

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. Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

| | | | |
|---|---|----------------------------------|---|
| Month - Year MAY 1 2007 OCD - ARTESIA, NM | ¹ Operator Name and Address LCX ENERGY, LLC. 110 NORTH MARTENFELD SUITE 200 MIDLAND, TEXAS 79701 | | ² GRID Number 218885 |
| | ³ Property Code 35932 | | ⁴ Property Name 1724 CASS NORTH COM. |
| ⁵ Proposed Pool 1 COLLINS RANCH-WOLFCAMP (75010) | | ⁶ 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| O | 29 | 17S | 24E | | 660' | SOUTH | 1980' | 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| B | 29 | 17S | 24E | | 660' | NORTH | 1980' | EAST | EDDY |

Additional Well Information

| | | | | |
|--|--|--|---|---|
| ⁹ Work Type Code E | ¹⁰ Well Type Code G | ¹¹ Cable/Rotary ROTARY | ¹² Lease Type Code P | ¹³ Ground Level Elevation 3825' |
| ¹⁴ Multiple NO | ¹⁵ Proposed Depth TVD-4900' | ¹⁶ Formation WOLFCAMP | ¹⁷ Contractor BIG DOG DRILLING | ¹⁸ Spud Date WHEN APPROVED |
| Depth to Groundwater 100+ | | Distance from nearest fresh water well 1 mile+ | | Distance from nearest surface water Cat Claw Draw .4 Mi North |
| Pit: Linc: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume: 18M bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> | | | | |

²¹ Proposed Casing and Cement Program

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|--|----------------|--------------------|--------------------------|-----------------|-----------------|
| 17 1/2" | 13 3/8" | 72# | 300' | 350 | SURFACE |
| 12 1/2" | 8 5/8" | 24# | 1815' | 1000 | SURFACE |
| 7 7/8" | 5 1/2" | 15.5# | MD-8721 TVD-4960' | 600 | 1000' FS |
| Verify TOC on 5 1/2" casing by CPL or Temp Survey | | | | | |

²² Describe the proposed program. If this application is to DEEPEEN 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.

1. Surface casing set at 300' and cemented to surface. Intermediate casing set at 1815' and cemented to surface when originally drilled

SEE ATTACHED SHEET FOR FURTHER DETAIL

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: joejanica@valornet.com

Date: 04/30/07

Phone: 505-391-8503

OIL CONSERVATION DIVISION

Approved by:

BRYAN G. ARRANT
DISTRICT II GEOLOGIST

Title:

Approval Date: MAY 01 2007

Expiration Date: MAY 01 2008

Conditions of Approval Attached ☐

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

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

1. Weld on 13 3/8" casing head, nipple up BOPs. Drill out w/ 7 7/8" bit, drill first plug at surface. Continue in hole and drill out plugs at 700' and 170'. Test 8 5/8" casing to 1000#. Continue drilling out plugs to 5100' ±. Log well with Baker Triple Combo log.
2. Set cement kick-off plug from TD to approx. 4800 ft with 150 sx H + 0.7% dispersant.
3. 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 7-7/8" bit and drill a +/-4000' lateral to 660' from lease line (approx. 4000 ft vertical section).
4. 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'.

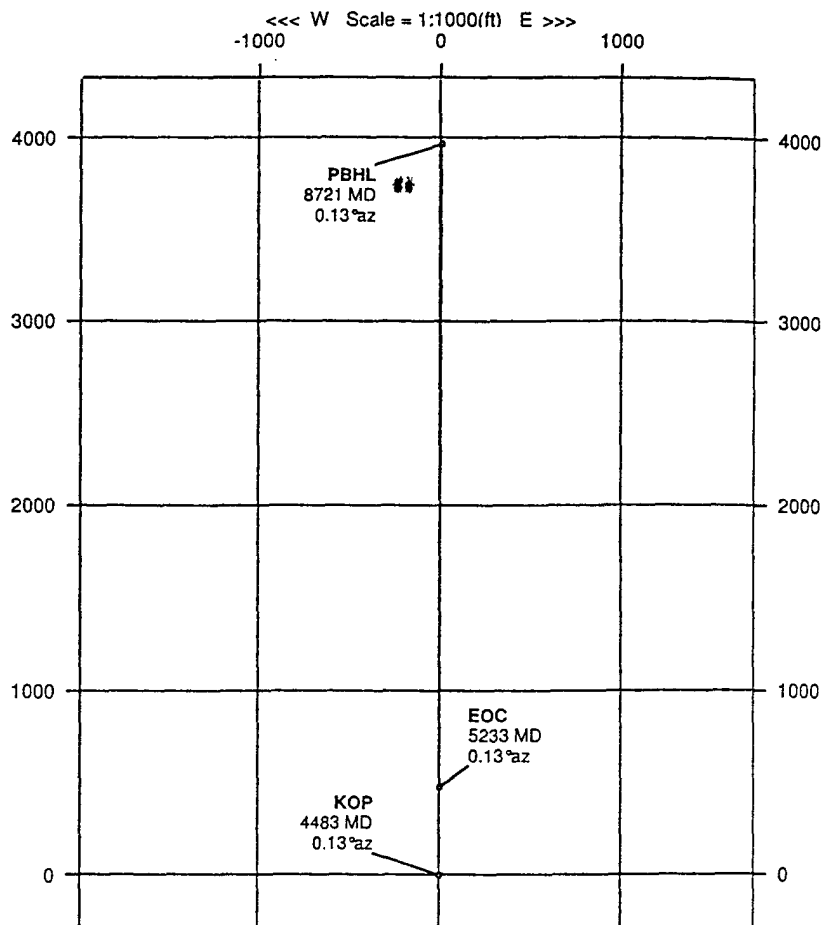
NO KNOWN PRESENCE OF ANY H₂S IN THE VICINITY OF THIS WELL

LCX Energy

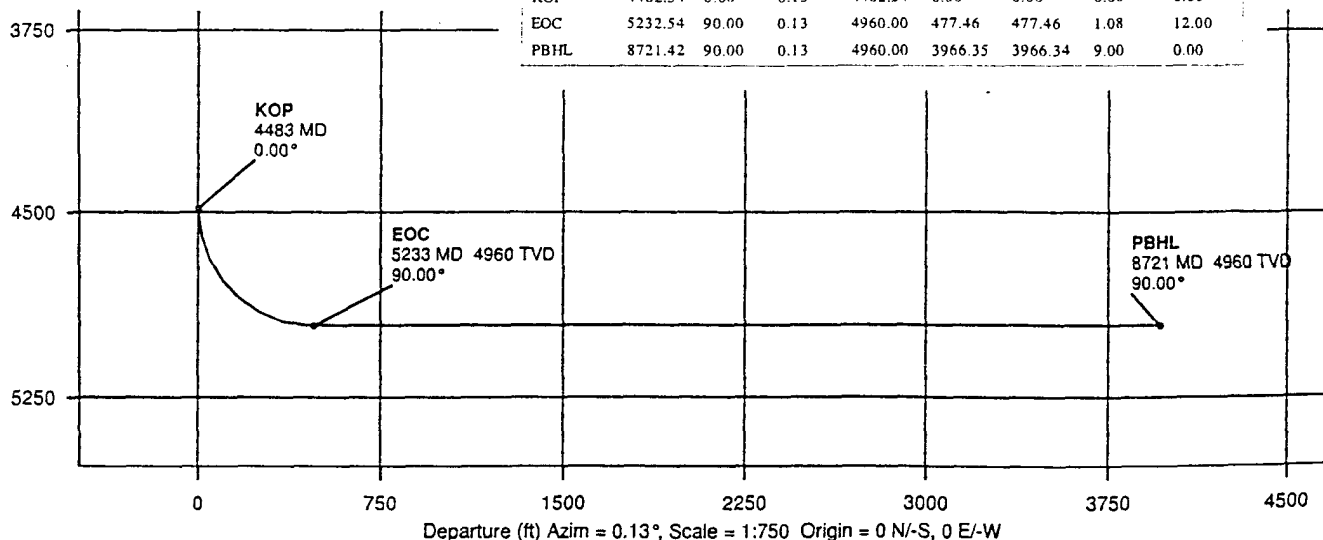
| | | | | | |
|---------------------|---------------------------------|--|--|---|--|
| WELL | 1724 Cass North Com | FIELD | Eddy County, NM | STRUCTURE | #291 |
| Magnetic Parameters | Op: 90.884° Mag Dec: +8.706° | Date: April 10, 2008 PS: 49403.0 nT | Surface Location Lat: N32 48 3.387 Lon: W104 38 32.074 | NAD83 New Mexico State Plane, Eastern Zone, US Feet Northing: 855225.00 NUS Easting: 456663.00 EUS Grid Conv: -0.14929645° Scale Fact: 0.9999173014 | Metallurgical Site: 1724 Cass North Com #291 TVD Ref: RKB (0.00 ft above) Plan: 1724 #291.r1 Srvy Date: Mon 02:55 PM April 10, 2008 |



INTREPID
Directional Drilling Specialists



| Critical Points | | | | | | | | |
|-----------------|---------|-------|------|---------|---------|-------------|-------------|-------|
| Critical Point | MD | INCL | AZIM | TYD | YSEC | N(+) / S(-) | E(+) / W(-) | DLS |
| Tie-In | 0.00 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KOP | 4482.54 | 0.00 | 0.13 | 4482.54 | 0.00 | 0.00 | 0.00 | 0.00 |
| EOC | 5232.54 | 90.00 | 0.13 | 4960.00 | 477.46 | 477.46 | 1.08 | 12.00 |
| PBHL | 8721.42 | 90.00 | 0.13 | 4960.00 | 3966.35 | 3966.34 | 9.00 | 0.00 |



Proposal

Report Date: April 10, 2006
 Client: LCX Energy
 Field: Eddy County, NM Nad 83
 Structure / Slot: 1724 Cass North Com #291 / 1724 Cass North Com #291
 Well: 1724 Cass North Com #291
 Borehole: 1724 Cass North Com #291
 UWI/API#:
 Survey Name / Date: 1724 #291_r1 / April 10, 2006
 Tort / AHD / DDI / ERD ratio: 90.000° / 3966.35 ft / 5.798 / 0.800
 Grid Coordinate System: NAD83 New Mexico State Planes, Eastern Zone, US Feet
 Location Lat/Long: N 32 48 3.387, W 104 36 32.074
 Location Grid N/E Y/X: N 655225.000 ftUS, E 456663.000 ftUS
 Grid Convergence Angle: -0.14928645°
 Grid Scale Factor: 0.99991730

Survey / DLS Computation Method: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 0.130°
 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: 8.706°
 Total Field Strength: 49402.953 nT
 Magnetic Dip: 60.664°
 Declination Date: April 10, 2006
 Magnetic Declination Model: IGRF 2005
 North Reference: Grid North
 Total Corr Mag North -> Grid North: +8.855°
 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) | Tool Face (deg) |
|----------|------------------------|----------------------|------------------|-------------|--------------------------|------------|------------|-----------------|--------------------------|---------------------|--------------------|
| Tie-In | 0.00 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13M |
| KOP | 4482.54 | 0.00 | 0.13 | 4482.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13M |
| | 4500.00 | 2.10 | 0.13 | 4500.00 | 0.32 | 0.32 | 0.00 | 0.32 | 0.13 | 12.00 | 0.13M |
| | 4600.00 | 14.10 | 0.13 | 4598.82 | 14.38 | 14.38 | 0.03 | 14.38 | 0.13 | 12.00 | 0.00G |
| | 4700.00 | 26.10 | 0.13 | 4692.56 | 48.67 | 48.67 | 0.11 | 48.67 | 0.13 | 12.00 | 0.00G |
| | 4800.00 | 38.10 | 0.13 | 4777.12 | 101.71 | 101.71 | 0.23 | 101.71 | 0.13 | 12.00 | 0.00G |
| | 4900.00 | 50.10 | 0.13 | 4848.81 | 171.17 | 171.17 | 0.39 | 171.17 | 0.13 | 12.00 | 0.00G |
| | 5000.00 | 62.10 | 0.13 | 4904.49 | 254.01 | 254.01 | 0.58 | 254.01 | 0.13 | 12.00 | 0.00G |
| | 5100.00 | 74.10 | 0.13 | 4941.72 | 346.63 | 346.62 | 0.79 | 346.63 | 0.13 | 12.00 | 0.00G |
| | 5200.00 | 86.10 | 0.13 | 4958.89 | 444.95 | 444.95 | 1.01 | 444.95 | 0.13 | 12.00 | 0.00G |
| EOC | 5232.54 | 90.00 | 0.13 | 4960.00 | 477.46 | 477.46 | 1.08 | 477.46 | 0.13 | 12.00 | 0.00G |
| PBHL | 8721.42 | 90.00 | 0.13 | 4960.00 | 3966.35 | 3966.34 | 9.00 | 3966.35 | 0.13 | 0.00 | 0.00G |

**MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

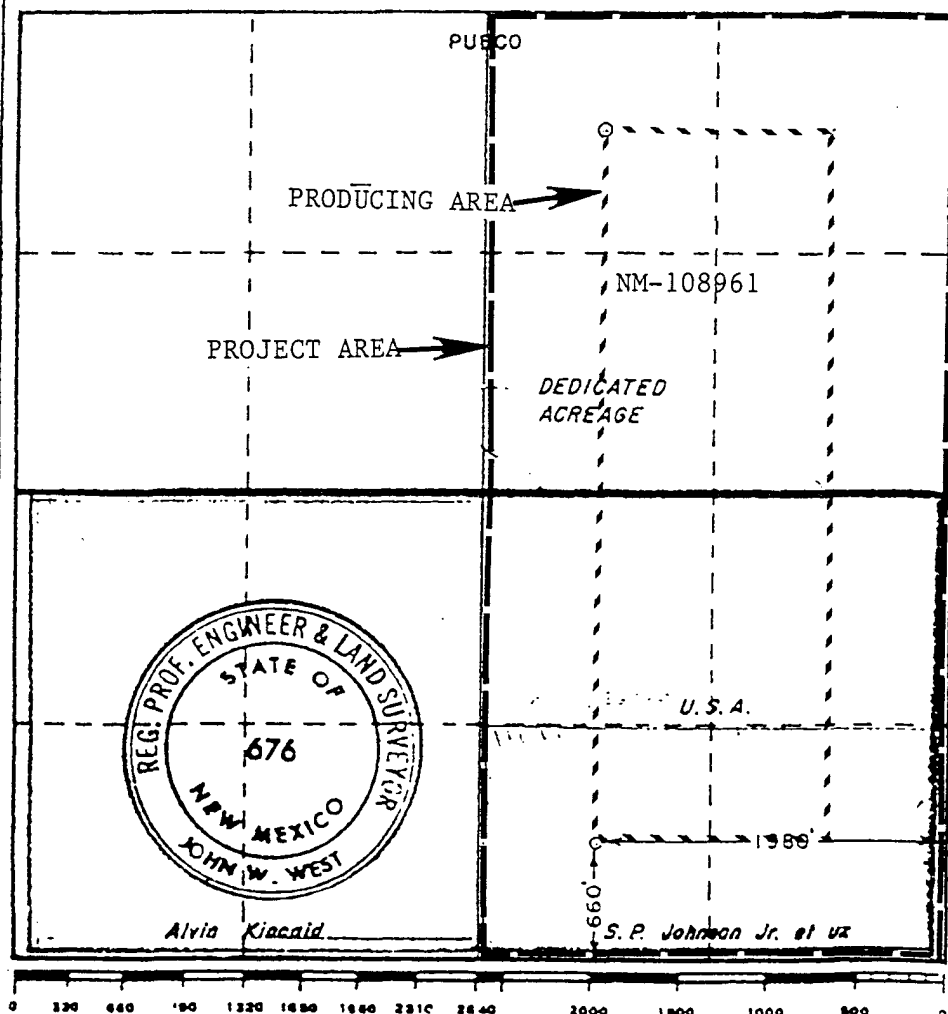
| | | | | | |
|---|---------------------------------------|-----------------------------|--|-----------------------|----------------------|
| Operator PUBCO PETROLEUM CORP. | | | Lease Cass North 'Com' | | Well No. 1 |
| Unit Letter 0 | Section 29 | Township 17 SOUTH | Range 24 EAST | County EDDY | |
| Actual Footage Location of Well: 660 feet from the SOUTH line and 1980 feet from the EAST line | | | | | |
| Ground Level Elev. 3824.5 | Producing Formation Wildcat | | Dedicated Acreage: 320 Acres | | |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

[Signature]
Name
J. C. Johnson

Position
Vice President Production

Company
Pubco Petroleum Corporation

Date
January 26, 1972

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.

Date Surveyed
JANUARY 5, 1972

Registered Professional Engineer
and/or Land Surveyor

[Signature]
Certificate No. **676**

30015 20570

| | |
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NEW MEXICO OIL CONSERVATION COMMISSION

JAN 28 1972

30-015-20570
Form C-101
Revised 1-1-65

| |
|--|
| 5A. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> |
| 5. State Oil & Gas Lease No. -- |
| 7. Unit Agreement Name ---- |
| 8. Farm or Lease Name Cass North 'Com' |
| 9. Well No. 1 |
| 10. Field and Pool, or Wildcat Wildcat |
| 12. County Eddy |
| 19. Proposed Depth 3900' |
| 19A. Formation Morrow |
| 20. Rotary or C.T. Rotary |
| 21. Elevations (Show whether DP, RT, etc.) 3824.5 GR |
| 21A. Kind & Status Plug. Bond Blanket |
| 21B. Drilling Contractor Ard Drilling Co. |
| 22. Approx. Date Work will start February 10, 1972 |

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

| |
|--|
| 1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> |
| b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/> |
| 2. Name of Operator Pubco Petroleum Corporation ✓ |
| 3. Address of Operator P. O. Box 869, Albuquerque, New Mexico 87103 |
| 4. Location of Well UNIT LETTER <u>0</u> LOCATED <u>660</u> FEET FROM THE <u>South</u> LINE AND <u>1980</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>29</u> TWP. <u>17S</u> RGE. <u>24E</u> NMPM |
| 21. Elevations (Show whether DP, RT, etc.) 3824.5 GR |
| 21A. Kind & Status Plug. Bond Blanket |
| 21B. Drilling Contractor Ard Drilling Co. |
| 22. Approx. Date Work will start February 10, 1972 |

PROPOSED CASING AND CEMENT PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | SACKS OF CEMENT | EST. TOP |
|--------------|----------------|---------------------|---------------|-----------------|-----------|
| 17-1/2" | 13-3/3" | 35# | 300' | 300 sxs. | circulate |
| 12-1/4" | 8-5/8" | 24# J-55 | 1300' | 300 sxs. | circulate |
| 7-7/8" | 4-1/2" | 11.6#, 10.5# & 9.5# | 3900' | 400 sxs. | 7400' |

Propose to drill with rotary tools to total depth of 3900' or 100' into the Chester Limestone, whichever is the lessor, using the above hole and casing program. All significant shows will be tested. We anticipate running the following logs: Induction Electric Log, Borehole Compensated Sonic Gammaray, Microlog. Will cement across all potentially productive zones. If a dry hole, will plug and abandon as directed by the New Mexico Oil Conservation Commission.

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED,
EXPIRES 4-30-72

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed J. C. Johnson Title Vice President Production Date January 26, 1972
(This space for State Use)

APPROVED BY W. P. Stewart TITLE State Oil & Gas Conservation Commission DATE JAN 31 1972

CONDITIONS OF APPROVAL, IF ANY:

Adequate Blowout Preventer
Equipment be used

Cement must be circulated to
surface behind 13 3/8" + 8 3/8" casing

Notify N.M.O.C.C. in sufficient
time to allow cementing
the 8 3/8" casing