Title 18 U.S.C. Section 1001, n United States any felse, fictitio If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

any department of agency of the For 1 YEAR with a process of the Country of the C

SEE ATTACHED FOR CONDITIONS OF APPROVAL

DISTRICT I 1625 M. French Dr., Hobbs, NM 88240 DISTRICT II 1301 W. Grand Aremus, Artesia, NM 88210

DISTRICT III

State of New Mexico
Energy, Minerals and Natural Resources Department

Santa Fe, New Mexico 87505

Form C-102 Revised October 12, 2005

# OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

1000 Rio Brazos Rd., Aztec, NM 87410 DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87805

□ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name		
	74560	Cedar Lake; Morrow		
Property Code	Pr	Well Number		
	CAGNEY	"28" FEDERAL COM	2	
OGRID No.	Ор	erator Name	Elevation	
162683	CIMAREX ENERG	Y CO. OF COLORADO	3621'	

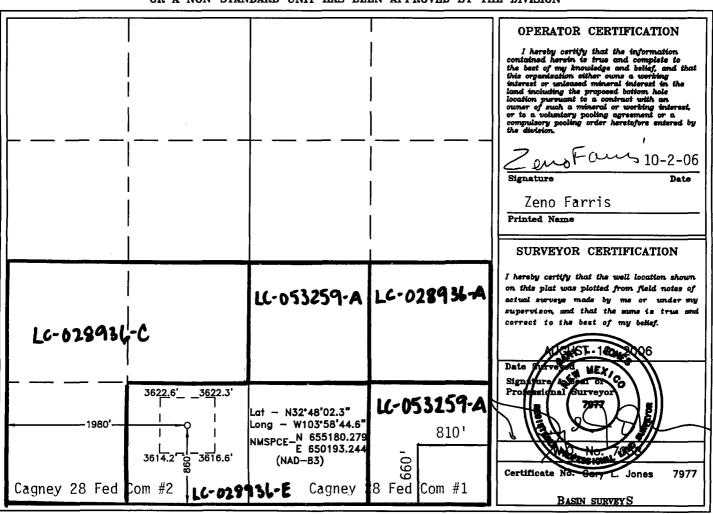
#### Surface Location

	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
ı	N	28	17 S	30 E		860	SOUTH	1980	WEST	EDDY

#### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acre	s Joint o	r Infill (	Consolidation (	Code Ore	ler 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



#### CONDITIONS OF APPROVAL - DRILLING

Operator's Name:

Cimarex Energy Co Cagney 28 Fed Com # 2

Well Name & No. Location:

860' FSL, 1980' FWL, SEC 28, T17S, R30E, Eddy County, NM

Lease:

LC-028936E

# 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:  $13 \ 3/8$  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 <u>Canyon</u> 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 3/8 inch surface casing shall be set at above the salt @ approximately 500 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 <u>9 5/8</u> inch intermediate casing is <u>circulate cement to</u> the surface.
- 4. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall extend upward a minimum of 200 feet above the base of the intermediate 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 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 the surface and intermediate casing shall be <u>2000 psi</u>. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the <u>9 5/8 inch</u> casing shall be <u>5000 psi</u>.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- A variance to test the <u>13 3/8 inch casing, BOP and BOPE</u> to the reduced pressure of <u>800</u> 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.

Engineering may be contacted at 505-706-2779 for variances if necessary.

F Wright 11/14/06



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:

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. 2 Unit N 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:

860' FSL & 1980' FWL

2 Elevation above sea level:

GR 3621'

3 Geologic name of surface formation:

**Quaternery Alluvium Deposits** 

4 <u>Drilling tools and associated equipment:</u>

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. 2 Unit N 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
500' - 4000'	9.7 - 10.0	28 - 29	May lose circ.	hole. 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. 2 Unit N 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 <u>25 - 30</u> 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 <u>Morrow</u> 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. 2 Unit N 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. 2 Unit N 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.

Cimarex Energy Co. of Colorado Cagney 28 Federal Com No. 2 Unit N 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 lease road.
- 2 PLANNED ACCESS ROADS: No new access roads will be constructed.
- 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"

Cimarex Energy Co. of Colorado Cagney 28 Federal Com No. 2 Unit N Section 28 T17S - R30E Eddy County, NM

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.

Cimarex Energy Co. of Colorado Cagney 28 Federal Com No. 2 Unit N 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.

Cimarex Energy Co. of Colorado Cagney 28 Federal Com No. 2 Unit N 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.

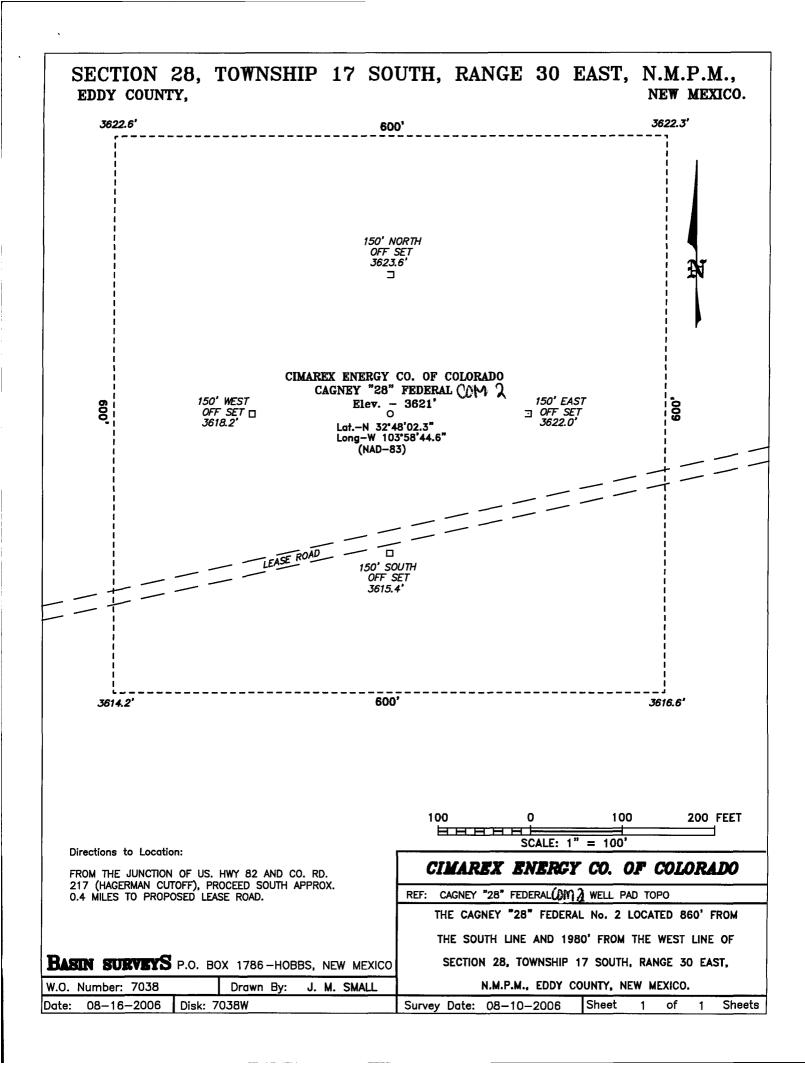
# 12 OPERATOR'S REPRESENTATIVE:

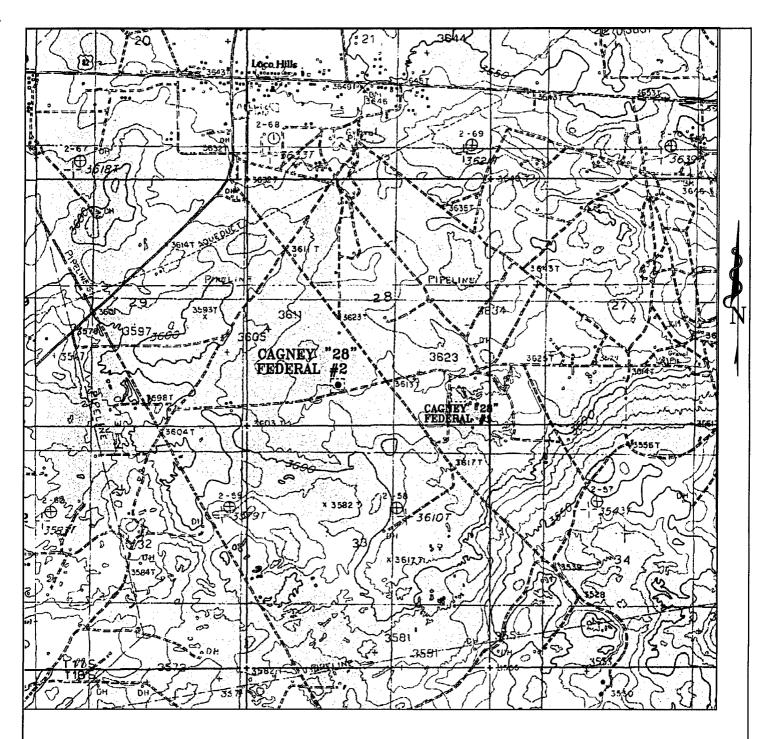
Cimarex Energy Co. of Colorado P.O. Box 140907 Irving, TX 75014 Office Phone: (972) 443-6489

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 Fami DATE: October 2, 2006 TITLE: Manager, Operations Administration





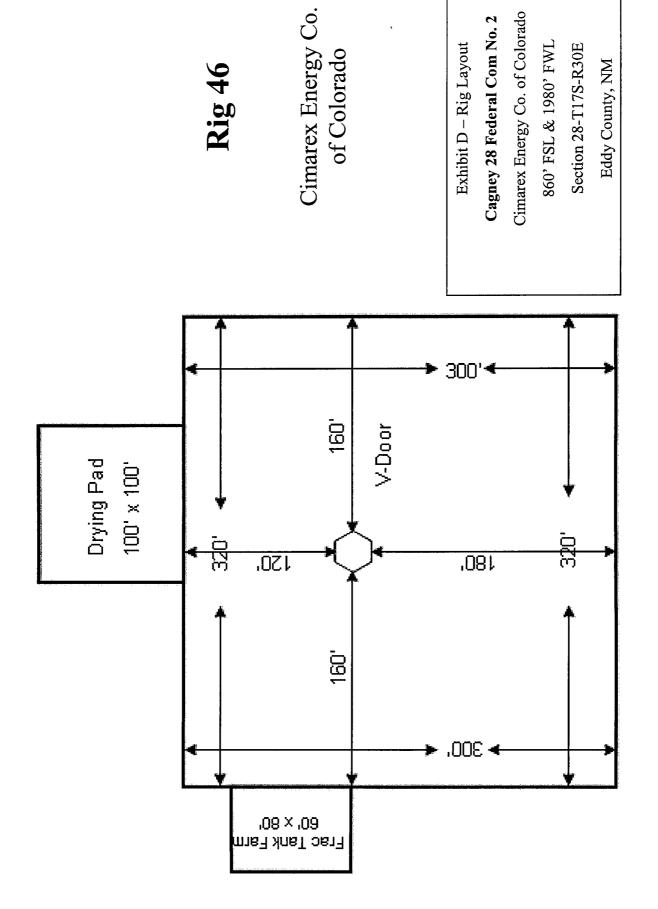
CAGNEY "28" FEDERAL COM 2 Located 860' FSL and 1980' FWL Section 28, Township 17 South, Range 30 East, N.M.P.M., EDDY County, New Mexico.

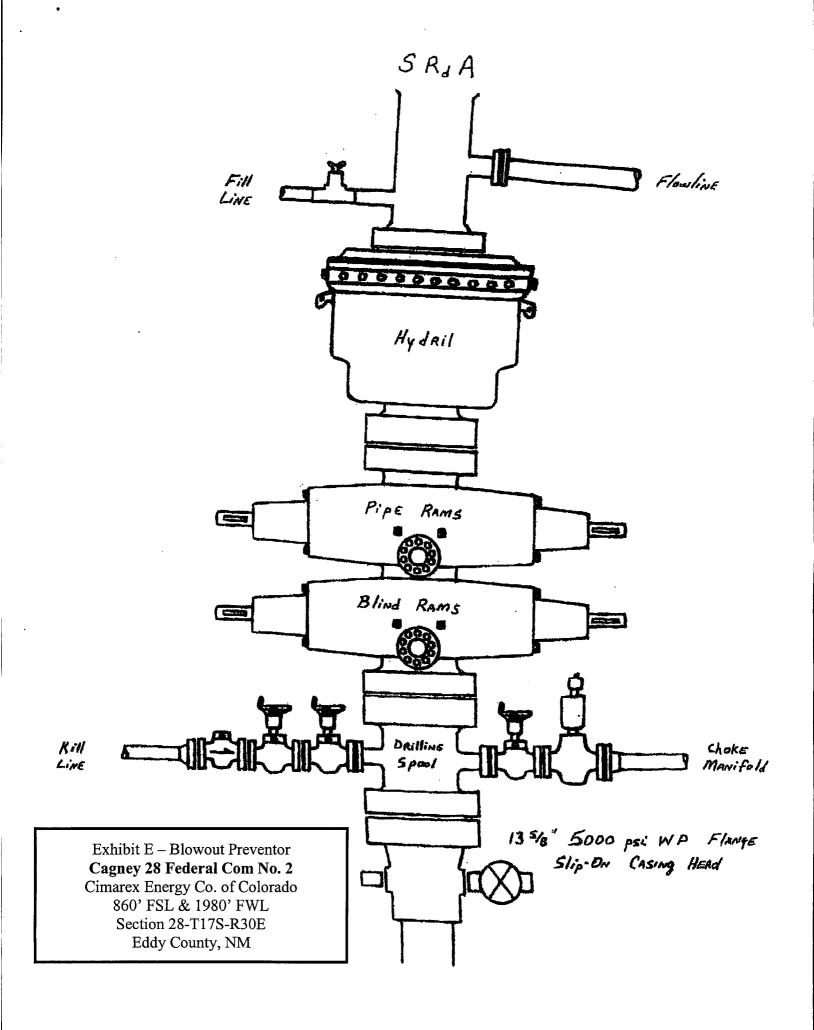


P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-3074 - Fax basinsurveys.com

W.O. Number:	7038T JMS
Survey Date:	08-10-2006
Scale: 1" = 2	000'
Date: 08-16-	-2006

CIMAREX ENERGY CO. OF COLORADO





# DRILLING OPERATIONS CHOKE MANIFOLD 5M SERVICE

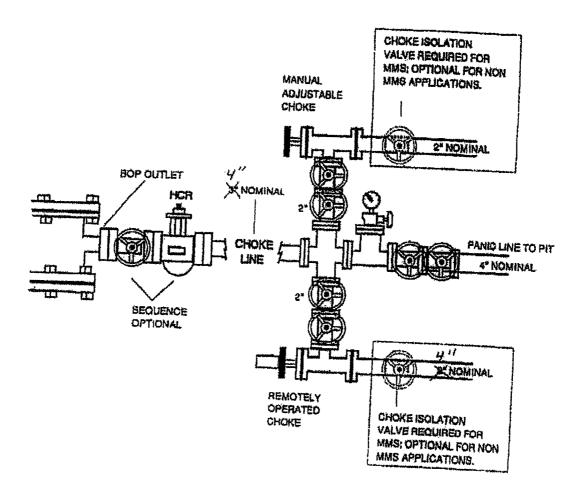


Exhibit E Cont'd – Choke Manifold
Cagney 28 Federal Com No. 2
Cimarex Energy Co. of Colorado
860' FSL & 1980' FWL
Section 28-T17S-R30E
Eddy County, NM



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. 2 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. 2 860' FSL & 1980' FWL N-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

Manager, Operations Administration

Zeno Fans