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ANNUAL
MONITORING
REPORT

04/02/2008



MWH

BUILDING A BETTER WORLD

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April 2, 2008

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
2007 Annual Reports**

Dear Mr. Von Gonten:

MWH Americas, Inc., on behalf of El Paso Tennessee Pipeline Company (EPTPC), is submitting the enclosed 2007 Annual Reports for each of EPTPC's 21 remaining San Juan River Basin pit groundwater remediation Sites. The reports present the 2007 sampling and product recovery data and include recommendations for 2008 activities at these Sites.

Copies of the reports for Sites located on Federal or Navajo lands are also being sent under separate cover to the Bureau of Land Management and the Navajo Nation Environmental Protection Agency.

If you have any questions concerning the enclosed reports, please call either Nancy Prince of EPTPC (719-520-4690) or me (303-291-2276).

Sincerely,

Jed Smith
Project Manager

cc: Brandon Powell – NMOCD, Aztec, NM
Nancy Prince – EPTPC
MWH Project File

**2007 ANNUAL GROUNDWATER REPORT
FEDERAL SITES VOLUME I
EL PASO TENNESSEE PIPELINE COMPANY**

TABLE OF CONTENTS

METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT	
89961	Fields A#7A	32N	11W	34	E	3R170
89232	Johnston Fed #6A	31N	09W	35	F	3R202
94715	James F. Bell #1E	30N	13W	10	P	3R196
89620	Sandoval GC A #1A	30N	09W	35	C	3R235
LD151	Lat 0-21 Line Drip	30N	09W	12	O	3R213
73220	Fogelson 4-1 Com. #14	29N	11W	4	P	3R068
97213	Hamner #9	29N	09W	20	A	3R190
LD174	LAT L 40	28N	04W	13	H	3R212
89894	Hammond #41A	27N	08W	25	O	3R186
94810	Miles Fed 1A	26N	07W	5	F	3R223
LD072	K27 LD072	25N	06W	4	E	3R204
87640	Canada Mesa #2	24N	06W	24	I	3R155
70194	Johnston Fed #4	31N	09W	33	H	3R201



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EPTPC GROUNDWATER SITES
2007 ANNUAL GROUNDWATER REPORT

3R190

Hamner #9
Meter Code: 97213

SITE DETAILS

Legal Description:	Town:	29N	Range:	9W	Sec:	20	Unit:	A
NMOCD Haz Ranking:	30	Land Type:	Federal	Operator:	BP / Amoco Production Company			

PREVIOUS ACTIVITIES

Site Assessment:	5/94	Excavation:	5/94	Soil Boring:	8/95
Monitor Well:	8/95	Geoprobe:	8/96	Additional MWs:	9/99
Downgradient MWs:	9/99	Replace MW:	NA	Quarterly Initiated:	11/96
ORC Nutrient Injection:	11/02	Re-Excavation:	NA	PSH Removal Initiated:	NA
Annual Initiated:	8/00	Quarterly Resumed:	NA	PSH Removal in 2007?	No

SUMMARY OF 2007 ACTIVITIES

MW-1: Quarterly groundwater sampling was performed in February, May, August, and November 2007.

MW-2: Quarterly water level monitoring was performed in February, May, August, and November 2007.

MW-3: This well is damaged, and monitoring was not performed in 2007.

MW-4: Quarterly groundwater sampling was performed in August and November 2007.

Site-Wide Activities: All wells were surveyed in January 2007.

SITE MAP

Site maps (February, May, August, November 2007) are attached in Figures 1, 2, 3, and 4.

SUMMARY TABLES AND GRAPHS

- Analytical data for the Site are summarized in Table 1 and presented graphically on Figures 5 through 8.
- Laboratory reports are presented in Attachment 1 (included on CD).

**EPTPC GROUNDWATER SITES
2007 ANNUAL GROUNDWATER REPORT**

**Hamner #9
Meter Code: 97213**

- 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 2007.

DISPOSITION OF GENERATED WASTES

All purge water was taken to the El Paso Natural Gas Rio Vista Compressor Station.

ISOCONCENTRATION MAPS

No isoconcentration maps were prepared for this Site; however, the attached Site maps present both the groundwater level and analytical data collected during 2007.

CONCLUSIONS

- The groundwater flow direction at this Site is to the west, based on water level data collected during 2007. This conclusion is supported somewhat by the fact that low level BTEX detections have been observed in MW-4 (located west of the former pit), while MW-2 (southwest of pit) and MW-3 (south of pit) have never had BTEX detections.
- Analytical results from samples collected at MW-1 indicate that benzene concentrations remained relatively consistent with concentrations of 14.8 µg/L, 12.5 µg/L, 10.1 µg/L and 5.7 µg/L in February, May, August, and November 2007 respectively, down from a high concentration of 559 µg/L in 1996. The November benzene concentration was below the NMWQCC standard.
- Ethylbenzene, toluene, and total xylenes concentrations at MW-1 were below NMWQCC standards in 2007.
- MW-2 was dry during all four monitoring events in 2007.
- The groundwater samples collected from MW-4 in 2007 were clean (no detection for BTEX compounds).

RECOMMENDATIONS

- EPTPC will continue to sample MW-1 quarterly. The well will be sampled until BTEX concentrations are below NMWQCC standards for four consecutive quarters, at which time this Site will be submitted for closure.
- EPTPC will perform water level monitoring at MW-2 in conjunction with the sampling events at MW-1. Because four consecutive annual sampling events at MW-2 and MW-3 indicated BTEX concentrations below detection limits (1999 –

**EPTPC GROUNDWATER SITES
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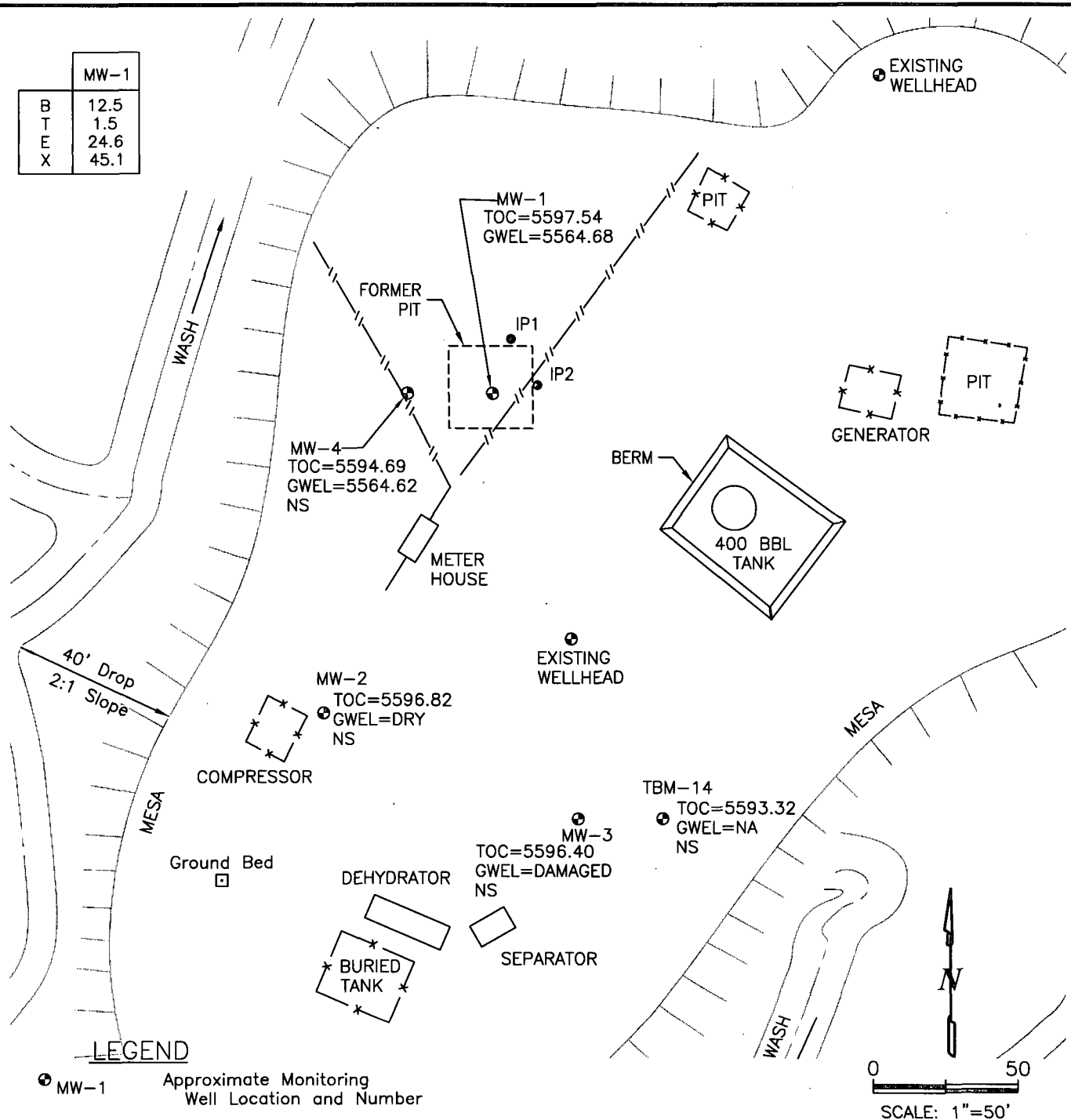
**Hamner #9
Meter Code: 97213**

2002), EPTPC recommends that these wells be sampled at closure only.

- EPTPC will sample MW-4 quarterly until BTEX concentrations have been shown to be below NMWQCC standards for four consecutive quarters.

B
T
E
X

	MW-1
B	12.5
T	1.5
E	24.6
X	45.1



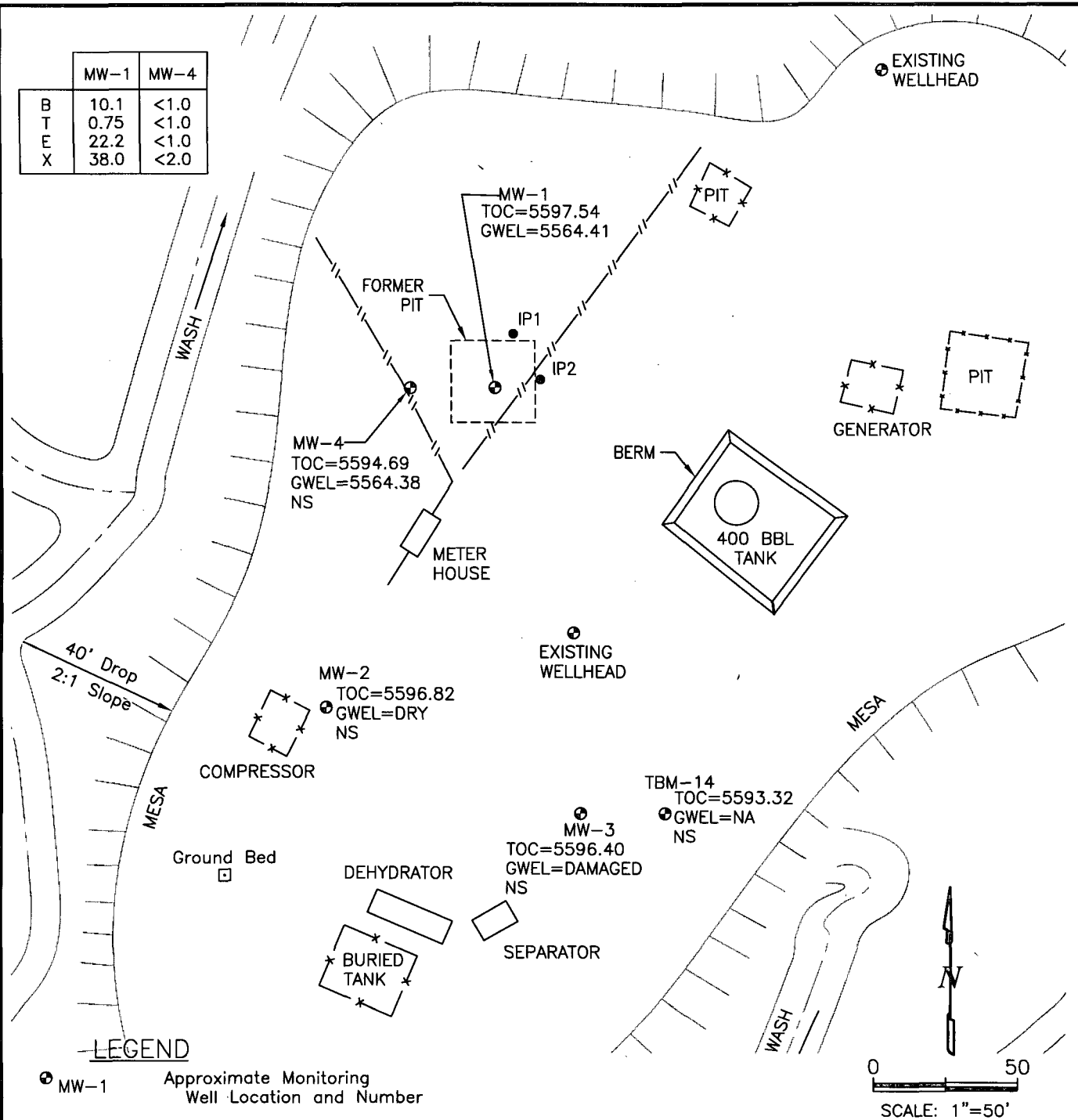
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0	Issued for Report	08/07	D. Wade	N.Day	J.Smith
REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
PROJECT No.: 1005521.0106					
AutoCAD FILE: hamner9					
SCALE: As Shown					
FIGURE No: 2					



EL PASO TENNESSEE PIPELINE COMPANY
HAMNER #9, METER 97213

**GROUNDWATER POTENTIOMETRIC SURFACE
ELEVATIONS AND BTEX CONCENTRATIONS
MAY 2007**

	MW-1	MW-4
B	10.1	<1.0
T	0.75	<1.0
E	22.2	<1.0
X	38.0	<2.0



1	Issued for Report	D.Wade	N.Day	J.Smith	
0	Issued for Report	08/07	D. Wade	N.Day	J.Smith
REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
PROJECT No.: 1005521.0106					
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SCALE: As Shown					
FIGURE No: 3					




EL PASO TENNESSEE PIPELINE COMPANY
HAMNER #9, METER 97213

GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS AND BTEX CONCENTRATIONS AUGUST 2007

B
T
E
X



-----	Road
- - - x - - - x - - -	Fence Line
///-----///	Pipe Line
● IP-1	ORC Injection points.(November 2002)
B	BENZENE (µg/L)
T	TOLUENE (µg/L)
E	ETHYLBENZENE (µg/L)
X	XYLENES (TOTAL) (µg/L)

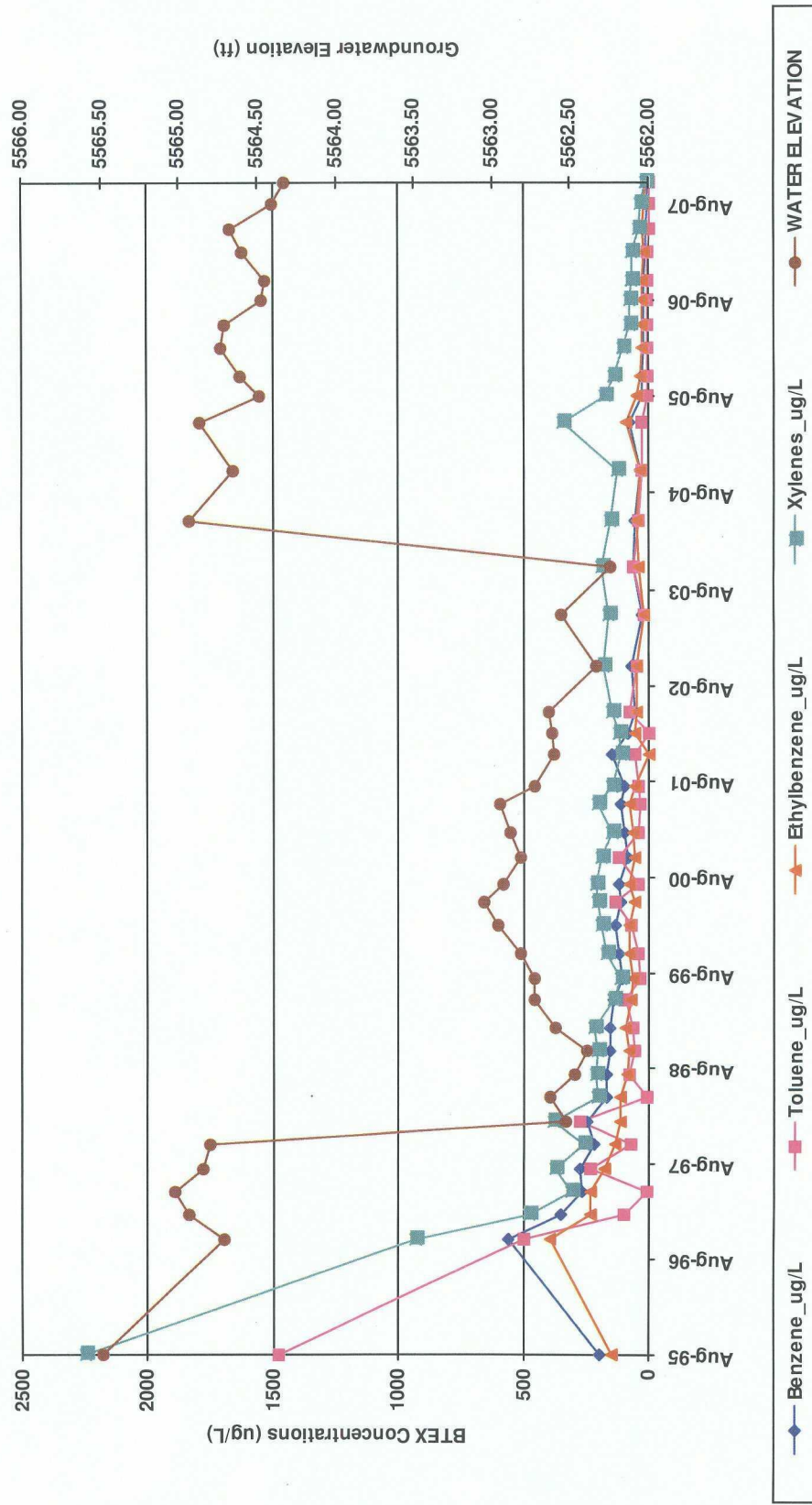
6566.0	Potentiometric Surface (Inferred where Dashed)
	Direction of Groundwater Flow
GWEL	Groundwater Elevation (Feet Above Mean Sea Level Unless Otherwise Noted)
TOC	Top of Casing
NS	Not Sampled



EL PASO TENNESSEE PIPELINE COMPANY
HAMNER #9, METER 97213

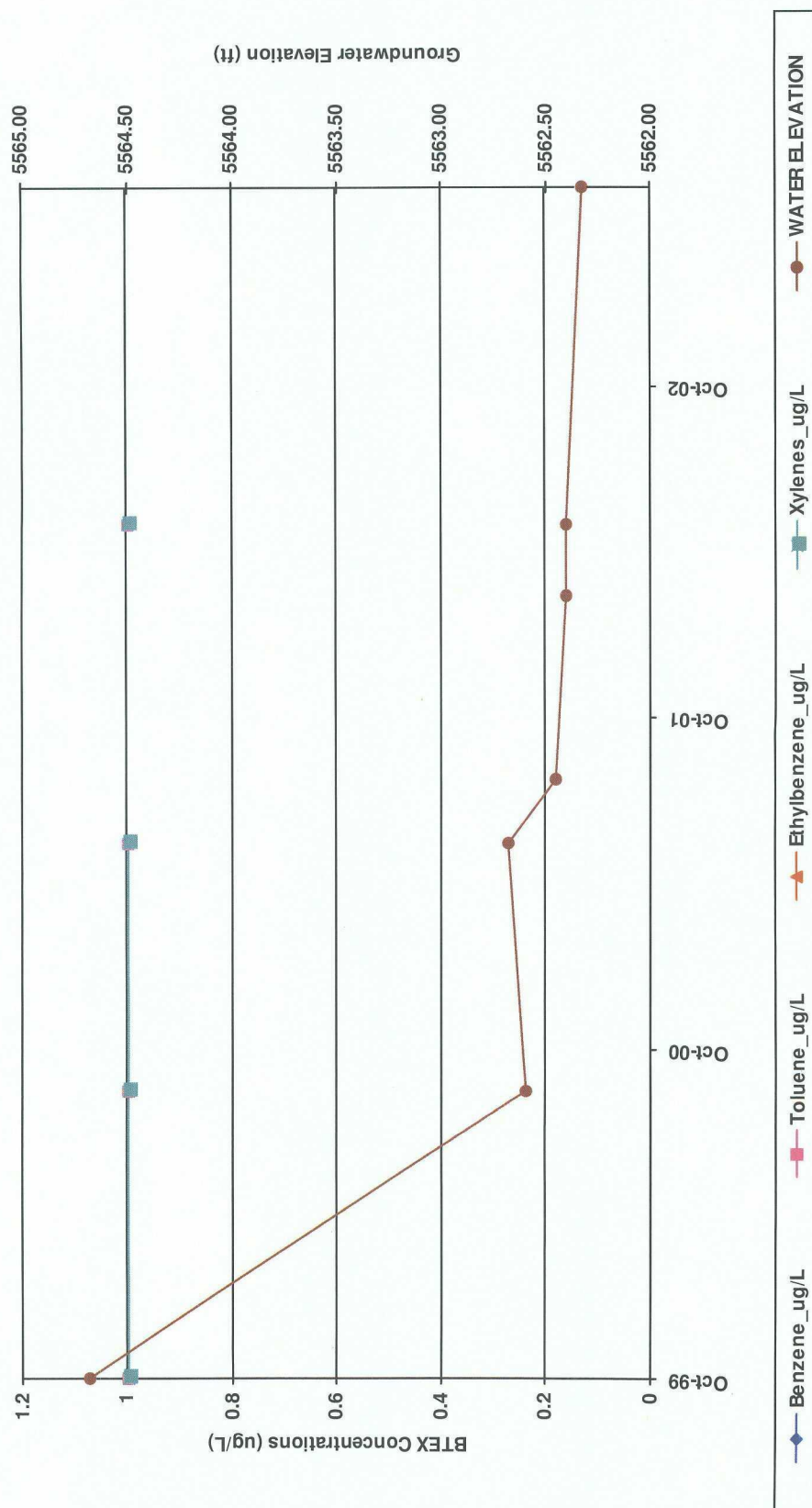
**GROUNDWATER POTENTIOMETRIC SURFACE
ELEVATIONS AND BTEX CONCENTRATIONS
NOVEMBER 2007**

FIGURE 5
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMNER #9 (METER #97213)
MW01



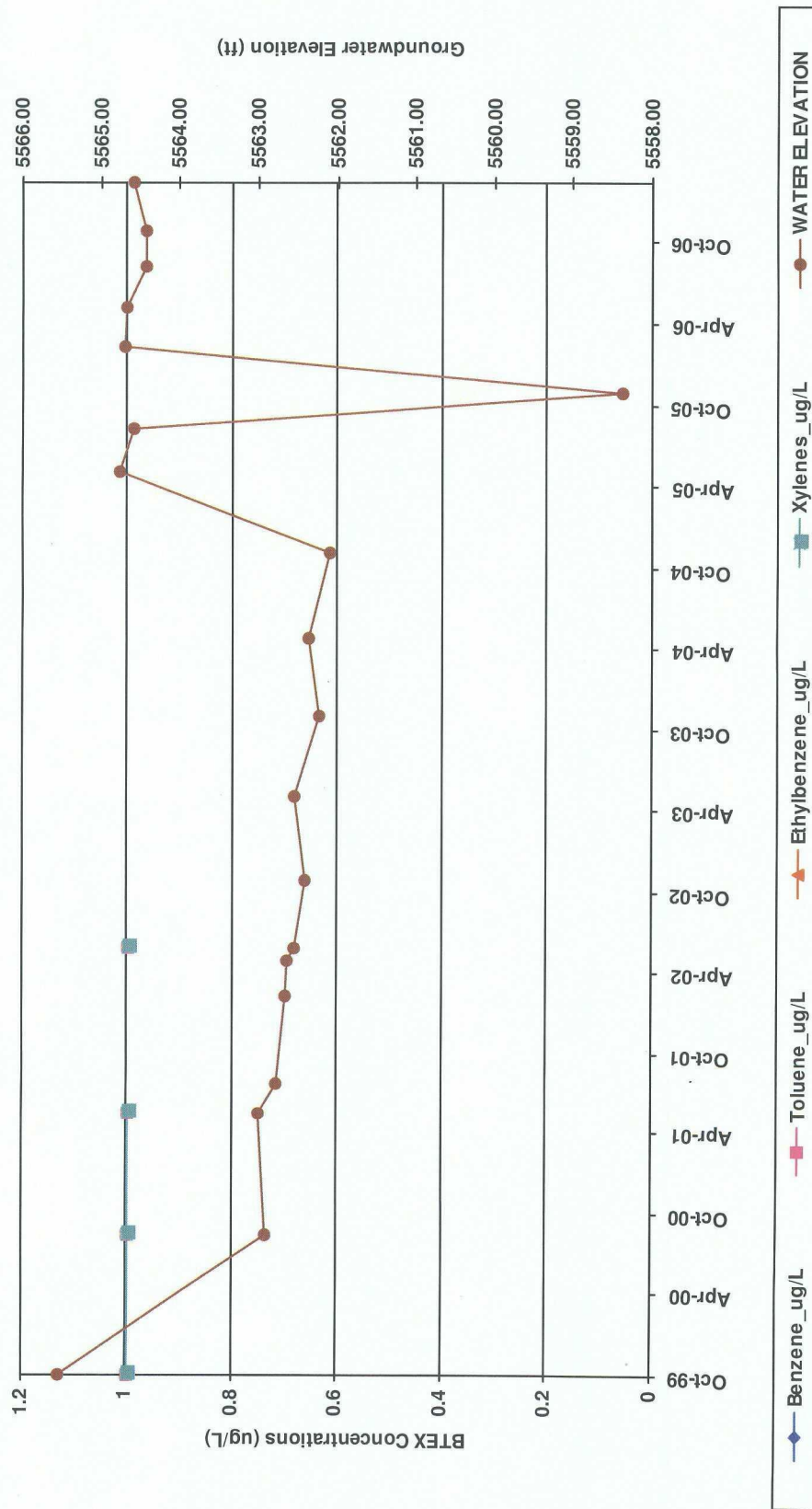
Note: Non Detects are represented by a value of 1.

FIGURE 6
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMNER #9 (METER #97213)
MW02



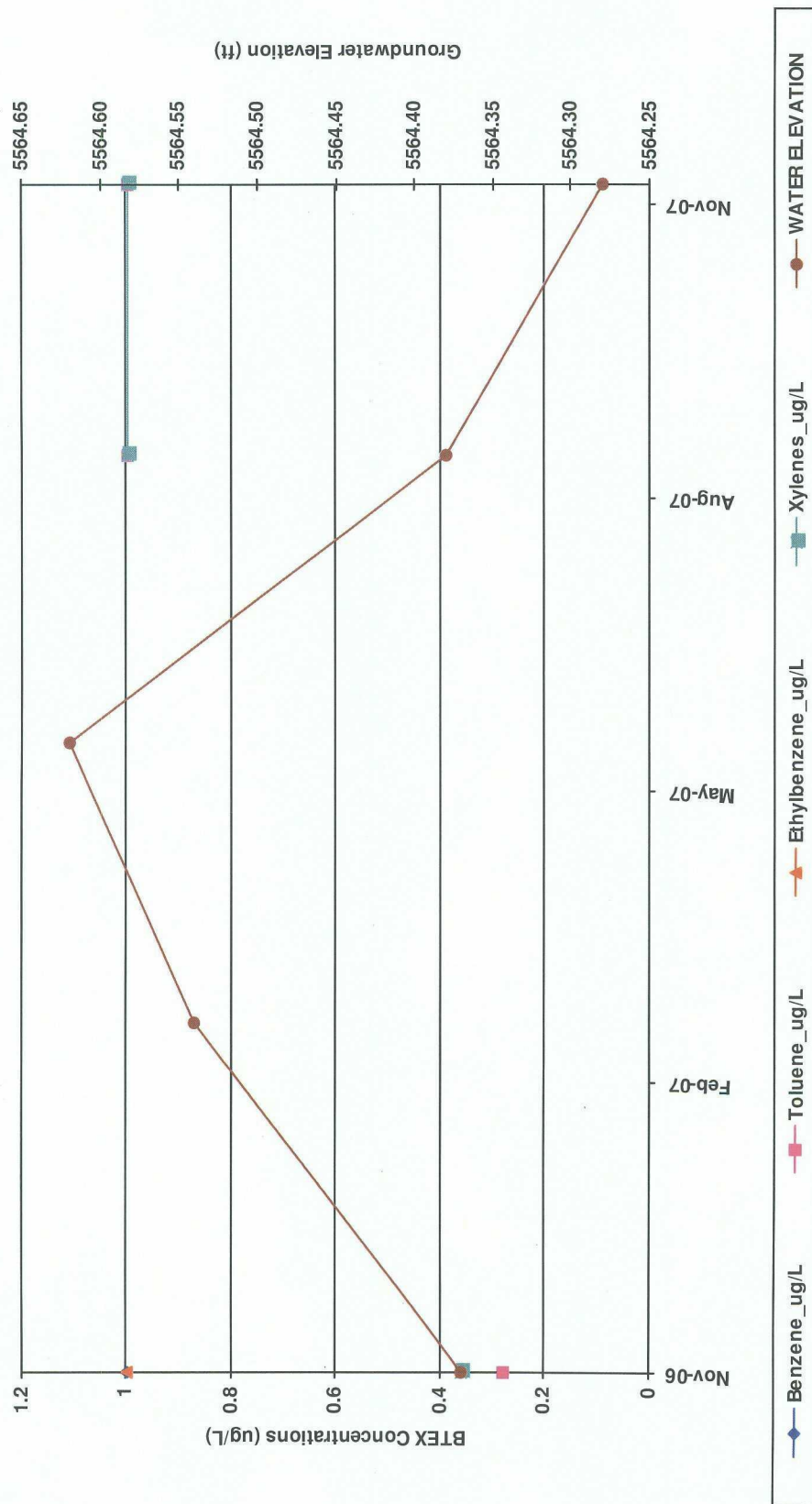
Note: Non Detects are represented by a value of 1.

FIGURE 7
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMNER #9 (METER #97213)
MW03



Note: Non Detects are represented by a value of 1.

FIGURE 8
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMNER #9 (METER #97213)
MW04



Note: Non Detects are represented by a value of 1.

TABLE 1

**SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMNER #9 (METER #97213)**

Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)
MW01	8/25/1995	198	1480	146	2250	29.53
	11/8/1996	559	499	395	933	30.30
	2/10/1997	350	101	233	476	30.07
	5/8/1997	266	9.75	230	308	29.99
	8/5/1997	272	228	172	370	30.16
	11/4/1997	216	72.1	133	260	30.21
	2/3/1998	245	276	109	375	32.48
	5/7/1998	166	6.02	110	202	32.38
	8/4/1998	171	74.4	86.1	209	32.54
	11/3/1998	151	58.7	76.4	204	32.62
	2/2/1999	153	64.8	89.7	217	32.42
	5/19/1999	137	89.4	67.3	141	32.28
	8/4/1999	105	32.6	63	113	32.28
	11/9/1999	120	39	75	170	32.19
	2/25/2000	130	70	78	190	32.05
	5/24/2000	110	130	56	200	31.96
	8/1/2000	120	39	80	210	32.08
	11/6/2000	84	120	56	190	32.19
	2/12/2001	95	44	60	150	32.12
	5/30/2001	110	36	78	200	32.06
	8/7/2001	99	43	58	150	32.28
	12/4/2001	150	53	1	110	32.40
	2/25/2002	83	1	59	120	32.39
	5/14/2002	57	78	46	150	32.37
	11/4/2002	72.5	50	47	178.6	32.67
	5/19/2003	31.1	24.4	23.9	158	32.45
	11/15/2003	65.5	65	44.5	190	32.76
	5/11/2004	57.6	44.5	52.1	153	32.61
	11/16/2004	38	26.4	34.7	126	32.88
	5/18/2005	74	27.9	93.1	340	32.67
	8/23/2005	28.6	7	46.3	175	33.05
	11/8/2005	26.2	5.5	35.5	137	32.93
	2/23/2006	22.1	7.1	28.2	102	32.81
	5/23/2006	21.6	4.2	28.3	76.6	32.83
	8/23/2006	18.9	5	29.1	76.7	33.06

Note: Non Detects are represented by a value of 1.

TABLE 1

**SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMNER #9 (METER #97213)**

Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)
MW01	11/8/2006	20.4	8.2	28.8	71.9	33.09
	2/26/2007	14.8	4.7	23.7	72.1	32.94
	5/24/2007	12.5	1.5	24.6	45.1	32.86
	8/21/2007	10.1	0.75	22.2	38	33.13
	11/13/2007	5.7	0.79	13.3	16.5	33.21
MW02	10/15/1999	1	1	1	1	29.57
	8/28/2000	1	1	1	1	31.65
	5/30/2001	1	1	1	1	31.57
	5/14/2002	1	1	1	1	31.85
MW03	10/15/1999	1	1	1	1	28.34
	8/28/2000	1	1	1	1	30.96
	5/30/2001	1	1	1	1	30.87
	6/13/2002	1	1	1	1	31.33
MW04	11/8/2006	1	0.28	1	0.36	30.32
	8/21/2007	1	1	1	1	30.31
	11/13/2007	1	1	1	1	30.41

Note: Non Detects are represented by a value of 1.