

**3R - 212**

**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**

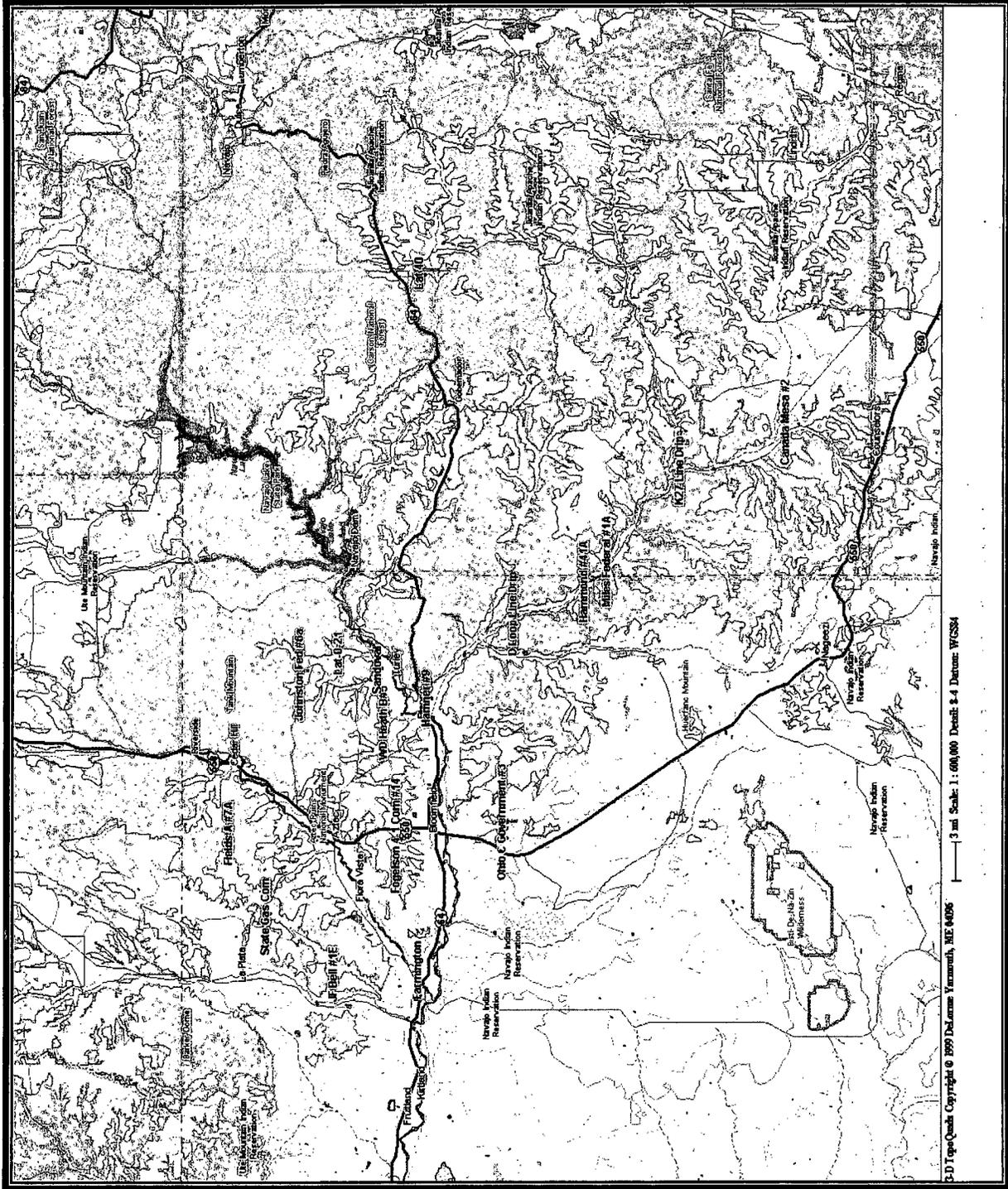
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<b>METER or LINE ID</b>	<b>SITE NAME</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>SECTION</b>	<b>UNIT</b>
89961	Fields A#7A	32N	11W	34	E
89232	Johnston Fed #6A	31N	09W	35	F
94715	James F. Bell #1E	30N	13W	10	P
89620	Sandoval GC A #1A	30N	09W	35	C
LD151	Lat 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



## 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**

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**SITE DETAILS**

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

**PREVIOUS ACTIVITIES**

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

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**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**

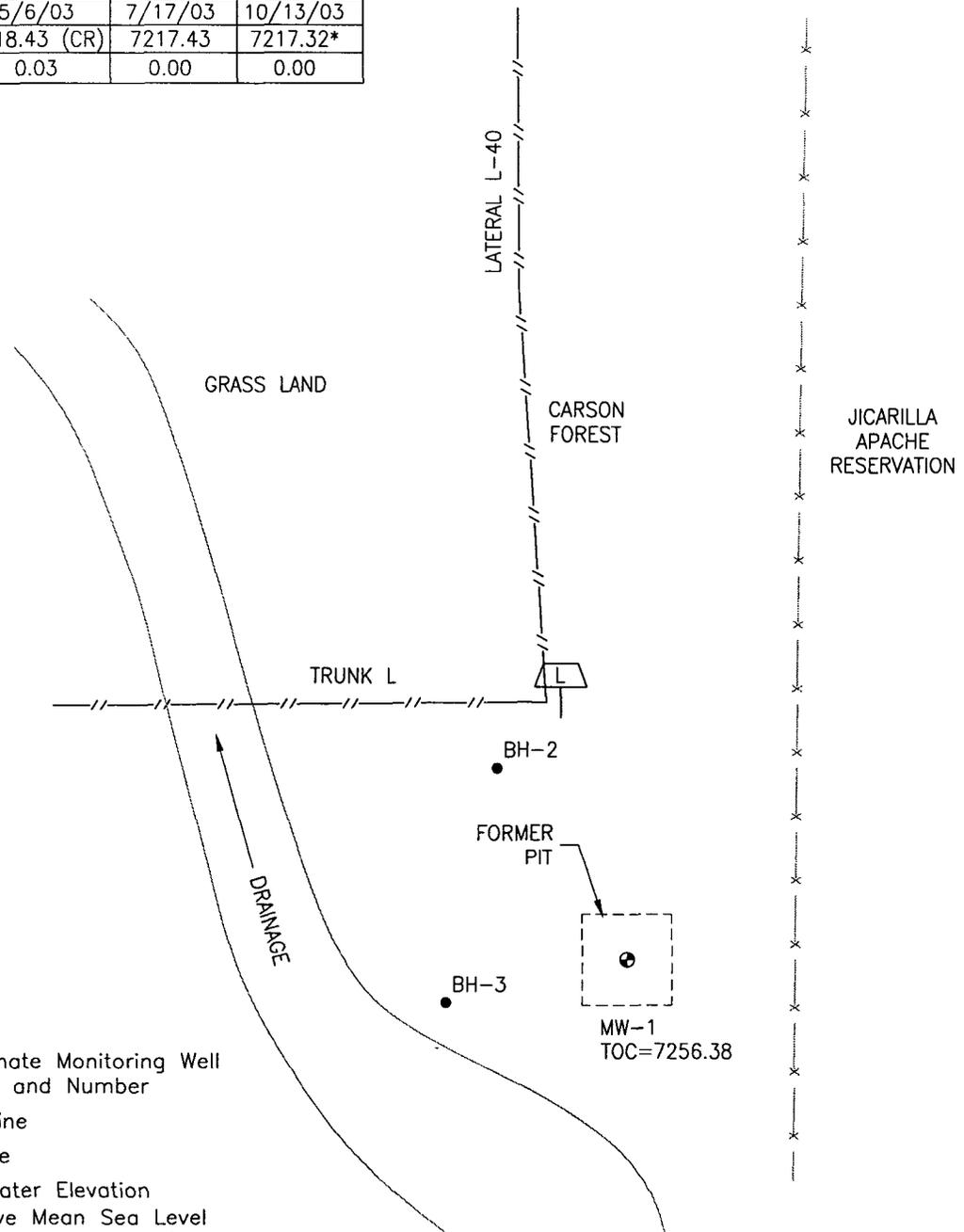
- EPFS will continue free-product recovery and water level monitoring efforts on a quarterly basis at MW-1. EPFS will evaluate passive free-product removal methodologies (i.e., hand bailing, passive skimmers, or hydrocarbon-absorbent material socks) and frequencies for most efficient free-product removal 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

  
 NOT TO SCALE

**LEGEND**

-  MW-1    Approximate Monitoring Well Location and Number
-     Fence Line
-     Pipe Line
- GWEL    Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
- TOC    Top of Casing
- PRODUCT    Measured Thickness of Free-Product (FT)
- CR    Water Level Has Been Corrected for Free-Product
- \*    Water Level Not Static. Measured After Skimmer Removed from Well.
-  BH-2    Attempted Monitoring Well Installation Location
- NM    Not Measured



lat140id\_03.dwg

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

GROUNDWATER SITES  
 EL PASO FIELD SERVICES

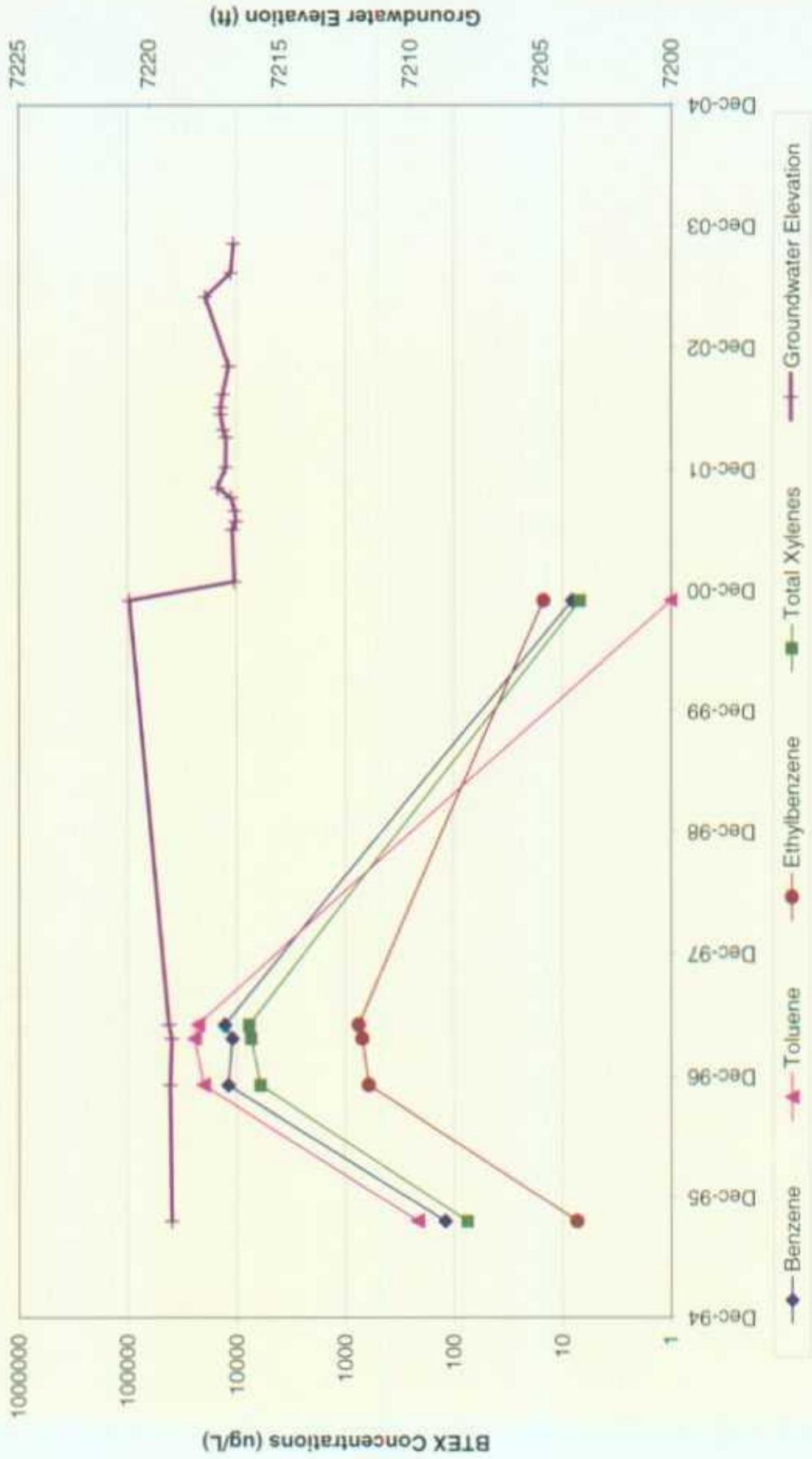
FIGURE 1

**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)	Cumulative 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





**ATTACHMENT 1**  
**FIELD DOCUMENTATION**

# 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 10/13/03  
Site Name Lat L 40

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1 (passive skimmer)	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

# 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 Basin Client: MWH  
 Location: LATL40 Well No: MW-1 Development  Sampling   
 Project Manager M. Nee Date 5-6-03 Start Time 0738 Weather pc 403  
 Depth to Water 3977 Depth to Product 3974 Product Thickness 003 Measuring Point TOL(N)  
 Water Column Height 1298 Well Dia. 4A

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  Sabilization 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>Mirror 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>779</u>	<u>1280</u>	<u>10<sup>2</sup></u>				<u>23.5</u>	<u>slight grey</u>
	<u>755</u>	<u>1320</u>	<u>10<sup>4</sup></u>				<u>24</u>	
	<u>742</u>	<u>1490</u>	<u>10<sup>9</sup></u>				<u>24.5</u>	
	<u>735</u>	<u>1470</u>	<u>11<sup>0</sup></u>				<u>25</u>	
	<u>733</u>	<u>1450</u>	<u>11<sup>0</sup></u>				<u>25.5</u>	
<u>0844</u>	<u>737</u>	<u>1400</u>	<u>11<sup>0</sup></u>				<u>26</u>	<u>clean</u>

**Final:**  
 Time 0844 pH 7.37 SC 1400 Temp 11<sup>0</sup> Eh-ORP \_\_\_\_\_ D.O. \_\_\_\_\_ Turbidity \_\_\_\_\_ Ferrous Iron \_\_\_\_\_ Vol Evac. 26 Comments/Flow rate \_\_\_\_\_

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

**INSTRUMENTATION:** pH Meter  \_\_\_\_\_ Temperature Meter  \_\_\_\_\_  
 DO Monitor  \_\_\_\_\_ Other  \_\_\_\_\_  
 Conductivity Meter  \_\_\_\_\_

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 \_\_\_\_\_



