate)	BPJ0187	Matrix Spike	0609903-08	ND	9.9200	10.000	ug/L		99.2		88 - 110
		Matrix Spike Duplicate	0609903-08	ND	10.040	10.000	ug/L		100		88 - 110
4-Bromofluorobenzene (Surrogate)	BPJ0187	Matrix Spike	0609903-08	ND	9.9800	10.000	ug/L		99.8		86 - 115
		Matrix Spike Duplicate	0609903-08	ND	9.9400	10.000	ug/L		99.4		86 - 115
Benzene	BPJ0240	Matrix Spike	0610100-06	ND	26.700	25.000	ug/L	с. , , , ,	107		70 - 130
		Matrix Spike Duplicate	0610100-06	ND	26.010	25.000	ug/L	2.84	104	20	70 - 130
Toluene	BPJ0240	Matrix Spike	0610100-06	ND	23.790	25.000	ug/L		95.2		70 - 130
		Matrix Spike Duplicate	0610100-06	ND	23.520	25.000	ug/L	1.16	94.1	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	BPJ0240	Matrix Spike	0610100-06	ND	9.7900	10.000	ug/L		97.9		76 - 114
		Matrix Spike Duplicate	0610100-06	ND	9.8600	10.000	ug/L		98.6		76 - 114
Toluene-d8 (Surrogate)	BPJ0240	Matrix Spike	0610100-06	ND	10.040	10.000	ug/L		100		88 - 110
		Matrix Spike Duplicate	0610100-06	ND	10.100	10.000	ug/L		101		88 - 110
4-Bromofluorobenzene (Surrogate)	BPJ0240	Matrix Spike	0610100-06	ND	10.050	10.000	ug/L		100		86 - 115
		Matrix Spike Duplicate	0610100-06	ND	10.200	10.000	ug/L		102		86 - 115

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TRC Alton Geoscience	Project: 6419	
21 Technology Drive	Project Number: [none]	
Irvine CA, 92618-2302	Project Manager: Anju Farfan	<b>Reported:</b> 10/10/06 08:26

### **Quality Control Report - Laboratory Control Sample**

										<u>Control</u>	<u>Limits</u>	
Constituent	Batch ID	QC Sample ID	OC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Percent Recoverv	RPD	Lab Quals
Benzene	BPJ0187	BPJ0187-BS1	LCS	30.130	25.000	0.50	ug/L	121		70 - 130		
Toluene	BPJ0187	BPJ0187-BS1	LCS	27.780	25.000	0.50	ug/L	111		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BPJ0187	BPJ0187-BS1	LCS	9.3400	10.000		ug/L	93.4		76 - 114		
Toluene-d8 (Surrogate)	BPJ0187	BPJ0187-BS1	LCS	10.060	10.000		ug/L	101		88 - 110		n 🛛 han alama dalah dalama da kata kata kata ang dalama kata kata kata kata kata kata kata k
4-Bromofluorobenzene (Surrogate)	BPJ0187	BPJ0187-BS1	LCS	9.6400	10.000		ug/L	96.4		86 - 115		
Benzene	BPJ0240	BPJ0240-BS1	LCS	31.250	25.000	0.50	ug/L	125		70 - 130		
Toluene	BPJ0240	BPJ0240-BS1	LCS	27.530	25.000	0.50	ug/L	110		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BPJ0240	BPJ0240-BS1	LCS	10.150	10.000		ug/L	102		76 - 114		
Toluene-d8 (Surrogate)	BPJ0240	BPJ0240-BS1	LCS	9.8700	10.000		ug/L	98.7		88 - 110		
4-Bromofluorobenzene (Surrogate)	BPJ0240	BPJ0240-BS1	LCS	9.9400	10.000		ug/L	99.4		86 - 115		

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TRC Alton Geoscience	Project: 6419	
21 Technology Drive	Project Number: [none]	
Irvine CA, 92618-2302	Project Manager: Anju Farfan	<b>Reported:</b> 10/10/06 08:26

**Quality Control Report - Method Blank Analysis** 

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BPJ0187	BPJ0187-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	BPJ0187	BPJ0187-BLK1	ND	ug/L	0.50	0.14	· · · · · · · · · · · · · · · · · · ·
Methyl t-butyl ether	BPJ0187	BPJ0187-BLK1	ND	ug/L	0.50	0.15	
Toluene	BPJ0187	BPJ0187-BLK1	ND	ug/L	0.50	0.15	
Total Xylenes	BPJ0187	BPJ0187-BLK1	ND	ug/L	1.0	0.40	
Ethanol	BPJ0187	BPJ0187-BLK1	ND	ug/L	1000	110	
Total Purgeable Petroleum Hydrocarbons	BPJ0187	BPJ0187-BLK1	ND	ug/L	50	23	
1,2-Dichloroethane-d4 (Surrogate)	BPJ0187	BPJ0187-BLK1	99.6	%	76 - 114 (l	.CL - UCL)	
Toluene-d8 (Surrogate)	BPJ0187	BPJ0187-BLK1	98.0	%	88 - 110 (l	CL - UCL)	
4-Bromofluorobenzene (Surrogate)	BPJ0187	BPJ0187-BLK1	101	%	86 - 115 (l	.CL - UCL)	ante e <b>ante a se ante esta de la ser de la se</b> ria de <b>la seria de la seria de la seria de</b>
Benzene	BPJ0240	BPJ0240-BLK1	ND	ug/L	0.50	0.14	
Ethylbenzene	BPJ0240	BPJ0240-BLK1	ND	ug/L	0.50	0.094	
Methyl t-butyl ether	BPJ0240	BPJ0240-BLK1	ND	ug/L	0.50	0.13	
Toluene	BPJ0240	BPJ0240-BLK1	ND	ug/L	0.50	0.12	
Total Xylenes	BPJ0240	BPJ0240-BLK1	ND	ug/L	0.50	0.31	
Ethanol	BPJ0240	BPJ0240-BLK1	ND	ug/L	250	85	
Total Purgeable Petroleum Hydrocarbons	BPJ0240	BPJ0240-BLK1	ND	ug/L	50	16	
1,2-Dichloroethane-d4 (Surrogate)	BPJ0240	BPJ0240-BLK1	94.0	%	76 - 114 (l	.CL - UCL)	
Toluene-d8 (Surrogate)	BPJ0240	BPJ0240-BLK1	98.6	%	88 - 110 (l	.CL - UCL)	
4-Bromofluorobenzene (Surrogate)	BPJ0240	BPJ0240-BLK1	97.4	%	86 - 115 (l	.CL - UCL)	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



	ton Geoscience	Project: 6419				
	nology Drive	Project Number: [none]				
Irvine C	CA, 92618-2302	Project Manager: Anju Farfan	<b>Reported:</b> 10/10/06 08:26			
		Notes and Definitions				
V11	V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.					
A53	A53 Chromatogram not typical of gasoline.					
A01	101 PQL's and MDL's are raised due to sample dilution.					

- .
- ND Analyte NOT DETECTED at or above the reporting limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BC LABORATORIES INC.		SAM	IPLE REC	EIPT FO	RM	Rev. No.	10 01/	21/04 <b>f</b>	Page	Of			
Submission #: 06-1005		roject C	ode:			ТВ	Batch #						
SHIPPING INFOR													
Federal Express 🔲 UBS 🗆	Hand Del	iverv 🛛											
BC Lab Field Service C Other C (Specify)				Box D Other D (Specify)									
Refrigerant: Ice 🗹 Blue Ice 🗆	None	0 0	ther 🗆	Comme	ents:								
	Containe	rs 🗆	None 🗹	Comm	ents:								
Intact? Yes D No D	Intact? Yes	<u>s 🗆 No 🗖</u>		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									
All samples received? Yes 🗗 No 🗆	All sample	s container	's intact? Y	es 🗗 No	0	Descrip	otion(s) mat	ch COC?Y	es 🗗 No	D			
COC Received Ice Chest ID BIW Emissivity 0.95 Date/Time 9/27/06													
Temperature				2.6.8		ainer	Vas						
	Thermometer ID: # TP Analyst Init OIO												
SAMPLE CONTAINERS	SAMPLE NUMBERS												
OT GENERAL MINERAL/ GENERAL PHYSICAL	1	2	3	4	5	6	7	8	9	10			
PT PE UNPRESERVED					1		1			<u> </u>			
OT INORGANIC CHEMICAL METALS					1		1	<b> </b>		<u> </u>			
PI INORGANIC CHEMICAL METALS		-			1		1	1		<u> </u>			
PT CYANIDE		_						1	<u> </u>				
PT NITROGEN FORMS													
PT TOTAL SULFIDE													
202. NIIRATE / NIIRITE													
100ml TOTAL ORGANIC CARBON							_						
QT TOX										ļ			
PT CHEMICAL OXYGEN DEMAND	·	·						ļ					
PIA PHENOLICS					<b> </b>		+	<b> </b>		<b> </b>			
40ml VOA VIAL TRAVEL BLANK	42	12	n 2		<b> </b>			<b> </b>		ļ			
40mi VOA VIAL	110	A3	45	(	( )		) <u>(</u>	( )	(	I I			
<u>QT EPA 413.1, 413.2, 418.1</u> PT ODOR							+			<u> </u>			
RADIOLOGICAL						··· ·· ···				<b> </b>			
BACTERIOLOGICAL													
40 ml VOA VIAL- 504				•				<u> </u>		<u> </u>			
QT EPA 508/608/8080				,	1	<u>-</u>							
QT EPA 515.1/8150				· · · · · · · · · · · · · · · · · · ·			+						
QI EPA 525						·····			alah long ban daki diker Menada (propa				
QT EPA 525 TRAVEL BLANK						• · · · · · · · · · · · · · · · · · · ·							
100ml EPA 547													
100mt EPA 531.1													
OT EPA 548													
QI EPA 549							<u> </u>						
QT EPA 632							ļ		MANDAR BRIDE BRIDE BARRIER				
QI EPA 8015M													
QI QA/QC		A					<b> </b>						
QI AMBER							<u> </u>						
3 OZ. JAR						. <u></u>	<b> </b>						
SOU SLEENE							<u> </u>						
SOIL SLEEVE							<u> </u>						
PCB VIAL PLASTIC BAG							+						
FERROUS IRON							<u> </u>						
ENCORE													
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CHK BY	DISTRIBUTION
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Page 1 of 1

### **BC LABORATORIES, INC.**

4100 Atlas Court □ Bakersfield, CA 93308 (661) 327-4911 □ FAX (661) 327-1918

# CHAIN OF CUSTODY

			06 - 100	50		An	aly	sis	Rec	que	este	ed		
Circle one	e: Phillips 66 / Unocal	Consultant Firm: T	RC	MATRIX (GW)	2	] [		S						
City: Dublin 4-0			21 Technology Drive rvine, CA 92618-2302 Attn: Anju Farfan		Gas by 8015			& oxygenates						Requested
		4-digit site#: 6419	4-digit site#: 6419 Work Order# 2527TRC502			Б	8015		BY 8260B	ETHANOL by 8260B	NS NS	8260B		Time Requ
		Work Order# 2527				8015M	by 80	MT	Υ 82					
State: CA	State: CA Zip: Pro		oject #: 41060001/FA20		3E by 8021B,	by 8	L D	st w		by 8	W)DS	by 8		d Ti
COP Mana	ager: Thomas Kosel	Sampler Name:	Chris	Sludge	/MTE	GAS	DIESEL	il li	MTE	NOL	by (	E 1		roun
Lab#	Sample Description	Field Point Name	Date & Time Sampled		BTEX/MTBE	TPH G	TPH D	8260 full list w/ MTBE	BTEX/MTBE	ETHA	TPH-g by GC/MS	EDB/EDC		Turnaround
	Ì	MW-1	09-27-06/112	GW GW					x	X	x			STD
	-2	MW-3	121	ς GW					X	x	X			STD
	-3	MW-5	¥ 114	g <sub>Gw</sub>					X	x	X			STD
		· · · · · · · · · · · · · · · · · · ·												
Comments: Run 8 OXYs by 8260 on 8260 MTBE hit on MW-1 only.		MTBE Relinquished by:	Relinquished by: Min Min			Received by: Remigerater				Date & Time: 09-27-06/1305				
Relinquished by (Signature).			Series		Received by: Date & Time: $9/27/06$ 1400					5				
Global ID: T0600101443 Relinquished b			Signature):	en 9/27/06 Received by: Date & Time: 9/27/06 Macato 9/27/06 1755										
A) = ANALYS	SIS $(C) = CO$	INTAINER AUST	Macato 9/2	106 2105		Te	2nu	0	ba	fen	;	9/2		6 210

### **STATEMENTS**

#### **Purge Water Disposal**

Non-hazardous groundwater produced during purging and sampling of monitoring was accumulated at TRC's groundwater monitoring facility at Concord, California, for transportation by Onyx Transportation, Inc., to the ConocoPhillips Refinery at Rodeo, California. Disposal at the Rodeo facility was authorized by ConocoPhillips in accordance with "ESD Standard Operating Procedures – Water Quality and Compliance", as revised on February 7, 2003. Documentation of compliance with ConocoPhillips requirements is provided by an ESD Form R-149, which is on file at TRC's Concord Office. Purge water containing a significant amount of liquid-phase hydrocarbons was accumulated separately in drums for transportation and disposal by Filter Recycling, Inc.

### 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.