

3R - 212

REPORTS

DATE:

2003

Certified Mail: #7002 0510 0000 0307 7497

February 26, 2004

RECEIVED

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

MAR 03 2004

**Oil Conservation Division
Environmental Bureau**

RE: 2003 Pit Project Annual Groundwater Report

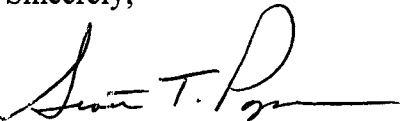
Dear Mr. Olson:

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**

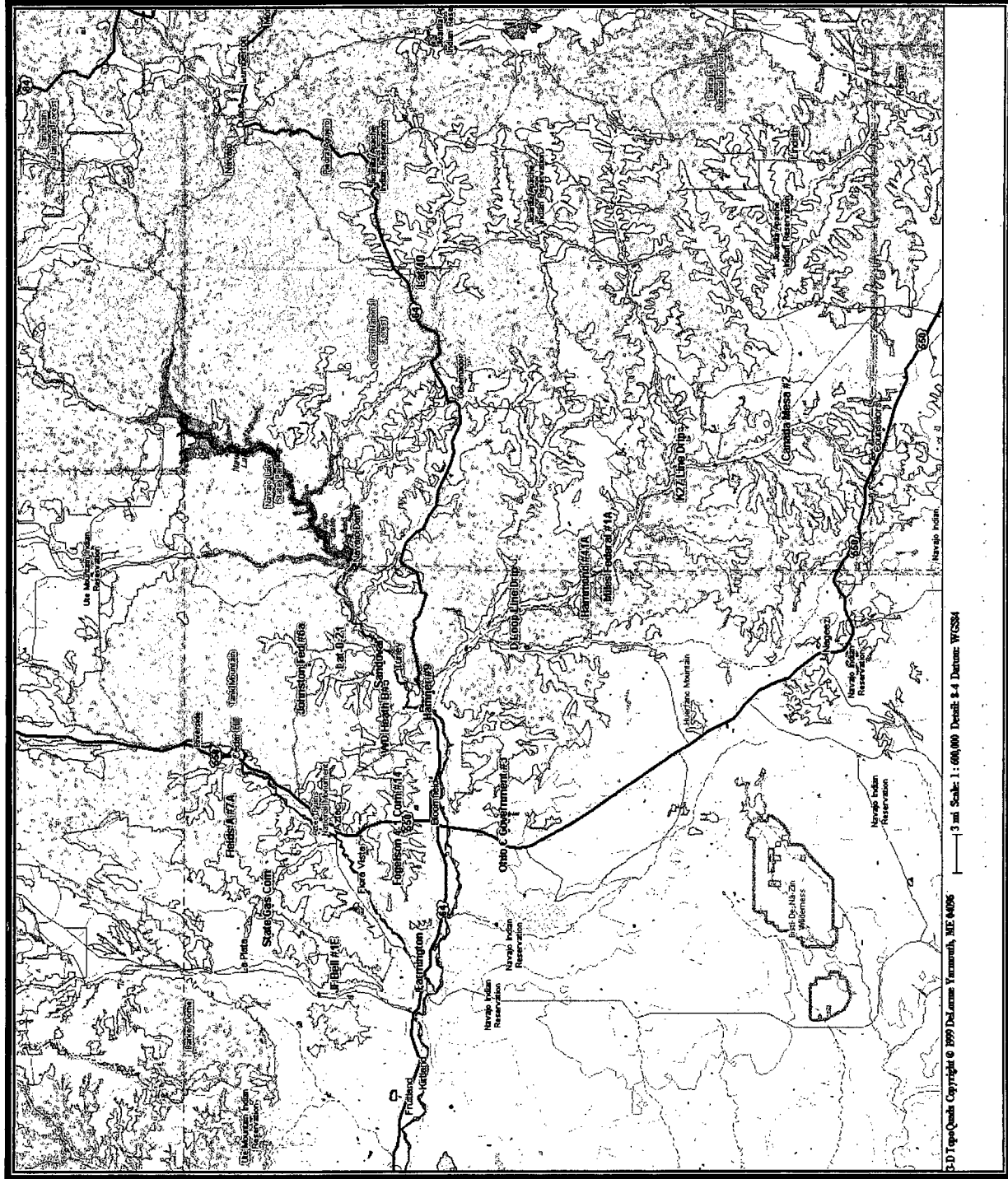
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METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT
89961	Fields A#7A	32N	11W	34	E
89232	Johnston Fed #6A	31N	09W	35	F
94715	James F. Bell #1E	30N	13W	10	P
89620	Sandoval GC A #1A	30N	09W	35	C
LD151	Lat 0-21 Line Drip	30N	09W	12	O
73220	Fogelson 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



MWH
MONTGOMERY WATSON HARZA

Federal Groundwater Site Map



3-D TopoQuads Copyright © 1999 DeLorme Vermont, ME 05406 1" = 3 mi Scale 1:600,000 Densit 8.4 Datum: WGS84

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
µg/L	micrograms per liter
X	total xylenes

**EPFS GROUNDWATER SITES
2003 ANNUAL GROUNDWATER REPORT**

**Lat L-40
Meter Code: LD174**

SITE DETAILS

Legal Description:	Town: 28N	Range: 4W	Sec: 13	Unit: H
NMOCD Haz Ranking:	20	Land Type: Federal	Operator: EPFS	

PREVIOUS ACTIVITIES

Site Assessment:	2/95	Excavation:	3/95	Soil Boring:	9/95
Monitor Well:	9/95	Geoprobe:	NA	Additional MWs:	*
Downgradient MWs:	*	Replace MW:	NA	Quarterly Initiated:	NA
ORC Nutrient Injection:	NA	Re- Excavation:	NA	PSH Removal Initiated:	1/98
Annual Initiated:	NA	Quarterly Resumed:	NA		

* An attempt was made to install additional monitoring wells at this site during July 2000.
All efforts were met with refusal.

SUMMARY OF 2003 ACTIVITIES

MW-1: Quarterly free-product recovery and water level monitoring were performed. This well was redeveloped in May 2003 in an attempt to enhance free-product recovery.

Site-Wide Activities: Due to inclement weather, EPFS was unable to gain access to the site in January 2003.

SITE MAP

A site map (2003) is attached in Figure 1.

SUMMARY TABLES AND GRAPHS

- Historical analytical data and groundwater elevation data are presented graphically in Figure 2.
- Free-product recovery data from 2003 are summarized in Table 1, and historic data are presented graphically in Figure 3.
- Field documentation is presented in Attachment 1.

**EPFS GROUNDWATER SITES
2003 ANNUAL GROUNDWATER REPORT**

**Lat L-40
Meter Code: LD174**

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 map presents the water level data collected during 2003.

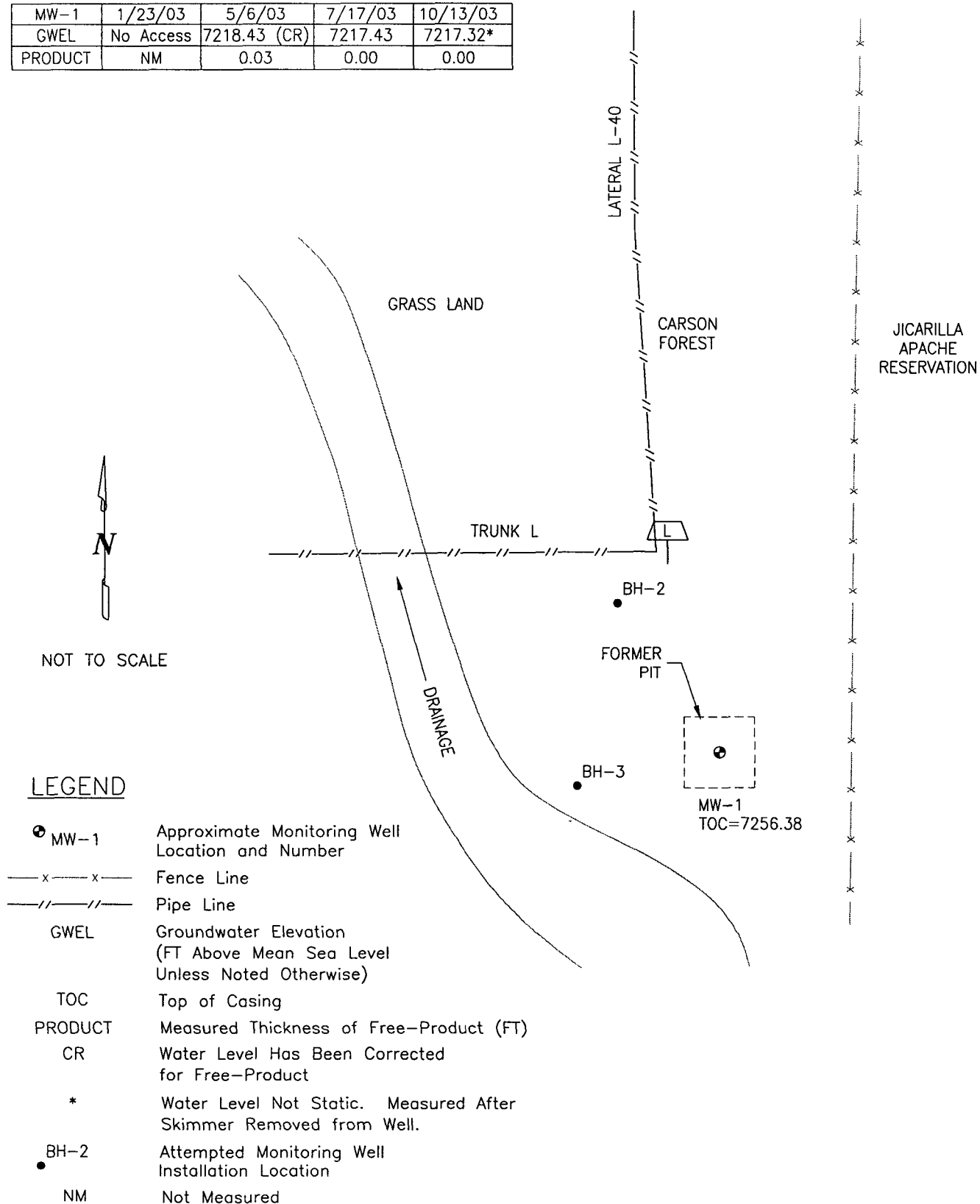
CONCLUSIONS

- Free-product recovery efforts at MW-1 resulted in removal of approximately 1.33 gallons of free-phase hydrocarbons during 2003 bringing the cumulative total recovered to date to approximately 25.5 gallons since 2000.
- Redevelopment of MW-1 in May did not appear to affect free-product recovery. However, the low recovery in subsequent events may have been due to declining free-product.
- The free-product recovery data indicate declining free-product thickness during 2002 and 2003.

RECOMMENDATIONS

- EPFS will continue free-product recovery and water level monitoring efforts on a quarterly basis at MW-1. 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 this well during 2004.
- Once free-product recovery efforts are completed at MW-1, this well will be sampled on an annual basis until sample results approach closure criteria. The well will then be scheduled for quarterly sampling until closure criteria are met.

MW-1	1/23/03	5/6/03	7/17/03	10/13/03
GWEL	No Access	7218.43 (CR)	7217.43	7217.32*
PRODUCT	NM	0.03	0.00	0.00



LATERAL L-40 LINE DRIP, LD 174
JANUARY 2003 — OCTOBER 2003

GROUNDWATER SITES
EL PASO FIELD SERVICES

FIGURE 1

TABLE 1
SUMMARY OF FREE-PRODUCT REMOVAL DURING 2003
LAT L-40 (METER #LD174)

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)
Lat L-40	MW-1	1/23/03	NM	NM	NM	0.00	24.14
Lat L-40	MW-1	5/6/03	37.94	37.97	0.03	1.00	25.14
Lat L-40	MW-1	7/17/03	NA	38.95	0.00	0.20	25.34
Lat L-40	MW-1	10/13/03	NA	39.06	0.00	0.13	25.47

MW-1 contains a passive skimmer. Volume of product removed is from skimmer.
Water levels and product thickness' measured following removal of passive skimmer.
No access to site in January 2003 due to inclement weather/road conditions.

FIGURE 2
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
LAT L40
MW-1

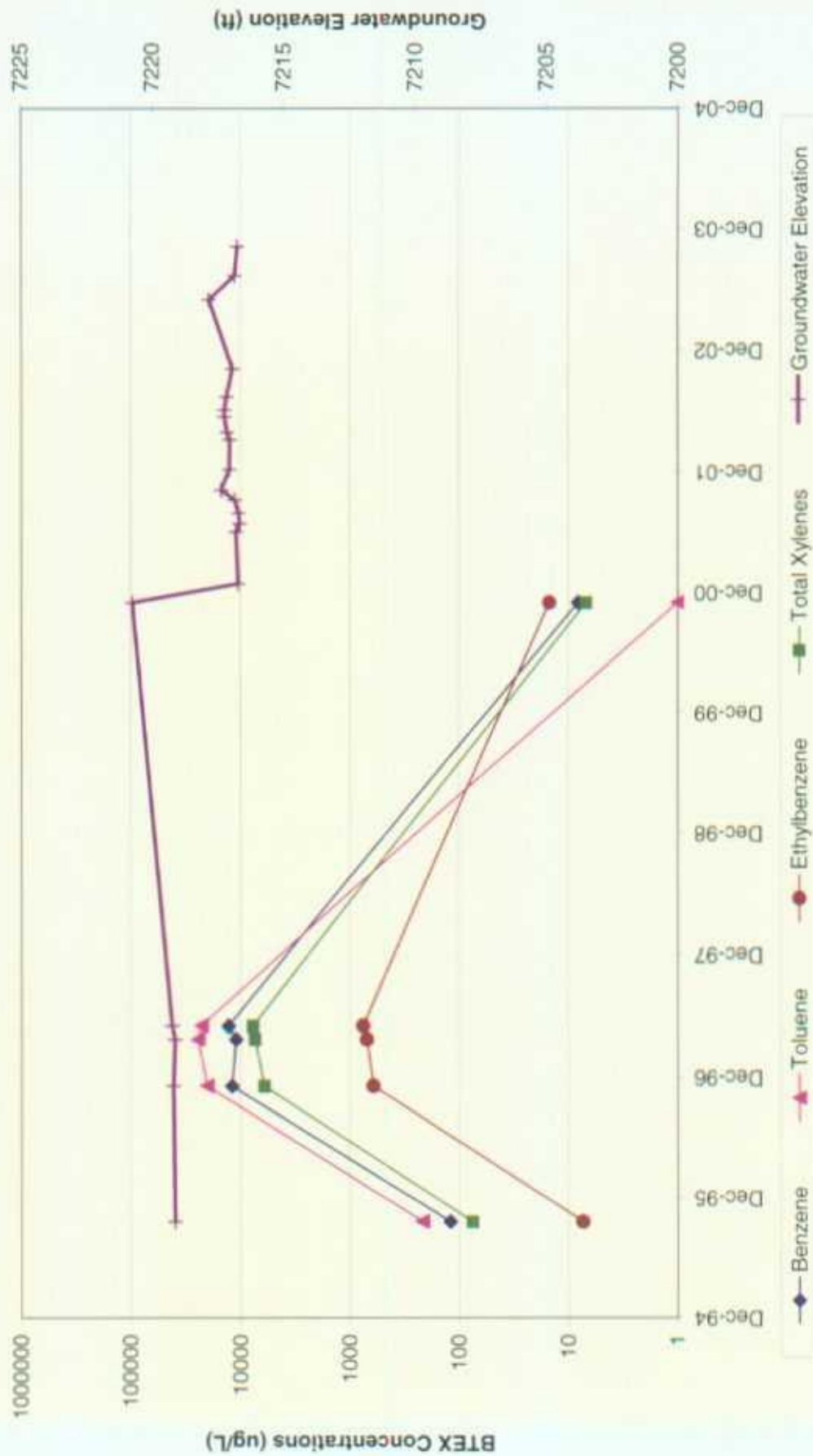
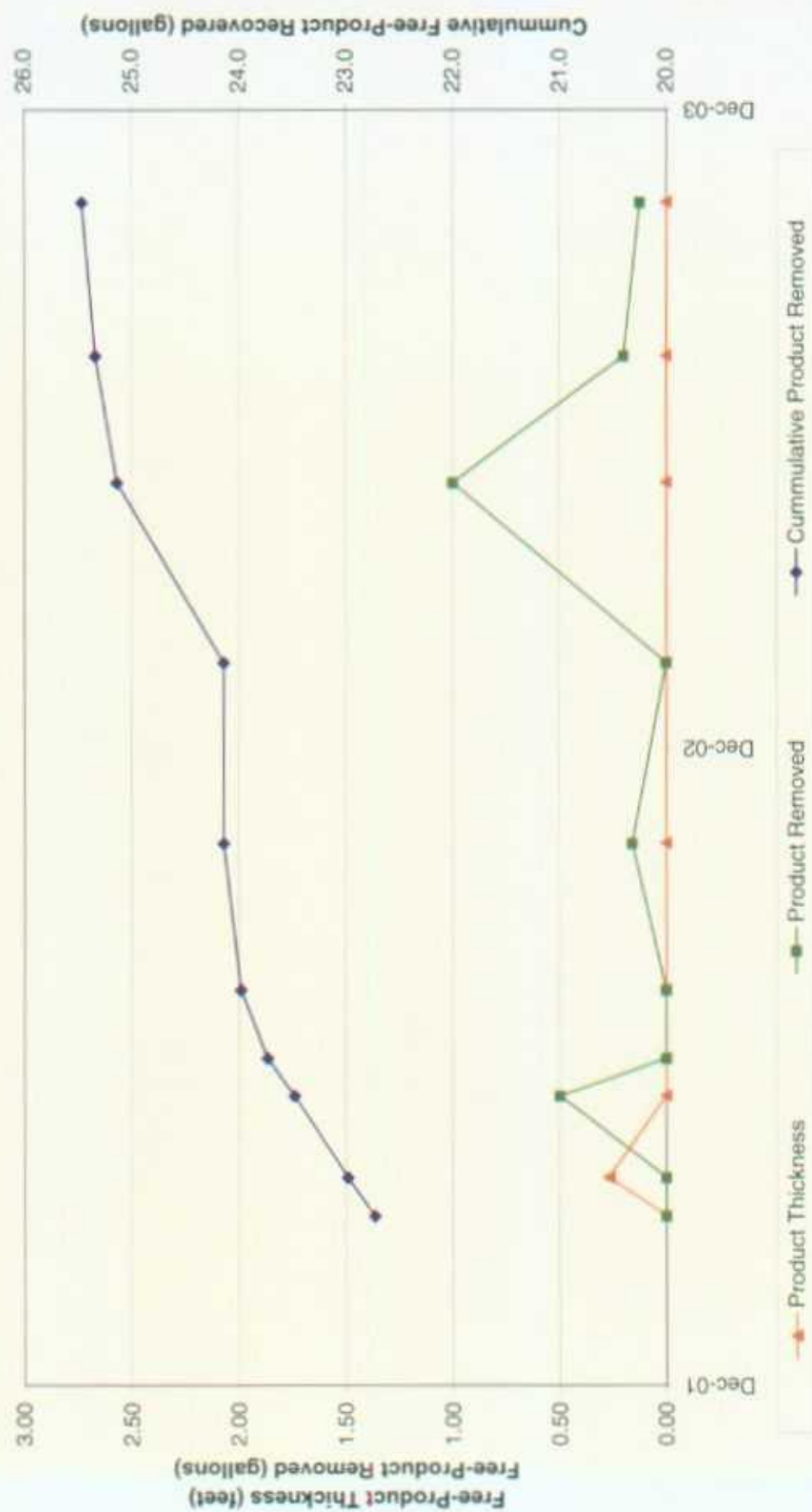


FIGURE 3
HISTORIC FREE-PRODUCT RECOVERY
LAT L40
MW-1



ATTACHMENT 1
FIELD DOCUMENTATION

PRODUCT RECOVERY

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>10/13/03</u>
Site Name	<u>Lat L 40</u>		

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 (passive skimmer)	1433	-	39.06	-	16 oz product

Comments

Water level following removal of passive skimmer. No product measured following skimmer removal. Road to site was washed out and closed (J10). Had to backtrack and go in through the forest. Lost 1 hr.

Signature: _____	Martin J. Nee	Date: _____	October 13, 2003
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PRODUCT RECOVERY

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 Lat L 40

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 (passive skimmer)	0813	-	38.95	-	32oz product

Comments

Water level following removal of passive skimmer. No product measured after skimmer was removed.

Signature: Martin J. Nee Date: July 17, 2003

WELL DEVELOPMENT AND SAMPLING LOG

Project No: 30001.0 Project Name: San Juan River Client: MWH
 Location: Lat 40 Well No: MW-1 Development ☒ Sampling ☐
 Project Manager: M. N. Lee Date: 5-6-03 Start Time: 0738 Weather: pc 403
 Depth to Water: 397 Depth to Product: 394 Product Thickness: 003 Measuring Point: TOL(N)
 Water Column Height: 1298 Well Dia: 40

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐
 Bottom Valve Bailer ☒ Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐
 Criteria: 3 to 5 Casing Volumes of Water Removal ☐ Stabilization of Indicator Parameters ☒ Other ☐

Gal/ft x ft of water	Water Volume In Well		Gal/oz to be removed
	Gallons	Ounces	
<u>12.98 x 65</u>	<u>8.44 x 3</u>		<u>25.31</u>

Time (military)	pH	SC (umhos/cm)	Temp (°C)	Eh-ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gal.)	Comments/Flow rate
<u>0750</u>							<u>0-4</u>	<u>Minor product</u>
							<u>4-8</u>	<u>slight grey</u>
							<u>8-12</u>	
<u>0820</u>							<u>12-16</u>	<u>cleaning</u>
							<u>16-22</u>	
							<u>22-23</u>	<u>slight grey</u>
<u>0830</u>	<u>7.79</u>	<u>1280</u>	<u>10.2</u>				<u>23.5</u>	<u>slight grey</u>
	<u>7.55</u>	<u>1320</u>	<u>10.4</u>				<u>24</u>	
	<u>7.42</u>	<u>1490</u>	<u>10.9</u>				<u>24.5</u>	
	<u>7.35</u>	<u>1470</u>	<u>11.0</u>				<u>25</u>	
	<u>7.33</u>	<u>1450</u>	<u>11.0</u>				<u>25.5</u>	
<u>0844</u>	<u>7.37</u>	<u>1400</u>	<u>11.0</u>				<u>26</u>	<u>clean</u>

Final:

Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow rate
<u>0844</u>	<u>7.37</u>	<u>1400</u>	<u>11.0</u>					<u>26</u>	

COMMENTS: Pulled Skinner w/ approx 1 gal product
therefore initial we may not be static
Well makes good water

INSTRUMENTATION: pH Meter ☒ DO Monitor ☒ Conductivity Meter ☒ Temperature Meter ☒ Other ☐

Water Disposal: KUTZ

Sample ID: No sample Sample Time: _____ BTEX ☐ VOCs ☐ Alkalinity ☐

TDS ☐ Cations ☐ Anions ☐ Nitrate ☐ Nitrite ☐ Ammonia ☐ TKN ☐ NM WQCC Metals ☐

Total Phosphorus ☐ _____

MS/MSD _____ BD _____ BD Name/Time _____ TB _____

PRODUCT RECOVERY

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 5/6/03
Site Name Lat L 40

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 (passive skimmer)	0738	37.94	37.97	0.03	1 gal product
bailed 11 gallons water			43.11		

Comments

Recovered 1 gallon of product in passive skimmer. Depth to water and product thickness measured in well following skimmer removal. Skimmer in good condition. Will develop well and replace skimmer.

Signature: Martin J. Nee Date: May 6, 2003

Product Recovery and Well Observation Data

Project Name: San Juan Basin
 Project Manager: M Nee
 Client Company: MWH
 Site Name: Lat 40

Project No: 22003
 Date: 1/23/03

Well	Time	Depth to Water (ft)	Depth to Product (ft)	Total Well Depth (ft)	Product Thickness (ft)	Volume Removed	Comments
MW-1							No Access

COMMENTS: Could not make it to site due to mud and snow. Another attempt could be made w/ chiseling and a come-along when the ground is frozen. Site is V. remote, 10 miles from paved road, 80 miles from Farmington. No cell phone service.

Signature: [Signature]

Date: 1/23/03