

3R - 238

**ANNUAL
MONITORING
REPORTS**

**DATE:
2/2005**

**2004 ANNUAL GROUNDWATER REPORT
NON-FEDERAL SITES VOLUME II
EL PASO FIELD SERVICES**

TABLE OF CONTENTS

METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT
71669	State Gas Com N #1	31N	12W	16	H
70194	Johnston Fed #4	31N	09W	33	H
93388	Horton #1E	31N	09W	28	H
72556	Knight #1	30N	13W	5	A
73551	* Coldiron A #1	30N	11W	2	K
03906	GCU Com A #142E	29N	12W	25	G
70445	Standard Oil Com #1	29N	09W	36	N
LD087	K-31 Line Drip	25N	06W	16	N
94967	** Lindrith B #24	24N	03W	9	N

3R239

3R201

3R192

3R207

3R164

3R197

3R238

3R205

3R214

* Coldiron A#1 Site was closed by NMOCD in October 2004.

** Lindrith B#24 Site has been submitted for closure, and is pending approval from NMOCD.



MWH

MONTGOMERY WATSON HARZA

LIST OF ACRONYMS

B	benzene
btoc	below top of casing
E	ethylbenzene
EPFS	El Paso Field Services
ft	foot/feet
GWEL	groundwater elevation
ID	identification
MW	monitoring well
PSH	phase-separated hydrocarbons
NMWQCC	New Mexico Water Quality Control Commission
T	toluene
TOC	top of casing
NA	not applicable
NE	not established
NM	not measured
NMOCD	New Mexico Oil Conservation Division
NS	not sampled
ORC	oxygen-releasing compound
ppb	parts per billion
$\mu\text{g/L}$	micrograms per liter
X	total xylenes

This topographic map depicts the Laramie National Antiquities Monument and surrounding regions in Wyoming. The Snake River is a prominent feature, flowing from the northwest towards the southeast. Key landmarks include the Laramie Dam, the Laramie Reservoir, and the Laramie National Antiquities Monument. The map also shows the Snake River Canyon, the Snake River Gorge, and the Snake River Valley. Major roads are marked with numbers, and various towns and settlements are labeled. The map includes a scale bar indicating 3 miles and a north arrow.

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3 and Scale: 1 : 500,000 Details: 3 : 4 Datum: WGS84

**EPFS GROUNDWATER SITES
2004 ANNUAL GROUNDWATER REPORT**

3R 238

**Standard Oil Com #1
Meter Code: 70445**

SITE DETAILS

Legal Description: **Town:** 29N **Range:** 9W **Sec:** 36 **Unit:** N

NMOCD Haz 30 **Land Type:** State **Operator:** Burlington Resources

Ranking:

PREVIOUS ACTIVITIES

Site Assessment:	5/94	Excavation:	5/94 (60 cy)	Soil Boring:	9/95
Monitor Well:	9/95	Geoprobe:	7/97	Additional MWs:	12/01
Downgradient MWs:	12/01	Replace MW:	NA	Quarterly Initiated:	11/96
ORC Nutrient Injection:	NA	Re-Excavation:	NA	PSH Removal Initiated:	NA
Annual Initiated:	NA	Quarterly Resumed:	NA		

SUMMARY OF 2004 ACTIVITIES

MW-1: Annual groundwater sampling (June) and semi-annual water level monitoring was performed during 2004.

MW-2: Annual groundwater sampling (June) and semi-annual water level monitoring was performed during 2004.

MW-3: Semi-annual water level monitoring was performed during 2004.

MW-4: Semi-annual water level monitoring was performed during 2004.

Site-Wide Activities: No other activities were performed at this site during 2004.

SITE MAPS

Site map (June) is attached in Figure 1.

SUMMARY TABLES AND GRAPHS

- Analytical data from 2004 are summarized in Table 1, and historic data are presented graphically in Figures 2 through 5.
- Laboratory reports are presented in Attachment 1.

**EPFS GROUNDWATER SITES
2004 ANNUAL GROUNDWATER REPORT**

**Standard Oil Com #1
Meter Code: 70445**

- Field documentation is presented in Attachment 2.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No subsurface activities were performed at this site during 2004.

DISPOSITION OF GENERATED WASTES

No wastes were generated at this site during 2004.

ISOCONCENTRATION MAPS

No isoconcentration maps were prepared for this site, however, the attached site maps present water level and analytical data collected during 2004.

CONCLUSIONS

- The groundwater flow direction at this site is toward the northwest.
- Benzene and total xylenes concentrations in the sample collected from MW-1 during 2004 were above NMWQCC standards; 416 µg/L (benzene) and 1,330 µg/L (total xylenes).
- The benzene and total xylenes concentrations in the sample collected from MW-2 during 2004 were above standards; 943 µg/L (benzene) and 1,130 µg/L (total xylenes). MW-2 is located upgradient of EPFS' former pit.
- In 1997, temporary piezometer data were collected that indicated other potential sources of contamination at the site. Piezometer locations are shown on Figure 1.

RECOMMENDATIONS

- EPFS recommends that sampling at MW-1 be performed on an annual basis until BTEX concentrations approach closure criteria. This well will then be scheduled for quarterly sampling until four consecutive samples are below closure standards.
- EPFS recommends that annual water level monitoring be performed during 2005 at all wells, and annual groundwater sampling at MW-2.

	MW-1	MW-2
B	416	943
T	534	120
E	287	309
X	1,330	1,130



NOT TO SCALE

LEGEND

● MW-1 Approximate Monitoring Well Location and Number

⊕ PZ-4 Approximate Locations Temporary Piezometers

--//--// Pipe Line

MW-BR Burlington Resources Monitoring Well

B Benzene ($\mu\text{g/L}$)

T Toluene ($\mu\text{g/L}$)

E Ethylbenzene ($\mu\text{g/L}$)

X Total Xylenes ($\mu\text{g/L}$)

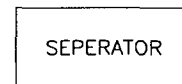
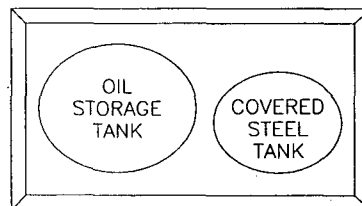
5657.50 Potentiometric Surface (Approximate & Assumed Where Dashed)

→ Direction of Groundwater Flow (Estimated)

NS Not Sampled

GWEL Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)

TOC Top of Casing



STANDARD OIL COM #1, METER 70445

JUNE 2004

GROUNDWATER SITES
EL PASO FIELD SERVICES

FIGURE 1

TABLE 1

**SUMMARY OF BTEX COMPOUNDS IN 2004 GROUNDWATER SAMPLES
STANDARD OIL COM #1 (METER #70445)**

Site Name	Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft btoc)
Standard Oil Com #1	MW-1	6/2/2004	416	534	287	1,330	19.99
Standard Oil Com #1	MW-2	6/2/2004	943	120	309	1,130	26.94

< = Analyte not detected at Method Detection Limit (MDL). Value shown is MDL.

J = Value estimated

FIGURE 2
HISTORIC BTX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STANDARD OIL COM #1
MW-1

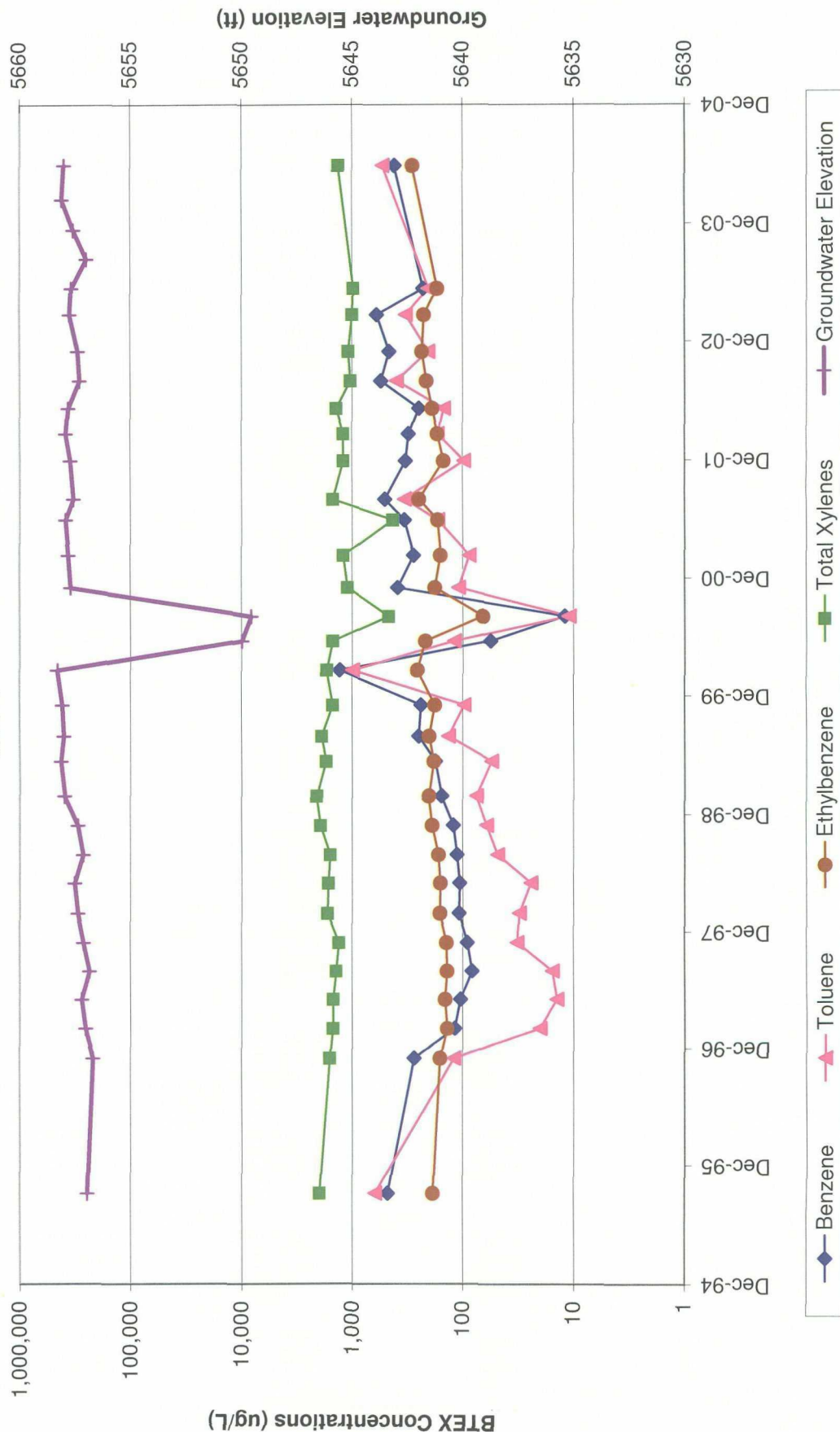


FIGURE 3
HISTORIC BTX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STANDARD OIL COM #1
MW-2

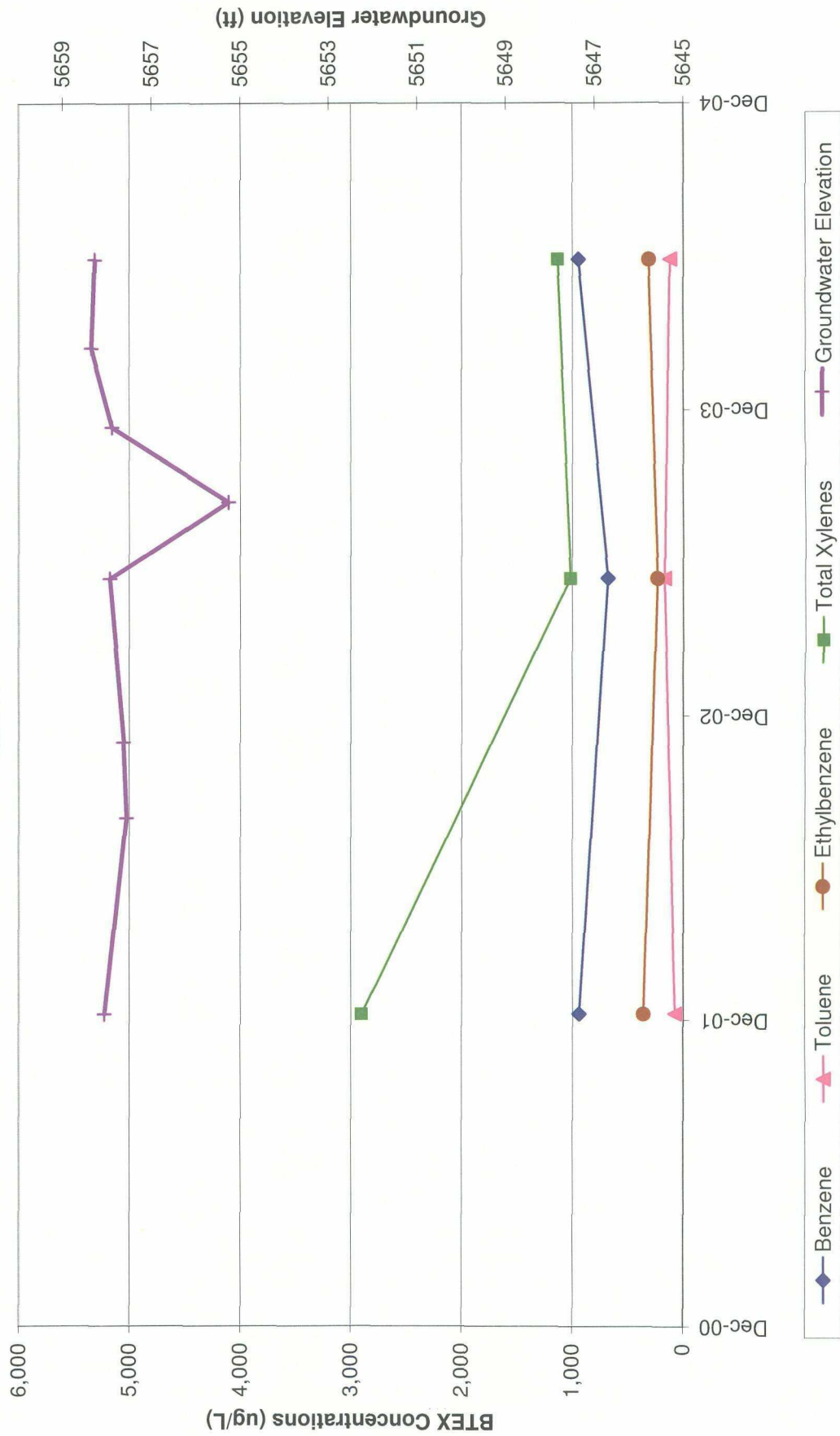


FIGURE 4
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STANDARD OIL COM #1
MW-3



FIGURE 5
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STANDARD OIL COM #1
MW-4

