175-07-443

FORM APPROVED

JUN 29 2007

OCD-ARTESIA

OCD-ARTESIA

Form 3160-3

(April 2004)	HIGH CAVEKAHS! O					
UNITEI DEPARTMENT (O STATES OF THE INTERIC	OR 16	9	5 Lease Serial No NM-101097	# 2000A	
BUREAU OF LAN		1 * 1	' '	6 If Indian, Allotee or	ſrībe Name	
APPLICATION FOR PERM	IIT TO DRILL OR	REENTER				
1a Type of Work X DRILL	REENTER			7 If Unit or CA Agreen	nent, Name and No	
				2 2 2	157	
1b Type of Well Oil Well X Gas Well Other	Хs	ıngle Zone Multıpl	e Zone	8 Lease Name and Well Tank 29 Federal N	3630	
2 Name of Operator				9 API Well No		
Cimarex Energy Co. of Colorado				30-015- 356	90	
3a Address	3b Phone No	(ınclude area code)		10 Field and Pool, or E	xploratory	
1700 Lincoln Street, Suite 1800 Denver, CO 80203	303-295-3			Chosa Draw, Mori	ow	
4 Location of Well (Report location clearly and in according 2437) At Surface 660' FNL & 4980' FEL	ince with any State re	quirements *)	5-7-0	7 11 Sec, TRM or Blk at	nd Survey or Area	
	pr pw	SN Caus	,			
At proposed prod Zone 660' FNL & 1980' FEL				29-25S-26E		
14 Distance in miles and direction from nearest town or po	ost office*			12 County or Parish	13 State	
15 miles SW of Carlsbad CARLSBAD COL	VTROLLED WA	TER BASIN		Eddy	NM	
15 Distance from proposed*	16 No of acre		17 Spa	cing Unit dedicated to this well	1	
location to nearest property or lease line, ft						
(Also to nearest drig unit line if any) 660'		2438.38		320 acres		
any) 660' 18 Distance from proposed location*	19 Proposed		20 BLN	/BIA Bond No on File		
to nearest well, drilling, completed,						
applied for, on this lease, ft 2310'		12660'		NM-2575	i	
21 Elevations (Show whether DF, KDB, RT, GL, etc.)	22 Approxim	ate date work will start	!	23 Estimated duration		
2421LCB		(15/2007		35-45 days		
3421' GR		5/15/2007 Attachments		33-43 (iays	
The following, completed in accordance with the requirement			e attached	to this form		
1 Well plat certified by a registered surveyor				ons unless covered by an exist	ing bond on file (see	
2 A Drilling Plan	t man I I d	Item 20 above	·)		3	
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) 5 Operator Certification Such other site specific info				nformation and/or plans as may	y be required by the	
		authorized off	icer			
25 Signature Zeno Farry	i	Printed/Typed)			Date	
Title	Zen	o Farris			4/26/2007	
Manager Operations Administration						
Approved By (Signature)	Name (Printed/Typed)			Date	
/s/ James Stovall		/s/ Jan	nes St	ovall	JUN 2 7 2007	
Title FIELD MANAGER	Office	CARLSBAD I	FIELD	OFFICE		
Application approval does not warrant or certify that the applicant hol						
conduct operations thereon	<i>O</i> quimore title		-	APPROVAL FOR	TWO YEARS	

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS **ATTACHED**

Conditions of approval, if any, are attached

States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction

* (Instructions on page 2) SEE ATTACHED FOR CONDITIONS OF APPROVAL

Title 18 U S S Section 1001 and Title 43 U S C Section 1212, make it a crime for any person knowingly and willfully to make to any depair

NS L- Pending

If 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 68240 DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

State of New Mexico Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION Fee Lease - 3 Copies

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

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 67506

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name		
	74900	Chosa Draw; Morr	ow	
Property Code		Property Name		
	TANK "2	TANK "29" FEDERAL		
OGRID No.	Oper	Operator Name		
162683	CIMAREX ENERGY	CO. OF COLORADO	3440'	

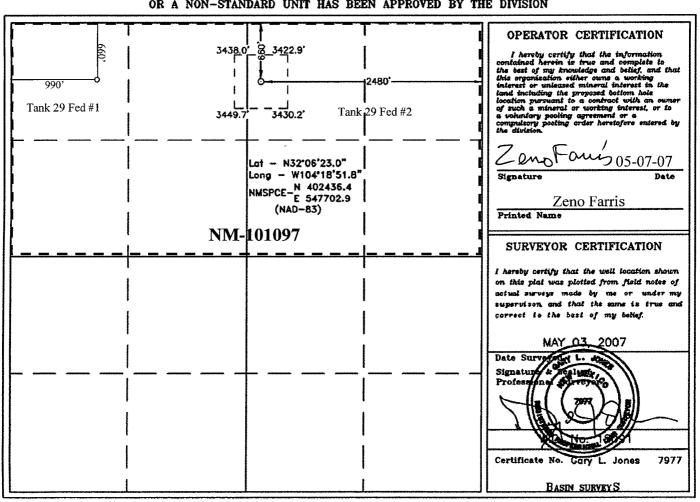
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	29	25 S	26 E		660	NORTH	2480	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section Town	nship Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infi	ll Consolidation	Code Or	đer No.				
320	Y							

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





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:

<u>Lease No.:</u> NM-101097 - N2-29-25S-26E - 320 acres

County: Eddy County, NM

Formation(s): Morrow

Bond Coverage: Statewide BLM Bond

BLM Bond File No.: NM-2575

Authorized Signature:

Representing Cimarex Energy Co of Colorado

Name: Zeno Farris

<u>Title:</u> Manager Operations Administration

Zeno Farinj

Date: April 26, 2007

Form:3160-5 (November 1994)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No 1004-0135 Expires July 31, 1996

Lease Senal No 5

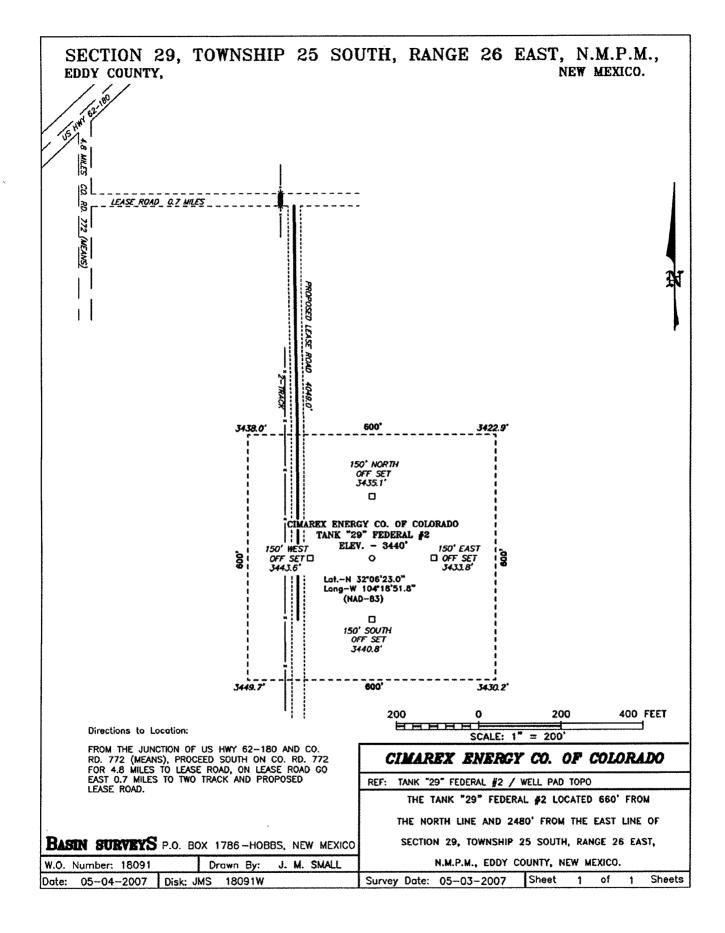
NM-101097

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.						6 if India	n, Allottee or Tribe Name	
abandoned wen. Ose form \$100-3 (AFD) for Such proposals.							or CA/Agreement, Name and/or No	
	SUBMIT IN TRI	PLICATE - Other instructions	on reverse side					
1	Type of Well Oil Well X Gas Well	1045			-	0 10/4/10 01	ame and No	
		Other		····				
2	Name of Operator Cimarex Energy Co. of Colorac	io			-	9 API We	ederal No. 2	
	Address	10	3b Phone No (include	a area code)		30-015-	511 140	
Jа	PO Box 140907; Irving, TX 75	014-0907	972-401-3111	e area code)	F		nd Pool, or Exploratory Area	
4	Location of Well (Footage, Sec , T , R , M ,		<u> </u>				aw; Morrow	
	660' FNL & 2480' FEL						or Parish, State	
	29-25S-26E					Eddy Cou	nty, NM	
	12. CHECK APP	ROPRIATE BOX(ES) TO	INDICATE NATU	RE OF N	OTICE,	REPORT,	OR OTHER DATA	
	TYPE OF SUBMISSION		TY	PE OF AC	TION			
	X Notice of Intent	Acidize	Deepen	Product	tion (Start/Re	oumo)	Water Shut-Off	
	[X] Notice of Interit	After Casing	Fracture Treat	Reclam	•	isume)	Well Integrity	
	Subsequent Report	Casing Repair	New Construction	===		į	Other	
	Subsequent Report	X Change Plans		Recomp		_	Other	
	Final Abandonment Notice	Convert to Injection	Plug and Abandon	=	rarily Abando Disposal	n .		
13	Describe Proposed or Completed Operatio	<u> </u>	<u> </u>	<u> </u>		nd approximate	duration thereof	
	Attach the bond under which the work will to following completion of the involved operat testing has been completed. Final Abando determined that the site is ready for final in Per Todd Suter, Cimarex is change.	nons If the operation results in a multip conment Notices shall be filed only after a spection)	le completion or recomplet	tion in a new i	interval, a Fo	rm 3160-4 sha	ll be filed once	
		.T			•	· •		
		Location L & 1980' FEL		<u>New Location</u> 660' FNL & 2480' FEL				
		-25S-26E		29-25S-26E				
	Please see attached revised plats.				, •	A 5/10	0107	
14	I hereby certify that the foregoing is true an	d correct	l+u-					
	Name (Printed/Typed)		Title					
	Natalie Krueger Signature		Reg Analyst	1				
	Datali K	a. A						
<u> </u>	o man pour	THIS SPACE FOR F	May 7, 2007 EDERAL OR STATE	OFFICE	USE			
Арр	roved by /s/ Jan	ies Stovall				AGER	Date	
Con	ditions of Approval, if any, are attached			Office			JUN 2 7 2007	
cert	fy that the applicant holds legal or equita	ble title to those rights in the subject	lease		ARLSE	AD FIF	I D OFFICE	

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

which would entitle the applicant to conduct operations thereon



Application to Drill

Cimarex Energy Co of Colorado Tank 29 Federal No. 2 Unit B Section 29 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

660' FNL & 1980' FEL

2 Elevation above sea level

3421' GR

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

12660'

6 Estimated tops of geological markers

Base Salt	1834	Cısco-Canyon	10181
Delaware	1871	Strawn	10484
Bone Spring	5393	At oka	10681
1st Bone Spring Ss	6319	Morrow	11245
2nd Bone Spring Ss	7598	Middle Morrow	11697
3rd Bone Spring Ss	8157	Lower Morrow	12026
Wolfcamn	8521		

7 Possible mineral bearing formation

Morrow	Gas
Cisco-Canyon	lίΟ
Wolfcamp	Oil

8 Casing program

	Hole Sıze	Interval	Gasing OD	Weight	Thread	Collar	Grade
REE COA	17-1/2"	0-220'	13-3/8"	48	8-R	ST&C	H-40
SEE COA	12-1/4"	0-2700'	9-5/8"	40	8-R	LT&C	J-55
	8-3/4"	0-10000'	7"	26	8-R	LT&C	N-80
	6-1/8"	0~12660'	4-1/2"	116	8-R	(ST&L)	P-110
						~	
						1160	^
						2100	

Application to Drill

Cimarex Energy Co of Colorado Tank 29 Federal No 2 Unit B Section 29 T25S-R26E Eddy County, NM

9 Cementing & Setting Depth

	13-3/8"	Surface	Set 220' of 13-3/8" H-40 48 # ST&C casing Cement with 220 sx Of Premium Plus cement + additives, circulate cement to surface
	9-5/8"	Intermediate	Set 2700' of 9-5/8" J-55 40# LT&C casing Cement with 775 sx Int C/Prem Plus + additives, circulate cement to surface
Α.	7"	Intermediate 2	Set 10000' of 7" N-80 26# LT&C casing Cement with 570 sx Super H + additives, circulate cement to surface
ee (of	4-1/2"	Production	Set 12660' of 4-1/2" P-110 11 6# LT&C casing

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. From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 psi BOP system.

SEE COA

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 - 220'	84-86	30 - 32	May lose circ	Fresh water spud mud Add paper to control seepage and high viscosity sweeps to clean hole
220' - 2700'	97-100	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
2700' - 10000'	8 4 - 10 0	28 - 29	NC	Brine water. Paper for seepage Lime for PH (9 - 9 5)
10000' - 12660'	15 - 16 8	29 - 45 9 -	9.7	Water based mud
		• •	,	

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 Tank 29 Federal No 2 Unit B Section 29 T25S-R26E Eddy County, NM

12 Testing, Logging and Coring Program:

- A Mud logging program Two-man unit from 2700' 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.

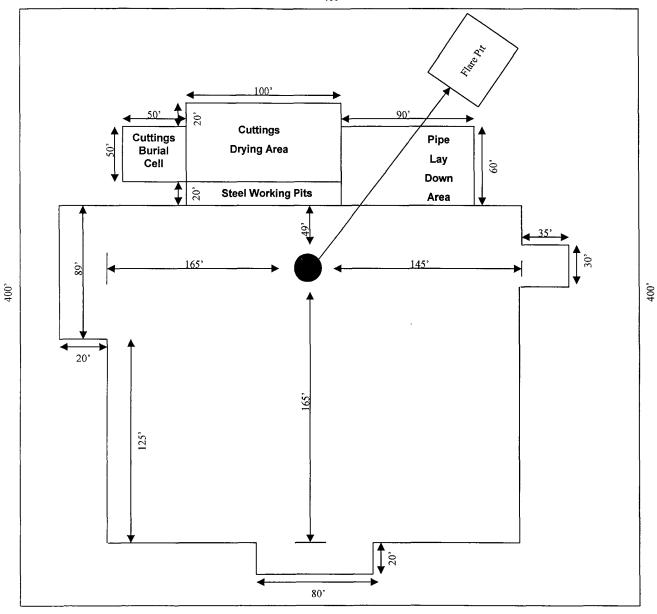
No abnormal pressures or temperatures are expected The area has a potiential H2S hazard. An H2S drilling plan is attached. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment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



Petr North V-Door East

Rig 80

Cimarex Energy Co. of Colorado

Irving, TX

Exhibit D – Rig Layout

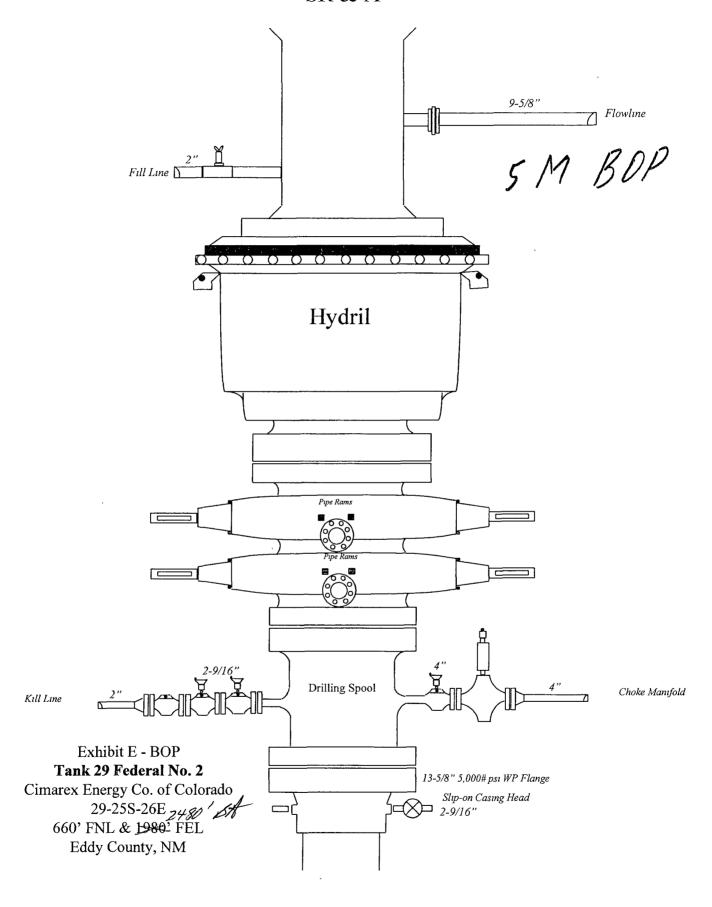
Tank 29 Federal No. 2

Cimarex Energy Co. of Colorado

29-25S-26E 2490 SA

660' FNL & 1980' FEL

Eddy County, NM



ORILLING OPERATIONS CHOKE MANIFOLD 5M SERVICE

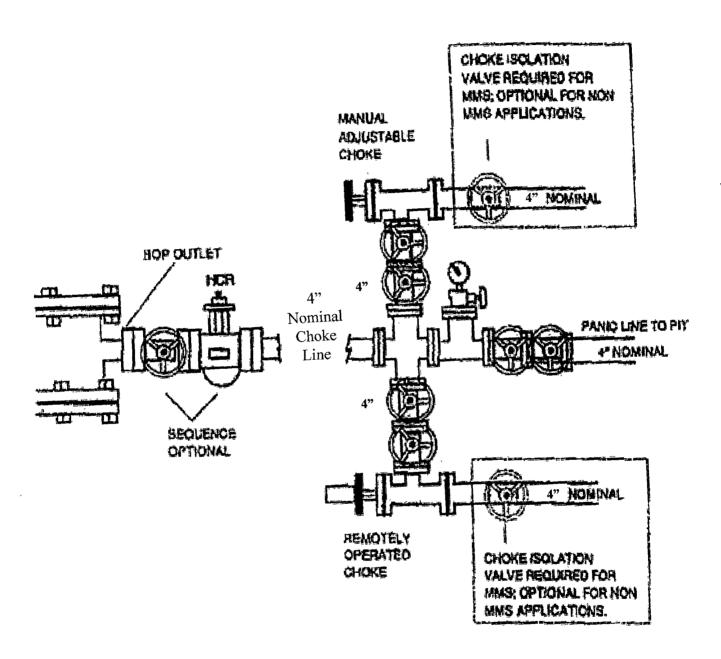


Exhibit E1 – Choke Manifold

Tank 29 Federal No. 2

Cimarex Energy Co. of Colorado

29-25S-26E 2490 / SA

660' FNL & 1980' FEL

Eddy County, NM

Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co of Colorado Tank 29 Federal No 2 Unit B Section 29 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 Tank 29 Federal No. 2 Unit B Section 29 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 seperator will be brought into service along with H2S scavengers if necessary

EMERGENCY CALL LIST

PUBLIC SAFETY

AGENCY	LOCATION	TELEPHONE #
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

NAME TITLE PHONE NUMBERS

JIM EVANS DRILLING SUPERINTENTANT 972/443-6451

972/465-0564 CELL

DORSEY ROGERS DRLNG FIELD SUPERINTENTANT 505/200-6105

EMERGENCY CALL LIST

MEDICAL SUPPORT

AGENCY

LOCATION

TELEPHONE #

HOSPITALS

CARLSBAD MEDICAL CENTER

505/887-4100

CARLSBAD, NM

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. LORAINE ST MIDLAND, TX 79701 432-561-9382

NAME	TITLE	PHONE NUMBERS
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

Cimarex Energy Co of Colorado Tank 29 Federal No 2 Unit B Section 29 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 4 8 miles to lease road On lease road, go East 0 7 miles to 2-track road and proposed lease road
- 2 PLANNED ACCESS ROADS 4603' of proposed access road will be contructed, 3196 5' 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"

Cimarex Energy Co of Colorado Tank 29 Federal No 2 Unit B Section 29 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 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 Tank 29 Federal No. 2 Unit B Section 29 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.

Cimarex Energy Co of Colorado Tank 29 Federal No 2 Unit B Section 29 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 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

Out

DATE

April 26, 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 then 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 of 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.

Tank 29 Federal # 2

Location:

660'FNL, 2480'FEL, SEC29, T25S, R26E, Eddy County, NM

Lease:

NM-101097

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 **Canyon** 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 220 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 <u>9.625</u> 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 <u>7</u> inch intermediate casing is circulating cement to the surface. If cement does not circulate see A.1 thru 4.
- **D.** The minimum required fill of cement behind the <u>5.5</u> inch production casing is circulating cement to 2120 feet above the shoe of the _7_ intermediate casing.
- **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 <u>9.625</u> 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 shoes of the 9.625 inch and the 7 inch casings 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