ATS-07-100

Form 3160-3
(April 2004)

310

OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Month - Year
MAY 3 2007
OCD - ARTESIA, NM

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM-10266

6. If Indian, Allotee or Tribe Name

1a. Type of work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No. 34279
1625 FEDERAL COM # 151H

2. Name of Operator
LCX ENERGY, LLC. (LARRY GILLETTE 432-262-4011) 218885

9. API Well No.
30-015-35589

3a. Address
110 NORTH MARIENFELD
SUITE 200 MIDLAND, TEXAS 79701

3b. Phone No. *(include area code)*
432-262-4011

10. Field and Pool, or Exploratory
COTTONWOOD CREEK WOLFCAMP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface 300' FEL & 1880' FNL SECTION 15 T16S-R25E EDDY CO. NM

At proposed prod. zone EOH 660' FWL & 1880' FNL SECTION 15 T16S-R25E

11. Sec., T. R. M. or Blk. and Survey or Area
SECTION 15 T16S-R25 E

14. Distance in miles and direction from nearest town or post office*
Approximately 7 miles Northwest of Artesia New Mexico.

12. County or Parish
EDDY CO.

13. State
NEW MEXICO

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
300'	320	320

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
NA	MD-9068'± TVD-4960'±	RLB-0008129

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3461' GL	WHEN APPROVED	45 Days

24. Attachments

Roswell Controlled Water Basin

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name *(Printed/Typed)*	Date
Joe T. Janica	Joe T. Janica	01/05/07

Title
Agent

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ James Stovall		MAY 0 1 2007

Title	Office
FIELD MANAGER	CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATION ATTACHED

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

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
	75250	COTTON WOOD CREEK-WOLFCAMP

Property Code	Property Name	Well Number
	1625 FEDERAL COM	151H

OGRID No.	Operator Name	Elevation
218885	LCX ENERGY	3461'

Surface Location

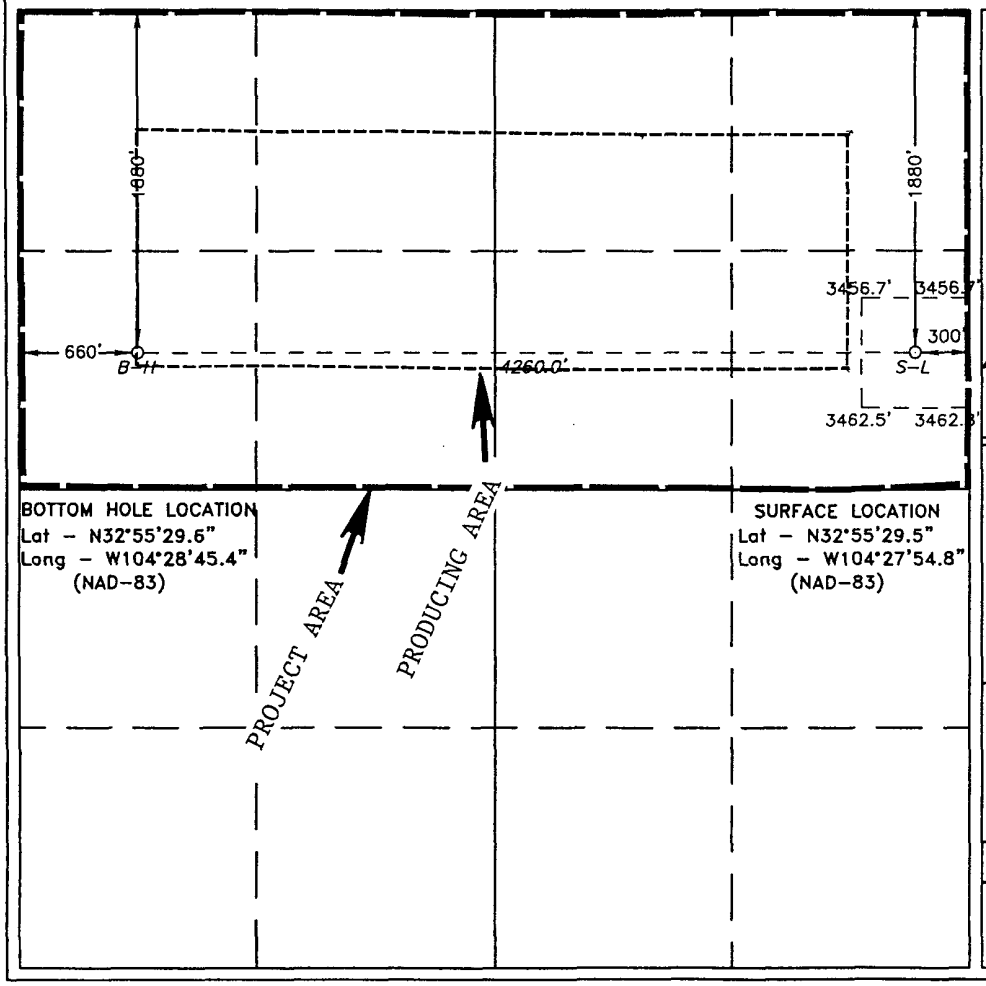
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	15	16 S	25 E		1880	NORTH	300	EAST	EDDY

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
E	15	16 S	25 E		1880	NORTH	660	WEST	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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Joe T. Janica
Signature Date

01/05/07

Joe T. Janica
Printed Name

Agent

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 supervison, and that the same is true and correct to the best of my belief.

NOVEMBER 28, 2006

Date Surveyed

Signature & Seal of Professional Surveyor

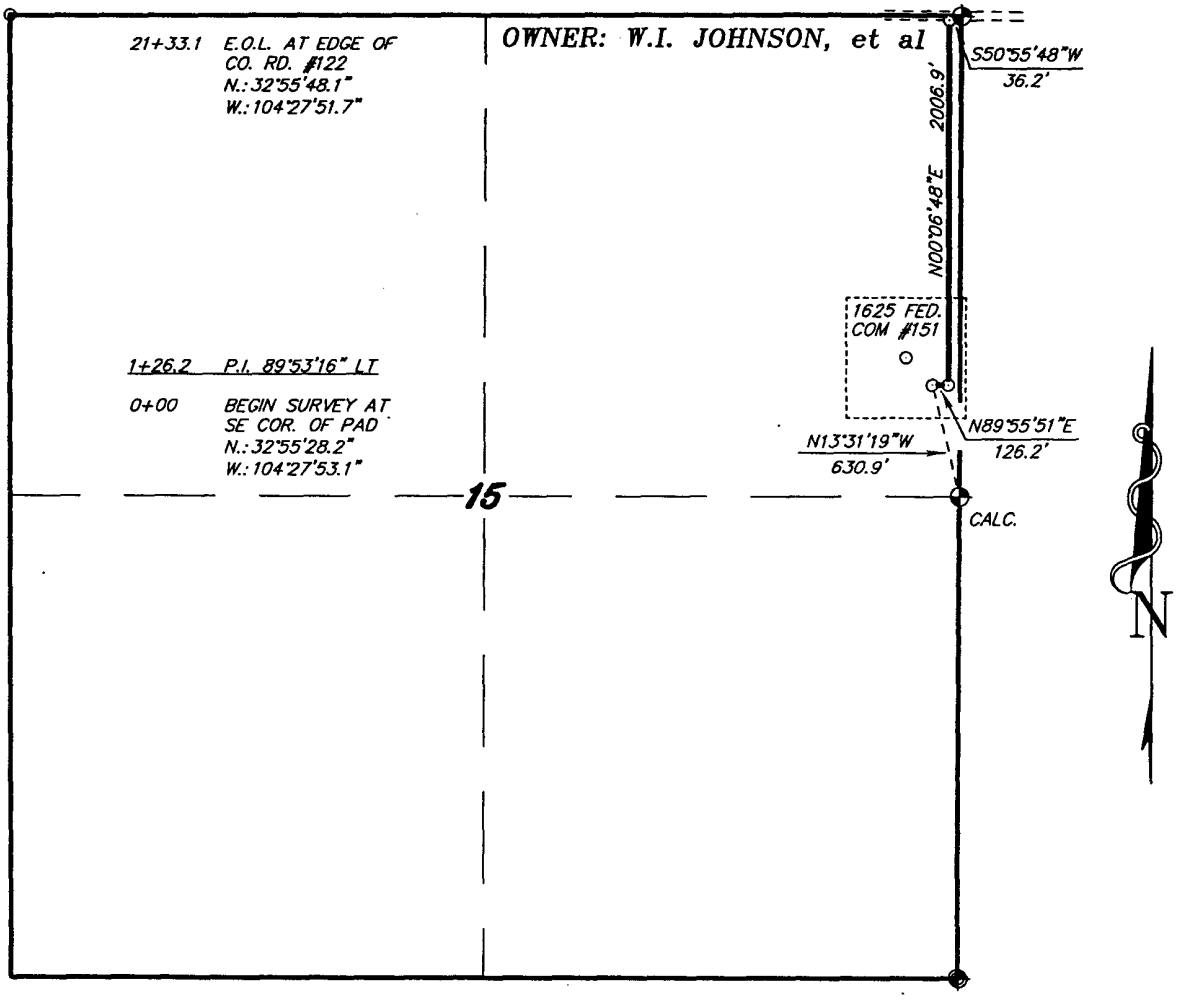
GARY L. JONES
NEW MEXICO
7977
PROFESSIONAL SURVEYOR

7449

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

SECTION 15, TOWNSHIP 16 SOUTH, RANGE 25 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



LEGAL DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE, LOCATED IN SECTION 15, TOWNSHIP 16 SOUTH, RANGE 25 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY.

BEGINNING AT A POINT WHICH LIES N.13°31'19"W., 630.9 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 15; THENCE N89°55'51"E., 126.2 FEET; THENCE N.00°06'48"W., 2006.9 FEET TO THE END OF THIS LINE WHICH LIES S.50°55'48"W., 36.2 FEET FROM THE NORTHEAST CORNER OF SAID SECTION 15. SAID STRIP OF LAND BEING 2133.1 FEET OR 129.28 RODS IN LENGTH.

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES, N.M. No. 7977
TEXAS P.L.S. No. 5074

1000 0 1000 2000 FEET

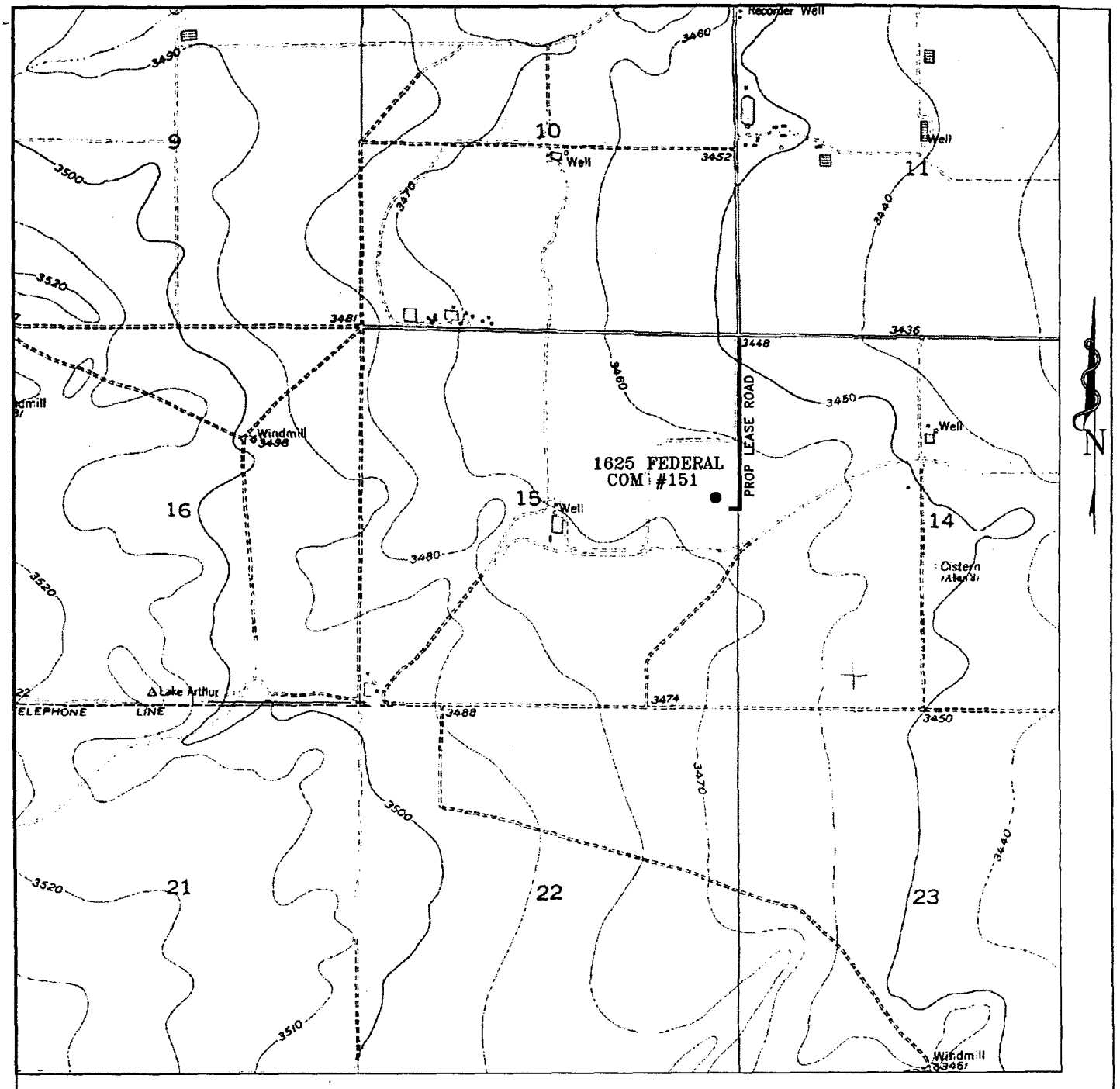
BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

LCX ENERGY

REF: PROPOSED ROAD TO THE LCX – 1625 FEDERAL COM #151

A ROAD CROSSING FEE LAND IN
SECTION 15, TOWNSHIP 16 SOUTH, RANGE 25 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

W.O. Number: 17449	Drawn By: J. M. SMALL		
Date: 11-29-2006	Disk: JMS 17449R	Survey Date: 11-26-2006	Sheet 1 of 1 Sheets



1625 FEDERAL COM #151
Located 1880' FNL and 300' FEL
Section 15, Township 16 South, Range 25 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	JMS 17449T
Survey Date:	11-28-2006
Scale:	1" = 2000'
Date:	11-29-2006

LCX ENERGY

Proposal

Report Date:	December 15, 2006	**Survey / DLS Computation Method:**	Minimum Curvature / Lubinski
Client:	LCX Energy	**Vertical Section Azimuth:**	270.210°
Field:	Eddy County, NM Nad 83	**Vertical Section Origin:**	N 0.000 ft, E 0.000 ft
Structure / Slot:	1625 Fed Com #151 / 1625 Federal Com #151	**TVD Reference Datum:**	RKB
Well:	1625 Fed Com #151	**TVD Reference Elevation:**	0.0 ft relative to
Borehole:	1625 Fed Com #151	**Sea Bed / Ground Level Elevation:**	0.000 ft relative to
UWI/API#:		**Magnetic Declination:**	8.574°
Survey Name / Date:	1625 Fed Com #151_r1 / December 15, 2006	**Total Field Strength:**	49430.520 nT
Tort / AHD / DDI / ERD ratio:	90.000° / 4313.17 ft / 5.851 / 0.870	**Magnetic Dip:**	60.793°
Grid Coordinate System:	NAD83 New Mexico State Planes, Eastern Zone, US Feet	**Declination Date:**	December 15, 2006
Location Lat/Long:	N 32 55 29.500, W 104 27 54.800	**Magnetic Declination Model:**	IGRF 2005
Location Grid N/E Y/X:	N 700224.469 ftUS, E 500869.207 ftUS	**North Reference:**	Grid North
Grid Convergence Angle:	-0.07168681°	**Total Corr Mag North -> Grid North:**	+8.646°
Grid Scale Factor:	0.99991097	**Local Coordinates Referenced To:**	Well Head

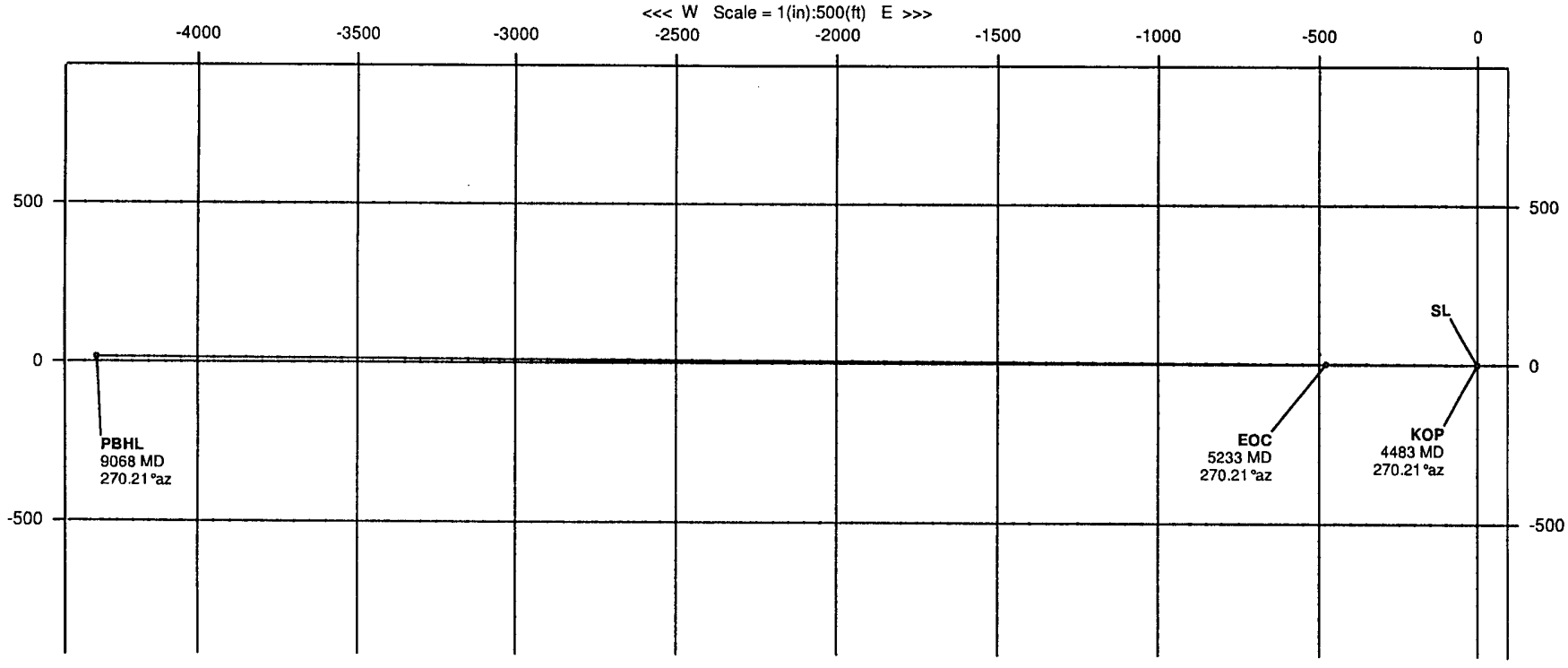
Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)
Tie-In	0.00	0.00	270.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.00	270.21	100.00	0.00	0.00	0.00	0.00	0.00	0.00
	200.00	0.00	270.21	200.00	0.00	0.00	0.00	0.00	0.00	0.00
	300.00	0.00	270.21	300.00	0.00	0.00	0.00	0.00	0.00	0.00
	400.00	0.00	270.21	400.00	0.00	0.00	0.00	0.00	0.00	0.00
	500.00	0.00	270.21	500.00	0.00	0.00	0.00	0.00	0.00	0.00
	600.00	0.00	270.21	600.00	0.00	0.00	0.00	0.00	0.00	0.00
	700.00	0.00	270.21	700.00	0.00	0.00	0.00	0.00	0.00	0.00
	800.00	0.00	270.21	800.00	0.00	0.00	0.00	0.00	0.00	0.00
	900.00	0.00	270.21	900.00	0.00	0.00	0.00	0.00	0.00	0.00
	1000.00	0.00	270.21	1000.00	0.00	0.00	0.00	0.00	0.00	0.00
	1100.00	0.00	270.21	1100.00	0.00	0.00	0.00	0.00	0.00	0.00
	1200.00	0.00	270.21	1200.00	0.00	0.00	0.00	0.00	0.00	0.00
	1300.00	0.00	270.21	1300.00	0.00	0.00	0.00	0.00	0.00	0.00
	1400.00	0.00	270.21	1400.00	0.00	0.00	0.00	0.00	0.00	0.00
	1500.00	0.00	270.21	1500.00	0.00	0.00	0.00	0.00	0.00	0.00
	1600.00	0.00	270.21	1600.00	0.00	0.00	0.00	0.00	0.00	0.00
	1700.00	0.00	270.21	1700.00	0.00	0.00	0.00	0.00	0.00	0.00
	1800.00	0.00	270.21	1800.00	0.00	0.00	0.00	0.00	0.00	0.00
	1900.00	0.00	270.21	1900.00	0.00	0.00	0.00	0.00	0.00	0.00
	2000.00	0.00	270.21	2000.00	0.00	0.00	0.00	0.00	0.00	0.00
	2100.00	0.00	270.21	2100.00	0.00	0.00	0.00	0.00	0.00	0.00
	2200.00	0.00	270.21	2200.00	0.00	0.00	0.00	0.00	0.00	0.00
	2300.00	0.00	270.21	2300.00	0.00	0.00	0.00	0.00	0.00	0.00
	2400.00	0.00	270.21	2400.00	0.00	0.00	0.00	0.00	0.00	0.00
	2500.00	0.00	270.21	2500.00	0.00	0.00	0.00	0.00	0.00	0.00
	2600.00	0.00	270.21	2600.00	0.00	0.00	0.00	0.00	0.00	0.00
	2700.00	0.00	270.21	2700.00	0.00	0.00	0.00	0.00	0.00	0.00
	2800.00	0.00	270.21	2800.00	0.00	0.00	0.00	0.00	0.00	0.00
	2900.00	0.00	270.21	2900.00	0.00	0.00	0.00	0.00	0.00	0.00
	3000.00	0.00	270.21	3000.00	0.00	0.00	0.00	0.00	0.00	0.00
	3100.00	0.00	270.21	3100.00	0.00	0.00	0.00	0.00	0.00	0.00
	3200.00	0.00	270.21	3200.00	0.00	0.00	0.00	0.00	0.00	0.00
	3300.00	0.00	270.21	3300.00	0.00	0.00	0.00	0.00	0.00	0.00
	3400.00	0.00	270.21	3400.00	0.00	0.00	0.00	0.00	0.00	0.00
	3500.00	0.00	270.21	3500.00	0.00	0.00	0.00	0.00	0.00	0.00
	3600.00	0.00	270.21	3600.00	0.00	0.00	0.00	0.00	0.00	0.00
	3700.00	0.00	270.21	3700.00	0.00	0.00	0.00	0.00	0.00	0.00

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)
	9000.00	90.00	270.21	4960.00	4244.93	15.54	-4244.90	4244.93	270.21	0.00
PBHL	9068.24	90.00	270.21	4960.00	4313.17	15.79	-4313.14	4313.17	270.21	0.00

LCX Energy

WELL	FIELD	STRUCTURE
1625 Fed Com #151	Eddy County, NM Nad 83	1625 Fed Com #151

Magnetic Parameters				Surface Location				Miscellaneous			
Model: IGRF 2005	Dip: 60.793°	Date: December 15, 2006		Lat: N32 55 29.508	Northing: 700224.47 ftUS	Grid Conv: -0.07188681°		Slot: 1625 Federal Com #151	TVD Ref: RKB (0.00 ft above)		
	Mag Dec: +8.574°	FS: 48430.5 nT		Lon: W104 27 54.800	Easting: 500869.21 ftUS	Scale Fact: 0.999910863		Plan: 1625 Fed Com #151_r1	Srvy Date: December 15, 2006		



INTREPID
Directional Drilling Specialists

LCX Energy

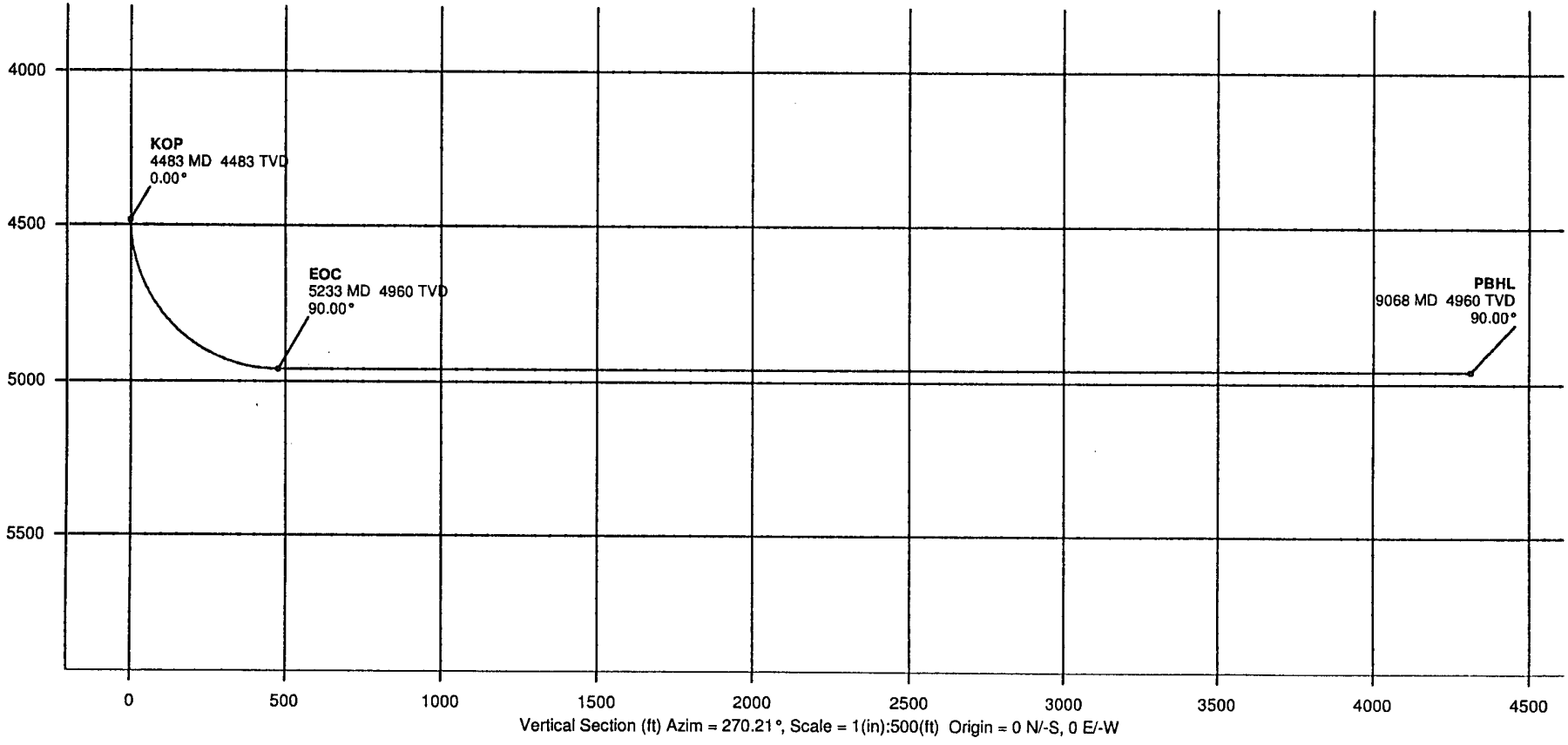
WELL	FIELD	STRUCTURE
1625 Fed Com #151	Eddy County, NM Nad 83	1625 Fed Com #151

Magnetic Parameters					Surface Location					Miscellaneous			
Model:	IGRF 2005	Dip:	60.793°	Date:	December 15, 2006	Lat:	N32 55 29.500	Northing:	700224.47 ftUS	Slot:	1625 Federal Com #151	TVD Ref:	RKB (0.00 ft above)
		Mag Dec:	+8.574°	FS:	49430.5 nT	Lon:	W104 27 54.800	Easting:	500889.21 ftUS	Plan:	1625 Fed Com #151_r1	Srvy Date:	December 15, 2006

NAD83 New Mexico State Planes, Eastern Zone, US Feet

Grid Conv: -0.07166581°

Scale Fact: 0.9999108663



INTREPID
Directional Drilling Specialists

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).

See COA

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 :

See COA

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.

See COA

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 H_2S IN THIS AREA. OTHER WELLS DRILLED HAVE NOT ENCOUNTERED ANY HYDROGEN SULFIDE WHILE DRILLING.

LCX ENERGY, LLC.
1625 FEDERAL COM. # 151
SL-1880' FNL & 300' FEL
EOH-1880' FNL & 660' FWL
SECTION 15 T16S-R25E
EDDY CO. NEW MEXICO

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is providedfor your consideration.

1. Location of well: 1880' FNL & 300' FEL SECTION 15 T16S-R25E EDDY CO. NM

2. Ground Elevation above Sea Level: 3461* GL.

3. Geological age of surface formation: Quaternary Deposits:

4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.

5. Proposed drilling depth: MD-8755±' TVD-4960'±

6. Estimated tops of geological markers:

San Andres	575'	Abo	3875'
Glorietta	1715'	Wolfcamp	4700'
Tubb	3200'		

7. Possible mineral bearing formations:

Abo	Gas
Wolfcamp	Gas

8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
26"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-350'	13 3/8"	48#	8-R	ST&C	H-40
12¼"	0-1200'	9 5/8"	36#	8-R	ST&C	J-55
8 3/4' & 7 7/8"	0-8755'±	5½"	17#	8-R Butt.	LT&C	N-80

9. CASING CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 350' of 13 3/8" 48# H-40 ST&C casing. Cement with 400 Sx. of Class "C" cement + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 1200' of 9 5/8" 36# J-55 ST&C casing. Cement with 475 Sx. of Class "C" cement + additives, circulate cement to surface.
5½"	Production	Set 8755'± 5½" 17# N-80 LT&C casing. Cement with 600 Sx. of Class "C" Premium Plus cement + additives, estimate top of cement 1000' from surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 series 3000 PSI working perssure B.O.P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be nippled up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once each 24 Hr. period and the blind rams will be operated when the drill pipe is out of on trips. Full opening stabbing valve and upper kelly cock will be available in case if needed. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 3000 PSI choke manifold with adjustable chokes. No abnormal pressures or temperatures are expected while drilling this well. No problems in offset wells.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-350'	8.4-8.7	29-34	NC	Fresh water use paper to control seepage.
350-1200'	8.4-8.7	30-38	NC	Fresh water use paper to control seepage.
1200-5000'±	9.0-9.2	29-34	NC	Cut brine circulate outer reserve
5000-8755'	9.0-9.3	29-38	* 15 cc or less	Cut brine use high viscosity sweeps to clean hole

* Water loss may have to be controled to log well and run casing.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing, viscosity, and water loss may have to be adjusted to meet these needs.

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Log vertical hole withDual Induction, SNP, MSFL, LDT, Gamma Ray, Caliper from TVD back to the 9 5/8" casing shoe.

B. Cased hole log Gamma Ray, Neutron from 9 5/8" casing shoe back to surface.

C. Rig up mud logger on hole at 3700'±.

D. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H^2S in this area. If H^2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3500 PSI, and Estimated BHT 165°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

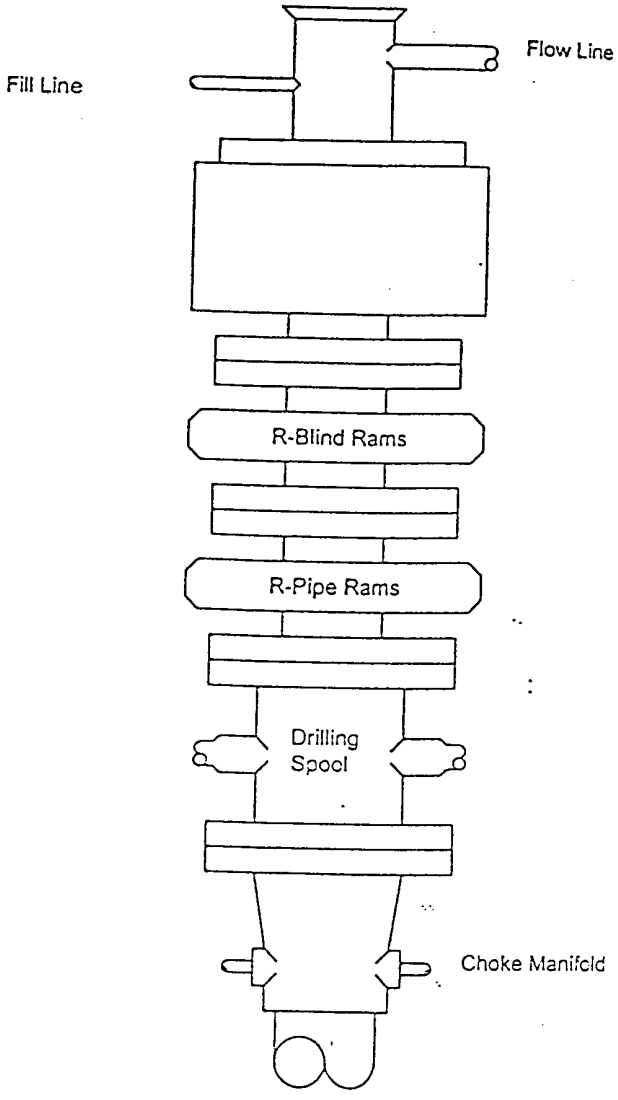
Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 40 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Wolfcamp formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as a gas well.

BLOWOUT PREVENTER SYSTEM

3000 PSI



900 SERIES
3000 PSI WP

Choke Manifold Assembly for 5M WP System

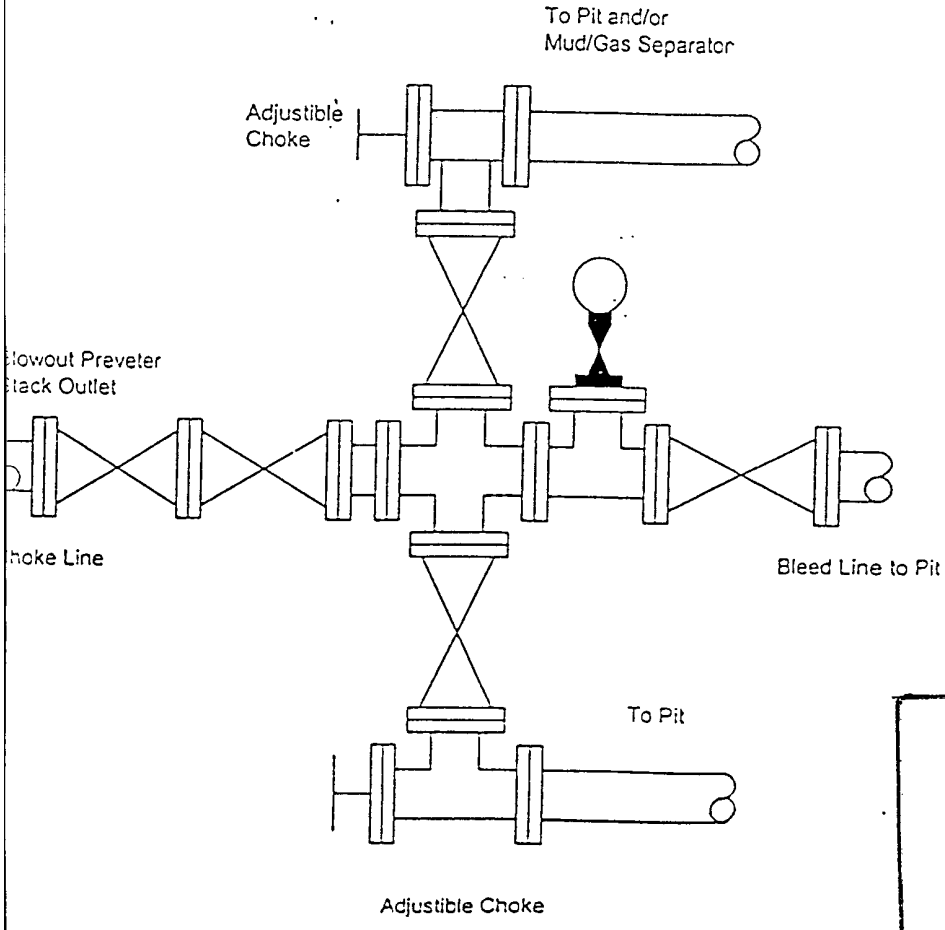


EXHIBIT "E"
BOP & CHOKE MANIFOLD ASSEMBLY

LLC ENERGY, LLC.
1625 FEDERAL COM. # 151
UNIT "H" SECTION 15
T16S-R25E EDDY CO. NM

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers

   A. Windsock at mudpit area should be high enough to be visible.
   B. Windsock at briefing area should be high enough to be visible.
   C. There should be a windsock at entrance to location.

4. Condition Flags and Signs

   A. Warning sign on access road to location.
   B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H_2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well control equipment

   A. See exhibit "E"

6. Communication

   A. While working under masks chalkboards will be used for communication.
   B. Hand signals will be used where chalk board is inappropriate.
   C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.

7. Drillstem Testing

   A. Exhausts will be watered.
   B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
   C. If location is near any dwelling a closed D.S.T. will be performed.

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

1. EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of a County General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.

   A. Exhibit "A" shows the proposed well site as staked.

   B. From the junction of US Hi-way 82 and US Hi-way 285 Go North 7 miles. Turn Left (West) go 1.5 miles, turn Left (South) follow section line, go 2000', turn Right (West) go 100' to location.

   C. Exhibit "C" shows the proposed access road. When well is completed a sundry report will be issued for the pipeline to the sales line.

2. PLANNED ACCESS ROADS: Approximately 2100' of new road will be constructed.

   A. The access road will be crowned and ditched to a 12'00" wide travel surface with a 40' right-of-way.

   B. Gradient on all roads will be less than 5.00%.

   C. Turn outs will be constructed where necessary.

   D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.

   E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.

   F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the Topography.

3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A-1"

A.	Water wells	-	One approximately 2000' West of location.
B.	Disposal wells	-	None known
C.	Drilling wells	-	None Known
D.	Producing wells	-	As shown on Exhibit "A-1"
E.	Abandoned wells	-	As shown on Exhibit "A-1"

CONDITIONS OF APPROVAL - DRILLING

Well Name & No. 1625 Federal Com # 151
Operator's Name: LCX Energy LLC
Location: 1880'FNL, 330'FEL, SEC15, T16S, R25E, Eddy County, NM
BHL: 1880'FNL, 660'FWL, SEC15, T16S, R25E, Eddy County, NM
Lease: NM-10266

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: **20** inch, **13.375** inch, 9.625 inch, **5.5** inch
OR **7 inch and 4.2 inch contingency replacement** for 5.5 inch

C. BOP tests

2. A Hydrogen Sulfide (H2S) Drilling Plan should be activated prior to drilling into the N/A Formation. A copy of the plan shall be posted at the drilling site.

3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The **13.375** inch surface casing shall be set **@ APPROXIMATELY 350 FEET** , below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 9.625 inch intermediate casing is **CIRCULATE CEMENT TO THE SURFACE.**

3. The minimum required fill of cement behind the **5-1/2** inch production casing is **cement shall CIRCULATE TO at least 200 feet above the shoe of the 9.625" casing.**

4. If the 7 inch and 4.5 inch contingency strings are run they will be cemented to at least 200 feet inside the previous casing string.

5. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **13.375** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) is 2000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- A variance to test the _____ to the reduced pressure of ____psi with the rig pumps is approved.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

Engineers can be reached at 505-706-2779 for any variances that might be necessary.

F Wright 1/29/07