

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

Form C-101
May 27, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

Operator Name and Address LCX ENERGY, LLC. 110 NORTH MARIENFELD SUITE 200 MIDLAND, TEXAS 79701		2 OGRID Number 218885
3 API Number 30 -		
Property Code 33040	Property Name 1724 STATE	Well No. 161
Proposed Pool 1 COLLINS RANCH-WOLFCAMP (GAS) (75010)		Proposed Pool 2

RECEIVED 015-34540

JAN 10 2006

OCD-ARTESIA

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	16	17S	24E		660'	SOUTH	760'	EAST	EDDY

8 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
A	16	17S-	24E		660'	NORTH	760'	EAST	EDDY

Additional Well Information

11 Work Type Code N	12 Well Type Code G	13 Cable/Rotary ROTARY	14 Lease Type Code	15 Ground Level Elevation
16 Multiple NO	17 Proposed Depth MD8721' TVD5960'	18 Formation WOLFCAMP	19 Contractor BIG DOG DRILLING	20 Spud Date WHEN APPROVED
Depth to Groundwater 300'		Distance from nearest fresh water well 1800'		Distance from nearest surface water Unknown
Pit: Liner: Synthetic ☒ 12 mils thick Clay ☐ Pit Volume: 18M bbls Drilling Method: Closed-Loop System ☐ Fresh Water ☒ Brine ☒ Diesel/Oil-based ☐ Gas/Air ☐				

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	CONDUCTOR	40'	Redi-mix	Surface
17 1/2"	13 3/8"	48#	350'	400 Sx.	Surface
12 1/2"	9 5/8"	36#	1200'	475 Sx.	Surface
8 3/4-7 7/8"	5 1/2"	15.5#	MD8721' TVD4960'	800 Sx.	1000' F. Surface

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 ATTACHED SHEET

NOTIFY OCD OF SPUD & TIME TO
WITNESS CEMENTING OF
SURFACE & INTERMEDIATE
CASING

Clean Fresh Water Mud re 12cc'

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐ a general permit ☐ or an (attached) alternative OCD-approved plan ☐

Printed name: Joe T. Janica

Title: Agent

E-mail Address: joe.janica@valornet.com

Date: 01/09/06

Phone: 505-391-8503

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date

Conditions of Approval Attached ☐

JAN 10 2006

District II Supervisor

JAN 10 2007

JAN 10 2007

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000
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

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 75010	Pool Name COLLINS RANCH-WOLFCAMP (GAS)
Property Code	Property Name 1724 STATE	Well Number 161
OGRID No. 218885	Operator Name LCX ENERGY, LLC	Elevation 3769'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	16	17 S	24 E		660	SOUTH	760	EAST	EDDY

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
A	16	17 S	24 E		660	NORTH	760	EAST	EDDY

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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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

NOTE: 1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1983. Distances shown hereon are mean horizontal surface values.	PROJECT AREA → PRODUCING AREA → E/2 VA-2557 Plane Coordinate X = 469,162.0 Y = 669,776.0 Plane Coordinate X = 469,162.6 Y = 665,810.1 760' 3967' 161 (SE) 760'	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 01/09/06 Date SURVEYOR CERTIFICATION 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. December 13, 2005 Date Surveyed Signature & Seal of Professional Surveyor W.O. Num. 2005-1159 Certificate No. MACON McDONALD 12185
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1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17-1/2" hole to 350'. Run and set 350' of 13-3/8" 48# H-40 ST&C casing. Cement with 200 sx 35/65 Poz/C + 6% gel and tail in with 200 sx of Class "C" cement + 2% CaCl, circulate cement to surface.
3. Drill 12-1/4 hole to 1200'. Run and set 1200' of 9-5/8" 36# J-55 ST&C casing. Cement with 375 sx of 35/65 Poz/C + 5% NaCl + 6% Bentonite, tail in with 100 sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
4. Drill 8-3/4" hole to approx. 5100'. Set cement kick-off plug from TD to approx. 4800 ft with 150 sx H + 0.7% dispersant.
5. Dress cement top to desired kick-off point. Drill 8-3/4" curve and land lateral in pay zone (approx. 4900 ft TVD). Pickup lateral drilling assembly with an 8-3/4" or 7-7/8" bit and drill a +/-4000' lateral to 660' from lease line (approx. 4000 ft vertical section).
6. Run and set 5-1/2" 15.5# N80 or stronger production casing. Cement 5-1/2" with acid soluble cement through the lateral and 400 sx 50/50 Poz/C + 10% gel and tail in with 200 sx C + 200% CaCO₃ (acid soluble cement) + fluid loss additive + retarder (as required), attempting to bring top of cement to 1,000'.

Contingency String:

If hole conditions dictate running a 7" contingency string in the 8-3/4" hole :

- 4a. Run approx. 5100 ft 7" 26# J55 or stronger casing to TD. Cement with 700 sx class 'C' cement + add's attempting bringing TOC to approx. 1,000 ft. This may be done in the vertical pilot hole or at the end of the 8-3/4" curve section.
- 4b. Run whipstock and cut a window in the 7" casing (or drill out with 6-1/8" BHA if 7" set at end of curve). Drill to TD.
- 5a. Step 5 will be omitted.
- 6a. Run and set approximately 4400 ft 4-1/2" 11.6# N/L80 liner from TD to approximately 200' above the window/7" casing shoe. Cement with approx. 110 sx C + 200% CaCO₃ (acid soluble cement) + add's attempting to bring TOC above liner top.

Fresh water will be used to drill the 350' hole and the 1200' hole.

There is no known presence of any H₂S in this area. Other wells have been drilled with no indication of any H₂S.

Jan T. Janice

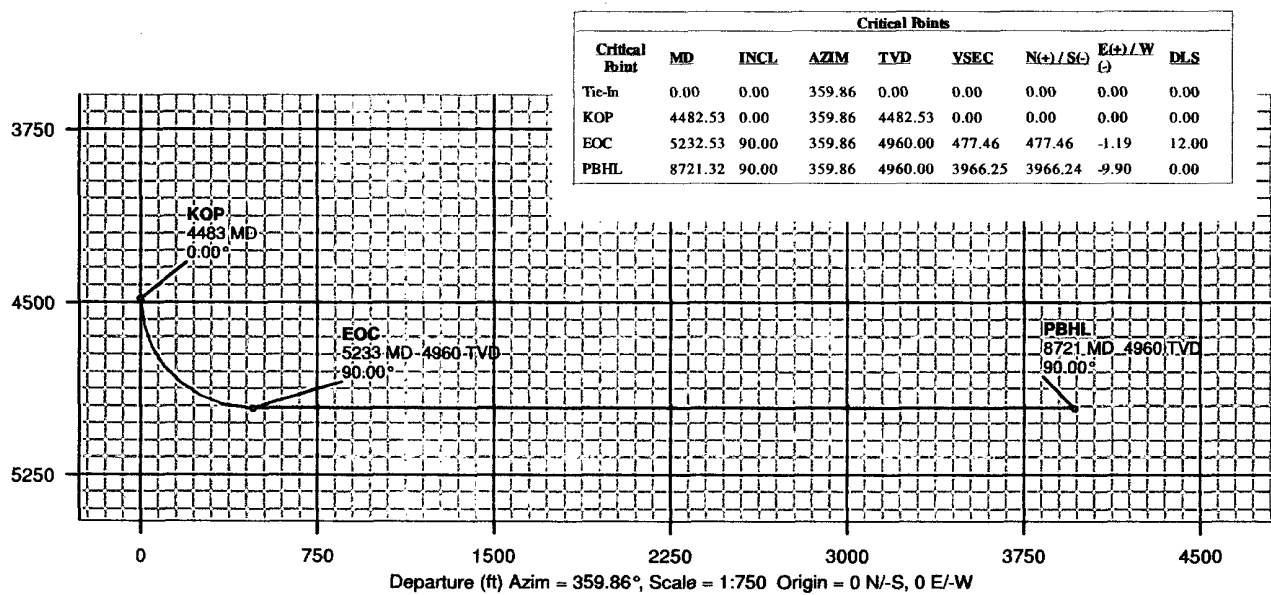
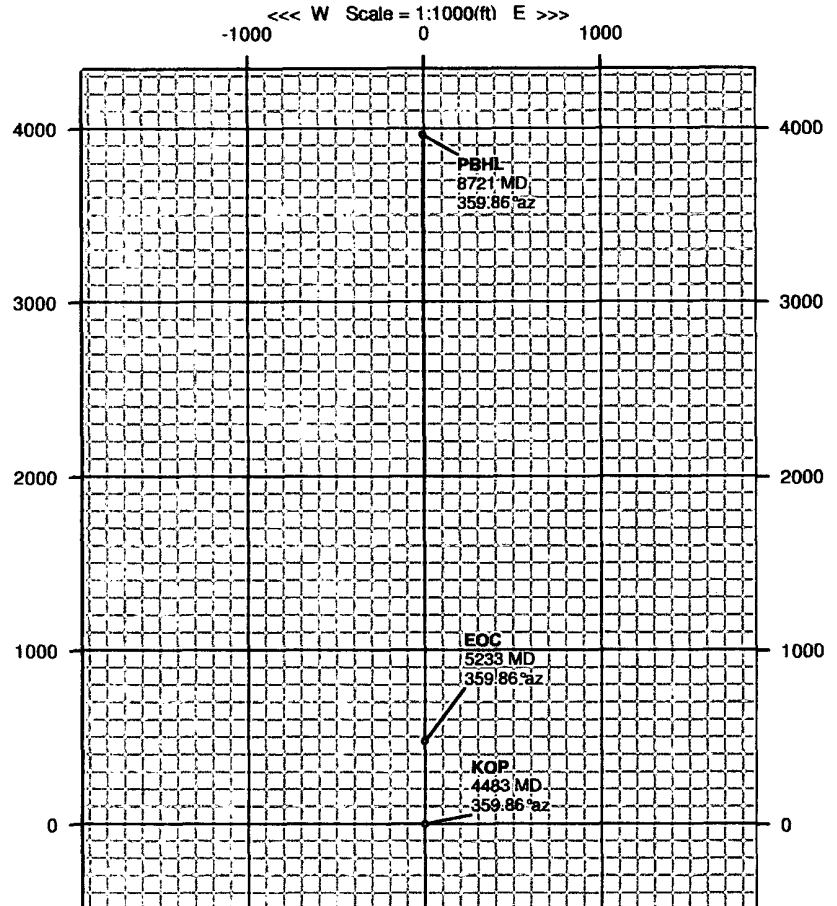
Proposal

Report Date: December 28, 2005 Client: LCX Energy LLC. Field: Eddy County, NM Nad 83 Structure / Slot: 1724 State #161 / 1724 State #161 Well: 1724 State #161 Borehole: 1724 State #161 UWI/API#: Survey Name / Date: 1724 State #161_r1 / December 28, 2005 Tort / AHD / DDI / ERD ratio: 90.000° / 3966.25 ft / 5.798 / 0.800 Grid Coordinate System: NAD83 New Mexico State Planes, Eastern Zone, US Feet Location Lat/Long: N 32 49 48.288, W 104 35 15.871 Location Grid N/E Y/X: N 665810.100 ftUS, E 463192.500 ftUS Grid Convergence Angle: -0.13792816° Grid Scale Factor: 0.99991608	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 359.860° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: RKB TVD Reference Elevation: 0.0 ft relative to Sea Bed / Ground Level Elevation: 0.000 ft relative to Magnetic Declination: 8.733° Total Field Strength: 49450.271 nT Magnetic Dip: 60.700° Declination Date: December 28, 2005 Magnetic Declination Model: IGRF 2005 North Reference: Grid North Total Corr Mag North -> Grid North: +8.871° Local Coordinates Referenced To: Well Head
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Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Tool Face (deg)
Tie-In	0.00	0.00	359.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.14M
KOP	4482.53	0.00	359.86	4482.53	0.00	0.00	0.00	0.00	0.00	0.00	-0.14M
	4500.00	2.10	359.86	4500.00	0.32	0.32	-0.00	0.32	359.86	12.00	-0.14M
	4600.00	14.10	359.86	4598.82	14.38	14.38	-0.04	14.38	359.86	12.00	0.00G
	4700.00	26.10	359.86	4692.56	48.67	48.67	-0.12	48.67	359.86	12.00	0.00G
	4800.00	38.10	359.86	4777.12	101.71	101.71	-0.25	101.71	359.86	12.00	0.00G
	4900.00	50.10	359.86	4848.81	171.17	171.17	-0.43	171.17	359.86	12.00	0.00G
	5000.00	62.10	359.86	4904.49	254.01	254.01	-0.63	254.01	359.86	12.00	0.00G
	5100.00	74.10	359.86	4941.72	346.63	346.62	-0.87	346.63	359.86	12.00	0.00G
	5200.00	86.10	359.86	4958.89	444.96	444.95	-1.11	444.96	359.86	12.00	0.00G
EOC	5232.53	90.00	359.86	4960.00	477.46	477.46	-1.19	477.46	359.86	12.00	0.00G
PBHL	8721.32	90.00	359.86	4960.00	3966.25	3966.24	-9.90	3966.25	359.86	0.00	0.00G

LCX Energy LLC.

WELL	1724 State #161	FIELD	Eddy County, NM	STRUCTURE	1724 State #161
Magnetic Parameters	Model: IGRF 2005	Dip: 60.700° Mag Dec: +8.733°	Date: December 28, 2005 FS: 49450.3 nT	Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet
				Lat: N32 48 48.288 Lon: W104 35 15.871	Northing: 685810.18 BUS Easting: 463192.50 BUS
					Grid Conv: -0.13782816° Scale Fact: 0.9998160835
				Miscellaneous	Slot: 1724 State #161 Plan: 1724 State #161-r1
					TVD Ref: RKB (0.00 ft above) Srvy Date: Wed 11:34 AM December 28, 2005

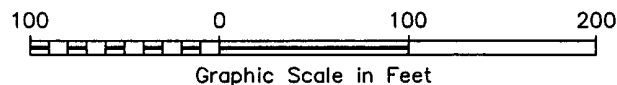
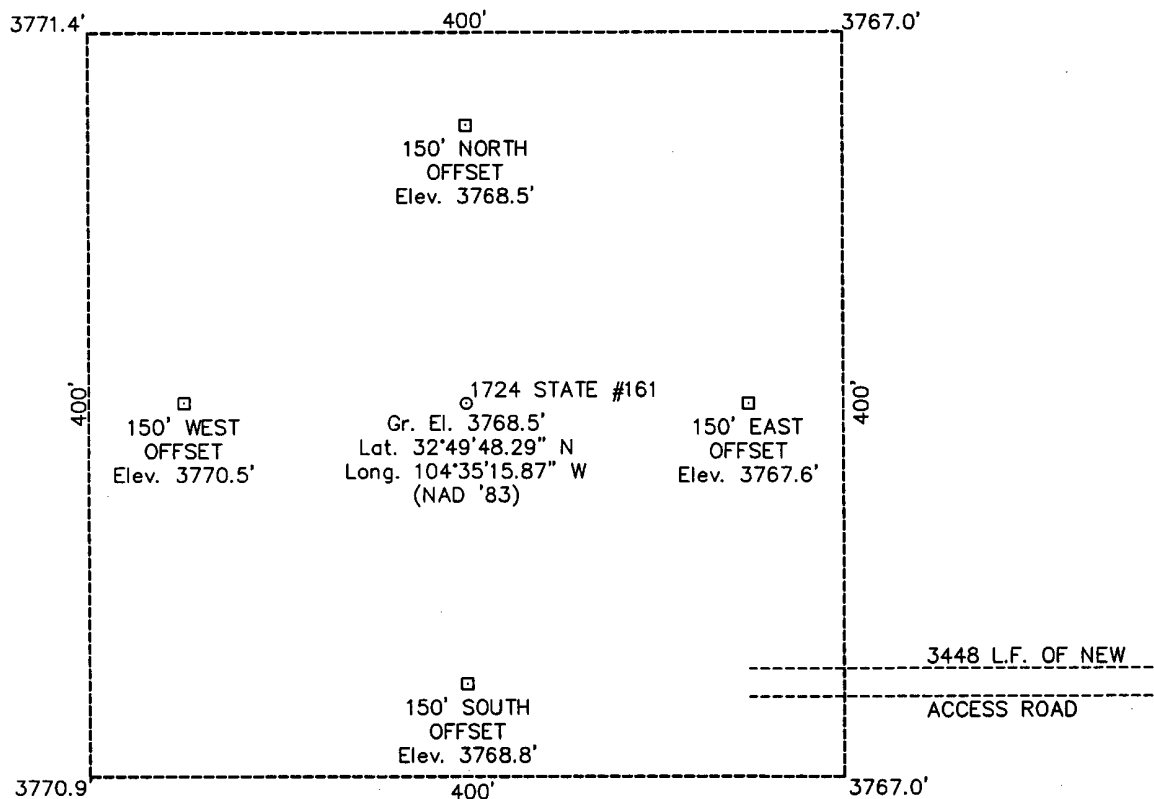


SECTION 16, TOWNSHIP 17 SOUTH, RANGE 24 EAST, N.M.P.M.

EDDY COUNTY

NEW MEXICO

L-2005-1159

DRIVING DIRECTIONS

FROM INTERSECTION OF HWY 285 & HWY 82 IN ARTESIA, GO WEST ALONG HWY 82 10.0 MILES; THEN GO SOUTH ALONG CALICHE LSE. RD. 0.9 MILES; THEN GO WEST ACROSS PASTURE 0.6 MILES TO LOCATION.

LCX ENERGY, LLC**1724 STATE #161**

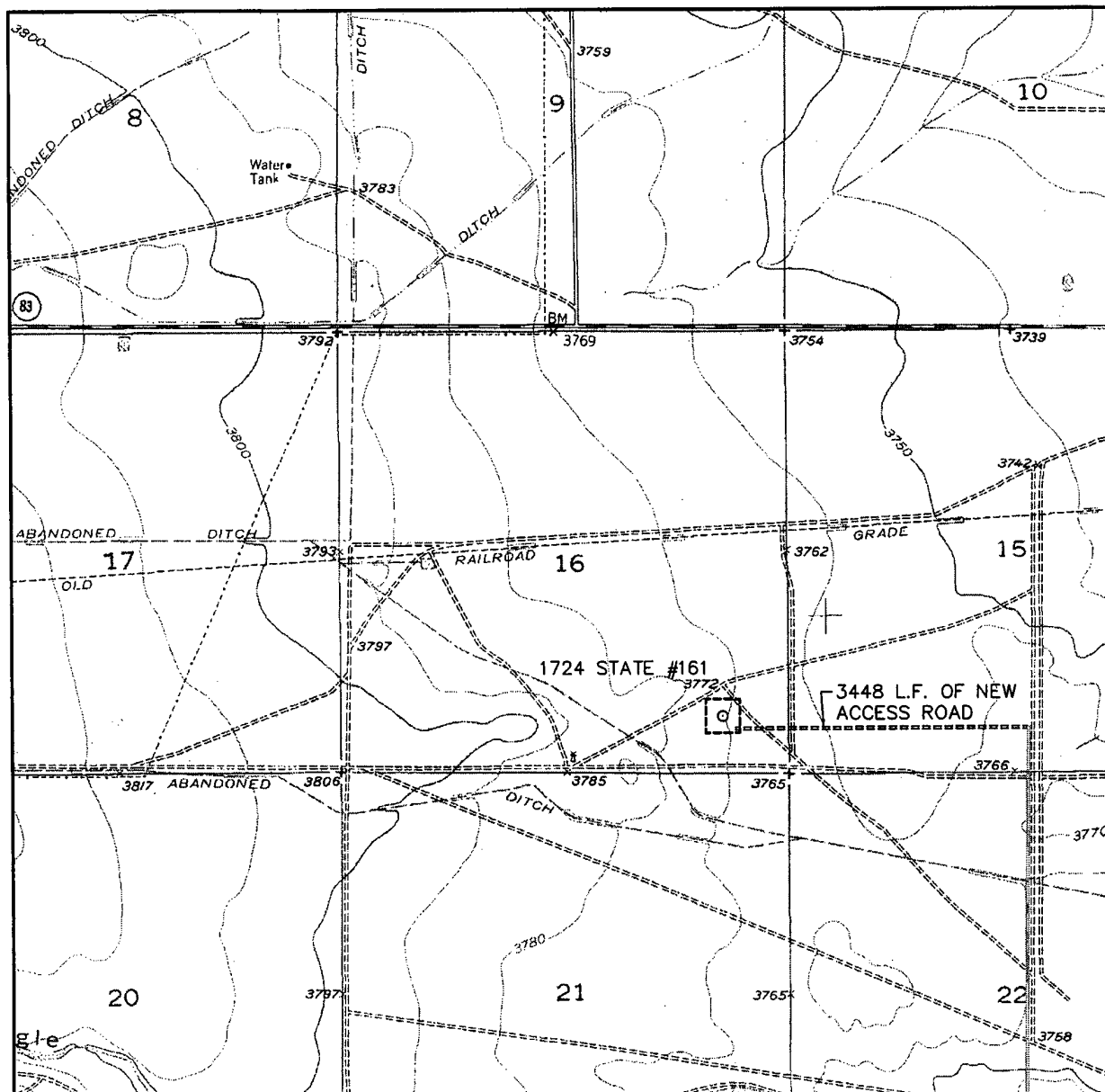
Located 660' FSL & 760' FEL, Section 16
Township 17 South, Range 24 East, N.M.P.M.
Eddy County, New Mexico

**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

Drawn By: JMJ	Date: December 17, 2005
Scale: 1"=100'	Field Book: 326 / 17-24
Revision Date:	Quadrangle: Hope SE
W.O. No: 2005-1159	Dwg. No.: L-2005-1159

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOPE SE - 10'

SEC. 16 TWP. 17-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 760' FEL

ELEVATION 3769'

OPERATOR LCX ENERGY, LLC

LEASE 1724 STATE

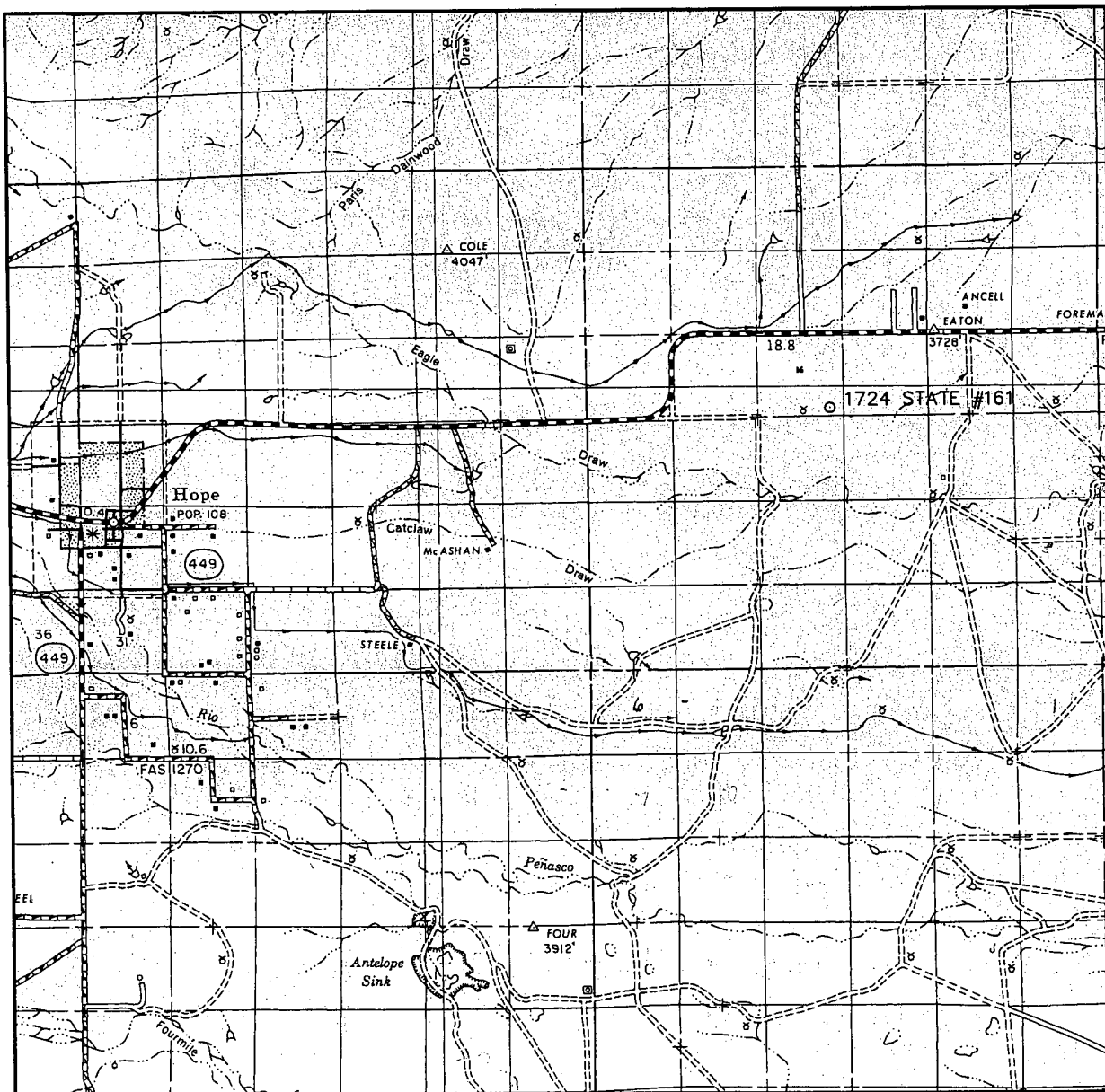
U.S.G.S. TOPOGRAPHIC MAP
HOPE SE, N.M.



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 16 TWP. 17-S RGE. 24-E

SURVEY _____ N.M.P.M.

COUNTY _____ EDDY

DESCRIPTION 660' FSL & 760' FEL

ELEVATION 3769'

OPERATOR LCX ENERGY, LLC

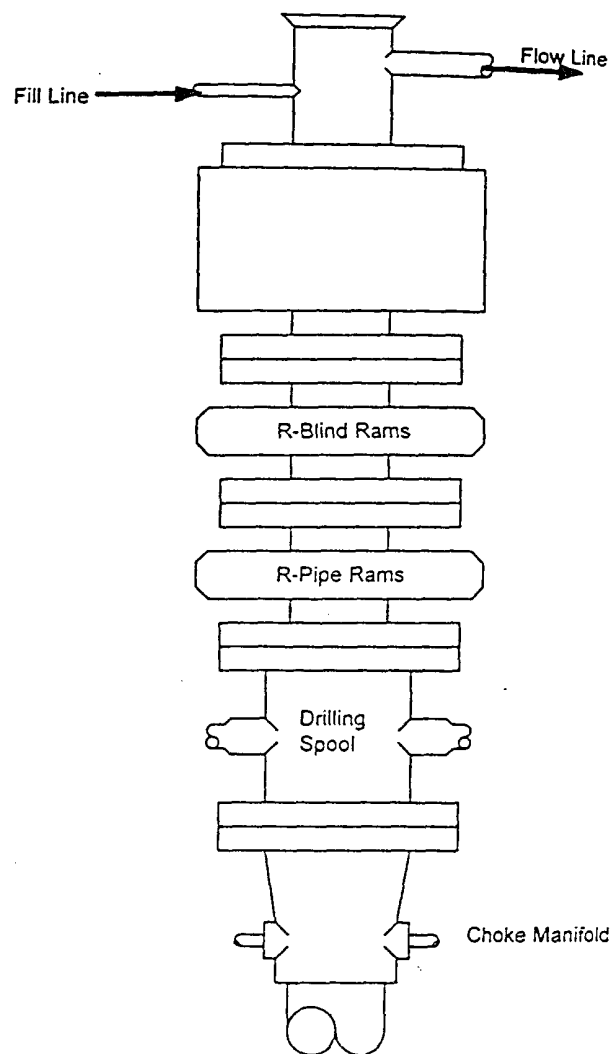
LEASE 1724 STATE



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

BLOWOUT PREVENTER SYSTEM



Type 900 Series
3000 psi WP

Choke Manifold Assembly for 3M WP System

