

**3R - 163**

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# **REPORTS**

**DATE:**

**July 1996**

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August 20, 1996

Mr. Bill Olson  
New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

**RECEIVED**

AUG 20 1996

Environmental Bureau  
Oil Conservation Division

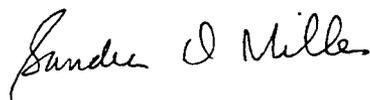
**RE: Production Pit Closure Submittal**

Dear Mr. Olson:

Enclosed herein are data packages for work completed at El Paso Field Services (EPFS) production pit locations where shallow groundwater was encountered during closure operations. The data included within indicate that these sites merit closure per the New Mexico Oil Conservation Division's (NMOCD) Vulnerable Area Orders and EPFS's closure plan submitted to the NMOCD. In front of each data package is a site specific checklist that indicates the work completed at each location. Each checklist is followed by a short summary of the activities and results of data collected to support closure.

Sincerely,

**El Paso Field Services**



Sandra Miller  
Senior Environmental Manager

j:\16297\sm

**SAN JUAN BASIN PIT CLOSURES**  
**San Juan Basin, New Mexico**

**Pit Closure Report**

**July 1996**

**Prepared For**

**El Paso Field Services**  
**Farmington, New Mexico**

**Project 16297**

**PHILIP**  
**ENVIRONMENTAL**



Environmental Services Group  
Southern Region

**Cleveland No. 6**  
**Meter Code 71106**

Pit was excavated to 4 feet beneath ground surface. Headspace soil readings from excavation bottom were 230 parts per million. Soil analytical from a composite sample was as follows; benzene - < .5 mg/kg, total BTEX - 69 mg/kg, TPH - 1,660 mg/kg.

One soil boring was completed and a monitoring well installed. Soil boring analytical results were as follows; benzene - <.5 mg/kg, total BTEX - 1 mg/kg, TPH - 31.4 mg/kg. Groundwater was encountered at 66.83 feet. Initial groundwater analytical were as follows; benzene - 6.3 ug/L, toluene - 35.8 ug/L, ethylbenzene - 4.0 ug/L, xylenes - 21.2 ug/l. Second groundwater analytical were as follows; benzene - <1.0 ug/L, toluene - <1.0 ug/L, ethylbenzene - <1.0 ug/L, xylenes - <3.0 ug/l.



831  
934

# FIELD PIT SITE ASSESSMENT FORM

8

GENERAL

Meter: 71106 Location: Cleveland No 6  
 Operator #: 2999 Operator Name: Meridian P/L District: Ballard  
 Coordinates: Letter: B Section 21 Township: 22 Range: 9  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 6-11-94 Area: 11 Run: 31

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps) Inside  (1) Outside  (2)  
 Land Type: BLM  (1) State  (2) Fee  (3) Indian \_\_\_\_\_

Depth to Groundwater  
 Less Than 50 Feet (20 points)  (1)  
 50 Ft to 99 Ft (10 points)  (2)  
 Greater Than 100 Ft (0 points)  (3)

Wellhead Protection Area: 6-11-94  
 Is it less than 1000 ft from Wells, springs, or other sources of fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source?  (1) YES (20 points)  (2) NO (0 points)

Horizontal Distance to Surface Water Body  
 Less Than 200 Ft (20 points)  (1)  
 200 Ft to 1000 Ft (10 points)  (2)  
 Greater Than 1000 Ft (0 points)  (3)

Name of Surface Water Body Taquez Canyon  
 (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)  
 Distance to Nearest Ephemeral Stream  (1) < 100' (Navajo Pits Only)  
6-11-94  (2) > 100'  
low

TOTAL HAZARD RANKING SCORE: ~~60~~ 40 POINTS

REMARKS

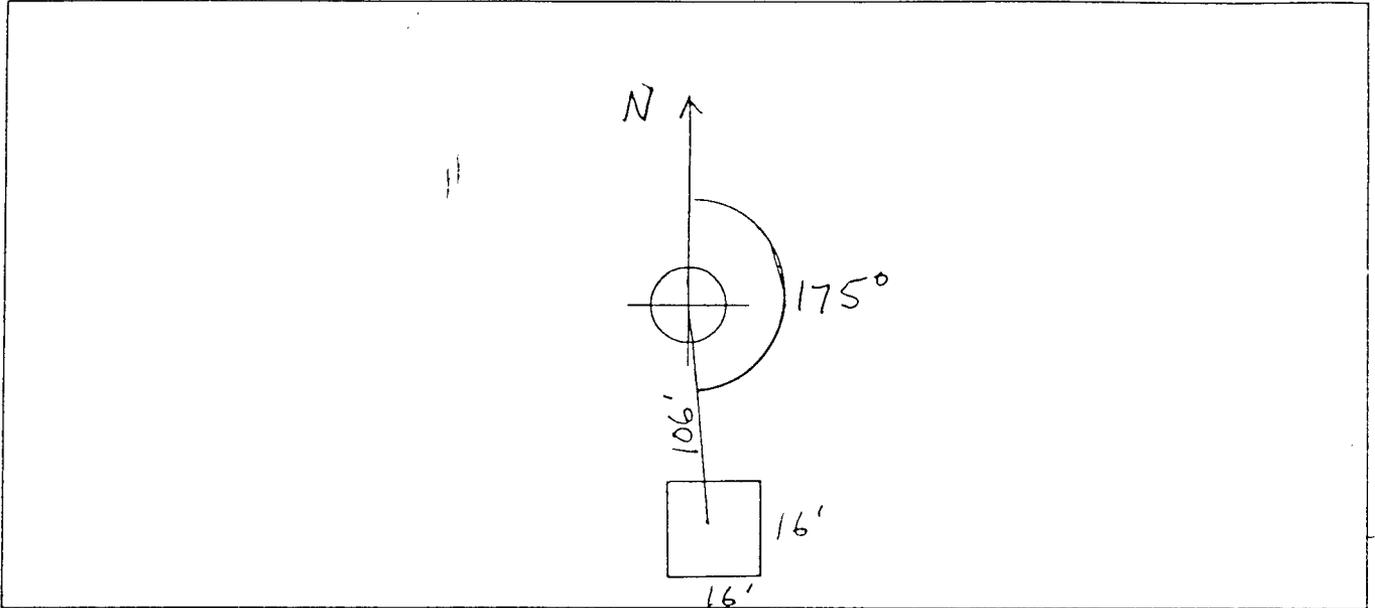
Remarks : one pit - dry  
Inside V.Z. on Redline @ 7000

71106

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 175 Footage from Wellhead 106  
b) Length : 16 Width : 16 -Depth : 3

ORIGINAL PIT LOCATION



Remarks :

Photos - 1248

End dump

REMARKS

Completed By:

[Signature]

Signature

6-11-94

Date

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# **Phase I Excavation**

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FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 71106 Location: Cleveland #6  
Coordinates: Letter: B Section 21 Township: 27 Range: 9  
Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Date Started : 6/22-94 Run: 11 31

FIELD OBSERVATIONS

Sample Number(s): KD233  
Sample Depth: 4' Feet  
Final PID Reading 230 ppm PID Reading Depth 4' Feet  
Yes No  
Groundwater Encountered   Approximate Depth \_\_\_\_\_ Feet

CLOSURE

Remediation Method :  
Excavation  Approx. Cubic Yards 20  
Onsite Bioremediation   
Backfill Pit Without Excavation   
Soil Disposition:  
Envirotech   Tierra  
Other Facility  Name: \_\_\_\_\_  
Pit Closure Date: 6/22-94 Pit Closed By: BEJ

REMARKS

Remarks : EXCAVATED pit to 4', Hit sandstone, Took PID Sample, Closed pit.

Signature of Specialist: [Signature]



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD233	945990
MTR CODE   SITE NAME:	71106	Cleveland #6
SAMPLE DATE   TIME (Hrs):	08/22/94	1445
PROJECT:	Phase I	
DATE OF TPH EXT.   ANAL.:	08/24/94	08/24/94
DATE OF BTEX EXT.   ANAL.:	08/25/94	08/26/94
TYPE   DESCRIPTION:	VC	Black/gray sand & clay

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 0.5	MG/KG	20			
TOLUENE	29	MG/KG	20			
ETHYL BENZENE	2.7	MG/KG	20			
TOTAL XYLENES	37	MG/KG	20			
TOTAL BTEX	69	MG/KG				
TPH (418.1)	1660	MG/KG			2.01	28
HEADSPACE PID	230	PPM				
PERCENT SOLIDS	94.1	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

Surrogate Recovery was at 126 % for this sample All QA/QC was acceptable.  
 Narrative:

performed analyses. Surrogate recovery was outside ATI QC limits due to matrix interference.

DF = Dilution Factor Used

*Handwritten signatures and dates*

PROJECT NUMBER		PROJECT NAME		REQUESTED ANALYSIS		CONTACT LABORATORY P. O. NUMBER	
SAMPLERS: (Signature)		Pit Closure Project # 24324		EPA 418.1	BTEX		
LAB ID	DATE	TIME	MATRIX	SAMPLE TYPE	TOTAL NUMBERS OF CONTAINERS	#	REMARKS
SA 87	8/24/94	1100	soil	VC	1	208	
SA 88	8/24/94	1230	soil	VC	1	209	
SA 89	8/24/94	1330	soil	VG	1	210	
SA 90	8/24/94	1445	soil	VC	1	211	
SA 91	8/24/94	1530	soil	VG	1	212	
RELINQUISHED BY: (Signature) <i>Fung Lam</i>				RELINQUISHED BY: (Signature) <i>Blenda Lina</i>	DATE/TIME 3/8/94	RECEIVED BY: (Signature) <i>CPK 9/20/94</i>	
RELINQUISHED BY: (Signature) <i>Fung Lam</i>				RELINQUISHED BY: (Signature) <i>Blenda Lina</i>	DATE/TIME 8/23/94	RECEIVED BY: (Signature) <i>Kin King</i>	

RESULTS & INVOICES TO:  
**FIELD SERVICES LABORATORY**  
**EL PASO NATURAL GAS COMPANY**  
**P. O. BOX 4990**  
**FARMINGTON, NEW MEXICO 87499**  
 FAX: 505-599-2261

SAMPLE RECEIPT REMARKS

CHARGE CODE

REQUESTED TURNAROUND TIME:  
 ROUTINE  RUSH  
 CARRIER CO.  
 BILL NO.:

# STRAIGHT BILL OF LADING

ORIGINAL - NOT NEGOTIABLE

Shipper's No. \_\_\_\_\_

Carrier's No. 543639

Date 8-22-94

CARRIER: DOUG FOURZ CONSTRUCTION

SCAC

TO:

Consignee ENVIROTECH  
Street 5796 US HIGHWAY 64  
Destination FARMINGTON, NM

FROM: Shipper EL PASO NATURAL GAS COMPANY  
Street P.O. BOX 4990  
Origin FARMINGTON, NM

24324

Zip 87401

Route:

*9hes*

Vehicle Number 934

U.S. DOT Hazmat Reg. No. \_\_\_\_\_

No. Shipping Units	HM (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	Kind of Packages, Description of Articles	HAZARD CLASS	I.D. Number	PACKING GROUP	WEIGHT (subject to correction)	RATE	LABELS REQUIRED (or exemption)
1		HUGHES C # 6A EnviroTech	EXEMPT HYDRO-CARBON CONTAMINATED SOIL	90449	N/A	10	YD	N/A
1		HUGHES C # 6A EnviroTech	EXEMPT HYDRO-CARBON CONTAMINATED SOIL	90449	N/A	10	YD	N/A
1		Cleveland #6 EnviroTech	EXEMPT HYDRO-CARBON CONTAMINATED SOIL	71126	N/A	10	YD	N/A
1		Consistal HUGHES C # 6A	BACKFILL	90449	N/A	10	YD	N/A
1		Consistal HUGHES C # 6A	BACKFILL	90449	N/A	10	YD	N/A
1		Consistal Cleveland #6	BACKFILL	71106	N/A	10	YD	N/A
			BACKFILL		N/A		YD	N/A

Remit C.O.D. to: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

C.O.D. Amt: \$ \_\_\_\_\_

C.O.D. FEE:  Prepaid  Collect \$ \_\_\_\_\_

FREIGHT CHARGES  PREPAID  COLLECT

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ \_\_\_\_\_ Per \_\_\_\_\_ (Signature of Consignor)

RECEIVED: subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and delivered as indicated above which said carrier, (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

This is to certify that the above named materials are properly classified, packaged, marked and labeled and are in proper condition for transport according to the applicable regulations of the Department of Transportation.

**PLACARDS REQUIRED**

N/A

**PLACARDS SUPPLIED**

YES

NO  FURNISHED BY CARRIER

DRIVERS SIGNATURE: \_\_\_\_\_

SHIPPER: EL PASO NATURAL GAS COMPANY

CARRIER: *Doug Fourz Const*

PER: SANDRA MILLER

DATE: 8-22-94

PER: *Sandra Miller* DATE: 8-22-94

EMERGENCY RESPONSE EL PASO NATURAL GAS 505/599-2141

TELEPHONE: (505) 326-2262 BURLINGTON ENVIRO.

Monitored at \_\_\_\_\_ the Hazardous Material is in transportation

initial to transportation (172.604).

# STRAIGHT BILL OF LADING

ORIGINAL - NOT NEGOTIABLE

Shipper's No. 343637

CARRIER: DOUG FOURZ CONSTRUCTION SCAC                      Carrier's No.                      Date 8-22-94

TO: ENVIROTECH  
 Consignee 5796 U.S. HIGHWAY 64  
 Street FARMINGTON, NM 87401  
 Destination                      Zip                     

FROM: EL PASO NATURAL GAS COMPANY  
 Shipper P.O. BOX 4990  
 Street FARMINGTON, NM 87499-4990  
 Origin                      Zip                     

Route:                      Vehicle Number 831 U.S. DOT Hazmat Reg. No.                     

No. Shipping Units	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I.D. Number	PACKING GROUP	WEIGHT (subject to correction)	RATE	LABELS REQUIRED (or exemption)
1	Hughes C #6A / EnviroTech	EXEMPT HYDRO-CARBON CONTAMINATED SOIL	90449	N/A	10	YD	N/A
1	Hughes C #6A / EnviroTech	EXEMPT HYDRO-CARBON CONTAMINATED SOIL	90449	N/A	10	YD	N/A
1	Cleaveland #6 / EnviroTech	EXEMPT HYDRO-CARBON CONTAMINATED SOIL	71106	N/A	10	YD	N/A
1	EnviroTech / Hughes C #6A	BACKFILL	90449	N/A	10	YD	N/A
1	EnviroTech / Hughes C #6A	BACKFILL	90449	N/A	10	YD	N/A
1	EnviroTech / Cleaveland #6	BACKFILL	71106	N/A	10	YD	N/A
		BACKFILL		N/A		YD	N/A

Remit C.O.D. to:                      State:                      Zip:                     

Address:                     

City:                     

C.O.D. Amt: \$                      C.O.D. FEE:  Prepaid  Collect

FREIGHT CHARGES  PREPAID  COLLECT

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$                      per                      (signature of Consignor)

RECEIVED: subject to the classification and liability that starts in effect on the date of issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and delivered as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination and as to each party at any time involved in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions and he hereby agrees to be bound by the said terms and conditions as they apply to himself and his assigns (including and as in proper condition for transportable regulations of the Department of Transportation).

SHIPPER: EL PASO NATURAL GAS COMPANY PER: SANDRA MILLER DATE:                     

CARRIER: X DOUG FOURZ CONSTRUCTION PER:                      DATE: 8-22-94

EMERGENCY RESPONSE: EL PASO NATURAL GAS 505/599-2141

TELEPHONE NUMBER: (505) 326-2262 BURLINGTON ENVIRO.

Monitored at all times the Hazardous Material is in transportation including storage, until transportation (172.604).

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**Phase II Soil Boring**

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RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1  
 Well # \_\_\_\_\_  
 Page 1 of 2

LIP ENVIRONMENTAL

7 Monroe Road  
 Farmington, New Mexico 87401  
 (505) 326-2262 FAX (505) 326-2388

Project Name EPNG Pits  
 Project Number 14509 Phase 6000.77  
 Project Location Cleveland No. 6, 71106

Elevation \_\_\_\_\_  
 Borehole Location T27, R9, S21, B  
 GWL Depth \_\_\_\_\_  
 Logged By Jeff W. Kindley  
 Drilled By G. Sudduth  
 Date/Time Started 08/09/95 0720  
 Date/Time Completed 08/11/95 1400

Well Logged By Jeff W. Kindley  
 Personnel On-Site G. Sudduth, D. Roberts  
 Contractors On-Site \_\_\_\_\_  
 Client Personnel On-Site \_\_\_\_\_  
 Drilling Method 4 1/4 ID HSA  
 Air Monitoring Method PID, CGI

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S	
0				Backfill material to 4"						
10	1	8-10'	.5 / 1.5	SAND, gray, medium to coarse grained, loose, dry				157 / 202		0755
15	2	13-15'	.6 / 1.5	S.A.A.				133 / 189		0802
20	3	18-20'	.6 / 1.5	S.A.A.				137 / 162		0811
25	4	23-25'	.4 / 1.5	SAND, brown/tan, medium grained, loose, dry				110 / 150		0824
30	5	28-30'	.2 / 1.5	S.A.A.				100 / 135		0832
35	6	33-35'	.8 / 1.5	S.A.A.				91 / 151		0841
40	7	38-40'	.6 / 1.5	SAND, yellow brown, coarse grained, loose, dry				144 / 162		0858

Comments: At 50' the 6 1/4" augers got stuck. The bolts on the drill rig sheered off in an attempt to remove augers. On 08/10/95 the bolts on the drill rig sheered off a second time. The well was drilled to 80 and completed

Geologist Signature \_\_\_\_\_

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1  
 Well # \_\_\_\_\_  
 Page 2 of 2

ILIP ENVIRONMENTAL

10 Monroe Road  
 Wilmington, New Mexico 87401  
 (505) 326-2262 FAX (505) 326-2368

Project Name EPNG Pits  
 Project Number 14509 Phase 6000.77  
 Project Location Cleveland No. 6, 71106

Elevation \_\_\_\_\_  
 Borehole Location T27 R9, S21, B  
 GWL Depth \_\_\_\_\_  
 Logged By Jeff W. Kindley  
 Drilled By G. Sudduth / M. Donahue  
 Date/Time Started 08/09/95 0720  
 Date/Time Completed 08/11/95 1400

Well Logged By Jeff W. Kindley  
 Personnel On-Site G. Sudduth, D. Roberts  
 Contractors On-Site \_\_\_\_\_  
 Client Personnel On-Site \_\_\_\_\_  
 Drilling Method 4 1/4 ID HSA  
 Air Monitoring Method PID, CGI

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S	
40										
45	8	43-45'	1.5 / 1.5	CLAY, gray, stiff, dry, crumbles easily					163 / 168	0934
50	9	48-50'	1.7 / 1.5	clayey sand (10% clay) medium grained, tight to stiff clay, dry					79 / 82	0952
55	10	53-55'	1.7 / 1.5	S.A.A.					118 / 57	1014
60	11	58-60'	1.9 / 1.5	SAA					83 / 61	1040
65	12	63-65'	1.6 / 1.5	SAND, gray, coarse grained loose, moist					62 / 57	1109
70	13	68-70'	1.7 / 1.5	S.A.A. Wet has an oil sheen on groundwater						70
75				S.A.A.						
80				Boring terminated at 80'						

Comments: on August 11, 1995. A sample was collected at 63 to 65' and submitted for analysis of BTEX and TPH

Geologist Signature Jeff W. Kindley



**FIELD SERVICES LABORATORY  
ANALYTICAL REPORT**

**PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone**

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	<b>JWK9</b>	947202
MTR CODE   SITE NAME:	71106	Cleveland #6
SAMPLE DATE   TIME (Hrs):	08/09/95	1109
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL.:	08/11/95	08/11/95
DATE OF BTEX EXT.   ANAL.:	08/18/95	08/18/95
TYPE   DESCRIPTION:	VG	Light gray sand & clay

Field Remarks: \_\_\_\_\_

**RESULTS**

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.025	MG/KG	1			
TOLUENE	<0.025	MG/KG	1			
ETHYL BENZENE	<0.025	MG/KG	1			
TOTAL XYLENES	<0.025	MG/KG	1			
TOTAL BTEX	<0.10	MG/KG				
TPH (418.1)	31.4	MG/KG			2.16	28
HEADSPACE PID	57	PPM				
PERCENT SOLIDS	89.1	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

Surrogate Recovery was at 88 % for this sample All QA/QC was acceptable.  
 Narrative:  
 I performed analyses.

DF = Dilution Factor Used

Approved By:

*W. Allen Linder*

Date:

*7/18/95*



# MONITORING WELL INSTALLATION RECORD

Multip Environmental Services Corp.  
 4000 Morvae Road  
 Farmington, New Mexico 87401  
 (505) 326-2262 FAX (505) 326-2388

Borehole # \_\_\_\_\_  
 Well # \_\_\_\_\_  
 Page \_\_\_\_\_ of \_\_\_\_\_

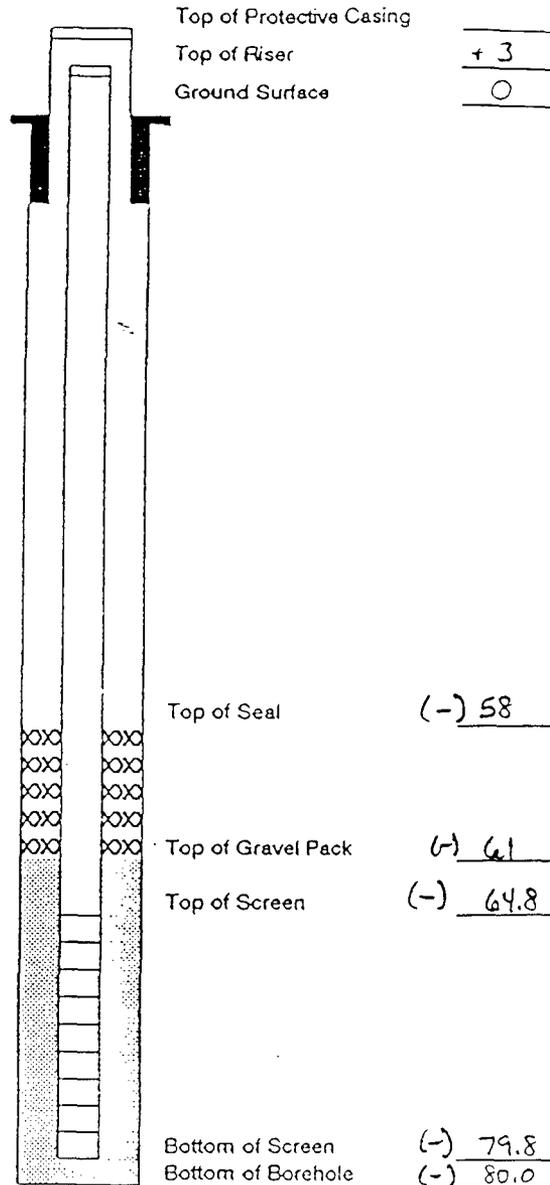
Project Name EPNG pits  
 Project Number 14509 Phase 6000.77  
 Project Location Cleveland No. 6, 71106

Elevation \_\_\_\_\_  
 Well Location T 27, R 9, S 21, B  
 GWL Depth \_\_\_\_\_  
 Installed By M. Donahue

On-Site Geologist J. Kindley  
 Personnel On-Site M. Donahue, J. O'Keefe, H. O'Keefe  
 Contractors On-Site \_\_\_\_\_  
 Client Personnel On-Site \_\_\_\_\_

Date/Time Started 08/09/95 0720  
 Date/Time Completed 08/11/95 1400

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		
Bottom of Concrete		
Top of Grout	Cement Slurry	2
Bottom of Grout		58
Top of Well Riser		
Bottom of Well Riser		
Top of Well Screen	4" PVC casing with .010 inch slotted screen	64.8
Bottom of Well Screen		79.8
Top of Peltonite Seal	Bentonite Pellets	58
Bottom of Peltonite Seal		61
Top of Gravel Pack	CSSE 10-20 silica sand	61
Bottom of Gravel Pack		79.8
Top of Natural Cave-In		-
Bottom of Natural Cave-In		-
Top of Groundwater		70
Total Depth of Borehole		80



Comments: \_\_\_\_\_

Geologist Signature

Jeffery Kindley



# Well Development and Purging Data

Development  
 Purging

Well Number MW-1

Serial No. WDPD

Page      of     

Project Name ERPS RR3

Project Manager Cory Chavac

Project No. 14509

Client Company GLPaso Martinez SCS

Phase/Task No. 6003.77

Site Name Cleavestock No 677106

Site Address     

## Development Criteria

- 3 to 5 Casing Volumes of Water Removal
- Stabilization of Indicator Parameters
- Other

## Water Volume Calculation

Initial Depth of Well (feet) 82.62  
 Initial Depth to Water (feet) 66.83  
 Height of Water Column in Well (feet) 15.79  
 Diameter (inches): Well 4 Gravel Pack     

## Methods of Development

- Pump
- Centrifugal
- Submersible
- Peristaltic
- Other
- Baller
- Bottom Valve
- Double Check Valve
- Stainless-steel Kemmerer

## Instruments

- pH Meter HYDAC
- DO Monitor
- Conductivity Meter
- Temperature Meter
- Other

Serial No. (if applicable)     

## Water Disposal

Drummed and Transported in Bloom field to KUTZ separator

## Water Removal Data

Date	Time	Development Method	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Product Volume (gallons)		Temperature (°F)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Comments
						Increment	Cumulative	Increment	Cumulative					
05.23.95	1135	X				10	10			65.7	6.73	4.83		GRAY cloudy
	1140					10	20			61.8	6.74	4.61		1
	1200					5	25			66.9	6.79	4.98		GRAY silty
	1350					5	30			65.1	7.03	4.87		CLAR cloudy
	1400					5	35			69.3	7.03	5.03		DK GRAY silty pass oil to separator
	1400					10	45			64.5	6.97	5.01		GRAY cloudy
	1415					2.5	47.5			68.7	6.97	5.15		1
05.15.95	1425	X				5	52.5			68.4	7.00	5.18		GRAY silty

*Circle the date and time that the development criteria are met.*

Comments Well purged down at 25 gal/min for 2 hrs. Small amount of oil in sample. Clean up

XXX was DRY at 4:20

Developer's Signature(s) James G. Long

Date 05.12.95

Reviewer     

Date



# Water Sampling Data

Location No. nw-1Serial No. WSD-

Group List Number \_\_\_\_\_

Sample Type:  Groundwater  Surface Water  Other \_\_\_\_\_ Date 09.13.95Project Name EPNS PITS Project No. 14505Project Manager Cory Chance Phase Task No. 6003.77Site Name Cleveland no 6 (71106)

### Sampling Specifications

Requested Sampling  
Depth Interval (feet) TOP 3'  
Requested Wait Following  
Development/Purging (hours) \_\_\_\_\_

### Initial Measurements

Time Elapsed From Final Development/Purging (hours) <sup>min</sup> 30  
Initial Water Depth (feet) 66.83  
Nonaqueous Liquids Present (Describe) none

### Water Quality/Water Collection

DO = Dissolved Oxygen; Cond. = Conductivity

Date	Time	Sampler Initials	Water Quality Readings				Water Collection Data					Notes (Explain in Comments Below)	
			Temp. (°C)	pH	DO (mg/L)	Cond. (µmhos/cm)	Volume Removed (gallons)	Removal Rate (gal/min)	Pump Intake Depth (feet)	Bail	Final Water Depth (feet)		
See well	Development												

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)  
Preservatives: H = HCl; N = HNO<sub>3</sub>; S = H<sub>2</sub>SO<sub>4</sub>; A = NaOH; O = Other (Specify); - = None

### Sample Containers

Analytical Parameter List	Container			Field Filtered		Preserved	Cooled During Collection		Comments
	Number	Type	Volume (mL)	Yes	No		Yes	No	
BTEX	2	A	40		X	H	X		JALQI T1455
TDS	1	P	250		V	NA	X		

Filter Type \_\_\_\_\_ Chain-of-Custody Form Number \_\_\_\_\_

Comments \_\_\_\_\_

Signature James A. Day Date 09.13.95 Reviewer \_\_\_\_\_ Date \_\_\_\_\_



**FIELD SERVICES LABORATORY**  
**ANALYTICAL REPORT**  
**PIT CLOSURE PROJECT - Water**

**SAMPLE IDENTIFICATION**

SAMPLE NUMBER:	947453
FIELD ID:	JAL21
MTR CODE:	71106
SAMPLE DATE:	9/13/95
SAMPLE TYPE:	Monitor Well
SITE NAME:	Cleveland No. 6
PROJECT:	Phase II MW
DATE OF BTEX ANALYSIS:	14-Sep-95

FIELD COMMENTS: \_\_\_\_\_

**EPA Method 8020 (BTEX) RESULTS**

PARAMETER	RESULT	QUALIFIER	WQCC LIMIT PPB
TDS - TOTAL DISSOLVED SOLIDS (PPM)	2932		None
BENZENE (PPB)	6.3		10
TOLUENE (PPB)	35.8		740
ETHYL BENZENE (PPB)	4.0		750
TOTAL XYLENES (PPB)	21.2		620
SURROGATE % RECOVERY	98	Allowed Range 80 to 120 %	

NOTES:

Approved By: *John L. Fisher*

9-15-95



**March 14, 1996**

**ANALYTICAL REPORT**

**Pit Project Monitor Well Testing Results**

**Lab Sample # 960184**

**Meter #71106 - Cleveland #6**

**Sampled 2/21/96**

**Sampled by D. Bird/R. Benson**

**REMARKS:**

This sample was collected and tested in order to meet the "Sample 1" Pit Project criteria. All New Mexico WQCC standards were met for this Monitor Well. This information has been entered into the Project MS Access Data Base.

**Distribution:** Sandra Miller  
Nancy Prince  
Ann Allen  
Results Log Book ✓  
File



EL PASO FIELD SERVICES

MEMORANDUM

Entered  
3/14/96  
JP.

To: John Lambdin

Date: March 4, 1996

From: Dennis Bird

Place: Laboratory Services

Subject: Ballard Pipeline Pit Monitor Wells

On Tuesday, February 20, 1996, Richard Benson and myself went to Ballard Pipeline and started sampling the pit monitor wells. The following analytical parameters are to be performed on these groundwater samples: BTXE, General Chemistry, Nitrate as NO3-N, Metals As, Ba, Cd, Cr, Hg, Se, Ag, Pb, and Dissolved Oxygen. The samples were assigned the laboratory numbers 960170, 960171, 960184, 960192, 960193. The samples for metals were filtered with a 0.45 micron filter in the field at the time of sampling. The dissolved oxygen results were taken at the time of sampling with a ChemMets Kit. The Field Service Laboratory will be performing all of the analysis.

The following information was collected on each well.

Monitor Well#	Pipe ID	Static Level	Total Depth	Gallons Bailed	Dissolved Oxygen	Mete #
Hammond Fed. #1	4"	25.77'	33.00'	15.5	1.5 ppm	
Lat. 2C-55 Line Drip	4"	23.47'	35.40'	25.0	1.5 ppm	
960184 Cleveland #6	4"	66.65'	82.62'	32.0	3.5 ppm	71106
Salazar "G" 34-1	4"	35.83'	46.25'	21.0	1.0 ppm	

All bailing and sampling was done with disposable, one time use equipment and bottles. All samples were preserved on ice immediately after collection. The static level and total depth was measured from the top of the pipe.

Should you have any question or comments, please let me know.

DB  
Dennis P. Bird  
Chief Technician

cc: Nancy Prince  
Ann Allen  
Sandra Miller

# EPFS

## EL PASO FIELD SERVICES

### FIELD SERVICES LABORATORY ANALYTICAL REPORT

#### SAMPLE IDENTIFICATION

SAMPLE NUMBER:	960184
SITE NAME:	Ballard Pipeline
SAMPLE SITE:	Cleveland #6 MW-1
SAMPLE DATE:	02/21/96
SAMPLE TIME (Hrs):	1603
SAMPLED BY:	D. Bird
DATE OF BTEX ANALYSIS:	02/23/96
SAMPLE TYPE:	Water

Whic. Code: 71106

REMARKS: \_\_\_\_\_

#### EPA Method 8020 (BTEX) RESULTS

PARAMETER	RESULT PPB	QUALIFIER	WQCC LIMIT PPB
BENZENE	<1.0		10
TOLUENE	<1.0		740
ETHYL BENZENE	<1.0		750
TOTAL XYLENES	<3.0		620
SURROGATE % RECOVERY	101	Allowed Range 80 to 120 %	

REMARKS:

*v. d. f. n.*





**EL PASO FIELD SERVICES**

**FIELD SERVICES LABORATORY**

**ANALYTICAL REPORT**

**SAMPLE IDENTIFICATION**

SAMPLE NUMBER:	960184
LOCATION:	Ballard Pipeline
SAMPLE DATE:	02/21/96
SAMPLE TIME (Hrs):	1603
SAMPLED BY:	D. Bird
SAMPLE POINT:	Cleveland #6 MW-1

REMARKS:

**RESULTS**

PARAMETER	DISSOLVED RESULT (mg/L)	TOTAL RESULT (mg/L)	N. M. WQCC LIMIT (mg/L)
ARSENIC	0.001	0.005	0.10
BARIUM	0.02	0.53	1.00
CADMIUM	<0.0005	<0.0005	0.01
CHROMIUM	0.006	0.017	0.05
LEAD	<0.004	0.010	0.05
MERCURY	<0.0001	<0.0001	0.002
SELENIUM	<0.005	<0.005	0.05
SILVER	0.0004	0.0006	0.05

NOTE: The sample results have been corrected for volume adjustment associated with Method 3015.

**References:**

- Method 3015, Microwave Assisted Acid Digestion of Aqueous Samples and Extracts, Test Methods for Evaluating Solid Waste, SW-846, Sept., 1994.
- Method 7061A, Arsenic (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.
- Method 7081, Barium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.
- Method 7131, Cadmium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept, 1986.
- Method 7191, Chromium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept, 1986.
- Method 7421, Lead (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept, 1986.
- Method 245.5, Mercury (Automated Cold Vapor Technique), Methods for the Determination of Metals in Environmental Samples, EPA600/4-91/010, EPA, June, 1991.
- Method 7741A, Selenium (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept, 1994.
- Method 7761, Silver (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.



OK

### Closure Checklist

**Meter Code**

71106

Summary  
Site Map  
Site Assessment Sheet

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- 

**Phase I Excavation**

Yes

closure form  
soil analytical results  
soil chain-of-custody  
groundwater analytical results  
groundwater chain-of-custody  
bills of lading

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**Phase II Soil Boring**

Yes

boring log  
soil analytical results  
soil chain-of-custody  
well installation form  
development form  
groundwater analytical  
groundwater chain-of-custody

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**Phase III Excavation**

NO

closure form  
soil analytical results  
soil chain-of-custody  
groundwater analytical  
groundwater chain of-custody  
bills of lading

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**Recon performed**

NO

groundwater analytical  
soil-gas analytical

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If item boxes are not checked they are not applicable