REAL New Mexico Gil Conservation Division, District & 1625 N. French Drive Hobbs, NM 88240

NOV 03 2008				
Form 3160-3 (April 2004)	6. FORM AP OMB No Expires Mar	1004-0137		
UNITED S			5. Lease Serial No	BHL Privately
DEPARTMENT OF BUREAU OF LAND	SHL LC-060850 6. If Indian, Allotee or 7	Owned		
APPLICATION FOR PERMIT			6. If mulan, Anotee of 1	Tibe Name
	EENTER		7. If Unit or CA Agreen	nent. Name and No.
la Type of Work: X DRILL R	CENTER			
			8. Lease Name and Wel	INO. (-37463)
b Type of Well: X Oil Well Gas Well Other	X Single Zone Multip	ple Zone	Independence 8 Fe	, m
2. Name of Operator		·	9. API Well No.	
Cimarex Energy Co. of Colorado	2162683	3>	30-005- 791	ObD
Ba. Address PO Box 140907	3b. Phone No. (include area code)		10. Field and Pool, or E	xploratory
Irving, TX 75014	972-401-3111		Abo; Wildcat	<u>/ </u>
Location of Well (Report location clearly and in accordance At Surface 1980 FNL & 330 FE	11) 1 1 1		11. Sec, TRM or Blk an	nd Survey or Area
At proposed prod. Zone 1980 FNL & 330 FW	L I) ., C Proposed Horizontal A	Abo Test	8-15S-31E	
14. Distance in miles and direction from nearest town or post of	unit C		12. County or Parish	13. State
•			Chaves	NM
15 Distance from proposed*	16. No of acres in lease	17. Space	cing Unit dedicated to this wel	
location to nearest property or lease line, ft. (Also to nearest drig. unit line if				
any) 330	442.24		S2N2 160	
8 Distance from proposed location* to nearest well, drilling, completed,	19. Proposed Depth Pilot Hole 9075'	20. BLN	I/BIA Bond No on File	
applied for, on this lease, ft.	MD 13088'			
NA	TVD 8615'		NM-2575	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will star	נ י	23. Estimated duration	
4,433' GR	9/1/2008		35-45 d	lays
	24. Attachments		ROBWELL CONTI	ROLLED WATER BASIN
The following, completed in accordance with the requirements of	Onshore Oil and Gas Order No. 1, shall	be attached	to 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 	Item 20 above Em Lands, the 5. Operator Cer	ve). rtification ite specific in	ons unless covered by an exist	,
25 Signature	Name (Printed/Typed)			Date
Zeno Farm	Zeno Farris			07.15.08
Title				\
Manager Operations Administration				
Approved By (Signature)	Name (Printed	6 4 - 8		Date O A 2000
/s/ Jerry Dutchover		Dutci	nover	OCT 3 0 2008
Assistant Field Mana Acting Lands And Minerals	ger, Office ROSWELL	FIELD O	FFICE	APPROVED FOR 2 YEAR
Application approval does not warrant or certify that the applicant holds lead to operations thereon. Conditions of approval, if any, are attached	egal or equitable title to those rights in the sub	ect lease which	ch would entitle the applicant to	
Fitle 18 U.S.S. Section 1001 and Title 43 U.S.C. Section 1212, make it a		to make to any	department or agency of the Unit	ed 1
States any false, fictitious, or fraudulent statements or representations as to (Instructions on page 2)	o any matter within its jurisdiction.			
MEAN SHAW GRALFS		APPF	ROVAL SUBJECT	TO Z
A SIEST TOTAL	v , F		ERAL REQUIREM	
CAMPAT BELLOO THE 133"		SPEC	CIAL STIPULATIO	NS ATTACHED
CARNO MUST OF CIRCULATED	WITNESS			

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

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies
Fee Lease - 3 Copies

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

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe. NM 87505

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name		
		Abo Wildo	at `	
Property Code	Prope	rty Name	Well Number	
	INDEPENDENCE '	'8" FEDERAL COM	2	
OGRID No.	Opera	tor Name	. Blevation	
162683	CIMAREX ENERGY	CO. OF COLORADO	4433' ·	

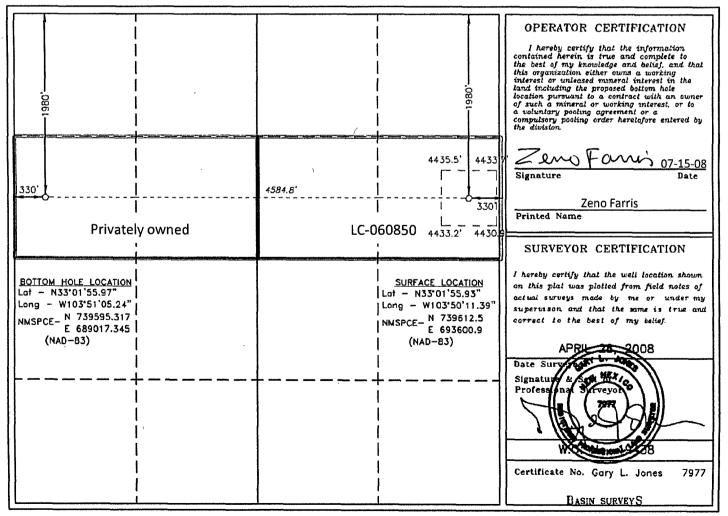
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	8	15 S	31 E		1980'	NORTH	330'	EAST	CHAVES

Bottom Hole Location If Different From Surface

UL	or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	Ε	8	15 S	31 E		1980'	NORTH	330*	WEST	CHAVES
De	edicated Acres	Joint o	r Infill Co	nsolidation (Code Or	der No.				
	160			Р						

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



Application to Drill Independence 8 Federal Com No. 2

Cimarex Energy Co. of Colorado Unit H, Section 8

T15S R31E; Chaves 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 FEL

BHL

1980 FNL & 330 FWL

Proposed Horizontal Abo Test

2 Elevation above sea level:

4,433 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:

Pilot Hole 9075'

MD 13088'

TVD 8615'

6 Estimated tops of geological markers:

Yates	2,312'
Queen	3,090'
SanAndres	3,940'
Abo Shale	7,340'
Lower Abo Dolomite	8,585'
Wolfcamp LS	8,675'

7 Possible mineral bearing formation:

Abo

Oil

8 Proposed Mud Circulating System:

- Toposed	Depth Depth		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	9075'	8.6 - 9.5	28-29	NC	Fresh water and brine, use hi-vis sweeps to keep hole clean
8,395	to	13,088	8.4 - 8.9	_. 28	NC	2% KCI

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.

Drill 7%" pilot hole to 9075' and run and cement 7" casing as shown on next page. Set KO Plug @ 8405.' Mill window from 8390' to 8400' and kick off lateral leg @ 8395.' Drill lateral 6%" hole to 13088' MD & 8615' TVD. Run 4%" 11.6# P-110 BTC (Peak Systems Iso-Pak Liner) from RSB packer @ 8288' to 8788' and LTC from 8788' to TD @ MD 13088' and TVD 86150.' No cement required for Peak Systems Liner. Lateral length 4584' and liner length 4800.'

Application to Drill

Independence 8 Federal Com No. 2

Cimarex Energy Co. of Colorado Unit H, Section 8

T15S R31E; Chaves County, NM

Casing Program:

Hole Size		Deptl	h	Casir	ng OD	Weight	Thread	Collar	Grade
17½"	0'	to	340'	New	13%"	48#	8-R	STC	H-40
12¼"	0'	to	3950'	New	9%"	40#	8-R	LTC	J-55
8¾"	0'	to	9075'	New	7"	26#	8-R	LTC	P-110
6%"	8288'	to	8788'	New	4½"	11.6#	8-R	втс	P-110
6%"	8788'		13088'	New	4½"	11.6#	8-R	LTC	P-110

10 Cementing Program:

Surface

Lead: 110 sx Light Premium Plus + 0.125 lb/sk Poly-E-Flake + 1% CaCl₂ (wt 14.2, yld 1.64)

Tail: 220 sx Premium Plus + 2% CaCl₂ (wt 14.8, yld 1.35)

TOC

Surface

Intermediate Lead: 450 sx Interfill C + 0.125 lb/sk Poly-E-Flake (wt 11.9, yld 2.45)

<u>Tail:</u> 200 sx Premium Plus + 1% CaCl₂ (wt 14.8, yld 1.33)

TOC

Surface

Production

615 sx Super H + 0.5% Halad-344 + 0.4% CFR-3 + 1lbm/sk Salt + 5 lb/sk Gilsonite + 0.125 lb/sk Poly-E-Flake + 0.35% HR-7

(wt 13.0, yld 1.67)

TOC

3,750'

Liner

Peak Systems Iso-Pack Liner will not require cementing.

Fresh water will be protected by setting	13%"	casing at 340'	and cementing to	Surface
Hydrocarbon zones will be protected by setting	9%"	casing at 3,950'	and cementing to	Surface
and by setting	7"	casing at 9075'	and cementing to	3750'

Cimarex uses the following minimum safety factors:

Burst	Collapse	Tension
1.125	1.125	1.80

Application to Drill

Independence 8 Federal Com No. 2

Cimarex Energy Co. of Colorado Unit H, Section 8 T15S R31E; Chaves County, NM

11 Pressure control Equipment:

Exhibit "E". A 13% 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 and operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling. From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 psi BOP system.

We are requesting a variance for testing the 13%" surface casing 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. We are requesting to test the 13%" casing to 1000 psi using rig pumps. The BOP will be tested to 5000 PSI by an independent service company.

12 Testing, Logging and Coring Program:

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 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 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.

Drilling expected to take

35-45 days

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15 Other Facets of Operations:

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

Abo pay will be perforated and stimulated.

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

Hydrogen Sulfide Drilling Operations Plan

Independence 8 Federal Com No. 2

Cimarex Energy Co. of Colorado Unit H, Section 8 T15S R31E; Chaves 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:

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.

H₂S Contingency Plan Independence 8 Federal Com No. 2

Cimarex Energy Co. of Colorado Unit H, Section 8 T15S R31E; Chaves County, NM

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must:

- ★ Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- ★ Evacuate any public places encompassed by the 100 ppm ROE.
- **★** Be equipped with H₂S monitors and air packs in order to control the release.
- ★ Use the "buddy system" to ensure no injuries occur during the response.
- **★** Take precautions to avoid personal injury during this operation.
- ★ Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- **★** Have received training in the:
 - ♦ Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H₂S and SO₂

Common	Chemical	Specific	Threshold		Lethal
Name	Formula	Gravity	Limit	Hazardous Limit	Concentration
Hydrogen Sulfide	H₂S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO₂	2.21 Air=1	2 ppm	N/A	1000 ppm

Contacting Authorities

Cimarex Energy Co. of Colorado's personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H₂S Contingency Plan Emergency Contacts Independence 8 Federal Com No. 2

Cimarex Energy Co. of Colorado Unit H, Section 8 T15S R31E; Chaves County, NM

Company Office

Cimarex Energy Co. of Colorado Co. Office and After-Hours Menu

Cudd Pressure Control

Halliburton

B.J. Services

800-969-4789

432-563-3356

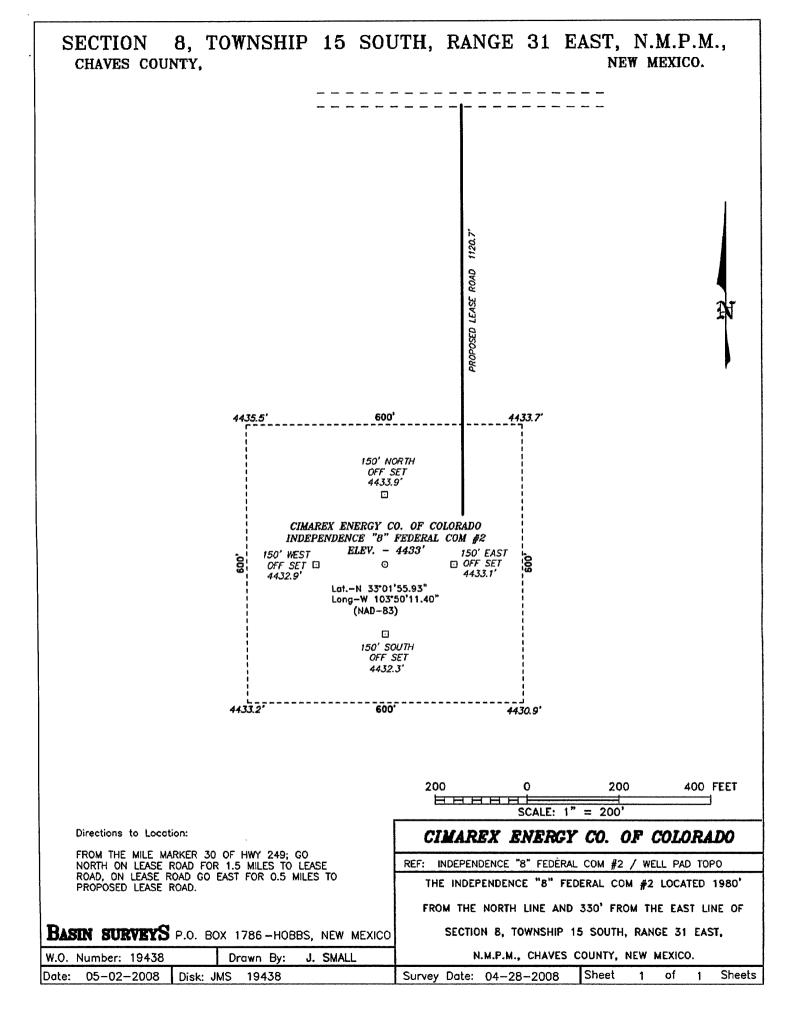
Page 3d

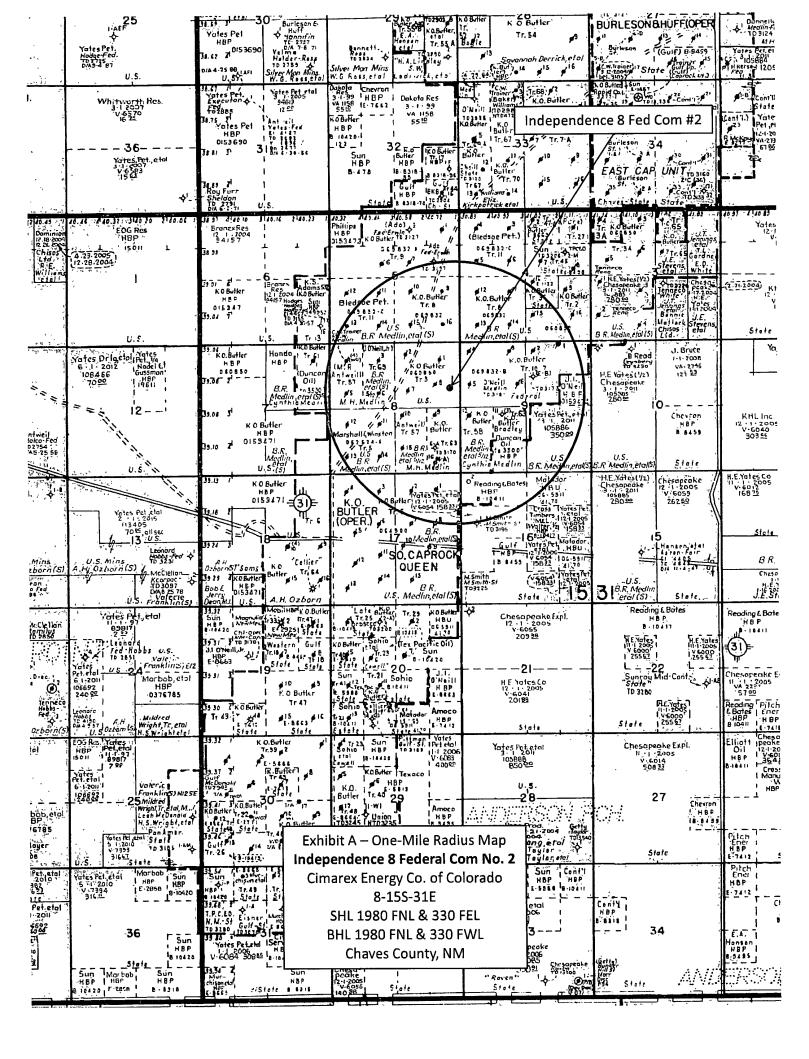
432-699-0139

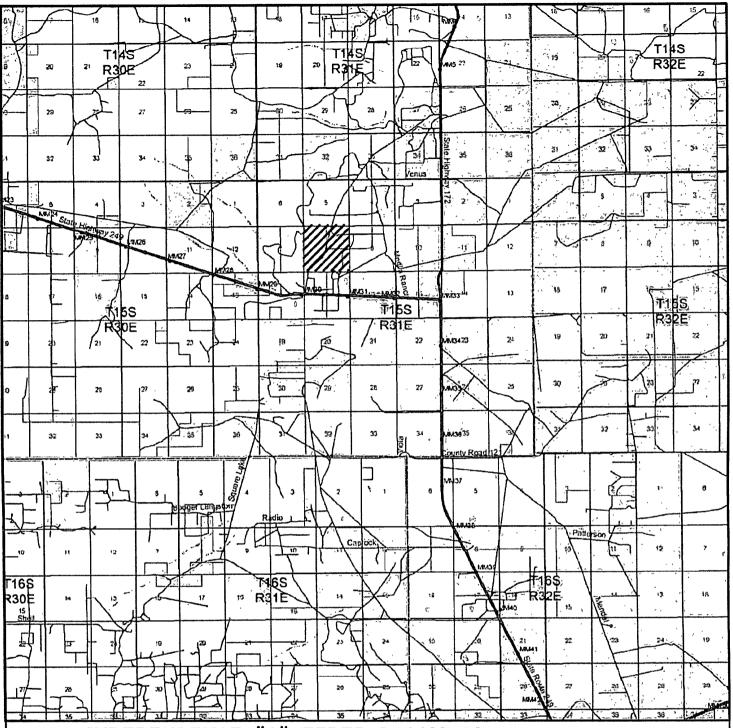
575-746-2757

575-746-3569

!Name Tit		Office	Mobile
	illing Manager	972-443-6463	972-333-1407
<u> </u>	illing Super	972-443-6491	972-882-1010
	illing Super	972-443-6451	972-465-6564
Dorsey Rogers Fig	eld Super	A A A A A A A A A A A A A A A A A A A	575-200-6105
	eld Super		432-634-2136
Artesia	. In the second to proper by proper by the second by	म अंकाल म नावाद म माताब म माताब में शासक में नावाद में माताब में माताब में	nici de secure de
Ambulance		911	
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
Fire Department		575-746-2701	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division	e de desside de desser de desser de desser de desser de desser .	575-748-1283	NATUR HI JUNIOR HI JOSSIC HI JOSSIC HI JAMBO HI JAMBO HI JAMBO HI JAMBO H
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Ambulance		911	
State Police		575-885-3137	
City Police		575-885-2111	
Sheriff's Office		575-887-7551	
Fire Department		575-887-3798	
Local Emergency Planning Committee		575-887-6544	
US Bureau of Land Management		575-887-6544	क्राइटर म क्राइटर म क्राइटर म स्टाइटर म क्राइटर म क्राइटर म स्टाइटर म क्राइटर म
Santa Fe	7 JU 1800 W 1	H MINNY H MINN HI MINN H MINN H MINN H MINN H MINN H MINN H	Miller M Miller M Littler M Miller SF Section SP Section M Littler St Section S
New Mexico Emergency Response Commission (Santa	ı Fe)	505-476-9600	
New Mexico Emergency Response Commission (Santa	Fe) 24 Hrs	505-827-9126	
New Mexico State Emergency Operations Center	n manue de passer de passer de passer de passer de passer	505-476-9635	2000 N 2000
(National	NI NI MICHI DI PARINI DI MANCO DI MININI PI MINISI		1930 N 1950 N
National Emergency Response Center (Washington, D	.C.)	800-424-8802	anne se sant se
(Medical		. بم جمعه به سمعه بو جمعه بو جمعه بو جمعه بو بسمه بو بسمه بو بسمه	
Flight for Life - 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare - R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuqu	erque, NM	505-842-4433	
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuqu	uerque, NM	505-842-4949 	
(Other	NA SERVE NI SERVE NI SERVE NI SERVE NI SERVE	,	2007 II ANNO II SUNN II NOON II ANNO II 1823 II 1823 II 1820
Boots & Coots IWC		800-256-9688	or 281-931-8884







INDEPENDENCE "8" FEDERAL COM #2 Located 1980' FNL and 330' FEL Section 8, Township 15 South, Range 31 East, N.M.P.M., Chaves County, New Mexico.

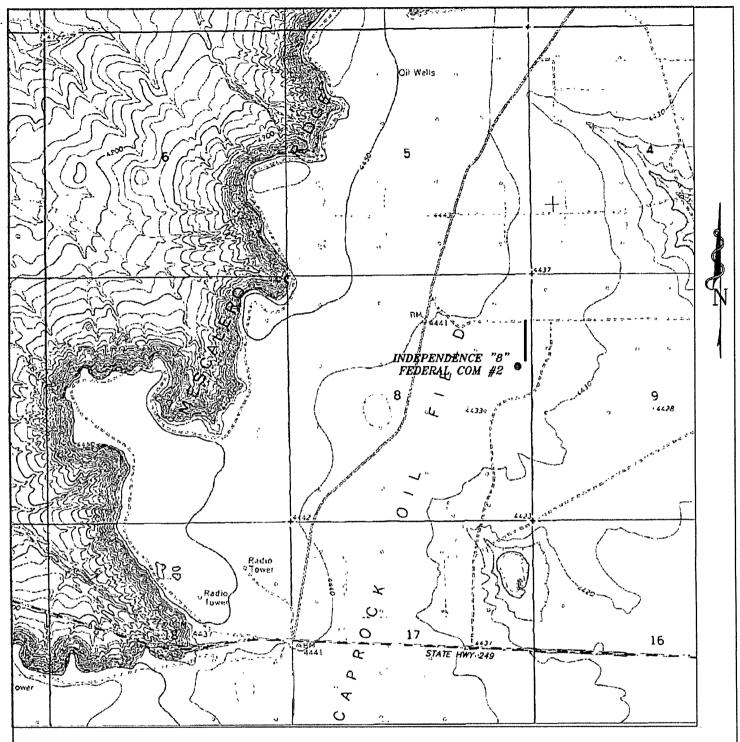


in the oilfield

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

W.O. Number:	JMS 1	9438
Survey Date:	04-28	-2008
Scale: 1" = 2	MILES	
Date: 05-02-	-2008	

CIMAREX
ENERGY CO.
OF COLORADO



INDEPENDENCE "8" FEDERAL COM #2 Located 1980' FNL and 330' FEL Section 8, Township 15 South, Range 31 East, N.M.P.M., Chaves County, New Mexico.



in the oilfield

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

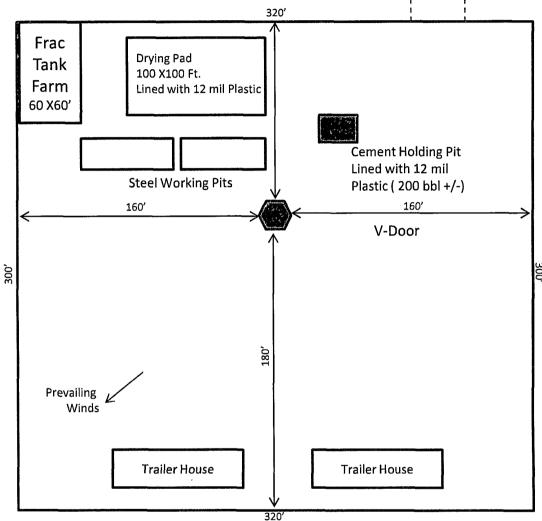
	W.O. Number JMS 19438
	Survey Dote: 04-28-2008
	Scale: 1" = 2000'
I	Date: 05-02-2008

CIMAREX ENERGY CO. OF COLORADO

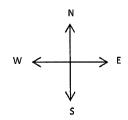
Patriot Rig 4

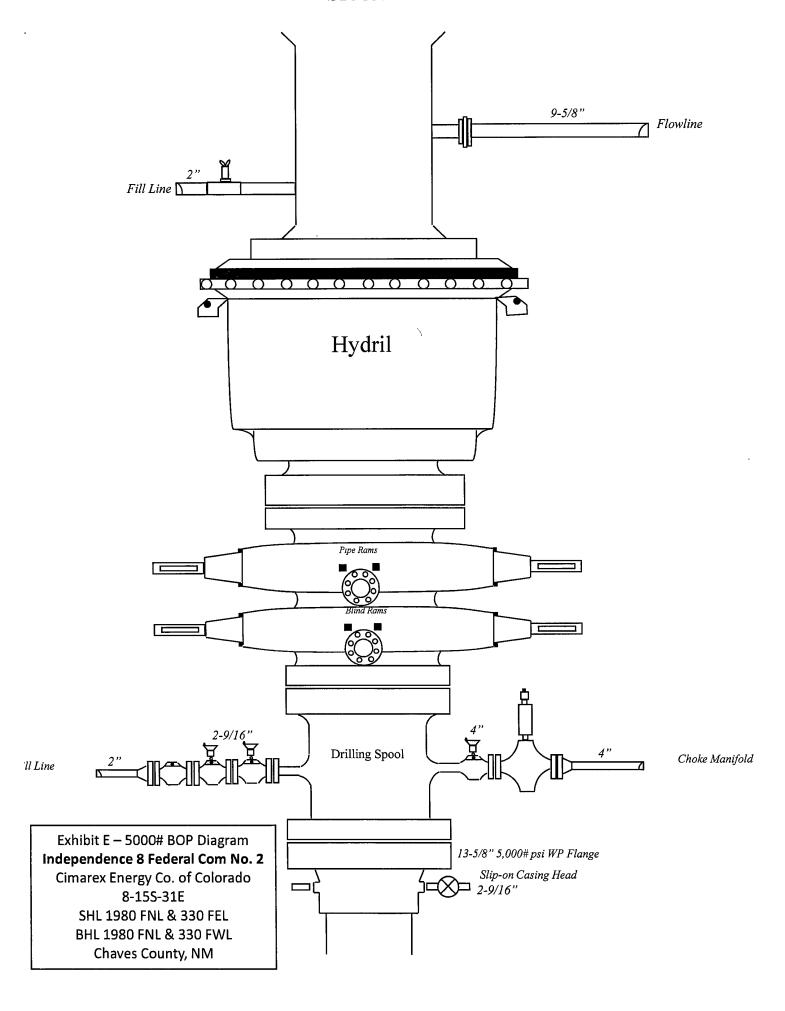
Cimarex Energy Co. of Colorado

Proposed Access Rd



Revised Rig Layout
Independence 8 Federal Com No. 2
Cimarex Energy Co. of Colorado
8-15S-31E
SHL 1980 FNL & 330 FEL
BHL 1980 FNL & 330 FWL
Chaves County, NM





DRILLING OPERATIONS CHOKE MANIFOLD 5M SERVICE

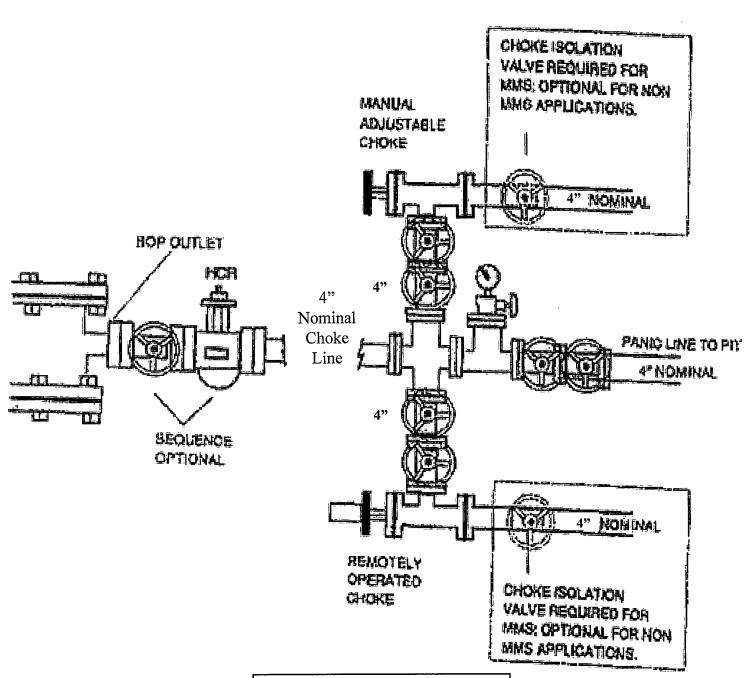


Exhibit E-1 – Choke Manifold Diagram
Independence 8 Federal Com No. 2
Cimarex Energy Co. of Colorado
8-15S-31E
SHL 1980 FNL & 330 FEL
BHL 1980 FNL & 330 FWL
Chaves County, NM



Planned Wellpath Report Preliminary Page 1 of 4



RDDDR	ENCE WELLPATH IDENTIFICATION		
Operator	Cimarex Energy Co. of Colorado	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Independence) Sec 8, T15S, R31E	Wellbore	No. 2H PWB
Facility	Independence 8 Fed Com No. 2H		

REPORT SETUP INFORMATION								
	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0					
North Reference	Grid	User	Victor Hernandez					
Scale	0.999936	Report Generated	7/15/2008 at 3:11:06 PM					
Convergence at slot	0.27° East	Database/Source file	WellArchitectDB/No2H_PWB.xml					

WELLPATH LOCATION										
	Local coo	rdinates	Grid co	ordinates	Geographic coordinates					
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude				
Slot Location	0.00	0.00	693600.90	739612.50	33°01'55.929"N	103°50'11.394"W				
Facility Reference Pt			693600.90	739612.50	33°01'55.929"N	103°50'11.394"W				
Field Reference Pt			693548.60	741216.90	33°02'11.806"N	103°50'11.919"W				

Calculation method .	Minimum curvature	Rig on No. 2H SHL (RT) to Facility Vertical Datum	18.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 2H SHL (RT) to Mean Sea Level	4451.00ft
Vertical Reference Pt	Rig on No. 2H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 2H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	269.79°



Planned Wellpath Report Preliminary Page 2 of 4

BAKER HUGHES **INTEQ**

REFER	REFERENCE WELLPATH IDENTIFICATION								
Operator	Cimarex Energy Co. of Colorado	Slot	No. 2H SHL						
Area	Eddy County, NM	Well	No. 2H						
Field	(Independence) Sec 8, T15S, R31E	Wellbore	No. 2H PWB						
Facility	Independence 8 Fed Com No. 2H								

	FA (50 stations)		TEXTO 1	Vert Sect	North	East	DLS	Comments
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	[ft]	[ft]	[ft]	[°/100ft]	
0.00	0.000	269.785	0.00	0.00	0.00	0.00		Tie On
8395.00	0.000	269.785	8395.00	0.00	0.00	0.00	0.00	KOP
8495.00†	30.000	269.785	8490.49	25.59	-0.10	-25.59	30.00	
8595.00†	60.000	269.785	8560.40	95.49	-0.36	-95.49	30.00	
8693.74	89.622	269.785	8585.98	189.72	(0.71)	=189.72	30.00	EOC
8695.00†	89.622	269.785	8585.99	190.99	-0.72	-190.98	0.00	
8795.00†	89.622	269.785	8586.65	290.98	-1.09	-290.98	0.00	
8895.00†	89.622	269.785	8587.31	390.98	-1.47	-390.98	0.00	
8995.00†	89.622	269.785	8587.97	490.98	-1.84	-490.98	0.00	
9095.00†	89.622	269.785	8588.63	590.98	2.22	<i>=</i> 590.974	0.00	
9195.00†	89.622	269.785	8589.29	690.98	-2.59	-690.97	0.00	
9295.00†	89.622	269.785	8589.95	790.97	-2.97	-790.97	0.00	
9395.00†	89.622	269.785	8590.61	890.97	-3.34	-890.96	0.00	
9495.00†	89.622	269.785	8591.27	990.97	-3.71	-990.96	0.00	
9595:00†	89.622	269.785	8591.93	1090.97	- 4.09	=1090.96	0.00	
9695.00†	89.622	269.785	8592.59	1190.96	-4.46	-1190.96	0.00	
9795.00†	89.622	269.785	8593.25	1290.96	-4.84	-1290.95	0.00	
9895.00†	89.622	269.785	8593.91	1390.96	-5.21	-1390.95	0.00	
9995.00†	89.622	269.785	8594.57	1490.96	-5.59	-1490.95	0.00	
10095.00†	89.622	269.785	8595.24	1590.96	₹5!96	-1590.94	0.00	
10195.00†	89.622	269.785	8595.90	1690.95	-6.34	-1690.94	0.00	4
10295.00†	89.622	269.785	8596.56	1790.95	-6.71	-1790.94	0.00	
10395.00†	89.622	269.785	8597.22	1890.95	-7.09	-1890.94	0.00	
10495.00†	89.622	269.785	8597.88	1990.95	-7.46	-1990.93	0.00	
10595.00†	89.622	269.785	8598:54	2090.94	7.84			
10695.00†	89.622	269.785	8599.20	2190.94	-8.21	-2190.93	0.00	
10795.00†	89.622	269.785	8599.86	2290.94	-8.59	-2290.92	0.00	
10895.00†	89.622	269.785	8600.52	2390.94	-8.96	-2390.92	0.00	
10995.00†	89.622	269.785	8601.18	2490.94	-9.34	-2490.92	0.00	



Planned Wellpath Report Preliminary Page 3 of 4

BAKER HUGHES **INTEQ**

RDFER	ENCE WELLPATH IDENTIFICATION		
Operator	Cimarex Energy Co. of Colorado	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Independence) Sec 8, T15S, R31E	Wellbore	No. 2H PWB
Facility	Independence 8 Fed Com No. 2H		

						the second secon	<u> </u>	
WELLPATH DA	ATA (50 station	s) $\dagger = inter$, , , , , , , , , , , , , , , , , , , 	
MD	Inclination	Azimuth	TVD	Vert Sect	North	East		Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[°/100ft]	
11195.00†	89.622	269.785	8602.50	2690.93	-10.09	-2690.91	0.00	
11295.00†	89.622	269.785	8603.16	2790.93	-10.46	-2790.91	0.00	
11395.00†	89.622	269.785	8603.82	2890.93	-10.84	-2890.91	0.00	
11495.00†	89.622	269.785	8604.48	2990.92	-11.21	-2990.90	0.00	
11595:00†	89.622	269.785	8605.14	3090.92	-11.59	€3090.90	0.00	
11695.00†	89.622	269.785	8605.80	3190.92	-11.96	-3190.90	0.00	
11795.00†	89.622	269.785	8606.46	3290.92	-12.34	-3290.90	0.00	
11895.00†	89.622	269.785	8607.12	3390.92	-12.71	-3390.89	0.00	
11995.00†	89.622	269.785	8607.78	3490.91	-13.09	-3490.89	0.00	
412095:00†	89.622	269.785	8608.44	3590.91	:13.46	-3590.89	0.00	
12195.00†	89.622	269.785	8609.10	3690.91	-13.84	-3690.88	0.00	
12295.00†	89.622	269.785	8609.76	3790.91	-14.21	-3790.88	0.00	
12395.00†	89.622	269.785	8610.42	3890.91	-14.59	-3890.88	0.00	
12495.00†	89.622	269.785	8611.08	3990.90	-14.96	-3990.88	0.00	
12595:00†	89.622	269.785	8611.74	4090.90	-15.34	-4090.87	0.00	
12695.00†	89.622	269.785	8612.40	4190.90	-15.71	-4190.87	0.00	
12795.00†	89.622	269.785	8613.07	4290.90	-16.09	-4290.87	0.00	
12895.00†	89.622	269.785	8613.73	4390.89	-16.46	-4390.86	0.00	
12995.00†	89.622	269.785	8614.39	4490.89	-16.84	-4490.86	0.00	
13088:00	89.622	269.785	8615.00 ¹	4583.89	-17.18	-4583.86	0.00	No. 2H BHL



Planned Wellpath Report Preliminary Page 4 of 4



REFER	ENCE WELLPATH IDENTIFICATION		
Operator	Cimarex Energy Co. of Colorado	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Independence) Sec 8, T15S, R31E	Wellbore	No. 2H PWB
Facility	Independence 8 Fed Com No. 2H		

FARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 2H BHL	13088.00	8615.00	-17.18	-4583.86	689017.34	739595.32	33°01¦55.970"N	103°51'05.235"W	point

SURVEY PROGRAM Ref Wellbore: No. 2H PWB Ref Wellpath: Preliminary								
Start MD	End MD	Positional Uncertainty Model	Log Name/Comment	Wellbore				
[ft]	[ft]							
18.00	13088.00	NaviTrak (Standard)		No. 2H PWB				

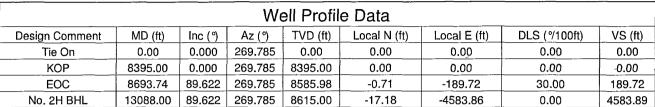


Cimarex Energy Co. of Colorado

Location. Eddy County, NM
Field (Independence) Sec 8, T15S, R31E
Facility Independence 8 Fed Com No. 2H

Slot: No. 2H SHL Well: No. 2H Wellbore: No. 2H PWB





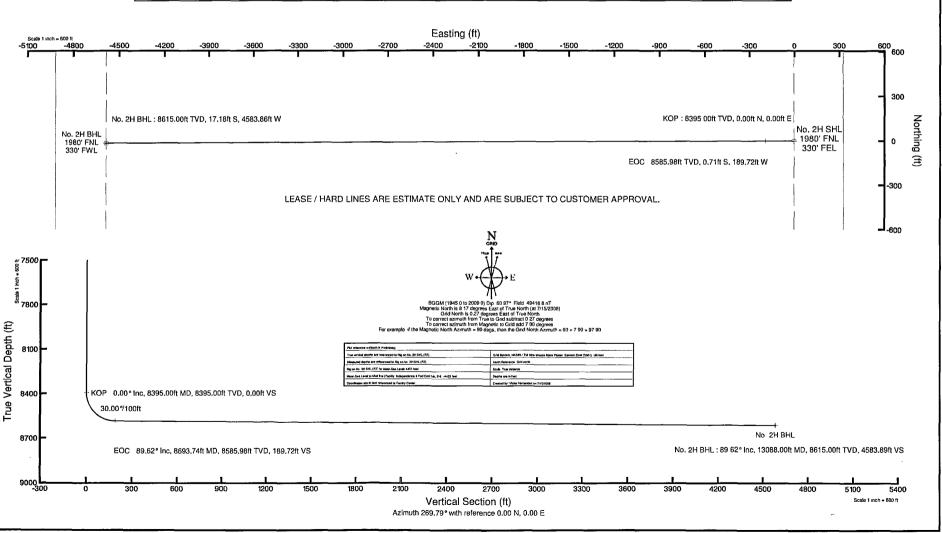


Exhibit A – General Location Map

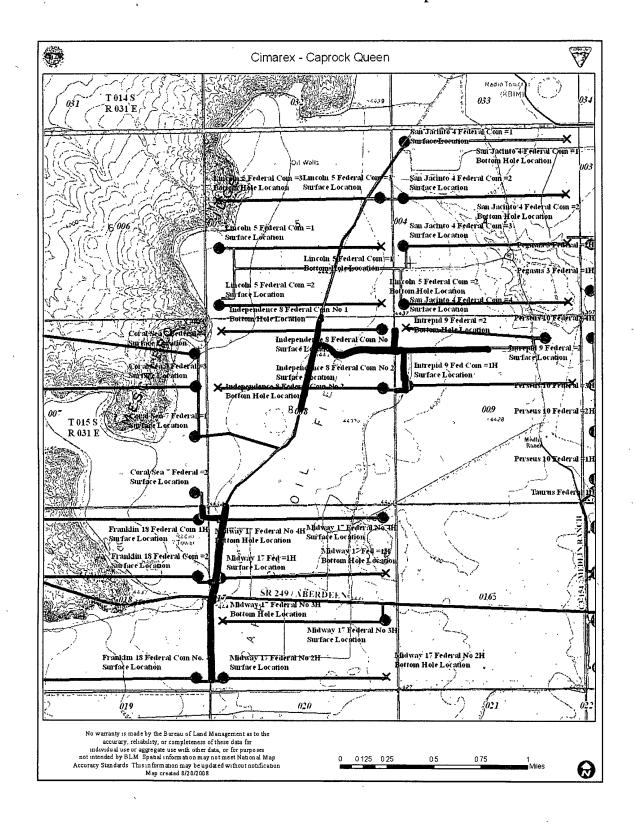


EXHIBIT B PECOS DISTRICT - RFO CONDITIONS OF APPROVAL

October 31, 2008

Independence 8 Fed Com #2H

SHL: 1980' FNL & 330' FEL, Sec. 8, T15S-R31E BHL: 1980' FNL & 330' FWL, Sec. 8, T15S-R31E Cimarex Energy Company of Colorado Lease Number: LC-060850

GENERAL PROVISIONS

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

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 topsoil will be stripped to approximately 6 inches in depth within the area designated for construction of the well pad. The operator shall stockpile the stripped topsoil on the side of the well pad. The topsoil will be used for interim and final reclamation of the surface disturbance created by the construction of the well pad.

C. CLOSED SYSTEMS OR STEEL TANKS: No reserve pit will be used.

Steel tanks are required for drilling operations: No Pits Allowed.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT:

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Roswell Field Office at (505) 627-0236.

E. 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.

F. ON LEASE ACCESS ROADS:

Road Egress and Ingress

The access road shall be constructed to access the corner of the well pad.

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.

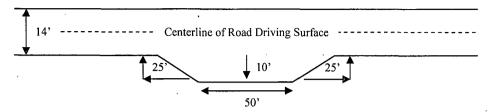
Crowning

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

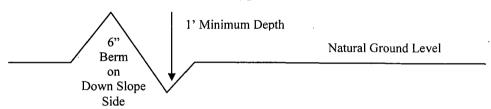


Drainage

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.

Cross Section Of Typical 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:
$$\frac{400'}{4\%}$$
 + 100' = 200' lead-off ditch interval

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.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

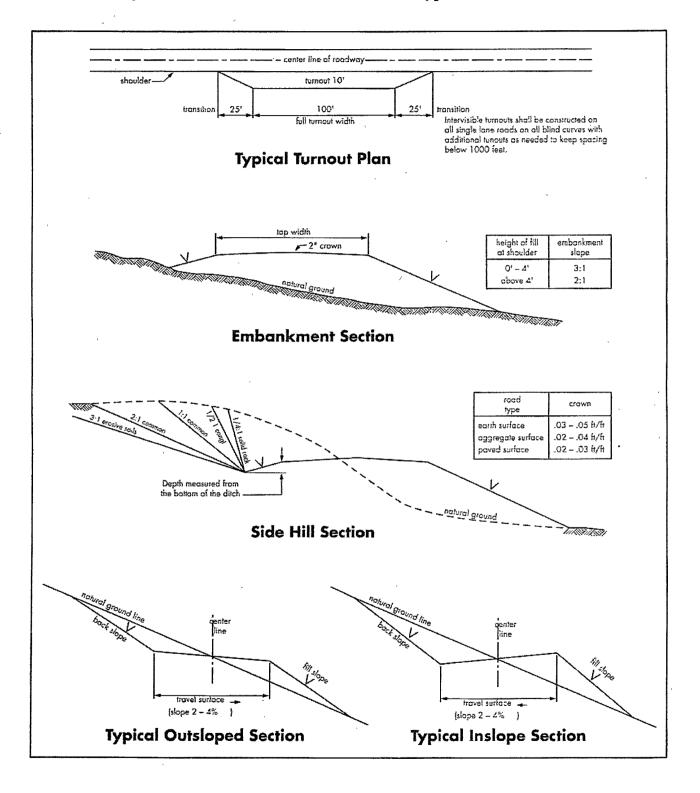
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder 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

DRILLING OPERATIONS REQUIREMENTS

- Chaves and Roosevelt Counties

 Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, 24 hours at (575) 627-0205.
- 2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:
 - a. Spudding well
 - b. Setting and/or Cementing of all casing strings

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

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. The operator will be required to have a geolograph or some other device to accurately measure the drilling rate in order to set the base of the usable water protection casing shoe opposite competent rock Onshore Order No. 2. III. B. The record of the drilling rate along with the gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the on the borehole CFR 3162.4-1(a) and (b).
- 6. Air air-mist or fresh water and non toxic drilling mud shall be used to drill to the base of the usable water protection casing string. Any polymers used will be water based and non-toxic.
- 7. 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. 1. The 13-3/8 inch surface casing shall be set at approximately 340 feet if the bedrock is competent. If not the operator will be required to set surface casing in the next thick competent bedrock (i.e. 15 to 25 ft or greater) encountered and circulate cement 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:

- 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.
- g. The requested variance to test the BOPE prior to drilling below the 13-3/8 inch surface casing to the reduced pressure of 1000 psi using the rig pumps is approved.

VI. PRODUCTION

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> (Standard Environmental Color Chart June 2008).

VRM Facility Requirement

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

VII. INTERIM RECLAMATION & RESERVE PIT CLOSURE

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.

The following soil or soil associations may represent these ecological sites: Alama silt loam, dry, 0-3% Slope, Atoka, Bigetty-Pecos, Harkey fine sandy loam, Holloman, Holloman-Gypsum Land, Hollomex loam, 1-9% slope, dry, Largo loam, Milner loam, 0-2% slope, dry, Reagan loam, Reakor, Reakor-Bigetty, Reakor-Tencee, Reeves loam, 0-2% slope, dry, Russler, Shanta, Upton-Reakor.

Loamy, SD-3 Ecological Site; Loamy CP-2; Gyp Upland CP-2 (for Loamy HP-3)		
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)	1.0 LB.
Sand dropseed	(Sporobolus cryptandrus)	0.5 LB.
Vine mesquite	(Panicum obtusum)	1.0 LB.
Plains bristlegrass	(Setaria macrostachya)	1.0 LB.
Indian blanketflower	(Gaillardia aristata)	0.5 LB.
Desert or Scarlet	(Sphaeralcea ambigua)	1.0 LB.
Globemallow or	(S. coccinea)	,
Annual sunflower	(Helianthus annuus)	0.75 LB.
TOTAL POUNDS PURE LIVE SEED (pls) PER ACRE		9.75 LBS.

Certified Weed Free Seed. 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 lbs per acre shall be applied.

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 private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the Private Surface Land Owner agreements and a copy of the release is to be submitted upon abandonment.
- c. Upon abandonment of the well, all casing shall be cut-off at the base of the cellar or 3-feet below final restored ground level (whichever is deeper). A 4-inch pipe, 10 feet in length, shall be installed 4 feet above ground and embedded in cement. The following information shall be permanently inscribed on the dry hole marker: Well name and number, the name of the operator, the lease serial number, the surveyed location (the quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer; such as metes and bounds).
- d. Surface Reclamation must be completed within 6 months of well plugging. If the operator proposes to modify the plans for surface reclamation approved on the APD, the operator must attach these modifications to the Subsequent Report of Plug and Abandon using Sundry Notices and Reports on Wells, Form 3160-5.