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2010 AGWMR

03/02/2011

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BUILDING A BETTER WORLD

March 2, 2011

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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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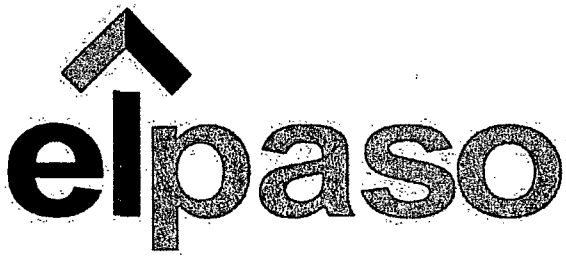

El Paso Tennessee
Pipeline Company

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.

0 2 4 6 8 Miles

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PROJECT: SAN JUAN RIVER BASIN

TITLE: Site Locations, February 2011

FIGURE: 1

EPTPC GROUNDWATER SITES
2010 ANNUAL GROUNDWATER REPORT

Miles Fed 1A
Meter Code: 94810

SITE DETAILS

Legal Description:	**Town:**	26N	**Range:**	7W	**Sec:**	5	**Unit:** F
NMOCD Haz Ranking:	40	**Land Type:**	Federal	**Operator:**		XTO	

PREVIOUS ACTIVITIES

Site Assessment:	5/94	**Excavation:**	6/94	**Soil Boring:**	9/95
Monitor Well:	9/95	**Geoprobe:**	2/97	**Additional MWs:**	10/99
Downgradient MWs:	10/99	**Replace MW:**	NA	**Quarterly Initiated:**	NA
ORC Nutrient Injection:	NA	**Re-Excavation:**	NA	**PSH Removal Initiated:**	2/99
Annual Initiated:	10/99	**Quarterly Resumed:**	NA	**PSH Removal in 2010?**	Yes

SUMMARY OF 2010 ACTIVITIES

MW-1: Annual groundwater sampling (June) and quarterly product recovery were performed during 2010.

MW-2: Annual groundwater sampling (June) and quarterly water level monitoring were performed during 2010.

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

Site-Wide Activities: The Site was inspected quarterly for hydrocarbon seeps. No seeps were detected.

SITE MAP

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

SUMMARY TABLES AND GRAPHS

- Historic analytical and water level data are summarized in Table 1 and presented graphically in Figures 2 through 4. 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 on Table 2 and presented graphically in Figure 2.

- 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 product recovery socks were disposed of as non-hazardous solid waste.

ISOCONCENTRATION MAPS

No isoconcentration maps were prepared for this Site; however, the attached Site map presents the analytical data and potentiometric surface contours from the June 2010 sampling event.

RESULTS

- The groundwater flow direction at this Site is toward the northeast.
- At MW-1, a total of 0.23 gallons of free-product was recovered in 2010. The cumulative total free-product recovered to date is approximately 12.61 gallons.
- The benzene and total xylenes concentrations in the MW-1 groundwater sample were 180 µg/L and 2,320 µg/L, respectively, both in excess of their NMWQCC standards. Toluene and ethylbenzene were detected, but were below their respective standards. Overall, it appears that benzene and toluene have attenuated by approximately one order of magnitude since 1996; while ethylbenzene and total xylenes have remained at steady levels. This pattern fits with the expected natural attenuation based on relative solubility and volatility.
- BTEX constituents were not detected in the MW-2 or MW-3 groundwater samples. These results are consistent with the historical data for these two wells.
- Site-wide decreases in BTEX concentrations provide evidence that natural attenuation is occurring at the Site. The residual free-product in the MW-1 area (i.e., beneath the former pit) appears to be highly weathered and of minimal thickness and saturation.
- No seeps along the well pad slopes were noted during 2010.

EPTPC GROUNDWATER SITES
2010 ANNUAL GROUNDWATER REPORT

Miles Fed 1A
Meter Code: 94810

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 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, monitor well MW-1 requires additional monitoring. The remaining applicable standards are:

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

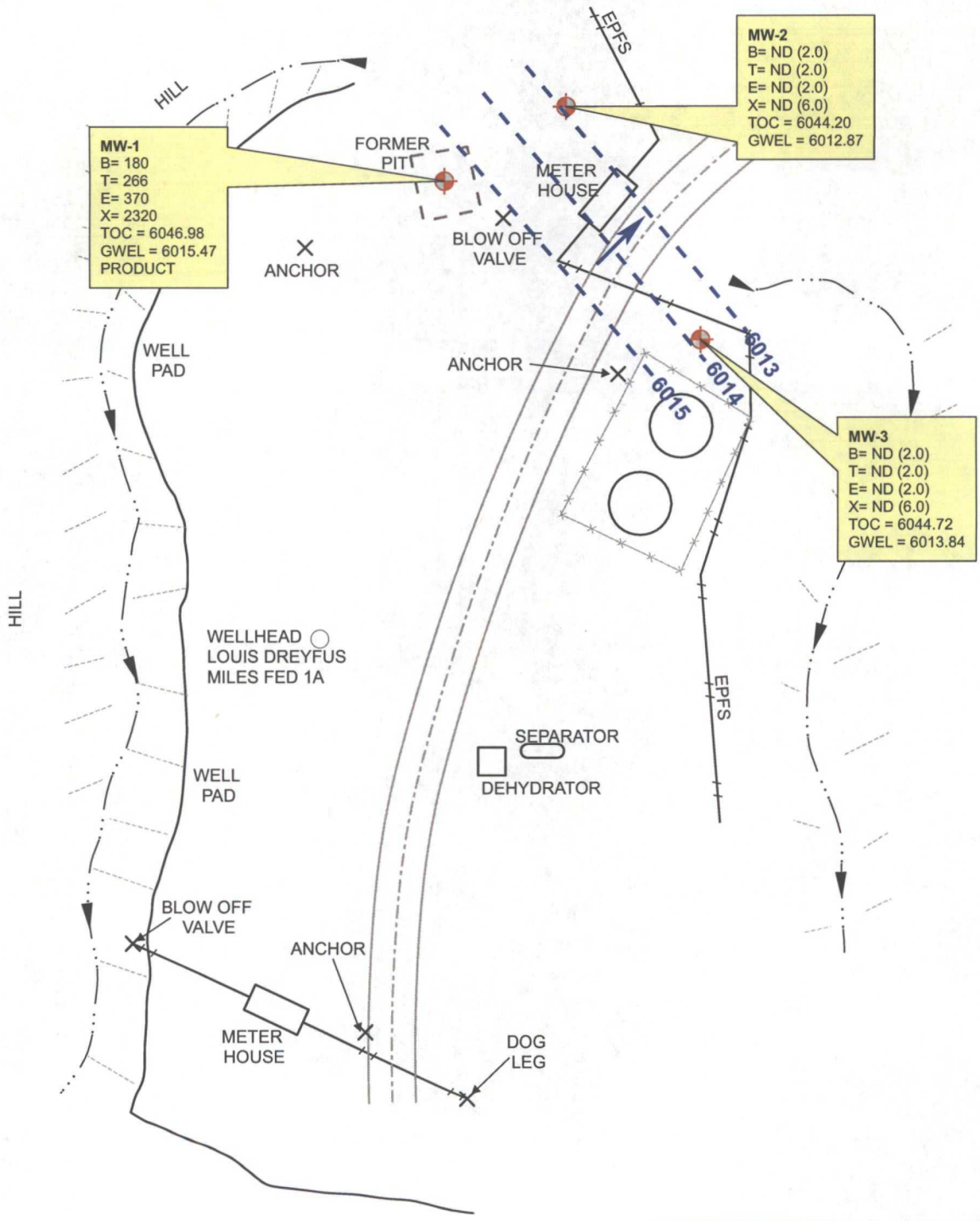
RECOMMENDATIONS

- On a quarterly basis, EPTPC will gauge water levels at the Site and inspect the well pad slopes for evidence of seeps. If free-product is observed, recovery activities will be re-initiated. If a seep is found, photographic documentation will be made and the seep will be sampled.

- EPTPC will continue quarterly free-product recovery at MW-1, and sampling will be conducted on an annual basis until sample results meet the closure criteria. The well will then be scheduled for quarterly sampling until closure criteria are met.

- MW-2 will be sampled annually in conjunction with MW-1. This well is located downgradient of MW-1 and provides valuable plume delineation data.

- EPTPC recommends discontinuing sampling at MW-3. This well has been clean historically and will be sampled again only when closure sampling is conducted.



Product Removed (Gallons)	2/16/10	5/24/10	9/27/10	11/1/10
MW-1	0.08	0.04	0.06	0.05

LEGEND

MW-4	Existing Monitoring / Observation Well
	Drainage
	Groundwater Flow Direction
1275	Potentiometric Surface Contour (Inferred Where Dashed)
ND	Not Detected; Reporting Limit Shown In Parenthesis

B	Benzene (ug/L)
T	Toluene (ug/L)
E	Ethylbenzene (ug/L)
X	Total Xylenes (ug/L)
TOC	Top of Casing (ft. AMSL)
GWEL	Groundwater Elevation (ft. AMSL)

Not To Scale

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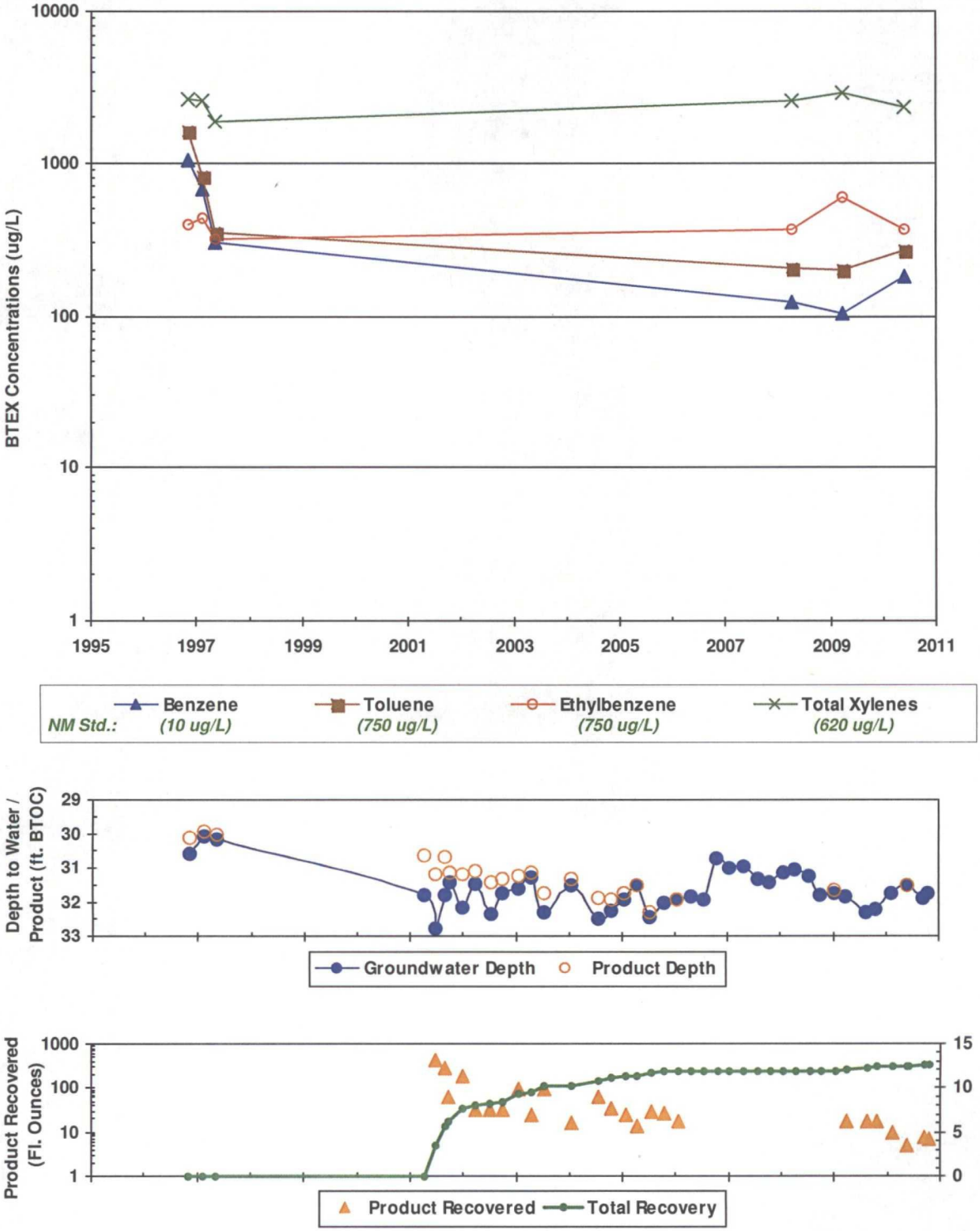
PROJECT: MILES FEDERAL #1A

TITLE: Groundwater Potentiometric Surface Map, and BTEX Concentrations - June 2, 2010

FIGURE: 1

FIGURE 2
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
MILES FED 1A (METER #94810)
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
MILES FED 1A (METER #94810)
MW02

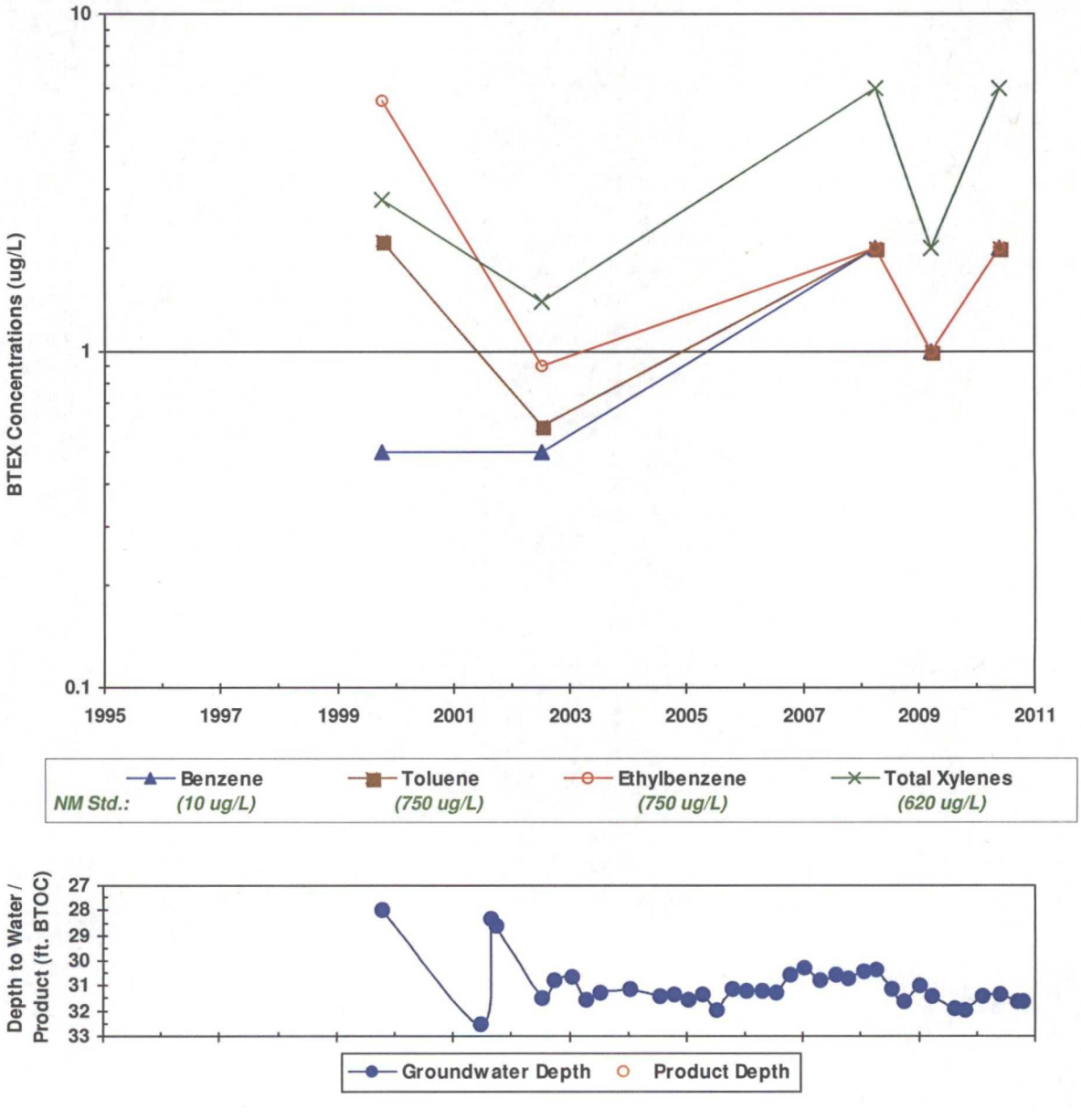


FIGURE 4
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS AND FLUID LEVELS
MILES FED 1A (METER #94810)
MW03

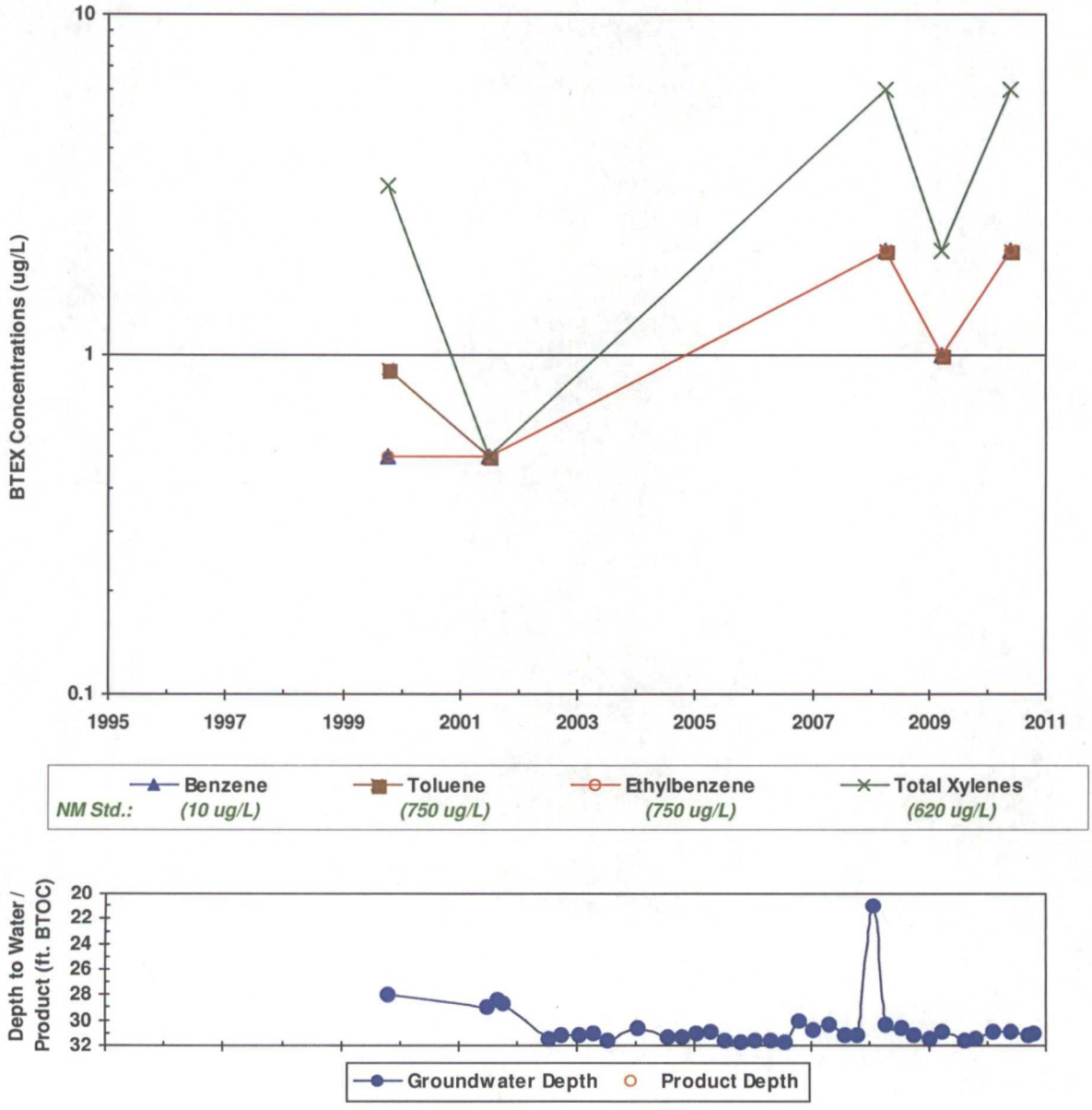


TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
MILES FED 1A (METER #94810)

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	11/5/1996	**1050**	**1630**	391	**2620**	30.58	6016.78
MW01	2/7/1997	**671**	**809**	439	**2550**	30.05	6017.04
MW01	5/6/1997	**300**	350	320	**1880**	30.18	6016.91
MW01	4/17/2008	**122**	203	369	**2550**	31.04	6015.94
MW01	4/6/2009	**104**	199	596	**2870**	31.82	6015.16
MW01	6/2/2010	**180**	266	370	**2320**	31.53	6015.47
MW02	10/15/1999	<0.5	2.1	5.5	2.8	27.97	6016.23
MW02	7/15/2002	<0.5	0.6	0.9	1.4	31.46	6012.74
MW02	4/17/2008	<2.0	<2.0	<2.0	<6.0	30.36	6013.84
MW02	4/6/2009	<1.0	<1.0	<1.0	<2.0	31.40	6012.80
MW02	6/2/2010	<2.0	<2.0	<2.0	<6.0	31.33	6012.87
MW03	10/15/1999	<0.5	0.9	<0.5	3.1	27.92	6016.80
MW03	7/3/2001	<0.5	<0.5	<0.5	<0.5	28.97	6015.75
MW03	4/17/2008	<2.0	<2.0	<2.0	<6.0	30.36	6014.36
MW03	4/6/2009	<1.0	<1.0	<1.0	<2.0	30.93	6013.79
MW03	6/2/2010	<2.0	<2.0	<2.0	<6.0	30.88	6013.84

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
MILES FED 1A (METER #94810)

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	11/5/1996	30.10	30.58	0.48	--	0.00	6016.78
MW01	2/7/1997	29.91	30.05	0.14	--	0.00	6017.04
MW01	5/6/1997	30.04	30.18	0.14	--	0.00	6016.91
MW01	4/11/2001	30.61	31.81	1.20	--	0.00	6016.13
MW01	7/3/2001	31.18	32.76	1.58	3.50	3.50	6015.48
MW01	9/4/2001	30.68	31.80	1.12	2.25	5.75	6016.08
MW01	10/1/2001	31.16	31.41	0.25	0.50	6.25	6015.77
MW01	1/2/2002	31.20	32.17	0.97	1.50	7.75	6015.59
MW01	4/1/2002	31.09	31.45	0.36	0.25	8.00	6015.82
MW01	7/15/2002	31.43	32.35	0.92	0.25	8.25	6015.37
MW01	10/8/2002	31.33	31.73	0.40	0.25	8.50	6015.57
MW01	1/27/2003	31.21	31.59	0.38	0.75	9.25	6015.69
MW01	4/26/2003	31.16	31.30	0.14	0.20	9.45	6015.79
MW01	7/17/2003	31.73	32.31	0.58	0.75	10.20	6015.13
MW01	1/19/2004	31.32	31.49	0.17	0.13	10.33	6015.63
MW01	7/27/2004	31.89	32.47	0.58	0.50	10.83	6014.97
MW01	10/20/2004	31.95	32.24	0.29	0.27	11.10	6014.97
MW01	1/25/2005	31.75	31.91	0.16	0.19	11.29	6015.20
MW01	4/14/2005	31.52	31.52	0.00	0.11	11.40	6015.46
MW01	7/19/2005	32.32	32.43	0.11	0.23	11.63	6014.64
MW01	10/21/2005	--	32.02	0.00	0.21	11.84	6014.96
MW01	1/23/2006	31.92	31.93	0.01	0.14	11.98	6015.06
MW01	1/16/2009	31.66	31.74	0.08	--	11.98	6015.30
MW01	4/6/2009	--	31.82	0.00	0.13	12.11	6015.16
MW01	8/25/2009	--	32.30	0.00	0.13	12.25	6014.68
MW01	11/2/2009	--	32.20	0.00	0.13	12.38	6014.78
MW01	2/16/2010	--	31.74	0.00	0.08	12.46	6015.24
MW01	5/24/2010	NA	NA	NA	0.04	12.50	NA
MW01	6/2/2010	31.50	31.53	0.03	--	12.50	6015.47
MW01	9/27/2010	--	31.89	0.00	0.06	12.55	6015.09
MW01	11/1/2010	--	31.76	0.00	0.05	12.61	6015.22

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL
MILES FED 1A (METER #94810)

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)

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.