Ro 251



76 Broadway Sacramento, CA 95818 phone 916.558.7676 fax 916.558.7639

April 18, 2005

Mr. Don Hwang Alameda County Health Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Re: Document Transmittal

Fuel Leak Case 76 Station #3538 411 West MacArthur Oakland, CA

Dear Mr. Hwang:

Please find attached TRC's Quarterly Status Report, dated 4/15/05, and TRC's Quarterly Monitoring Report, dated 4/04/05 for the above referenced site. I declare, under penalty of perjury, that to the best of my knowledge the information and/or recommendations contained in the attached proposal or report is true and correct.

If you have any questions or need additional information, please call me at (916) 558-7666.

Sincerely,

Thomas H. Kosel

Site Manger, Risk Management and Remediation

ConocoPhillips

76 Broadway, Sacramento, CA 95818

Attachment

cc: Roger Batra, TRC



April 15, 2005

TRC Project No. 42014201

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

RE: Quarterly Status Report - First Quarter 2005

76 Service Station #3538, 411 W. MacArthur Boulevard, Oakland, California

Alameda County

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the First Quarter 2005 Quarterly Status Report for the subject site, shown on Figures 3 through 5.

PREVIOUS ASSESSMENTS

The subject site was a former Tosco (76) service station, and is located on the southwest corner of MacArthur Boulevard and Webster Street in Oakland, California. The site is currently a used car sales lot and is entirely fenced. All petroleum storage and dispensing equipment were removed in September of 1998 during station demolition activities. Six groundwater-monitoring wells are present at and in the site vicinity.

July 1989: One 10,000-gallon and one 12,000-gallon gasoline underground storage tanks (USTs) were removed and replaced with two new 12,000-gallon USTs. One 550-gallon waste oil UST and associated piping for all three tanks were also removed. No holes or cracks were observed in the gasoline USTs; however, holes were observed in the waste oil UST. Groundwater was encountered in the former UST pit at a depth of approximately 10.5 feet below ground surface (bgs), which prohibited the collection of soil samples below the former gasoline tanks. Confirmation soil samples from the sidewalls contained moderate maximum concentrations of total petroleum hydrocarbons as gasoline (TPH-g), and low maximum concentrations of benzene. These sample areas were subsequently removed during overexcavation. Soil samples from the base of the waste oil UST pit were non-detect for TPH-g and benzene, toluene, ethylbenzene, and xylenes (BTEX).

September 1989: Karpealian Engineering, Inc. (KEI) installed four groundwater-monitoring wells at the site. The four wells were installed to depths of approximately 30 feet bgs.

November 1992: Two additional groundwater-monitoring wells were installed offsite to a depth of 30 feet bgs.

QSR – First Quarter 2005 76 Service Station #3538, Oakland, California April 15, 2005 Page 2

September 1998: Two 12,000-gallon gasoline USTs and associated product piping and dispensers were removed from the site during station demolition activities. No holes or cracks were observed in the tanks. Confirmation soil samples contained low maximum concentrations of TPH-g and benzene, and methyl tertiary butyl ether (MTBE) was not detected.

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

SENSITIVE RECEPTORS

A sensitive receptor survey performed by the California Department of Water Resources (DWR) identified no water supply wells located within 2,000 feet of the site. The nearest well identified is a private water well located approximately 2,500 feet east-southeast of the site.

MONITORING AND SAMPLING

Currently, two wells (MW-2 and MW-3) are monitored semi-annually and four wells are monitored annually. Six wells were gauged and two wells were sampled this quarter. The groundwater gradient and flow direction were 0.02 foot/foot to the south.

CHARACTERIZATION STATUS

TPH-g was detected in the two monitoring wells sampled, with a maximum concentration of 99 μ g/l in onsite well MW-2.

Benzene was detected in one of two monitoring wells sampled, with a maximum concentration of 26 µg/l in onsite well MW-2.

MTBE was detected in one of two monitoring wells sampled, with a maximum concentration of $140 \mu g/l$ in onsite well MW-3.

REMEDIATION STATUS

October 1998: A total of 516.44 tons (approximately 380 cubic yards) of soil generated during station demolition was transported from the site to Forward Landfill in Manteca, California for disposal.

Remediation is not currently being conducted at the site.

RECENT CORRESPONDENCE

No correspondence this quarter.



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CURRENT QUARTER ACTIVITIES

March 2, 2005: TRC performed groundwater monitoring and sampling. Wastewater generated from well purging and equipment cleaning was stored at TRC's groundwater monitoring facility in Concord, California, and transported by Onyx to the ConocoPhillips Refinery in Rodeo, California, for treatment and disposal.

NEXT QUARTER ACTIVITIES

Site closure will be proposed based on a summary of site data through first quarter 2005.

Continue semi-annual monitoring and sampling until case closure is granted.

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

Sincerely,

TRC

Roger Batra

Senior Project Manager

Moger Poulra

Attachments:

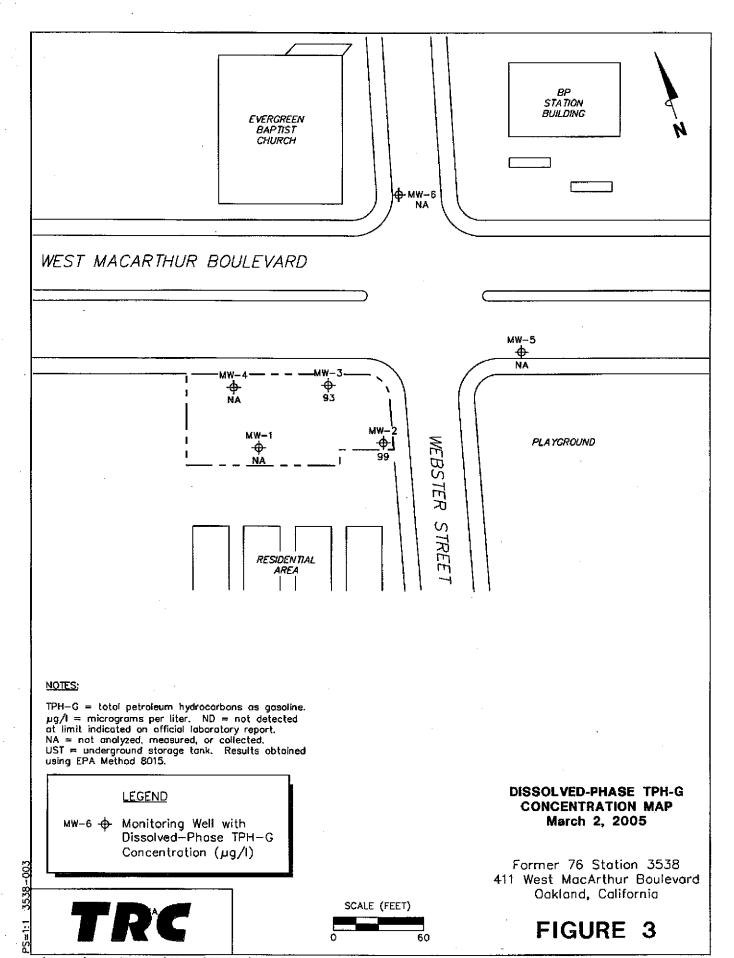
Figure 1 – Dissolved-Phase TPH-G Concentration Map, March 2, 2005, from Semi-Annual Monitoring Report, October through March 2005, dated April 4, 2005 by TRC.

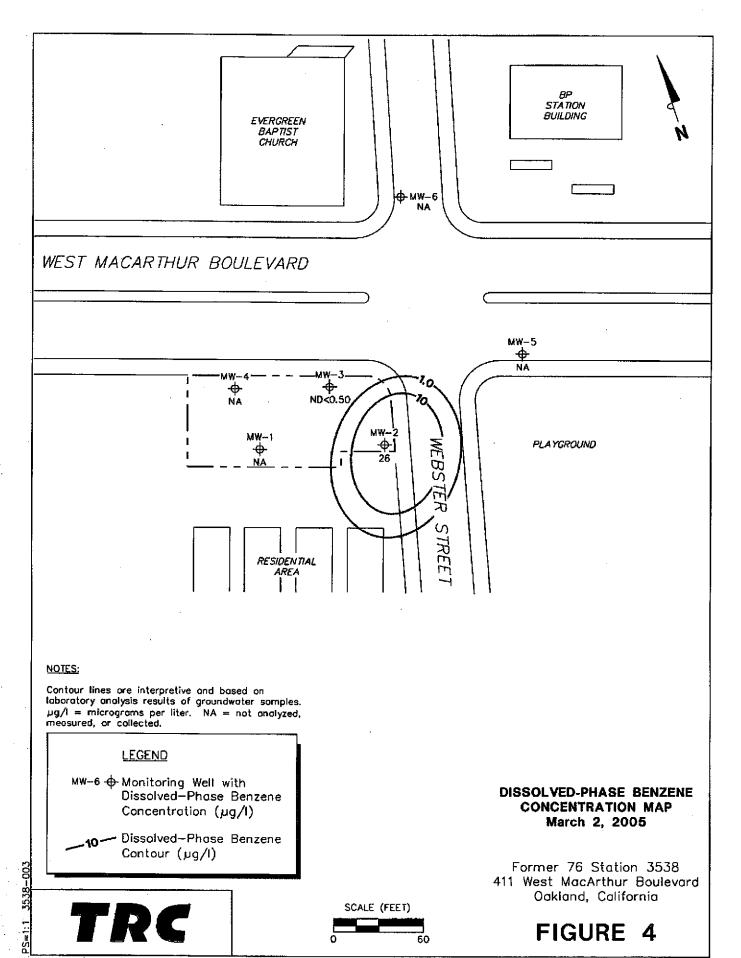
Figure 2 – Dissolved-Phase Benzene Concentration Map, March 2, 2005, from Semi-Annual Monitoring Report, October through March 2005, dated April 4, 2005 by TRC.

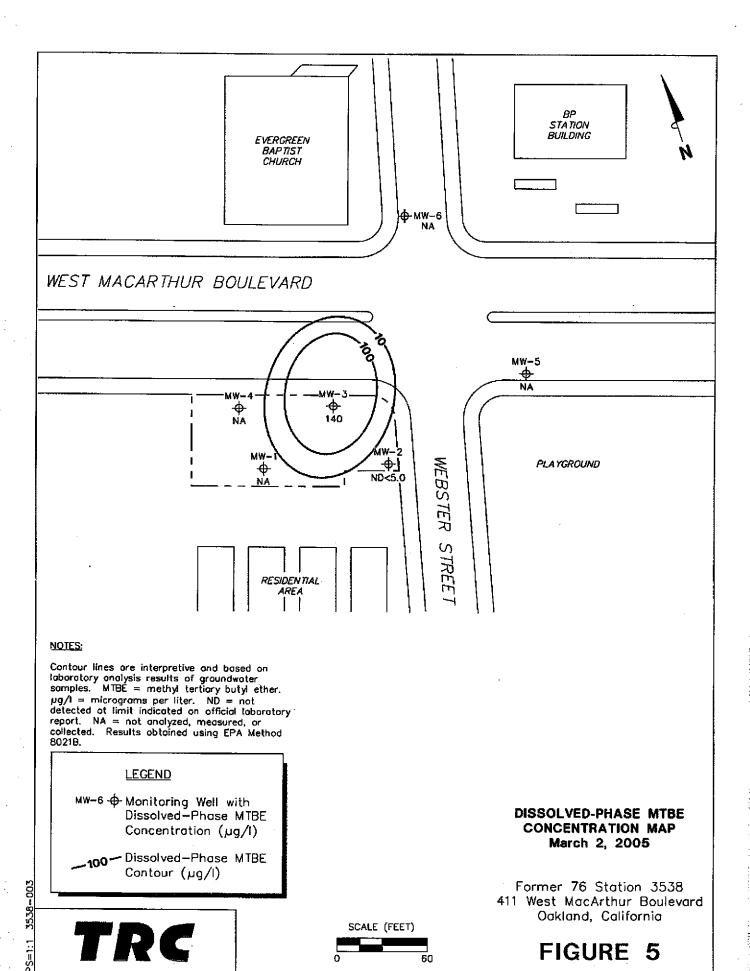
Figure 3 – Dissolved-Phase MTBE Concentration Map, March 2, 2005, from Semi-Annual Monitoring Report, October through March 2005, dated April 4, 2005 by TRC.

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











April 4, 2005

ConocoPhillips Company 76 Broadway Sacramento, CA 95818

ATTN:

MR. THOMAS H. KOSEL

SITE:

FORMER 76 STATION 3538

411 WEST MACARTHUR BLVD.

OAKLAND, CALIFORNIA

RE:

SEMI-ANNUAL MONITORING REPORT

OCTOBER 2004 THROUGH MARCH 2005

Dear Mr. Kosel:

Please find enclosed our Semi-Annual Monitoring Report for Former 76 Station 3538, located at 411 West MacArthur Blvd, 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: Ms. Roger Batra, TRC (2 copies)

Enclosures 20-0400/3538R03.QMS



SEMI-ANNUAL MONITORING REPORT OCTOBER 2004 THROUGH MARCH 2005

Former 76 Station 3538 411 West MacArthur Blvd. Oakland, California

Prepared For:

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

By:

Senior Project Geologist, Irvine Operations April 4, 2005

	LIST OF ATTACHMENTS
Summary Sheet	Summary of Gauging and Sampling Activities
Tables	Table Key Table 1: Current Fluid Levels and Selected Analytical Results Table 2: Historic Fluid Levels and Selected Analytical Results Table 3: Additional Analytical Results Table 3b: Additional Analytical Results Table 3c: Additional Analytical Results
Figures	Figure 1: Vicinity Map Figure 2: Groundwater Elevation Contour Map Figure 3: Dissolved-Phase TPH-G 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 Groundwater Sampling Field Notes
Laboratory Reports	Official Laboratory Reports Quality Control Reports Chain of Custody Records
Statements	Purge Water Disposal Limitations

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Summary of Gauging and Sampling Activities October 2004 through March 2005 Former 76 Station 3538 411 West MacArthur Blvd. Oakland, CA

Project Coordinator: Thomas H. Kosel

Water Sampling Contractor: TRC

Telephone: 916-588-7666

Compiled by: Valentina Tobon

Date(s) of Gauging/Sampling Event: 03/02/05

Sample Points

Groundwater wells:

4 onsite,

Wells gauged: 6 2 offsite

Wells sampled: 2

Purging method: **Diaphragm pump**

Purge water disposal: Onyx/Rodeo Unit 100 Other Sample Points: 0

Type: n/a

Liquid Phase Hydrocarbons (LPH)

Wells with LPH: 0

Maximum thickness (feet): n/a

LPH removal frequency: n/a

Method: **n/a**

Treatment or disposal of water/LPH: n/a

Hydrogeologic Parameters

Depth to groundwater (below TOC):

Minimum: 14.51 feet

Maximum: 16.63 feet

Average groundwater elevation (relative to available local datum): 55.42 feet Average change in groundwater elevation since previous event: 0.99 feet

Interpreted groundwater gradient and flow direction:

Current event: 0.02 ft/ft, south

Previous event: 0.02 ft/ft, sw (07/29/04)

Selected Laboratory Results

Wells with detected **Benzene**:

Wells above MCL (1.0 μ g/l): **1**

Maximum reported benzene concentration: 26 µg/I (MW-2)

Wells with TPH-G

2

1

Maximum: 99 μg/l (MW-2)

Wells with MTBE

1

Maximum: 140 μg/l (MW-3)

Notes:

MW-1=Sampled Annually, MW-4=Sampled Annually, MW-5=Sampled Annually, MW-6=Sampled Annually,

TABLE KEY

STANDARD ABREVIATIONS

-- = not analyzed, measured, or collected

LPH = liquid-phase hydrocarbons

Trace = less than 0.01 foot of LPH in well

μg/l = micrograms per liter (approx. equivalent to parts per billion, ppb)
 mg/l = milligrams per liter (approx. equivalent to parts per million, ppm)

ND< = not detected at or above laboratory detection limit TOC = top of casing (surveyed reference elevation)

ANALYTES

BTEX = benzene, toluene, ethylbenzene, and (total) xylenes

DIPE = 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-D = total petroleum hydrocarbons with diesel distinction

TPPH = total purgeable petroleum hydrocarbons
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.
- 2. Groundwater elevations for wells with LPH are calculated as: Surface Elevation Measured Depth to Water + (Dp x LPH Thickness), 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 re-survey:

REFERENCE

TRC began groundwater monitoring and sampling for Former 76 Station 3538 in October 2003. Historical data compiled prior to that time were provided by Gettler-Ryan Inc.

Table 1
CURRENT FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
March 2, 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	ТРН-С	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	$(\mu g/l)$	(μg/l)	
MW-1 03/02/0:	5 72.12	16.15	0.00	55.97	1.97									Sampled Annualty
MW-2 03/02/0	5 71.34	16.63	0.00	54.71		99		26	ND<0.50	3.5	2.8	ND<5.0	***	
MW-3 03/02/0:	5 71.40	16.47	0.00	54.93	1.35	93		ND<0.50	ND<0.50	ND<0.50	ND<0.50	140	·	
MW-4 03/02/0	5 71.54	16.25	0.00	55.29	1.56							u.		Sampled Annually
MW-5 03/02/0	5 71.16	16.43	0.00	54.73	-0.41									Sampled Annually
MW-6 03/02/0	5 71.37	14.51	0.00	56.86	0.47									Sampled Annually

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	$(\mu g/l)$	
MW-1														
09/15/8	39					ND		ND	0.61	ND	ND			
01/23/9	0					ND		1.5	2.3	ND	4.3			
04/19/9						ND		ND	ND	ND	ND		••	
07/17/9	00					ND		ND	ND	ND	ND			
10/16/9	00					ND		ND	ND	ND	ND			
01/15/9	1					ND		ND	ND	ND	MD			
04/12/9	1			'		ND		ND	ND	ND	ND			
07/15/9	1					ND		ND	ND	ND	ND			
07/14/9	92					ND		ND	ND	ND	ND			
04/13/9	72.43	17.70	0.00	54.73				**						SAMPLED ANNUALLY
, 07/14/9	72.43	18.49	0.00	53.94	-0.79	ND		2.2	2.1	1.1	6.2			
10/14/9	72.10	18.32	0.00	53.78	-0.16									
01/12/9	72.10	18.18	0.00	53.92	0.14									
04/11/9	72.10	17.80	0.00	54.30			••							
07/07/9	72.10	18.28	0.00	53.82	-0.48	ND		ND	ND	ND	ND			
10/05/9	72.10	18.55	0.00	53.55	-0.27									
01/09/9	72.10	17.90	0.00	54.20	0.65									
04/17/9	72.10	17.22	0.00	54.88	0.68									
07/19/9	95 · 72.10	18.03	0.00	54.07	-0.81	ND		ND	ND	ND	ND			
10/26/9	7 2.10	18.67	0.00	53.43	-0.64									
01/16/9	6 72.10	17.20	0.00	54.90	1.47									
04/15/9	6 72.10	17.40	0.00	54.70	-0.20									
07/11/9	6 72.10	18.03	0.00	54.07	-0.63	ND		ND	ND	ND	ND	ND	**	
01/17/9	72.10	16.54	0.00	55.56	1.49			**						

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled		Depth to Water	LPH Thickness		Change in Elevation	TPH-G	ТРРН 82 60В	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-1														
07/21/9		18.16	0.00	53.94	-1.62	ND	~~	ND	ND	ND	ND	ND		
01/14/9	8 72.10	16.05	0.00	56.05	2.11									
07/06/9	8 72.10	16.46	0.00	55.64	-0.41	ND		ND	ND	ND	ND	ND		
01/13/9	9 72.10	17.37	0.00	54.73	-0.91									,
08/31/9	9 72.12	17.00	0.00	55.12	0.39	ND		ND	ND	ND	ND	ND		
01/21/0	0 72.12	17.04	0.00	55.08	-0.04									
07/10/0	0 72.12	18.10	0.00	54.02	-1.06	ND		ND	ND	ND	ND	ND		
01/04/0	1 72.12	17.95	0.00	54.17										
07/16/0	1 72.12	18.03	0.00	54.09	-0.08	ND		ND	ND	ND	ND	ND		
01/28/0	2 72.12	17.31	0.00	54.81	0.72									SAMPLED ANNUALLY
, 07/12/0	2 72.12	18.15	0.00	53.97	-0.84	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
01/14/0	3 72.12	17.66	0.00	54.46	0.49									SAMPLED ANNUALLY
07/10/0	3 72.12	17.86	0.00	54.26	-0.20	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0		
02/04/0	4 72.12	. 17.43	0.00	54.69	0.43									Monitored Only
07/29/0	4 72.12	18.12	0.00	54.00	-0.69	ND<50		ND<0.3	0.38	ND<0.3	ND<0.6	ND<1	ND<0.5	
03/02/0	5 72.12	16.15	0.00	55.97	1.97						**			Sampled Annually
MW-2														
09/15/8	9					290		ND	12	ND	ND			
01/23/9	· · 0					400		73	36	10	40			
04/19/9	0					3900		550	5.1	91	390			
07/17/9	0	44				490		76	0.59	11	46			
10/16/9	0					1400		430	2.0	48	240			•
01/15/9	1					680		170	0.7	19	81			
04/12/9	1					2200		160	4.3	23	62			

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	
MW-2		d -												
. 07/15/				**		2200		770	12	72	370			
10/15/						140		44	0.56	1.5	12.			
01/15/		***			 ,	220		37	0.52	1.1	7			
04/14/						150		6.2	ND	ND	1.4			
07/14/						130		3.7	ND	ND	ND			
10/12/						370		3.4	0.56	ND	11		**	
01/08/	93					510		ND	ND	ND	ND			
04/13/		17.86	0.00	53.77		410		42	7.7	6.4	28	200		
07/14/	93 71.63	18.38	0.00	53.25	-0.52	110		6.5	ND	ND	1.1	250	8 19	
10/14/	93 71.38	18.20	0.00	53.18	-0.07	230		5.3	ND	ND	2.1			
01/12/	94 71.38	18.08	0.00	53.30	0.12	300		7.8	3.8	1.8	10			
04/09/	94 71.38	17.97	0.00	53.41	0.11	120		10	0.88	1.1	4.9			
04/11/	94 71.38	17.88	0.00	53.50	0.09									
07/07/	94 71.38	. 17.81	0.00	53.57	0.07	110		4.4	ND	ND	ND			
10/05/	94 71.38	18.33	0.00	53.05	-0.52	720		20	ND	ND	3.1		••	
01/09/	95 71.38	17.40	0.00	53.98	0.93	ND		ND	ND	ND	ND			•
04/17/	95 71.38	17.50	0.00	53.88	-0.10	93		5.6	0.62	1.7	5.5			
07/19/	95 71.38	18.01	0.00	53.37	-0.51	77		32	0.58	1.7	4.1			
10/26/	95 , 71.38	18.21	0.00	53.17	-0.20	54		13	ND	ND	0.72	220		
01/16/	96 71,38	16.58	0.00	54.80	1.63	120		23	ND	ND	0.99			
04/15/	96 71.38	17.61	0.00	53.77	-1.03	340		21	ND	2.2	3.7	45		
. 07/11/	96 71.38	17.98	0.00	53.40	-0.37	540		34	ND	4.3	12	150		·
01/17/	97 71.38	17.08	0.00	54.30	0.90	320		63	2.4	9.4	26	260		
07/21/	97 71.38	18.06	0.00	53.32	-0.98	160		13	ND	1.3	1.6	180		

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water	Change in	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(C4)	(f +)	ζ C 13		Elevation				. 445		-			
	(feet)	(feet)	(feet)	(feet)	(feet)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	
	continued													
. 01/14/9				54.86	1.54	66		6.3	ND	ND	0.98	100		
07/06/9			0.00	54.51	-0.35	ИD		2.3	ND	ND	ND	11		
01/13/9			0.00	53.50	-1.01	53		24	ND	0.52	0.98	120		·
08/31/9			0.00	52.89	-0.61	86		14	ND	0.63	ND	21		
01/21/0		17.73	0.00	53.61	0.72	ND		1.94	ND	ND	ND	10.1		
07/10/0	00 71.34	18.14	0.00	53.20	-0.41	ND		ND	ND	ND	ND	46.6		
01/04/0	01 71.34	18.02	0.00	53.32		ND		0.925	ND	ND	ND	ND		
07/16/0	1 71.34	18.02	0.00	53.32	0.00	ND		ND	ND	ND	ND	ND		
01/28/0	71.34	17.57	0.00	53.77	0.45	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
07/12/0	02 71.34	18.05	0.00	53.29	-0.48	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
01/14/0	03 71.34	17.44	0.00	53.90	0.61	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0,50	ND<2.0		
07/10/0	71.34													INACCESSIBLE - VEHICLE PARKED OVER WELL
02/04/0	04 71.34	17.22	0.00	54.12		ND<50	77	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0		
07/29/0)4 71.34	, <u></u>									 .			Inaccessible-car parked on well
03/02/0)5 71.34	16.63	0.00	54.71		99 -		26	ND<0.50	3.5	2.8	ND<5.0		
MW-3	.*													
09/15/8	39		·			32		ND	ND	ND	ND			
01/23/9	90 '					450		110	1.2	4.4	11			**
04/19/9	• 0					3100		600	27	54	220			
07/17/9	0					4000		270	48	130	250			
10/16/9	90					740		210	1.4	2.5	82			·
01/15/9	91					3200		460	1.5	120	270	m+		
04/12/9	91					880		170	1.1	34	110			
3538	,							Page 4	of 11					

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	ТРРН 8260В	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(µg/l)	(µg/l)	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	
MW-3		t												
07/15/9						9200		1300	230	490	1900			
10/15/9						3100		390	34	150	390			
01/15/9	•					3000		590	14	310	750			
04/14/9					••	14000		660	48	560	2000			
07/14/9						21000		890	200	1200	4300			
10/12/9						3200		160	10	230	540			
01/08/9						1100		48	0.99	0.9	93			
04/13/9		17. 9 6		54.10		12000		290	38	760	2300	1400		•
07/14/9		18.54	0.00	53.52	-0.58	6300		190	ND	430	1000	860		
10/14/9		18.45		53.41	-0.11	2500		52	ND	110	250			
01/12/9		18.34	0.00	53.52	0.11	3800		78	ND	180	390			
04/09/9	71.86	18.19	0.00	53.67	0.15	1800		22	ND	140	280	~=		
04/11/9		18.12	0.00	53.74	0.07									
07/07/9		18.21	0.00	53.65	-0.09	110		4.5	ND	ND	ND			
10/05/9		18.58	0.00	53.28	-0.37	ND		ND	ND	ND	ND			
01/09/9	5 71.86	17.69	0.00	54.17	0.89	ND		0.68	ND	ND	ND			
04/17/9	5 71.86	17.68	0.00	54.18	0.01	3700		80	10	270	510			
07/19/9	5 71.86	18.20	0.00	53.66	-0.52	15000		330	27	990	2400			
10/26/9	5 71.86	18.32	0.00	53.54	-0.12	14000		420	180	750	1600	4 8 00		
01/16/9	6 71.86	17.95	0.00	53.91	0.37	920		38	ND	30	57			
04/15/9	6 71.86	17.78	0.00	54.08	0.17	9700		240	ND	570	860	3200		
. 07/11/9	6 71.86	18.19	0.00	53.67	-0.41	13000		69	5.5	430	900	740		
01/17/9	7 71.86	17.23	0.00	54.63	0.96	4400		25	ND	270	580	1600		
07/21/9	7 71.86	18.29	0.00	53.57	-1.06	9000		36	ND	450	800	950		

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	$(\mu g/l)$	(µg/l)	(µg/l)	
MW-3														
01/14/9				55.15	1.58	7100		40	ND	380	360	930	••	
07/06/9		17.03		54.83	-0.32	6800		39	ND	320	360	370		
01/13/9				53.86	-0.97	1800		9.4	ND	58	36	180		
08/31/9			0.00						***					Well obstructed at 0.5 feet.
01/21/0				53.82		ND		ND	ND	ND	ND	21.4		
07/10/0		18.05		53.35	-0.47	ND		ND	ND	ND	ND	162		
08/25/0	00 71.40	17.82	0.00	53.58	0.23								180	
01/04/0		18.16	0.00	53.24	-0.34	ND		ND	ND	ND	ND	193		
07/16/0	01 71.40	17.98	0.00	53.42	0.18	ND		ND	ND	ND	ND	660		
01/28/0	02 71.40	17.84	0.00	53.56	0.14	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	34		
07/12/0		17.87	0.00	53.53	-0.03	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	11	19	
01/14/0		17.28	0.00	54.12	0.59	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	12		
07/10/0	3 71.40	17.64	0.00	53.76	-0.36	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	23		
02/04/0	04 71.40	. 17.05	0.00	54.35	0.59	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	26		
07/29/0	94 71.40	17.82	0.00	53.58	-0.77	ND<50		ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<1		
03/02/0)5 71.40	16.47	0.00	54.93	1.35	93	. 	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140		
MW-4														
09/15/8	39					ND		ND	ND	ND	ND			
01/23/9	90					ND		ND	0.4	ND	ND			
04/19/9	90					ND	·	ND	0.48	ND	ND			
07/17/9	90					ND		ND	ND	ND	ND			
10/16/9	90	See Pris				ND		ND	ND	CIN	ND			•
01/15/9	91					ND		ND	ND		ND			
04/12/9	91					ND		ND	ND	ND	ND			

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	
MW-4	continue	d										-		
07/15/9						ND		ND	ND	ND	ND			
07/14/9			**			ND		1.3	2.5	ND	1.0			
04/13/9	93 71.98	17.67	0.00	54.31										SAMPLED ANNUALLY
07/14/9	93 71.98	18.31	0.00	53.67	-0.64	ND		ND	ND	ND	ND			
10/14/9	93 71.64	18.08	0.00	53.56	-0.11									
01/12/9	94 71.64	17.97	0.00	53.67	0.11									
04/11/9	94 71.64	17.70	0.00	53.94										
07/07/9	94 71.64	17.80	0.00	53.84	-0.10	ND		ND	ND	ND	ND	<u></u>		
10/05/9	94 71.64	18.28	0.00	53.36	-0.48									
01/09/9	95 71.64	17.38	0.00	54.26	0.90									
04/17/9	95. 71.64	17.21	0.00	54.43	0.17	# -								SAMPLED ANNUALLY
07/19/9	95 71.64	17.82	0.00	53.82	-0.61	ND		ND	ND	ND	ND			
10/26/9	95 71.64	18.17	0.00	53.47	-0.35									
01/16/9	96 71.64	, 16.45	0.00	55.19	1.72									
04/15/9	96 71.64	17.35	0.00	54.29	-0.90									
07/11/9	96 71.64	17.81	0.00	53.83	-0.46	ND		ND	ND	ND	ND	ND		
01/17/9	97 71.64	16.73	0.00	54.91	1.08									
07/21/9	97 71.64	17.91	0.00	53.73	-1.18	ND		ND	ND	ND	ND	ND		
01/14/9	98 , 71.64	16.18	0.00	55.46	1.73									
07/06/9	98 71.64	16.49	0.00	55.15	-0.31	ND		ND	ND	ND	ND	ND		
01/13/9	99 71.64	17.29	0.00	54.35	-0.80									
. 08/31/9	99 71.54	No has	0.00											Well obstructed at 10.4 feet
01/21/0	00 71.54	17.51	0.00	54.03										
07/10/0	00 71.54	17.93	0.00	53.61	-0.42	ND		ND	ND	ND	ND	ND		

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in	TPH-G	TPPH 82 60B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 82 60B	Comments
	(feet)	(feet)	(feet)	elevation (feet)	Elevation (feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	
MW-4										·				
. 01/04/0	01 71.54	18.10	0.00	53.44										
07/16/0	71.54	17.76	0.00	53.78	0.34	ND		ND	ND	ND	ND	ND		
01/28/0	02 71.54	17.20	0.00	54.34	0.56									SAMPLED ANNUALLY
07/12/0	02 71.54	17.81	0.00	53.73	-0.61	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		
01/14/0	03 71.54	17.30	0.00	54.24	0.51						·			SAMPLED ANNUALLY
07/10/0	03 71.54	17.58	0.00	53.96	-0.28	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0		
02/04/0	04 71.54	17.07	0.00	54.47	0.51									Monitored Only
07/29/0	04 71.54	17.81	0.00	53.73	-0.74	ND<50		ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<1		
03/02/0	05 71.54	16.25	0.00	55.29	1.56									Sampled Annually
MW-5														
, 11/30/9	92					ND		ND	ND	ND	ND		••	
01/08/9	93					ND		ND	ND	ND	ND			
04/13/9	93 71.51	17.49	0.00	54.02		ND		ND	ND	ND	ND			
07/14/9	93 71.51	. 18.02	0.00	53.49	-0.53	ND		ND	0.57	ND	ND			
10/14/9	93 71.23	17.82	0.00	53.41	-0.08	ND		ND	ND	ND	ND		₩.	
01/12/9	94 71.23	17.74	0.00	53.49	0.08	ND .		ND	0.84	ND	1.6			
04/11/9	94 71.23	17.56	0.00	53.67										SAMPLED ANNUALLY
07/07/	94 71.23	17.50	0.00	53.73	0.06	ND		ND	ND	ND	ND			
10/05/	94 . 71.23	17.98	0.00	53.25	-0.48									
01/09/9	95 71.23	17.13	0.00	54.10	0.85									
04/17/	95 71.23	17.05	0.00	54.18	0.08								**	
07/19/9	95 71.23	17.59	0.00	53.64	-0.54	ND		ND	ND	ND	ND			•
10/26/	95 71.23	18.10	0.00	53.13	-0.51									
01/16/9	96 71.23	17.11	0.00	54.12	0.99				**					

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled		Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	(µg/l)	(μg/l)	$(\mu g/l)$	(µg/l)	(μg/l)	(μg/l)	(μg/l)	
MW-5	continued	l												
04/15/9		17.22		54.01	-0.11						•			
07/11/9	6 71.23	17.59	0.00	53.64	-0.37	ND		ND	ND	ND	ND	ИD		
01/17/9	7 71.23	16.75	0.00	54.48	0.84									SAMPLED ANNUALLY
07/21/9	7 71.23	17.59	0.00	53.64	-0.84	ND		ND	ND	ND	ND	ND		
01/14/9	8 71.23	16.16	0.00	55.07	1.43									
07/06/9	8 71.23	16.52	0.00	54.71	-0.36	ND		ND	ND	ND	ND	ND		
01/13/9	9 71.23	17.62	0.00	53.61	-1.10									
08/31/9	9 71.16	17.76	0.00	53.40	-0.21	ND		ND	ND	ND	ND	ND		
01/21/0	0 71.16	16.83	0.00	54.33	0.93				•					
07/10/0	0 71.16	17.46	0.00	53.70	-0.63	ND		ND	ND	ND	ND	ND		
, 01/04/0	1 71.16	17.51	0.00	53.65										
07/16/0	1 71.16	17.32	0.00	53.84	0.19	ND		ND	ND	ND	ND	ND		
01/28/0	2 71.16	17.12	0.00	54.04	0.20									SAMPLED ANNUALLY
07/12/0	2 71.16	. 17.12	0.00	54.04	0.00	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	·	
01/14/0	3 71.16	16.67	0.00	54.49	0.45							~ ~		SAMPLED ANNUALLY
07/10/0	3 71.16	17.39	0.00	53.77	-0.72	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0		
02/04/0	4 71.16	16.23	0.00	54.93	1.16									Monitored Only
07/29/0	71.16	16.02	0.00	55.14	0.21	ND<50		ND<0.3	0.64	ND<0.3	0.79	NIX1		
03/02/0	5 . 71.16	16.43	0.00	54.73	-0.41									Sampled Annually
MW-6														
11/30/9	92					ND		ND	ND	ND	ND			
01/08/9	93					ND		ND	ND	ND	ND			•
04/13/9	3 71.79	11.94	0.00	59.85		ND		ND	ND	ND	ND			
07/14/9	3 71.79	17.20	0.00	54.59	-5.26	ND		0.99	2.4	ND	1.9			

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness		Change in Elevation	TPH-G	TPPH 8260B	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE 8021B	MTBE 8260B	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	$(\mu g/l)$	
MW-6	continue										•			
10/14/9	71.44	17.21	0.00	54.23	-0.36	ND		ND	0.64	ND	ND			
01/12/9	94 71.44	17.44	0.00	54.00	-0.23	ND		ND	1.2	ND	2.9			
04/11/9	94 7.1.44	13.66	0.00	57.78										SAMPLED ANNUALLY
07/07/9	94 71.44	14.05	0.00	57.39	-0.39	ND		ND	ND	ND	ND			
10/05/9	94 71.44	14.16	0.00	57.28	-0.11									
01/09/9	5 71.44	13.73	0.00	57.71	0.43									
04/17/9	5 71.44	11.30	0.00	60.14	2.43									
07/19/9	5 71.44	12.32	0.00	59.12	-1.02	ND		ND	ND	ND	ND			
10/26/9	5 71.44	17.88	0.00	53.56	-5.56									
01/16/9	96 71.44	16.38	0.00	55.06	1.50									
04/15/9	96 71.44	14.00	0.00	57.44	2.38									
07/11/9	96 71.44	13.58	0.00	57.86	0.42	ND		ND	ND	ND	ND	ND		
01/17/9	9 7 71.44	15.42	0.00	56.02	-1.84									
07/21/9	97 71.44	. 13.78	0.00	57.66	1.64	ND		NID	ND	NID	ND	ND		
01/14/9	98 71.44	13.65	0.00	57.79	0.13									
07/06/9	98 71.44	13.90	0.00	57.54	-0.25	ND	, 	ND	ND	ND	ND	ND		
01/13/9	99 71.44	14.93	0.00	56.51	-1.03									
08/31/9	99 71.37	15.81	0.00	55.56	-0.95	ND		ND	ND	ND	ND	ND		
01/21/0	00 - 71.37	16.13	0.00	55.24	-0.32									SAMPLED ANNUALLY
07/10/0	00 71.37	16.95	0.00	54.42	-0.82	ND		ND	ND	ND	ND	ND		
01/04/0	01 71.37	17.09	0.00	54.28										
07/16/0	01 71.37	16.83	0.00	54.54	0.26	ND		ND	ND	ND	ND	ND		
01/28/0	02 71.37	14.58	0.00	56.79	2.25									SAMPLED ANNUALLY
07/12/0	02 71.37	16.76	0.00	54.61	-2.18	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5		

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Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
September 1989 Through March 2005
Former 76 Station 3538

Date Sampled	TOC Elevation	Depth to Water	LPH Thickness	Ground- water Elevation	Change in Elevation	TPH-G	TPPH 82 60B	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)	$(\mu g/l)$	$(\mu g/l)$	
MW-6	continue	1												
01/14/0	03 71.37	16.25	0.00	55.12	0.51									SAMPLED ANNUALLY
07/10/0	71.37	12.97	0.00	58.40	3.28	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0		
02/04/0	04 71.37	16.20	0.00	55.17	-3.23									Monitored Only
07/29/0	04 71.37	14.98	0.00	56.39	1.22	ND<50		ND<0.3	ND<0.3	ND<0.3	ND<0.6	1.3		
03/02/0)5 71.37	14.51	0.00	56.86	0.47									Sampled Annually

Table 3
ADDITIONAL ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	TPH-D (μg/l)	cis-1,3- dichloro- propene (µg/l)	trans-1,3- Dichloro- propene (µg/l)	l,4- Dichloro- benzene (μg/l)	EDC (μg/l)	Chloro- benzene (µg/l)	Dibromo- chloro- methane (µg/l)	РСЕ (µg/l)	cis-1,2- Dichloro- ethene (µg/l)	trans-1,2- Dichloro- ethene (µg/l)	1,3- Dichloro- benzene (µg/l)	Carbon tetra- chloride (µg/l)	Chloro- form (µg/l)	1,1,1- Trichloro- ethane (µg/l)	Bromo- methane (µg/l)
					,, 0 /			<u> </u>	407	(10)	(10)	(1 6 7	(1.0.7	(10)	4-8-7
MW-1 09/15/89	ND							2.7							
01/23/90	ND							2.1							
04/19/90	ND			42				2.1							
07/17/90	ND							1.7			••				
10/16/90	ND														
01/15/91	ND							2.0				••			
	ND							2.1		••					
04/12/91			***					2.0							
07/15/91	ND			7-				1.8							
07/14/92				==				1.4					**		
07/14/93								0.95							
07/07/94								0.83							
07/19/95								0.52					**		
07/11/96								0.73					0.96		
07/21/97								0.70		••			1.0		
08/31/99				••				ND							
07/16/01		·					••	ND					45		
07/12/02								ND<0.60							
07/10/03						 .		ND<0.50							
07/29/04	.==	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1
MW-3															
08/25/00	·				ND										
07/12/02	,	••			ND<2.0										

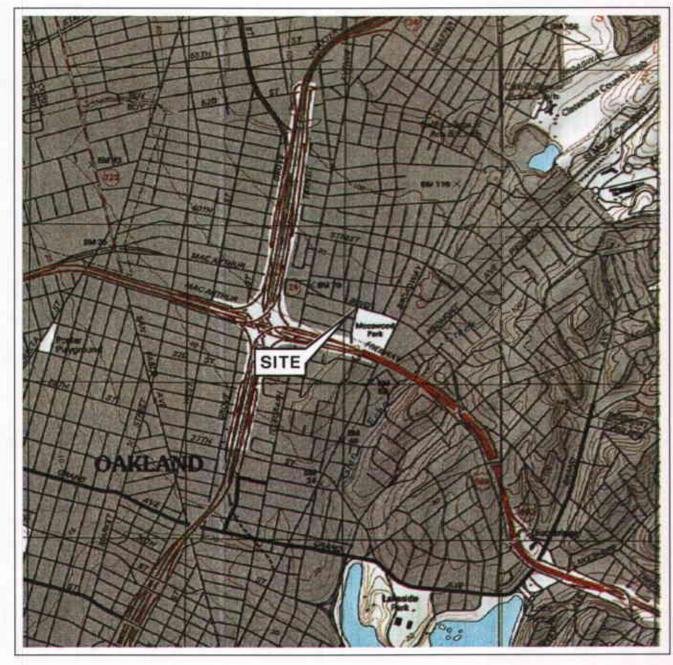
Table 3 b
ADDITIONAL ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	Chloro- methane (µg/l)	Chloro- ethane	Vinyl chloride	chloride		dichloro- methane	1,1- Dichloro- ethane	1,1- Dichloro- ethene	Trichloro- fluoro- methane	trifluoro- ethane	1,2- Dichloro- propane	1,1,2- Trichloro- ethane	TCE	1,1,2,2- Tetrachtor oethane	1,2- Dichloro- benzene
	(μβ/1)	(µg/l)	(µg/l)	(µg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(μg/l)
MW-1	-														
07/16/01						1.7									
07/12/02								1.8			36	78			
07/10/03								0.89							
07/29/04	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Table 3 c
ADDITIONAL ANALYTICAL RESULTS

Former 76 Station 3538

Date Sampled	Dichloro- difluoro- methane	EDB	TAME 8260B	TBA 8260B	DIPE 8260B	ETBE 8260B	Ethanol 8260B	TOG	
	(μg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(μg/l)	(µg/l)	(mg/l)	
MW-1					•				
09/15/89								ND	
01/23/90					-			1.5	
04/19/90								ND	
07/17/90	F-					••		ND	
10/16/90								ND	
01/15/91								ND	
04/12/91								ND	
07/15/91			 '					ND	
07/29/04	ND<0.5					••			
MW-3	٠								
08/25/00	*-	ND	ND	ND	ND	ND			
07/12/02		ND<2.0	ND<2.0	ND<20	ND<2.0	ND<2.0	ND<500		





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

SOURCE:





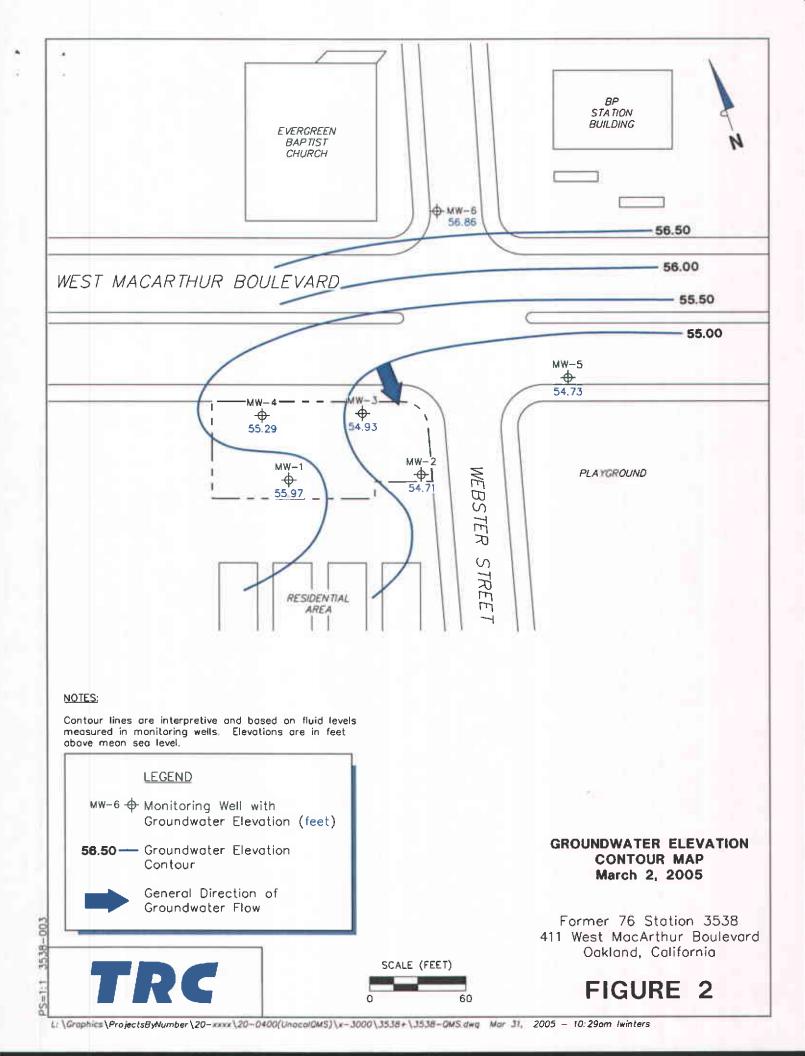
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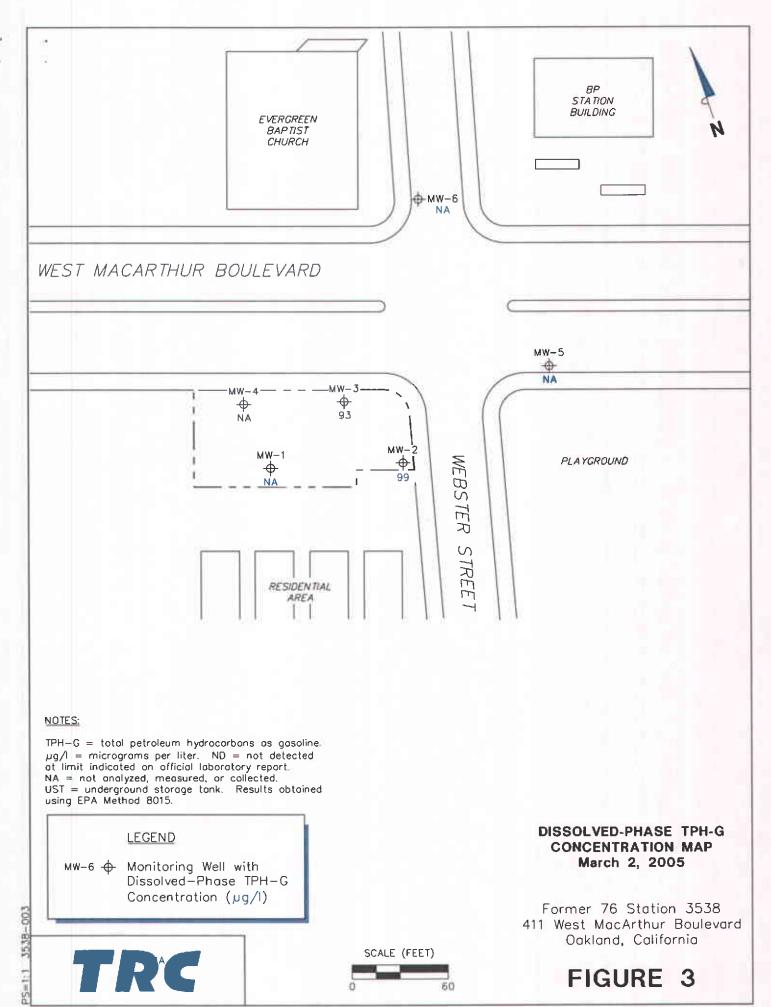


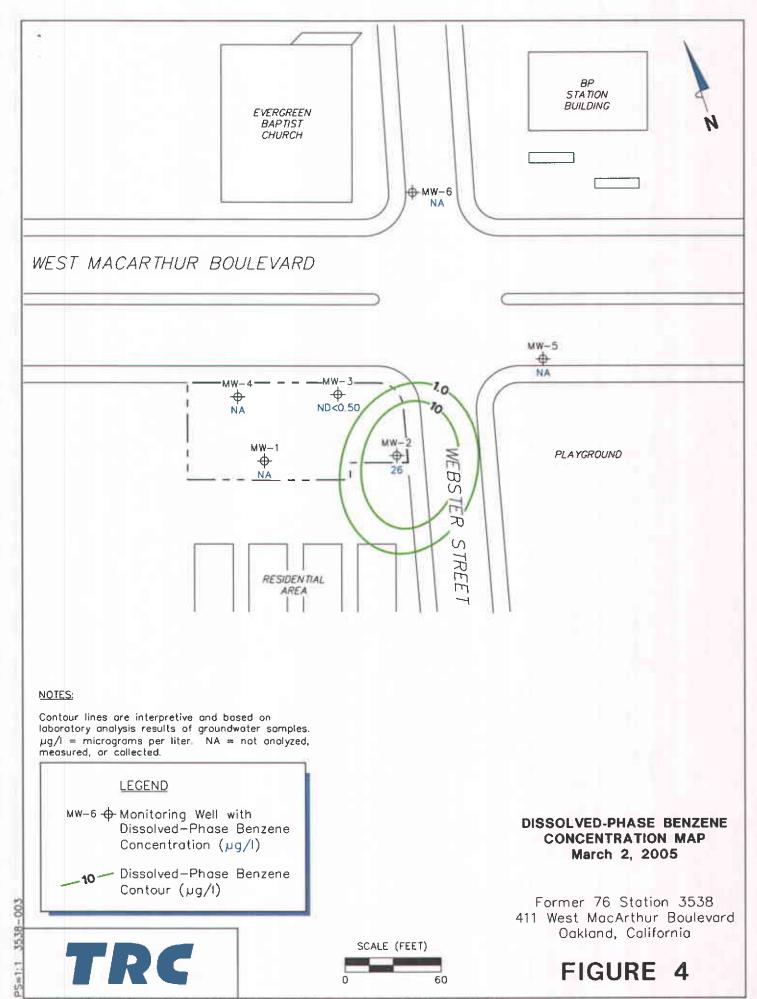
VICINITY MAP

Former 76 Station 3538 411 West MacArthur Boulevard Oakland, California

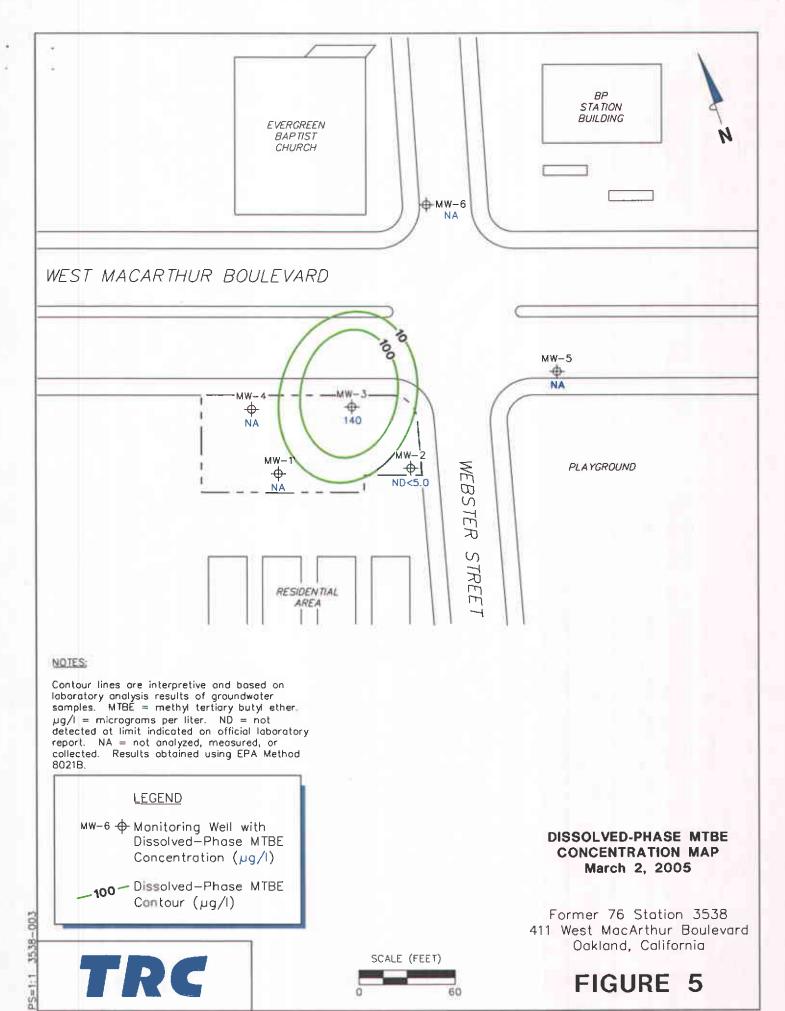
FIGURE 1



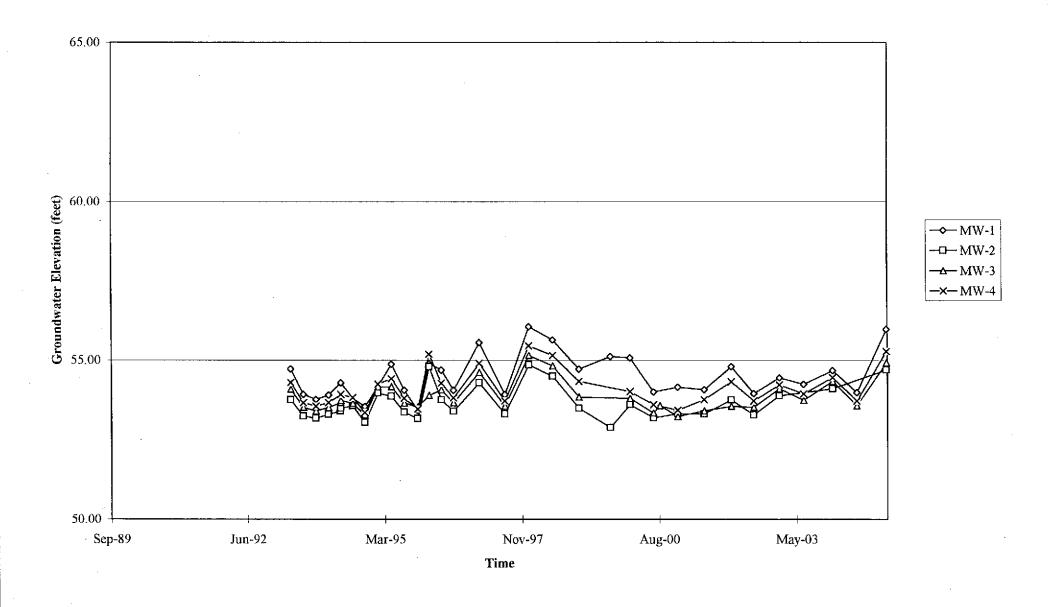




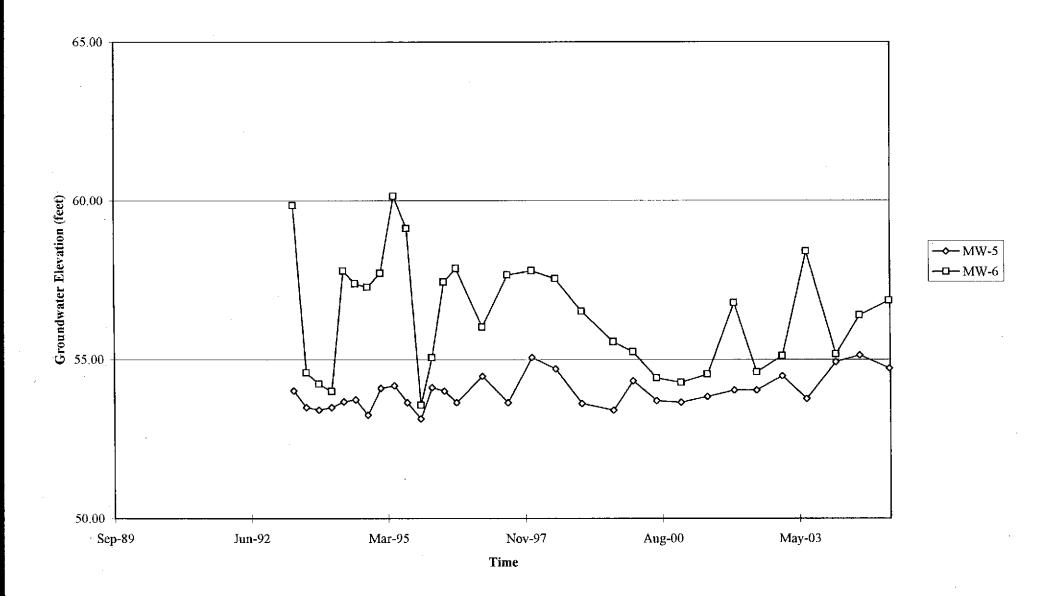
L: \Graphics\Projects8yNumber\20-xxxx\20-0400(UnocaiGMS)\x-3000\3538+\3538-QMS.dwg Mar 31, 2005 - 10:29am lwinters



Groundwater Elevations vs. Time Former 76 Station 3538

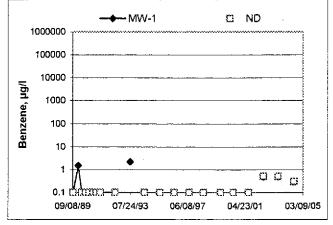


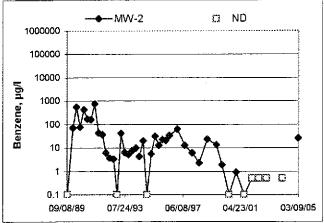
Groundwater Elevations vs. Time Former 76 Station 3538

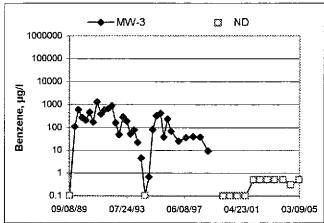


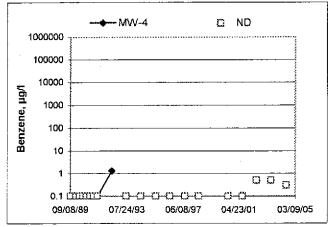
Benzene Concentrations vs Time

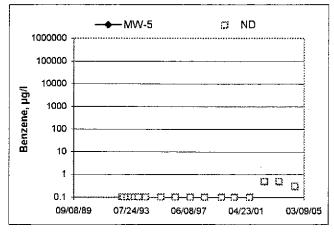
Former 76 Station 3538

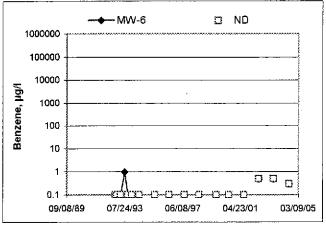












GENERAL FIELD PROCEDURES

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 measurement are calibrated daily according to manufacturer's instructions.

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

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

Groundwater Sample Collection

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

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

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

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

Sequence of Gauging, Purging, and Sampling

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

Decontamination

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

Exceptions

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

1/5/04 version

FIELD MONITORING DATA SHEET

Technician: Aux	Job #/Task #:	41050001 /FAZO	Date: _	030285
Site #3538	Project Manager	REGER PATRA	Page _	/ of/

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled		Misc. Well Notes
MW-1	×	0.755	23.35	16.15	6-	G-	r15	2"	MONTOR any
MW-4	v	₽4\$1	24.60	16.25	a	j-	n/s	24	/
m4-5	ν	101	30.0S	14.43	e	€ 7	n/s	21	el
かん-2	./	1028	24.25	14.63	e ²	0-	1113	2.1	7
1960-3	c	1006	27.15	16.47	٠	-	1046	2"	
MW-6	4	1016	3001	14.51	á	C'	n/s	۳ جي	monare only
			All Sections		·.				
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	7								
	\						1	<u> </u>	
IELD DATA	COMPL	ETE	oy voc		cợc	WE	ELL BOX CO	ווחאכ	TION SHEETS
TT CERTIF	ICATE		MANIFES	T	DRUM INV	ENTORY	TRAF	ÀIC C	CONTROL

GROUNDWATER SAMPLING FIELD NOTES

Site:	353 <u>8</u>		Technician:	413 500	00/		Date:	30205
Well No.:				Purce Method	i:	•		
well No	110	.47			luct (feet):			
Depth to Wat	ter (feet): 76 feet): 27.7		- ,		Recovered (gall			
Total Depth (leet):	. -		LPH & Water	eter (Inches):	27		
	nn (feet): <u>/ċ-/</u>					4	<u>.</u>	•
80% Rechar	ge Depth (feet):	10.40		1 Well Volum	e (gallons):	·-		
Time	Time	Depth	Volume	Conduc-	Temperature			
Start	Stop	To Water	Purged	tivity	1 0	рH	Turbidity	D.O.
		(feet)	(gallons)	(uS/cm)	(F,C)	· · · · · · · · · · · · · · · · ·		
1036		·	2	697	19.5	4.31		ļ
			4	734	19.4	6.48		
	1039		6	741	19.9	6.51		
							,	
								
Sta	J itic at Time Sam	pled	To	otal Gallons Pu	irged		Time Samp	led
*	1451		-		Ç		104	6
	Mis.				t:	ga.	···-	
Depth to wat	ler (feet): feet):29	25	-		luct (feet):			
rotal Depth (reet):	762			Recovered (gall			
	n (feet):	16 JE		•	eter (Inches):	<u> </u>		
80% Rechard	ge Depth (feet):_	10.13		1 Well Volum	e (gallons):			
Time	Time	Depth	Volume	Conduc-	Temperature	•		
Start	Stop	To Water	Purged	tivity		pΗ	Turbidity	D.O.
		(feet)	(gallons)	(uS/cm)	(F, Ø)		ļ	
1035				717	18-4	694		
			2	725	18-7	4.75		<u> </u>
	1059		13	726	19.0	6.64		
Sta	tic at Time Sam	pled	То	otal Gallons Pu			Time Samp	
	16.70				<u>ತ</u>		1117	<u> </u>
Comments:							4	
SUMMINGUES.								· · · · · · · · · · · · · · · · · · ·
				<u> </u>				



TRC Alton Geoscience-Irvine

March 21, 2005

21 Technology Drive Irvine, CA 92718

Attn.:

Anju Farfan

Project#: 41050001FA20

Project:

Conoco Phillips # 3538

Site:

411 West Mac Arthur Blvd., Oakland

Attached is our report for your samples received on 03/02/2005 16:00 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 04/16/2005 unless you have requested otherwise.

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

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

Dimple Sharma Project Manager



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience-Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab#
MW-2	03/02/2005 11:13	Water	1
MW-3	03/02/2005 10:46	Water	2 .



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Prep(s):

Matrix:

5030

5030

Sample ID: MW-2

Sampled:

03/02/2005 11:13

Water

Test(s):

8015M

8021B

Lab ID:

2005-03-0112 - 1

Extracted: 3/16/2005 19:59

QC Batch#: 2005/03/16-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	99	50	ug/L	1.00	03/16/2005 19:59	
Benzene	26	0.50	ug/L	1.00	03/16/2005 19:59	
Toluene	ND	0.50	ug/L	1.00	03/16/2005 19:59	
Ethyl benzene	3.5	0.50	ug/L	1.00	03/16/2005 19:59	
Xylene(s)	2.8	0.50	ug/L	1.00	03/16/2005 19:59	
MTBE	ND	5.0	ug/L	1.00	03/16/2005 19:59	
Surrogate(s)						
Trifluorotoluene	94.4	58-124	%	1.00	03/16/2005 19:59	
4-Bromofluorobenzene-FID	78.6	50-150	%	1.00	03/16/2005 19:59	



Gas/BTEX Compounds by 8015M/8021

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Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Prep(s):

5030

5030

Test(s):

8015M

8021B

Sample ID: MW-3

Lab ID:

2005-03-0112 - 2

Sampled: 03/02/2005 10:46

Extracted:

3/16/2005 20:33

3/17/2005 11:04

Matrix:

Water

QC Batch#: 2005/03/16-01.05

2005/03/17-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
GRO (C6-C12)	93	50	ug/L	1.00	03/16/2005 20:33	Q6
Benzene	ND	0.50	ug/L	1.00	03/16/2005 20:33	
Toluene	ND	0.50	ug/L	1.00	03/16/2005 20:33	
Ethyl benzene	ND	0.50	ug/L	1.00	03/16/2005 20:33	
Xylene(s)	ND	0.50	ug/L	1.00	03/16/2005 20:33	
MTBE	140	10	ug/L	2.00	03/17/2005 11:04	H2
Surrogate(s)		i	ļ			
Trifluorotoluene	95.5	58-124	%	1.00	03/16/2005 20:33	
Trifluorotoluene	109.1	58-124	%	1.00	03/17/2005 11:04	
4-Bromofluorobenzene-FID	81.2	50-150	%	1.00	03/16/2005 20:33	



Gas/BTEX Compounds by 8015M/8021

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Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

Water

Prep(s): 5030

5030

Method Blank

MB: 2005/03/16-01.05-003

Test(s): 8015M

8021B QC Batch # 2005/03/16-01.05

Date Extracted: 03/16/2005 08:13

Compound	Conc.	RL	Unit	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	03/16/2005 08:13	
Benzene	ND	0.5	ug/L	03/16/2005 08:13	
Toluene	ND	0.5	ug/L	03/16/2005 08:13	
Ethyl benzene	ND	0.5	ug/L	03/16/2005 08:13	
Xylene(s)	ND	0.5	ug/L	03/16/2005 08:13	
MTBE	ND	5.0	ug/L	03/16/2005 08:13	
Surrogates(s)					
Trifluorotoluene	97.2	58-124	%	03/16/2005 08:13	
4-Bromofluorobenzene-FID	85.8	50-150	%	03/16/2005 08:13	



Gas/BTEX Compounds by 8015M/8021

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21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

Prep(s): 5030

5030

Method Blank

Water

Test(s): 8015M

8021B QC Batch # 2005/03/17-01.05

MB: 2005/03/17-01.05-001

Date Extracted: 03/17/2005 07:01

Compound	Conc.	RL	Unīt	Analyzed	Flag
GRO (C6-C12)	ND	50	ug/L	03/17/2005 07:01	
Benzene	ND	0.5	ug/L	03/17/2005 07:01	
Toluene	ND	0.5	ug/L	03/17/2005 07:01	
Ethyl benzene	ND	0.5	ug/L	03/17/2005 07:01	
Xylene(s)	ND	0.5	ug/L	03/17/2005 07:01	
MTBE	ND	5.0	ug/L	03/17/2005 07:01	
Surrogates(s)					
Trifluorotoluene	101.0	58-124	%	03/17/2005 07:01	
4-Bromofluorobenzene-FID	85.2	50-150	%	03/17/2005 07:01	



Gas/BTEX Compounds by 8015M/8021

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Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

Prep(s): 5030

Test(s): 8021B

Laboratory Control Spike

Water

QC Batch # 2005/03/16-01.05

LCS

2005/03/16-01.05-004

Extracted: 03/16/2005

Analyzed: 03/16/2005 08:47

Compound	Conc.	ug/L	Exp.Conc.	Recov	⁄егу %	RPD	Ctrl.Lim	nits %	Fla	igs
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	56.7		50.0	113.4			77-123	20		
Toluene	58.3	[50.0	116.6			78-122	20		
Ethyl benzene	58.1	ł	50.0	116.2			70-130	20		
Xylene(s)	175		150	116.7			75-125	20		
Surrogates(s)		•								
Trifluorotoluene	455		500	91.0			58-124			



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience-Irvine

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21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

Prep(s): 5030

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2005/03/16-01.05

LCS

2005/03/16-01.05-005

Extracted: 03/16/2005

Analyzed: 03/16/2005 09:20

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD Ctrl.Limits %		Flags		
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
GRO (C6-C12)	224		250	89.6			75-125	20		
Surrogates(s)			ļ							
4-Bromofluorobenzene-FID	413		500	82.6			50-150			



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience-Irvine

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

Prep(s): 5030

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2005/03/17-01.05

LCS

2005/03/17-01.05-003

Extracted: 03/17/2005

Analyzed: 03/17/2005 08:08

Compound	Conc.	ug/L	Exp.Conc.	Recov	very %	RPD	Ctrl.Lin	nits %	Fla	ags
·	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
GRO (C6-C12)	225		250	90.0			75-125	20		
Surrogates(s) 4-Bromofluorobenzene-FiD	436		500	87.2			50-150			



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

Prep(s): 5030

Test(s): 8021B

Laboratory Control Spike

Water

QC Batch # 2005/03/17-01.05

LCS

2005/03/17-01.05-004

Extracted: 03/17/2005

Analyzed: 03/17/2005 08:54

Compound	Conc.	ug/L	Exp.Conc.	Reco	vегу %	RPD	Ctrl.Lin	nits %	Fla	ags
, 	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	59.7		50.0	119.4	İ		77-123	20		
Toluene	60.3		50.0	120.6			78-122	20		
Ethyl benzene	58.8		50.0	117.6			70-130	20 [
Xylene(s)	179		150	119.3		1 1	75-125	20		
Surrogates(s)	ļ									
Trifluorotoluene	526		500	105.2			58-124			f



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

Prep(s): 5

5030

Test(s): 8021B

Matrix Spike (MS / MSD)

Water

QC Batch # 2005/03/16-01.05

MW-2 >> MS

Lab ID:

2005-03-0112 - 001

MS:

2005/03/16-01.05-031

Extracted: 03/17/2005

Analyzed:

03/17/2005 02:41

Dilution:

1.00

MSD:

2005/03/16-01.05-032

Extracted: 03/17/2005

Analyzed:

03/17/2005 03:15

Dilution:

1.00

Compound	Conc.	ug/L		Spk.Level	R	ecovery	%	Limits	s %	Flags		
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD	
Benzene	81.1	81.1	26.1	50.0	110.0	110.0	0.0	65-135	20			
Toluene	54.3	54.6	ND	50.0	108.6	109.2	0.6	65-135	20			
Ethyl benzene	54.6	57.3	3.46	50.0	102.3	107.7	5.1	65-135	20			
Xylene(s)	159	166	2.79	150	104.1	108.8	4.4	65-135	20			
Surrogate(s)												
Trifluorotoluene	445	451	51		89.0	90.2		58-124				



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience-Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

Prep(s): 5030

Test(s): 8015M

Matrix Spike (MS/MSD)

Water

QC Batch # 2005/03/16-01.05

MS/MSD

2005/03/16-01.05-033

Extracted: 03/17/2005

Lab ID: Analyzed: 2005-03-0393 - 005

Dilution:

03/17/2005 03:48

MSD:

MS:

2005/03/16-01.05-034

Extracted: 03/17/2005

Analyzed:

03/17/2005 04:21

Dilution:

1.00

Compound	Conc.	ug	/L	Spk.Level	R	ecovery	%	Limits	· %	Flags		
	мѕ	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD	
GRO (C6-C12)	238	239	ND	250	95.2	95.6	0.4	65-135	20			
Surrogate(s) 4-Bromofluorobenzene-FiD	385	348		500	77.0	69.6		50-150				



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience-Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

5030 Prep(s):

Test(s): 8021B

Matrix Spike (MS/MSD)

Water

QC Batch # 2005/03/17-01.05

MS/MSD

Lab ID:

2005-03-0207 - 003-

MS:

2005/03/17-01.05-028

Extracted: 03/18/2005

Analyzed:

03/18/2005 00:14

Dilution:

1.00

MSD:

2005/03/17-01.05-029

Extracted: 03/18/2005

Analyzed:

03/18/2005 00:48

Dilution:

1.00

Compound	Conc.	ι	ıg/L	Spk.Level	R	ecovery	%	Limit	s %	Flags		
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD	
Benzene	56.3	56.7	ND	50.0	112.6	113.4	0.7	65-135	20		į	
Toluene	54.7	54.7	ND	50.0	109.4	109.4	0.0	65-135	20]	
Xylene(s)	151	152	ND	150	100.7	101.3	0.6	65-135	20		1	
Ethyl benzene	51.4	51.9	ND	50.0	102.8	103.8	1.0	65-135	20			
Surrogate(s)												
Trifluorotoluene	452	440		500	90.4	88.0		58-124			j	

03/18/2005 14:55



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience-Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Batch QC Report

Prep(s): 5030

Test(s): 8015M

Matrix Spike (MS/MSD)

Water

QC Batch # 2005/03/17-01.05

MS/MSD

2005/03/17-01.05-030

Extracted: 03/18/2005

Lab ID: Analyzed: 2005-03-0207 - 004

Dilution:

03/18/2005 01:22 1.00

MSD:

MS:

2005/03/17-01.05-031

Extracted: 03/18/2005

Analyzed:

03/18/2005 01:55

Dilution:

1.00

Compound	Conc.	ug,	/L	Spk.Level	R	ecovery	%	Limits	%	Fi	ags
	мѕ	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
GRO (C6-C12)	220	218	ND	250	88.0	87.2	0.9	65-135	20		
Surrogate(s) 4-Bromofluorobenzene-FID	441	443		500	88.2	88.6		50-150			



Gas/BTEX Compounds by 8015M/8021

TRC Alton Geoscience- Irvine

Attn.: Anju Farfan

21 Technology Drive Irvine, CA 92718

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

Project: 41050001FA20

Conoco Phillips # 3538

Received: 03/02/2005 16:00

Site: 411 West Mac Arthur Blvd., Oakland

Legend and Notes

Result Flag

H2

Analyzed out of holding time.

Q6

The concentration reported reflect(s) individual or discrete unidentified peaks not matching a typical fuel pattern.

ConocoPhillips Chain Of Custody Record

STL-San Francisco

1220 Quarry Lane

Pleasanton, CA 94568

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS:

TANCINT ALLS

CONOCOPHILUPS Attn: Dec Butchinson 3511 South Harbor, Suite 200 ConecoPhillips Work Order Humber 475 77C501 ConscoPhillips Cost Object PAGE

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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.