

AP - 52

**ANNUAL
MONITORING REPORT**

YEAR(S):

2003



ENVIRONMENTAL PLUS, INC. *Micro-Blaze Micro-Blaze Out™*
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

April 30, 2004

Mr. Ed Martin
NM Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division – Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Subject: 2003 Annual Monitoring Report

Re: Link Energy C.S. Caylor #2002-10250
UL-B Section 6 T17S R37E
Lea County New Mexico

Dear Mr. Martin,

Environmental Plus, Inc. (EPI), on behalf of Mr. Frank Hernandez, Link Energy, submits for your consideration the *2003 Annual Monitoring Report* for the Link Energy C.S. Caylor #2002-10250 remediation site.

If there are any questions or comments please call Mr. Ben Miller or myself at office, or at 505-390-2088 or 505-390-7864, respectively. Mr. Hernandez may be contacted through Link's Midland office at 915-638-3799 or 505-631-3095.

All official correspondence should be addressed to:

Mr. Frank Hernandez
Link Energy
P.O. Box 1660
5805 East Highway 80
Midland, Texas 79703

Sincerely,

Pat McCasland
EPI Technical Manager

cc: Larry W. Johnson, NMOCD – Hobbs District Office
Frank Hernandez, Link Energy
Jeff Dann, Link Energy (Houston)
Sherry Miller, EPI President
Ben Miller, EPI Vice President and General Manager

ENVIRONMENTAL PLUS, INC.



2003 ANNUAL MONITORING REPORT

C.S. Cayler
Ref. # 2002-10250

IR-382

UL-B, NW¼ of the NE¼ of Section 6, R37E, T17S
Latitude 32° 52' 2.45"N and Longitude 103° 17' 17.73"W
Elevation ~3,810'amsl'amsl

~7 miles southeast of Lovington, Lea County, New Mexico

Date
April 2004

Prepared by

Environmental Plus, Inc.
2100 West Avenue O
P.O. Box 1558
Eunice, New Mexico 88231
Tele 505•394•3481 FAX 505•394•2601



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1.0 BACKGROUND

This site is located in UL-B, the NW¼ of the NE¼ of Section 6, Range-37E, Township-17S at Latitude 32° 52' 2.45"N and Longitude 103° 17' 17.73"W, approximately 7 miles southeast of Lovington, Lea County, New Mexico on property owned by Robert C. Rice. Area and site maps are included as Figures 1 through 3. The estimated 70 barrel (bbl) crude oil leak attributed to internal/external corrosion, occurred on September 19, 2002 in the C.S Cayler Moore to Kimbrough 8" steel pipeline with no oil recovered. It was also observed that a historical spill or spills had occurred in the area of the current release. Approximately 2,199 ft² (70' x 30') of surface was affected by the most recent spill. During site soil delineation, crude oil was found to have impacted the ground water, measured at approximately 78 feet below ground surface ('bgs). Subsequent to soil delineation activities, impacted soil down to approximately 5'bgs was excavated and remediated and is currently stored on site to be used as backfill.

2.0 FIELD ACTIVITIES

A single 2" PVC cased monitor well was installed during site soil delineation activities on September 24, 2002 to determine Phase Separated Hydrocarbon (PSH) thickness and to initiate PSH recovery. Site surveillance is conducted at least weekly to monitor groundwater and PSH levels and maintain the product recovery system.

3.0 GROUNDWATER GRADIENT AND PSH THICKNESS

The area groundwater gradient, as illustrated in Figure 4, is to the southeast and was determined using area water well information from the New Mexico Office of the State Engineer. Stabilized PSH thickness declined from 11.92 feet in March of 2003 to 9.96 feet in August 2003. Water and PSH levels along with PSH thickness are illustrated in Figure 5.

4.0 PSH RECOVERY

Product recovery activities began in September of 2002, initially by manual bailing followed in March of 2003 with deployment of a portable trailer mounted recovery system that operates continuously. The recovery system is shutdown for at least 48 hours prior to collecting water and PSH levels to ensure stabilized measurements. As of December 31, 2003, approximately 3,800 gallons of crude oil had been recovered and reintroduced into the Link Energy pipeline system.

5.0 GROUNDWATER SAMPLING

Because of the presence of PSH, no groundwater samples from MW1 have been collected.

6.0 ANALYTICAL RESULTS

Not applicable at this time.

7.0 STATUS

Currently, Link Energy is preparing a Stage I and Stage II Abatement Plan in accordance with 19-15-1-19 NMAC (Rule 19) that will propose further delineation of the groundwater to bound the areal extents of the PSH and the dissolved phase hydrocarbons, as well as, provide for additional recovery and monitor wells. A conservative risk assessment will be provided to address the impacted soil remaining in the subsurface.

FIGURES

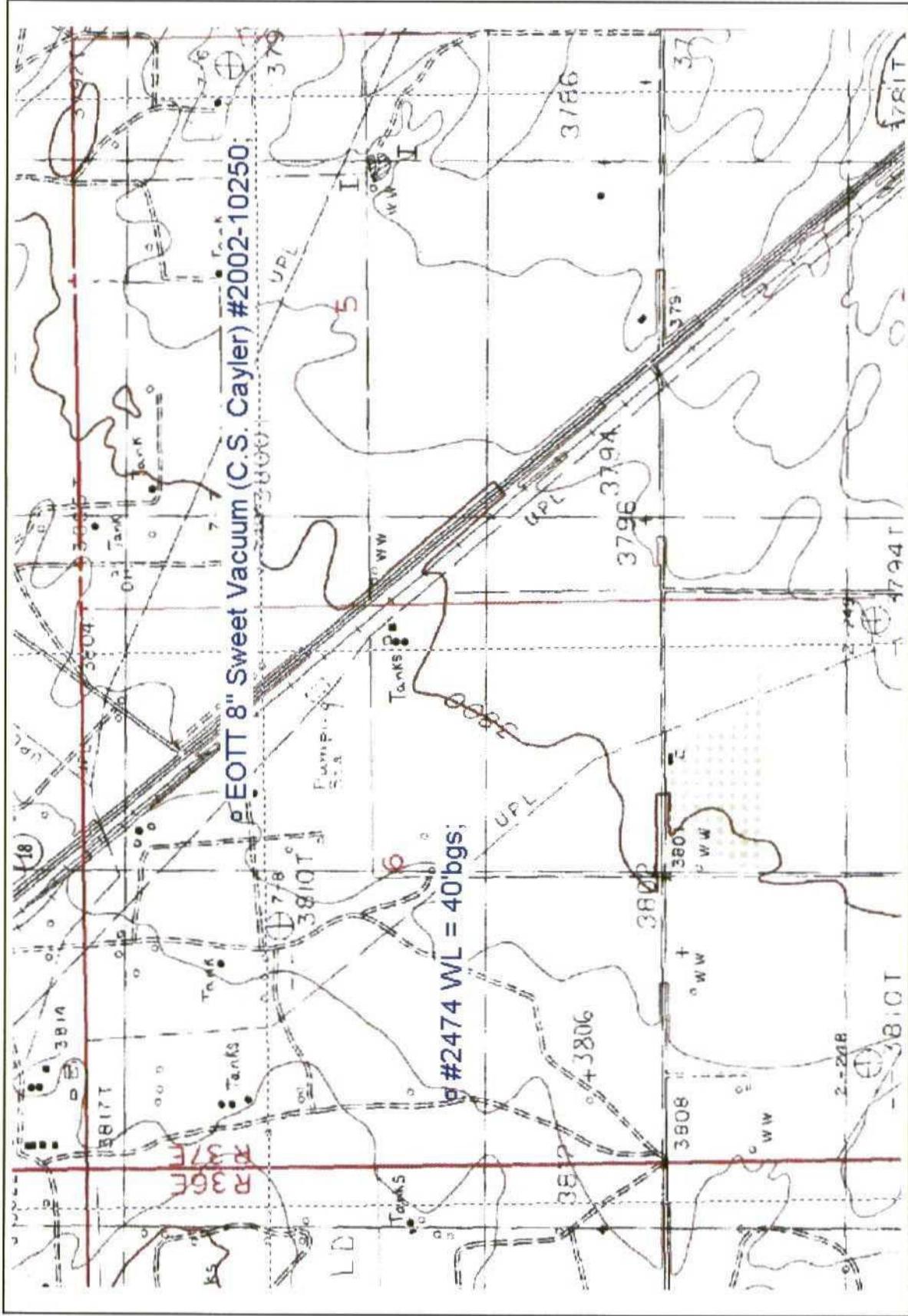


Figure 1 - C.S. Cayler Area Map

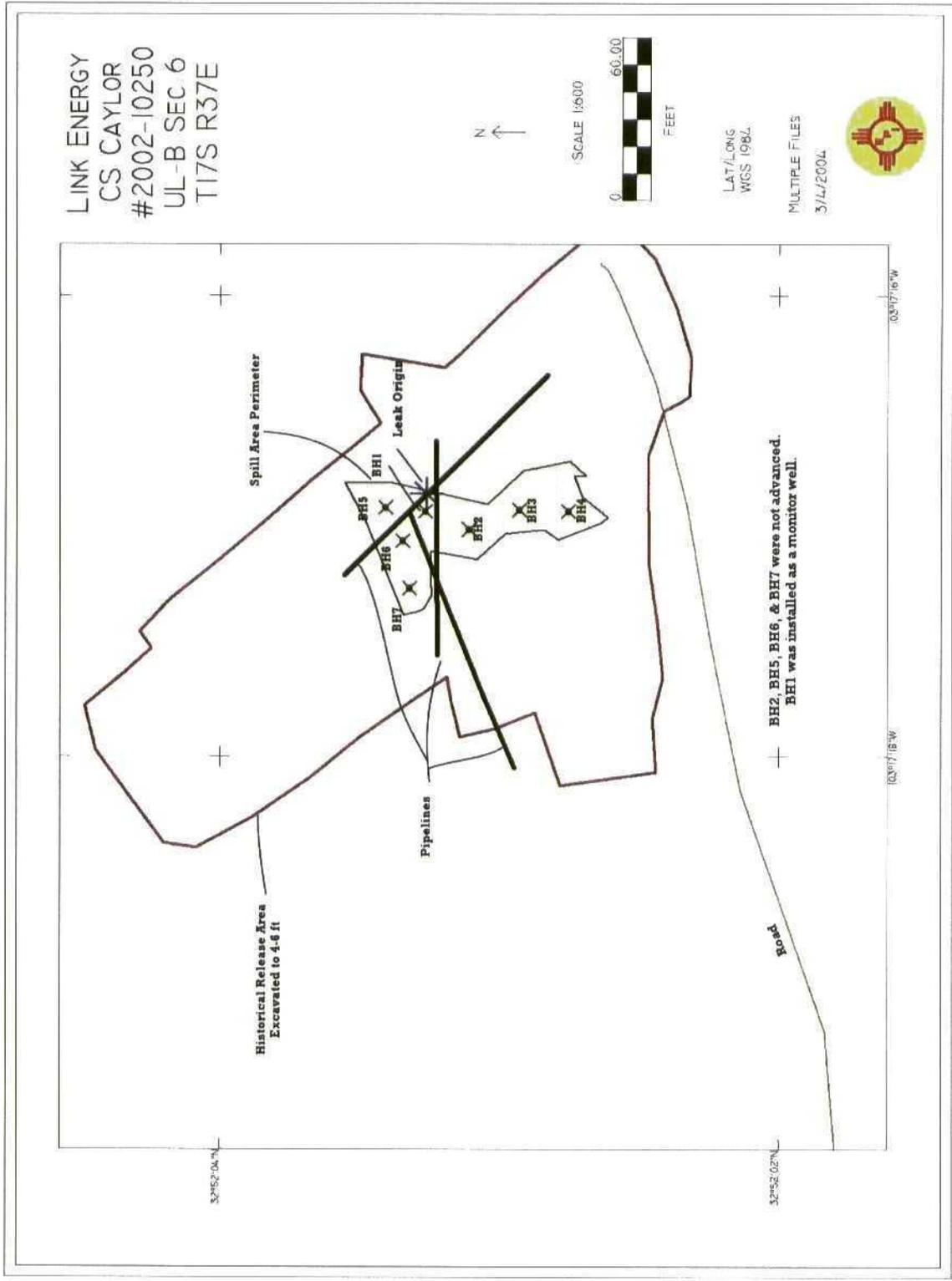


Figure 2 - C.S. Cayler Borehole/Monitor Well Location Map

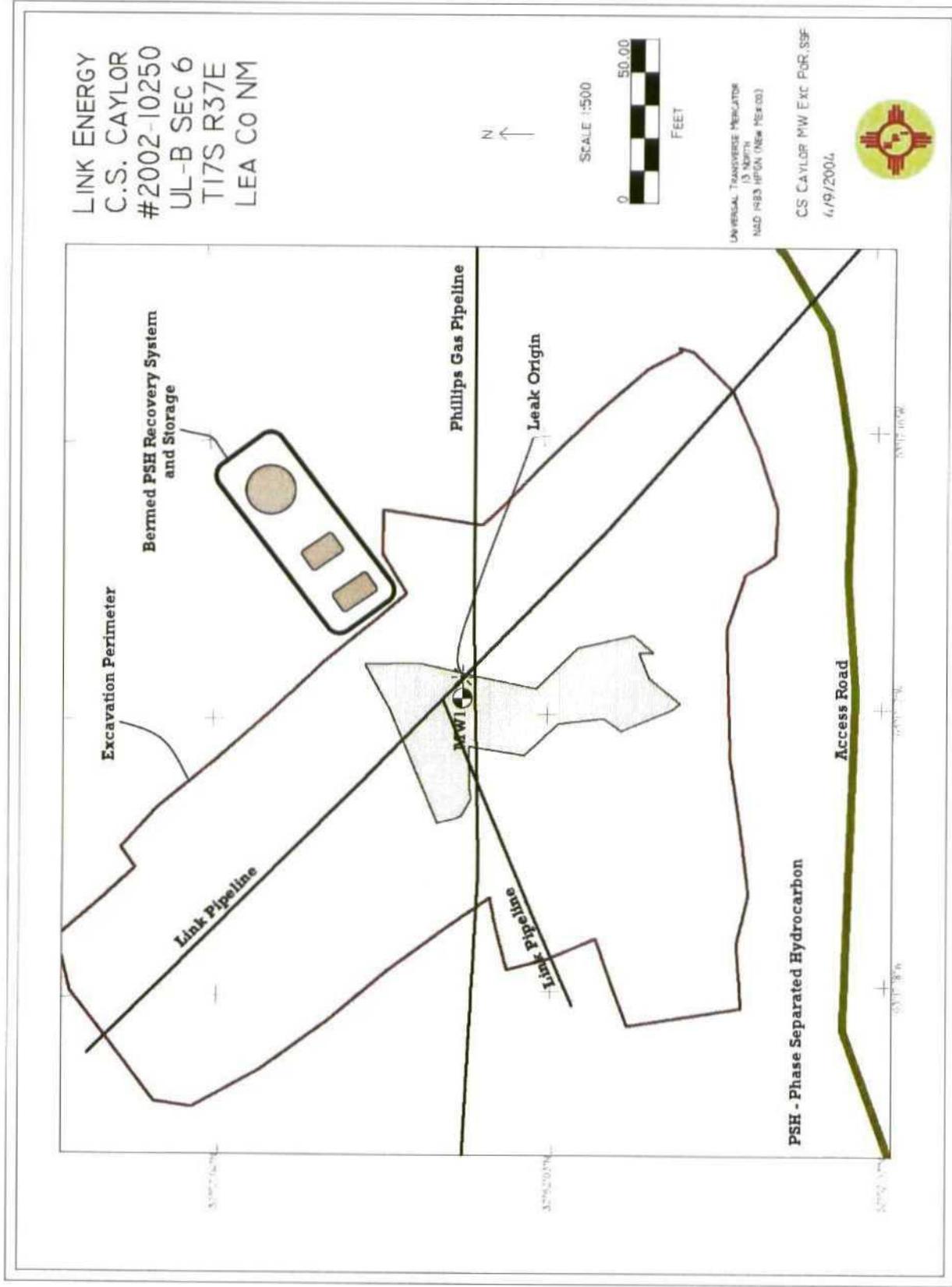


Figure 3 - C.S. Caylor Site Map

Link Energy
 C.S. Caylor #2002-10250
 Monitor Recovery Well #1
 Stabilized Water and Phase Separated Hydrocarbon (PSH) Levels

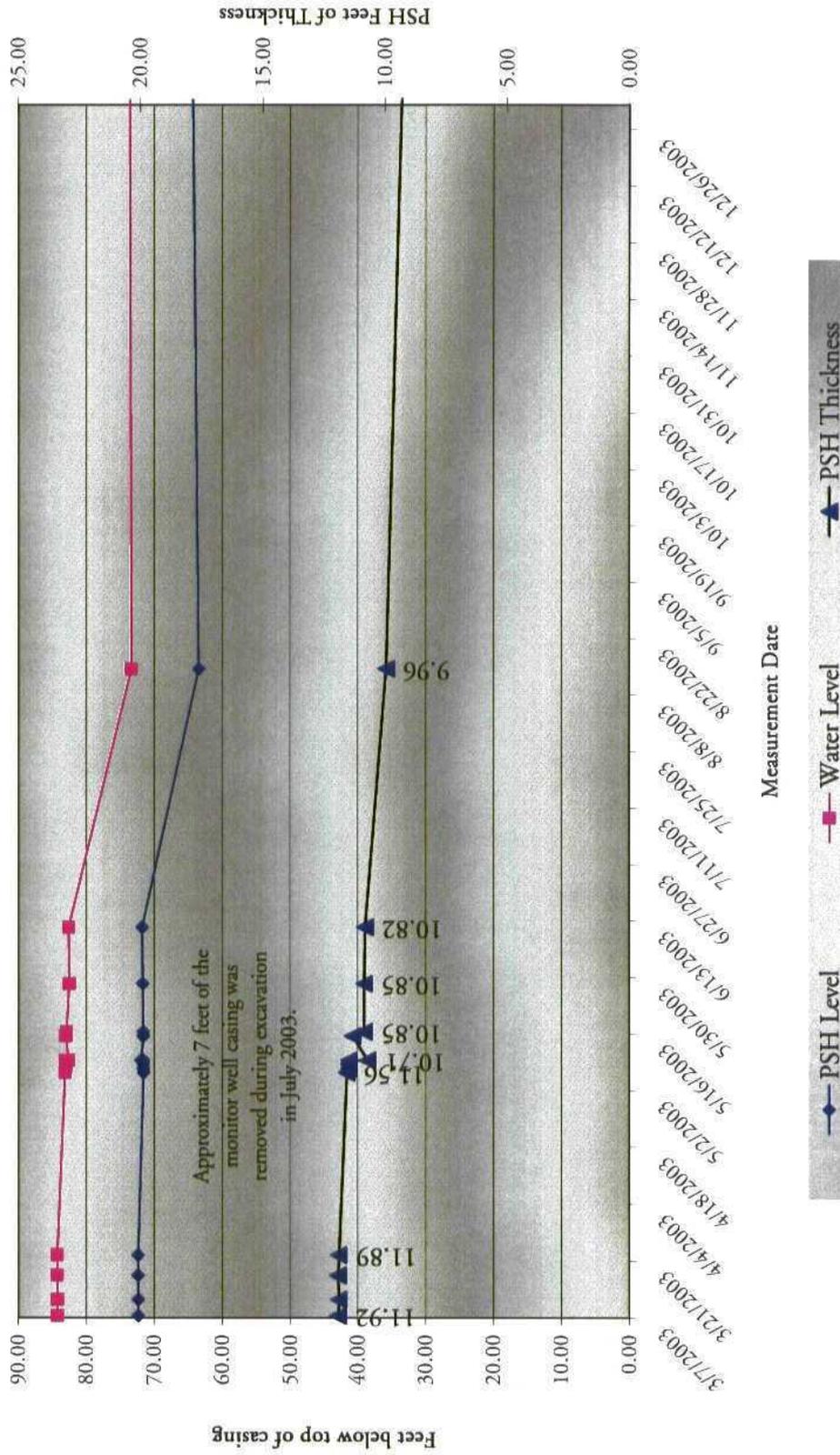


Figure 5 - Water and PSH Levels and PSH Thickness

TABLES

Link Energy
CS Caylor #2002-10250

Water and PSH Levels and Analytical Information

Well #	Date	PSH Level		Water Level	Product Thickness	Benzene	Ethylbenzene	m,p-Xylenes	o-Xylene	Toluene	TPH		Production Volume
		'broc									GRO	DRO	
		'broc		'broc	feet	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	Gallons
MW1	3/7/2003	72.28		84.20	11.92								
	3/11/2003	72.30		84.19	11.89								
	3/17/2003	72.33		84.25	11.92								
	3/22/2003	72.35		84.24	11.89								
	5/6/2003	71.55		83.11	11.56								
	5/7/2003	71.58		83.05	11.47								
	5/8/2003	71.55		83.03	11.48								800
	5/9/03 11:00 AM	71.53		83.00	11.47								
	5/9/03 1:45 PM	71.88		82.59	10.71								
	5/15/2003	71.57		83.01	11.31								
	5/16/2003	71.59		82.90	10.85								
	5/28/2003	71.65		82.50	10.85								
	6/11/2003	71.75		82.57	10.82								
Approximately 7 feet of casing removed during excavation.													
8/14/2003		63.45		73.41	9.96								
						<i>WQCC Standard</i>							
						10	750	Total Xylene 620.0	750	<i>Total PSH Volume</i>			
'broc - feet below top of casing µg/L - micrograms per Liter GRO - Gasoline Range Organics DRO - Diesel Range Organics PSH - Phase Separated Hydrocarbon WQCC - New Mexico Water Quality Control Commission													

Table 1 - Groundwater Levels and Phase Separated Hydrocarbon Thicknesses and Recovery

Table 2 - Summary of Groundwater Analytical Results
No groundwater samples have been collected and analyzed due to PSH.

APPENDICES

**APPENDIX A - ANALYTICAL RESULTS AND FORMS (NO GROUNDWATER
SAMPLES COLLECTED OR ANALYZED)**

Site Name: C.S. Caylor site

Remediation Plan: 1R-382

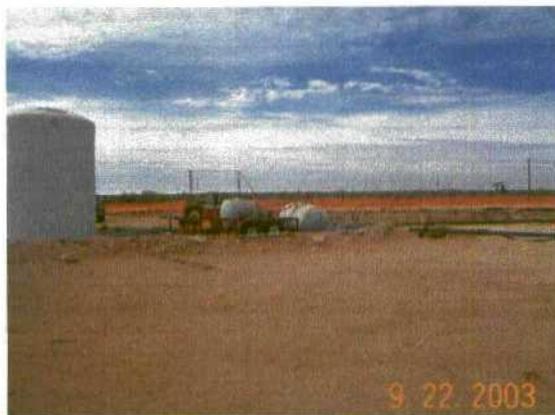
Company: EOTT (Co. rep. – Frank Hernandez)

Contractor: Environmental Plus, Inc. (Pat McCasland)

Date Inspected: September 23, 2003 by Ed Martin, Larry Johnson and Paul Sheeley



Photo shows recent spill (leak) at C S Caylor site.
This spill is not related to the original incident.



This photo shows product recovery system.

Delineation not complete. Eleven feet of product on groundwater. Groundwater depth 70'. Perimeter of contamination still to be determined. Upon completion of delineation, contractor proposes to install a clay barrier and backfill the site.

Recommendation: Obtain schedule for completion of delineation activities.



ENVIRONMENTAL PLUS, INC.

STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES



Micro-Blaze Corp.™

July 24, 2003

1R 382

Mr. Randolph Bayliss, P.E.
New Mexico Oil Conservation Division
P.O. Box 6429
1220 S. Saint Francis Drive
Santa Fe, New Mexico 88505

RECEIVED

JUL 28 2003

Subject: "Ground Water Monitoring Report"

Re: EOTT Energy LLC, C.S. Caylor Ref #2002-10250

**OIL CONSERVATION
DIVISION**

Dear Mr. Bayliss,

Environmental Plus, Inc. (EPI) of Eunice, New Mexico, on behalf of Mr. Frank Hernandez, District Environmental Supervisor, E.O.T.T. Energy LLC, submits for your review the enclosed **EOTT Energy LLC, C.S. Caylor Ref #2002-10250 "Ground Water Monitoring Report" July 10, 2003**. The enclosed two copies follow the electronic submission of July 25, 2003.

All official communication should be addressed to:

Mailing Address
Mr. Frank Hernandez
E.O.T.T. Energy Pipeline
P.O. Box 1660
Midland, Texas 79703

Physical Address
Mr. Frank Hernandez
E.O.T.T. Energy Pipeline
5805 East Highway 80
Midland, Texas 79701

If there are any questions please call Mr. Ben Miller or myself at the office or at 505.390.0288 and 505.390.7864, respectively.

Sincerely,

Pat McCasland
EPI Technical Services Manager

cc: Mr. Frank Hernandez, EOTT w/enclosure
Larry Johnson, w/enclosure
William Von Drehle, EOTT w/ enclosure
Ben Miller, EPI Vice President and General Manager
Sherry Miller, EPI President
File

ENVIRONMENTAL PLUS, INC.



1R 382

GROUND WATER MONITORING REPORT

JULY 2003

C. S. CAYLOR
Ref. # 2002-10250

UL-B; NW¼ of the NE¼ of Section 6 T17S R37E

Lea County New Mexico

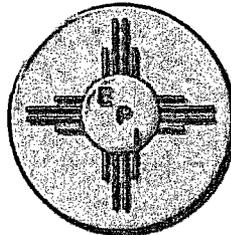
Latitude: 32 52' 2.45"N

Longitude: 103 17' 17.73"W

Prepared by

Environmental Plus, Inc.
P.O. Box 1558
Eunice, NM 88231

Tele 505 • 394 • 3481 FAX 505 • 394 • 2601



INTRODUCTION

The impacted ground water was delineated in a boring near the leak origin on September 24, 2003. The boring was subsequently developed into a 2" PVC cased monitor well. Product recovery has been ongoing daily and well measurements weekly since March of 2003. The stabilized product/ground water level on March 7, 2003 was 72.28'bgs/84.2'bgs and on July 2, 2003 it was 71.92'bgs/82.49'bgs, a reduction in product thickness of -1.35'. A ground water and product level data table has been attached. Recovery is being and will continue to be monitored daily and the well water/product level measured weekly.

PRODUCT RECOVERY

Initially, product was recovered manually with approximately 30 gallons being recovered monthly. A portable 2" eductor has since been deployed and product recovery increased significantly. As of July 10, 2003, 605 gallons of product has been recovered. The recovery rate first stabilized in March 2003 at about 15 gallons per day, a two-stage pump was added to the system on July 1, 2003. Product recovery has not yet stabilized but the new system is recovering approximately 50 gallons of product per day.

OBSERVATIONS & STATUS

With the decreasing levels of crude oil and increasing success of the eductor product recovery system, product recovery and water monitoring will continue with no change. A remediation work plan addressing soil and ground water will be developed consistent with the "New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)" and the NMOCD approved "General Work Plan for Remediation of E.O.T.T. Pipeline Spills, Leaks and Releases in New Mexico, July 2000" and submitted to you for approval.

Attachment I
Monitor Well Product & Water Levels

**E.O.T.T. Energy
C.S. Caylor Ref. #2002-10250 Monitor Well Product & Water Levels**

Date Measured	3/7/2003	3/11/2003	3/17/2003	3/22/2003	5/6/2003	5/7/2003	5/8/2003	5/9/2003	5/15/2003	5/16/2003	6/11/2003	7/2/2003
Product Level	72.28	72.3	72.33	72.35	71.55	71.58	71.55	71.53	71.57	71.59	71.75	71.92
Water Level	84.2	84.19	84.25	84.24	83.11	83.05	83.03	83	83.01	82.9	82.57	82.49
Total Product	11.92	11.89	11.92	11.89	11.56	11.47	11.48	11.47	11.44	11.31	10.82	10.57
Reduction in Product Thickness----> -1.35 Feet												

¹All measurements are Feet from the top of the monitor well casing (Monitor well casings are approximately 4' above ground surface)

