	Mexico Oll Conservation 1625 M. French I Tiobhs, IN1 22		o District I	
		243		
Form 3160-3 (April 2004) AUG 21 201	DA		FORM APPROV OMB No 1004-0 Expires March 31,	137
			5. Lease Serial No.	· · · ·
DEPAREMENTOF	THE INPLETOR		NM-105886	
BUREAU OF LAND			6. If Indian, Allotee or Tribe	Name
APPLICATION FOR PERMIT	EENTER		7. If Unit or CA Agreement,	Name and No.
	EENTER		Pending	
1b. Type of Well. X Oil Well Gas Well Other	X Single Zone Multip	. 7	8 Lease Name and Well No	36
Ib. Type of Well. X Onl Well Gas Well Other 2 Name of Operator 3	X Single Zone Multip		Enterprise 11 Federal 9. API Well No.	Com No. 3
	2683		30-005- 2904	57
3a. Address	3b. Phone No (include area code)		10 Field and Pool, or Explo	ratory
PO Box 140907 Irving, TX 75014	972-401-3111		Abo; Wildcat	
4 Location of Well (Report location clearly and in accordance At Surface 1980' FNL & 330' FV			11. Sec., T. R. M. or Blk. and Su	nrvey or Area
At proposed prod. Zone 1980' FNL & 330' FR	EL Proposed Horizontal A	bo Test	11-15S-31E	
14 Distance in miles and direction from nearest town or post	office*		12 County or Parish	13. State
			Chaves	NM
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig, unit line if	16. No of acres in lease	17. Space	ing Unit dedicated to this well	
any) 330'	560 19. Proposed Depth	20 BLM	S2N2 160	
¹⁸ Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. NA	9250' Pilot Hole MD 13386' TVD 8850'	20 BLM	NM-2575	
21 Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start	*	23. Estimated duration	
4404' GR	1/31/2008		35-45 days	3
	24. Attachments			
The following, completed in accordance with the requirements o	f Onshore Oil and Gas Order No. 1, shall	be attached t	o this form	
 Well plat certified by a registered surveyor A Drilling Plan A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Office 	tem Lands, the 5 Operator Cer	e) infication te specific in	ons unless covered by an existing formation and/or plans as may be	,
25 Signature	Name (Printed/Typed)		Da	ite
Dotali Ameger	Natalie Krueger			12.28.07
Title				
Regulatory Analyst Approved By (Signature)	Name (Printed/Typed)		Da	
/S/ Angel Mayes	15	/ Ange	l Mayes	8.19.0P
Title Assistant Field Manager States Application approval does not warrant or certify the approval does not warrant or certify the approval of the states	Office ROSWELL FIEL	DOFFIC	APPRC	DVED FOR 2 YEARS
	legal or equitable the to mose rights in the sub	ject lease whic	n would entitle the applicant to	
Conditions of approval, if any, are attached. Title 18 U.S.S. Section 1001 and Title 43 U.S.C. Section 1212, make it a States any files facilities as four hilart statements as associated in a		o make to any	department or agency of the United	<u> </u>
States any false, fictitious, or fraudulent statements or representations as * (Instructions on page 2)	to any matter within its jurisdiction.		· ·	<u> </u>
APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHE	ROSWELL CONTROLLED	WATER BA	SIN APPROVED	FOR 2 YEARS
		SURFA	ICE CASING	

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Application to DrillCimarex Energy Co. of ColoradoEnterprise 11 Federal Com No. 3Unit ESection 11T15S R31EChaves 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:	SHL	1980' FNL & 330' FWL	
		BHL	1980' FNL & 330' FEL	Proposed Horizontal Wolfcamp Test

2 Elevation above sea level: 4404' GR

3 <u>Geologic name of surface formation:</u> 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: 9250' Pilot Hole MD 13386' TVD 8850'

6 Estimated tops of geological markers:

Yates	2,450'
Queen	3,060'
SanAndres	3,940'
Abo Shale	7,515'
Lower Abo Dolomite	8,760'
Wolfcamp LS	8,950'

- 7 Possible mineral bearing formation:
 - Abo Oil
- 8 Proposed Mud Circulating System:

	Depth	I	Mud Wt	Visc	Fluid Loss	Type Mud
0	to	340	8.4 - 8.6	30-32	May lose circ	Fresh water spud mud
340	to	3,950	10.0	28-29	May lose circ	Brine Water
3,950	to	9,250	8.6 - 9.5	28-29	NC	Fresh water and brine, use hi-vis sweeps to keep hole clean

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.

8a Drill pilot hole to 9250.' Set KO Plug @ 8850.' Kick off horizontal leg @ 8650' and drill 6-1/8" hole to 11386' MD & 8850' TVD. Run 4-1/2" 11.6# P-110 LTC Peak Systems liner, which will not require cementing.

Page 1

Application to Drill Cimarex Energy Co. of Colorado Enterprise 11 Federal Com No. 3 Unit E Section 11 T15S R31E Chaves County, NM

9 Casing & Cementing Program:

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Hole Size		Dept	:h	Casi	ng OD	Weight	Thread	Collar	Grade
17-1/2"	0	to	340'	New	13-3/8"	48#	8-R	STC	H-40
12-1/4"	0	to	3,950'	New	9-5/8"	40#	8-R	LTC	J/K-55
8-3/4"	0	to	9,250'	New	7"	26#	8-R	LTC	P-110
6-1/8"	0	to	13,386'	New	4-1/2"	11.6#	8-R	LTC	P-110

10 Cementing & Setting Depth:

13-3/8" W it	Surface NESS	Set 340 of <u>Lead:</u> 171 sx Lig CaCl (wt 14.2, yk <u>Tail:</u> 220 sk Pren	1.64)			•	ake + 1%
		TOC Surfa	ce				
9-5/8"	Intermediate	Set 3,950 of <u>Lead:</u> 344 sks li 2.45) <u>Tail:</u> 200 sks Pre TOC Surfa	nterfill C + 0. mium Plus +	125 lb/sl		•	11.9, yld
7"	Production	Set 9,250 of 1437 sx Super H + 5 lb/sk Gilson 13.0, yld 1.67) TOC 1,300	+ 0.5% Hala	ad-344 +			
4-1/2"	Liner	Peak Systems Is	o-Pack Liner	, will not	require cen	nenting.	
Fresh wate Hydrocarbon zone			casing at casing at casing at	340' 3,950' 9,250'	and ceme and ceme and ceme	nting to	Surface

Cimarex uses the following minimum safety factors:

Burst	Collapse	Tension
1.125	1.0	1.80

Application to Drill Cimarex Energy Co. of Colorado Enterprise 11 Federal Com No. 3 Unit E Section 11 T15S R31E Chaves County, NM

11 Pressure control Equipment:

Exhibit "E-1" - Surface Casing - A 13 5/8" 3000 PSI working pressure B.O.P. consisting of a 3000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. 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. Annular preventor to be function-tested once per day. Annular preventor will be tested to 250 psi low and 2000 psi high.

Exhibit "E-2" - Intermediate & Production Casing - An 11" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000# hydril. 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. Below intermediate casing shoe, BOP 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.

The BOPs will be tested by an independent service company. Ram type BOPs to 250 psi low and 5000 psi high. Annular BOP 250 psi low and 3000 psi high.

12 <u>Testing, Logging and Coring Program:</u>

- A. Mud logging program: 2 man unit from 3950' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

13 <u>Potential Hazards:</u>

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 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 <u>Other Facets of Operations:</u>

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.

Abo pay will be perforated and stimulated.

The proposed well will be tested and potentialed as **an oil well.**



Hydrogen Sulfide Drilling Operations Plan Cimarex Energy Co. of Colorado Enterprise 11 Federal Com No. 3 Unit E Section 11 T15S R31E Chaves County, NN

- 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

No DSTs or cores are planned at this time.

- 8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
- 9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H2S scavengers if necessary.

Surface Use Plan Cimarex Energy Co. of Colorado Enterprise 11 Federal Com No. 3 Unit E Section 11 T15S R31E Chaves County, NM

- 1 Existing Roads: Area maps, Exhibit "B" is a reproduction of Eddy 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 intersection of St Hwy #249 and St Hwy # 172, go North on St Hwy #172 approx 1 mile. Turn right on County Road #152 for approx 250.' Take proposed access road North to well pad.
- 2 PLANNED ACCESS ROADS: 1750' of new access road is proposed. The road is on-lease on state surface and will require neither a State nor a Federal ROW.
- 3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A"

Α.	Water wells -	None known
В.	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 Enterprise 11 Federal Com No. 3 Unit E Section 11 T15S R31E Chaves 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 <u>Location and Type of Water Supply</u> 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 disposed of in the reserve pit and hauled to a State-approved disposal facility.
 - 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. Remaining drilling fluids will be hauled off by transports and be disposed of at a State approved disposal facility. Water produced during drilling will be put in reserve pit. 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 Enterprise 11 Federal Com No. 3 Unit E Section 11 T15S R31E Chaves County, NM

9 Well Site Layout

* * * * *

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

- B. This exhibit indicates proposed location of reserve and trash pits and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pit is proposed to be lined with PVC or polyethylene liner. The pit liner will be 12 mils thick. Pit liner will extend a minimum, 2'00" over the reserve pits dikes where the liner will be anchored down.
- D. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit 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 reserve pit 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, fluid and cuttings will be removed and disposed of in accordance with Article 7.B as previously noted. The pit 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.

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 the State of New Mexico. 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.

Operator Certification StatementCimarex Energy Co. of ColoradoEnterprise 11 Federal Com No. 3Unit ESection 11T15S R31EChaves County, NM

Operator's Representative

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

CERTIFICATION: I hereby certify that the statements and plans made in this APD 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:	Natalie Knoce
	Natalie Krueger
DATE:	December 28, 2007

TITLE: Regulatory Analyst

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SECTION 11, TOWNSHIP 15 SOUTH, RANGE 31 EAST, N.M.P.M., New MEXICO



From the intersection of St Hwy #249 and St Hwy # 172, go North on St Hwy #172 approx 1 mile. Turn right on County Road #152 for approx 250.' Take proposed access road North to well pad.





VICINITY MAP



SCALE: 1'' = 2 MILES

SEC. <u>11</u> TWP.<u>15</u>–S_RGE.<u>31</u>–E SURVEY <u>N.M.P.M.</u> COUNTY <u>CHAVES</u> STATE <u>NEW MEXICO</u> DESCRIPTION <u>1980' FNL & 330' FWL</u> ELEVATION <u>4404'</u> <u>CIMAREX ENERGY</u> OPERATOR <u>COMPANY OF COLORADO</u> LEASE <u>ENTERPRISE 11 FED COM</u>



Exhibit B

LOCATION VERIFICATION MAP





Wind Direction Indicators (wind sock or streamers)

 Δ H2S Monitors (alarms at bell nipple and shale shaker)

O Briefing Areas

O Remote BOP Closing Unit

Exhibit D – Rig Diagram Enterprise 11 Federal Com No. 3 Cimarex Energy Co. of Colorado SHL 1980' FNL & 330' FWL BHL 1980' FNL & 330' FEL 11-15S-31E Chaves County, NM SR & A







ORILLING OPERATIONS CHOKE MANIFOLD 5M SERVICE





Cimarex Energy Co., Inc.

Chaves Co., New Mexico Enterprise 11 Fed Com #3H Enterprise 11 Fed Com #3H Lateral #1

Plan: Plan #1

Standard Survey Report

12 December, 2007



Survey Report

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Company: Project Site: Well: Well: Wellbore: Design	Cimatex Energy Chaves Co., Ne Enterprise 11 Fe Enterprise 11 Fe Lateral #1 Plan #1	w Mexico d Com #3H	TVD F MD R North Surve	Co-ordinate Reference: leference: sference: Reference: y Calculation Method: ase:	WELL @ 4 WELL @ 4 Grid Minimum C	orise 11 Fed Cor 404.00ft (Örigina 404.00ft (Origina 404.00ft (Origina 404.00ft (Origina 404.00ft (Origina 404.00ft (Origina 405.00ft (Ori	al Well Elev)		Personal second s
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COMPASS 2003.14 Build 77

Survey Report

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	10,620 00	90.00	90.00	8,850 00	0 00	1,851.97	1,851.97	0.00	0 00	0.00
	10,650.00	90.00	90 00	8,850.00	0.00	1,881.97	1,881.97	0.00	0.00	0.00
	10,680.00	90.00	90 00	8,850.00	0.00	1,911.97	1,911.97	0 00	0.00	0.00
	10,710 00	90.00	90 00	8,850 00	0.00	1,941.97	1,941.97	0 00	0 00	0.00
	10,740.00	90.00	90 00	8,850.00	0.00	1,971.97	1,971.97	0 00	0.00	0.00
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l	10,830.00	90.00	90.00	8,850.00	0 00	2,061.97 2,091,97	2,061 97 2,091,97	0.00	0.00 0.00	0.00 0.00
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	10,920.00	90.00	90 00	8,850.00	0.00	2,151.97	2,151.97	0.00	0 00	0 00
	10,950.00	90.00	90 00	8,850.00	0.00	2,181.97	2,181.97	0.00	0.00	0 00
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	11,010.00	90 00	90.00	8,850.00	0.00	2,241.97	2,241.97	0 00	0.00	0.00
	11,040.00	90.00	90 00	8,850.00	0.00	2,271.97	2,271.97	0.00	0 00	0.00
	11,070.00	90 00	90.00	8,850.00	0.00	2,301 97	2,301.97	0 00	0.00	0.00
1	11,100.00	90.00	90 00	8,850.00	0.00	2,331.97	2,331.97	0.00	0.00	0.00
	11,130.00	90.00	90 00	8,850.00	0.00	2,361.97	2,361.97	0.00	0.00	0.00
	11,160.00	90.00	90 00	8,850.00	0.00	2,391.97	2,391.97	0.00	0.00	0.00
	11,190 00 11,220.00	90.00 90.00	90.00 90.00	8,850.00 8,850.00	0.00 0.00	2,421.97 2,451.97	2,421.97 2,451.97	0.00 0.00	0 00 0 00	0.00 0.00
	11,250.00	90.00	90.00	8,850.00	0.00	2,481.97	2,481.97	0.00	0 00	0.00
	11,280.00	90.00	90.00	8,850.00	0.00	2,511.97	2,511.97	0.00	0.00	0.00
	11,310.00	90.00	90.00	8,850.00	0.00	2,541.97	2,541.97	0.00	0.00	0.00
	11,340.00	90.00	90.00	8,850 00	0.00	2,571.97	2,571.97	0.00	0.00	0 00
	11,370.00	90.00	90.00	8,850.00	0,00	2,601.97	2,601.97	0.00	0.00	0.00
	11,400.00	90.00	90.00	8,850.00	0.00	2,631.97	2,631.97	0.00	0.00	0.00
	11,430.00	90 00	90.00	8,850.00	0.00	2,661.97	2,661.97	0.00	0.00	0.00
	11,460.00	90.00	90.00	8,850.00	0.00	2,691 97	2,691.97	0.00	0.00	0.00
	11,490.00	90.00	90.00	8,850.00	0.00	2,721.97	2,721.97	0.00	0 00	0.00
	11,520.00 11,550.00	90.00 90.00	90.00 90.00	8,850 00 8,850.00	0 00 0.00	2,751 97 2,781.97	2,751.97 2,781.97	0.00 0.00	0.00 0 00	0 00 0.00
	11,580.00	90.00	90.00	8,850.00	0.00	2,811 97		0.00		
	11,610.00	90.00	90.00 90.00	8,850.00	0.00	2,811.97	2,811.97 2,841.97	0.00	0.00 0.00	0.00 0.00
	11,640 00	90 00	90.00	8,850 00	0 00	2,871.97	2,871.97	0.00	0 00	0.00
	11,670.00	90.00	90.00	8,850.00	0.00	2,901.97	2,901 97	0.00	0.00	0 00
	11,700.00	90.00	90 00	8,850.00	0.00	2,931.97	2,931.97	0 00	0.00	0.00
	11,730.00	90.00	90.00	8,850.00	0.00	2,961.97	2,961.97	0.00	0.00	0.00
	11,760.00	90 00	90.00	8,850.00	0.00	2,991.97	2,991.97	0.00	0 00	0.00
	11,790.00 11,820.00	90.00 90.00	90.00 90.00	8,850.00 8,850.00	0.00 0.00	3,021.97 3,051.97	3,021.97 3,051.97	0.00 0.00	0.00 0.00	0 00 0 00
	11,850.00	90.00	90.00	8,850.00	0.00	3,031.97	3,081.97	0.00	0.00	0.00
	11,880.00	90.00	90.00	8,850.00	0.00	3,111.97	3,111.97	0.00	0.00	0.00
	11,910.00	90.00	90.00	8,850.00	0.00	3,141.97	3,141.97	0.00	0.00	0.00
	11,940.00	90.00	90.00	8,850 00	0.00	3,171.97	3,171.97	0.00	0.00	0.00
	11,970.00	90.00	90.00	8,850.00	0.00	3,201.97	3,201.97	0.00	0 00	0.00
	12,000.00	90.00	90.00	8,850.00	0.00	3,231.97	3,231.97	0.00	0.00	0.00
	12,030.00	90.00	90.00	8,850.00	0.00	3,261.97	3,261.97	0.00	0.00	0.00
	12,060.00	90.00	90.00	8,850.00	0.00	3,291.97	3,291.97	0.00	0.00	0.00
	12,090.00	90 00	90.00	8,850 00	0.00	3,321.97	3,321 97	0.00	0 00	0 00
1	12,120.00 12,150.00	90.00 90.00	90.00 90.00	8,850 00 8,850 00	0.00 0 00	3,351.97 3 381 97	3,351 97	0.00	0 00	0.00
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Survey Report

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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	12,180 00	90.00	90.00	8,850.00	0.00	3,411.97	3,411.97	0.00	0.00	0.00
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	12,210.00	90.00	90.00	8,850.00	0.00	3,441 97	3,441.97	0.00	0 00	0.00
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	12,240 00	90.00	90.00	8,850.00	0.00	3,471.97	3,471.97			0.00
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-									
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	12,300.00	90.00	90.00	8,850.00	0.00	3,531.97	3,531.97	0.00	0.00	0.00
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	12.330.00	90.00	90.00	8,850.00	0.00	3,561.97	3,561.97	0.00	0.00	0.00
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12,870.00 90.00 90.00 8,850.00 0.00 4,101.97 4,101.97 0.00 0.00 0.00 12,900.00 90.00 90.00 8,850.00 0.00 4,131.97 0.00 0.00 0.00 12,930.00 90.00 90.00 8,850.00 0.00 4,131.97 0.00 0.00 0.00 12,930.00 90.00 90.00 8,850.00 0.00 4,161.97 4,161.97 0.00 0.00 0.00 12,930.00 90.00 90.00 8,850.00 0.00 4,191.97 0.00 0.00 0.00 12,990.00 90.00 90.00 8,850.00 0.00 4,221.97 0.00 0.00 0.00 13,020.00 90.00 90.00 8,850.00 0.00 4,281.97 0.00 0.00 0.00 13,080.00 90.00 90.00 8,850.00 0.00 4,311.97 0.00 0.00 0.00 13,110.00 90.00 9,850.00 0.00 4,311.97	12,810.00	90.00	90.00	8,850 00	0.00	4,041.97	4,041.97	0 00	0.00	0.00
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13,080.00 90.00 90.00 8,850.00 0.00 4,311.97 4,311.97 0.00 0.00 0.00 13,110.00 90.00 90.00 8,850.00 0.00 4,341.97 0.00 0.00 0.00 13,140.00 90.00 90.00 8,850.00 0.00 4,371.97 4,371.97 0.00 0.00 0.00 13,170.00 90.00 90.00 8,850.00 0.00 4,401.97 4,401.97 0.00 0.00 0.00 13,200.00 90.00 90.00 8,850.00 0.00 4,431.97 0.00 0.00 0.00 13,230.00 90.00 8,850.00 0.00 4,461.97 4,461.97 0.00 0.00 0.00	13,020.00	90 00	90 00	8,850.00	0.00	4,251.97	4,251.97	0.00	0.00	0.00
13,110.00 90.00 90.00 8,850.00 0.00 4,341.97 4,341.97 0.00 0.00 0.00 13,140.00 90.00 90.00 8,850.00 0.00 4,371.97 0.00 0.00 0.00 13,170.00 90.00 90.00 8,850.00 0.00 4,401.97 4,371.97 0.00 0.00 0.00 13,200.00 90.00 90.00 8,850.00 0.00 4,431.97 0.00 0.00 0.00 13,230.00 90.00 8,850.00 0.00 4,461.97 4,461.97 0.00 0.00 0.00										
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13,290.00 90.00 90.00 8,850.00 0.00 4,521.97 0.00 0.00 0.00 0.00 0.00				•						
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Survey Report

Company Project Site: Well: Wellbore: Design:	Chaves		xico mi#3H		TVD Refe MD Refer North Re	ordinate Re rence: ence: ference: alculation M	W W G Iethod:	/ell Enterprise 11 /ELL @ 4404.00ft /ELL @ 4404.00ft rid inimum Curvature DM 2003.14 Serve	(Original Well Ele (Original Well Ele			
∏argets Target Name hitmiss targe Shape		ngle Dipji)			₩S ft)	± E∕-W . √(ft)	Northing (tt)	Easting ((ft))	Latitude .		Longitu	de
PBHL [Enterprise - plan hits tarç - Point		0.00	0.00 8,8	50.00	0.00	4,617.80	739,623.00	668,271.90	33° 1' 55.46	8 N	103° 47' :	3.409 W
1995 A	Measured Depth	Vertical Depth (ft)	4 C 4 C 4	Local Co V/S	2.16.76 26.852	/.W.	Comment					
	8,650.00 8,659.01 8,959.01	8,650.00 8,659.01 8,850.00)	0.00 0.00 0.00		0.00 0.00 190.99	KOP 8650.00 MD Build 30.00°/100' EOC Hold 90° Inc.	@ 90.00° Azm				
Checked By:				Ap	proved	Ву:			Date:			= -

Enterprise 11 Fed Com #3H Lateral #1 Plan #1 Report 12-12-07.txt Cimarex Energy Co., Inc. Enterprise 11 Fed Com #3H - Plan #1

Chaves Co., New Mexico Enterprise 11 Fed Com #3H

Measured			Vertical			Vertical
Dogleg Depth	Incl.	Azim.	Depth	Northings	Eastings	Section
Rate	1	,		(ft)	(ft)	(ft)
(ft) (°/100ft)			(ft)		((()	
8650.00	0.000	0.000	8650.00	0.00 N	0.00 E	0.00
0.00 8659.01	0.000	0.000	8659.01	0.00 N	0.00 E	0.00
0.00 8670.00	3.296	90.000	8669.99	0.00 N	0.32 E	0.32
30.00 8700.00	12.296	90.000	8699.69	0.00 N	4.38 E	4.38
30.00 8730.00	21.296	90.000	8728.38	0.00 N	13.04 E	13.04
30.00 8760.00	30.296	90.000	8755.36	0.00 N	26.08 E	26.08
30.00 8790.00	39.296	90.000	8779.97	0.00 N	43.18 E	43.18
30.00 8820.00	48.296	90.000	8801.60	0.00 N	63.93 E	63.93
30.00 8850.00	57.296	90.000	8819.72	0.00 N	87.80 E	87.80
30.00 8880.00	66.296	90.000	8833.89	0.00 N	114.21 E	114.21
30.00 8910.00	75.296	90.000	8843.74	0.00 N	142.51 E	142.51
30.00 8940.00	84.296	90.000	8849.05	0.00 N	172.00 E	172.00
30.00 8959.01	90.000	90.000	8850.00	0.00 N	190.99 E	190.99
30.00 8970.00	90.000	90.000	8850.00	0.00 N	201.97 E	201.97
0.00 9000.00	90.000	90.000	8850.00	0.00 N	231.97 E	231.97
0.00 9030.00	90.000	90.000	8850.00	0.00 N	261.97 E	261.97
0.00 9060.00	90.000	90.000	8850.00	0.00 N	291.97 E	291.97
0.00 9090.00 0.00	90.000	90.000	8850.00	0.00 N	321.97 E	321.97
9120.00	90.000	90.000	8850.00	0.00 N	351.97 E	351.97
0.00 9150.00 0.00	90.000	90.000	8850.00	0.00 N	381.97 E	381.97
9180.00	90.000	90.000	8850.00	0.00 N	411.97 E	411.97
$0.00 \\ 9210.00 \\ 0.00 $	90.000	90.000	8850.00	0.00 N	441.97 E	441.97
0.00 9240.00	90.000	90.000	8850.00	0.00 N	471.97 E	471.97
0.00 9270.00	90.000	90.000	8850.00	0.00 N	501.97 E	501.97
0.00 9300.00	90.000	90.000	8850.00	0.00 N	531.97 E	531.97
0.00			D	ane 1		

			Com #3H Lateral		Report 12-1	2-07.txt
9330.00 0.00	90.000	90.000	8850.00	0.00 N	561.97 E	
9360.00 0.00	90.000	90.000	8850.00	0.00 N	591.97 E	
9390.00 0.00	90.000	90.000	8850.00	0.00 N	621.97 E	
9420.00 0.00	90.000	90.000	8850.00	0.00 N	651.97 E	
9450.00 0.00	90.000	90.000	8850.00	0.00 N	681.97 E	
9480.00 0.00	90.000	90.000	8850.00	0.00 N	711.97 E	711.97
9510.00 0.00	90.000	90.000	8850.00	0.00 N	741.97 E	741.97
9540.00 0.00	90.000	90.000	8850.00	0.00 N	771.97 E	771.97
9570.00 0.00	90.000	90.000	8850.00	0.00 N	801.97 E	801.97
9600.00 0.00	90.000	90.000	8850.00	0.00 N	831.97 E	831.97
9630.00 0.00	90.000	90.000	8850.00	0.00 N	861.97 E	861.97
9660.00	90.000	90.000	8850.00	0.00 N	891.97 E	891.97
0.00 9690.00	90.000	90.000	8850.00	0.00 N	921.97 E	921.97
0.00 9720.00	90.000	90.000	8850.00	0.00 N	951.97 E	951.97
0.00 9750.00	90.000	90.000	8850.00	0.00 N	981.97 E	981.97
0.00 9780.00	90.000	90.000	8850.00	0.00 N	1011.97 E	1011.97
0.00 9810.00	90.000	90.000	8850.00	0.00 N	1041.97 E	1041.97
0.00 9840.00	90.000	90.000	8850.00	0.00 N	1071.97 E	1071.97
0.00 9870.00	90.000	90.000	8850.00	0.00 N	1101.97 E	1101.97
0.00 9900.00	90.000	90.000	8850.00	0.00 N	1131.97 E	1131.97
0.00 9930.00	90.000	90.000	8850.00	0.00 N	1161.97 E	1161.97
0.00 9960.00	90.000	90.000	8850.00	0.00 N	1191.97 E	1191.97
0.00	90.000	90.000	8850.00	0.00 N	1221.97 E	1221.97
0.00 10020.00	90.000	90.000	8850.00	0.00 N	1251.97 E	1251.97
0.00 10050.00	90.000	90.000	8850.00	0.00 N	1281.97 E	1281.97
0.00 10080.00	90.000	90.000	8850.00	0.00 N	1311.97 E	1311.97
0.00 10110.00	90.000	90.000	8850.00	0.00 N	1341.97 E	1341.97
0.00 10140.00	90.000	90.000	8850.00	0.00 N	1371.97 E	1371.97
0.00 10170.00	90.000	90.000	8850.00	0.00 N	1401.97 E	1401.97
0.00 10200.00	90.000	90.000	8850.00	0.00 N	1431.97 e	1431.97
0.00 10230.00	90.000	90.000	8850.00	0.00 N	1461.97 E	1461.97
0.00 10260.00	90.000	90.000		0.00 N	1491.97 H	E 1491.97
			Page	2		

	Enterprise	11 Fed	Com #3H Lateral	#1 Plan #1	Report 12-12-0	7.txt
0.00 10290.00	90.000	90.000	8850.00	0.00 N	1521.97 E	1521.97
0.00 10320.00	90.000	90.000	8850.00	0.00 N	1551.97 E	1551.97
0.00 10350.00	90.000	90.000	8850.00	0.00 N	1581.97 E	1581.97
0.00 10380.00	90.000	90.000	8850.00	0.00 N	1611.97 E	1611.97
0.00 10410.00	90.000	90.000	8850.00	0.00 N	1641.97 E	1641.97
0.00 10440.00	90.000	90.000	8850.00	0.00 N	1671.97 E	1671.97
0.00 10470.00	90.000	90.000	8850.00	0.00 N	1701.97 E	1701.97
0.00 10500.00	90.000	90.000	8850.00	0.00 N	1731.97 E	1731.97
0.00 10530.00	90.000	90.000	8850.00	0.00 N	1761.97 E	1761.97
0.00 10560.00	90.000	90.000	8850.00	0.00 N	1791.97 E	1791.97
0.00 10590.00	90.000	90.000	8850.00	0.00 N	1821.97 E	1821.97
0.00 10620.00	90.000	90.000	8850.00	0.00 N	1851.97 E	1851.97
0.00 10650.00	90.000	90.000	8850.00	0.00 N	1881.97 E	1881.97
0.00 10680.00	90.000	90.000	8850.00	0.00 N	1911.97 E	1911.97
0.00 10710.00	90.000	90.000	8850.00	0.00 N	1941.97 E	1941.97
0.00 10740.00	90.000	90.000	8850.00	0.00 N	1971.97 E	1971.97
0.00 10770.00	90.000	90.000	8850.00	0.00 N	2001.97 E	2001.97
0.00 10800.00	90.000	90.000	8850.00	0.00 N	2031.97 E	2031.97
0.00 10830.00	90.000	90.000	8850.00	0.00 N	2061.97 E	2061.97
0.00 10860.00	90.000	90.000	8850.00	0.00 N	2091.97 E	2091.97
0.00 10890.00	90.000	90.000	8850.00	0.00 N	2121.97 E	2121.97
0.00 10920.00	90.000	90.000	8850.00	0.00 N	2151.97 E	2151.97
0.00 10950.00	90.000	90.000	8850.00	0.00 N	2181.97 E	2181.97
0.00 10980.00	90.000	90.000	8850.00	0.00 N	2211.97 E	2211.97
0.00 11010.00	90.000	90.000	8850.00	0.00 N	2241.97 E	2241.97
0.00 11040.00	90.000	90.000	8850.00	0.00 N	2271.97 E	2271.97
0.00 11070.00	90.000	90.000	8850.00	0.00 N	2301.97 E	2301.97
0.00 11100.00	90.000	90.000	8850.00	0.00 N	2331.97 E	2331.97
0.00 11130.00	90.000	90.000	8850.00	0.00 N	2361.97 E	2361.97
0.00 11160.00	90.000	90.000	8850.00	0.00 N	2391.97 E	2391.97
0.00 11190.00	90.000	90.000	8850.00	0.00 N	2421.97 E	2421.97
0.00			Page	<u>, </u>		

11220.00	Enterprise 90.000	11 Fed 90.000	Com #3H Lateral 8850.00	#1 Plan #1 0.00 N	Report 12-12-0 2451.97 E	7.txt 2451.97
0.00 11250.00	90.000	90.000	8850.00	0.00 N	2491.97 E	2481.97
0.00 11280.00	90.000	90.000	8850.00	0.00 N	2511.97 E	2511.97
0.00 11310.00	90.000	90.000	8850.00	0.00 N	2541.97 E	2541.97
0.00 11340.00	90.000	90.000	8850.00	0.00 N	2571.97 E	2571.97
0.00 11370.00	90.000	90.000	8850.00	0.00 N	2601.97 E	2601.97
0.00 11400.00	90.000	90.000	8850.00	0.00 N	2631.97 E	2631.97
0.00				0.00 N	2661.97 E	2661.97
11430.00 0.00	90.000	90.000	8850.00			
11460.00 0.00	90.000	90.000	8850.00	0.00 N	2691.97 E	2691.97
11490.00 0.00	90.000	90.000	8850.00	0.00 N	2721.97 E	2721.97
11520.00 0.00	90.000	90.000	8850.00	0.00 N	2751.97 E	2751.97
11550.00 0.00	90.000	90.000	8850.00	0.00 N	2781.97 E	2781.97
11580.00 0.00	90.000	90.000	8850.00	0.00 N	2811.97 E	2811.97
$11610.00 \\ 0.00$	90.000	90.000	8850.00	0.00 N	2841.97 E	2841.97
11640.00 0.00	90.000	90.000	8850.00	0.00 N	2871.97 E	2871.97
11670.00 0.00	90.000	90.000	8850.00	0.00 N	2901.97 E	2901.97
11700.00 0.00	90.000	90.000	8850.00	0.00 N	2931.97 E	2931.97
11730.00 0.00	90.000	90.000	8850.00	0.00 N	2961.97 E	2961.97
11760.00 0.00	90.000	90.000	8850.00	0.00 N	2991.97 E	2991.97
11790.00 0.00	90.000	90.000	8850.00	0.00 N	3021.97 E	3021.97
11820.00 0.00	90.000	90.000	8850.00	0.00 N	3051.97 E	3051.97
11850.00 0.00	90.000	90.000	8850.00	0.00 N	3081.97 E	3081.97
11880.00 0.00	90.000	90.000	8850.00	0.00 N	3111.97 E	3111.97
11910.00	90.000	90.000	8850.00	0.00 N	3141.97 E	3141.97
0.00 11940.00	90.000	90.000	8850.00	0.00 N	3171.97 E	3171.97
0.00 11970.00	90.000	90.000	8850.00	0.00 N	3201.97 E	3201.97
0.00 12000.00	90.000	90.000	8850.00	0.00 N	3231.97 E	3231.97
0.00 12030.00	90.000	90.000	8850.00	0.00 N	3261.97 E	3261.97
0.00 12060.00	90.000	90.000	8850.00	0.00 N	3291.97 E	3291.97
0.00 12090.00	90.000	90.000	8850.00	0.00 N	3321.97 E	3321.97
0.00 12120.00	90.000	90.000	8850.00	0.00 N	3351.97 E	3351.97
0.00 12150.00	90.000	90.000		0.00 N	3381.97 E	3381.97
			Page	2 4		

	Enterprise	11 Fed	Com #3H Lateral	#1 Plan #1	Report 12-12-0)7.txt
0.00 12180.00	90.000	90.000	8850.00	0.00 N	3411.97 E	3411.97
0.00 12210.00	90.000	90.000	8850.00	0.00 N	3441.97 E	3441.97
0.00 12240.00	90.000	90.000	8850.00	0.00 N	3471.97 E	3471.97
0.00 12270.00	90.000	90.000	8850.00	0.00 N	3501.97 E	3501.97
0.00 12300.00	90.000	90.000	8850.00	0.00 N	3531.97 E	3531.97
0.00 12330.00	90.000	90.000	8850.00	0.00 N	3561.97 E	3561.97
0.00 12360.00	90.000	90.000	8850.00	0.00 N	3591.97 E	3591.97
0.00 12390.00	90.000	90.000	8850.00	0.00 N	3621.97 E	3621.97
0.00 12420.00	90.000	90.000	8850.00	0.00 N	3651.97 E	3651.97
0.00 12450.00	90.000	90.000	8850.00	0.00 N	3681.97 E	3681.97
0.00 12480.00	90.000	90.000	8850.00	0.00 N	3711.97 E	3711.97
0.00 12510.00	90.000	90.000	8850.00	0.00 N	3741.97 E	3741.97
0.00 12540.00	90.000	90.000	8850.00	0.00 N	3771.97 E	3771.97
0.00 12570.00	90.000	90.000	8850.00	0.00 N	3801.97 E	3801.97
0.00 12600.00	90.000	90.000	8850.00	0.00 N	3831.97 E	3831.97
0.00 12630.00	90.000	90.000	8850.00	0.00 N	3861.97 E	3861.97
0.00 12660.00	90.000	90.000	8850.00	0.00 N	3891.97 E	3891.97
0.00 12690.00	90.000	90.000	8850.00	0.00 N	3921.97 E	3921.97
0.00 12720.00	90.000	90.000	8850.00	0.00 N	3951.97 E	3951.97
0.00 12750.00	90.000	90.000	8850.00	0.00 N	3981.97 E	3981.97
0.00 12780.00	90.000	90.000	8850.00	0.00 N	4011.97 E	4011.97
0.00 12810.00	90.000	90.000	8850.00	0.00 N	4041.97 E	4041.97
0.00 12840.00	90.000	90.000	8850.00	0.00 N	4071.97 E	4071.97
0.00 12870.00	90.000	90.000	8850.00	0.00 N	4101.97 E	4101.97
0.00 12900.00	90.000	90.000	8850.00	0.00 N	4131.97 E	4131.97
0.00 12930.00	90.000	90.000	8850.00	0.00 N	4161.97 E	4161.97
0.00 12960.00	90.000	90.000	8850.00	0.00 N	4191.97 E	4191.97
0.00 12990.00	90.000	90.000	8850.00	0.00 N	4221.97 E	4221.97
0.00 13020.00	90.000	90.000	8850.00	0.00 N	4251.97 E	4251.97
0.00 13050.00	90.000	90.000	8850.00	0.00 N	4281.97 E	4281.97
0.00 13080.00	90.000	90.000	8850.00	0.00 N	4311.97 E	4311.97
0.00			Page	2 5		

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13110.00	Enterprise 90.000	11 Fed 90.000	Com #3H Lateral 8850.00	#1 Plan #1 0.00 N	Report 12-12-0 4341.97 E	7.txt 4341.97
0.00 13140.00 0.00	90.000	90.000	8850.00	0.00 N	4371.97 E	4371.97
13170.00 0.00	90.000	90.000	8850.00	0.00 N	4401.97 E	4401.97
13200.00 0.00	90.000	90.000	8850.00	0.00 N	4431.97 E	4431.97
13230.00 0.00	90.000	90.000	8850.00	0.00 N	4461.97 E	4461.97
13260.00 0.00	90.000	90.000	8850.00	0.00 N	4491.97 E	4491.97
13290.00 0.00	90.000	90.000	8850.00	0.00 N	4521.97 E	4521.97
13320.00 0.00	90.000	90.000	8850.00	0.00 N	4551.97 E	4551.97
13350.00 0.00	90.000	90.000	8850.00	0.00 N	4581.97 E	4581.97
13380.00 0.00	90.000	90.000	8850.00	0.00 N	4611.97 E	4611.97
13385.83 0.00	90.000	90.000	8850.00	0.00 N	4617.80 E	4617.80

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North. Vertical depths are relative to WELL. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet. Vertical Section is from Site and calculated along an Azimuth of 90.000° (Grid).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), New Mexico East 3001. Central meridian is -104.333°. Grid Convergence at Surface is 0.291°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 13385.83ft., the Bottom Hole Displacement is 4617.80ft., in the Direction of 90.000° (Grid).

PECOS DISTRICT - RFO CONDITIONS OF APPROVAL

8/19/08

OPERATORS NAME: <u>Cimarex Energy Co. of Colorado</u> LEASE NO.: <u>NM-105886</u> WELL NAME & NO: <u>Enterprise Federal Com. #3H</u> SURFACE HOLE FOOTAGE: <u>1980' FNL & 330' FWL</u> BOTTOM HOLE LOCATION: <u>1980' FNL & 330' FEL</u> LOCATION: <u>Section 11, T. 15 S., R. 31 E., NMPM</u> COUNTY: <u>Chaves County, New Mexico</u>

GENERAL PROVISIONS

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The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

I. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD (Filing of a Sundry Notice is required for this 60 day extension).

II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

III. NOXIOUS WEEDS

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The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

IV. CONSTRUCTION

A. NOTIFICATION:

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (505) 627-0247 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved Application for Permit to Drill and Conditions of Approval on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL:

The operator shall stockpile the topsoil of the well pad. The topsoil to be stripped is approximately 6 inches in depth. The topsoil shall be stockpiled in the southeast corner of the well pad and will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM: No reserve pit shall be used.

The operator shall use a **Closed Loop System** instead of a reserve pit. The drill hole cuttings shall be properly disposed of at an authorized disposal site.

D. WELL PAD SURFACING:

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational need.

E. ON LEASE ACCESS ROADS:

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet.

Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

Standard Turnout – Plan View



Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula For Spacing Interval Of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: 400' + 100' = 200' lead-off ditch interval 4%

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

Fence Requirement

Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the New Mexico State Land Office or private surface landowner prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.



Figure 1 - Cross Sections and Plans For Typical Road Sections

V. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 910-6024 or after office hours call (575) 627-0205. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.

2. The Roswell Field Office is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding

b. Cementing casing: 13-3/8 inch 9-5/8 inch 7 inch 4-1/2 inch

c. BOPE Tests

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. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.

5. 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.

B. CASING:

1. The 13-3/8 inch surface casing shall be set at approximately 340 feet and cemented to the surface.

a. If cement does not circulate to the surface, the Roswell Field 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.

b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).

c. 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.

d. If cement falls back, remedial action will be done prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is sufficient to circulate to the surface. If cement does not circulate see B.1.a-d above.

3. The minimum required fill of cement behind the 7 inch production casing is sufficient to tie back 500 feet above the uppermost perforation in the pay zone. If cement does not circulate, 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.

4. There is no required fill of cement behind the 4-1/2 inch production casing since a Peak Systems Iso-Pak liner will be used for lateral and will not require cementing.

5. 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 joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL:

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1. Before drilling below the 13-3/8 inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the 9-5/8 inch intermediate casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.

2. Before drilling below the 13-3/8 inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi. Before drilling below the 9-5/8 inch intermediate casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.

3. The BOPE shall be installed before drilling below the 13-3/8 inch surface casing and the 9-5/8 inch intermediate casing and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

a. The BLM Roswell Field office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

b. The tests shall be done by an independent service company.

c. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. 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.

d. 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 BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.

e. 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.

f. Testing must be done in a safe workman like manner. Hard line connections shall be required.

D. DRILLING MUD:

1. 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:

a. Recording pit level indicator to indicate volume gains and losses.

b. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.

c. Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

E. DRILL STEM TEST (optional)

If drill stem tests are performed, Onshore Order 2.III.D shall be followed. Engineer on call phone (after hours only): Roswell: (505) 626-5749

VI. PRODUCTION

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A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, <u>Juniper Green</u>, from the Standard <u>Environmental Colors Chart</u>.

VRM Facility Requirement

Low-profile tanks not greater than eight-feet-high shall be used.

VII. INTERIM RECLAMATION

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo "interim" reclamation in order to minimize the environmental impacts of development on other resources and uses.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, in order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

During interim reclamation disturbed areas shall be recontoured, all trash removed, and reseeded as follows:

Common Name		Pounds of Pure
and Preferred	Variety Scientific Name	Live Seed Per Acre
Blue grama,	(Bouteloua gracilis)	4.00 lbs.
Sideoats grama,	(Bouteloua curtipendula)	1.00 lb.
Sand dropseed	(Sporobolus cryptandrus)	0.50 lb.
Vine mesquite	(Panicum obtusum)	1.00 lb.
Plains bristlegrass	(Setaria macrostachya)	1.00 lb.
Indian blanketflower	(Gaillardia aristata)	0.50 lb.
Desert or Scarlet	(Sphaeralcea ambigua)	1.00 lb.
Globernallow or	(S. coccinea)	
Annual sunflower	(Helianthus annuus)	<u>0.75 lb.</u>
TOTAL POUNDS PURE LIV	'E SEED (pls) PER ACRE	9.75 lbs.

Loamy, SD-3 Ecological Site for HP-3 Loamy and Loamy CP-2 & Gyp Upland CP-2

If one species is not available, increase ALL others proportionately. Use No Less than 4 species, including one forb. No less than 9.75 pounds (pls) per acre shall be applied. Certified Weed Free Seed.

VIII. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

- A. Upon abandonment of the well and/or when the access road is no longer in service, a Notice of Intent for Final Abandonment with the proposed surface restoration procedure must be submitted for approval.
- B. On New Mexico State Land Office surface estate land; the reclamation procedures on the road and well pad shall be accomplished in accordance with the New Mexico State Land Office agreements.

EXHIBIT B

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<u>Enterprise 11 Federal Com. #3H</u> <u>Surface Location: 1980' FNL & 330' FWL,</u> <u>Bottom Hole Location: 1980' FNL & 330' FEL,</u> <u>Section 11, T. 15 S., R. 31 E.,</u> <u>Chaves County, New Mexico, NMPM</u>



Form 3160-5	UNITED S	TATES		FOF	RM APPROVED
(November 1994)	DEPARTMENT OF T		aton Distant		3 No. 1004-0135
	· · · · · · · · · · · · · · · · · · ·	Manacevation Divi 25 N. French Drive		5. Lease Serial I	res July 31, 1996 No.
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	SUNDRY NOTICES AND Do not use this form for propos	REPORTS ON WEELS	ran	6. If Indian, Allot	ed BHL NM-1058 tee or Tribe Name
	abandoned well. Use form 3160			o. In Indian, Alor	
				7. If Unit or CA/A	Agreement, Name and/or N
	IT IN TRIPLICATE - Other instructio	ns on reverse side		Donding	
1. Type of Well X Oil Well Gas We	ll Other		F	Pending 8. Well Name ar	nd No.
2. Name of Operator				Enterprise 11 F	ederal Com No. 3
Cimarex Energy Co. of	Colorado			9. API Well No.	<u></u>
3a. Address		3b. Phone No. (include ar	rea code)	30-005-	
PO Box 140907; Irving	, TX 75014-0907	972-401-3111		10. Field and Poo	ol, or Exploratory Area
4 Location of Well (Footage, Sec	c., T., R., M., or Survey Description)			Abo Wildcat	
SHL 1980 FNL & 330 F	WL 11-15S-31E			11. County or Pa	rish, State
BHL 1980 FNL & 330 F				Chaves County	
12. CHE	CK APPROPRIATE BOX(ES) T			E, REPORT, O	R OTHER DATA
TYPE OF SUBMISSI	ON NO	TYPE	E OF ACTION		
X Notice of Intent	Acidize	Deepen	Production (Start/F	Resume) W	/ater Shut-Off
	Alter Casing	Fracture Treat	Reclamation		/ell Integrity
Subsequent Report	Casing Repair	New Construction	Recomplete		ther
	X Change Plans	Plug and Abandon	Temporarily Abanc	ion	
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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

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3160-5 - Change to Closed-Loop System Enterprise 11 Federal Com No. 3 11-15S-31E SHL 1980 FNL & 330 FWL BHL 1980 FNL & 330 FEL Chaves County, NM

Methods of Handling Waste Material:

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- A. Drill cuttings will be seperated by a series of solids removal equipment and stored in steel containment pits and then hauled to a state-approved disposal facility.
- 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.

Ancillary Facilities:

A. No camps or airstrips to be constructed.

Well Site Layout:

- A. Exhibit "D" shows location and rig layout.
- B. Mud pits in the closed circulating system will be steel pits and the cuttings will be stored in steel containment pits.
- C. Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
- D. If the well is a producer, those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

Plans for Restoration of Surface:

Rehabilitation of the location 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.

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.



Revised Rig Diagram Enterprise 11 Federal Com No. 3 Cimarex Energy Co. of Colorado SHL 1980' FNL & 330' FWL BHL 1980' FNL & 330' FEL Chaves County, NM