

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101  
Revised March 17, 1999

Oil Conservation Division  
2040 South Pacheco  
Santa Fe, NM 87505

Submit to appropriate District Office  
State Lease - 6 Copies  
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUG BACK, OR ADD A ZONE

<sup>1</sup> Operator Name and Address <b>Southwestern Energy Production Company 2350 North Sam Houston Parkway East, Suite 300 Houston, TX 77031</b>		<sup>2</sup> GRID Number <b>148111</b>
		<sup>3</sup> API Number <b>30 - 005 - 63235</b>
<sup>3</sup> Property Code <b>25377</b>	<sup>5</sup> Property Name <b>Lost Lake 25</b>	<sup>6</sup> Well No. <b>1</b>

<sup>7</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	25	8S	29E		660	South	660	West	Chaves

<sup>8</sup> Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>9</sup> Proposed Pool 1 <b>Wildcat Atoka</b>					<sup>10</sup> Proposed Pool 2 <b>96049</b>				

<sup>11</sup> Work Type Code <b>N</b>	<sup>12</sup> Well Type Code <b>G</b>	<sup>13</sup> Cable/Rotary <b>R</b>	<sup>14</sup> Lease Type Code <b>S X</b>	<sup>15</sup> Ground Level Elevation <b>4,062'</b>
<sup>16</sup> Multiple <b>N</b>	<sup>17</sup> Proposed Depth <b>8,750'</b>	<sup>18</sup> Formation <b>Atoka</b>	<sup>19</sup> Contractor <b>Nabors Drlg</b>	<sup>20</sup> Spud Date <b>Est. 2/27/00</b>

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"		40'	Ready Mix	Surface
17 1/2"	13 3/8"	61#	325'	305	Surface
12 1/4"	8 5/8"	32#	2,600'	915	Surface
7 7/8"	5 1/2"	17#	8,750'	400	6,750'

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHMENT

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

*Cathy Rowan*

Printed name: Cathy Rowan

Title: Drilling Technician

Date: February 14, 2000

Phone: 281-618-4733

OIL CONSERVATION DIVISION

Approved by:

**ORIGINAL SIGNED BY TIM W. GUM  
DISTRICT II SUPERVISOR**

*BGA*

Approval Date: **2-22-00**

Expiration Date: **2-22-01**

Conditions of Approval:

Attached ☐

## GENERAL DRILLING PROGRAM- Attachment to Form C-101

Southwestern Energy Production Company- Lost Lake "25" #1  
660' FSL 660' FWL Section 25-T8S-R29E  
Eddy County, New Mexico

Elevation: 4062' GR

Proposed Total Depth: 8750'

### Estimated Formation Tops

Rustler Anhydrite	924'
San Andres	2500'
Abo	6130'
Wolfcamp	6970'
Atoka Pay	8435'
Mississippi Carbonate	8550'

### Casing/Cement Program

<u>Hole Size</u>	<u>Casing Size/Weight/Grade</u>	<u>Setting Depth</u>	<u>Cement</u>	<u>Est. TOC</u>
	20" Conductor pipe	40'	ready mix	surface
17-1/2"	13-3/8" 61# J-55 ST&C	325'	305 sx 15:85 Poz: Class C + 0.25 pps D29+2% S1+2% D20	surface
12-1/4"	8-5/8" 32# J-55 ST&C	2600'	Lead: 715 sx 35:65 Poz: Class C + 6% D20+ 0.25 pps D29+5% D44 Tail: 200 sx Class C+ 2% S1	surface
7-7/8"	5-1/2" 17# N-80 LT&C	8750'	400 sx 50:50 Poz: Class H + 5% D44 +2% D20+0.4% D59+ 0.2% D65	6750'

### Drilling Fluids Program

<u>Depth</u>	<u>Mud Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>Comments</u>
0-325'	8.4-8.6	32-36	NC	spud mud, paper
325'-2600'	8.4-10.0	30-33	NC	fresh/brine water, native oil, caustic, paper
2600'-6000'	8.4-9.2	28-29	NC	fresh/cut brine, caustic, paper Star NP-110
6000'-8750'	9.2-9.6	36-45	<15 cc	starch, prehydrated fresh gel caustic, oil, salt gel if required

## Blowout Prevention Program- Attachment to Form C-101

0'-325'	None
---------	------

325'-2600' 20" 2000# annular preventer system.

2600'-10,150' 13-5/8" 5000# double ram type preventers, 5000# annular preventer and rotating head body. Test all rams choke manifold, kill line upper and lower kelly valves to 5000 psi. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system.

Any equipment failing to test satisfactorily, will be repaired or replaced. Results of the BOP test will be recorded in the Driller's Log.

The BOP's will be maintained ready for use until drilling operations are completed. BOP drills will be conducted as necessary to assure that equipment is operational and each crew is properly trained to carry out emergency duties.

Accumulator shall maintain a pressure capacity reserve at all times to provide for the close-open-close sequence of the blind and pipe rams of the hydraulic preventers.

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. Box 2088, Santa Fe, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name LOST LAKE 25	Well Number 1
OGRID No.	Operator Name SOUTHWESTERN ENERGY PRODUCTION CO	Elevation 4062

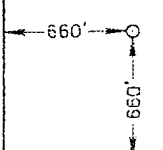
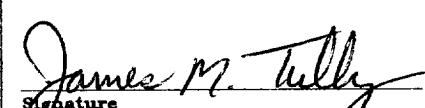
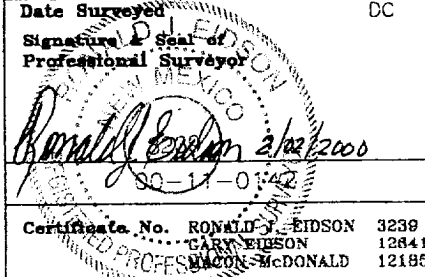
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	25	8 S	29 E		660	SOUTH	660	WEST	CHAVES

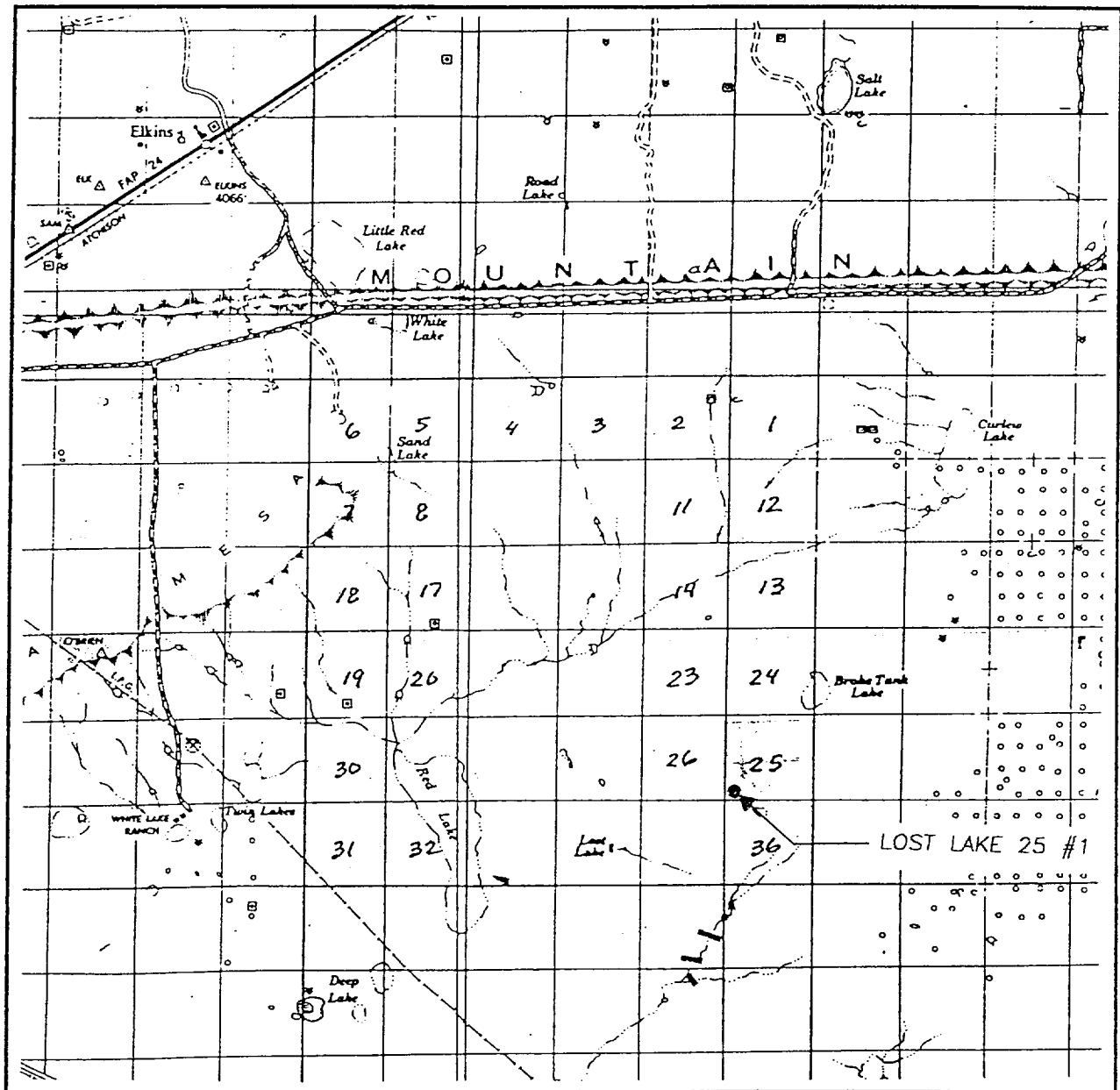
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				
<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.   Signature James M. Tully Printed Name Sr. Drilling Engineer Title 2-7-00 Date				
<b>SURVEYOR CERTIFICATION</b>  I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  FEBRUARY 1, 2000 Date Surveyed Signature & Seal of Professional Surveyor  Ronald J. Eidson 2/02/2000 30-11-0142 Certificate No. RONALD J. EIDSON 3239 CARY EIDSON 12841 WILSON McDONALD 12185				

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 25 TWP. 8-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 660' FSL & 660' FWL

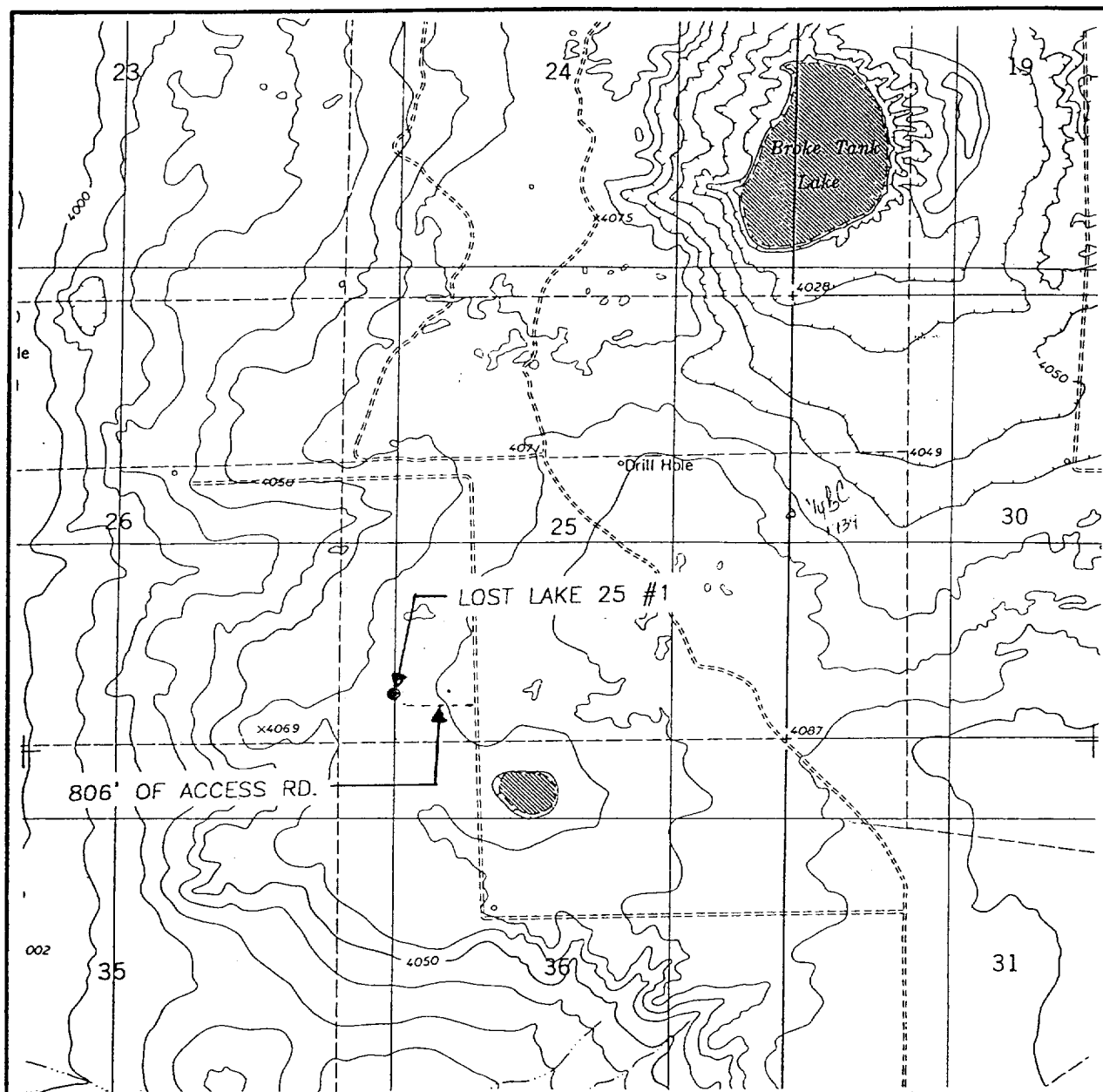
ELEVATION 4062

SOUTHWESTERN  
OPERATOR ENERGY PRODUCTION CO.

LEASE LOST LAKE 25

**JOHN WEST SURVEYING**  
**HOBBS, NEW MEXICO**  
**(505 393-3117)**

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
PRESLER LAKE - 10'

SEC. 25 TWP. 8-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 660' FSL & 660' FWL

ELEVATION 4062

SOUTHWESTERN  
OPERATOR ENERGY PRODUCTION CO.

LEASE LOST LAKE 25

U.S.G.S. TOPOGRAPHIC MAP

PRESLER LAKE, N.M.

**JOHN WEST SURVEYING**  
**HOBBS, NEW MEXICO**  
**(505 393-3117)**