



**ENVIRONMENTAL PLUS, INC.**  
CONSULTING AND REMEDIAL CONSTRUCTION

13 February 2006

Mr. Larry Johnson, Environmental Engineer  
New Mexico Oil Conservation Division  
1625 North French Drive  
Hobbs, New Mexico 88240

2-15-06  
TAKEN 2/21/06  
HE STATED THAT EPI HAS  
DUG ALL CENTRAL WELLS (6' DEPTH)  
OR CAST SUBMITTED SAMPLES - TO CORRELATE  
HE WAITING

**Re: Initial C-141**  
**Chesapeake Energy Lou Worthan Produced Water Release – Reference #160045**  
**UL-D, Section 11, Township 22 South, Range 37 East**  
**Latitude N 32° 24' 39.18" and Longitude W 103° 08' 23.09"**

Dear Mr. Johnson:

Environmental Plus, Inc. (EPI), on behalf of Mr. Bradley Blevins, Chesapeake Energy Corporation (Chesapeake), submits the attached New Mexico Oil Conservation Division (NMOCD) form C-141 for the above-referenced leak site, located on land owned by Irvin Boyd.

The site is located approximately 3 miles southeast of Eunice, New Mexico (reference *Figure 1*). Information obtained from the New Mexico Office of the State Engineer's website and a United States Geological Survey (USGS) database indicates there are no water supply wells within a 1,000-foot radius of the release site. However, there are two water supply wells located within a 1.0-mile radius of the release site (reference *Figure 2*). Groundwater level data indicates an average depth to water of approximately ~~11~~ <sup>40-60</sup> feet below ground surface (reference *Table 1*). The attached site information and metrics form ranks the site in accordance with the NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993).

Approximately 150 barrels of produced water was released as the result of the structural integrity of the water transfer line failing. Approximately 130 barrels were recovered and the line was repaired with a pvc collar, section of pvc pipe and 3" compression dresser sleeve (reference *Photograph #1*).

Chesapeake #147179  
facility - #PAC 0604726624  
incident - #PAC 0604726872

application - #PAC 0604727837

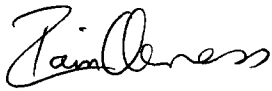
ENVIRONMENTAL PLUS, INC.

Should you have any questions or concerns please feel free to contact me at (505) 394-3481 or via e-mail at [iolness@envplus.net](mailto:iolness@envplus.net). Mr. Bradley Blevins can be contacted at (505) 391-1462 ext. 6224 or via e-mail at [bblevins@chkenergy.com](mailto:bblevins@chkenergy.com). All official communication should be addressed to:

Mr. Bradley Blevins  
Chesapeake Energy  
P.O. Box 190  
Hobbs, New Mexico 88240-0190

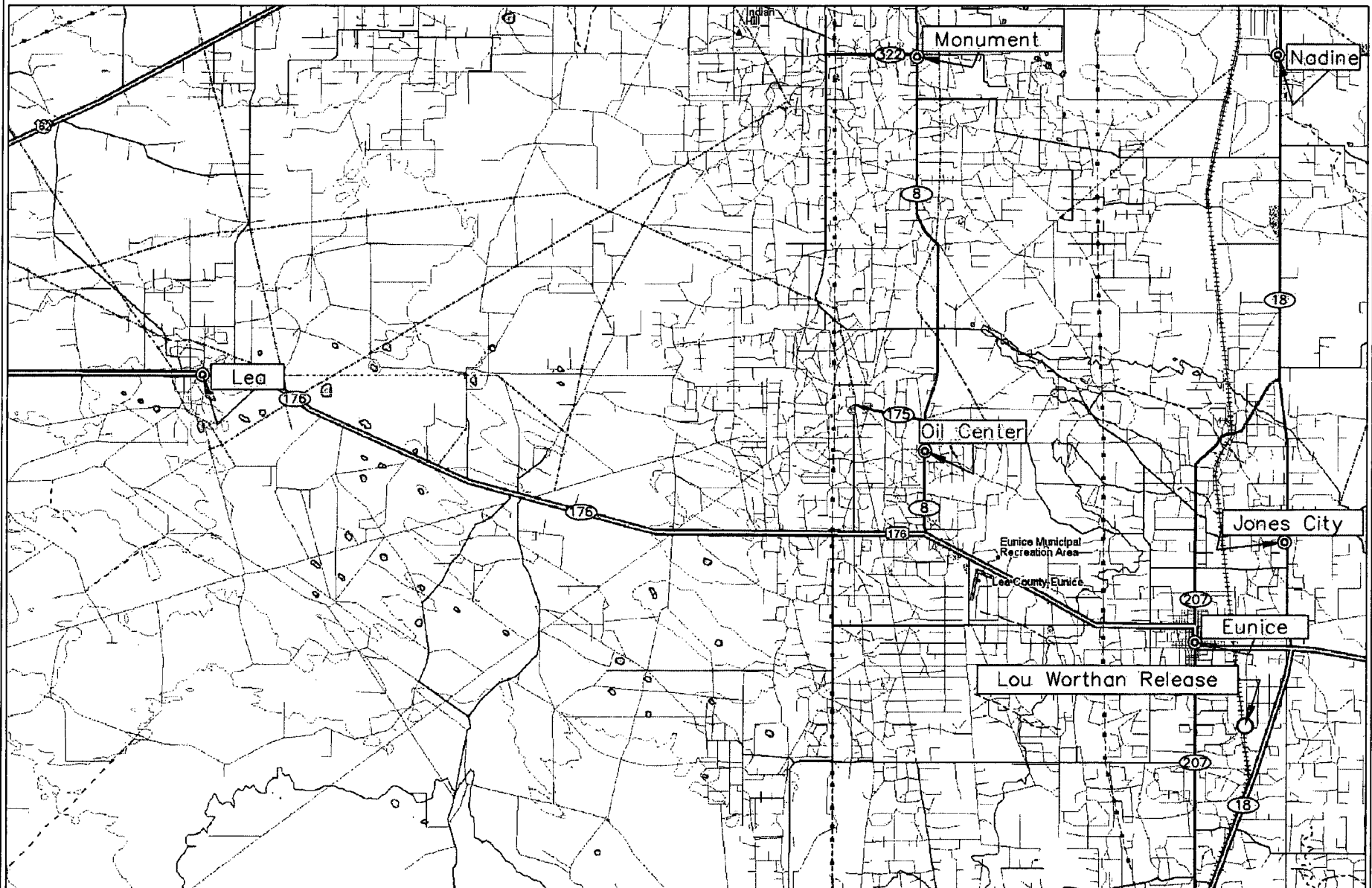
Sincerely,

ENVIRONMENTAL PLUS, INC.



Iain Olness, P.G.  
Hydrogeologist

cc: Bradley Blevins, Chesapeake Energy – Hobbs, NM  
Curtis Blake, Chesapeake Energy – Hobbs, NM  
Jace Marshall, Chesapeake Energy – Oklahoma City, OK  
Irvin Boyd, Landowner  
File



<p>Figure 1 Area Map Chesapeake Energy Lou Worthan Produced Water Release</p>	<p>Lea County, New Mexico NW 1/4 of the NW 1/4, Sec. 11, T22S, R37E N 32°24' 39.18" W 103°08' 23.09" Elevation: 3,368 feet amsl</p>	<p>DWG By: Daniel Dominguez January 2006</p>	<p>REVISED:</p>	<p>SHEET 1 of 1</p>
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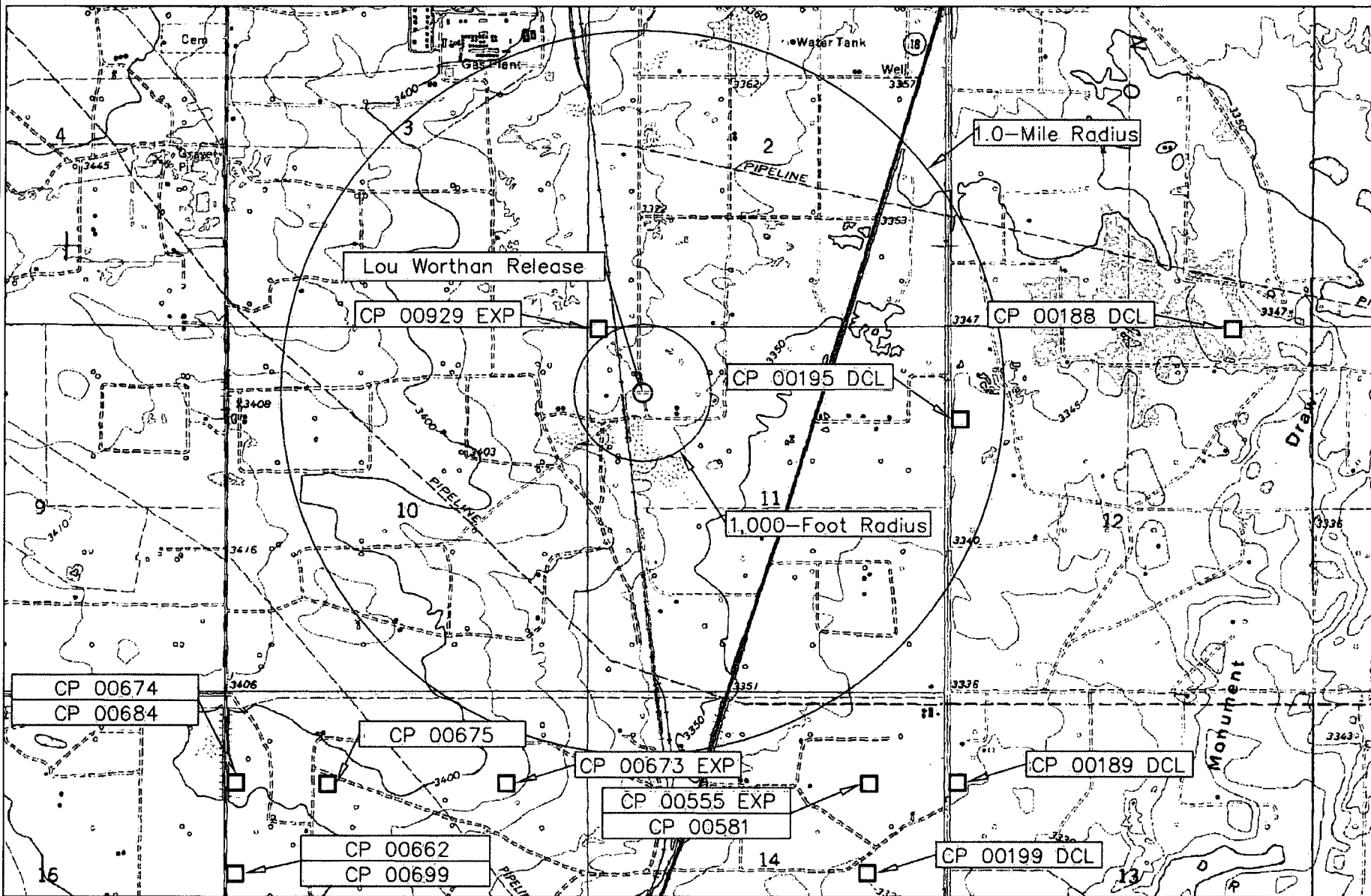


Figure 2  
Site Location Map  
Chesapeake Energy  
Lou Worthan Produced Water Release

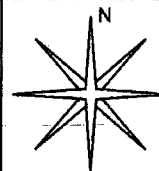
Lea County, New Mexico  
NW 1/4 of the NW 1/4, Sec. 11, T22S, R37E  
N 32°24' 39.18" W 103°08' 23.09"  
Elevation: 3,368 feet amsl

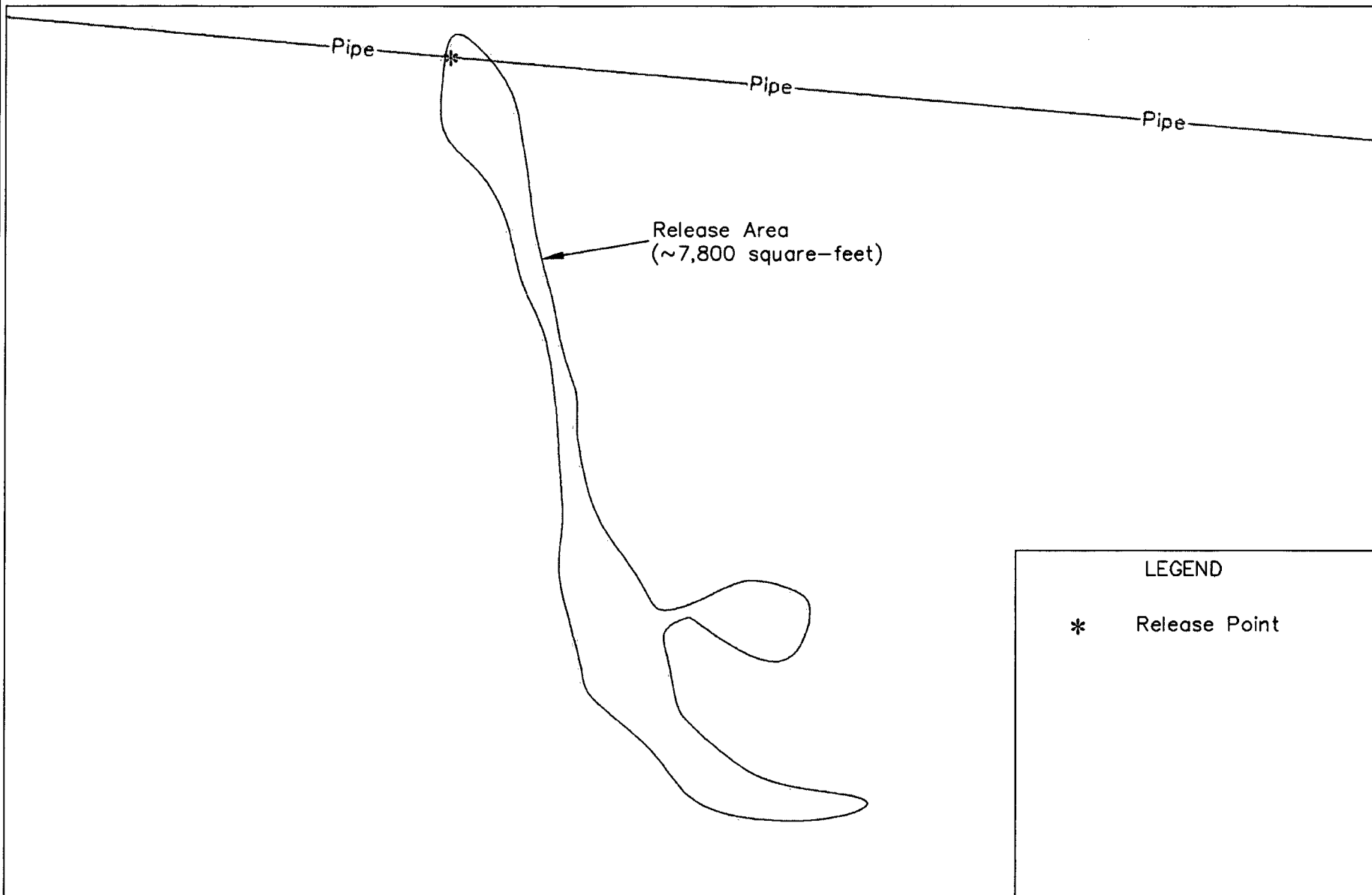
DWG By: Daniel Dominguez  
January 2006

REVISED:



SHEET  
1 of 1





<p>Figure 3 Site Map Chesapeake Energy Lou Worthan Produced Water Release</p>	<p>Lea County, New Mexico NW 1/4 of the NW 1/4, Sec. 11, T22S, R37E N 32°24' 39.18" W 103°08' 23.09" Elevation: 3,368 feet amsl</p>	<p>DWG By: Daniel Dominguez January 2006</p>	<p>REVISED:</p>	<p>SHEET 1 of 1</p>
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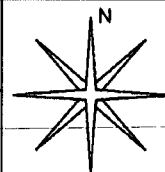


TABLE 1

Well Data

Chesapeake Energy - Lou Worthan Produced Water Release (Ref. # 160045)

Well Number	Diversion <sup>A</sup>	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation <sup>B</sup>	Depth to Water (ft bgs)
CP 00188 DCL	0	GEORGE W. SIMS	DOM	22S	37E	01 4 4 4	N32° 24' 48.51"	W103° 06' 42.84"		3,349	
CP 00929 EXPLORE	0	STATE OF NM STATE ENGINEER	EXP	22S	37E	02 3 3 3	N32° 24' 48.58"	W103° 08' 30.64"		3,379	
CP 00195 DCL	0	GEORGE W. SIMS	DOM	22S	37E	12 1 1 4	N32° 24' 35.52"	W103° 07' 29.08"		3,350	
CP 00189 DCL	0	GEORGE W. SIMS	DOM	22S	37E	13 1 1 4	N32° 23' 43.32"	W103° 07' 29.08"		3,340	
CP 00199 DCL	0	LEO SIMS	DOM	22S	37E	14 2 4 2	N32° 23' 30.28"	W103° 07' 44.48"		3,330	
CP 00555 EXP	0	NORTHERN NATURAL GAS CO.	SAN	22S	37E	14 2 2	N32° 23' 43.32"	W103° 07' 44.48"		3,337	
CP 00581	3	NORTHERN NATURAL GAS CO.	SAN	22S	37E	14 2 2 2	N32° 23' 43.32"	W103° 07' 44.48"	18-Apr-79	3,337	65
CP 00662	3	GEORGE SCHELLER	DOM	22S	37E	15 1 3 3	N32° 23' 30.26"	W103° 09' 32.15"	20-Jul-83	3,406	150
CP 00673 EXP	0	PAUL E. & MARY HUGHES	DOM	22S	37E	15 2 2	N32° 23' 43.32"	W103° 08' 46.04"		3,398	
CP 00674	3	WARREN & VERA HUGHES	DOM	22S	37E	15 1 1	N32° 23' 43.31"	W103° 09' 32.15"	27-Mar-85	3,406	75
CP 00675	3	FRED FERBRACHE	DOM	22S	37E	15 1 2 2	N32° 23' 43.31"	W103° 09' 16.78"	12-Apr-85	3,402	
CP 00684	3	WARREN & VUNA HUGHES	MUL	22S	37E	15 1 1	N32° 23' 43.31"	W103° 09' 32.15"	01-Aug-85	3,406	180
CP 00699	3	MARTIN CARRASCO	DOM	22S	37E	15 1	N32° 23' 30.26"	W103° 09' 32.15"	02-Jun-86	3,406	100
CP 00313 DCL	0	WILLIE P. SIMS	STK	22S	37E	15 3 3 3	N32° 23' 4.17"	W103° 09' 32.14"		3,385	
CP 00679	3	FRED FERBRACHE	DOM	22S	37E	15 3 3	N32° 23' 4.17"	W103° 09' 32.14"	20-May-85	3,385	98
CP 00708	3	ROBERT A. CUETO	DOM	22S	37E	15	N32° 23' 4.17"	W103° 09' 32.14"	15-Apr-87	3,385	185
CP 00709	3	JAMES D. SMITH	DOM	22S	37E	15 3 4 2	N32° 23' 4.17"	W103° 09' 16.78"	29-Apr-87	3,389	87

<sup>B</sup> = Elevation interpolated from USGS topographical map based on referenced location.

EXP = Exploration

MUL = 72-12-1 Multiple domestic households

DOM = 72-12-1 Domestic

STK = 72-12-1 Livestock watering

SAN = Sanitary in conjunction with commercial

quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest

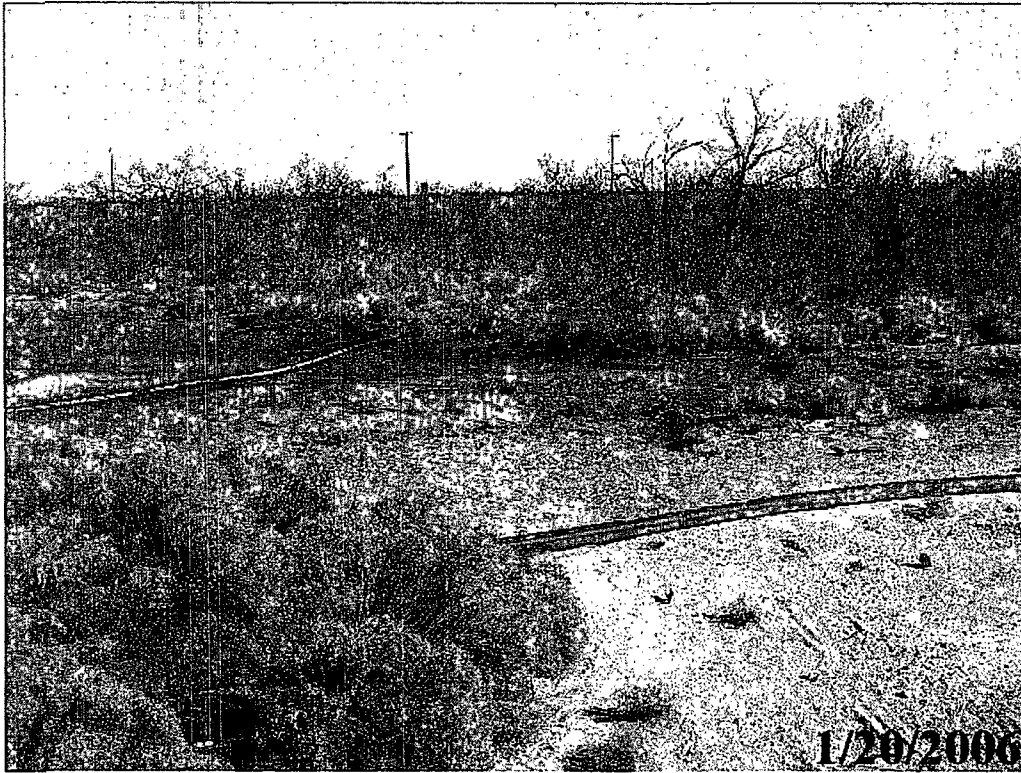
Shaded area indicates wells not shown in Figure 2



Photograph #1-The release point.



Photograph #2-Looking east at release area.



Photograph #3-Looking easterly at release area.

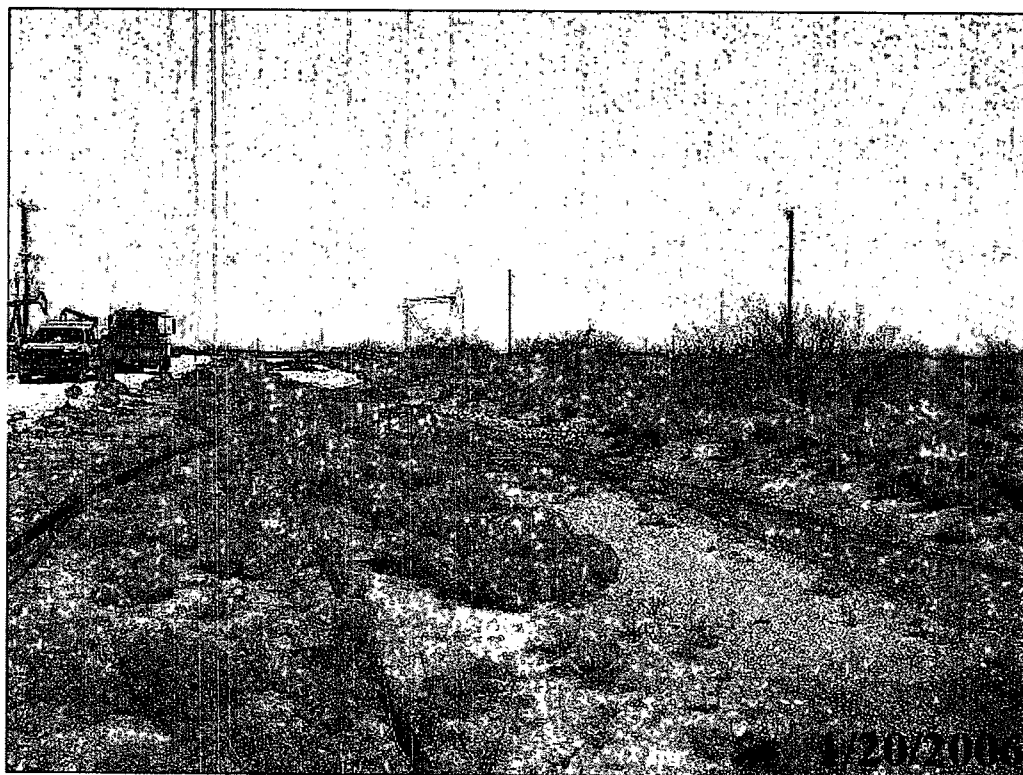


Photograph #4-Looking south at release area.





Photograph #5-Looking northeast at release area.



Photograph #6-Looking south at release area.



Information and Metrics

**Incident Date:**  
20 January 2006

**NMOCD Notified:**  
20 January 2006

<b>Site:</b> Lou Worthan Produced Water Release		<b>Assigned Site Reference :</b> #160045	
<b>Company:</b> Chesapeake Energy			
<b>Street Address:</b> 1616 West Bender			
<b>Mailing Address:</b> P.O. Box 190			
<b>City, State, Zip:</b> Hobbs, New Mexico 88240			
<b>Representative:</b> Bradley Blevins			
<b>Representative Telephone:</b> (505) 391-1462 ext. 6224			
<b>Telephone:</b>			
<b>Fluid volume released (bbls):</b> ~150 barrels		<b>Recovered (bbls):</b> ~130 barrels	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
<b>Leak, Spill, or Pit (LSP) Name:</b> Lou Worthan Tank Battery			
<b>Source of contamination:</b> Water transfer line			
<b>Land Owner, i.e., BLM, ST, Fee, Other:</b> Irvin Boyd			
<b>LSP Dimensions:</b> 100 feet by 78 feet			
<b>LSP Area:</b> ~7,800 ft <sup>2</sup>			
<b>Location of Reference Point (RP):</b>			
<b>Location distance and direction from RP:</b>			
<b>Latitude:</b> N 32° 24' 39.18"			
<b>Longitude:</b> W 103° 08' 23.09"			
<b>Elevation above mean sea level:</b> 3,368 feet			
<b>Feet from North Section Line:</b>			
<b>Feet from West Section Line:</b>			
<b>Location- Unit or 1/4:</b> NW 1/4 of the NW 1/4		<b>Unit Letter:</b> D	
<b>Location- Section:</b> 11			
<b>Location- Township:</b> T22S			
<b>Location- Range:</b> R37E			
<b>Surface water body within 1000' radius of site:</b> none			
<b>Domestic water wells within 1000' radius of site:</b> none			
<b>Agricultural water wells within 1000' radius of site:</b> none			
<b>Public water supply wells within 1000' radius of site:</b> none			
<b>Depth from land surface to groundwater (DG):</b> ~117 feet			
<b>Depth of contamination (DC):</b> unknown			
<b>Depth to groundwater (DG - DC = DtGW):</b> ~117 feet			
<b>1. Groundwater</b>		<b>2. Wellhead Protection Area</b>	
If Depth to GW <50 feet: 20 points		If <1000' from water source, or; <200' from private domestic water source: 20 points	
If Depth to GW 50 to 99 feet: 10 points		If >1000' from water source, or; >200' from private domestic water source: 0 points	
If Depth to GW >100 feet: 0 points			
		3. Distance to Surface Water Body	
		<200 horizontal feet: 20 points	
		200-1000 horizontal feet: 10 points	
		>1000 horizontal feet: 0 points	
<b>Site Rank (1+2+3) = 0</b>			
<b>Total Site Ranking Score and Acceptable Concentrations</b>			
Parameter	>19	10-19	0-9
Benzene <sup>1</sup>	10 ppm	10 ppm	10 ppm
BTEX <sup>1</sup>	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	5,000 ppm

<sup>1</sup>100 ppm field VOC headspace measurement may be substituted for lab analysis

Mr. Larry Johnson  
13 February 2006



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report ☐ Final Report

<b>Name of Company:</b> Chesapeake Energy	<b>Contact:</b> Bradley Blevins
<b>Address:</b> P.O. Box 190	<b>Telephone No.:</b> (505) 391-1462 ext. 6224
<b>Facility Name:</b> Lou Worthan Produced Water Release	<b>Facility Type:</b> Water transfer line

<b>Surface Owner:</b> Irvin Boyd	<b>Mineral Owner:</b>	<b>Lease No.:</b>
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### LOCATION OF RELEASE

<b>Unit Letter</b> D	<b>Section</b> 11	<b>Township</b> 22S	<b>Range</b> 37E	<b>Feet from the</b>	<b>North/South Line</b>	<b>Feet from the</b>	<b>East/West Line</b>	<b>County</b> Lea
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**Latitude:** N 32° 24' 39.18" **Longitude:** W 103° 08' 23.09"

### NATURE OF RELEASE

<b>Type of Release:</b> Produced water	<b>Volume of Release:</b> ~ 150 bbls	<b>Volume Recovered:</b> ~130 bbls
<b>Source of Release:</b> Water transfer line	<b>Date and Hour of Occurrence:</b> January 20, 2006 @ 0200	<b>Date and Hour of Discovery:</b> January 20, 2006 @ 0800
<b>Was Immediate Notice Given?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	<b>If YES, To Whom?</b> Larry Johnson, NMOCD	
<b>By Whom?</b> Bradley Blevins	<b>Date and Hour:</b> January 20, 2006 @ 10:30 A.M.	
<b>Was a Watercourse Reached?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If YES, Volume Impacting the Watercourse:</b> Not Applicable	

**If a Watercourse was Impacted, Describe Fully.\*** Not Applicable

**Describe Cause of Problem and Remedial Action Taken.\*** The release of approximately 150 barrels of crude oil was the result of the structural integrity of the water transfer line failing, with approximately 130 barrels were recovered from the site. The line was repaired with a pvc collar, section of pvc pipe and 3" compression dresser sleeve.

**Describe Area Affected and Cleanup Action Taken.\*** Approximately 7,800 square-feet of surface area was impacted by the release. Saturated soil is being excavated and transported to Sundance Services, Inc. disposal facility.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

<b>Signature:</b>		<b>OIL CONSERVATION DIVISION</b>	
<b>Printed Name:</b> Bradley Blevins		<b>Approved by District Supervisor:</b>	
<b>Title:</b> Field Supervisor		<b>Approval Date:</b>	<b>Expiration Date:</b>
<b>E-mail Address:</b> bblevins@chkenegy.com		<b>Conditions of Approval:</b>	
<b>Date:</b> 2-13-06 <b>Phone:</b> (505) 391-1462 ext. 6224		<b>Attached</b> <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

