AT5-07-16

ARTESIA

Form 3160-3 (1992)

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

UNITE DEPARTMEN BUREAU OF L...

TRIPLICATE* (r instructions on se side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

5. LEASE DESIGNATION AND SERIAL NO.
LC-053259-A

6. IF INDIAN, ALLOTTES OR TRIBE NAME

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ]

1b. TYPE OF WELL
OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME
Pending

2. NAME OF OPERATOR
Cimarex Energy Co. of Colorado 162683

8. FARM OR LEASE NAME, WELL NO.
Cagney 28 Federal Com No. 1 36161

3. ADDRESS AND TELEPHONE NO.
P.O. Box 140907 Irving TX 75014 972-401-3111

9. API WELL NO.
30-015- 35249

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
660' FSL & 810' FEL

NOV - 2006
RECEIVED
OCD - ARTESIA

10. FIELD AND POOL, OR WILDCAT
Cedar Lake; Morrow 74560

11. SEC. T.,R.,M., BLOCK AND SURVEY OR AREA
Section 28 T17S R30E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
1 Miles South of Loco Hills

12. COUNTY OR PARISH: Eddy
13. STATE: NM

| 15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, T.O (Also to nearest drlg. unit line, if any) | 16. NO. OF ACRES IN LEASE | 17. NO. OF ACRES ASSIGNED TO THIS WELL |
|---|---|---|
| 660' | 200 | 320 |

| 18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. | 19. PROPOSED DEPTH | 20. ROTARY OR CABLE TOOLS |
|---|---|---|
| N/A | 12050' | Rotary |

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3624 GR

22. APPROX. DATE WORK WILL START*
12-01-06

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE,SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|---|---|---|---|---|
| 17-1/2" | H-40 13 3/8" | 48 # | 500' * | 490 sx circulate |
| 12-1/4" | J-55 9 5/8" | 40 # | 4000' | 1200 sx circulate |
| 8-3/4" | P-110 5 1/2" | 17# | 12050' | 1620 sx TOC 7150' |

*Set surface casing 25' into the top of the Rustler, which is estimated to be between 350' and 500'.
From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000# psi BOP system. We are requesting a variance for the 13-3/8" surface casing and BOP testing from Onshore Order No. 2, which states all casing strings below the conductor shall be pressure tested to 0.22 psi per foot or 1500# psi, whichever is greater, but not to exceed 70% of the manufacturer's stated maximum internal yield. During the running of the surface pipe and the drilling of the intermediate hole we do not anticipate any pressures greater than 1000# psi, and we are requesting a variance to test the 13-3/8" casing and BOP system to 1000# psi and use rig pumps instead of an independent service company.

IN ABOVE SPACE, DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24
SIGNED Zeno Farris TITLE Mgr. Ops. Admin DATE 10-02-06

(This space for Federal or State office use)

PERMIT No. _____ APPROVAL DATE _____

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:

APPROVED BY /s/ Don Peterson TITLE FOR FIELD MANAGER DATE NOV 14 2006

APPROVAL FOR 1 YEAR

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

ROSWELL CONTROLLED WATER BASIN

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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 |
|---|---|---|
| | 74560 | Cedar Lake; Morrow |

| Property Code | Property Name | Well Number |
|---|---|---|
| | CAGNEY "28" FEDERAL COM | 1 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 162683 | CIMAREX ENERGY CO. | 3624' |

### Surface Location

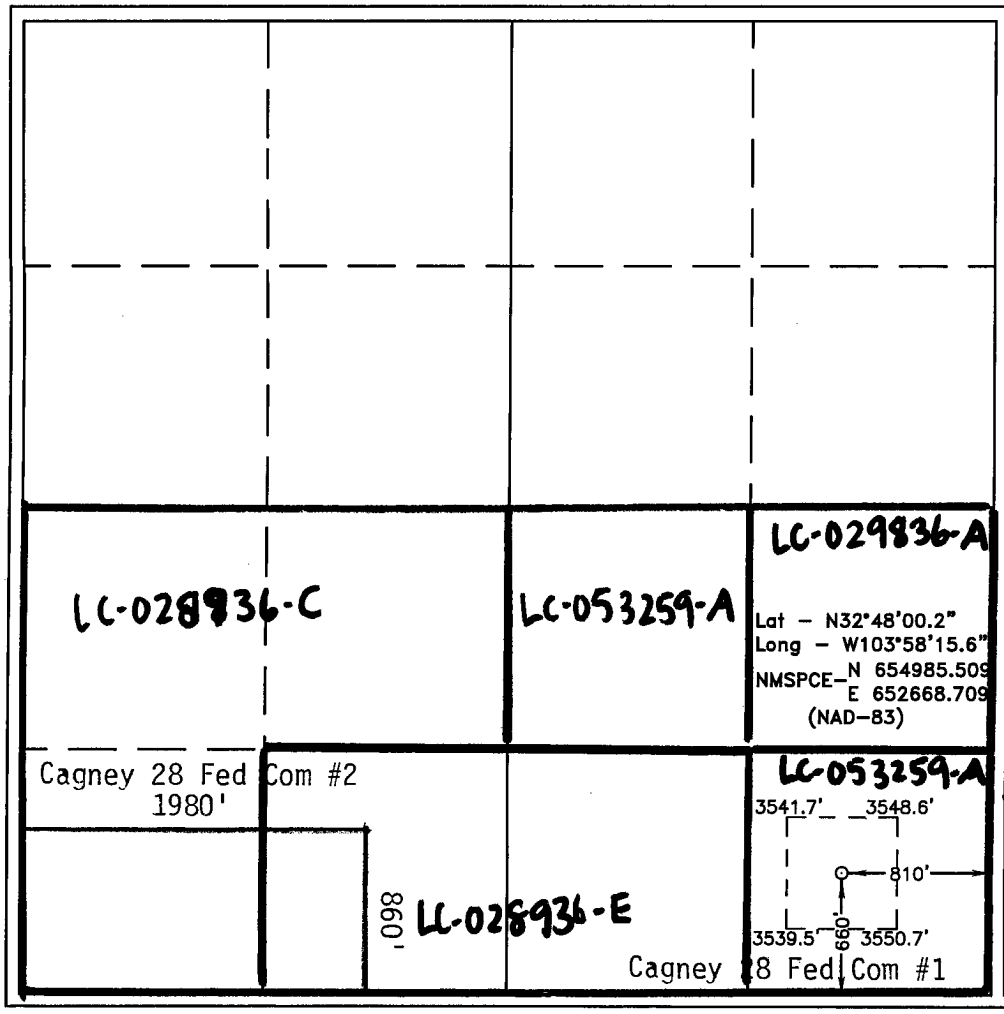
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| P | 28 | 17 S | 30 E | | 660 | SOUTH | 810 | EAST | EDDY |

### 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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|---|---|---|---|
| 320 | Y | C | |

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.*

Zeno Farris 10-2-06
Signature Date

Zeno Farris
Printed Name

### 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.*

SEPTEMBER 28, 2006
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL SURVEYOR

NM PS No. 7977

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

**Cimarex Energy Co. of Colorado**
5215 North O'Connor Blvd. □ Suite 1500 □ Irving, TX 75039 □ (972) 401-3111 □ Fax (972) 443-6486
Mailing Address: P.O. Box 140907 □ Irving, TX 75014-0907
*A wholly-owned subsidiary of Cimarex Energy Co., a NYSE Listed Company, "XEC"*

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management
620 E. Greene St.
Carlsbad, New Mexico 88220
Attn: Ms. Linda Denniston

Cimarex Energy Co. of Colorado accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease No.: LC-028936-C – N2SW4, SW4SW4
LC-028936-E – SE4SW4, SW4SE4
LC-053259-A – NW4SE4, SE4SE4
LC-028936-A – NE4SE4
Section 28-T17S-R30E

County: Eddy County, New Mexico

Formation (S): Atoka, Morrow

Bond Coverage: Statewide BLM Bond

BLM Bond File No.: NM 2575

Authorized Signature: Zeno Farris

Representing Cimarex Energy Co. of Colorado

Name: Zeno Farris

Title: Manager, Operations Administration

Date: October 2, 2006

## Application to Drill

Cimarex Energy Co. of Colorado
Cagney 28 Federal Com No. 1
Unit P Section 28
T17S - R30E Eddy County, NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

1 Location: 660' FSL & 810 FEL

2 Elevation above sea level: GR 3621'

3 Geologic name of surface formation: Quaternery Alluvium Deposits

4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5 Proposed drilling depth: 12050'

6 Estimated tops of geological markers:

| | | | |
|---|---|---|---|
| San Andres | 3050' | Canyon | 10000' |
| Bone Spring | 5300' | Atoka | 10800' |
| 3rd Bone Spring Dolo | 7350' | Morrow Clastics | 11260' |
| Wolfcamp Detrital | 8050' | Miss Unconformity | 11580' |

7 Possible mineral bearing formation:

| | |
|---|---|
| 3rd Bone Spring Dolomit | Oil |
| Wolfcamp | Oil |
| Middle Morrow | Gas |
| Lower Morrow | Gas |

8 Casing program:

| Hole Size | Interval | Casing OD | Weight | Thread | Collar | Grade |
|---|---|---|---|---|---|---|
| 17-1/2" | 0-500' | 13-3/8" | 48 | 8-R | ST&C | H-40 |
| 12-1/4" | 0-4000' | 9-5/8" | 40 | 8-R | LT&C | J-55 |
| 8-3/4" | 0-12050' | 5-1/2" | 17 | 8-R | LT&C | P-110 |

## Application to Drill

Cimarex Energy Co. of Colorado
Cagney 28 Federal Com No. 1
Unit P Section 28
T17S - R30E Eddy County, NM

9 Cementing & Setting Depth:

| | | |
|---|---|---|
| 13-3/8" | Surface | Set 500' of 13-3/8" H-40 48 # ST&C casing. Cement with 490 Sx. Of Class "C" cement + additives, circulate cement to surface. |
| 9-5/8" | Intermediate | Set 4000' of 9-5/8" J-55 40# LT&C casing. Lead with 1000 Sx. Of Class POZ/C Cement + additives, tail with 200 Sx. Of Class "C" + additives, circulate cement to surface. |
| 5-1/2" | Production | Set 12050' of 5-1/2" P-110 17# LT&C casing. Cement with 1620 sx Super H + additives. TOC 7150'. |

10 Pressure control Equipment: Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000 # annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. BOP unit will be hydraulically operated. BOP will be nippled up on the 9 5/8" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling.

11 Proposed Mud Circulating System:

| Depth | Mud Wt | Viscosity | Fluid Loss | Type Mud |
|---|---|---|---|---|
| 0 - 500' | 8.4 - 8.6 | 30 - 32 | May lose circ. | Fresh water spud mud. Add paper to control seepage and high viscosity sweeps to clean hole. |
| 500' - 4000' | 9.7 - 10.0 | 28 - 29 | May lose circ. | Brine water. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole. |
| 4000' - 8300' | 8.4 - 9.9 | 28 - 29 | NC | Brine water. Paper for seepage. Lime for PH (9 - 9.5) |
| 8300' - 10000' | 8.45 - 8.9 | 28 - 29 | NC | Cut brine. Caustic for pH control. |
| 10000' - 12050' | 8.9 - 9.7 | 29 - 45 | NC | XCD Polymer mud system. |

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.

## Application to Drill

Cimarex Energy Co. of Colorado
Cagney 28 Federal Com No. 1
Unit P Section 28
T17S - R30E Eddy County, NM

12 Testing, Logging and Coring Program:

A. Mud logging program: One-man unit from 4000' to TD
B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. The area has a potiential H2S hazard. An H2S drilling plan is attached. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 4000 PSI, estimated BHT 175.

14 Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 25 - 30 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Morrow pay will be perforated and stimulated. The well will be tested and potentialed as a gas well.

## Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co. of Colorado
Cagney 28 Federal Com No. 1
Unit P Section 28
T17S - R30E Eddy County, NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

A. Characteristics of H2S
B. Physical effects and hazards
C. Proper use of safety equipment and life support systems.
D. Principle and operation of H2S detectors, warning system and briefing
E. Evacuation procedure, routes and first aid.
F. Proper use of 30 minute pressure demand air pack.

2 H2S Detection and Alarm Systems

A. H2S detectors and audio alarm system to be located at bell nipple, end of flow 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.

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, H2S 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 telephones will be available at most drilling foreman's trailer or living quarters.

7 Drillstem Testing not anticipated.

## Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co. of Colorado
Cagney 28 Federal Com No. 1
Unit P Section 28
T17S - R30E Eddy County, NM

8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.

9 If H2S 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 H2S scavengers if necessary.

## Surface Use Plan

Cimarex Energy Co. of Colorado
Cagney 28 Federal Com No. 1
Unit P Section 28
T17S - R30E Eddy County, NM

1 Existing Roads: Area maps, Exhibit "B" is a reproduction of Lea Co. 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 Hwy 82 and Co Rd 217 (Hagerman Cutoff), proceed South approx 0.4 miles to proposed lease road.

2 PLANNED ACCESS ROADS: 753.89' of proposed road will be constructed on lease.

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

A. Water wells - None known

B. Disposal wells - None known

C. Drilling wells - None known

D. Producing wells - As shown on Exhibit "A"

E. Abandoned wells - As shown on Exhibit "A"

4 If on completion this well is a producer Cimarex Energy Co. of Colorado will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied by a Sundry Notice.

5 LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6 SOURCE OF CONSTRUCTION MATERIAL:

If possible, construction will be obtained from the excavation of drill site. If additional material is needed, it will be purchased from a local source and transported over the access route as shown on Exhibit "C".

7 METHODS OF HANDLING WASTE MATERIAL:

A. Drill cuttings will be seperated by a series of solids removal equipment and hauled to the cuttings drying area and then disposed of in the cuttings burial cell.

B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.

C. Salts remaining after completion of well will be picked up by supplier including broken sacks.

D. Sewage from living quarters will drain into holding tanks and be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.

E. Drilling fluids will be contained in steel pits in a closed circulating system. Fluids will be cleaned and reused. Water produced during testing will be contained in the steel pits and disposed of at a state approved disposal facility. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8 ANCILLARY FACILITIES:

A. No camps or airstrips to be constructed.

**Surface Use Plan**

Cimarex Energy Co. of Colorado
Cagney 28 Federal Com No. 1
Unit P Section 28
T17S - R30E Eddy County, NM

9 WELL SITE LAYOUT

A. Exhibit "D" shows location and rig layout.

B. This exhibit indicates proposed location of the 100' X 100' cuttings drying area.

C. Mud pits in the closed circulating system will be steel pits and the cuttings drying area will be surrounded by a 2' X 2' ring levee and a 2' earthen berm. A 12 mil liner will cover the cuttings drying area and extend a minimum of 2' over the earthen berm where it will be anchored down. A pump off system will pump any accumulated fluids in the ring levee to the rig holding tanks to be cleaned and reused.

D. After drying cuttings will be disposed of in a 50' X 50' cuttings burial cell. The bottom will be lined with a 12 mil liner. Drill cuttings will be hauled from the cuttings drying area and encapsulated in a 12 mil liner. The 12 mil liner will be folded over the cuttings and capped with a 20 mil membrane cap. The cell will be filled with 3' to 4' of top soil and leveled and contoured to conform to the original surrounding area.

E. If the well is a producer, the cuttings burial area and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10 PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and cuttings burial cell will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the drill cuttings will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The cuttings burial area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be recountoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

## Surface Use Plan

Cimarex Energy Co. of Colorado
Cagney 28 Federal Com No. 1
Unit P Section 28
T17S - R30E Eddy County, NM

11 OTHER INFORMATION:

A. Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.

B. The wellsite is on surface owned by US Department of the Interior, Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.

C. An Archaeological survey will be conducted on the location and proposed roads, and this report will be filed with the Bureau of Land Management in the Carlsbad BLM office.

D. There are no know dwellings within 1 1/2 miles of this location.

12 OPERATOR'S REPRESENTATIVE:

Cimarex Energy Co. of Colorado
P.O. Box 140907
Irving, TX 75014
Office Phone: (972) 443-6489
Zeno Farris

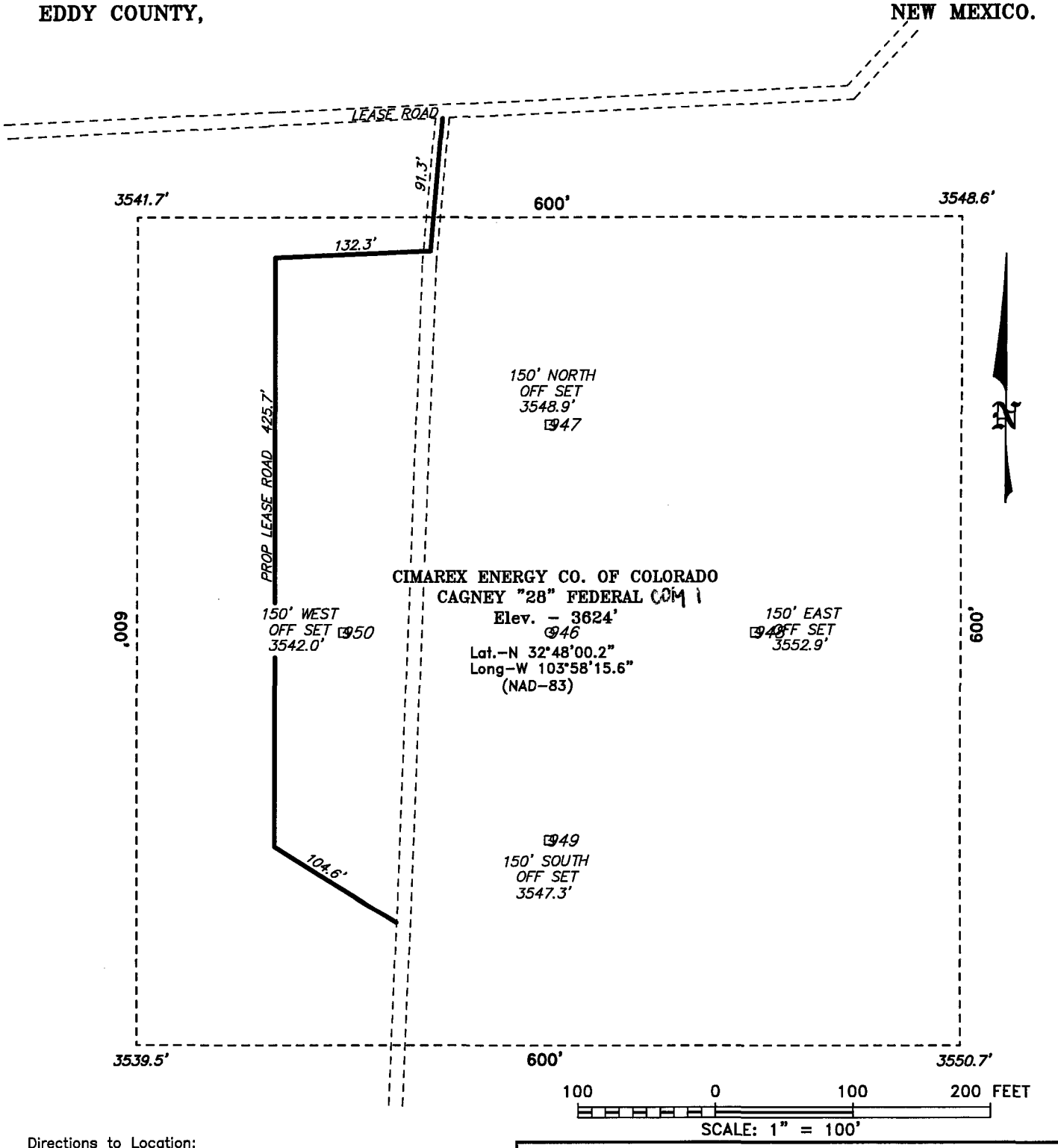
13 CERTIFICATION: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exit; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Cimarex Energy Co. of Colorado and/or its contractors/subcontractors and is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME: Zeno Farris

DATE: October 2, 2006

TITLE: Manager, Operations Administration

# SECTION 28, TOWNSHIP 17 SOUTH, RANGE 30 EAST, N.M.P.M.,
**EDDY COUNTY,** **NEW MEXICO.**




Directions to Location:

FROM THE JUNCTION OF US. HWY 82 AND CO. RD. 217 (HAGERMAN CUTOFF), PROCEED SOUTH APPROX. 0.4 MILES TO PROPOSED LEASE ROAD.

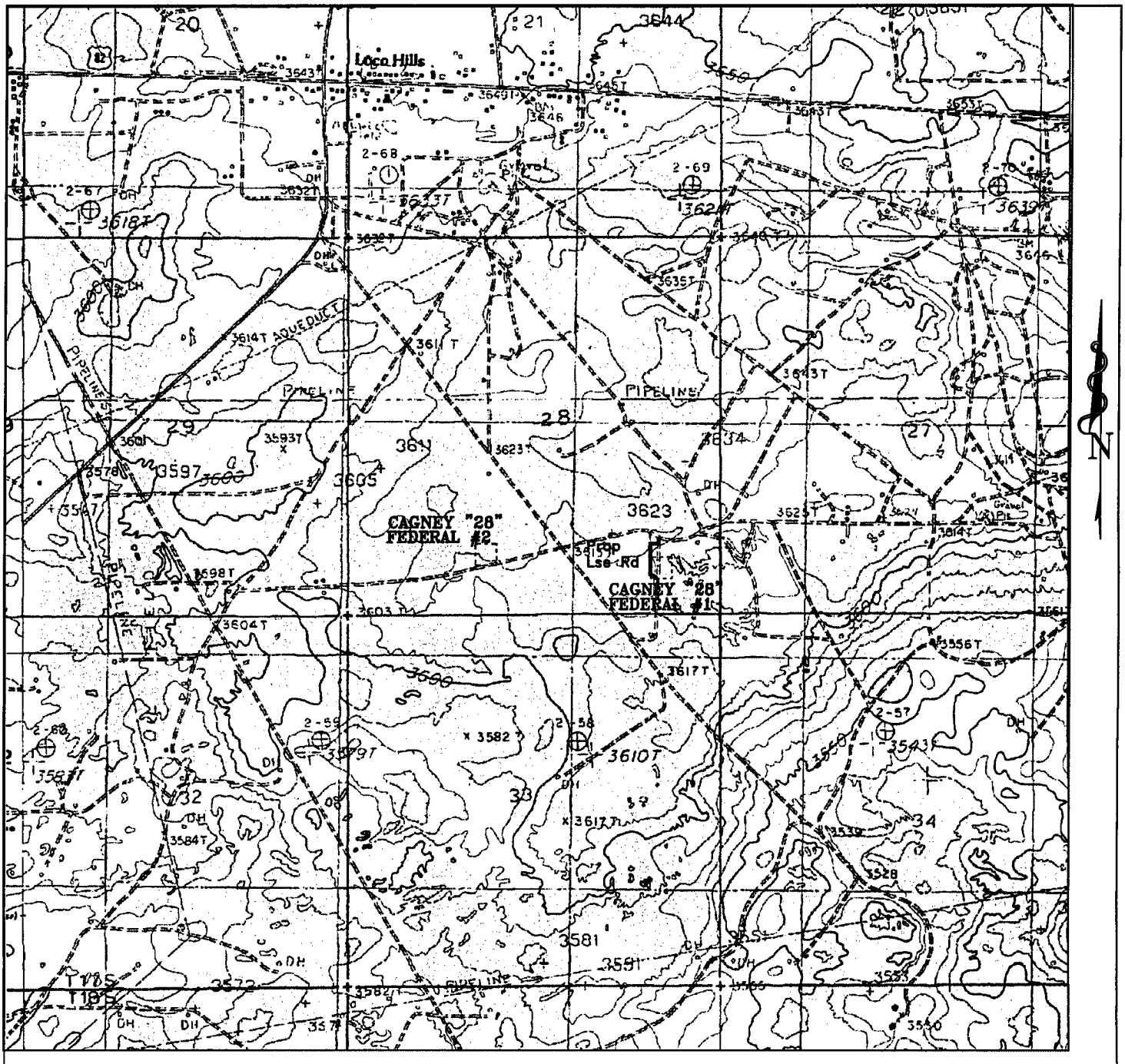
**CIMAREX ENERGY CO. OF COLORADO**

REF: CAGNEY "28" FEDERAL COM 1 WELL PAD TOPO

THE CAGNEY "28" FEDERAL No. 1 LOCATED 660' FROM THE SOUTH LINE AND 810' FROM THE EAST LINE OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

| | | | |
|---|---|---|---|
| W.O. Number: 17211 | Drawn By: J. M. SMALL | | |
| Date: 09-28-2006 | Disk: 17211W JMS | Survey Date: 09-27-2006 | Sheet 1 of 1 Sheets |



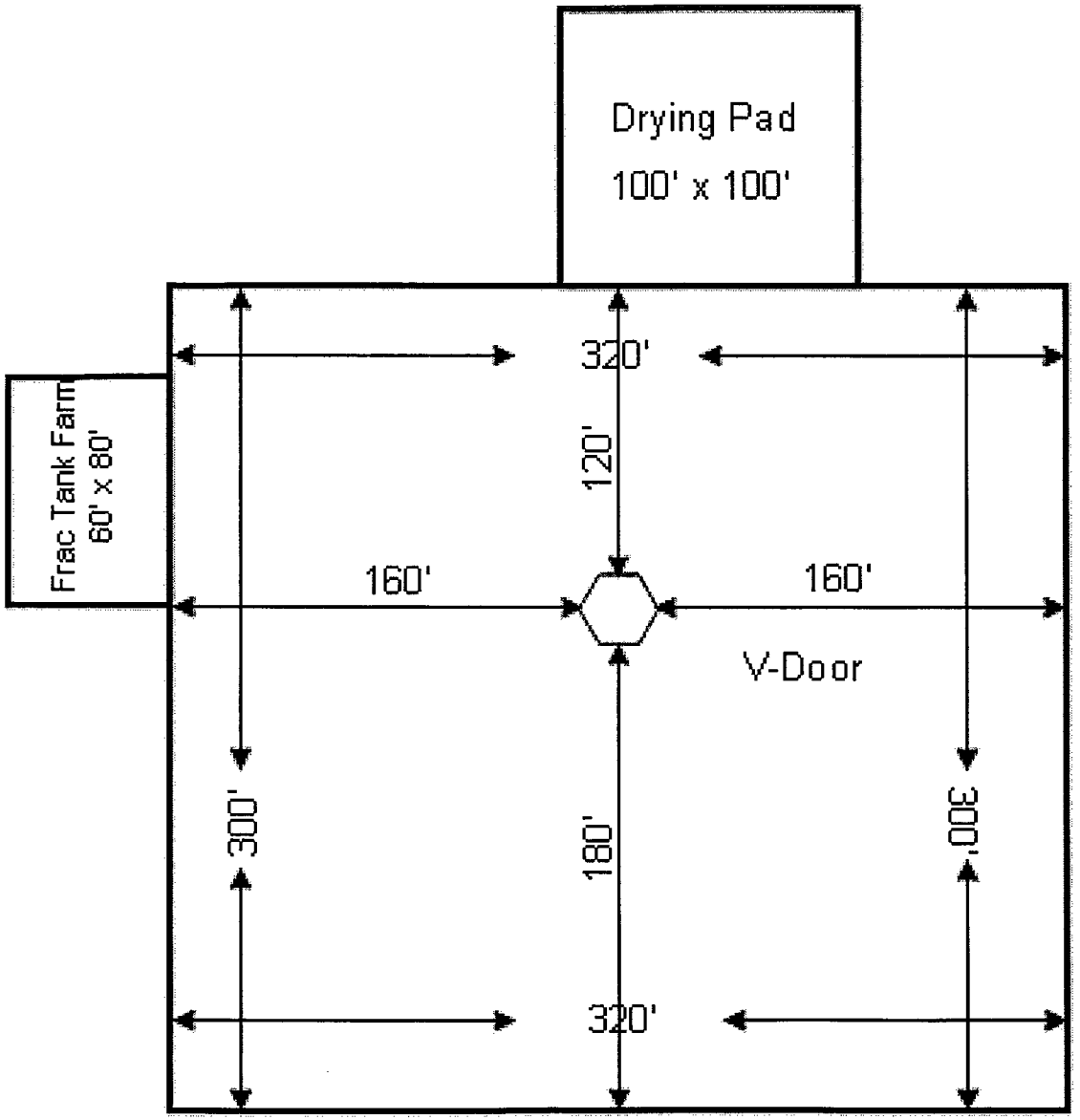

CAGNEY "28" FEDERAL COM 1
Located 660' FSL and 810' FEL
Section 28, Township 17 South, Range 30 East,
N.M.P.M., LEA County, New Mexico.

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: | 17211T JMS |
| Survey Date: | 09-27-2006 |
| Scale: | 1" = 2000' |
| Date: | 09-28-2006 |

CIMAREX ENERGY CO. OF COLORADO

Exhibit C




# Rig 46

Cimarex Energy Co.
of Colorado

Exhibit D – Rig Layout

**Cagney 28 Federal Com No. 1**

Cimarex Energy Co. of Colorado

660' FSL & 810' FEL

Section 28-T17S-R30E

Eddy County, NM

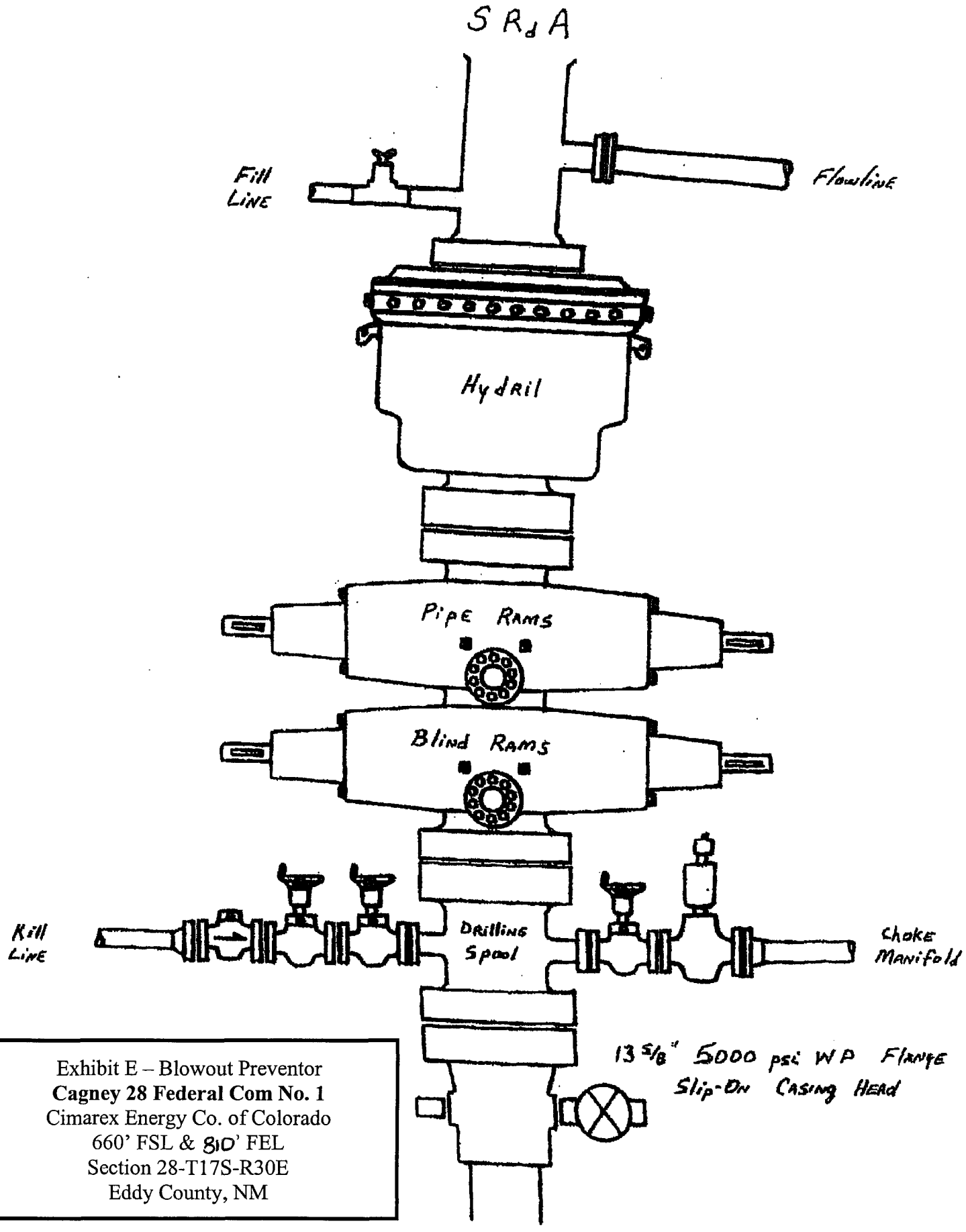



Exhibit E – Blowout Preventor
**Cagney 28 Federal Com No. 1**
Cimarex Energy Co. of Colorado
660' FSL & 810' FEL
Section 28-T17S-R30E
Eddy County, NM

DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE

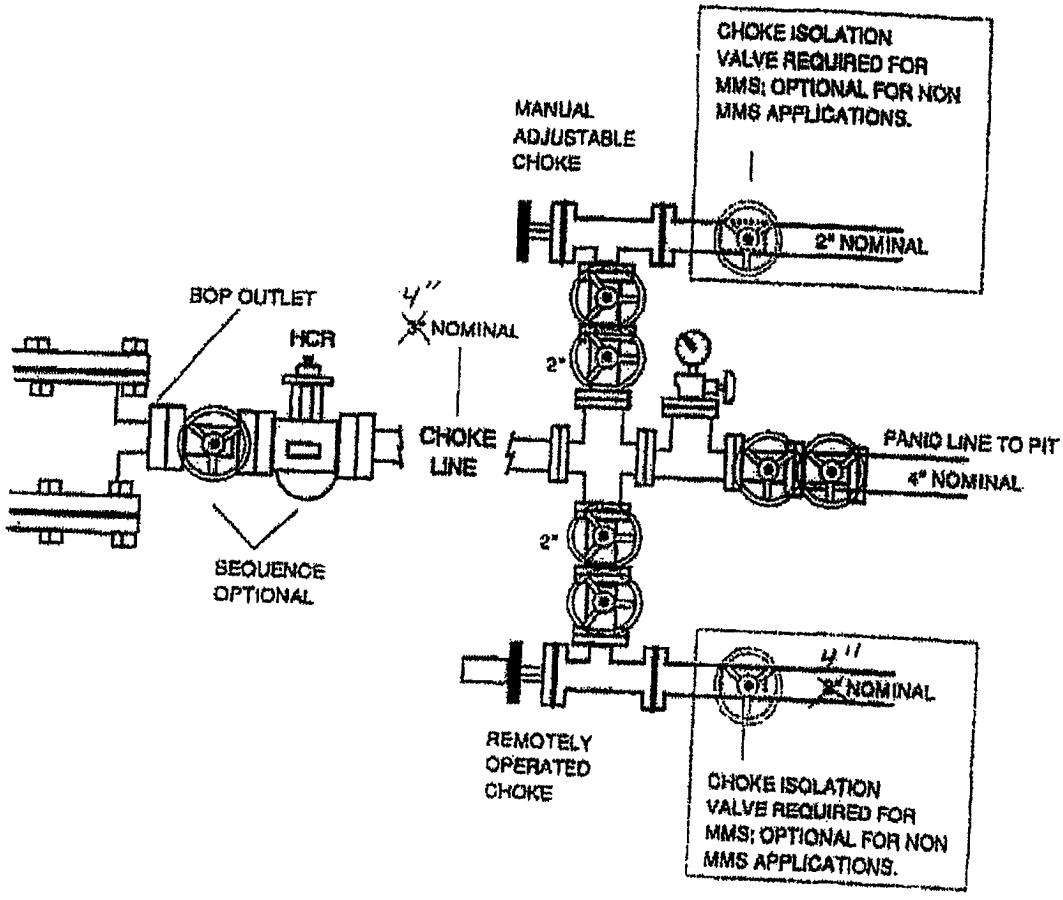



Exhibit E Cont'd – Choke Manifold
**Cagney 28 Federal Com No. 1**
Cimarex Energy Co. of Colorado
660' FSL & 810 FEL
Section 28-T17S-R30E
Eddy County, NM

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Cimarex Energy Company of Colorado Well Name & #: Cagney 28 Federal Com #1
Location 660 FSL & 810 F E L; Sec. 28 , T. 17 S., R. 30 E.
Lease #: LC-053259-A County: Eddy State: New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

( **X** ) Lesser Prairie Chicken (stips attached)
( ) San Simon Swale (stips attached)
( ) Flood plain (stips attached)
( **X** ) Other **This will be a closed mud system per the operators request**

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

( **X** ) The BLM will monitor construction of this drill site. Notify the ( **X** ) Carlsbad Field Office at (505) 234-5972 ( ) Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

( **X** ) Roads and the drill pad for this well must be surfaced with **6** inches of compacted caliche upon completion of well and it is determined to be a producer.

( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____inches in depth. Approximately _____cubic yards of topsoil material will be stockpiled for reclamation.

( **X** ) Other. **Dryings pit will be to the North, V-door will be to the East. Road will be re routed around location until after rig is moved, then re route road will be taken out and reseeded.**

III. WELL COMPLETION REQUIREMENTS

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

( x ) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre. If broadcasting, the seeding rate must be doubled.

( ) A. Seed Mixture 1 (Loamy Sites)
Side Oats Grama (*Bouteloua curtipendula*) 5.0
Sand Dropseed (*Sporobolus cryptandrus*) 1.0
Plains lovegrass (*Eragrostis intermedia*) 0.5

( **X** ) B. Seed Mixture 2 (Sandy Sites)
Sand Dropseed (*Sporobolus crptandrus)* 1.0
Sand Lovegrass (*Eragostis trichodes*) 1.0
Plains Bristlegrass (*Setaria magrostachya*) 2.0

( ) C. Seed Mixture 3 (Shallow Sites)
Side oats Grama (*Bouteloua curtipendula)* 5.0
Green Spangletop (*Leptochloa dubia*) 2.0
Plains Bristlegrass (*Setaria magrostachya*) 1.0

( ) D. Seed Mixture 4 (Gypsum Sites)
Alkali Sacaton (*Sporobolus airoides*) 1.0
Four-Wing Saltbush (*Atriplex canescens*) 5.0

( ) OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic.
Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.
The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

(1) Lined as specified above and

(2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be re-contoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

# PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

On the lands described below:

All: Sec. 28—T17S—R30E

For the purpose of: Protecting Prairie Chickens:

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 15 through June 15, each year. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 a.m. and 9:00 a.m. The 3:00 a.m. and 9:00 a.m. restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during the period. Additionally, no new drilling will be allowed within up to 200 meters of leks know at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

## CONDITIONS OF APPROVAL - DRILLING

**Well Name & No.** 1-Cagney 28 Federal Com
**Operator's Name:** Cimarex Energy Co. of Colorado
**Location:** 0660FSL, 0810FEL, Section 28, T-17-S, R-30-E
**Lease:** LC-053259-A

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - 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: 13-3/8 inch 9-5/8 inch 5-1/2 inch

C. BOP tests

2. A Hydrogen Sulfide (H2S) Drilling Plan should be activated prior to drilling into the **Delaware** Formation. A copy of the plan shall be posted at the drilling site. **Several reports of H2S in Section 21 ranging from 1000-1900 ppm in gas streams.**

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.

### II. CASING:

1. The 13-3/8 inch surface casing shall be set at **500 feet, a minimum of 25' into the Rustler Anhydrite or in the case that salt occurs at a shallower depth above the top of the salt, below usable water and cement circulated to the surface. The surface casing shoe shall be set in the anhydrite to ensure adequate sealing. If cement does not circulate to the surface the operator may then use ready-mix cement to fill the remaining annulus. The operator is required to use an excess of 100% cement volume to fill the annulus.**

**Possible lost circulation in the Grayburg and San Andres formations.**
**Possible water flows in the Salado and Artesia groups.**
**Possible high gas pressures in the Strawn and Morrow formations.**

2. The minimum required fill of cement behind the 9-5/8 inch salt protection casing is **circulate cement to the surface. Set intermediate in the lower part of the San Andres above the Bone Spring, approximately 4000 feet.**

3. The minimum required fill of cement behind the 5-1/2 inch production casing is **cement shall extend upward a minimum of 200 feet into the intermediate casing.**

## 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 **13-3/8** 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) required for drilling below the **9-5/8** inch casing shall be **5M** psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- A variance to test the **BOP, BOPE, and 13-3/8 inch casing** to the reduced pressure of **1000** 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.
- BOPE must be tested prior to drilling into the **Wolfcamp** Formation by an independent service company.

## IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.

**Engineer on call phone: 505-706-2779**

**WWI 111306**

**Cimarex Energy Co. of Colorado**
5215 North O'Connor Blvd. ♦ Suite 1500 ♦ Irving, TX 75039 ♦ (972) 401-3111 ♦ Fax (972) 443-6486
Mailing Address: P.O. Box 140907 ♦ Irving, TX 75014-0907
*A subsidiary of Cimarex Energy Co. • A NYSE Listed Company • "XEC"*

October 2, 2006

Oil Conservation Division
District II Office
1301 W. Grand Ave.
Artesia, New Mexico 88210
Attn: Mr. Bryan Arrant

Re: Statewide Rule 118
Hydrogen Sulfide Gas Contingency Plan
Proposed Cagney 28 Federal Com No. 1 Well

Dear Mr. Arrant:

In accordance with NMAC 19.15.3.118 C. (1) governing the determination of the hydrogen sulfide concentration in gaseous mixtures in each of its operations, Cimarex Energy Co. of Colorado does not anticipate that there will be enough H2S from the surface to the Morrow formation to meet the OCD's minimum requirements for the submission of a contingency plan for the drilling and completion of the following test(s):

Cagney 28 Federal Com No. 1
660' FSL & 660' FEL
P-28-17S-30E
Eddy County, NM

If anything further is needed regarding this issue, or if you have any questions, please feel free to contact the undersigned at 972-443-6489.

Yours truly,

Zeno Farris

Zeno Farris
Manager, Operations Administration