

3R - 204

REPORTS

DATE:

2003

Certified Mail: #7002 0510 0000 0307 7497

February 26, 2004

RECEIVED

MAR 03 2004

Mr. William C. Olson
New Mexico Oil Conservation Division
1220 St. Francis Dr.
Santa Fe, NM 87504

**Oil Conservation Division
Environmental Bureau**

RE: 2003 Pit Project Annual Groundwater Report

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual reports for the 24 remaining groundwater impacted sites that were identified during our pit closure project of 1994 / 1995.

EPFS has organized the 24 Annual Reports (Volumes 1, 2 and 3) by land type. Volume 1 contains Annual Reports for sites found on Federal land. Volume 2 contains Non Federal sites and Volume 3 contains sites on Navajo land. Of the 24 reports submitted, EPFS is requesting closure of one site located on Navajo lands (Jennepah #1). EPFS understands closure of groundwater sites on Navajo lands falls under jurisdiction of the Navajo Nation Environmental Protection Agency and original documents have been submitted to them for review. Other Navajo sites are included in the report for your information.

If you have any questions concerning the enclosed reports, please call me at (505) 599-2124.

Sincerely,



Scott T. Pope P.G.
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; **Certified Mail # 7002 0510 0000 0307 7473**
Mr. Bill Liesse, BLM - w / enclosures (federal sites only), **Certified Mail # 7002 0510 0000 0307 7466**

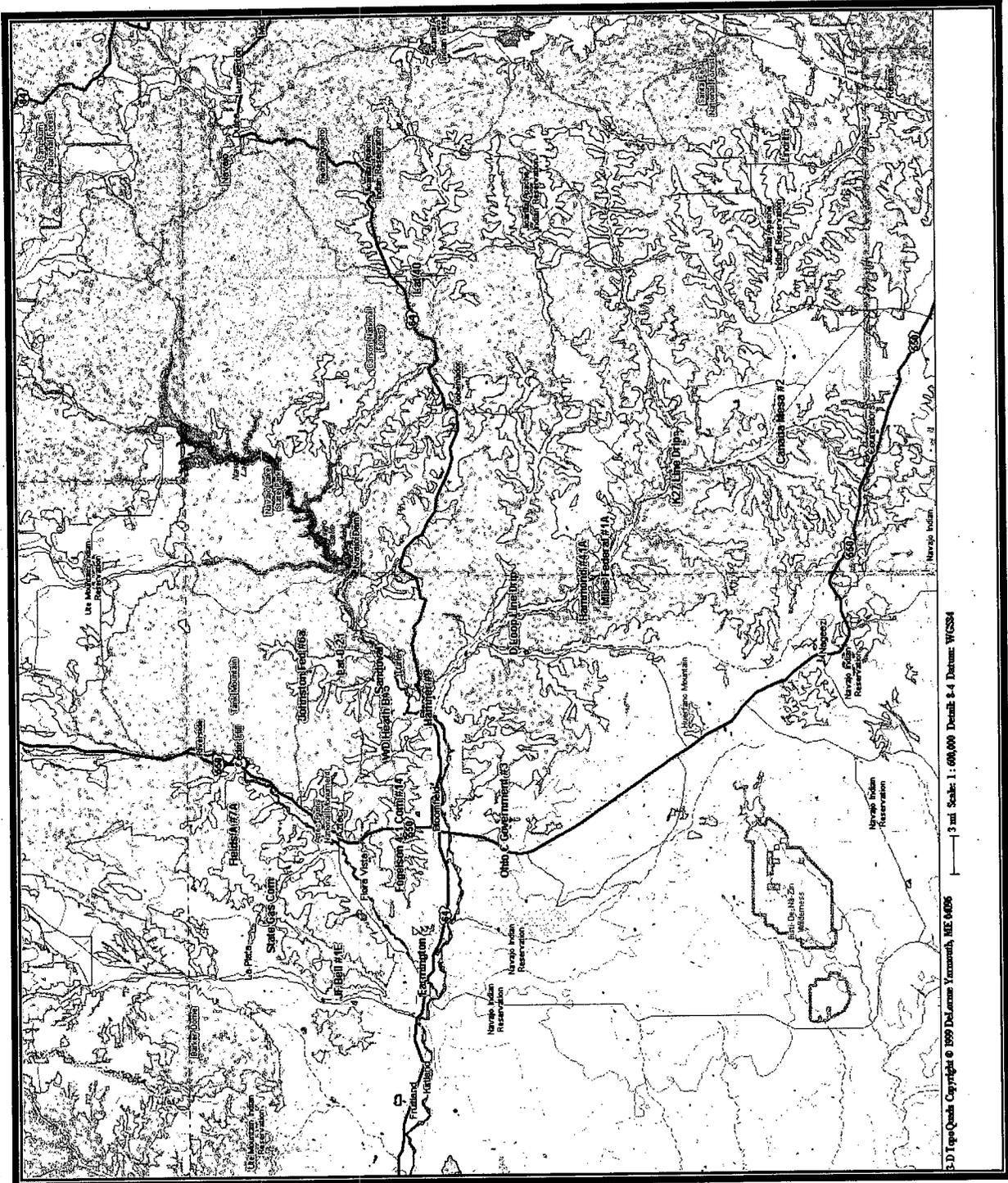
**2003 ANNUAL GROUNDWATER REPORT
FEDERAL SITES VOLUME I
EL PASO FIELD SERVICES**

TABLE OF CONTENTS

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



Federal Groundwater Site Map



3-D TopoQuest Copyright © 1999 Delorme Yearwood, Inc. 1:60,000 Densité 8.4 Datum: WGS84
1" = 3 mi. Scale: 1:60,000 Densité 8.4 Datum: WGS84

LIST OF ACRONYMS

B	benzene
btc	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
µg/L	micrograms per liter
X	total xylenes

**EPFS GROUNDWATER SITES
2003 ANNUAL GROUNDWATER REPORT**

**K27
Meter Code: LD072**

SITE DETAILS

Legal Description:	Town: 25N	Range: 6W	Sec: 4	Unit: E
NMOCD Haz Ranking: 40	Land Type: Federal	Operator: El Paso Field Services		

PREVIOUS ACTIVITIES

Site Assessment: 7/94	Excavation: 8/94	Soil Boring: 9/99
Monitor Well: 9/95	Geoprobe: 9/95	Additional MWs: 12/99
Downgradient MWs: 12/99	Replace MW: 7/00	Quarterly Initiated: NA
ORC Nutrient Injection: NA	Re-Excavation: NA	PSH Removal Initiated: 2/98
Annual Initiated: NA	Quarterly Resumed: NA	

SUMMARY OF 2003 ACTIVITIES

MW-1: Quarterly free-product recovery activities and water level monitoring were performed in 2003.

MW-2: Quarterly free-product recovery activities and water level monitoring were performed in 2003.

MW-3: Quarterly water level monitoring was performed.

Site-Wide Activities: No other activities were performed at this site during 2003.

SITE MAPS

Site maps (January and July) are attached in Figures 1 and 2.

SUMMARY TABLES AND GRAPHS

- Historic BTEX concentrations and groundwater elevations for MW-1, MW-2 and MW-3 are presented graphically in Figures 3 through 5.
- Free-product removal data for 2003 are summarized in Table 1, and historic data are presented graphically in Figures 6 and 7.
- Field documentation is presented in Attachment 1.

**EPFS GROUNDWATER SITES
2003 ANNUAL GROUNDWATER REPORT**

**K27
Meter Code: LD072**

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No subsurface activities were performed at this site during 2003.

DISPOSITION OF GENERATED WASTES

All phase-separated hydrocarbons were disposed of at the EPFS Kutz Separator located in Bloomfield, New Mexico.

ISOCONCENTRATION MAPS

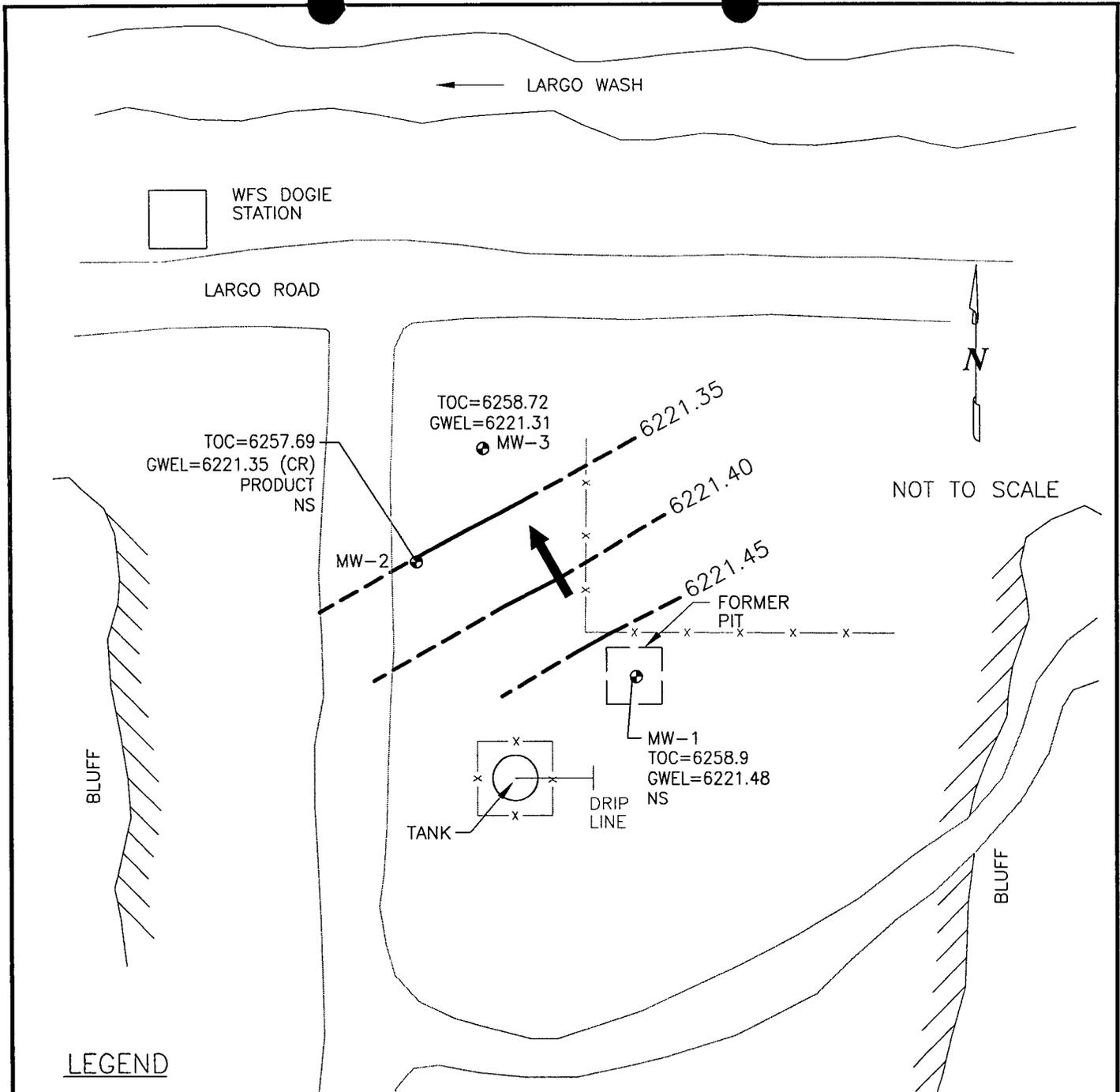
No isoconcentration maps were prepared for this site, however, the attached site maps present water level data collected during 2003.

CONCLUSIONS

- Approximately 0.11 gallons of free-product was removed from MW-1 during 2003 bringing the cumulative total of recovered hydrocarbons at this well to 1.88 gallons since 2001.
- Approximately 1.51 gallons of free-product was removed from MW-2 during 2003 bringing the cumulative total of recovered hydrocarbons at this well to 4.19 gallons since 2001.
- The groundwater flow direction is to the north/northwest at this site.

RECOMMENDATIONS

- EPFS will continue to perform quarterly free-product removal activities at MW-1 and MW-2. EPFS will evaluate passive free-product removal methodologies (i.e., hand bailing, passive skimmers, or hydrocarbon-absorbent material socks) and frequencies for most efficient free-product removal from these wells during 2004.
- MW-2 will be redeveloped in April 2004.
- EPFS will continue to monitor MW-3 for the presence of free-product and groundwater levels on a quarterly basis.
- Once free-product recovery efforts are completed at this site, each well will be sampled on an annual basis until sample results approach closure criteria. The wells will then be scheduled for quarterly sampling until closure criteria are met.



LEGEND

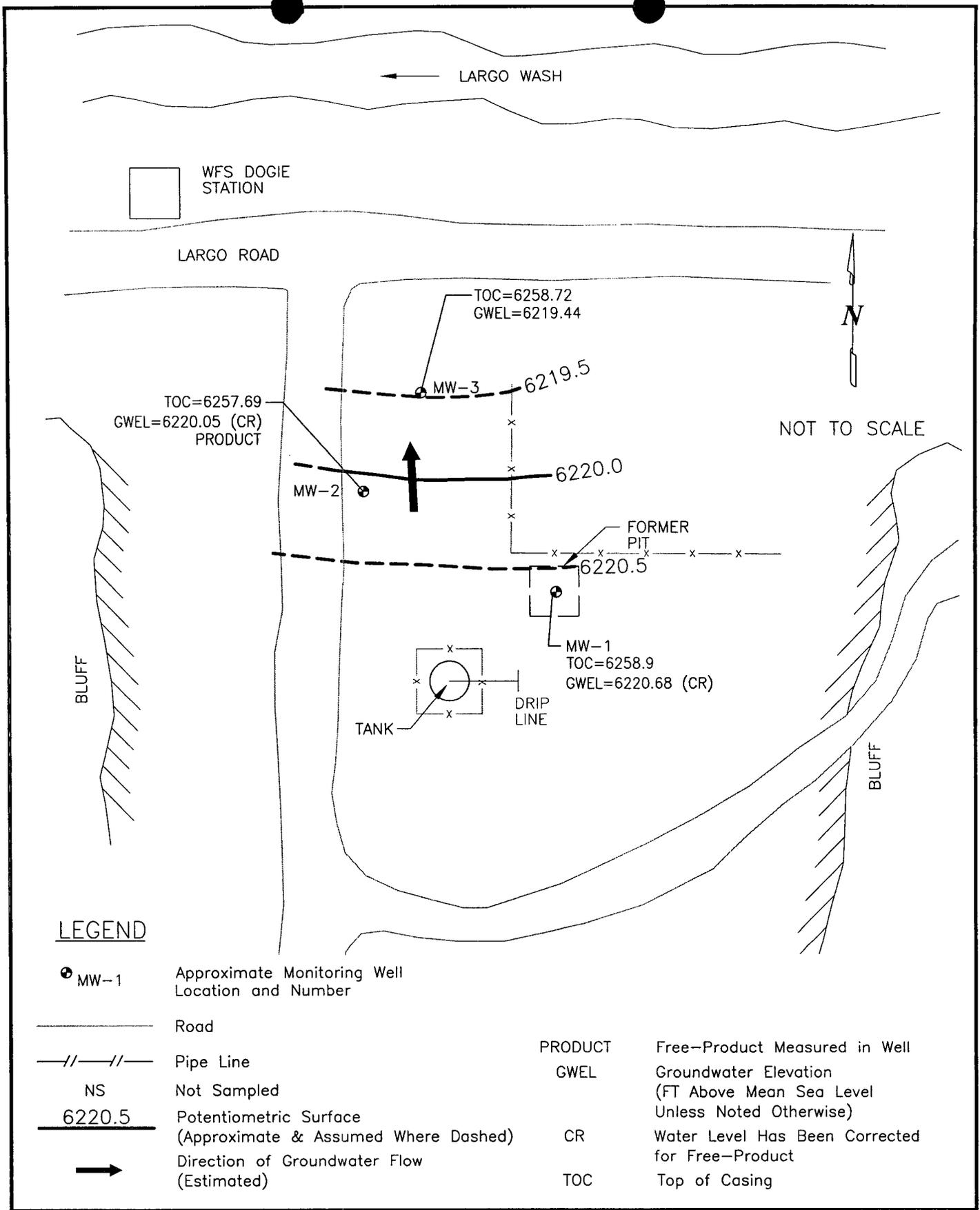
⊙ MW-1	Approximate Monitoring Well Location and Number		
—	Road		
—//—//—	Pipe Line	PRODUCT	Free-Product Measured in Well
NS	Not Sampled	GWEL	Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
<u>6221.40</u>	Potentiometric Surface (Approximate & Assumed Where Dashed)	CR	Water Level Has Been Corrected for Free-Product
→	Direction of Groundwater Flow (Estimated)	TOC	Top of Casing

k27id_03.dwg

K-27 LINE DRIP, METER LD072
JANUARY 2003

GROUNDWATER SITES
EL PASO FIELD SERVICES

FIGURE 1



K-27 LINE DRIP, METER LD072
JULY 2003

GROUNDWATER SITES
EL PASO FIELD SERVICES

FIGURE 2

k27ld_03.dwg

TABLE 1

SUMMARY OF FREE-PRODUCT REMOVAL DURING 2003
K27 LD072 (METER #LD072)

Site Name	Monitoring Well	Removal Date	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Volume of Product Removed (gallons)	Cummulative Volume of Product Removed (gallons)
K27 LD072	MW-1	1/27/03	NA	37.42	0.00	0.00	1.77
K27 LD072	MW-1	4/26/03	NA	37.15	sheen	0.01	1.78
K27 LD072	MW-1	7/17/03	38.18	38.36	0.18	0.10	1.88
K27 LD072	MW-1	10/13/03	NA	38.29	0.00	0.00	1.88
K27 LD072	MW-2	1/27/03	36.31	36.47	0.16	0.05	2.73
K27 LD072	MW-2	4/26/03	35.85	36.88	1.03	0.21	2.94
K27 LD072	MW-2	7/17/03	36.75	38.20	1.45	1.00	3.94
K27 LD072	MW-2	10/13/03	37.07	37.64	0.57	0.25	4.19

FIGURE 3
 HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
 K27 LD072
 MW-1

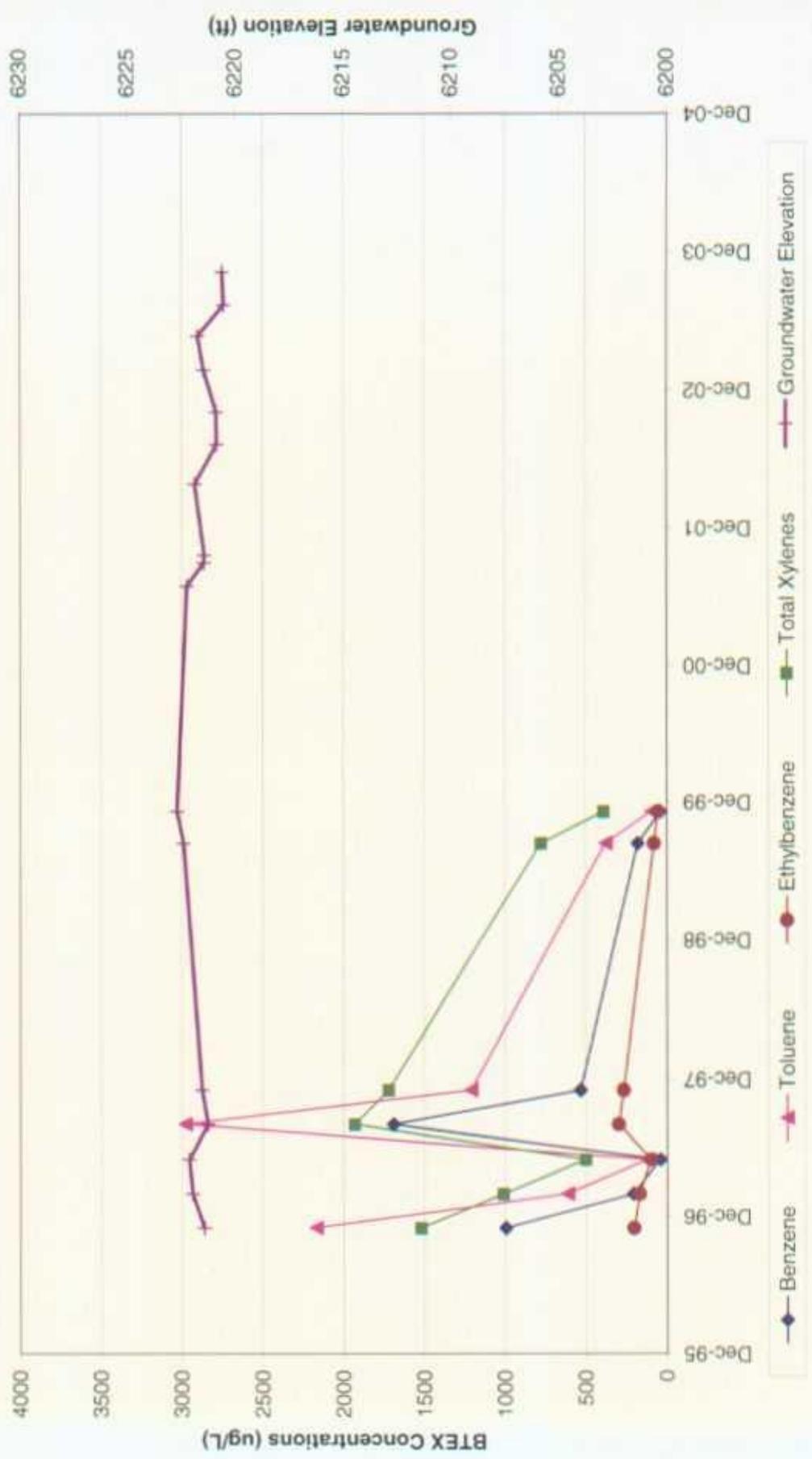


FIGURE 4
 HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
 K27 LD072
 MW-2

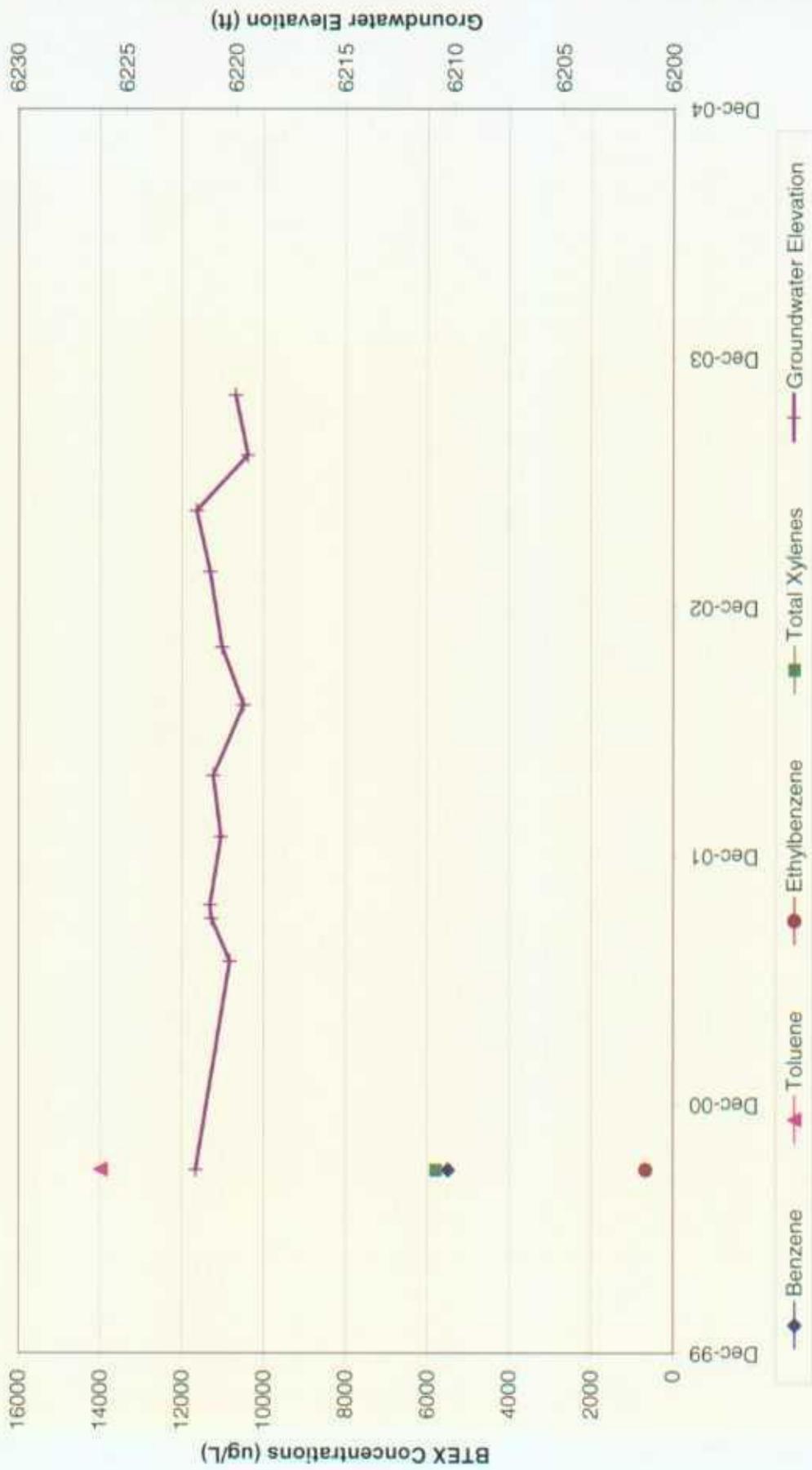


FIGURE 5
 HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
 K27 LD072
 MW-3

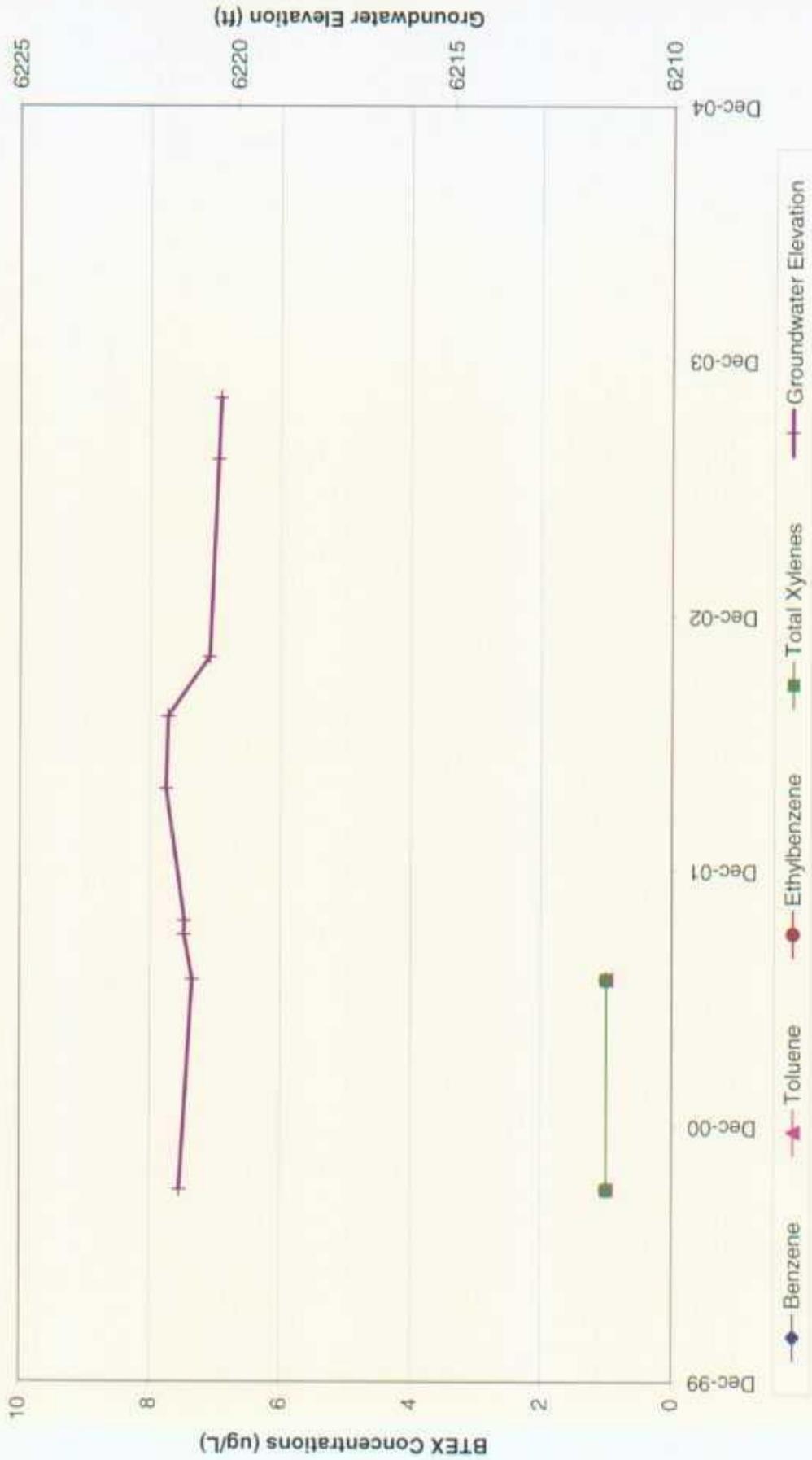


FIGURE 6
 HISTORIC FREE-PRODUCT RECOVERY
 K27 LD072
 MW-1

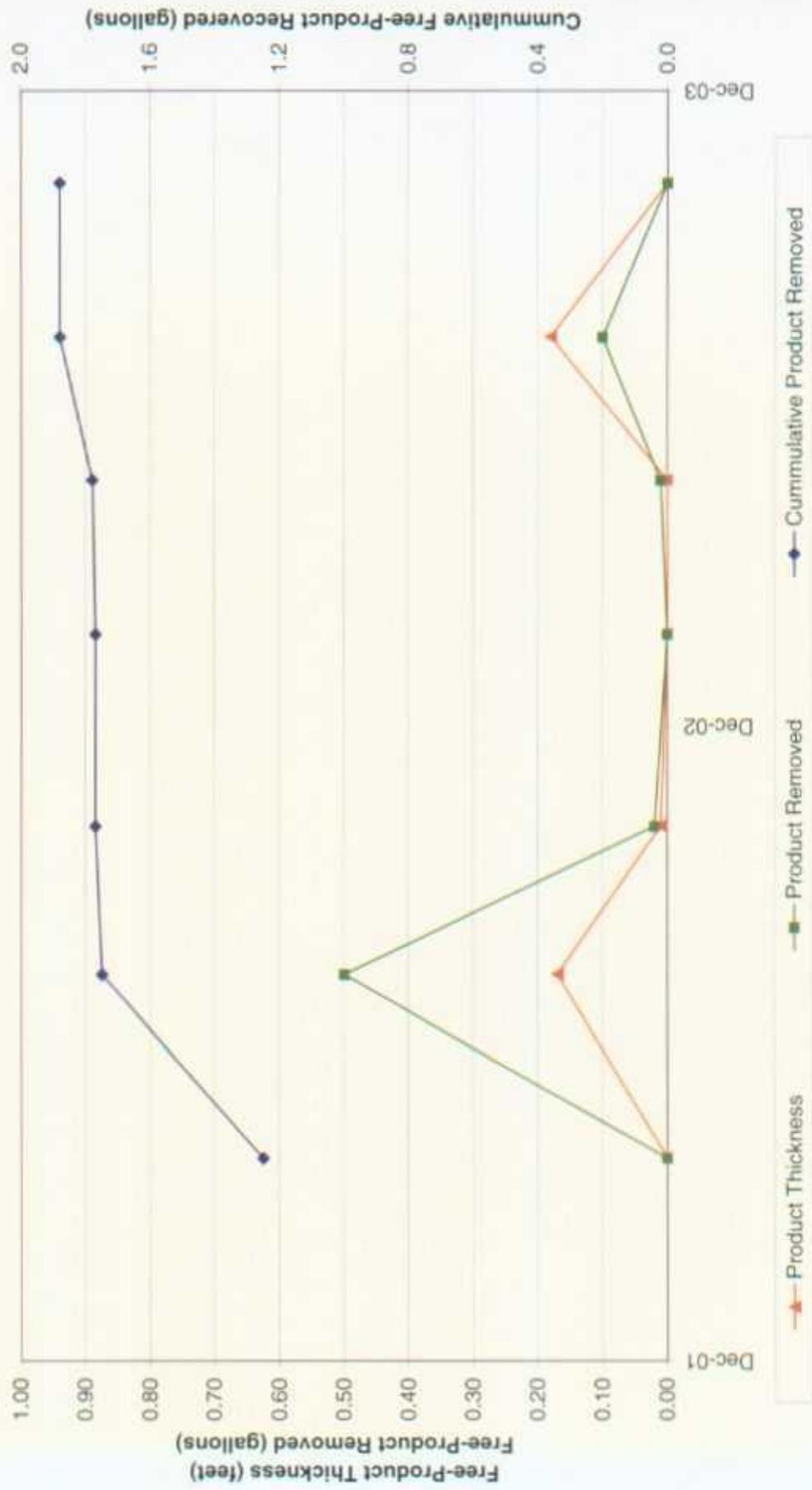
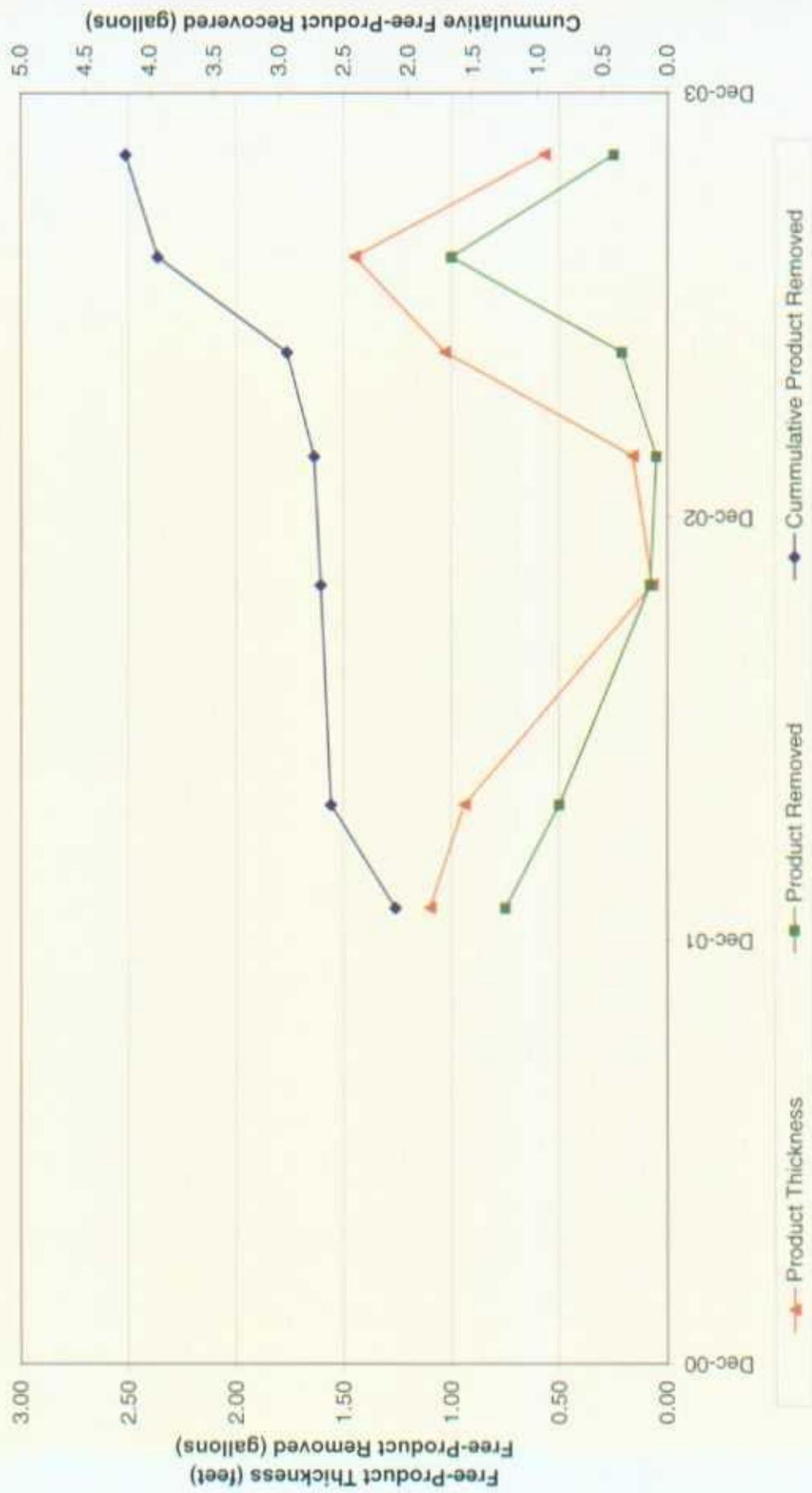


FIGURE 7
 HISTORIC FREE-PRODUCT RECOVERY
 K27 LD072
 MW-2



ATTACHMENT 1
FIELD DOCUMENTATION

✓

PRODUCT RECOVERY/WATER LEVEL DATA

Martin J. Nee
PO Box 3861
Farmington, NM 87499-3861
(505)334-2791 (505)320-9675cell

Project Name San Juan Basin Ground Water **Project No.** 30001.0
Project Manager MJN
Client Company MWH **Date** 10/13/03
Site Name K27

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 initial	1636	na	38.29	0	na
MW-2 initial		37.07	37.64	0.57	0.25
MW-2 final		40.51	40.52	0.01	
WM-3 initial			38.34		

Comments

No product in MW-1. Bailed approximately 3 gallons of water from Mw-2.

Signature: Martin J. Nee **Date:** October 13, 2003

PRODUCT RECOVERY/WATER LEVEL DATA

Martin J. Nee
PO Box 3861
Farmington, NM 87499-3861
(505)334-2791 (505)320-9675cell

Project Name San Juan Basin Ground Water Project No. 30001.0
Project Manager MJN
Client Company MWH Date July 17, 2003
Site Name K27

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 initial	1130	38.18	38.36	0.18	16 oz
MW-1 final			39.73		
MW-2 initial		36.75	38.20	1.45	1.0 gal
MW-2 final		39.02	39.13	0.11	
WM-3 initial	13:47		38.28		

Comments

Bailed approximately 2 gallons of water from each mw-1 and mw-2.

Signature: Martin J. Nee Date: April 26, 2003

PRODUCT RECOVERY/WATER LEVEL DATA

Martin J. Nee
 PO Box 3861
 Farmington, NM 87499-3861
 (505)334-2791 (505)320-9675cell

Project Name	<u>San Juan Basin Ground Water</u>	Project No.	<u>30001.0</u>
Project Manager	<u>MJN</u>		
Client Company	<u>MWH</u>	Date	<u>4-26-03</u>
Site Name	<u>K27</u>		

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 initial	12:15		37.15	0	<1oz
MW-1 final			39.14		
MW-2 initial		35.85	36.88	1.03	.75 gal
MW-2 final		37.62	37.83	.21	
WM-3 initial	13:47		37.15		

Comments

MW-1: Probe did not measure product so a bailer was retrieved and revealed product/paraffin globules in well. Approximately 4 gallons of water was removed.
MW-2: Floating emulsion on top of product. Appears to be black bio-mass. This may affect product thickness measurement as initial measurement did not reveal product but water at 35.78 feet beneath TOC. A bailer was then retrieved and revealed bio-mass, product and water in bailer. Another measurement was taken and is recorded above. Approximately 3.5 gallons of jet black water were also removed from MW-2.

Signature: Martin J. Nee Date: April 26, 2003

Product Recovery and Well Observation Data

Project Name: Santa Ana Basin
 Project Manager: Nee
 Client Company: MWH
 Site Name: K-27

Project No: 2200013
 Date: 1-27-03

Well	Time	Depth to Water (ft)	Depth to Product (ft)	Total Well Depth (ft)	Product Thickness (ft)	Volume Removed	Comments
MW-1	11:00	3742	NA		0	0	No product
MW-2		36 ⁴⁷	36 ³¹		.16	7oz	removed 48 ounces water
MW-3		37415	NA		0	0	water level only

COMMENTS: checked MW-1 w/ bailer: No product
MW-2 is 2" d well
Removed 7 ounces from MW-2

Signature: [Signature]

Date: 1-27-03

EL PASO FIELD SERVICES ANNUAL GROUNDWATER REPORT

FEDERAL SITES VOLUME I

TABLE OF CONTENTS

Site Map

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89620	Sandoval GC A #1A	30N	09W	35	C
87493	W D Heath B-5	30N	09W	31	M
LD151	Lat 0-21 Line Drip	30N	09W	12	O
73220	Fogelson 4-1 Com. #14	29N	11W	4	P
97213	Hamner #9	29N	09W	20	A
72890	Ohio C Government #3	28N	11W	26	P
LD169	D Loop Line Drip	28N	08W	33	I
LD174	LAT LD 40	28N	04W	13	H
89894	Hammond #41A	27N	08W	25	O
94810	Miles Fed 1A	26N	07W	5	F
LD072	K27 LD072	25N	06W	4	E
87640	Canada Mesa #2	24N	06W	24	I



MWH

MONTGOMERY WATSON HARZA

ACRONYMS

B	Benzene
E	Ethylbenzene
EPFS	El Paso Field Services
ft	foot/feet
GWEL	groundwater elevation
ID	identifier
MW	Monitoring Well
PSH	Phase Separated Hydrocarbons
NMWQCC	New Mexico Water Quality Control Commission
T	Toluene
TOC	Top Of Casing
NE	not established
NS	not sampled
ORC	oxygen release compound
OCD	Oil Conservation Division
ppb	parts per billion
µg/L	micrograms per liter
X	Total Xylenes

Federal Groundwater Site Map

