

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		OGRID Number 218885
Property Code 35367		Well No. 21
Property Name 1724 STATE COM.		API Number 30 - 015-35411
Proposed Pool 1 Collins Ranch, -WOLFCAMP		Proposed Pool 2

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
M	2	17S	24E		660'	SOUTH	760'	WEST	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
D	2	17S	24E		660'	NORTH	760'	WEST	EDDY

Work Type Code N	Well Type Code G	Cable/Rotary ROTARY	Lease Type Code S	Ground Level Elevation 3703'		
Multiple NO	Proposed Depth MD-8722 TVD-4960	Formation WOLFCAMP	Contractor BIG DOG DRILLING	Spud Date WHEN APPROVED		
Depth to Groundwater 100'+	Distance from nearest fresh water well 1000'+ Southeast	Distance from nearest surface water None known				
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume: 18Mbbls	Drilling Methods: Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>					
Closed-Loop System <input type="checkbox"/>						

21 Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	NA	40'	Redi-mix	Surface
17 1/2"	13 3/8"	48#	350'	450 Sx.	Surface
12 1/4"	9 5/8"	36#	1200'	475 Sx.	Surface
8 3/4"-7 7/8"	5 1/2"	17#	MD-8722 TVD-4960'	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.

* Tie back to be verified by CAL or Temp Survey

SEE ATTACHED SHEET

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

H2S Well Contingency Plan required for
public dwelling with 1/2 mile of location
B610

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 NMOC guidelines <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		OIL CONSERVATION DIVISION	
Printed name: Joe T. Janica		Approved by: BRYAN G. ARRANT	
Title: Agent		DISTRICT II GEOLOGIST	
E-mail Address: joejanica@valornet.com		Approval Date: FEB 05 2007	
Date: 01/30/07		Expiration Date: FEB 05 2008	
Phone: 505-391-8503		Conditions of Approval Attached <input type="checkbox"/>	

DISTRICT I
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State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

JAN 31 2007

OCD - ARTESIA, NM

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 75010	Pool Name Celtus Ranch - WOLFCAMP
Property Code	Property Name 1724 STATE COM	Well Number 21
OGRID No. 218885	Operator Name LCX ENERGY	Elevation 3703'

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	2	17 S	24 E		660	SOUTH	760	WEST	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
D	2	17 S	24 E		660	NORTH	760	WEST	EDDY
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

<p>BOTTOM HOLE LOCATION Lat - N32°52'11.7" Long - W104°33'55.8" (NAD-83)</p> <p>PROJECT AREA</p> <p>PRODUCING AREA</p> <p>VA-2855</p> <p>VA-2835</p> <p>SURFACE LOCATION Lat - N32°51'33.6" Long - W104°33'55.9" (NAD-83)</p>	<p>OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Joe T. Janica</i> Signature Date 01/30/07</p> <p>Joe T. Janica Printed Name Agent</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>JANUARY 05, 2007</p> <p>Date Surveyed L. JONES Signature & Seal of Professional Surveyor Professional Surveyor 7977 W.O. No. 17580 Certificate No. Gary Jones 7977 BASIN SURVEYS</p>
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LCX ENERGY, LLC
110 N. Marienfeld St., Suite 200
Midland, TX 79701

Horizontal Drilling Procedure

(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.

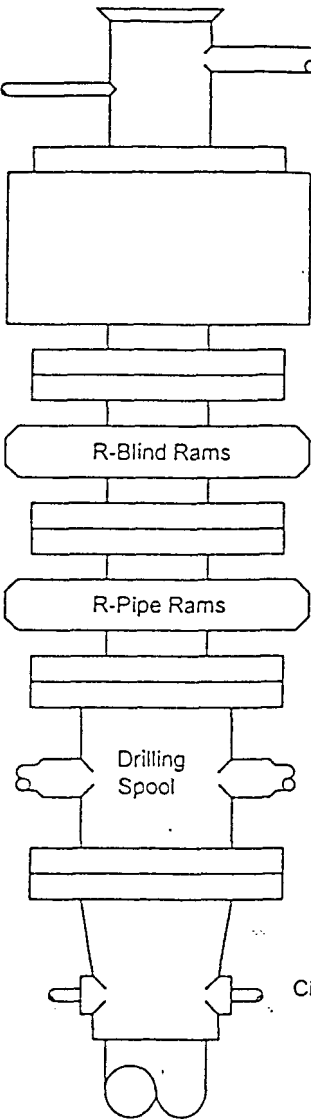
THERE IS NO KNOWN PRESENCE OF ANY H₂S IN THIS AREA. OTHER WELLS DRILLED HAVE NOT ENCOUNTERED ANY HYDROGEN SULFIDE WHILE DRILLING.

BLOWOUT PREVENTER SYSTEM

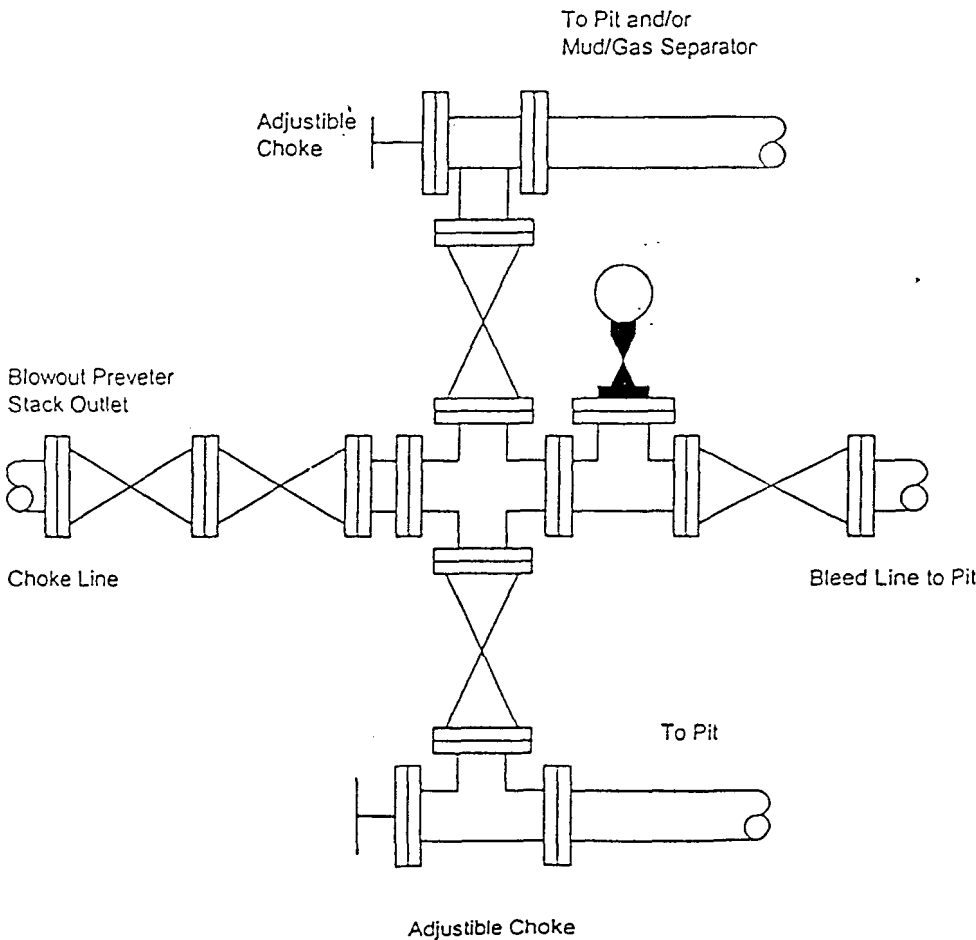
3000 PSI

Fill Line

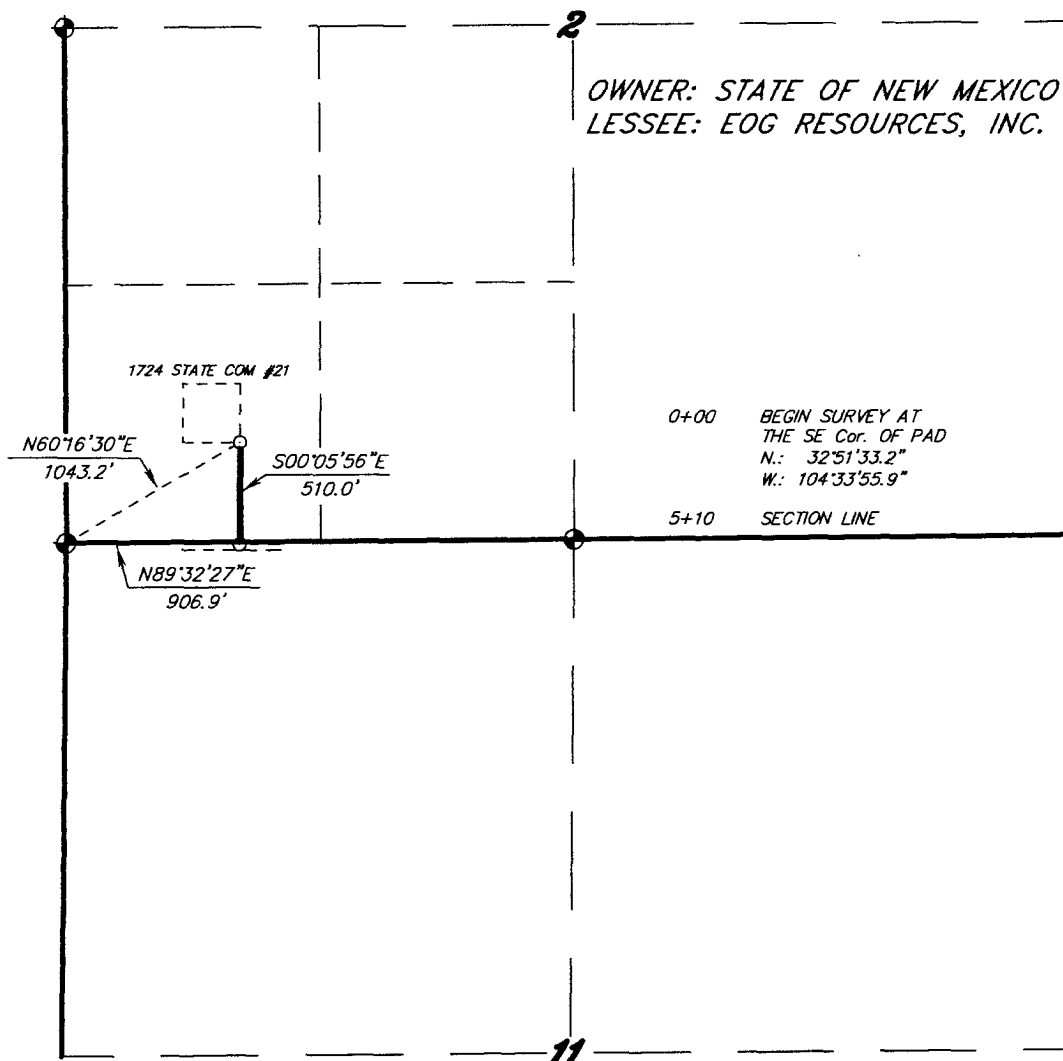
Flow Line



Choke Manifold Assembly for 5M WP System



SECTION 2, TOWNSHIP 17 SOUTH, RANGE 24 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



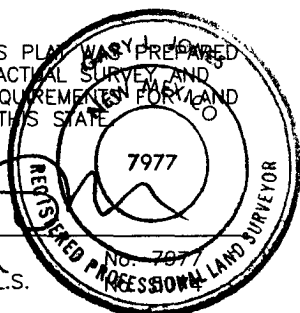
LEGAL DESCRIPTION

A STRIP OF LAND 20.0 FEET WIDE, LOCATED IN SECTION 2, TOWNSHIP 17 SOUTH, RANGE 24 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 10.0 FEET LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY. BEGINNING AT A POINT WHICH LIES N.60°16'30"E, 1043.2 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 2, THENCE S.00°05'56"E, 510.0 FEET TO A POINT ON THE SOUTH SECTION LINE WHICH LIES N.89°32'27"E, 906.9 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 2. SAID STRIP OF LAND BEING 510.0 FEET OR 30.91 RODS IN LENGTH AND CONTAINING 0.23 ACRES, MORE OR LESS, AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SW/4 SW/4 = 30.91 RODS = 0.23 ACRES

I HEREBY CERTIFY THAT THIS PLAN 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. P.S.
TEXAS P.L.S.



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

W.O. Number: 17580

Drawn By: J. M. SMALL

Date: 01-09-2007

Disk: JMS 17580R

1000 0 1000 2000 FEET



LCX ENERGY

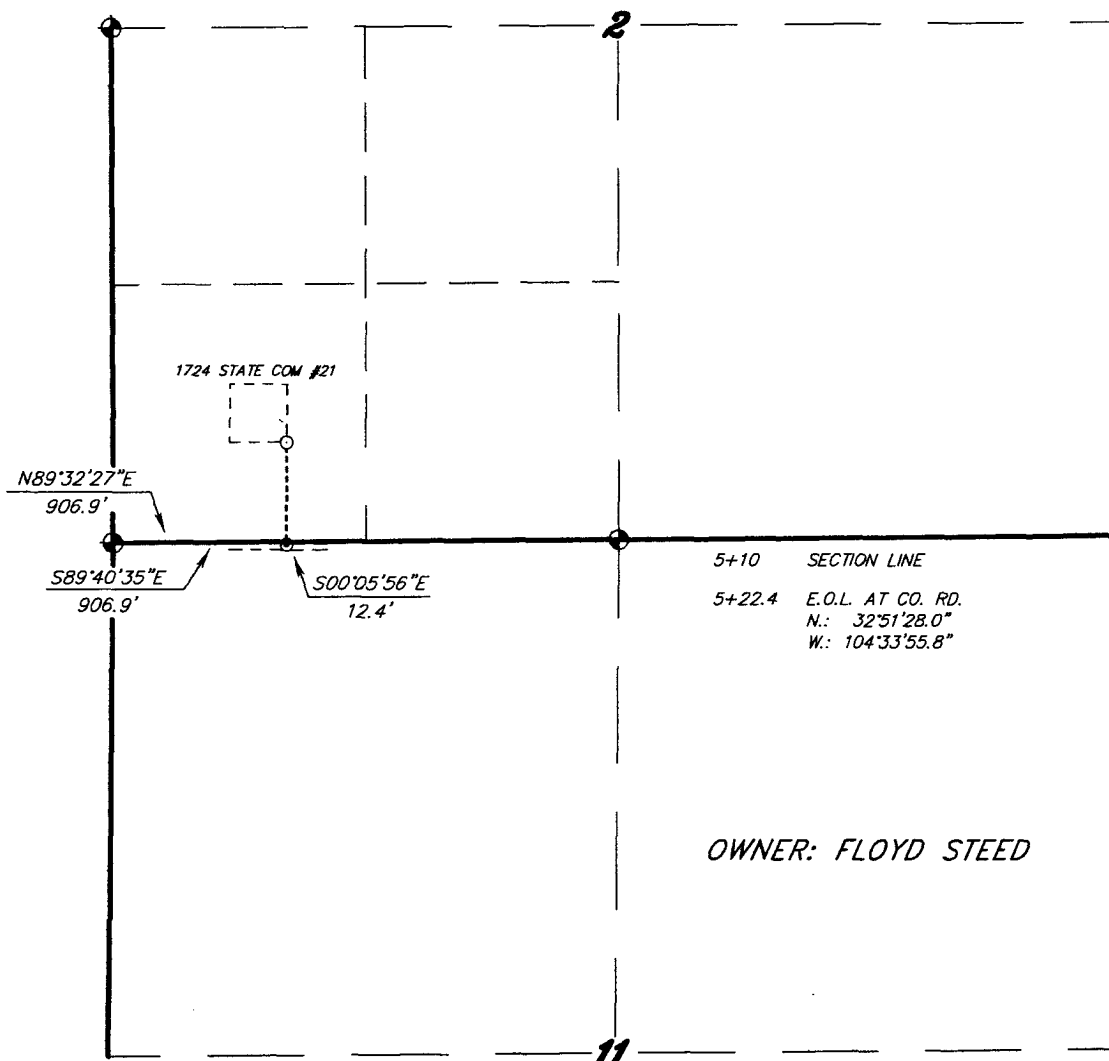
REF: PROPOSED ROAD TO THE LCX - 1724 STATE COM #21

A ROAD CROSSING STATE LAND IN
SECTION 2, TOWNSHIP 17 SOUTH, RANGE 24 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 01-05-2007

Sheet 1 of 2 Sheets

SECTION 11, TOWNSHIP 17 SOUTH, RANGE 24 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



LEGAL DESCRIPTION

A STRIP OF LAND 20.0 FEET WIDE, LOCATED IN SECTION 11, TOWNSHIP 17 SOUTH, RANGE 24 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 10.0 FEET LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY. BEGINNING AT A POINT ON THE NORTH SECTION LINE WHICH LIES N.89°32'27\"E, 906.9 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 11, THENCE S.00°05'56\"E, 12.4 FEET TO THE END OF THIS LINE WHICH LIES S.89°40'35\"E, 906.9 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 11. SAID STRIP OF LAND BEING 12.4 FEET OR 0.75 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. P.S.
TEXAS P.L.S.

7977

PROFESSIONAL LAND SURVEYOR

1000 0 1000 2000 FEET

LCX ENERGY

REF: PROPOSED ROAD TO THE LCX - 1724 STATE COM #21

A ROAD CROSSING FEE LAND IN
SECTION 11, TOWNSHIP 17 SOUTH, RANGE 24 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 17580 Drawn By: J. M. SMALL

Date: 01-09-2007 Disk: JMS 17580R

Survey Date: 01-05-2007 Sheet 2 of 2 Sheets

SECTION 2, TOWNSHIP 17 SOUTH, RANGE 24 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

150' NORTH
OFF SET
3702.3'
□

LCX ENERGY
1724 STATE COM #21
ELEV. - 3703'
○

150' WEST
OFF SET □
3703.9'

150' EAST
□ OFF SET
3703.0'

Lat.-N 32°51'33.2"
Long.-W 104°33'55.9"
(NAD-83)

□
150' SOUTH
OFF SET
3704.7'

PROPOSED LEASE ROAD 522.4'

SUNDOWN TRAIL 0.1 MILE

SUNDOWN TRAIL 1.0 MILE

STATE HWY 82

200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF US. HWY. 285 AND US HWY 82, PROCEED WEST ON US. HWY 82 TO MILE MARKER 98, FROM MILE MARKER 98 PROCEED NORTH 0.6 MILE TO SUNDOWN TRAIL, ON SUNDOWN TRAIL PROCEED NORTH 1.0 MILE TO A TURN TO THE LEFT, PROCEED WEST 0.1 MILE TO THE PROPOSED LEASE ROAD.

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

W.O. Number: 17580 Drawn By: J. M. SMALL

Date: 01-09-2007 Disk: JMS 17580W

LCX ENERGY

REF: 1724 STATE COM #21 / WELL PAD TOPO

THE 1724 STATE COM No. 21 LOCATED 660' FROM
THE SOUTH LINE AND 760' FROM THE WEST LINE OF
SECTION 2, TOWNSHIP 17 SOUTH, RANGE 24 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 01-05-2007 Sheet 1 of 1 Sheets

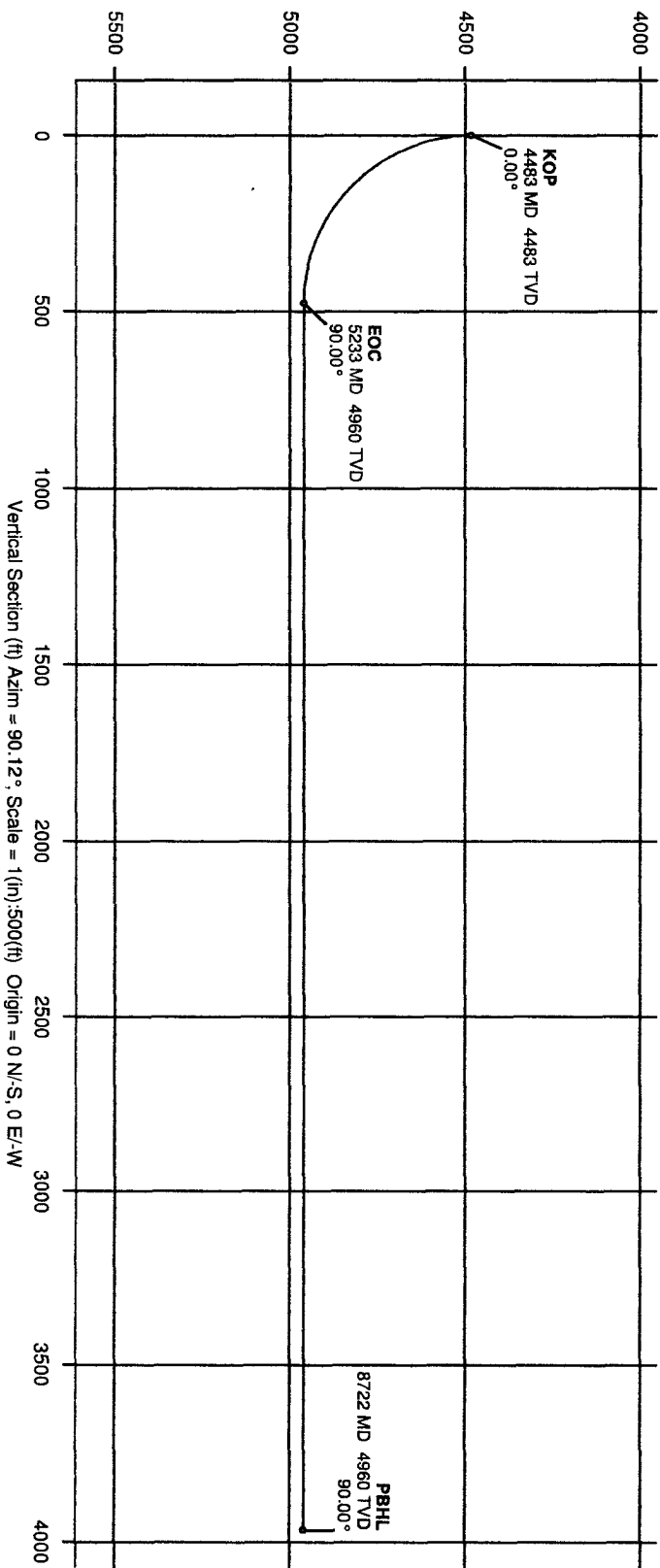
LCX Energy

WELL 1724 State Com #21

FIELD Eddy County, NM Nad 83

STRUCTURE 1724 State Com #21

Magnetic Parameters				Surface Location				MADRS New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous	
Model:	ICM-2005	Dir:	00.112°	Date:	December 14, 2008	Lat:	Top 5 33.800	Nad83	97047.46 N	Grid Zone:	0 18N 48E71	Site:	1724 State Com #21
		Mag Dec:	-4.813°			Long:	W 103 50 57.000	Easting:	48960.00 E	State Plane:	8 18099.14071	Map:	1724 State Com #21
													SYD Date:
													Revised:



INTERPID
Directional Drilling Specialists



LCX Energy

WELL 1724 State Com #21

FIELD

Eddy County, NM Nad 83

STRUCTURE

1724 State Com #21

Magnetic Parameters				Surface Location				Miscellaneous			
Model:	ICRF 2006	Dip:	60.71°	Date:	December 14, 2006	Lat:	NAD 83 33.800	Site:	172A Site Can #21	TNO Ref:	RIG (0.001 above)
Mag Dec:	-4.613°	Mag Dec:	-4.613°	RS:	48278.7 ft	Long:	W104 53.57 200	Grid Cont:	-2.151 (487°)	Srv Date:	December 1, 2006
						Easting:	469945.48 NUS	Scale Fact:	0.9999146275		

Proposal

Report Date: December 14, 2006	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: LCX Energy	Vertical Section Azimuth: 90.123°
Field: Eddy County, NM Nad 83	Vertical Section Origin: N 0.000 ft, E 0.000 ft
Structure / Slot: 1724 State Com #21 / 1724 State Com #21	TVD Reference Datum: RKB
Well: 1724 State Com #21	TVD Reference Elevation: 0.0 ft relative to
Borehole: 1724 State Com #21	Sea Bed / Ground Level Elevation: 0.000 ft relative to
UWI/API#:	Magnetic Declination: 8.613°
Survey Name / Date: 1724 State Com #21_r1 / December 14, 2006	Total Field Strength: 49378.666 nT
Tort / AHD / DDI / ERD ratio: 90.000° / 3966.59 ft / 5.798 / 0.800	Magnetic Dip: 60.713°
Grid Coordinate System: NAD83 New Mexico State Planes, Eastern Zone, US Feet	Declination Date: December 14, 2006
Location Lat/Long: N 32 51 33.600, W 104 33 57.000	Magnetic Declination Model: IGRF 2005
Location Grid N/E Y/X: N 676437.451 ftUS, E 469945.478 ftUS	North Reference: Grid North
Grid Convergence Angle: -0.12614997°	Total Corr Mag North -> Grid North: +8.739°
Grid Scale Factor: 0.99991493	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	90.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.00	90.12	100.00	0.00	0.00	0.00	0.00	0.00	0.00
	200.00	0.00	90.12	200.00	0.00	0.00	0.00	0.00	0.00	0.00
	300.00	0.00	90.12	300.00	0.00	0.00	0.00	0.00	0.00	0.00
	400.00	0.00	90.12	400.00	0.00	0.00	0.00	0.00	0.00	0.00
	500.00	0.00	90.12	500.00	0.00	0.00	0.00	0.00	0.00	0.00
	600.00	0.00	90.12	600.00	0.00	0.00	0.00	0.00	0.00	0.00
	700.00	0.00	90.12	700.00	0.00	0.00	0.00	0.00	0.00	0.00
	800.00	0.00	90.12	800.00	0.00	0.00	0.00	0.00	0.00	0.00
	900.00	0.00	90.12	900.00	0.00	0.00	0.00	0.00	0.00	0.00
	1000.00	0.00	90.12	1000.00	0.00	0.00	0.00	0.00	0.00	0.00
	1100.00	0.00	90.12	1100.00	0.00	0.00	0.00	0.00	0.00	0.00
	1200.00	0.00	90.12	1200.00	0.00	0.00	0.00	0.00	0.00	0.00
	1300.00	0.00	90.12	1300.00	0.00	0.00	0.00	0.00	0.00	0.00
	1400.00	0.00	90.12	1400.00	0.00	0.00	0.00	0.00	0.00	0.00
	1500.00	0.00	90.12	1500.00	0.00	0.00	0.00	0.00	0.00	0.00
	1600.00	0.00	90.12	1600.00	0.00	0.00	0.00	0.00	0.00	0.00
	1700.00	0.00	90.12	1700.00	0.00	0.00	0.00	0.00	0.00	0.00
	1800.00	0.00	90.12	1800.00	0.00	0.00	0.00	0.00	0.00	0.00
	1900.00	0.00	90.12	1900.00	0.00	0.00	0.00	0.00	0.00	0.00
	2000.00	0.00	90.12	2000.00	0.00	0.00	0.00	0.00	0.00	0.00
	2100.00	0.00	90.12	2100.00	0.00	0.00	0.00	0.00	0.00	0.00
	2200.00	0.00	90.12	2200.00	0.00	0.00	0.00	0.00	0.00	0.00
	2300.00	0.00	90.12	2300.00	0.00	0.00	0.00	0.00	0.00	0.00
	2400.00	0.00	90.12	2400.00	0.00	0.00	0.00	0.00	0.00	0.00
	2500.00	0.00	90.12	2500.00	0.00	0.00	0.00	0.00	0.00	0.00
	2600.00	0.00	90.12	2600.00	0.00	0.00	0.00	0.00	0.00	0.00
	2700.00	0.00	90.12	2700.00	0.00	0.00	0.00	0.00	0.00	0.00
	2800.00	0.00	90.12	2800.00	0.00	0.00	0.00	0.00	0.00	0.00
	2900.00	0.00	90.12	2900.00	0.00	0.00	0.00	0.00	0.00	0.00
	3000.00	0.00	90.12	3000.00	0.00	0.00	0.00	0.00	0.00	0.00
	3100.00	0.00	90.12	3100.00	0.00	0.00	0.00	0.00	0.00	0.00
	3200.00	0.00	90.12	3200.00	0.00	0.00	0.00	0.00	0.00	0.00
	3300.00	0.00	90.12	3300.00	0.00	0.00	0.00	0.00	0.00	0.00
	3400.00	0.00	90.12	3400.00	0.00	0.00	0.00	0.00	0.00	0.00
	3500.00	0.00	90.12	3500.00	0.00	0.00	0.00	0.00	0.00	0.00
	3600.00	0.00	90.12	3600.00	0.00	0.00	0.00	0.00	0.00	0.00
	3700.00	0.00	90.12	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)
	3800.00	0.00	90.12	3800.00	0.00	0.00	0.00	0.00	0.00	0.00
	3900.00	0.00	90.12	3900.00	0.00	0.00	0.00	0.00	0.00	0.00
	4000.00	0.00	90.12	4000.00	0.00	0.00	0.00	0.00	0.00	0.00
	4100.00	0.00	90.12	4100.00	0.00	0.00	0.00	0.00	0.00	0.00
	4200.00	0.00	90.12	4200.00	0.00	0.00	0.00	0.00	0.00	0.00
	4300.00	0.00	90.12	4300.00	0.00	0.00	0.00	0.00	0.00	0.00
	4400.00	0.00	90.12	4400.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP	4482.54	0.00	90.12	4482.54	0.00	0.00	0.00	0.00	0.00	0.00
	4500.00	2.10	90.12	4500.00	0.32	0.00	0.32	0.32	90.12	12.00
	4600.00	14.10	90.12	4598.82	14.38	-0.03	14.38	14.38	90.12	12.00
	4700.00	26.10	90.12	4692.56	48.67	-0.10	48.67	48.67	90.12	12.00
	4800.00	38.10	90.12	4777.12	101.71	-0.22	101.71	101.71	90.12	12.00
	4900.00	50.10	90.12	4848.81	171.17	-0.37	171.17	171.17	90.12	12.00
	5000.00	62.10	90.12	4904.49	254.01	-0.55	254.01	254.01	90.12	12.00
	5100.00	74.10	90.12	4941.72	346.63	-0.74	346.62	346.63	90.12	12.00
	5200.00	86.10	90.12	4958.89	444.95	-0.96	444.95	444.95	90.12	12.00
EOC	5232.54	90.00	90.12	4960.00	477.46	-1.02	477.46	477.46	90.12	12.00
	5300.00	90.00	90.12	4960.00	544.93	-1.17	544.93	544.93	90.12	0.00
	5400.00	90.00	90.12	4960.00	644.93	-1.38	644.93	644.93	90.12	0.00
	5500.00	90.00	90.12	4960.00	744.93	-1.60	744.93	744.93	90.12	0.00
	5600.00	90.00	90.12	4960.00	844.93	-1.81	844.93	844.93	90.12	0.00
	5700.00	90.00	90.12	4960.00	944.93	-2.03	944.93	944.93	90.12	0.00
	5800.00	90.00	90.12	4960.00	1044.93	-2.24	1044.93	1044.93	90.12	0.00
	5900.00	90.00	90.12	4960.00	1144.93	-2.46	1144.93	1144.93	90.12	0.00
	6000.00	90.00	90.12	4960.00	1244.93	-2.67	1244.93	1244.93	90.12	0.00
	6100.00	90.00	90.12	4960.00	1344.93	-2.89	1344.93	1344.93	90.12	0.00
	6200.00	90.00	90.12	4960.00	1444.93	-3.10	1444.93	1444.93	90.12	0.00
	6300.00	90.00	90.12	4960.00	1544.93	-3.32	1544.93	1544.93	90.12	0.00
	6400.00	90.00	90.12	4960.00	1644.93	-3.53	1644.93	1644.93	90.12	0.00
	6500.00	90.00	90.12	4960.00	1744.93	-3.75	1744.93	1744.93	90.12	0.00
	6600.00	90.00	90.12	4960.00	1844.93	-3.96	1844.93	1844.93	90.12	0.00
	6700.00	90.00	90.12	4960.00	1944.93	-4.18	1944.93	1944.93	90.12	0.00
	6800.00	90.00	90.12	4960.00	2044.93	-4.39	2044.92	2044.93	90.12	0.00
	6900.00	90.00	90.12	4960.00	2144.93	-4.60	2144.92	2144.93	90.12	0.00
	7000.00	90.00	90.12	4960.00	2244.93	-4.82	2244.92	2244.93	90.12	0.00
	7100.00	90.00	90.12	4960.00	2344.93	-5.03	2344.92	2344.93	90.12	0.00
	7200.00	90.00	90.12	4960.00	2444.93	-5.25	2444.92	2444.93	90.12	0.00
	7300.00	90.00	90.12	4960.00	2544.93	-5.46	2544.92	2544.93	90.12	0.00
	7400.00	90.00	90.12	4960.00	2644.93	-5.68	2644.92	2644.93	90.12	0.00
	7500.00	90.00	90.12	4960.00	2744.93	-5.89	2744.92	2744.93	90.12	0.00
	7600.00	90.00	90.12	4960.00	2844.93	-6.11	2844.92	2844.93	90.12	0.00
	7700.00	90.00	90.12	4960.00	2944.93	-6.32	2944.92	2944.93	90.12	0.00
	7800.00	90.00	90.12	4960.00	3044.93	-6.54	3044.92	3044.93	90.12	0.00
	7900.00	90.00	90.12	4960.00	3144.93	-6.75	3144.92	3144.93	90.12	0.00
	8000.00	90.00	90.12	4960.00	3244.93	-6.97	3244.92	3244.93	90.12	0.00
	8100.00	90.00	90.12	4960.00	3344.93	-7.18	3344.92	3344.93	90.12	0.00
	8200.00	90.00	90.12	4960.00	3444.93	-7.40	3444.92	3444.93	90.12	0.00
	8300.00	90.00	90.12	4960.00	3544.93	-7.61	3544.92	3544.93	90.12	0.00
	8400.00	90.00	90.12	4960.00	3644.93	-7.82	3644.92	3644.93	90.12	0.00
	8500.00	90.00	90.12	4960.00	3744.93	-8.04	3744.92	3744.93	90.12	0.00
	8600.00	90.00	90.12	4960.00	3844.93	-8.25	3844.92	3844.93	90.12	0.00
	8700.00	90.00	90.12	4960.00	3944.93	-8.47	3944.92	3944.93	90.12	0.00
PBHL	8721.66	90.00	90.12	4960.00	3966.59	-8.52	3966.58	3966.59	90.12	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)
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LCX ENERGY, LLC.
1724 STATE COM.. # 21
UNIT 'M' SECTION 2
T17S-R24E EDDY CO. NM



30-015-35411

This well and its anticipated production facility are not expected to have any Hydrogen Sulfide releases, as there not been any indication of any Hydrogen Sulfide in any of the other wells drilled in the immediate area. The nearest dwelling to this location is approximately .7±mile, however a Hydrogen Sulfide contingency plan will be submitted for this location. LCX ENERGY, LLC. Will have a company representative on location while drilling and completing of this well. An unmanned Hydrogen Sulfide safety trailer with monitoring equipment will also be stationed on the location during this operation below the surface casing setting depth of 350' plus or minus and remain there till MD-of 8750'+- is reached.

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General H2S Emergency Actions:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area"
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (Self Contained Breathing Apparatus)
3. Always use the "buddy system"
4. Isolate the well/problem if possible
5. Account for all personnel
6. Display the proper colors warning all unsuspecting personnel of the danger at hand.
7. Contact the Company personnel as soon as possible if not at the location. (use the enclosed call list as instructed

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of the emergency response agencies and nearby residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will don the self contained breathing apparatus.
2. Remove all personnel to the "safe area". (always use the buddy system).
3. Contact company personnel if not on location.
4. Set in motion the steps to protect and or remove the general public to an upwind "safe area". Maintain strict security & safety procedures while dealing with the source.
5. No entry to any unauthorized personnel.
6. Notify the appropriate agencies: City Police-City Street (s)
State Police- State Rd
County Sheriff – County Rd.
7. Call the NMOCD

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harms way he will take the necessary steps to protect the workers and the public.

EMERGENCY CALL LIST: (Start and continue until ONE of these people have been contacted)

	OFFICE	MOBILE	HOME
LCX ENERGY, LLC.	432-262-4011		
KELVIN FISHER		432-634-5621	432-694-1306
LARRY GILLETTE	432-262-4011	432-634-5530	432-262-7120
ROLAN LISLE	432-634-2632	DRILLING CONSULTANT WILL BE ON LOCATION AT ALL TIMES.	

EMERGENCY RESPONSE NUMBERS:

State Police:	Eddy County	505 748 9718
State Police:	Lea County	505 392 5588
Sheriff	Eddy County	505 746 2701
Sheriff	Lea County	
Emergency Medical Ser	Eddy County	911 or 505 746 2701
(Ambulance)	Lea County	911 or 505 394 3258
	Eunice	
Emergency Response	Eddy County SERC	505 476 9620
	Lea County	
Artesia Police Dept		505 746 5001
Artesia Fire Dept		505 746 5001

Carlsbad Police Dept		505 885 2111
Carlsbad Fire Dept		505 885 3125
Loco Hills Police Dept		505 677 2349
Jal Police Dept		505 395 2501
Jal Fire Dept		505 395 2221
Jal ambulance		505 395 2221
Eunice Police Dept		505 394 0112
Eunice Fire Dept		505 394 3258
Eunice Ambulance		505 394 3258
Hobbs Police Dept		
NMOCD	District 1 (Lea, Roosevelt, Curry)	505 393 6161
	District 2 (Eddy Chavez)	505 748 1283
Lea County Information		505 393 8203
Indian Fire & Safety		505-393-3093
BJ Services	Artesia	505 746 3140
	Hobbs	505 392 5556
Halliburton	Artesia	1 800 523 2482
	Hobbs	1 800 523 2482
Wild Well Control	Midland	432 550 6202
	Mobile	432 553 1166

PROTECTION OF THE GENERAL PUBLIC (ROE):

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road which the general public may travel)
- 100 ppm radius of ¼ mile in New Mexico will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H2S could be present in concentrations greater than 100 ppm in the gas mixture

CALCULATIONS FOR THE 100 PPM (ROE) "Pasquill-Gifford equation"

$X = [(1.589) (\text{mole fraction}) (Q\text{-volume in std cu ft})]$ to the power of (0.6258)

CALCULATION FOR THE 500 PPM ROE:

$X = [(.4546) (\text{mole fraction}) (Q\text{-volume in std cu ft})]$ to the power of (0.6258)

Example:

If a well/facility has been determined to have 150 / 500 ppm H2S in the gas mixture and the well/facility is producing at a gas rate of 100 MCFPD then:

150 ppm $X = [(1.589) (.00015) (100,000 \text{ cfd})]$ to the power of (.6258)
 $X = 7 \text{ ft}$

500 ppm $X = [(.4546) (.0005) (100,000 \text{ cfd})]$ to the power of (.6258)
 $X = 3.3 \text{ ft.}$

(These calculations will be forwarded to the appropriate District NMOCD office when Applicable)

PUBLIC EVACUATION PLAN:

- 1. Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
- A trained person in H2S safety, shall monitor with detection equipment the H2S concentration, wind and area exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. (All monitoring equipment shall be UL approved, for use in class 1

groups A,B,C &D, Division 1, hazardous locations. All monitor will have a minimum capability of measuring H₂S , oxygen, and flammable values).

- Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.
- The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLABLE CONDITION:

- 1. Human life and/or property are in danger
- 2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTION FOR IGNITION:

- 1. Two people are required. They must be equipped with positive pressure, self contained breathing apparatus and a "D" ring style full body, OSHA approved safety harness. Non flammable rope will be attached.
- 2. One of the people will be qualified safety person who will test the atmosphere for H₂S, Oxygen & LFL. The other person will be the company supervisor; he is responsible for igniting the well.
- 3. Ignite up wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a \pm 500 ft. range to ignite the gas.
- 4. Prior to ignition, make a final check for combustible gases.
- 5. Following ignition, continue with the emergency actions & procedures as before.

REQUIRED EMERGENCY EQUIPMENT:

- 1. Breathing apparatus:
 - Rescue Packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
 - Work/Escapes packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
 - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.
- 2. Signage & Flagging:
 - One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - A colored condition flag will be on display, reflecting the condition at the site at the time.
- 3. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- 4. Wind Socks: Two wind socks will be placed in strategic locations, visible from all angles.
- 5. H₂S detectors and alarms: The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer)
 - Rig Floor
 - Bell Nipple
 - End of Flow line or where well bore fluid are being discharged.
- 6. Auxiliary Rescue Equipment:
 - Stretcher
 - Two OSHA full body harness
 - 100 ft 5/8 inch OSHA approved rope

- 1-20# class ABC fire extinguisher
- Communication via cell phones on location and vehicles on location.

USING SELF CONTAINED BREATHING AIR EQUIPMENT (SCBA):

- (SCBA) SHOULD BE WORN WHEN ANY OF THE FOLLOWING ARE PERFORMED:
 - Working near the top or on top of a tank
 - Disconnecting any line where H₂S can reasonably be expected
 - Sampling air in the area to determine if toxic concentrations of H₂S exist.
 - Working in areas where over 10 ppm on H₂S has been detected.
 - At any time there is a doubt as the level of H₂S in the area.
- All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.
- Facial hair and standard eyeglasses are not allowed with SCBA.
- Contact lenses are never allowed with SCBA.
- Air quality shall be continuously be checked during the entire operation.
- After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected
- All SCBA shall be inspected monthly.

RESCUE AND FIRST AID FOR VICTIMS OF HYDROGEN SULFIDE (H₂S) POISONING:

- Do not panic
- Remain Calm & think
- Get on the breathing apparatus

- Remove the victim to the safe breathing area as quickly as possible. Up wind and uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and or CPR, as necessary
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two personnel on location shall be trained in CPR and First Aid.

HYDROGEN SULFIDE TOXIC EFFECTS

H₂S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H₂S is approximately 20% heavier than air (Sp. Gr= 1.19)(Air = 1) and colorless. It forms an explosive mixture with air between 4.3% and 46%. By volume hydrogen sulfide is almost as toxic as hydrogen cyanide and is 5-6 times more toxic than carbon monoxide.

Various Gases

COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H ₂ S	1.19	10ppm 15 ppm	100 ppm/hr	600 ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO ₂	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL ₂	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO ₂	1.52	5000 ppm	5%	10%
Methane	CH ₄	0.55	90,000	Combustible @ 5%	N/A

Threshold limit: Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without adverse effects.

Hazardous Limit: Concentrations that may cause death

Lethal

Concentrations: Concentrations that will cause death with short term exposure

Threshold limit -

10 ppm: NIOSH guide to chemical hazards

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

CONCENTRATION	PHYSICAL EFFECTS
.001% 10 PPM	Obvious and unpleasant odor. Safe for 8 hr exposure
.005% 50 ppm	Can cause some flu like symptoms and can cause pneumonia
.01% 100 ppm	Kills the sense of smell in 3-15 minutes. May irritate the eyes and throat.
.02% 200 ppm	Kills the sense of smell rapidly. Severly irritates the eyes and throat. Severe flu like symptoms after 4 or more curs. May cause lung damage and or death.
.06% 600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

SECTION 2, TOWNSHIP 17 SOUTH, RANGE 24 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

150' NORTH
OFF SET
3702.3'



LCX ENERGY
1724 STATE COM #21
ELEV. - 3703'

150' WEST
OFF SET
3703.9'



150' EAST
OFF SET
3703.0'

Lat.-N 32°51'33.2"
Long-W 104°33'55.9"
(NAD-83)



150' SOUTH
OFF SET
3704.7'

PROPOSED LEASE ROAD 522.4'

SUNDOWN TRAIL 0.1 MILE

SUNDOWN TRAIL 1.0 MILE

STATE HWY 82

200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF US. HWY. 285 AND US HWY 82, PROCEED WEST ON US. HWY 82 TO MILE MARKER 98, FROM MILE MARKER 98 PROCEED NORTH 0.6 MILE TO SUNDOWN TRAIL, ON SUNDOWN TRAIL PROCEED NORTH 1.0 MILE TO A TURN TO THE LEFT, PROCEED WEST 0.1 MILE TO THE PROPOSED LEASE ROAD.

LCX ENERGY

REF: 1724 STATE COM #21 / WELL PAD TOPO

THE 1724 STATE COM No. 21 LOCATED 660' FROM
THE SOUTH LINE AND 760' FROM THE WEST LINE OF
SECTION 2, TOWNSHIP 17 SOUTH, RANGE 24 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 17580

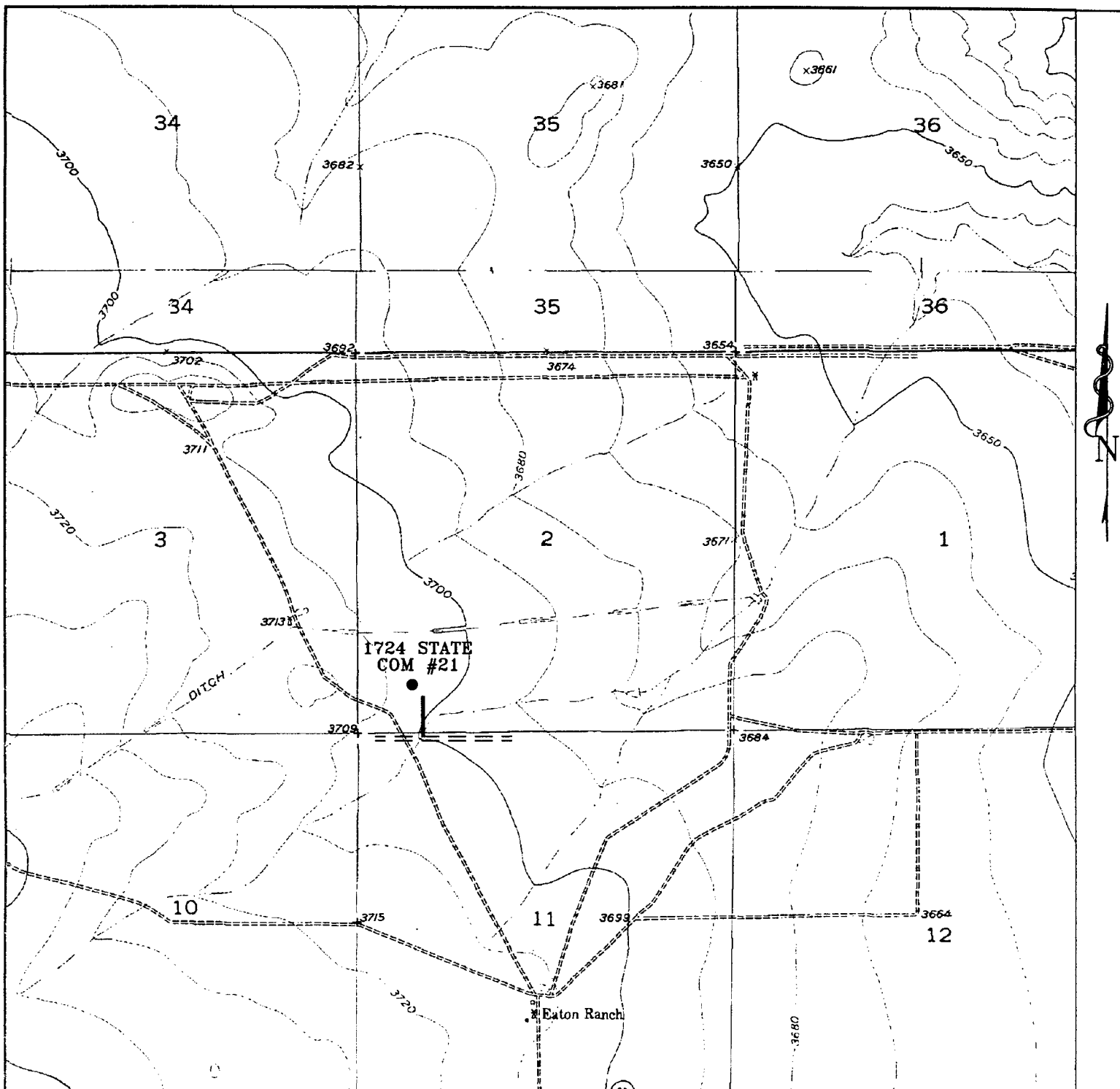
Drawn By: J. M. SMALL

Date: 01-09-2007

Disk: JMS 17580W

Survey Date: 01-05-2007

Sheet 1 of 1 Sheets



1724 STATE COM #21

Located 660' FSL and 760' FWL

Section 2, Township 17 South, Range 24 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 17580T

Survey Date: 01-05-2007

Scale: 1" = 2000'

Date: 01-09-2007

LCX
ENERGY