# New Mexico Oil Conservation Division, District I 1625 N. French Drive Hobbs, NM 88240

RECEIVED

DEC 0 8 2008 Form 3160-3 FORM APPROVED (April 2004) OMB No. 1004-0137 HOBBSOCD UNITED STATES Lease Serial No. BHL Privately DEPARTMENT OF THE INTERIOR SHL LC-060850 Owned BUREAU OF LAND MANAGEMENT 6. If Indian, Allotee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REENTER 7. If Unit or CA Agreement, Name and No 1a Type of Work: X DRILL REENTER 8 Lease Name and Well No. 1b. Type of Well. X Oil Well Gas Well Other X Single Zone Multiple Zone Independence 8 Federal Com No. 1 9. API Well No. 2. Name of Operator 30-005-Cimarex Energy Co. of Colorado Address 3a PO Box 140907 Abo: Wildcat Irving, TX 75014 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area 660 ' <del>37</del>5 FNL & 375 FEL At Surface At proposed prod. Zone 660' 375 FNL & 375 FWL Hart Proposed Horizontal Abo Test 8-15S-31E 14 Distance in miles and direction from nearest town or post office 12. County or Parish 13. State NM 15 Distance from proposed\* 16 No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft (Also to nearest drig, unit line if 375 N2N2 160 Proposed Depth 20. BLM/BIA Bond No. on File 18 Distance from proposed location\* Pilot Hole 9075' to nearest well, drilling, completed, MD 13042' applied for, on this lease, ft. NM-2575 NA TVD 8615' 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22 Approximate date work will start\* 23. Estimated duration 9/1/2008 4.437' GR 35-45 days 24. Attachments **ROSWELL CONTROLLED WATER BASIN** The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form: Bond to cover the operations unless covered by an existing bond on file (see 1. Well plat certified by a registered surveyor 2. A Drilling Plan A Surface Use Plan (if the location is on National Forest System Lands, the Operator Certification Such other site specific information and/or plans as may be required by the SUPO shall be filed with the appropriate Forest Service Office) authorized officer 25. Signature Name (Printed/Typed) Date Zeno Farris 07.15.08 Tıtle Manager Operations Administration Name (Printed/Typed) Approved By (Signature) /s/ Jerry Dutchover 0 4 DEC 2008 Assistant Field Managor, Title Office APPROVED FOR 2 YEARS Lands And Minerals ROSWELL FIELD OFFICE Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon Conditions of approval, if any, are attached. Title 18 U.S.S. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction \* (Instructions on page 2)

BELLED WATER HASH

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APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

**UNITED STATES** Form 3160-5 DEPARTMENT OF THE INTERIORN M. Oil Cons. Division (November 1994) Expires July 31, 1996 BUREAU OF LAND MANAGEMEN 1625 N. French D DEC 0 8 2008 Lease Serial No. HOBBSQCD SUNDRY NOTICES AND REPORTS ON WEDDS, NM 88240 SHL LC-060850 RHI Fee If Indian, Allottee or Tribe Name abandoned well. Use form 3160-3 (APD) for such proposals. If Unit or CA/Agreement, Name and/or No. SUBMIT IN TRIPLICATE - Other instructions on reverse side Pending Type of Well Well Name and No. X Oil Well Gas Well Other Independence 8 Federal Com No. 1 Name of Operator API Well No. Cimarex Energy Co. of Colorado 30-005-Phone No. (include area code) 3a. Address PO Box 140907; Irving, TX 75014-0907 972-401-3111 Field and Pool, or Exploratory Area Abo Wildcat ' Location of Well (Footage, Sec., T., R., M., or Survey Description) 11. County or Parish, State SHL 375 FNL & 375 FEL 8-15S-31E Chaves County, NM **BHL 375 FNL & 375 FWL** CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION TYPE OF SUBMISSION Production (Start/Resume) Water Shut-Off X Notice of Intent Acidize Well Integrity Alter Casing Fracture Treat Reclamation X Other Change SHL and Casing Repair New Construction Recomplete Subsequent Report Road X Change Plans Plug and Abandon Temporarily Abandon Plug Back Water Disposal Convert to Injection Final Abandonment Notice 13. Describe Proposed or Completed Operation (clearly state all pertinent details, included estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.) Cimarex has changed the location of the Independence 8 Federal Com No. 1 as shown below: **Previous Location New Location R** ·15S-31E 8-15S-31E SHL 375 FNL & 375 FEL SHL 660 FNL & 375 FEL **BHL 660 FNL & 375 FWL BHL 375 FNL & 375 FWL** Please see attached revised plats. The new access road will be on-lease and will not require a ROW. 14. I hereby certify that the foregoing is true and correct Title Name (Printed/Typed) Regulatory Analyst Natalie Krueger October 29, 2008

which would entitle the applicant to conduct operations thereon.

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.

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Acring

到過多種nt Field Manager,

ROSWELL FIELD OFFICE

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Conditions of Approval, if any, are attached. Approval, of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease

Approved by

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

State of New Mexico Energy, Minerals and Natural Resources Department

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Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT III DEC 08 7008 1000 Rio Brezoe Rd., Artec, NM 87410

DISTRICT IV 1820 S. St. Francis Dr. 10886CD 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		
30-005-2	290671	Abo Wildcat		
Property Code	Pro	perty Name	Well Number	
32463	INDEPENDENCE	"8" FEDERAL COM	1	
OGRID No.	No. Operator Name		Elevation	
162683	CIMAREX ENERGY	CO. OF COLORADO	4437'	

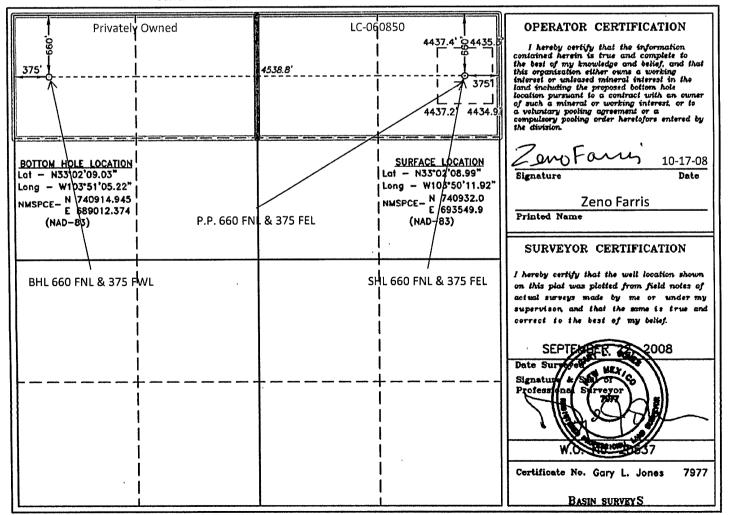
#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	15 S	31 E		660	NORTH	375	EAST	CHAVES

#### Bottom Hole Location If Different From Surface

	UL or lot No.	Section 8	Township 15 S	Range 31 E	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 375	East/West line WEST	County CHAVES
	Dedicated Acre	Joint o	r Infill Co	nsolidation	Code Or	der No.	<u> </u>			
ı	160			Р	l					

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. 1

Cimarex Energy Co. of Colorado Unit A, 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 375

375 FNL & 375 FEL

BHL

375 FNL & 375 FWL

Proposed Horizontal Abo Test

2 Elevation above sea level:

4,437 GF

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 130421

TVD 8615'

#### 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:

	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	13,042	8.4 - 8.9	28	NC	2% KCl

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 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 13042' MD & 8615' TVD. Run 4½" 11.6# P-110 BTC (Peak Systems Iso-Pak Liner) from RSB packer @ 8288' to 8788' and LTC from 8788' to TD @ MD 13042' and TVD 86150.' No cement required for Peak Systems Liner. Lateral length 4538' and liner length 4254.'

#### Application to Drill

#### Independence 8 Federal Com No. 1

Cimarex Energy Co. of Colorado Unit A, Section 8

T15S R31E; Chaves County, NM

#### Casing Program:

Hole Size		Depti	n	Casir	ng OD	Weight	Thread	Collar	Grade
17½"	0'	to	340	New	13¾"	48#	8-R	STC	H-40
12¼"	0'	to	3950	New	9¾"	40#	8-R	LTC	J-55
8¾"	0,	to	9075'	New	7"	26#	8-R	LTC	P-110
61⁄4"	8288	to	8788	New	4½"	11.6#	8-R	BTC	P-110
61⁄4"	8788		13042	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% CaCl<sub>2</sub> (wt 14.2, yld 1.64)

Tail: 220 sx Premium Plus + 2% CaCl<sub>2</sub> (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)

Tail: 200 sx Premium Plus + 1% CaCl<sub>2</sub> (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	13¾"	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. 1 Cimarex Energy Co. of Colorado Unit A, 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. 1

Cimarex Energy Co. of Colorado Unit A, 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 H<sub>2</sub>S
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H<sub>2</sub>S 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. H<sub>2</sub>S 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 H<sub>2</sub>S 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 H<sub>2</sub>S scavengers if necessary.

# H₂S Contingency Plan Independence 8 Federal Com No. 1 Cimarex Energy Co. of Colorado Unit A, Section 8 T15S R31E; Chaves County, NM

#### **Emergency Procedures**

In the event of a release of gas containing H<sub>2</sub>S, 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 H<sub>2</sub>S 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 H<sub>2</sub>S, 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 (SO<sub>2</sub>). 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 H<sub>2</sub>S and SO<sub>2</sub>

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. 1 Cimarex Energy Co. of Colorado Unit A, Section 8

T15S R31E; Chaves County, NM

#### **Company Office**

Cimarex Energy Co. of Colorado Co. Office and After-Hours Menu 800-969-4789

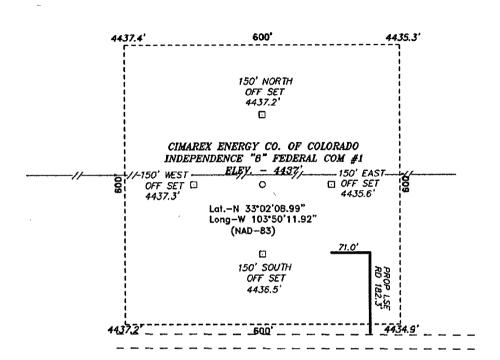
Page 30

B.J. Services

		Office	- ANGERT AT ARREST AT	Mobile	<i></i>
Doug Park (	Orilling Manager	972-443-6463		972-333-1407	
	Orilling Super	972-443-6491		972-882-1010	
	Orilling Super	972-443-6451		972-465-6564	
	ield Super	The state of the s	.,,,,	575-200-6105	
	ield Super	n man n		432-634-2136	, , , , , , , , , , , , , , , , , , ,
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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	. אמנות או יונונות או אונונות או יונונות או יונונות	575-748-1283	T ASSESS AN ABSESS A	r sander de sander de sander se sander de sander de sander.	N 1800 N 1800 N 1800
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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	MANGE ME SENSON PER ANGERS ME ANGERS NO ACCOUNT NO ASSESSED	575-887-6544	·	N ANGER OF ANDRE OF ANGEL AS ACCOUNT OF ASSESSED AS ASSESSED AS ASSESSED.	מוצה זון צובונות זוג יינטעוק זון
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New Mexico Emergency Response Commission (San	ta Fe)	505-476-9600	***************************************		
New Mexico Emergency Response Commission (San		505-827-9126			
New Mexico State Emergency Operations Center		505-476-9635			2 230 2 200 N A
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National Emergency Response Center (Washington,	D.C.)	800-424-8802	, recent of recent of	N SECTION IN ARROW MY SECTION IN ARROW MY SECTION OF	N NOW N 1000 N 200
Medical		se summe se summe se simone se summe se summe se summe se summe se		er sonner se sonner se senner se sanner se sanner se sonner	
Flight for Life - 4000 24th St.; Lubbock, TX		806-743-9911			
Aerocare - R3, Box 49F; Lubbock, TX		806-747-8923		A STATE OF THE STA	
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuq	505-842-4433				
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuc	querque, NM	505-842-4949	T ALME A ASSET	II TATOM IN ASSEM IN ASSEM IN SUCCES IN SUCCES IN ASSEM	
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Boots & Coots IWC	MA DISTRIBUTE CONTRACTOR CONTRACT	800-256-9688	or.	281-931-8884	·
Cudd Pressure Control		432-699-0139	or	432-563-3356	
Halliburton		575-746-2757			
					Page

575-746-3569

SECTION 8, TOWNSHIP 15 SOUTH, RANGE 31 EAST, N.M.P.M., CHAVES COUNTY, NEW MEXICO.



••

Directions to Location:

FROM THE MILE MARKER 30 OF HWY 249; GO NORTH ON LEASE ROAD FOR 1.5 MILES TO LEASE ROAD, ON LEASE ROAD GO EAST FOR 0.5 MILES TO PROPOSED LEASE ROAD.

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

J. SMALL

W.O. Number: 20537 Drawn By:

Date: 09-24-2008 Disk: JMS 20537

200 0 200 400 FEET

SCALE: 1" = 200'

#### CIMAREX ENERGY CO. OF COLORADO

REF: INDEPENDENCE "8" FEDERAL COM #1 / WELL PAD TOPO

THE INDEPENDENCE "8" FEDERAL COM #1 LOCATED 660'

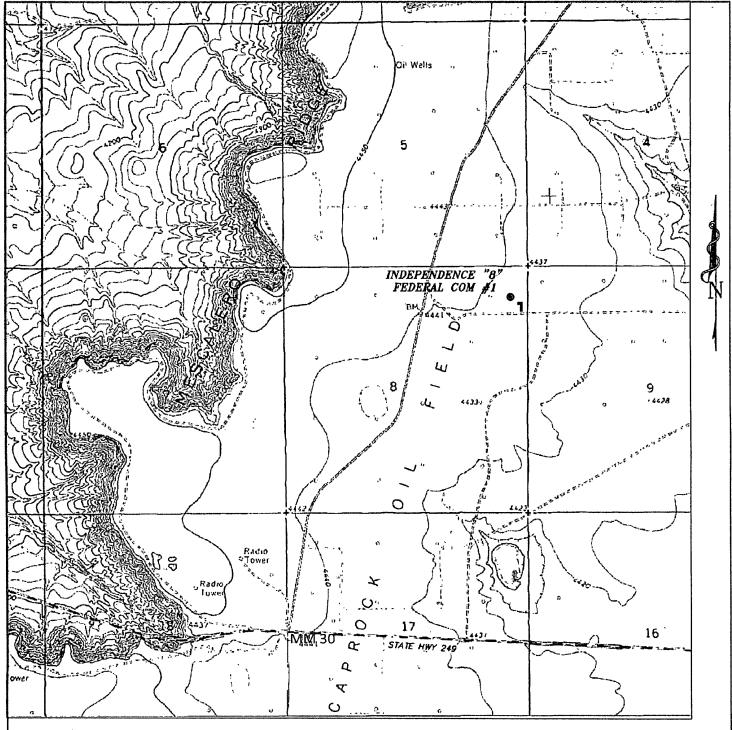
FROM THE NORTH LINE AND 375' FROM THE EAST LINE OF

SECTION 8, TOWNSHIP 15 SOUTH, RANGE 31 EAST,

N.M.P.M., CHAVES COUNTY, NEW MEXICO.

Sheets

Survey Date: 09-22-2008 | Sheet 1 of 1



INDEPENDENCE "8" FEDERAL COM #1
Located 660' FNL and 375' FEL
Section 8, Township 15 South, Range 31 East,
N.M.P.M., Chaves County, New Mexico.

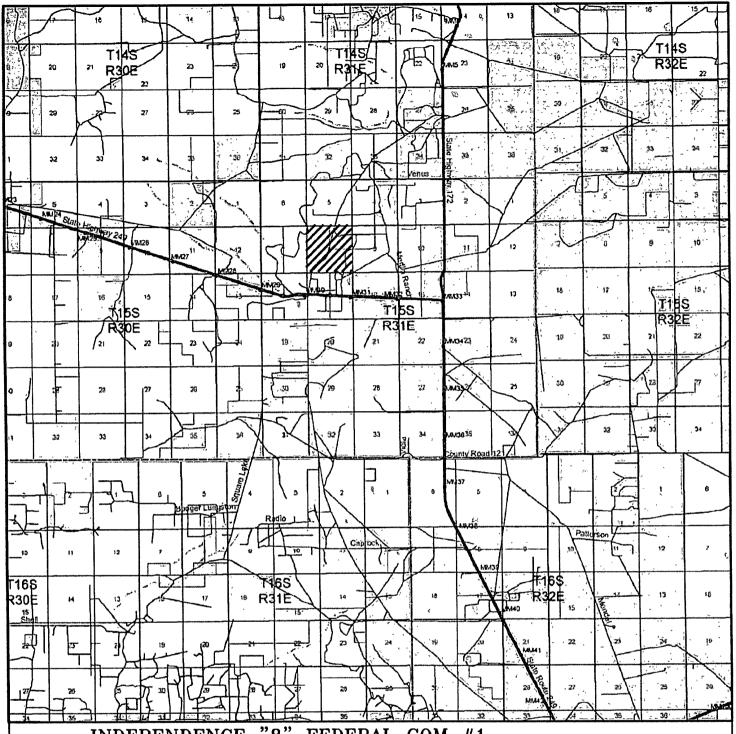


in the oilfield

P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

W.O. Number JMS	20537
Survey Date: 09-2	2-2008
Scale: 1" = 2000'	And the second s
Dote: 09-24-2008	

CIMAREX ENERGY CO. OF COLORADO



INDEPENDENCE "8" FEDERAL COM #1
Located 660' FNL and 375' FEL
Section 8, Township 15 South, Range 31 East,
N.M.P.M., Chaves County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico B8241 (575) 393-7316 — Office (575) 392-2206 — Fax basinsurveys.com

W.O. Number:	JMS 20537
Survey Date:	09-22-2008
Scale: 1" = 2	MILES
Date: 09-24-	-2008

CIMAREX ENERGY CO. OF COLORADO



## **Drilling Services**

## **Proposal**



INDEPENDENCE "8" FED COM #1

CHAVES COUNTY, NEW MEXICO

WELL FILE: PLAN 1

October 28, 2008

Weatherford International, Ltd. P.O. Box 61028 Midland, TX 79711 USA +1.432.561.8892 Main +1.432.561.8895 Fax www.weatherford.com



#### FIELD DETAILS

Chaves Co, NM (NAD 83)

Geodetic System US State Plane Coordinate System 1983 Ellipsoid GRS 1980

Zone New Mexico, Eastern Zone
Magnetic Model bggm2007

System Datum: Mean Sea Level Local North Grid North

#### SITE DETAILS

Independence "8" Fed Com #1

Site Centre Northing 740932.00 Easting 693549 90

Ground Level 4437 00
Positional Uncertainty 0 00
Convergence 0 27

#### INDEPENDENCE "8" FED COM #1 CHAVES COUNTY, NEW MEXICO

SECTION DETAILS										
Sec	MD	Inc	Azı	TVD	+N/-S	+E/-W	DLcg	TFace	VSec	Target
1 2 3 4	0 00 8385.00 8697.78 13036 82	0 00 0 00 89 60 89 60	0 00 0 00 269 78 269 78	0 00 8385 00 8585 00 8615 00	0 00 0 00 -0 75 -17 06	0 00 0 00 -198 62 -4537 53	0 00 0 00 28.65 0 00	0 00 0 00 0 00 0 00	0 00 0 00 198 62 4537 56	PBHL

WELL DETAILS

| Name+N/-S +E/-W | Northing | Easting | Latitude | Longitude | Slot | #1 | 0 00 | 0 00 | 740932 00 | 693549 90 | 33°02'08 973N | 103°50'11 936W | N/A

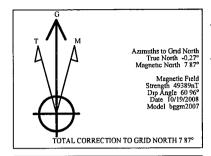
TARGET DETAILS

 Name
 TVD
 +N/S
 +E/-W
 Northing
 Easting
 Latitude
 Longitude
 Shape

 PBHL
 8615 00
 -17 06
 -4537 53
 740914 94
 689012 37
 33°02'09 013N
 103°51'05.239W
 Point



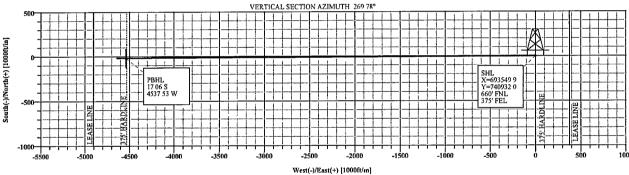
# **Weatherford**\*

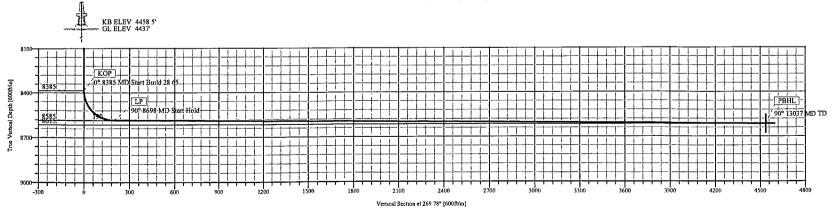


FORMATION TOP DETAILS

No TVDPath MDPath Formation

1 8585 00 8697 78 Lower Abo Dolomite





Plan Plan #1 (#1/1)

Created By Javme Wilson

Date 10/28/2008

Checked \_\_\_\_

Date \_\_\_\_



### Weatherford International Ltd. PROPOSAL PLAN REPORT



CIMAREX Company: Field:

Chaves Co., NM (NAD 83)

Independence "8" Fed Com #1

Well: Wellpath: 1 Date: 10/19/2008

Co-ordinate(NE) Reference:

Vertical (TVD) Reference:

Section (VS) Reference: Survey Calculation Method: Well: #1, Grid North SITE 4458.5

Time: 21:28:28

10/19/2008

Well (0.00N,0.00E,269.78Azi)

Minimum Curvature

Db: Sybase

Page:

Plan:

Principal:

Site:

Plan #1

Yes

Date Composed: Version:

Tied-to:

From Surface

Field:

Chaves Co., NM (NAD 83)

Map System: US State Plane Coordinate System 1983

Geo Datum: GRS 1980 Sys Datum: Mean Sea Level Map Zone: Coordinate System:

New Mexico, Eastern Zone Well Centre

Geomagnetic Model:

bggm2007

Site:

Independence "8" Fed Com #1

Site Position: Мар From:

Northing: 740932.00 ft Easting: 693549.90 ft

Latitude: Longitude:

33 2 8.973 N 103 50 11.936 W

Grid

Position Uncertainty: Ground Level:

0.00 ft 4437.00 ft

North Reference: Grid Convergence:

0.27 deg

Well: Well Position:

+N/-S 0.00 ft Northing: 0.00 ft +E/-WEasting:

740932.00 ft 693549.90 ft

Latitude:

33 2 8.973 N 11.936 W 103 50

Position Uncertainty:

0.00 ft

Longitude:

Slot Name:

Surface

**Current Datum:** Magnetic Data:

Wellpath: 1

0.00

Height 4458.50 ft 10/19/2008

Tie-on Depth: Above System Datum: Declination:

Mean Sea Level 8.14 deg 60.96 deg

0.00 ft

Field Strength: 49389 nT Vertical Section: Depth From (TVD)

+N/-S ft

0.00

Mag Dip Angle: +E/-W ft

0.00

**Drilled From:** 

Direction deg

269.78

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100f	Build t deg/100f	Turn t deg/100ft	TFO deg	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
8385.00	0.00	0.00	8385.00	0.00	0.00	0.00	0.00	0.00	0.00		
8697.78	89.60	269.78	8585.00	-0.75	-198.62	28.65	28.65	0.00	0.00		
13036.82	89.60	269.78	8615.00	-17.06	-4537.53	0.00	0.00	0.00	0.00	PBHL	

ar . cj												
MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	Build deg/100ft	Turn deg/100ft	DLS deg/100ft	TFO deg	,	Commen
8300.00	0.00	0.00	8300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
8385.00	0.00	0.00	8385.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP	
8400.00	4.30	269.78	8399.99	0.00	-0.56	0.56	28.65	0.00	28.65	0.00		
8420.00	10.03	269.78	8419.82	-0.01	-3.05	3.05	28.65	0.00	28.65	0.00		
8440.00	15.76	269.78	8439.31	-0.03	-7.51	7.51	28.65	0.00	28.65	0.00		
8460.00	21.49	269.78	8458.25	-0.05	-13.90	13.90	28.65	0.00	28.65	0.00		
8480.00	27.21	269.78	8476.47	-0.08	-22.14	22.14	28.65	0.00	28.65	0.00		
8500.00	32.94	269.78	8493.77	-0.12	-32.16	32.16	28.65	0.00	28.65	0.00		
8520.00	38.67	269.78	8509.98	-0.16	-43.86	43.86	28.65	0.00	28.65	0.00		
8540.00	44.40	269.78	8524.94	-0.21	-57.11	57.11	28.65	0.00	28.65	<sup>′</sup> 0.00		
8560.00	50.13	269.78	8538.51	-0.27	-71.80	71.80	28.65	0.00	28.65	0.00		
8580.00	55.86	269.78	8550.54	-0.33	-87.76	87.76	28.65	0.00	28.65	0.00		
8600.00	61.59	269.78	8560.92	-0.39	-104.85	104.85	28.65	0.00	28.65	0.00		
8620.00	67.32	269.78	8569.54	-0.46	-122.89	122.89	28.65	0.00	28.65	0.00		
8640.00	73.05	269.78	8576.32	-0.53	-141.70	141.70	28.65	0.00	28.65	0.00		
8660.00	78.78	269.78	8581.18	-0.61	-161.09	161.09	28.65	0.00	28.65	0.00		
8680.00	84.51	269.78	8584.09	-0.68	-180.87	180.87	28.65	0.00	28.65	0.00		



### Weatherford International Ltd. PROPOSAL PLAN REPORT



Company: CIMAREX

Field: Site:

Chaves Co., NM (NAD 83) Independence "8" Fed Com #1

Well: Wellpath: Date: 10/19/2008 Co-ordinate(NE) Reference:

Vertical (TVD) Reference:

Section (VS) Reference:

Time: 21:28:28

Well: #1, Grid North

SITE 4458.5

Well (0.00N,0.00E,269.78Azi) Minimum Curvature

Sybase Db:

Page:

**Survey Calculation Method:** Survey TVD N/S E/W VS Build Turn DLS TFO Comment MD Incl Azim deg/100ft deg/100ft deg/100ft deg ft ft ft ft deg deg 28.65 0.00 -198.62 198.62 28.65 0.00 LP 269.78 8585.00 -0.758697.78 89 60 0.00 0.00 0.00 8700.00 89.60 269.78 8585.02 -0.75 -200.84 200.84 0.00 8800.00 89.60 269.78 8585.71 -1.13 -300.83 300.84 0.00 0.00 0.00 0.00 8586.40 -400.83 400.83 0.00 0.00 0.00 0.00 8900.00 89.60 269.78 -1.51 8587.09 -1.88 -500.83 500.83 0.00 0.00 0.00 0.00 9000.00 89.60 269.78 0.00 9100.00 89.60 269.78 8587.78 -2.26 -600.82 600.83 0.00 0.00 0.00 9200.00 89.60 269.78 8588.47 -2.63 -700.82 700.83 0.00 0.00 0.00 0.00 -800.82 800.82 0.00 0.00 0.00 9300.00 89.60 269.78 8589.16 -3.01 0.00 269.78 -900.81 900.82 0.00 0.00 0.00 0.00 89.60 8589.86 -3 39 9400.00 -3.76 -1000.81 0.00 1000.82 0.00 0.00 0.00 89.60 8590.55 9500.00 269.78 1100.82 0.00 9600.00 89.60 269.78 8591.24 -4.14 -1100.81 0.00 0.00 0.00 269.78 8591.93 -4.51 -1200.81 1200.81 0.00 0.00 0.00 0.00 9700.00 89.60 8592.62 -4.89 -1300.80 1300.81 0.00 0.00 0.00 0.00 9800.00 89.60 269.78 9900.00 89.60 269.78 8593.31 -5.27 -1400.80 1400.81 0.00 0.00 0.00 0.00 10000.00 89.60 269.78 8594.00 -5.64 -1500.80 1500.81 0.00 0.00 0.00 0.00 8594.69 -6.02 -1600.79 1600.80 0.00 0.00 0.00 0.00 10100.00 89.60 269.78 8595.39 -6.39 -1700.79 1700.80 0.00 0.00 0.00 0.00 10200.00 89.60 269.78 8596.08 -6.77 -1800.79 1800 80 0.00 0.00 0.00 0.00 10300.00 89.60 269.78 10400.00 89.60 269.78 8596.77 -7.14 -1900.78 1900.80 0.00 0.00 0.00 0.00 8597.46 -7.52 -2000.78 2000.79 0.00 0.00 0.00 0.00 10500.00 89.60 269.78 10600.00 89.60 269.78 8598.15 -7.90 -2100.78 2100.79 0.00 0.00 0.00 0.00 0.00 8598.84 -8.27 -2200.77 2200.79 0.00 0.00 0.00 10700.00 89.60 269.78 10800.00 89.60 269.78 8599.53 -8.65 -2300.77 2300.79 0.00 0.00 0.00 0.00 8600.23 -9.02 -2400.77 2400.79 0.00 0.00 0.00 0.00 10900.00 89.60 269.78 -9.40 -2500.77 89.60 269.78 8600.92 2500.78 0.00 0.00 0.00 0.00 11000.00 8601.61 -9.78 -2600.76 2600.78 0.00 0.00 0.00 0.00 11100.00 89.60 269.78 2700.78 -2700.76 0.00 0.00 11200.00 89.60 269.78 8602.30 -10.15 0.00 0.0011300.00 89.60 269.78 8602.99 -10.53 -2800.76 2800.78 0.00 0.00 0.00 0.00 89.60 269.78 8603.68 -10.90 -2900.75 2900.77 0.00 0.00 0.00 0.00 11400.00 -11.28 -3000.75 11500.00 89.60 269.78 8604.37 3000.77 0.00 0.00 0.00 0.00 11600.00 89.60 269.78 8605.07 -11.65 -3100.75 3100.77 0.00 0.00 0.00 0.00 11700.00 89.60 269.78 8605.76 -12.03 -3200.74 3200.77 0.00 0.00 0.00 0.00 8606.45 -3300.74 3300.76 0.00 11800.00 89.60 269.78 -12.41 0.00 0.00 0.00 8607.14 -3400.74 3400.76 0.00 0.00 0.00 89.60 269.78 -12.780.00 11900.00 -3500.73 8607.83 3500.76 0.00 0.00 0.00 0.00 12000.00 89.60 269.78 -13.160.00 -3600.73 0.00 0.00 0.00 269.78 8608.52 3600.76 12100.00 89.60 -13.533700.75 12200.00 89.60 269.78 8609.21 -13.91 -3700.730.00 0.00 0.00 0.00 12300.00 89.60 269.78 8609.91 -14.29 -3800.73 3800.75 0.00 0.00 0.00 0.00 89.60 269.78 8610.60 -14.66 -3900.72 3900.75 0.00 0.00 0.00 0.00 12400.00 269.78 8611.29 -15.04 -4000.72 4000.75 0.00 0.00 0.00 0.00 12500.00 89.60 12600.00 89.60 269.78 8611.98 -15 41 -4100 72 4100.74 0.00 0.00 0.00 0.00 -4200.71 4200.74 0.00 12700.00 89.60 269.78 8612.67 -15.790.00 0.00 0.00 12800.00 89.60 269.78 8613.36 -16.16 -4300.71 4300.74 0.00 0.00 0.00 0.00 12900.00 89.60 269.78 8614.05 -16.54 -4400.71 4400.74 0.00 0.00 0.00 0.00 13000.00 89.60 269.78 8614.75 -16.92 -4500.70 4500.74 0.00 0.00 0.00 0.00 PBHL -17.06 -4537.53 4537.56 0.00 0.00 13036.82 89.60 269.78 8615.00 0.00 0.00



### Weatherford International Ltd. PROPOSAL PLAN REPORT



Company: CIMAREX

Chaves Co., NM (NAD 83) Independence "8" Fed Com #1

Well: Wellpath: Date: 10/19/2008 Co-ordinate(NE) Reference:

Vertical (TVD) Reference:

Survey Calculation Method:

Section (VS) Reference:

Time: 21:28:28

Well: #1, Grid North

Minimum Curvature

SITE 4458.5

Well (0.00N,0.00E,269.78Azi)

Db: Sybase

Page:

Targets

Field:

Map Map <---> Latitude ----> <--- Longitude ---> Northing Easting Description +N/-S +E/-W Deg Min Sec Deg Min Sec Name Dip. Dir. ft ft ft ft ft 103 51 5.239 W **PBHL** 8615.00 -17.06 -4537.53 740914.94 689012.37 33 2 9.013 N

**Formations** 

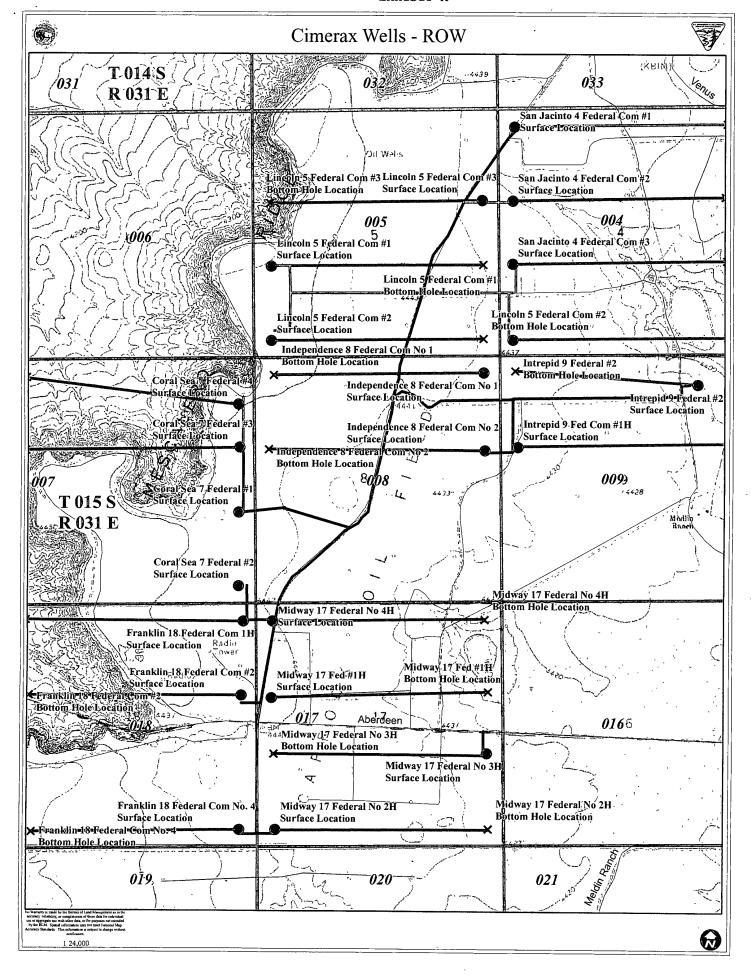
MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
8697.78	8585.00	Lower Abo Dolomite		0.00	0.00

Annotation

MD ft	TVD ft	
8385.00	8385.00	KOP
8697.78	8585.00	LP
13036.82	8615.00	PBHL

**Casing Points** 

MD	TVD	Diameter	Hole Size	Name



# EXHIBIT B PECOS DISTRICT - RFO CONDITIONS OF APPROVAL

#### December 4, 2008

Project: Independence 8 Federal Com #1
EA Log Number: NM-510-2008-140
Surface: 660 FNL & 375 FEL, Sec. 8 T15S-R31E; NM-060850
Bottom: 660 FNL & 375 FWL, Sec. 8 T15S-R31E; Fee
Chaves County, New Mexico NMPM

Applicant: Cimarex Energy Company of Colorado Roswell Field Office: (575) 627-0272

#### **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 using federal mineral materials, payment shall be made to the BLM prior to removal. 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:

# 

#### **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.

# 6" Berm on Down Slope 1' Minimum Depth Natural Ground Level

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 %);

Side

#### 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

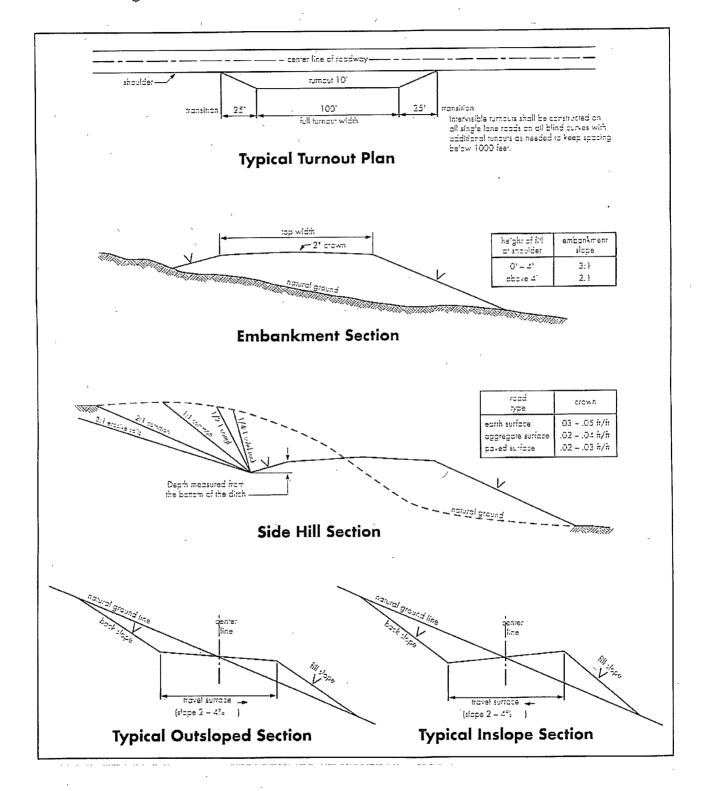
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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

#### 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: <u>13-3/8</u> inch <u>9-5/8</u> inch <u>7</u> inch <u>4-1/2</u> 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. the first casing string.
- 4. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.
- 5. The operator will accurately measure the drilling rate in ft/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion
- 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(s). Any polymers used will be water based and non-toxic.

#### B. CASING

1. The 13 3/8 inch usable water protection casing string(s) shall be set at approximately 340 ft. in competent bedrock.

If not the operator is required to set usable water protecting casing in the next thick competent bedding (i.e. 15 to 25 ft or greater) encountered 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 <u>9-5/8</u> inch intermediate casing is <u>sufficient</u> 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 <u>7</u> inch production casing is <u>sufficient to tie</u> <u>back 500 feet above the uppermost perforation in the pay zone</u>. 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 <u>13-3/8</u> 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 <u>9-5/8</u> 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 <u>13-3/8</u> inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be <u>2000</u> psi. Before drilling below the <u>9-5/8</u> inch intermediate casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be <u>3000</u> psi.
- 3. The BOPE shall be installed before drilling below the  $\underline{13-3/8}$  inch surface casing and the  $\underline{9-5/8}$  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 <u>drilling below the 13-3/8 inch surface</u> <u>casing</u> to the reduced pressure of <u>1000</u> 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

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	(Ŝ. coccinea)	}					
Annual sunflower	(Helianthus annuus)	<u>0.75 LB.</u>					
TOTAL POUNDS PURE LIVE	E 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.

# rm 3160-5 ovember 1994)

### New Mexico OH Conservation Division, District 1 1625 N. French Drive

UNITED STATES, NM 88240 DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

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

Lease Serial No.

DEC 0 8 20125

SUNDRY NOTICES AND REPORTS ON WELLS HOBBSOG not use this form for proposals to drill or to re-enter an SHL LC-060850 **BHL Fee** If Indian, Allottee or Tribe Name

abandoned v	posals.	7. If Unit or CA/Agreement, Name and/or No.							
SUBMIT IN TRIPLICA									
Type of Well  X Oil Well  Gas Well  Other		Pending  8. Well Name and No.  Independence 8 Federal Com No. 1							
Name of Operator Cimarex Energy Co. of Colorado	9. API Well No.	derai com No. 1							
	area code)	30-005-							
<ul> <li>Address</li> <li>PO Box 140907; Irving, TX 75014-090</li> </ul>	7	3b. Phone No. (include 972-401-3111		10. Field and Pool, or	Exploratory Area				
Location of Well (Footage, Sec , T., R., M., or Surve				Abo Wildcat					
BHL 660 FNL & 375 FWL	8-15S-31E			11. County or Parish, Chaves County, NN	M				
12. CHECK APPROPE	RIATE BOX(ES) TO	O INDICATE NATU	JRE OF NOTICE	E, REPORT, OR O	THER DATA				
TYPE OF SUBMISSION		TY	PE OF ACTION						
X Notice of Intent	Acidize Alter Casing	Deepen Fracture Treat	Production (Start/F	/Resume) Water Shut-Off Well Integrity					
	Casing Repair Change Plans	New Construction Plug and Abandon	Recomplete Temporarily Aband	X Other Change Rig, switch to closed-loop					
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal	system	system w/ haul-off bins				
If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)  Cimarex has chosen to drill this well with Patriot Rig 4. As a result, aspects of our surface use plan have changed.  Attached are the relevant revised aspects of the Surface Use Plan as well as a revised Rig Plat.									
<ol> <li>I hereby certify that the foregoing is true and correct Name (Printed/Typed)</li> </ol>	t	Title							
Natalie Krueger		nalyst							
Signature  Latalia Luo	, 2008								
	THIS SPACE FOR	R FEDERAL OR STAT	E OFFICE USE						
pproved by /s/ Jerry Duto			Utelotant Field	. • • •	0 4 DEC 2008				
conditions of Approval, if any, are attached. Approvertify that the applicant holds legal or equitable title hich would entitle the applicant to conduct operation	FIELD OFFICE								
itle 18 U.S.C. Section 1001, makes it a crime for an audulent statements or representations as to any r			partment or agency of	the United States any false	e, fictitious or				

Instructions on reverse)

# Surface Use Plan Revisions Independence 8 Federal Com No. 1

8-15S-31E

SHL 660 FNL & 375 FEL

**BHL 660 FNL & 375 FWL** 

Chaves County, NM

#### Methods of Handling Waste Material

- 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.

#### 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 stockpile 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.

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# Patriot Rig 4

# Cimarex Energy Co. of Colorado

