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2010 AGWMR

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BUILDING A BETTER WORLD

March 2, 2011

RECEIVED OCD
2011 MAR -4 P 12:24

Mr. Glenn von Gonten
New Mexico Oil Conservation Division (NMOCD)
1220 South St., Francis Drive
Santa Fe, New Mexico 87505

RE: El Paso Tennessee Pipeline Company Pit Groundwater Remediation Sites 2010 Annual Reports

Dear Mr. Von Gonten:

MWH Americas, Inc., on behalf of El Paso Tennessee Pipeline Company (EPTPC), is submitting the enclosed 2010 Annual Reports for each of EPTPC's 21 remaining San Juan River Basin pit groundwater remediation sites. The reports present the 2010 sampling and product recovery data and include recommendations for 2011 activities at these sites.

The 2010 Annual Reports are divided into three volumes based on location type. The volumes are as follows:

Volume	Location Type
1	Federal Land
2	Non-Federal Land (Excl. Navajo Nation)
3	Navajo Nation

If you have any questions concerning the enclosed reports, please call either Ian Yanagisawa of EPTPC (713-420-7361) or myself (303-291-2276).

Sincerely,

Jed Smith
Project Manager

encl.

cc: Bill Freeman – NNEPA, Shiprock, NM (Volume 3 Only)
Bill Liese – BLM, Farmington, NM (Volume 1 Only)
Brandon Powell – NMOCD, Aztec, NM (Volumes 1, 2, and 3)
Ian Yanagisawa – EPTPC (Volumes 1, 2, and 3 - Electronic)

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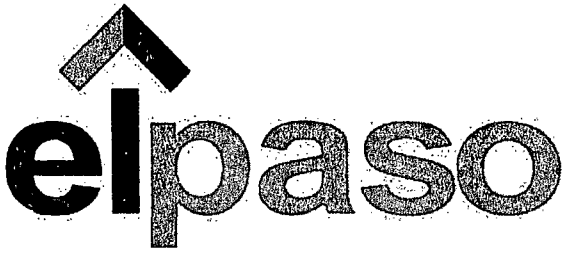

El Paso Tennessee
Pipeline Company

San Juan Basin Pit Program
Groundwater Sites Project

Final 2010 Annual Report
Federal Sites (Volume 1)

March 2011

MWH

1801 California Street, Suite 2900
Denver, Colorado 80202

2010 ANNUAL GROUNDWATER REPORT
FEDERAL SITES VOLUME I

EL PASO TENNESSEE PIPELINE COMPANY

TABLE OF CONTENTS

METER or LINE ID	NMOCD CASE NO.	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT
87640	3RP-155-0	Canada Mesa #2	24N	06W	24	I
89961	3RP-170-0	Fields A#7A	32N	11W	34	E
73220	3RP-068-0	Fogelson 4-1 Com. #14	29N	11W	4	P
89894	3RP-186-0	Hammond #41A	27N	08W	25	O
97213	3RP-190-0	Hamner #9	29N	09W	20	A
94715	3RP-196-0	James F. Bell #1E	30N	13W	10	P
89232	3RP-202-0	Johnston Fed #6A	31N	09W	35	F
LD072	3RP-204-0	K27 LD072	25N	06W	4	E
LD174	3RP-212-0	LAT L 40	28N	04W	13	H
LD151	3RP-213-0	Lat 0-21 Line Drip	30N	09W	12	O
94810	3RP-223-0	Miles Fed 1A	26N	07W	5	F
89620	3RP-235-0	Sandoval GC A #1A	30N	09W	35	C

* The Hamner #9 site was submitted for closure in January 2009 and is pending approval from NMOCD. There were no monitoring activities for this site in 2010.

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LIST OF ACRONYMS

AMSL	above mean sea level
B	benzene
btoc	below top of casing
E	ethylbenzene
EPTPC	El Paso Tennessee Pipeline Company
ft	foot/feet
GWEL	groundwater elevation
ID	identification
MW	monitor well
NMWQCC	New Mexico Water Quality Control Commission
T	toluene
TOC	top of casing
NA	not applicable
NMOCD	New Mexico Oil Conservation Division
NS	not sampled
ORC	oxygen-releasing compound
µg/L	micrograms per liter
X	total xylenes

LEGEND

- Sites on Federal Land
- Sites on Navajo Nation Land
- Sites on State/Fee "Non-Federal" Lands

*Closure Request Pending with the NMOCD.

N

0 2 4 6 8 Miles

MWH

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PROJECT: SAN JUAN RIVER BASIN

TITLE: Site Locations, February 2011

FIGURE: 1

EPTPC GROUNDWATER SITES
2010 ANNUAL GROUNDWATER REPORT

Johnston Fed #6A
Meter Code: 89232

SITE DETAILS

Legal Description:	**Town:**	31N	**Range:**	9W	**Sec:**	35	**Unit:** F
NMOCD Haz Ranking:	40	**Land Type:**	Federal	**Operator:**	ConocoPhillips		

PREVIOUS ACTIVITIES

Site Assessment:	8/94	**Excavation:**	9/94 (80cy)	**Soil Boring:**	8/95
Monitor Well:	8/95	**Geoprobe:**	NA	**Additional MWs:**	11/06
Downgradient MWs:	6/00	**Replace MW:**	NA	**Quarterly Initiated:**	4/96
ORC Nutrient Injection:	NA	**Re-Excavation:**	NA	**PSH Removal Initiated:**	7/97
Annual Initiated:	NA	**Quarterly Resumed:**	NA	**PSH Removal in 2010?**	Yes

SUMMARY OF 2010 ACTIVITIES

MW-1: Quarterly free-product recovery and water level monitoring were performed during 2010.

MW-2: Quarterly water level monitoring was performed during 2010.

MW-3: Annual groundwater sampling (February) and quarterly water level monitoring were performed during 2010.

MW-4: Quarterly water level monitoring was performed during 2010.

MW-5: Annual groundwater sampling (February) and quarterly water level monitoring were performed during 2010.

MW-6: Quarterly water level monitoring was performed during 2010.

Site-Wide Activities: No other activities were performed at this Site in 2010.

SITE MAP

A Site map (February) is attached as Figure 1.

EPTPC GROUNDWATER SITES
2010 ANNUAL GROUNDWATER REPORT

Johnston Fed #6A
Meter Code: 89232

SUMMARY TABLES AND GRAPHS

- Historic analytical and water level data are summarized in Table 1 and presented graphically in Figures 2 through 7. Where applicable, static water level elevations were corrected for measurable thicknesses of free-product (specific gravity of 0.8).
- Historic free-product recovery data are summarized in Table 2 and presented graphically in Figures 2, 4, and 6.
- The 2010 laboratory report is presented in Attachment 1 (included on CD).
- The 2010 field documentation is presented in Attachment 2 (included on CD).

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No subsurface activities were performed at this Site during 2010.

DISPOSITION OF GENERATED WASTES

All purge water was taken to the El Paso Natural Gas Rio Vista Compressor Station. Spent absorbent socks were managed as non-hazardous solid waste.

ISOCONCENTRATION MAPS

No isoconcentration maps were prepared for this Site; however, the attached Site map presents the analytical data collected during 2010, as well as a summary of product recovery volumes.

RESULTS

- The groundwater flow gradient is generally to the northeast.
- Free-product recovery efforts at MW-1 resulted in removal of approximately 1.04 gallons of free-product, bringing the cumulative total recovered to date to 10.89 gallons.
- The groundwater sample collected from MW-3 met the applicable NMWQCC standards for the second consecutive year.
- The groundwater sample collected from MW-5 also met the applicable NMWQCC standards for the second consecutive year.
- Downgradient monitor well MW-6 was not sampled in 2010 due to a casing blockage at the time of the annual sampling event. The blockage was not present during subsequent gauging events. This well has been sampled annually subsequent to its installation in November 2006; and the groundwater has met the NMWQCC standards each year.

Johnston Fed #6A
Meter Code: 89232

REMAINING CLOSURE REQUIREMENTS

- This site is being managed per the procedures set forth in the document entitled, "Remediation Plan for Groundwater Encountered During Pit Closure Activities" (El Paso Natural Gas Company / El Paso Field Services Company, 1995). This remediation plan was conditionally approved by the New Mexico Oil Conservation Division (OCD) in correspondence dated November 30, 1995; and the OCD approval conditions were adopted into El Paso's program methods.

- In order to meet the remaining closure requirements at this site, the following conditions must still be achieved:

    1. Recoverable free-product must be removed from the subsurface. Generally, this corresponds with an absence of measurable free-product in the monitor wells. Currently, product recovery efforts are still required at MW-1.

    2. Groundwater contaminant concentrations in the monitor wells must meet the NMWQCC standards for at least 4 consecutive quarters. Alternatively, concentrations must be reduced to below background levels; however, there are no established background concentrations for the remaining constituents of concern. Currently, all the monitor wells ultimately require additional monitoring. The remaining applicable standards are:

Constituent	NMWQCC GW Standard (µg/L)
Benzene	10
Toluene	750
Ethylbenzene	750
Total Xylenes	620

RECOMMENDATIONS

- EPTPC will continue quarterly free-product recovery efforts at MW-1; however, the frequency of these activities may be adjusted based on the observed product thicknesses and amounts recovered during the monitoring visits. MW-1 will also be added to the annual sampling list.

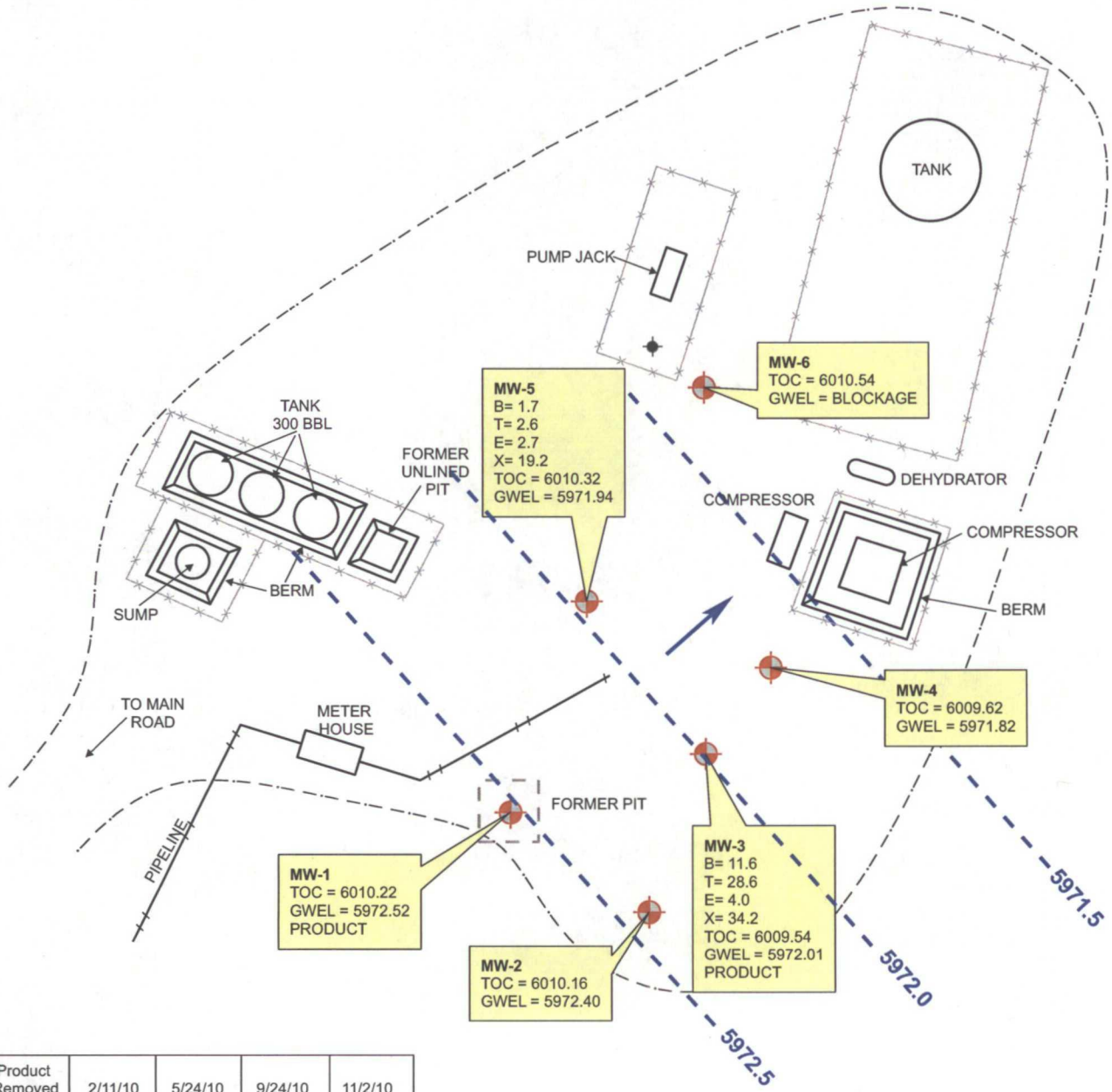
- BTEX concentrations in MW-2 were below closure standards for four sampling events (1997 – 2002); therefore, EPTPC will sample MW-2 again only at closure.

- EPTPC will continue to sample MW-3 annually and gauge the well quarterly to check for the re-appearance of free-product.

- BTEX concentrations in MW-4 were below closure standards for the last five sampling events (2003 – 2008); therefore, EPTPC will plan to sample MW-4 again only at closure.

- EPTPC will continue to sample MW-5 annually and gauge the well quarterly to check for the re-appearance of free-product.

- EPTPC will sample MW-6 annually. EPTPC may recommend discontinuing this sampling after one more annual event if BTEX concentrations remain below standards.



Product Removed (Gallons)	2/11/10	5/24/10	9/24/10	11/2/10
MW-1	0.23	0.23	0.23	0.34
MW-3	0.05	0.00	0.00	0.00

LEGEND

MW-4	Existing Monitoring / Observation Well	B	Benzene (ug/L)
→	Groundwater Flow Direction	T	Toluene (ug/L)
—1275—	Potentiometric Surface Contour (Inferred Where Dashed)	E	Ethylbenzene (ug/L)
ND	Not Detected; Reporting Limit Shown In Parenthesis	X	Total Xylenes (ug/L)
		TOC	Top of Casing (ft. AMSL)
		GWEL	Groundwater Elevation (ft. AMSL)

N

0 5 10 20 30 40 Feet

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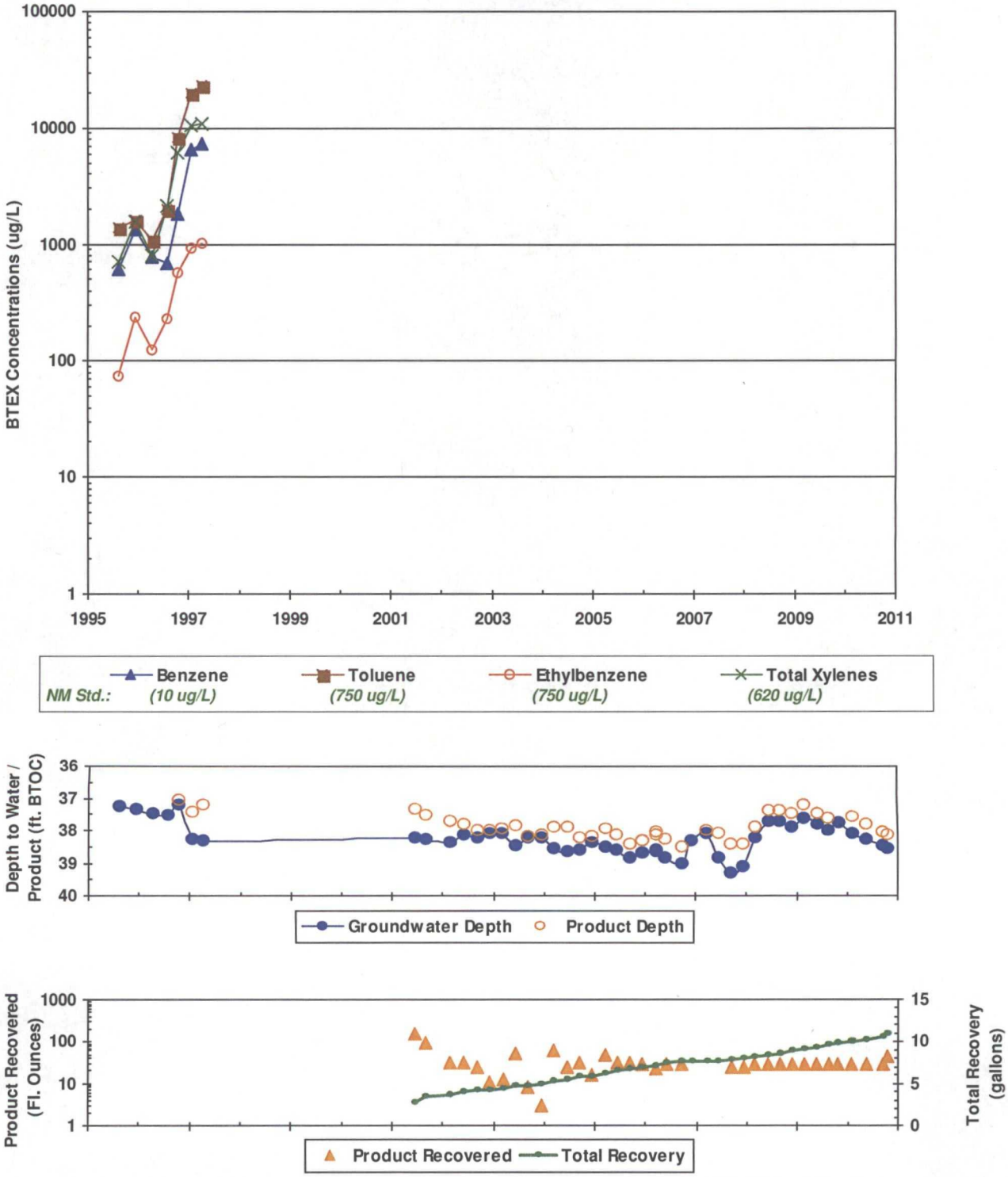
elpaso

PROJECT: JOHNSTON FEDERAL #6A

TITLE: Groundwater Potentiometric Surface Map, and BTEX Concentrations - February 17, 2010

FIGURE: 1

FIGURE 2
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
JOHNSTON FED #6A (METER #89232)
MW01



**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

FIGURE 3
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS AND FLUID LEVELS
JOHNSTON FED #6A (METER #89232)
MW02

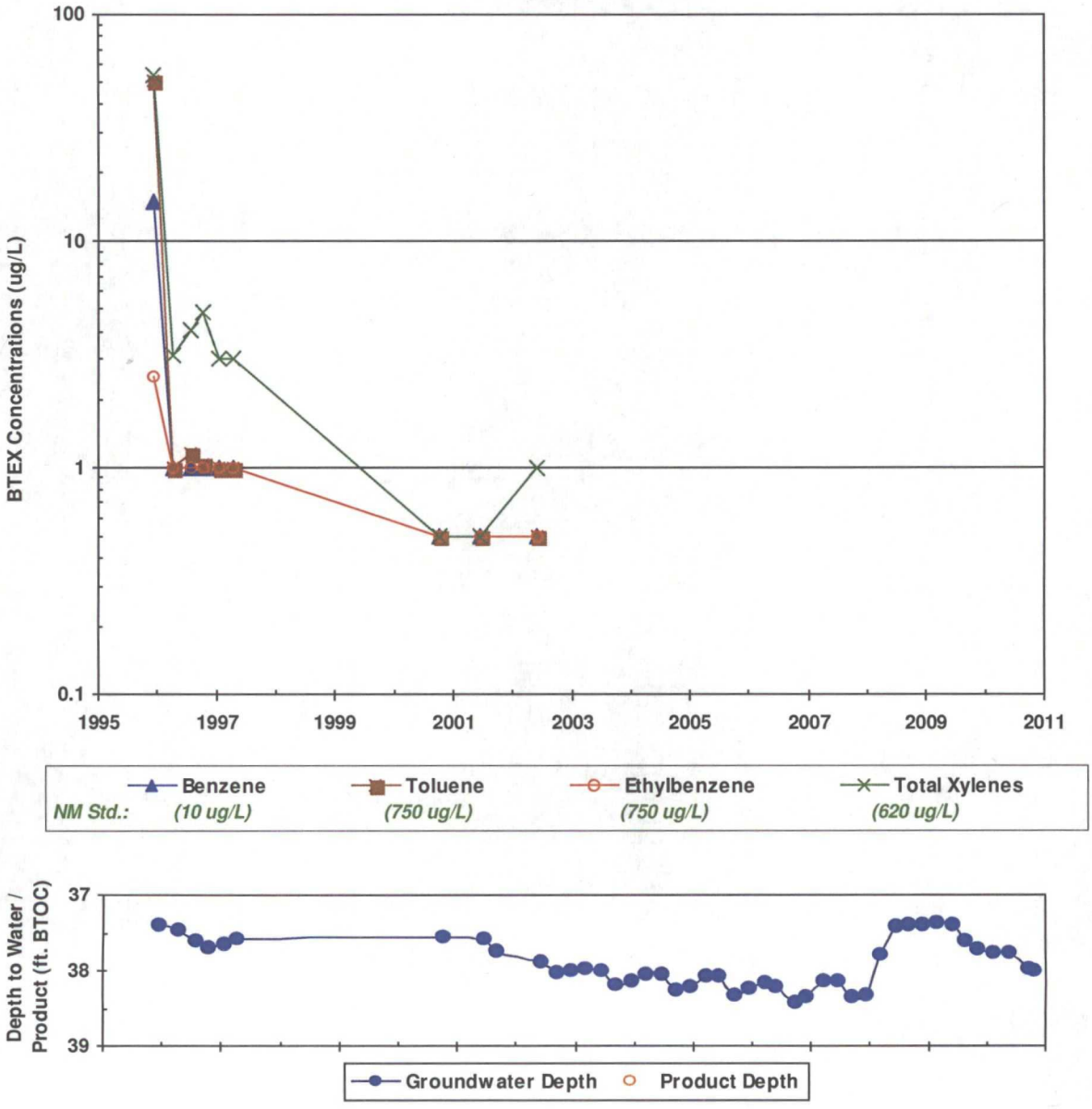
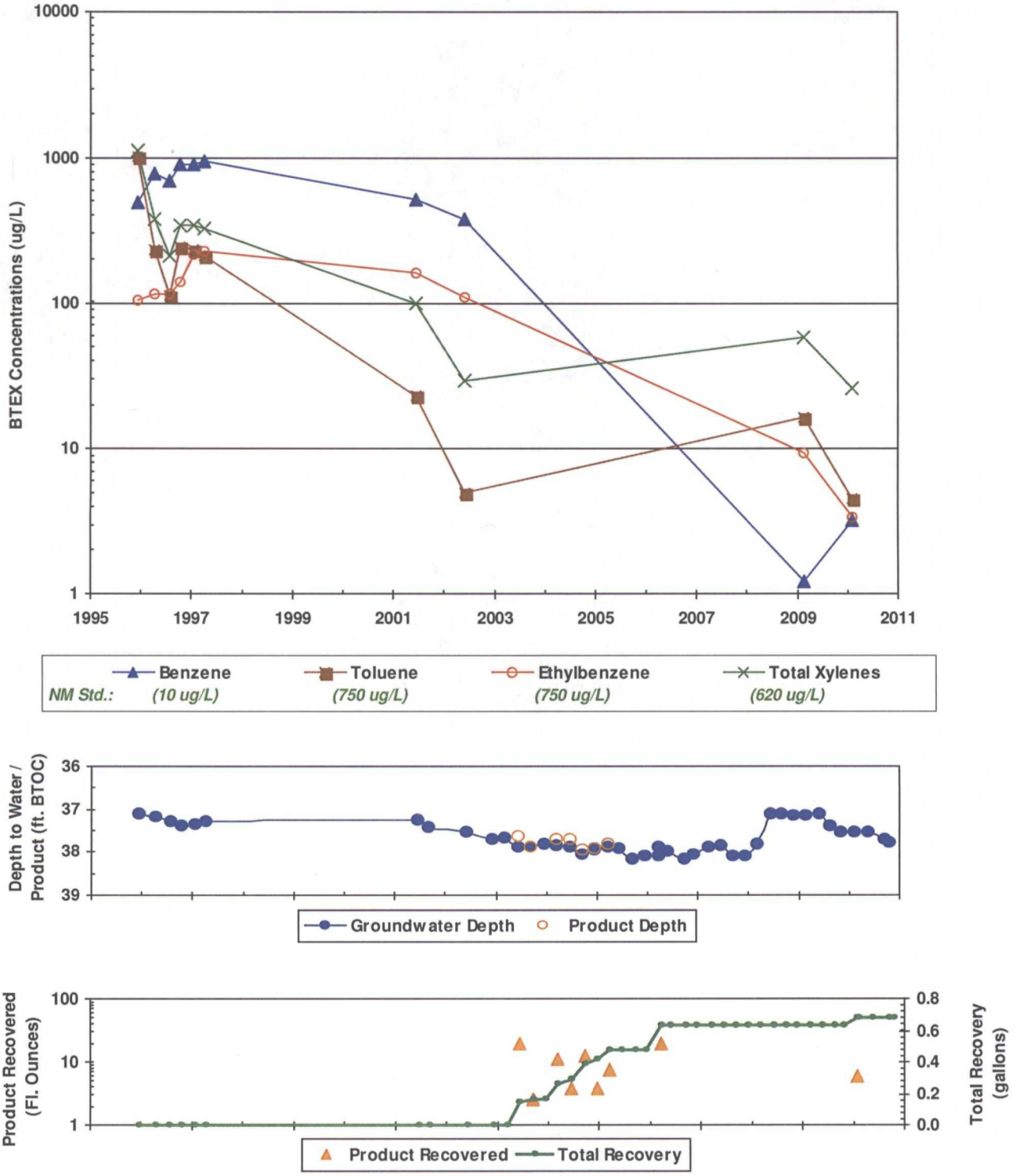


FIGURE 4
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
JOHNSTON FED #6A (METER #89232)
MW03



*In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.

FIGURE 5
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS AND FLUID LEVELS
JOHNSTON FED #6A (METER #89232)
MW04

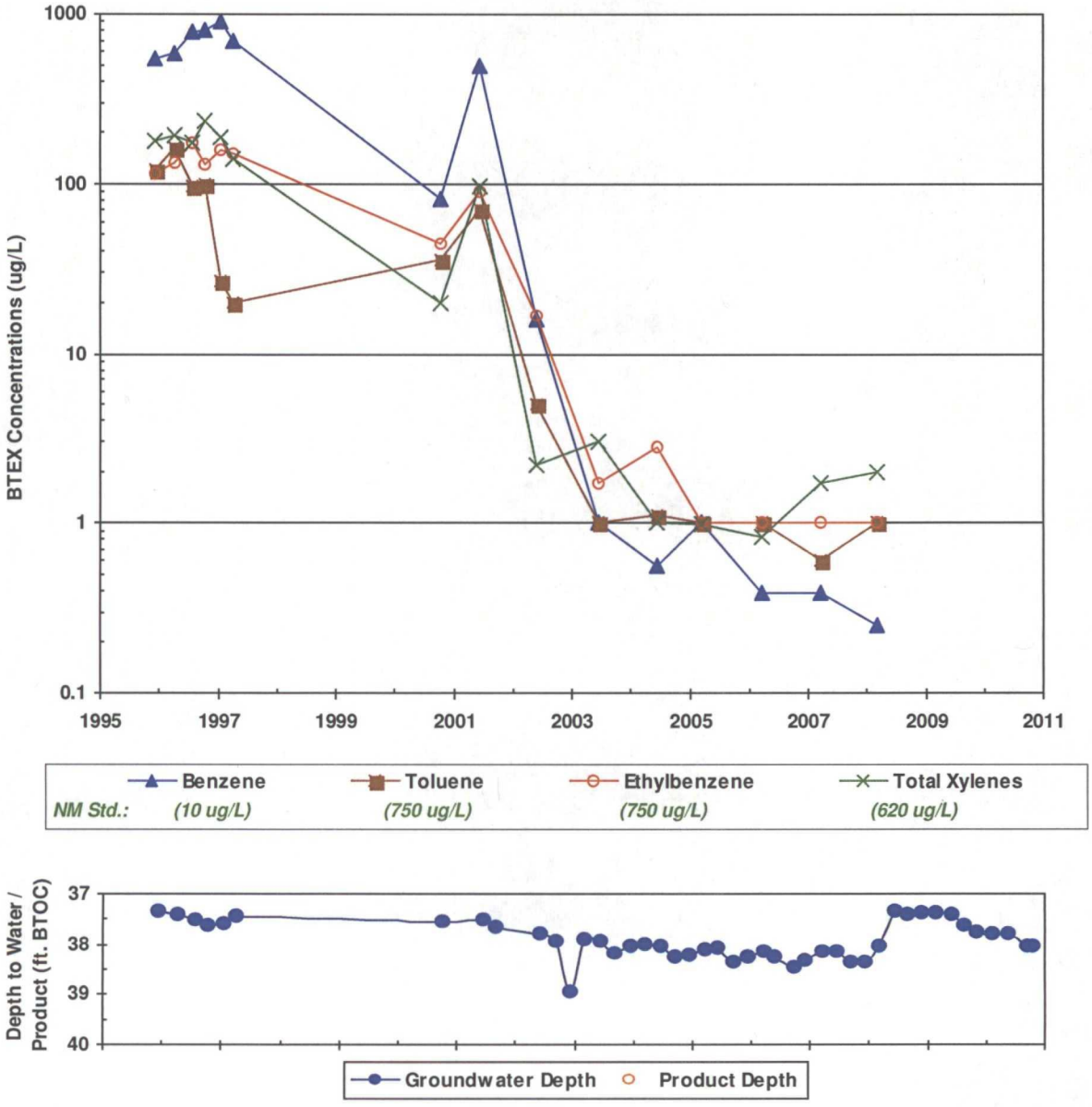
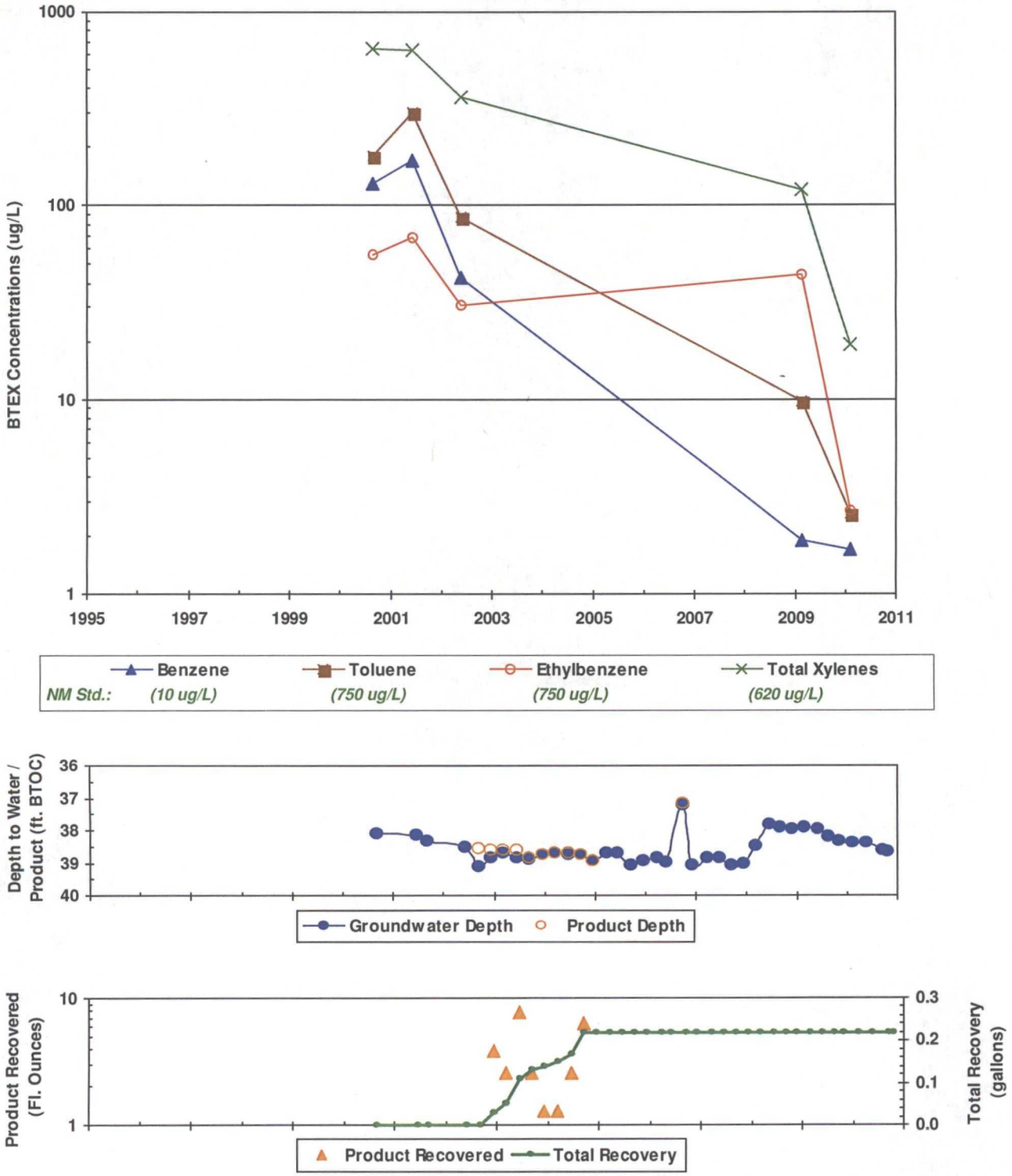


FIGURE 6
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
JOHNSTON FED #6A (METER #89232)
MW05



**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

FIGURE 7
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS AND FLUID LEVELS
JOHNSTON FED #6A (METER #89232)
MW06

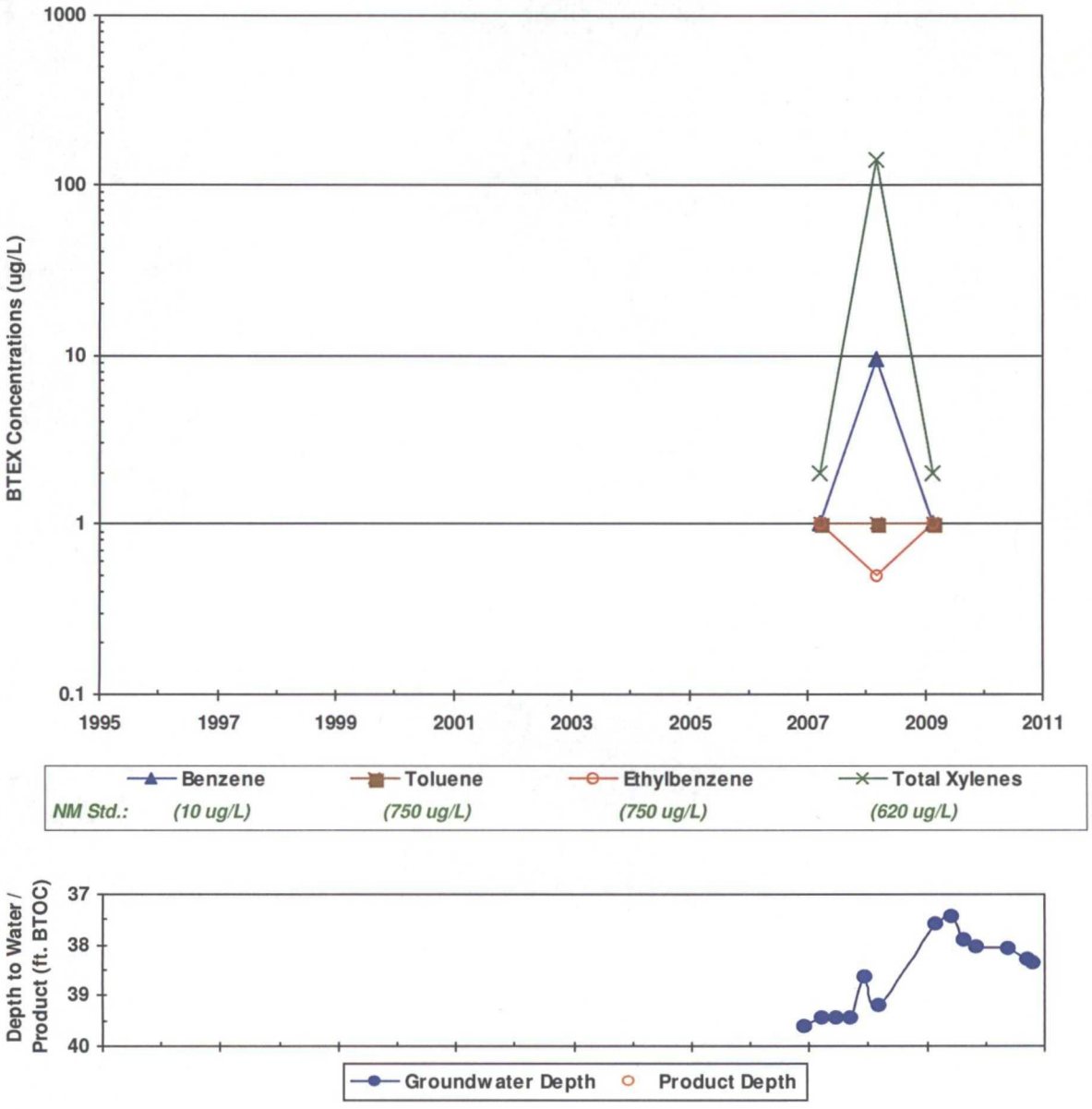


TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)

Monitor Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)	Corrected GW Elevation (ft AMSL)
NMWQCC GW Std.:		10	750	750	620		
MW01	8/10/1995	**605**	**1380**	74.6	**718**	37.24	5972.98
MW01	12/13/1995	**1330**	**1610**	235	**1540**	37.35	5972.87
MW01	4/11/1996	**775**	**1070**	124	**810**	37.48	5972.74
MW01	7/23/1996	**676**	**1980**	233	**2090**	37.55	5972.67
MW01	10/14/1996	**1790**	**8350**	580	**6200**	37.22	5973.12
MW01	1/22/1997	**6420**	**19800**	**934**	**10700**	38.26	5972.62
MW01	4/11/1997	**7310**	**23500**	**1010**	**10800**	38.31	5972.80
MW02	12/13/1995	**15.1**	50.8	<2.5	53.8	37.39	5972.77
MW02	4/11/1996	<1.0	<1.0	<1.0	3.13	37.47	5972.69
MW02	7/23/1996	<1.0	1.15	<1.0	4.06	37.60	5972.56
MW02	10/14/1996	<1.0	1.04	<1.0	4.85	37.70	5972.46
MW02	1/22/1997	<1.0	<1.0	<1.0	<3.0	37.66	5972.50
MW02	4/11/1997	<1.0	<1.0	<1.0	<3.0	37.58	5972.58
MW02	10/9/2000	<0.5	<0.5	<0.5	<0.5	37.56	5972.60
MW02	6/18/2001	<0.5	<0.5	<0.5	<0.5	37.58	5972.58
MW02	6/3/2002	<0.5	<0.5	<0.5	<1.0	37.88	5972.28
MW03	12/13/1995	**488**	**1020**	104	**1120**	37.11	5972.43
MW03	4/11/1996	**772**	231	113	379	37.17	5972.37
MW03	7/25/1996	**687**	112	115	209	37.30	5972.24
MW03	10/14/1996	**900**	240	140	340	37.40	5972.14
MW03	1/22/1997	**907**	234	215	340	37.35	5972.19
MW03	4/11/1997	**944**	209	223	322	37.29	5972.25
MW03	6/18/2001	**510**	23	160	98	37.26	5972.28
MW03	6/3/2002	**380**	<5.0	110	29	37.55	5971.99
MW03	3/5/2009	1.2	16.5	9.4	58.2	37.14	5972.40
MW03	2/17/2010	3.2	4.5	3.4	25.9	37.53	5972.01
MW04	12/13/1995	**545**	121	114	177	37.34	5972.28
MW04	4/11/1996	**591**	160	133	193	37.42	5972.20
MW04	7/25/1996	**793**	96.4	172	174	37.54	5972.08
MW04	10/14/1996	**800**	100	130	235	37.64	5971.98
MW04	1/22/1997	**899**	26.7	157	186	37.60	5972.02
MW04	4/11/1997	**703**	20.1	149	138	37.47	5972.15
MW04	10/9/2000	**81**	36	45	20	37.56	5972.06
MW04	6/18/2001	**490**	70	91	96	37.53	5972.09

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)

Monitor Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)	Corrected GW Elevation (ft AMSL)
NMWQCC GW Std.:		10	750	750	620		
MW04	6/3/2002	**16**	<5.0	17	2.2	37.80	5971.82
MW04	6/18/2003	<1.0	<1.0	1.7	<3.0	37.95	5971.67
MW04	6/22/2004	0.56J	1.1	2.8	<1.0	38.04	5971.58
MW04	3/23/2005	<1.0	<1.0	<1.0	0.99	38.11	5971.51
MW04	3/27/2006	0.39J	<1.0	<1.0	0.83J	38.16	5971.46
MW04	3/28/2007	0.39J	0.60J	<1.0	1.7J	38.16	5971.46
MW04	3/10/2008	0.25J	<1.0	<1.0	<2.0	38.05	5971.57
MW05	8/30/2000	**130**	180	56	**650**	38.11	5972.21
MW05	6/18/2001	**170**	300	68	**630**	38.13	5972.19
MW05	6/4/2002	**43**	87	31	360	38.51	5971.81
MW05	3/5/2009	1.9	9.8	44.0	120	37.93	5972.39
MW05	2/17/2010	1.7	2.6	2.7	19.2	38.38	5971.94
MW06	3/28/2007	<1.0	<1.0	<1.0	<2.0	39.43	5971.11
MW06	3/10/2008	9.4	<1.0	0.50J	139	39.21	5971.33
MW06	3/5/2009	<1.0	<1.0	<1.0	<2.0	37.61	5972.93

Notes:

Results shown in bold typeface exceed their respective New Mexico Water Quality Control Commission standards.

"J" = result is qualified as estimated. See laboratory report and/or supplemental data validation report for further detail.

"<" = analyte was not detected at the indicated reporting limit.

Static groundwater elevations have been corrected for product thickness where applicable. Specific gravity of 0.8 used.

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL
JOHNSTON FED #6A (METER #89232)

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW01	10/14/1996	37.07	37.22	0.15	NA	NA	5973.12
MW01	1/22/1997	37.43	38.26	0.83	NA	NA	5972.62
MW01	4/11/1997	37.20	38.31	1.11	NA	NA	5972.80
MW01	6/18/2001	37.34	38.21	0.87	1.25	2.75	5972.71
MW01	9/4/2001	37.54	38.27	0.73	0.75	3.50	5972.53
MW01	3/4/2002	37.74	38.35	0.61	0.25	3.75	5972.36
MW01	6/4/2002	37.81	38.14	0.33	0.25	4.00	5972.34
MW01	9/10/2002	38.00	38.24	0.24	0.20	4.20	5972.17
MW01	12/12/2002	38.01	38.11	0.10	0.08	4.28	5972.19
MW01	3/14/2003	37.95	38.08	0.13	0.10	4.38	5972.24
MW01	6/18/2003	37.88	38.47	0.59	0.40	4.78	5972.22
MW01	9/16/2003	38.17	38.25	0.08	0.06	4.84	5972.03
MW01	12/17/2003	38.13	38.23	0.10	0.02	4.87	5972.07
MW01	3/16/2004	37.90	38.57	0.67	0.47	5.33	5972.19
MW01	6/22/2004	37.90	38.65	0.75	0.19	5.52	5972.17
MW01	9/22/2004	38.21	38.60	0.39	0.25	5.77	5971.93
MW01	12/21/2004	38.20	38.38	0.18	0.13	5.90	5971.98
MW01	3/23/2005	37.95	38.50	0.55	0.39	6.29	5972.16
MW01	6/17/2005	38.13	38.62	0.49	0.25	6.54	5971.99
MW01	9/20/2005	38.40	38.83	0.43	0.25	6.79	5971.73
MW01	12/14/2005	38.31	38.72	0.41	0.23	7.02	5971.83
MW01	3/25/2006	38.15	38.66	0.51	0.17	7.19	5971.97
MW01	3/27/2006	38.05	38.62	0.57	--	7.19	5972.06
MW01	6/6/2006	38.29	38.84	0.55	0.22	7.41	5971.82
MW01	9/25/2006	38.51	39.01	0.50	0.22	7.63	5971.61
MW01	3/28/2007	38.02	38.09	0.07	--	7.63	5972.19
MW01	6/18/2007	38.09	38.86	0.77	--	7.63	5971.98
MW01	9/17/2007	38.40	39.32	0.92	0.19	7.82	5971.64
MW01	12/17/2007	38.42	39.13	0.71	0.19	8.01	5971.66
MW01	3/10/2008	37.90	38.24	0.34	0.22	8.22	5972.25
MW01	6/17/2008	37.38	37.71	0.33	0.23	8.45	5972.77
MW01	9/10/2008	37.41	37.72	0.31	0.23	8.68	5972.75
MW01	12/2/2008	37.51	37.89	0.38	0.23	8.91	5972.63
MW01	3/5/2009	37.20	37.63	0.43	0.23	9.15	5972.93

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL
JOHNSTON FED #6A (METER #89232)

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW01	6/2/2009	37.49	37.83	0.34	0.23	9.38	5972.66
MW01	8/28/2009	37.65	37.99	0.34	0.23	9.62	5972.50
MW01	11/4/2009	--	37.77	0.00	0.23	9.85	5972.45
MW01	2/11/2010	NA	NA	NA	0.23	10.09	NA
MW01	2/17/2010	37.60	38.11	0.51	--	10.09	5972.52
MW01	5/24/2010	37.81	38.27	0.46	0.23	10.32	5972.32
MW01	9/24/2010	38.05	38.46	0.41	0.23	10.55	5972.09
MW01	11/2/2010	38.16	38.55	0.39	0.33	10.89	5971.98
MW03	6/18/2003	37.63	37.87	0.24	0.15	0.15	5971.86
MW03	9/16/2003	37.87	37.88	0.01	0.02	0.17	5971.67
MW03	3/16/2004	37.72	37.85	0.13	0.09	0.26	5971.79
MW03	6/22/2004	37.72	37.88	0.16	0.03	0.29	5971.79
MW03	9/22/2004	37.96	38.07	0.11	0.10	0.39	5971.56
MW03	12/21/2004	37.93	37.96	0.03	0.03	0.42	5971.60
MW03	3/23/2005	37.80	37.88	0.08	0.06	0.48	5971.72
MW03	3/25/2006	--	38.09	0.00	0.15	0.63	5971.45
MW03	2/11/2010	NA	NA	NA	0.05	0.68	NA
MW05	9/10/2002	38.54	39.13	0.58	--	0.00	5971.66
MW05	12/12/2002	38.62	38.83	0.21	0.03	0.03	5971.66
MW05	3/14/2003	38.60	38.70	0.10	0.02	0.05	5971.70
MW05	6/18/2003	38.62	38.85	0.23	0.06	0.11	5971.65
MW05	9/16/2003	38.83	38.88	0.05	0.02	0.13	5971.48
MW05	12/17/2003	38.74	38.75	0.01	0.01	0.14	5971.58
MW05	3/16/2004	38.68	38.72	0.04	0.01	0.15	5971.63
MW05	6/22/2004	38.70	38.74	0.04	0.02	0.17	5971.61
MW05	9/22/2004	38.74	38.74	0.00	0.05	0.22	5971.58
MW05	12/21/2004	38.92	38.93	0.01	--	0.22	5971.40
MW05	9/25/2006	37.18	37.20	0.02	--	0.22	5973.14

Notes:

"--" indicates either that product was not measurably detected or that product was not recovered.

"NA" indicates that the respective data point is not available.

Groundwater elevations may not be static due to removal of equipment. Corrections for product thickness utilize SG of 0.8.