

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. Santa Fe, NM 87505

Form C-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

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

Operator Name and Address LCX ENERGY, LLC. 110 NORTH MARIENFELD SUITE 200 MIDLAND, TEXAS 79701		OGRID Number 218885 API Number 30 - 015-35362
Property Code	Property Name 1724 OSBOURN	Well No. 101
Proposed Pool 1 UNDES. EAGLE CREEK-WOLFCAMP		Proposed Pool 2

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	10	17S	24E		200'	NORTH	1880'	EAST	EDDY

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
O	10	17S	24E		660'	SOUTH	1880'	EAST	EDDY

Additional Well Information

Work Type Code N	Well Type Code G	Cable/Rotary ROTARY	Lease Type Code P	Ground Level Elevation 3720'
Multiple NO	Proposed Depth MD-9155', TVD-4937'	Formation WOLFCAMP	Contractor BIG DOG DRILLING	Spud Date WHEN APPROVED
Depth to Groundwater 100' +		Distance from nearest fresh water well .5 M1		Distance from nearest surface water 2.5 M1
Bit: Liner: Synthetic ☒ 12 mils thick Clay ☐ Pit Volume: 18M bbls Drilling Method: Closed-Loop System ☐ Fresh Water ☒ Brine ☒ Diesel/Oil-based ☐ Gas/Air ☐				

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 1/4"	9 5/8"	36#	1200'	475 Sx.	Surface
8 3/4" & 7 7/8"	5 1/2"	15.5#	MD-9155' TVD-4937'	600 Sx. *	Est. TOC 1000'

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 FOR DETAIL

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

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 ☐.

Approved by:

BRYAN G. ARANT
DISTRICT II GEOLOGIST

Printed name: Joe T. Janica

Title:

Title: Agent

Approval Date: JAN 16 2007

Expiration Date: JAN 16 2008

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

Date: 01/12/07

Phone: 505-391-8503

Conditions of Approval Attached ☐

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

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		UNDES. EAGLE CREEK-WOLFCAMP
Property Code	Property Name	Well Number
	1724 OSBOURN	101
OGRID No.	Operator Name	Elevation
218885	LCX ENERGY, LLC	3720

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	10	17 S	24 E		200	NORTH	1880	EAST	EDDY

Bottom Hole Location If Different From Surface

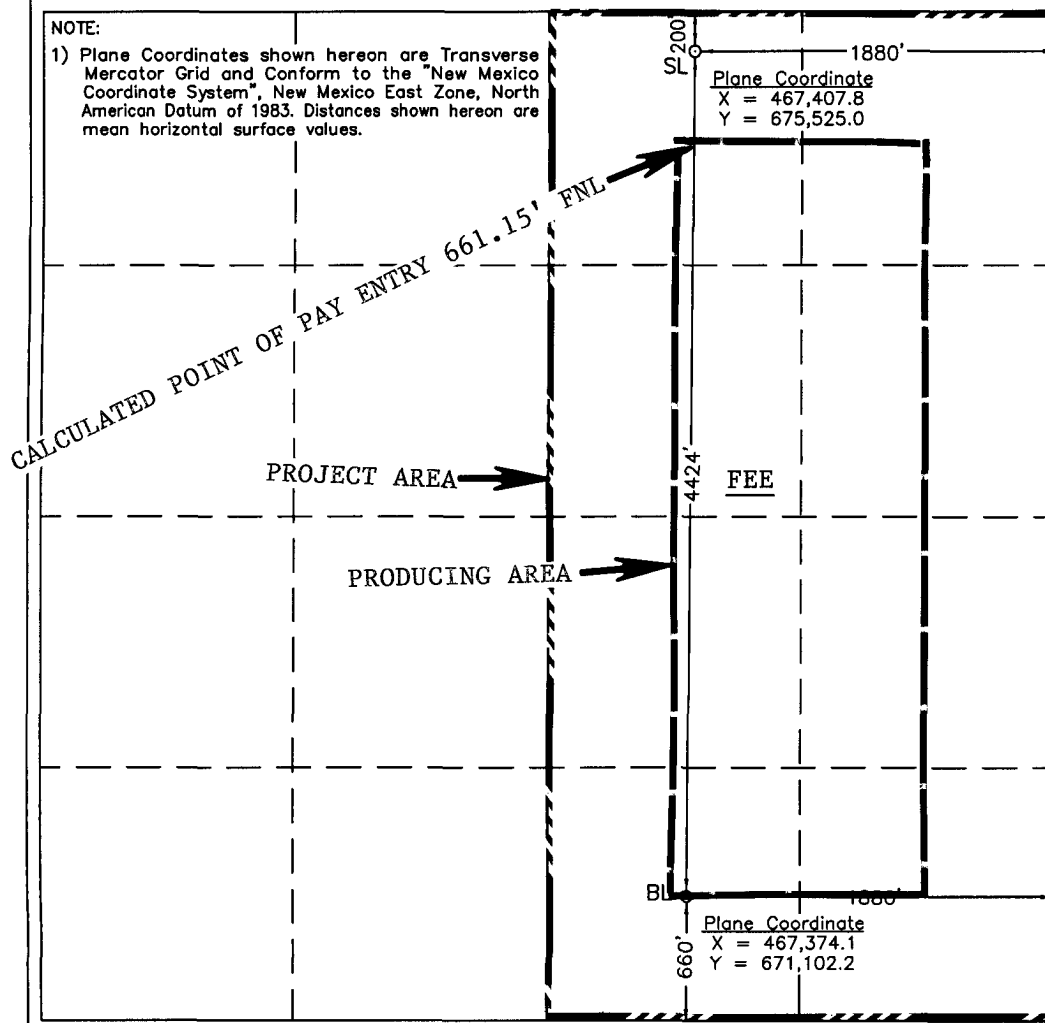
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	10	17 S	24 E		660	SOUTH	1880	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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.



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Joe T. Janica
Signature
Joe T. JANICA 01/12/07
Printed Name
Agent
Title
01/12/07
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 knowledge and belief.

December 12, 2005
Date Surveyed
Signature & Seal of
Professional Surveyor
W.O. Num. 2005-0649
Certificate No. MACON McDONALD 12185

LCX ENERGY, LLC
110 N. Marienfeld St., Suite 200
Midland, TX 79701

**Horizontal Drilling Procedure
Abo Wildcat Horizontals
(Eddy Co., NM)**

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'.
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 7-7/8" or 8-3/4" hole to approx. 5000'. Set cement kick-off plug from TD to approx. 4400 ft with 150 sx H + 0.5% dispersant.
5. Dress cement top to desired kick-off point. Drill 7-7/8" 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" 17# 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 Strings:

If lost circulation occurs in the surface hole:

- 2a. 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.

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.

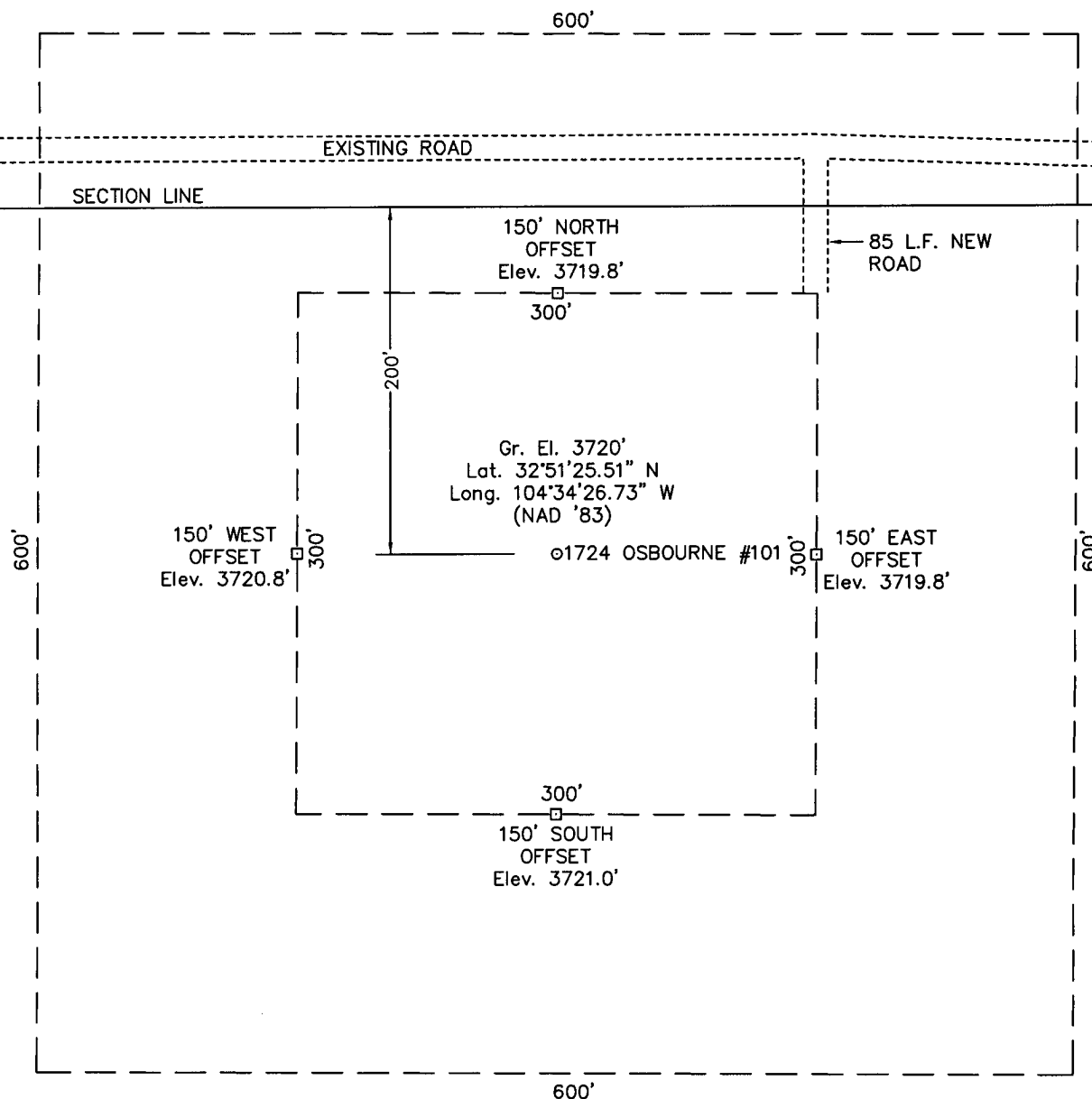
THERE IS NO KNOWN PRESENCE OF ANY H₂S IN THIS AREA. OTHER WELLS DRILLED HAVE NOT ENCOUNTERED ANY HYDROGEN SULFIDE WHILE DRILLING.

SECTION 10, TOWNSHIP 17 SOUTH, RANGE 24 EAST, N.M.P.M.

EDDY COUNTY

NEW MEXICO

L-2005-0649



DRIVING DIRECTIONS

FROM HIGHWAY INTERSECTION 285 & 82 IN ARTESIA, DRIVE WEST ALONG HIGHWAY 82 ABOUT 9.6 MILES, THEN TURN RIGHT AND GO NORTH ON EXISTING LEASE ROAD FOR 1.0 MILES TO A POINT, THEN LEFT AND GO WEST FOR 0.6 MILES TO A POINT. THE LOCATION IS SOUTH 230 FEET.

LCX ENERGY, LLC

1724 OSBOURN #101

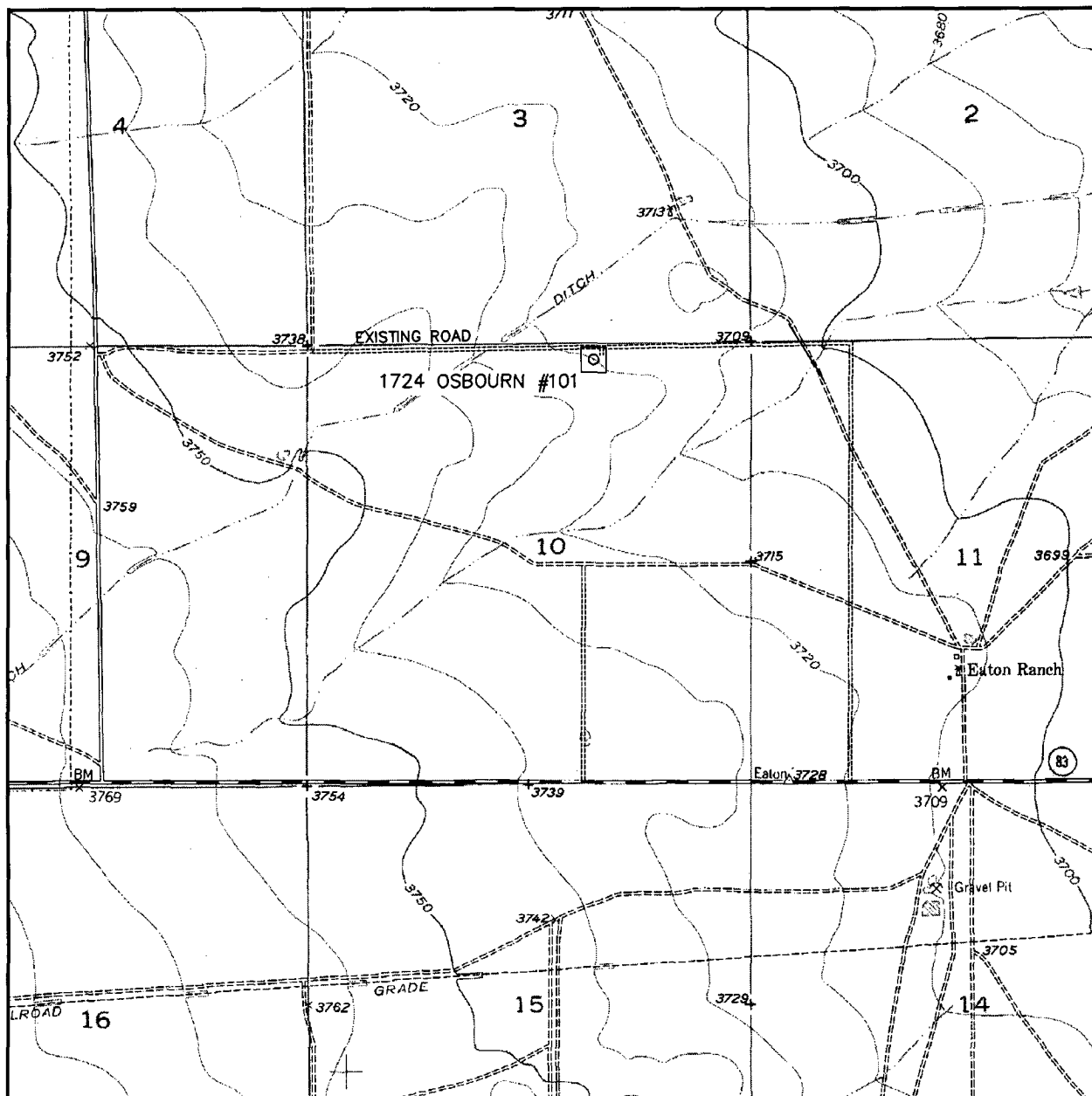
Located 200' FNL & 1880' FEL, Section 10
Township 17 S, Range 24 E, N.M.P.M.
Eddy County, New Mexico

**WEST
COMPANY**
of Midland, Inc.

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

Drawn By: JSR	Date: December 15, 2005
Scale: 1"=100'	Field Book: 303 / 19-26
Revision Date:	Quadrangle: Hope SE
W.O. No: 2005-0649	Dwg. No.: L-2005-0649

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOPE SE - 20'

SEC. 10 TWP. 17-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 200' FNL & 1880' FEL

ELEVATION 3720'

OPERATOR LCX ENERGY, LLC

LEASE 1724 OSBOURN #101

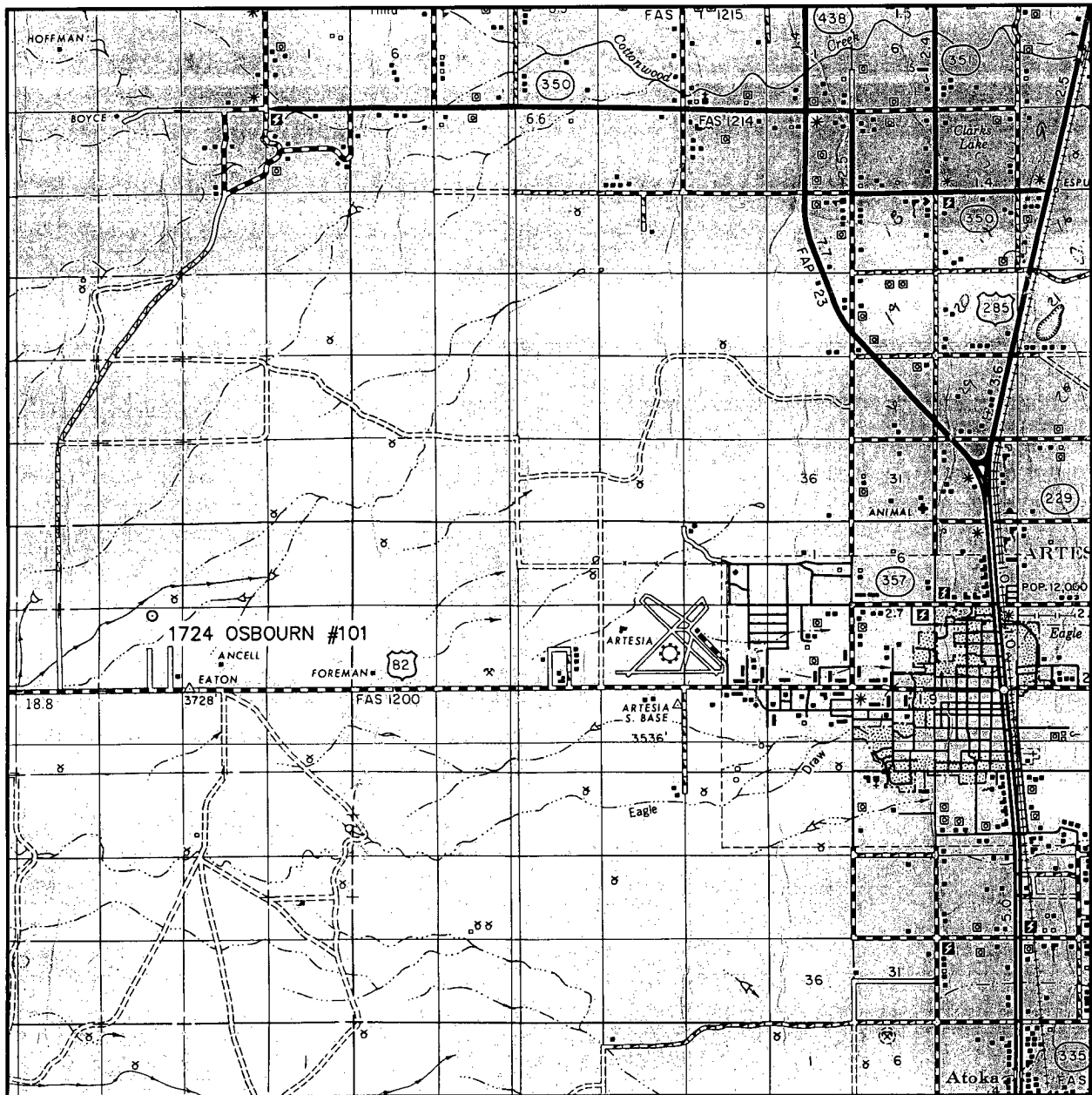
U.S.G.S. TOPOGRAPHIC MAP
HOPE SE, N.M.



**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. 10 TWP. 17-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 200' FNL & 1880' FEL

ELEVATION 3720'

OPERATOR LCX ENERGY, LLC

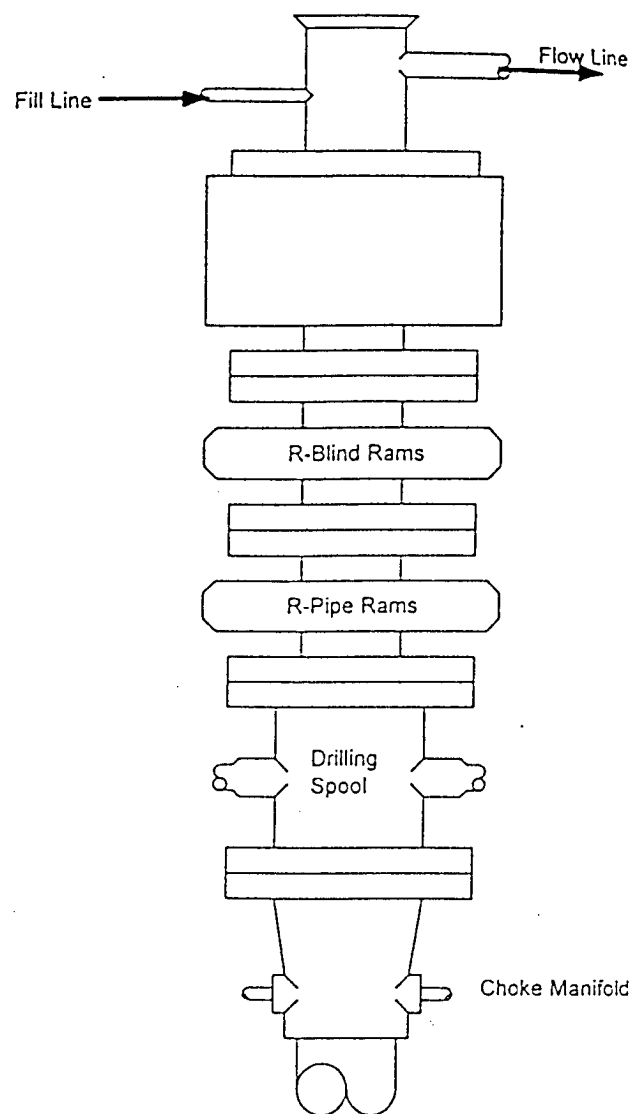
LEASE 1724 OSBOURN #101



**WEST
COMPANY**
of Midland, Inc.

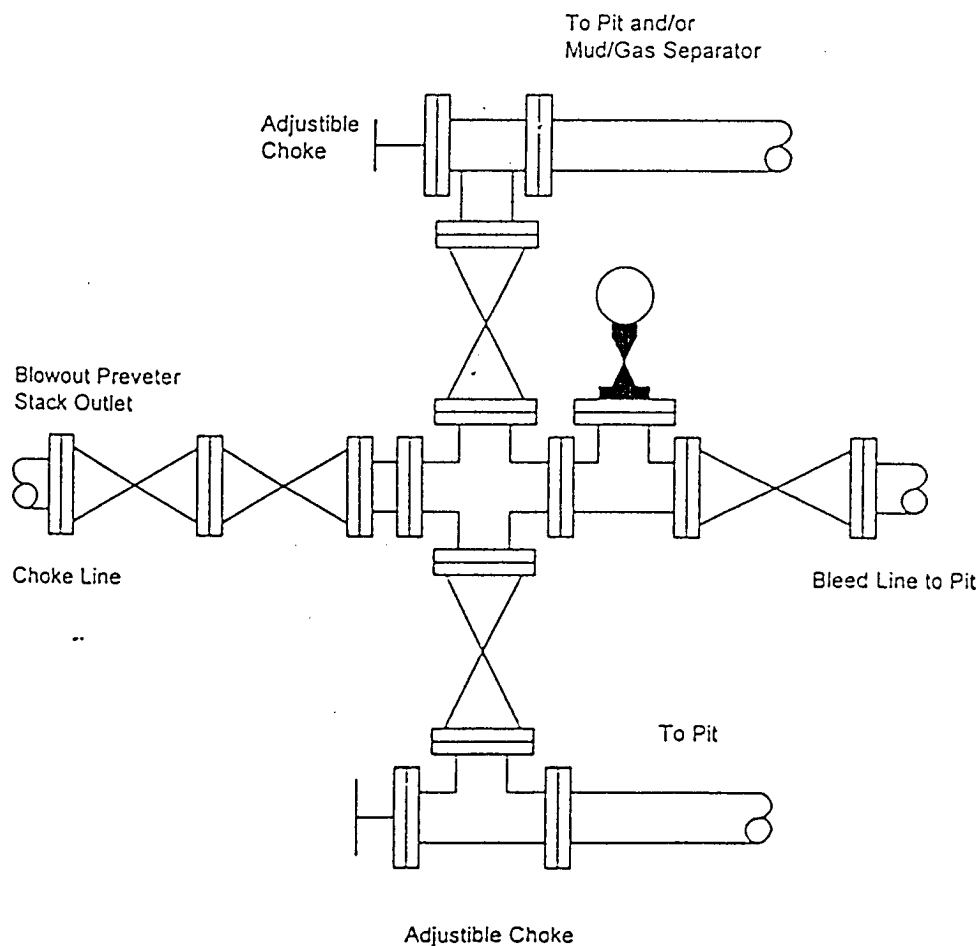
110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

BLOWOUT PREVENTER SYSTEM



Type 900 Series
3000 psi WP

Choke Manifold Assembly for 3M WP System



Proposal



Report Date: December 20, 2005

Client: LCX Energy LLC.

Field: Eddy County, NM Nad 83

Structure / Slot: 1724 Osbourn #101 / 1724 Osbourn #101

Well: 1724 Osbourn #101

Borehole: 1724 Osbourn #101

UWI/API#:

Survey Name / Date: 1724 Osbourn #101_r3 / December 20, 2005

Tort / AHD / DDI / ERD ratio: 90.000° / 4423.31 ft / 5.868 / 0.896

Grid Coordinate System: NAD83 New Mexico State Planes, Eastern Zone, US Feet

Location Lat/Long: N 32 51 24.615, W 104 34 26.727

Location Grid N/E Y/X: N 675525.000 ftUS, E 467407.800 ftUS

Grid Convergence Angle: -0.13062148"

Grid Scale Factor: 0.99991535

Survey / DLS Computation Method: Minimum Curvature / Lubinski

Vertical Section Azimuth: 180.440°

Vertical Section Origin: N 0.000 ft, E 0.000 ft

TYD Reference Datum: RKB

TYD Reference Elevation: 0.0 ft relative to

Sea Bed / Ground Level Elevation: 0.000 ft relative to

Magnetic Declination: 8.780°

Total Field Strength: 49508.847 nT

Magnetic Dip: 60.736°

Declination Date: July 28, 2005

Magnetic Declination Model: IGRF 2005

North Reference: Grid North

Total Corr Mag North -> Grid North: +8.911°

Local Coordinates Referenced To: Well Head

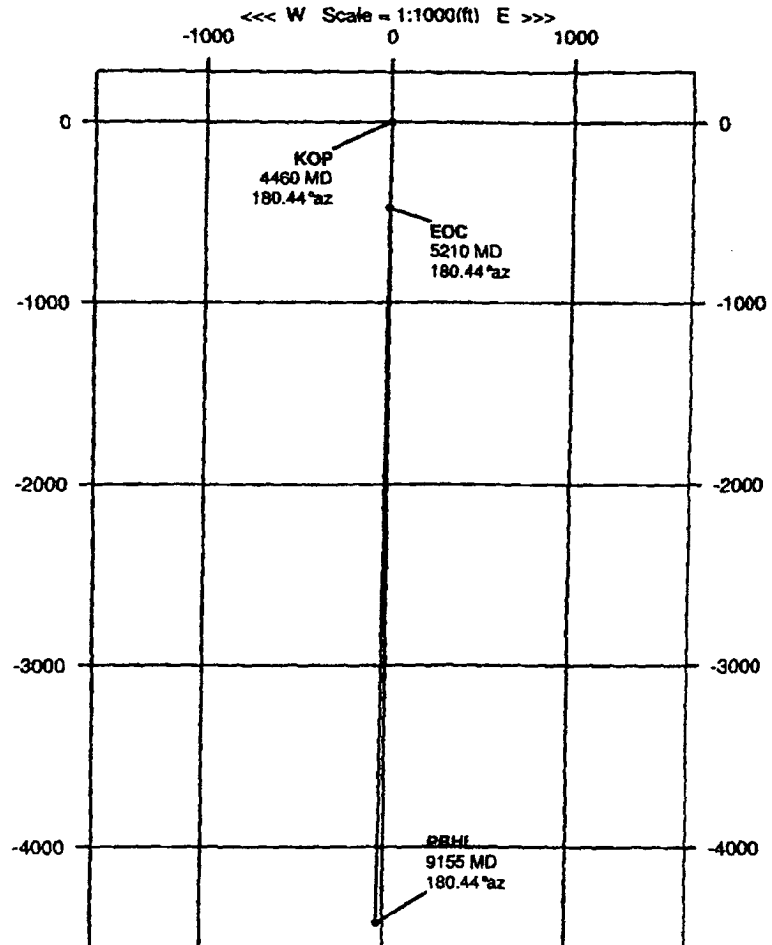
Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TYD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Tool Face (deg)
ie-In	0.00	0.00	180.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-179.56M
OP	4459.54	0.00	180.44	4459.54	0.00	0.00	0.00	0.00	0.00	0.00	-179.56M
	4500.00	4.86	180.44	4499.95	1.71	-1.71	-0.01	1.71	180.44	12.00	-179.56M
	4600.00	16.86	180.44	4597.98	20.51	-20.51	-0.16	20.51	180.44	12.00	0.00G
	4700.00	28.86	180.44	4689.96	59.28	-59.28	-0.45	59.28	180.44	12.00	0.00G
	4800.00	40.86	180.44	4771.87	116.33	-116.33	-0.89	116.33	180.44	12.00	0.00G
	4900.00	52.86	180.44	4840.13	189.16	-189.15	-1.44	189.16	180.44	12.00	0.00G
	5000.00	64.86	180.44	4891.76	274.59	-274.58	-2.09	274.59	180.44	12.00	0.00G
	5100.00	76.86	180.44	4924.49	368.89	-368.88	-2.81	368.89	180.44	12.00	0.00G
	5200.00	88.86	180.44	4936.90	467.93	-467.92	-3.57	467.93	180.44	12.00	0.00G
XC	5209.54	90.00	180.44	4937.00	477.46	-477.45	-3.64	477.46	180.44	12.00	0.00G
IHL	9155.38	90.00	180.44	4937.00	4423.31	-4423.18	-33.70	4423.31	180.44	0.00	0.00G

LXC Energy LLC.

WELL	1724 Osbourn #101	FIELD	Eddy County, NM	STRUCTURE	1724 Osbourn #101
Geoprobe Permission	Dir: 48.735"	Dir: July 26, 2006	Service Location	Drill Bit: 1204 Osbourn #101	TVD Ref: 9155 MD (9155 ft)
Model: KOP 2400	Mfg Date: 08.789"	PS: 40000.0 mT	Lat: 33° 55' 24.516"	Plot: 1724 Osbourn #101	Reg Date: Tue 05:28 PM December 26, 2006
			Lon: 106° 24' 28.727"		
			Heading: 492407.00 N.E.		
			Scale Factor: 1.00000000		



INTREPID
Directional Drilling Specialists



Critical Points								
Critical Point	MD	INCL	AZIM	TVD	YSEC	N(e)/S(e)	E(w)/W(e)	DLS
Tie-In	0.00	0.00	180.44	0.00	0.00	0.00	0.00	0.00
KOP	4459.54	0.00	180.44	4459.54	0.00	0.00	0.00	0.00
EOC	5209.54	90.00	180.44	4937.00	477.46	-477.45	-3.64	12.00
PBHL	9155.38	90.00	180.44	4937.00	4423.31	-4423.18	-33.70	0.00

