



ATS-07-442

Form 3160-3
(April 2004)JUN 29 2007
OCD-ARTESIAHIGH CAVEKARST
759FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-94839	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Cimarex Energy Co. of Colorado		7. If Unit or CA Agreement, Name and No.	
3a. Address 1700 Lincoln Street, Suite 1800 Denver, CO 80203		8. Lease Name and Well No Oracle 21 Federal No. 2	
3b. Phone No. (include area code) 303-295-3995		9. API Well No 30-015- 35694	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 1980' FSL & 660' FWL At proposed prod. Zone 1980' FSL & 660' FWL		10. Field and Pool, or Exploratory Chosa Draw; Morrow	
14. Distance in miles and direction from nearest town or post office* 23 miles South of Carlsbad		11. Sec., T R M or Blk and Survey or Area 21-25S-26E	
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg unit line if any) 660'		12. County or Parish Eddy	
16. No of acres in lease 1480		13. State NM	
17. Spacing Unit dedicated to this well 320 acres			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2640'		19. Proposed Depth 12650'	
20. BLM/BIA Bond No on File NM-2575			
21. Elevations (Show whether DF, KDB, RT, GL, etc) 3408' GR		22. Approximate date work will start* 6/15/2007	
23. Estimated duration 35-45 days			

24. Attachments

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

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

25. Signature <i>Zeno Farris</i>	Name (Printed/Typed) Zeno Farris	Date 4/30/2007
Title Manager Operations Administration		
Approved By (Signature) <i>/S/ DON PETERSON</i>	Name (Printed/Typed) /S/ DON PETERSON	Date JUN 27 2007
Title FOR FIELD MANAGER		
Office BLM-CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached

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

APPROVAL FOR TWO YEARS

SEE ATTACHED FOR
CONDITIONS OF APPROVAL
APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHEDIf earthen pits are used in
association with the drilling of this
well, an OCD pit permit must be
obtained prior to pit construction.

DISTRICT I
1625 N. French Dr., Hobbs, NM 58240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV
1220 E. St. Francis Dr., Santa Fe, NM 87506

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 74900	Pool Name Chosa Draw; Morrow
Property Code	Property Name ORACLE "21" FEDERAL	Well Number 2
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3408'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	21	25 S	26 E		1980	SOUTH	660	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

Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No.
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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>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><u>Zeno Farris</u> 04-30-07 Signature Date</p> <p>Zeno Farris Printed Name</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>MARCH 05, 2007</p> <p>Date Surveyed</p> <p><u>GARY L. JONES</u> Signature of State of Professional Surveyor</p> <p> 7977</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>



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 East Greene Street
Carlsbad, NM 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.: NM-94839 - W2 21-25S-26E - 320 acres

County: Eddy County, NM

Formation(s): Morrow

Bond Coverage: Statewide BLM Bond

BLM Bond File No.: NM-2575

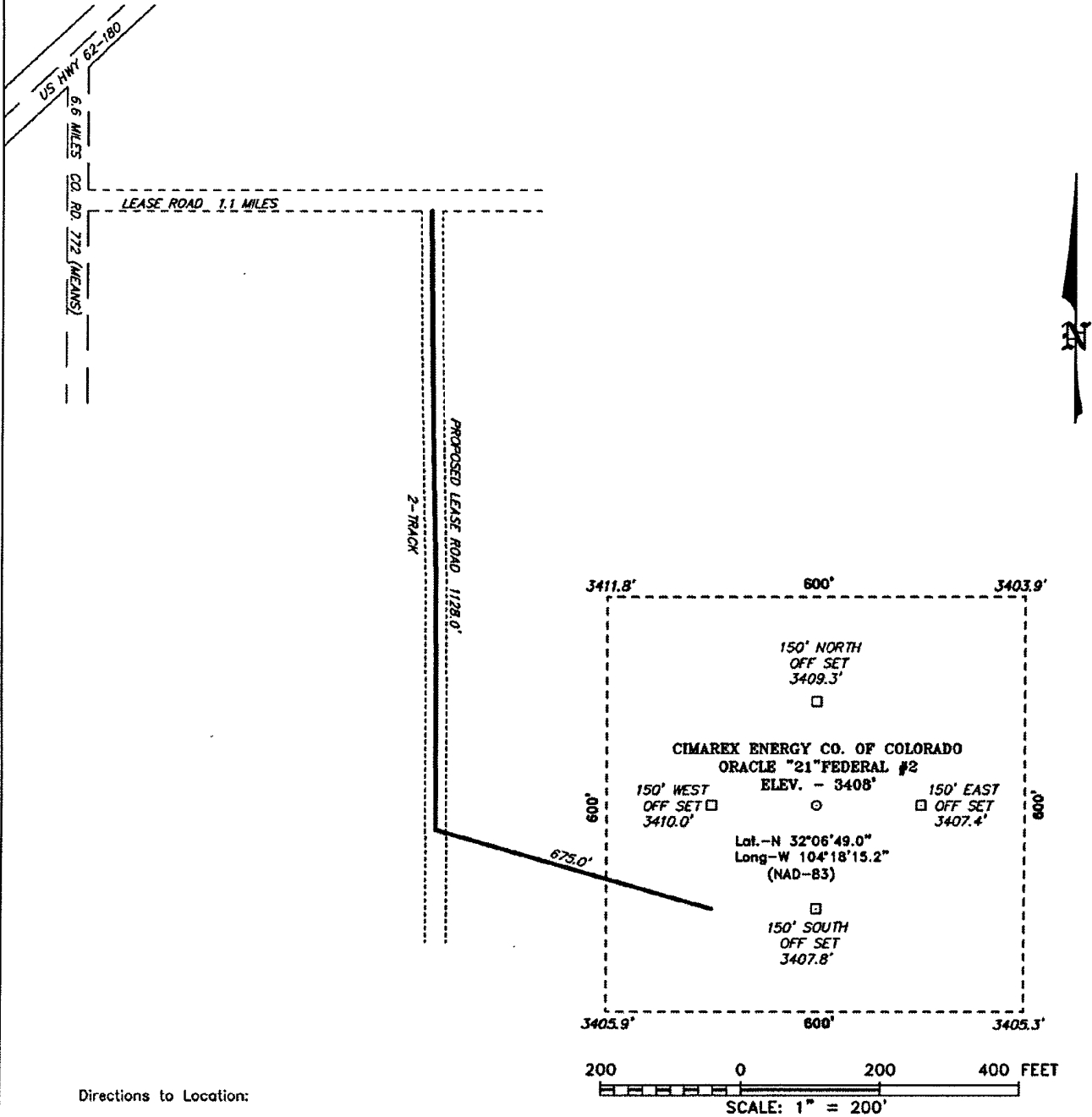
Authorized Signature: Zeno Farris
Representing Cimarex Energy Co. of Colorado

Name: Zeno Farris

Title: Manager Operations Administration

Date: April 30, 2007

SECTION 21, TOWNSHIP 25 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF US HWY 62-180 AND CO.
RD. 772 (MEANS), PROCEED SOUTH ON CO. RD. 772
FOR 6.6 MILES TO LEASE ROAD, ON LEASE ROAD GO
EAST 1.1 MILES TO TWO TRACK AND PROPOSED
LEASE ROAD.

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

W.O. Number: 17850

Drawn By: J. M. SMALL

Date: 03-06-2007

Disk: JMS 17850W

CIMAREX ENERGY CO. OF COLORADO

REF: ORACLE "21" FEDERAL #2 / WELL PAD TOPO

THE ORACLE "21" FEDERAL #2 LOCATED 1980' FROM
THE SOUTH LINE AND 660' FROM THE WEST LINE OF
SECTION 21, TOWNSHIP 25 SOUTH, RANGE 26 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 03-05-2007

Sheet 1 of 1 Sheets

Application to Drill

Cimarex Energy Co. of Colorado
Oracle 21 Federal No. 2
Unit L Section 21
T25S-R26E 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: 1980' FSL & 660' FWL

2 Elevation above sea level: 3408' GR

3 Geologic name of surface formation: Quaternary 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: 12650'

6 Estimated tops of geological markers:

Base Salt	1821	Cisco-Canyon	10182
Delaware	1859	Strawn	10484
Bone Spring	5382	Atoka	10684
1st Bone Spring Ss	6310	Morrow	11246
2nd Bone Spring Ss	7584	Middle Morrow	11697
3rd Bone Spring Ss	8143	Lower Morrow	12027
Wolfcamp	8504		

7 Possible mineral bearing formation:

Morrow	Gas
Cisco-Canyon	Oil
Wolfcamp	Oil

8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17-1/2"	0-200'	13-3/8"	48	8-R	ST&C	H-40
12-1/4"	0-2725'	9-5/8"	40	8-R	LT&C	J-55
7-7/8"	0-12650'	4-1/2"	11.6	8-R	LT&C	P-110

Application to Drill

Cimarex Energy Co. of Colorado
Oracle 21 Federal No. 2
Unit L Section 21
T25S-R26E Eddy County, NM

9 Cementing & Setting Depth:

13-3/8"	Surface	Set 200' of 13-3/8" H-40 48 # ST&C casing. Cement with 490 sx Of Premium Plus cement + additives, circulate cement to surface.
9-5/8"	Intermediate	Set 2725' of 9-5/8" J-55 40# LT&C casing. Cement with 1050 sx Int C/Prem Plus + additives, circulate cement to surface.
4-1/2"	Production	Set 12650' of 4-1/2" P-110 11.6# LT&C casing. Cement with 1620 sx Super H + additives. TOC 5182'

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 nipped 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. 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 that 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 surface pipe and the drilling of the intermediate hole, we do not anticipate any pressures greater than 1000 psi and are requesting a variance to test the 13-3/8" casing and BOP to 1000 psi and to use rig pumps instead of an independent service company.

11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - 200'	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.
200' - 2725'	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.
2725' - 10000'	8.4 - 10.0	28 - 29	NC	Brine water. Paper for seepage. Lime for PH (9 - 9.5).
10000' - 12650'	15 - 16	29 - 45 8.9 - 9.7	NC	Brine water. Paper for seepage. Lime for PH (9 - 9.5).

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
Oracle 21 Federal No. 2
Unit L Section 21
T25S-R26E Eddy County, NM

12 Testing, Logging and Coring Program:

- A. Mud logging program: Two-man unit from 2725' 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:

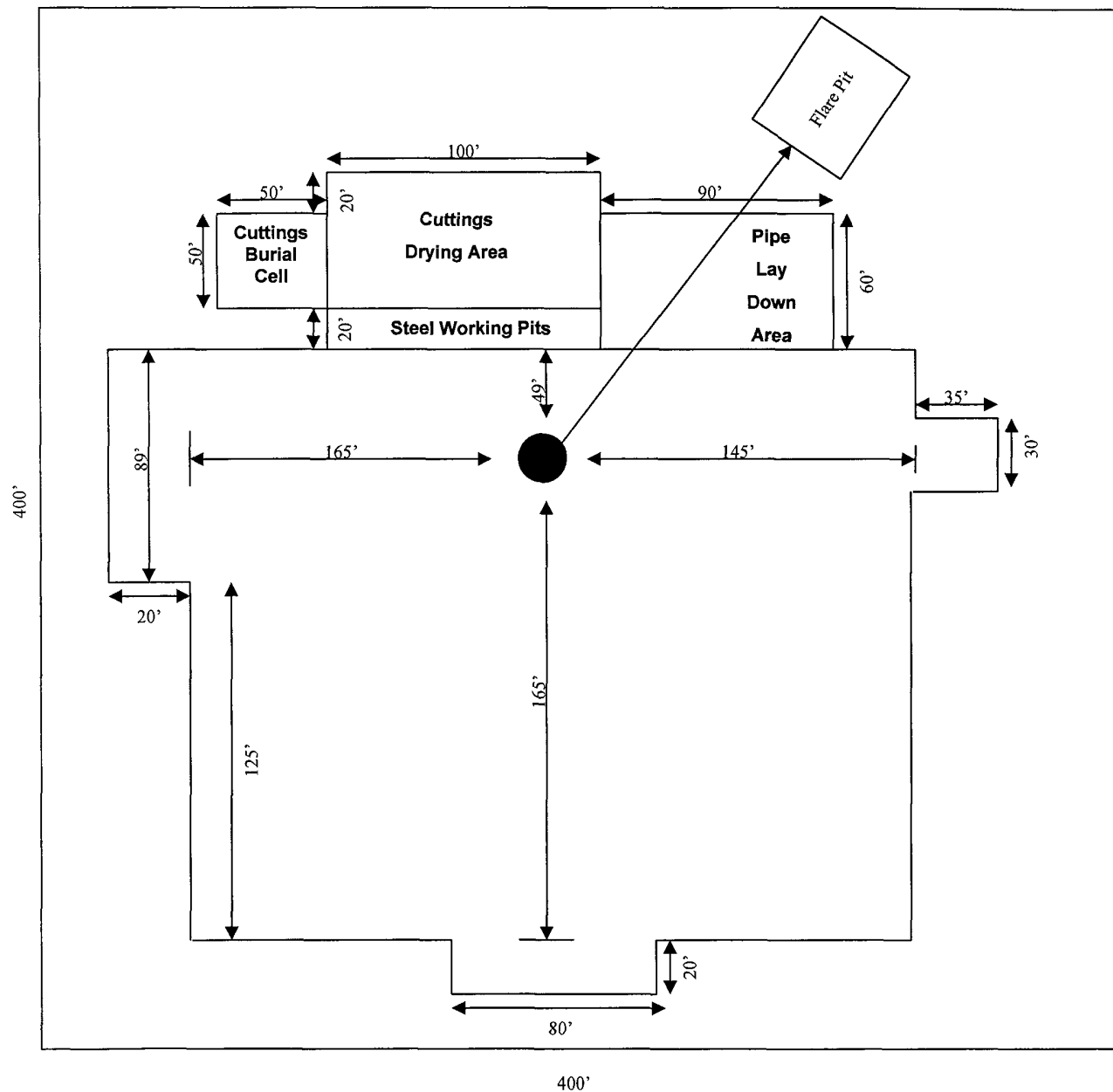
No abnormal pressures or temperatures are expected. The area has a potential H2S hazard. An H2S drilling plan is attached. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment 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 35-45 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 potentialized as a gas well.



*Rite North
V-Door East*

365 X 304

Rig 80

**Cimarex Energy Co. of
Colorado**

Irving, TX

Exhibit D – Rig Layout
Oracle 21 Federal No. 2
Cimarex Energy Co. of Colorado
21-25S-26E
1980' FSL & 660' FWL
Eddy County, NM

SR & A

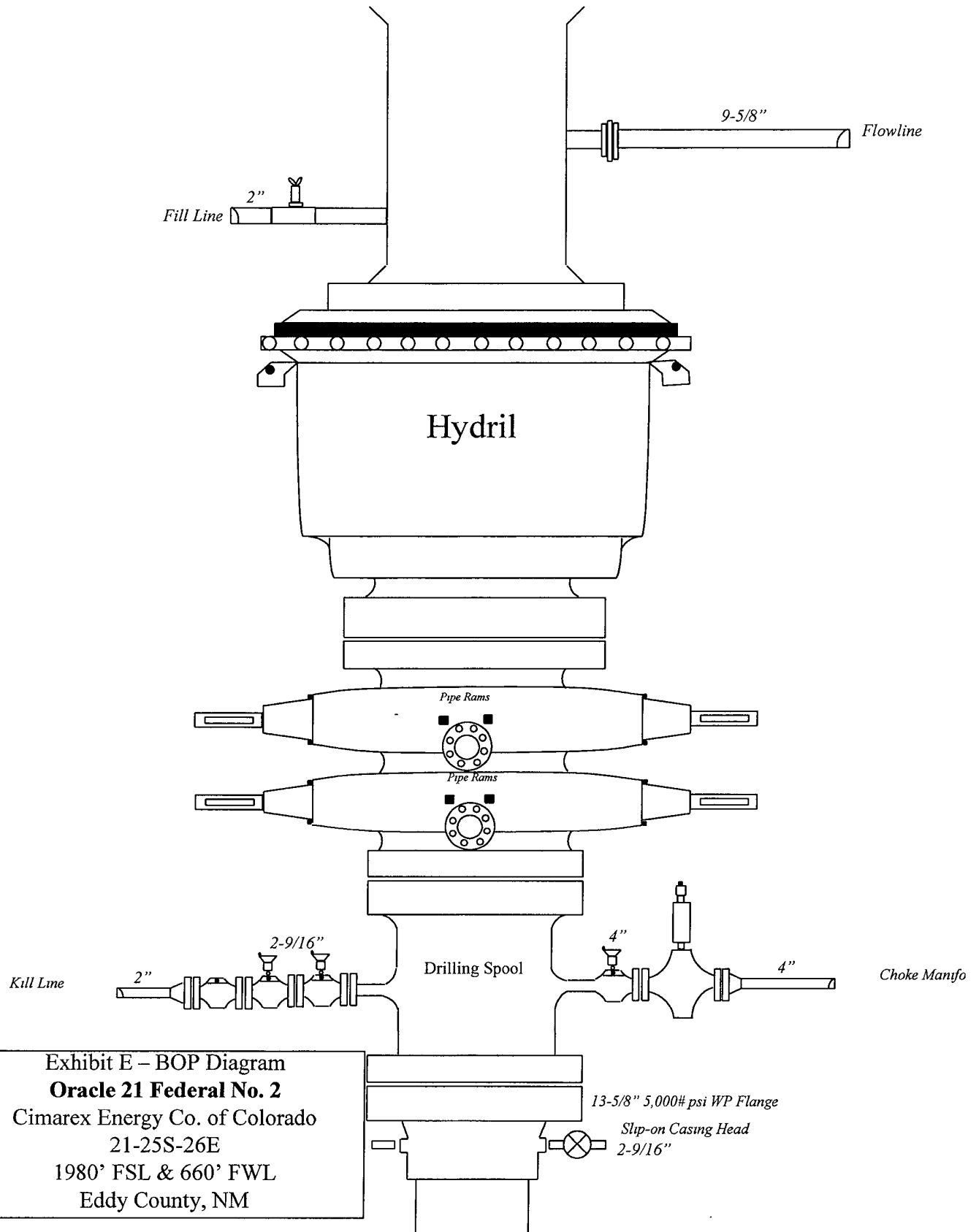


Exhibit E – BOP Diagram
Oracle 21 Federal No. 2
 Cimarex Energy Co. of Colorado
 21-25S-26E
 1980' FSL & 660' FWL
 Eddy County, NM

**DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE**

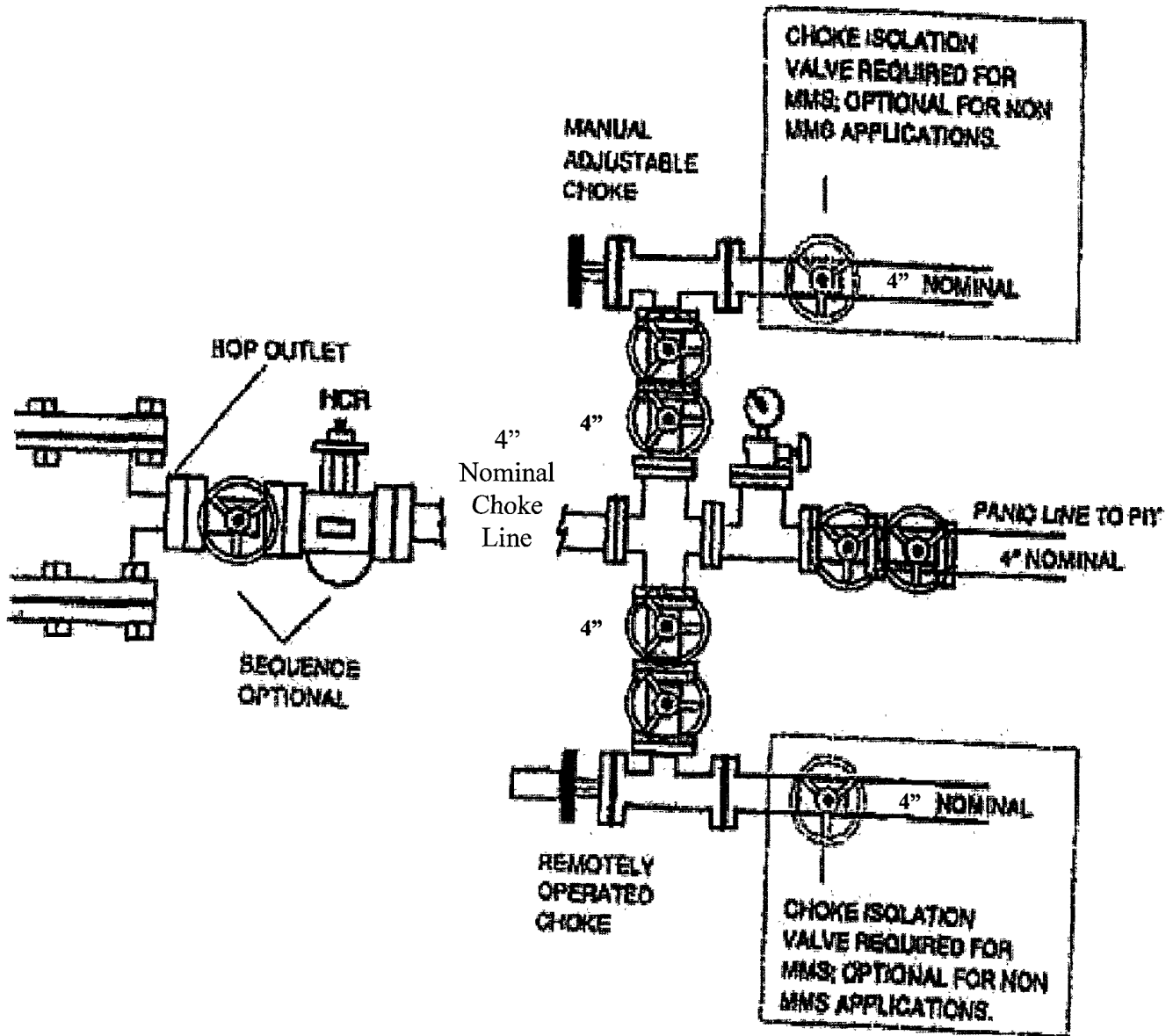


Exhibit E1 – Choke Manifold
Oracle 21 Federal No. 2
 Cimarex Energy Co. of Colorado
 21-25S-26E
 1980' FSL & 660' FWL
 Eddy County, NM

Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co. of Colorado
Oracle 21 Federal No. 2
Unit L Section 21
T25S-R26E 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 areas.
- 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 indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates 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

Oracle 21 Federal No. 2

Unit L Section 21

T25S-R26E 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 separator will be brought into service along with H₂S scavengers if necessary.

EMERGENCY CALL LIST

PUBLIC SAFETY

<u>AGENCY</u>	<u>LOCATION</u>	<u>TELEPHONE #</u>
Sheriff's Department	CARLSBAD, NM	911 OR 505/887-7581
Police	CARLSBAD, NM	911 OR 505/885-2774
State Police	CARLSBAD, NM	911 OR 505/885-3138
Fire Department	CARLSBAD, NM	911 OR 505/887-3060
NMOCD	ARTESIA, NM	505/748-1283
BLM	CARLSBAD, NM	505/706-2779

**EMERGENCY CALL LIST
CIMAREX ENERGY
508 W. WALL ST. SUITE 600
MIDLAND, TEXAS 79701
432/571-7800**

<u>NAME</u>	<u>TITLE</u>	<u>PHONE NUMBERS</u>
JIM EVANS	DRILLING SUPERINTENDANT	972/443-6451 972/465-0564 CELL
DORSEY ROGERS	DRILLING FIELD SUPERINTENDANT	505/200-6105

EMERGENCY CALL LIST

MEDICAL SUPPORT

<u>AGENCY</u>	<u>LOCATION</u>	<u>TELEPHONE #</u>
HOSPITALS	CARLSBAD MEDICAL CENTER CARLSBAD, NM	505/887-4100
AMBULANCE	CARLSBAD, NM	911 OR 505/885-2111

EMERGENCY CALL LIST

SUPPLEMENTAL EQUIPMENT

SAFETY COMPANY

SAFETY, INTERNATIONAL

OFFICE: 432/580-3770

**EMERGENCY CALL LIST
PATTERSON-UTI DRILLING
410 N. LORAIN ST
MIDLAND, TX 79701
432-561-9382**

<u>NAME</u>	<u>TITLE</u>	<u>PHONE NUMBERS</u>
CHUCK BUTLER	DRILLING SUPERINTENDANT	CELL: 432/631-5409 HOME: 505/392-8478
CHRIS KUYKENDALL	TOOLPUSHER	CELL: 432/631-4286
NEPHTALE MORIN	TOOLPUSHER	CELL: 432/634-3784

Surface Use Plan

Cimarex Energy Co. of Colorado
Oracle 21 Federal No. 2
Unit L Section 21
T25S-R26E 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 62-180 and Co Rd 772 (Means), proceed South on Co Rd 772 for 6.6 miles to lease road. On lease road, go East 1.1 miles to 2-track and proposed lease road.
- 2 PLANNED ACCESS ROADS: 1803' of proposed access road will be constructed, 728' of which will be off-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"

Surface Use Plan

Cimarex Energy Co. of Colorado
Oracle 21 Federal No. 2
Unit L Section 21
T25S-R26E 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 separated 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
Oracle 21 Federal No. 2
Unit L Section 21
T25S-R26E 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
Oracle 21 Federal No. 2
Unit L Section 21
T25S-R26E 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's 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 Roswell 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 exist; 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: April 30, 2007

TITLE: Manager Operations Administration

Conditions of Approval Cave and Karst

EA#: NM-520-07-0759

Cimarex Energy Company of Colorado

Lease #: NM-94839

Oracle 21 Federal No.2

Lease #: NM-101097

Tank 29 Federal No.2

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. Use depth to the deepest expected fresh water as listed in the geologist report.

Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a void (bit drops) of four feet or more and circulation-losses greater than 75 percent occur simultaneously while drilling in any cave-bearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

Pressure Tests:

Annual pressure tests will be performed by the Operator on all casing annuli. If the test results indicated a casing failure, remedial actions approved by the BLM will be undertaken to correct the problem.

Differential Shut-off Systems:

A leak detection system and differential shut off systems will be installed for pipelines and tanks used in production or drilling.

Record Keeping:

The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence or absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Cimarex Energy Co. of Colorado
Well Name & No. Oracle 21 Federal # 2
Location: 1980'FSL, 660'FWL, SEC21, T25S, R26E, Eddy County, NM
Lease: NM-94839

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I. DRILLING OPERATIONS REQUIREMENTS:

- A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:
1. Spudding well
 2. Setting and/or Cementing of all casing strings
 3. BOPE tests
- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
- B. A Hydrogen Sulfide (H₂S) Drilling Plan should be activated 500 feet prior to drilling into the Delaware formation.
- C. 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.
- D. If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

- A. The 13.375 inch surface casing shall be set at least 25 feet above the salt, @ approximately 200 feet and cemented to the surface.
1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 2. Wait on cement (WOC) time for a primary cement job will be a minimum of 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
 3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
 4. If cement falls back, remedial action will be done prior to drilling out that string.
- B. The minimum required fill of cement behind the 9.625 inch intermediate casing is circulating cement to the surface. If cement does not circulate see A.1 thru 4.

- C. The minimum required fill of cement behind the 5.5 inch production casing is circulating cement to at least 200 feet above the shoe of the 9.625 intermediate casing, **unless circulation is lost while drilling the well bore for that string, in which case the cement will be brought up to at least 200 feet above the most shallow lost circulation zone.**
- E. If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool I joints of the drill pipe will be installed prior to continuing drilling operations.

III. PRESSURE CONTROL:

- A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2.
- B. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 psi.
- C. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9.625 Intermediate casing shoe shall be 5000 psi.
- D. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
1. The tests shall be done by an independent service company.
 2. The results of the test shall be reported to the appropriate BLM office.
 3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53, section 17. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 5. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
 6. A variance to test the 13.375 inch surface casing and BOP/BOPE to the reduced pressure of 1000 psi with the rig pumps is approved.
 7. **The formation below the casing shoe of the 9.625 inch casing will be tested according to Onshore Order #2.III.B.1.i.**

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.

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

V. Hazards:

1. Our geologist has indicated that there is High potential for Cave / Karst features.
2. Our geologist has indicated that there is potential for lost circulation in the Delaware.
3. Our geologist has indicated that there is potential for abnormal pressure in the Wolfcamp formation and the Pennsylvanian system.

Engineering can be reached at 505-706-2779 for variances.

FWright 6/22/07