Form 3160-3	received			Cons. Div French Dr.		FORM A	APPROVED
(April 2004)	JAN 13 2009	Но	bbs.	NM 88240			. 1004-0137 farch 31, 2007
	INITE	DSTATES				5. Lease Serial No. Surface - Pri	ivately Owned
	HOBBSOGRATMENT						NM-0153471
	BUREAU OF LA		GENIEN	L		6. If Indian, Allotee or	Tribe Name
	APPLICATION FOR PER		• •	ENTER			and Manager and Ma
la Type of Wo	rk: X DRILL	REENTEF	ł			7. If Unit or CA Agree	ment, Name and No.
				_		8. Lease Name and We	ell Noron 375
1b. Type of Well:		er	X Sing	gle Zone Multiple	Zone	Coral Sea 7 Feder	ral No. 1
2 Name of Op			2	1 miles		9. API Well No.	PARA
Cimarex E 3a. Address	Energy Co. of Colorado	3b P	hone No. (nclude area code)	<u>/</u>	30-005- 10. Field and Pool, or 1	Exploratory
PO Box 14090 Irving, TX 750			2-401-31	· /		Abb; Wildcat	APO-WOLFCA
4. Location of	Well (Report location clearly and in accor	dance with any	v State requ	lirements.*)		11. Sec., T. R. M. of Blk.	and Survey or Area
At Surface	1980 FSL & 33	0 FEL	Uni	+I			
At proposed	prod. Zone 1980 FSL & 330	FWL L	lnif	posed Horizontal Ab	o Test	7-15S-31E	
14 Distance i	in miles and direction from nearest town or	post office*		~		12. County or Parish	13. State
15 Distance fro			No of acres			Chaves cing Unit dedicated to this w	NM
location to n property or l (Also to nea any) 18 Distance fro	nearest lease line, ft rest drig unit line if 330 m proposed location*	19. I	Proposed D		20. BLM	N2S2 159. 1/BIA Bond No. on File	08
	ell, drilling, completed, on this lease, ft.			Iole 9500' 13092'			
	NA		-	D 8615' ~/		NM-257 23. Estimated duration	/5
21. Elevations	s (Show whether DF, KDB, RT, GL, etc.)		тррохина	te date work will start		23, Estimated duration	
	4,445' GR			15/2008		35-45 ROSWELL CONTROLLED V	
	completed in accordance with the requirement			ttachments			
 Well plat ce A Drilling P A Surface U 	rtified by a registered surveyor	it System Land		 Bond to cover Item 20 above Operator Certi 	the operati). fication e specific in	ons unless covered by an exi	2
25 Signature			Name (P	rinted/Typed)			Date
	2 eno Faris	•	Zeno	Farris			08.07.08
Title	Operations Administration						
Approved By (S	s/ Jerry Dutchover		Name (P	rinted/Typed)	v Dute	chover	Date 11 0 JAN 2009
Title Acting	Assistant Field Manag Lands And Minerals	er,	Office	ROSWELL FIE	D OFF	ICE	APPROVED FOR 2
conduct operation	oval does not warrant or certify that the applicant is thereon.	holds legal or eq	uitable title	to those rights in the subj	ect lease whi	ch would entitle the applicant to	,
Title 18 U.S.S. Se	proval, if any, are attached. ection 1001 and Title 43 U.S.C. Section 1212, ma	ke it a crime for	any person l	nowingly and willfully to	make to any	department or agency of the Un	nited
States any false, i * (Instructions or	fictitious, or fraudulent statements or representation page 2)	onsias to any ma	tter within it	s jurisdiction			
DECLARE	D WATER BASIN 132	ECEIA	εn.	GF	NFRA	AL SUBJECT TO L REQUIREMEN STIPULATIONS	ITS AND

ľ,

Operator - Landowner Agreement

Company: Cimarex Energy Co. of Colorado Proposed Well: Coral Sea 7 Federal No. 1 Federal Lease Number: NM-0153471

This is to advise that Cimarex Energy Co. of Colorado has an agreement with: <u>Bill Medlin; PO Box</u> 50; Maljamar, NM 88264 the surface owner, concerning entry and surface restoration after completion of drilling operations at the above described well.

After abandonment of the well, all pits will be filled and levelled and all equipment and trash will be removed from the well site. No other requirements were made concerning restoration of the well site.

August 7, 2008

Signature Zar Zeno Farris

Manager, Operations Administration

Date

V

.

Application to Drill **Coral Sea 7 Federal No. 1** Cimarex Energy Co. of Colorado Unit I, Section 7 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 FSL & 330 FEL BHL 1980 FSL & 330 FWL Proposed Horizontal Abo Test
- 2 <u>Elevation above sea level:</u> 4,445 GR

÷.

- 3 <u>Geologic name of surface formation:</u> Quaternery Alluvium Deposits
- 4 <u>Drilling tools and associated equipment:</u> Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5 Proposed drilling depth: Pilot Hole 9500' MD 13092' TVD 8615'

6 <u>Estimated tops of geological markers:</u> 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
Wolfcamp	Oil
Queen	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	9,500	8.6 - 9.5	28-29	NC	Fresh water and brine, use hi-vis sweeps to keep hole clean
	8,395	to	13,092	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 9500' 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 4%" 11.6# P-110 <u>BTC</u> (Peak Systems Iso-Pak Liner) from RSB packer @ 8288' to 8694' (End of Curve) and <u>LTC</u> from 8694' to TD @ MD 13092' and TVD 8615.' No cement required for Peak Systems Liner. Lateral length 4588' and liner length 4804.'

Application to Drill Coral Sea 7 Federal No. 1 Cimarex Energy Co. of Colorado Unit I, Section 7 T15S R31E; Chaves County, NM

9 Casing Program:

`

-

- 1

Hole Size (inches)		Dept	th	Casing O	D (inches)	Weight (lbs)	Thread	Collar	Grade
17½	0	to	340	New	13¾	48	8-R	STC	H-40
12¼	0	to	3950	New	9%	40	8-R	LTC	J-55
8¾	0	to	9500	New	7	26	8-R	LTC	P-110
6⅓	8288	to	8694	New	41⁄2	12	8-R	BTC	P-110
6½	8694		13092	New	4½	12	8-R	LTC	P-110

10 Cementing Program:

Surface	<u>Lead:</u> 110 sx Light Premium Plus + 0.125 lb/sk Poly-E-Flake + 1% CaCl₂ (wt 14.2, yld 1.64) <u>Tail:</u> 220 sx Premium Plus + 2% CaCl₂ (wt 14.8, yld 1.35) TOC Surface
Intermediate	<u>Lead:</u> 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.
•	otected by setting surface casing at 340 and cementing to Surface ill be protected by setting intermediate casing at 3950 and cementing to Surface tion casing at 9500 and cementing to 3750

Cimarex uses the following minimum safety factors:

Burst	Collapse	Tension
1.125	1.125	1.80

Application to Drill **Coral Sea 7 Federal No. 1** Cimarex Energy Co. of Colorado Unit I, Section 7 T15S R31E; Chaves County, NM

11 Pressure control Equipment:

1 8.3

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 Coral Sea 7 Federal No. 1 Cimarex Energy Co. of Colorado Unit I, Section 7 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

· 50

- 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 <u>H₂S Detection and Alarm Systems:</u>
 - 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 Coral Sea 7 Federal No. 1 Cimarex Energy Co. of Colorado Unit I, Section 7 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.
- \star 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	SO ₂	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).

Company Office

•

-

· •

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

800-969-4789

Key Personnel

Name	Title	Office	Mobile
Doug Park	Drilling Manager	972-443-6463	972-333-1407
Dee Smith	Drilling Super	972-443-6491	972-882-1010
Jim Evans	Drilling Super	972-443-6451	972-465-6564
Dorsey Rogers	Field Super		575-200-6105
Roy Shirley	Field Super	n maar a maar it m	432-634-2136
<u>Artesia</u>	maan m kaan in kaan m kana n kaan n kaan in kaan .	N NOME IS ADDR IS ADDRE IN LODIE IN DOLL IN MODE IN NOME IN N	naar in daara in daari in daarii do daarii do daarii in daarii in daarii do daarii do daarii do daarii do
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	. Accur in factor in bound in accur in bound in bound	575-748-1283	and a hand it hadd it hadd it start it scar it scart it shart it hadd it hadd it same
Carlsbad	, maar n maan n maar n maar n maar n maar n		
<u>Carisbao</u> 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	
<u>Santa Fe</u> New Mexico Emergency Response Commission (Sar	ata Ea)	505-476-9600	
New Mexico Emergency Response Commission (Sar	-	505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
National			
National Emergency Response Center (Washington,	D.C.)	800-424-8802	ana a mana na mana ke banar ke danar ke manar ke manar ke manar ke banar ke banar k
<u>Medical</u>	. And a substant of Albert of Annual St. Albert of Alberts .		
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; Albu	querque, NM	505-842-4433	
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albu		505-842-4949	
Other Boots & Coots IWC		800-256-9688	201 021 0004

800-256-9688	or	281-931-8884	
432-699-0139	or	432-563-3356	
575-746-2757			
575-746-3569			Page 30
	432-699-0139 575-746-2757 575-746-3569	432-699-0139 or 575-746-2757 575-746-3569	432-699-0139 or 432-563-3356 575-746-2757

Surface Use Plan Coral Sea 7 Federal No. 1 Cimarex Energy Co. of Colorado Unit I, Section 7 T15S R31E; Chaves County, NM

- 1 EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of Eddy Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the proposed well site as staked.
 - B. From mile marker 30 of Hwy 31, go Northeast 0.9 miles on lease road to lease road. On lease road, go Northwest 0.2 miles to proposed lease road.
- 2 PLANNED ACCESS ROADS: 937.6' of on-lease access road will be built. The portion of the proposed road in 8-15S-31E is on private surface and will therefore not need a Federal or State ROW.
- 3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A":
 - A. Water wells None known
 - B. Disposal wells None known
 - C. Drilling wells None known
 - D. Producing wells As shown on Exhibit "A"
 - E. Abandoned wells As shown on Exhibit "A"
- 4 If on completion this well is a producer, Cimarex Energy Co. of Colorado will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied by a Sundry Notice.

5 Location and Type of Water Supply:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6 <u>Source of Construction Material:</u>

If possible, construction will be obtained from the excavation of drill site. If additional material is needed, it will be purchased from a local source and transported over the access route as shown on Exhibit "C".

7 Methods of Handling Waste Material:

- A. Drill cuttings will be seperated by a series of solids removal equipment and hauled to the cuttings drying area and then 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.

8 Ancillary Facilities:

A. No camps or airstrips to be constructed.

Surface Use Plan Coral Sea 7 Federal No. 1 Cimarex Energy Co. of Colorado Unit I, Section 7 T15S R31E; Chaves County, NM

9 Well Site Layout:

 \mathbf{v}

- A. Exhibit "D" shows location and rig layout.
- B. This exhibit indicates proposed location of the 100 x 100 cuttings drying area.
- C. Mud pits in the closed circulating system will be steel pits and the cuttings drying area will be surrounded by a 2' X 2' ring levee and a 2' earthen berm. A 20 mil liner will cover the cuttings drying area and extend a minimum of 2' over the earthen berm where it will be anchored down. A pump off system will pump any accumulated fluids in the ring levee to the rig holding tanks to be cleaned and reused.
- D. After drying, cuttings will be hauled off to a State-Approved disposal facility.
- E. If the well is a producer, the cuttings drying area and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10 Plans for Restoration of Surface:

Rehabilitation of the location will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be recountoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

11 OTHER INFORMATION:

- A. Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.
- B. The wellsite is on surface owned by Bill Medlin. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.
- C. An Archaeological survey will be conducted on the location and proposed roads, and this report will be filed with the Bureau of Land Management in the Roswell BLM office.
- D. There are no know dwellings within 1½ miles of this location.

Operator Certification Statement Coral Sea 7 Federal No. 1 Cimarex Energy Co. of Colorado Unit I, Section 7 T15S R31E; Chaves County, NM

Operator's Representative:

'n

-

• 5

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

CERTIFICATION: I hereby certify that the statements and plans made in this APD are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Cimarex Energy Co. of Colorado and/or its contractors/subcontractors and is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME:	ZenoFanis
	Zeno Farris
DATE:	August 7, 2008
TITLE:	Manager Operations Administration

DISTRICT I 1625 N. French Dr., Hobbs, NM 85240

DISTRICT II 1201 W. Grand Avenue, Artesia, NN 58210

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

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy, Minerals and Natural Resources Department RECEVENEERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505 JAN 13 2009 Form C-102 Revised October 12, 2005

CI AMENDED REPORT

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

HOBBSOCD

WELL LOCATION AND ACREAGE DEDICATION PLAT

API	Number		Pool Code			Pool Name					
30-00	5- 29	1092		-	Abo-Wildcat; 1490-WOLDCA						LOCAN
Property	Code				Proper		36			Well N	umber
375	31			CORAL 3	SEA "7'	' FEI	DERAL CON	٨		1	1
OGRID N	0.		·····		Operat	or Nam)e			Eleva	
16268	33		CIM	IAREX EI	NERGY	CO.	OF COLOR	AD0		444	5'
	THE DESIGNATION OF C				Surface	Loc	ation		,,,,,,,,		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from	th e	North/South 1	line	Feet from the	East/West line	County
1	7	15 S	31 E		198	30	SOUTH		330	EAST	CHAVES
			Bottom	Hole Loc	ation If	Diffe	rent From	Surfa	ce	L	.[]
UL or lot No.	Section	Township	Range	Lot Idn	Feet from	the	North/South 1	ine	Feet from the	East/West line	County
L	7	15 S	31 E		198	30	SOUTH		330	WEST	CHAVES
Dedicated Acre	s Joint o	r Infill Co	nsolidation (Code Ord	ler No.					A	
159.08											
NO ALLO	WABLE W	TLL BE A	SSIGNED 7	TO THIS C	COMPLET	ION L	INTIL ALL IN	ITERE	STS HAVE BI	EEN CONSOLID	ATED
							APPROVED I				
1	1	· · · · · · · · · · · ·				1	·····		00000]
						1			OPERATO	OR CERTIFICAT	
						1			contained here	rtify that the inform in is true and comp	lete to
						1			the best of my knowledge and belief, and that this organization either owns a working		
	l							interest or unleased mineral interest in the			
				l					land including the proposed bottom hole location pursuant to a contract with an of such a mineral or working interest, or		
	1					1			eompulsory pool	ting agreement or a ing order herelofore	entered by
F	+			<u> </u>		- + -			the division.	,	
	1					Ì			Zen	Fair	
	Í					Ì			Signature	ofany	<u>Date</u>
<u>BOTTOM HOLE</u>							SURFACE LOCAT				
Long - W103	52'07.41"						h – N33°01'42.9 ng – W103°51'1			Zeno Farris	
NMSPCE- N 7	38252.346						SPOF_ N 73827	1.1	Printed Nam	e	
(NAD-83	33730.182 5)					1	E 68831 (NAD-83)	7.5	CUDVEY	D CEPTING	
							()		SURVEIU	OR CERTIFICAT	ION
	1									, that the well locat	
	l						444 <u>7.</u> 1 <u></u>	4444	-	as plotted from field made by me or	- 11
330'	1		4588.6'			1	Í,	330	supervison an	d that the same is	true and
	T			[-1			correct to th	e best of my belie	r.
	l		NM-01	153471		1	4446.0	4444		RIL 10, 2008	
				1		1			D. D. d. C.		
		100 No.							Signature & Professional	Sea WEXIN	≬
	1						7	5		/ */ \°/	N []
1980						1	à	1200		エしょし	L)
	1					Ι				that a	
	1					Ι			6.w		/
	l					I			Certificate No	. Gary L. Jones	7977
						1			_	·	
L	L			l					<u> </u>	SIN_SURVEYS	



×€ 10113700 40	(g) 5 1 + 3 60334 R. G. Bertender	1	105883	IMarshall t.WinSton H BP 034 MJ3 5	3-1 2011 105AB3 1 13099	Bisco 1 LP	2 4 2 1 0 60 821-A	YatesPet.
No Dominion No Dominion No Rofed Com,	B Gurley B G Barton K H.Baxter		Ŋ• 4 ¹²⁰ ¥		130~1 1 U,S.	SES Inc., YAM 9 Stello Zimmermoneial	SESINC, MALI Siello Limmermonelo Soner Decis	Yates Pet. 31 10581 120
: Pet., etai	Dominion 311 zoiz	U, 5.	31.32	Riofet.etal2.57. Stevens Oil	Yotes Pet HBP	"kntweil"	Sohio, etal K.O. Butler	
4183 //?º	Bertander Dominicon COBE Booker 2-7-2005 R G Bortan 4-10-2005 Berter 3-27-2005		B 1 Berten JITT 1	1 • 27 - B6	DI53690	A TD 2481 7 Tr. 7-B F K 0.Butler	N.G. Pennose j ocosce-4 j	(Gulf) 800 8-8459
· · ·	8%//er (<u>3.27.2005)</u> 7. j Danglade 26	25 -	W.L. Bodger Derrick Stass J	S.W. Bodewick, etal	" Yetes	Fed or Br	15 Tr. 54 U. 5" 28 80 Butler K. 0. Butler	BURLES
A I-AON	20	25	Yates Pel	+ Huff		9 10 102903 A 10 11.558 KoButter, E A. Hansan Hansan Tr. 55 A	1r. K 0, borier 52 j2 Tr. 54 9.	BURLE:
Yates Pet Codar Point - Fed.		Yates Pet. Hodgef ed. TD 2725 D/A9 4 87	HBP 31.62 71 0/4 4 25-06, 1451	Velma Helder-Rese to 2759 d Silver Mon. Alins W. G. Ross, tol	Bennett. Ress To 2024 - 4 Silver Mori, Mins	"H. A. Lindley "	13 I I I I I I I I I I I I I I I I I I I	5-D (17.W. Vamer) 3-12-10044
TD 2435	U S.	U.S.	0/A 4 25.08 1 AFI U. 571 38.67 /1 / Yotes Pet. , Executor +	W. G. Rossettal Notes Pet stal 3 1 2005 94613	W.G. Ross, et al Dakoja Chevron 3-1-39 HBP	Lodi vičk, eta 1 Dakata Res.	Mrd 1/c.w. 0) Troiner 3 Tr.68: #2	6, 0 Butter 15: Ropid Cal
0il 2006 '4	Cimarron Expl. 6 · 1 2012 108465 11000	Whity.orth Res. 3-1 2027 V-5570 16 22	402885 1475 2	Netwite	5510 IL-7662	3 - 1 - 99 VA 1158	MTD4726	Gulf
2			Votes Pel HBP DIS3690	1 70 168 Fed 1 70 1683 3 1 00 2 77 3 1 00 2 77 8 1 2 30.50	HBP B-10420- L123_1 7	1	1 Butling # # # # # # #	Burieso
4 ,-\$-1	35 Polport Oil	Yates, Pet , etni 3+1 - 2007 V 6523 15 44	988 P -	1 1 1	Sun HBP 8-478	2 K.O. 16uffer HBP HBP 18.8318- 18.8318- 18.8318- 18.9318-21		EAST
Dulpart- Witter- Fed. 70 2525 04 2 6 83	Vales-Fed. 110 1535	ېې ۱۶۳۲	Jes 7 Roy Fur- Sheldon	1		Guir Bkadrad	12 articulare 14	as SI.
· S.	U.S. 10.33 1/20.38 3/20 22 260.45 1	40.31 340.30 3140.20 2120 02 1	TD 2791 DIA 6-2;71 38.57 446 10	U.S. 3146.16 \$146.23.	10.32 AI2.14	Coral Se	a 7 Fed #1	Chaves-S 11.12 (141.1 14
FW. Holbrook, etai HBP D 554963	Dominion Dominion	EOG Res.	BranexRes 17 - 1 - 2004 9 4 1 5 7	1 1 1	40.32 M2.44 Phillips (A MBP Fac-E 0153173 K 0 Butk 0153173 K 0 Butk	TE 3121 - Ada	(Bleasae Pet.) Jfs : T- 27	Tr. K.O Buti 3A 0 69851 Tr. 3A
- 0554343	Ltd R.E. Williams	4.23.2005	36 35		\$ 6	Tr.9 7 10 11	0 5 3 3 2 - C 5 7 7 11 5 7 7 7 7 45 4 5 10 11 7 7 7 7 45 4 5 10 11 12 12 12 12 12 12 12 12 12 12 12 12	#5 Tenneco Reno
Notes Potes 9:1. stal 9:1. 2006 96725	2	1	3931 8 K0Butler H8P	Bronex K.S. Res Adoms I 12 Leven IKO Buller		10 // 1	K 0.Butler Tr 3C K.0Butler	7 HE.Yates Chasopeol 3-1-2011 10-283 280 00
Cities Serv			015217 39.01 T	10 3157 Hodges Sull	Bledsoc Peter 0 69 8 97-6 13 Tr 11 14	Tr. B 0 5 10 3 2 5 1/ 0 3 2 16	Tr.B <u>State</u> Tr.2 059631 pt15 pt16 #13 d14	U.S.
0 478452 5. HBC	State	U.S.		U.S. Tr.3	Set Trainer B.R. Me	dlin,etal (S)	Medlin, ctol(S)	B R Medlin,e
Cimorron Expl. HBP	= Cimorron Expl. HBP 0376785	Yates Drigetoinet, 14 6 · I · 2012 (Nodel 6) 108466 (MSSman) 7000 19611	KD.Butler HBP 350850	Hondo	(M.R. Tr.C.S Antweit B.F.	#2 // KO Butle	K.O Butler Tr. 10, 7	Bi Gavi H.E. Variasi
0376785	0376783	1 ' 1	3790- 3,	Oil) B.R. +n 3580) Atedim, etai (5)% Cynthio Mea i i	T	¹ // ^{Tr 3} #8 ⁴ / ₄ 7 ⁴ / ₂ μ.s.	45 D'Neill Fe TEBITS O'N eill Tostal Fedgrol HEP	Chesoper 3 - 1 - 201 105285 2502
0	11	== 12	33.08 3 ¹ КО	Butler		Antweill K.O. Tr.57 Butler	Ruller Buller Tr. 58 Bradley Tr. 58 Bradley	
Expl. 3 / 2010 103680 17099	Antweil Moko-Fed. TD2754 D/45-25 56		39.10 I 015.	BP 3471 B.R.	1 067524-4	415 8 R1 - 15 317	B.R. Out Medlin St. 3300'	
ç	U. S.	U.5.		U.S.(5)	415 U.5 A4 B R Medhin, eral (S)	415 B RI 4 Tr. 6 Mcdlin pr 4 A) erof 542 pr 4 A) M.h. Medlin	SK. Medlin, etallo	U.S. B.R Medlin, HE Yates
EOG Pes H8P	Cimarton Lapl.			0 Butker HBP 153471 = (31)=	K.O. NO	Vates The ta	HBP 1 06-53-1	Chesapeo 3 - 1 - 201 105885 28000
15011	13080	Yotes Pet etal Z i 2015 13405			BUTLER		1 M Smith Timbers 112 12005	
5	4	US mins 10 10 4	3377 3			B.R. Medlin,eral(S)		
,man	(AH), US.MINS Ozburn(S), A.H Ozborn(S)	A HI Ozbarn (S) A McCillion ;	OzhornST Sams	KO. Callier Butter 15 Tri 64	1 1	OUFEN		U.5
u.5.	A A Dran 	V KCAPBC TD 3037 DAB 25 78 U.S. Franklings	Bob £ 015347 Jerry 015347 Deon M.I. U.S.	A.H Ozborn	<i>U.</i>	B.R. S. Medlin,etal (S)		
Control Contro	HE. Yates Co. 3, 2010 . Mr. Chillan 103881 . Komilus	* otes Pet, etal 11-1-97 89817 2-23	35.32 /1 Sun Mognati HBP 1 MewAr B 18420 Chi-DM	MobilHork O Butk 1:333 2 Tr 471 E 29251 Slote New Mext	Lote Bito A Tr 25 12-1 Broster 9 Brian Station	Tr. 29 KO Buller HBU 1819218 A1 76	12 - 1 - 2005 V-6055	Ri
AH Comarron Expl.		A Fed Hobbs U.S.	3931 7 10 3170 J.I. O'Neill, Jr. HBP J. J.		Tr.19 5 Tr.23	(Tex.Pacific Oil)	- 209 <u>28</u>	HE 111 1- V-6- 1 25
2 1976785	23	Pet.etol US 24 Marbob, etal	1	19-1-1-5-011 19-1-1-5-011	Sun Tr.21	Sohio O'Neill	H.E. Yates Co	Sun Sun
, Pet., 1/4 Nadelt, IGussman I NBP		240 20 0376785	39.30 2 K O Futh	I KOButter Tr 47	Sono E Tick	Amoco	12 1 - 2095 V 6041 20189	TD :
19611 .5. (ates)	на, 1 U.S. А.Н Q-born(S	Tobor Tobor DA4557 U.S. Deborn (S. Wright, Tc, etc) U.S. Wright, Tc, etc)	Tr 43- 7	15 dif E-BEE3 State	frai d'a fagai B-icait I St	State 41701	State .	5101
AcCiellon Nadel E.	Yates Fet. etal 6 1 2011			le Radius N	10	P.11 mon Vates Guil - SI. IPe1 etcl TD 3141 11-1-2006 V-6063	Yates Petertal 3 - 1 - 2011 102808 850 <u>50</u>	Che II
Clerium (Gussman r.d. (Gussman lough C (1961) 1953)	105592 Chi Oper, 24022 Mi Komey 100,851	Yotes Coral		eral No. 1		40020 Texaco I BP 1	650 <u>⊽∞</u> U.S.	
7 Lister	Gruy Pet White Depris Willing Code (EOG Ress) Machan Alaf	1246221	7-15S-3). of Colora 1E	UU 17r. 40	29	2'8 A A HINE 2007 A A	
Iara DEG () Iellon Fed Graham 1272 Boy Lo 100 hordou 100 hordou	0376785	No. 1 and A	1980 FSL 8	& 330 FEL	9 Union INTD323		Pogo Proc. Getty 4-15-2004 4-21-2004 Jauke	····
Hechellon Fed	12015 12015 12011 106892 106892 124022 10557 124022 10557 10557 10557 10557 10557 10557 10557 10557 10557 10557 10	31641		k 330 FWL		I Getty I HBP tota E-5819	A.C. Taylor	
Yotes Pet, 1/4	Yates Pet.etal S 1 2010 6 1 2011 V.7382	Yates Pet. ctal	aves Cour	.isoncial	alty arien C	heso peake Expl. 12 1-2005 v 6056 140 \$8	Chesapeake Sun Cont'l 1-1-2006 V-608' NBP HPP 3902! C-5584 B-104 11	
Nadel E, Gussman HBP 19611	24052 Stote Yotestel Yates Pet.etal	S - 1 - 2010 V 7394 316	1.P.C LD. Eisne			Mid-Cant.	Yules Pet, etal 8 - 1 - 2006 1	Conty , HBP
	5 1 2010 6 1 2011	I	malaria Tali Elsine	- many states -	Elizan Jul	¥11 1194	· · · · · · · · · · · · · · · · · · ·	•





Patriot Rig 4

• ...

Cimarex Energy Co. of Colorado



•



ORILLING OPERATIONS CHOKE MANIFOLD 5M SERVICE

÷

۰.,





Planned Wellpath Report Preliminary Page 1 of 6



INTEQ

REFER	REFERENCE WELLPATH IDENTIFICATION							
	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL					
	Chaves County, NM	Well	No. 1H					
	(Coral) Sec 7, T15S, R31E	Wellbore	No. 1H PWB					
Facility	Coral Sea 7 Fed No. 1H							

REPORT SETUP	INFORMATION		
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.77777	report - more	5/29/2008 at 10:36:14 AM
Convergence at slot	0.26° East	Database/Source file	WA_Midland/No1H_PWB.xml

	Local coo			ordinates	Geographic coordinates		
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude	
Slot Location	0.00	0.00	688317.50	738271.10	33°01'42.900"N	103°51'13.527"W	
Facility Reference Pt			688317.50	738271.10	33°01'42.900"N	103°51'13.527"W	
Field Reference Pt			688317.50	738271.10	33°01'42.900"N	103°51'13.527"W	

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 1H SHL (RT) to Facility Vertical Datum	18.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 1H SHL (RT) to Mean Sea Level	4463.00ft
Vertical Reference Pt	Rig on No. 1H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	269.77°



Planned Wellpath Report Preliminary Page 2 of 6



REFER	ENCE WELLPATH IDENTIFICATION		
Operator	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Coral) Sec 7, T15S, R31E	Wellbore	No. 1H PWB
Facility	Coral Sea 7 Fed No. 1H		

VELLPATH DATA (134 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	269.766	0.00	0.00	0.00	0.00	0.00	Tie On
100.00†	0.000	269.766	100.00	0.00	0.00	0.00	0.00	
200.00†	0.000	269.766	200.00	0.00	0.00	0.00	0.00	
300.00†	0.000	269.766	300.00	0.00	0.00	0.00	0.00	
400.00†	0.000	Alter and the second states in the second states in the second states of the	400.00	<u>0.00</u>	0.00	0.00	0.00	1.413
500.00†	0.000	269.766	500.00	0.00	0.00	0.00	0.00	
600.00†	0.000	269.766	600.00	0.00	0.00	0.00	0.00	
700.00†	0.000	269.766	700.00	0.00	0.00	0.00	0.00	
800.00†	0.000	269.766	800.00	0.00	0.00	0.00	0.00	
, , , 900.00†	0.000	269.766	900.00	0.00	0.00	. ~ 0.00	0.00	
1000.00†	0.000	269.766	1000.00	0.00	0.00	0.00	0.00	
1100.00†	0.000	269.766	1100.00	0.00	0.00	0.00	0.00	
1200.00†	0.000	269.766	1200.00	0.00	0.00	0.00	0.00	
1300.00†	0.000	269.766	1300.00	0.00	0.00	0.00	0.00	
1400.00†	0.000	269.766	1400.00	0.00	0.00	0.00	0.00	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
1500.00†	0.000	269.766	1500.00	0.00	0.00	0.00	0.00	
1600.00†	0.000	269.766	1600.00	0.00	0.00	0.00	0.00	
1700.00†	0.000	269.766	1700.00	0.00	0.00	0.00	0.00	
1800.00†	0.000	269.766	1800.00	0.00	0.00	0.00	0.00	
	0.000	269.766	1900.00	0.00	0.00	0.00	(0.00)	<u> </u>
2000.00†	0.000	269.766	2000.00	0.00	0.00	0.00	0.00	
2100.00†	0.000	269.766	2100.00	0.00	0.00	0.00	0.00	
2200.00†	0.000	269.766	2200.00	0.00	0.00	0.00	0.00	
2300.00†	0.000	269.766	2300.00	0.00	0.00	0.00	0.00	
	0.000		2400.00	0.00	0.00	0.00	0.00	
2500.00†	0.000	269.766	2500.00	0.00	0.00	0.00	0.00	
2600.00†	0.000	269.766	2600.00	0.00	0.00	0.00	0.00	
2700.00†	0.000	269.766	2700.00	0.00	0.00	0.00	0.00	
2800.00†	0.000	269.766	2800.00	0.00	0.00	0.00	0.00	
2900.00†	0.000	269.766	* 2900.00	0.00	0.00	0.00	0.00	







REFER	ENCE WELLPATH IDENTIFICATION		
Operator	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Coral) Sec 7, T15S, R31E	Wellbore	No. 1H PWB
Facility	Coral Sea 7 Fed No. 1H		

MD	Inclination	Azimuth							
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[°/100ft]		
3000.00†	0.000	269.766	3000.00	0.00	0.00	0.00	0.00		
3100.00†	0.000	269.766	3100.00	0.00	0.00	0.00	0.00		
3200.00†	0.000	269.766	3200.00	0.00	0.00	0.00	0.00		
3300.00†	0.000	269.766	3300.00	0.00	0.00	0.00	0.00		
.3400.00†	0.000	269.766	3400.00	0.00	<u>~0.00</u>	0.00	a construction of a feature of the second		
3500.00†	0.000	269.766	3500.00	0.00	0.00	0.00	0.00		
3600.00†	0.000	269.766	3600.00	0.00	0.00	0.00	0.00		
3700.00†	0.000	269.766	3700.00	0.00	0.00	0.00	0.00		
3800.00†	0.000	269.766	3800.00	0.00	0.00	0.00	0.00		
3900.00†	0.000	269.766	<u>``3900.00</u>	0.00	×0.00	÷ +0.00	• 0.00	6	
4000.00†	0.000	269.766	4000.00	0.00	0.00	0.00	0.00		
4100.00†	0.000	269.766	4100.00	0.00	0.00	0.00	0.00		
4200.00†	0.000	269.766	4200.00	0.00	0.00	0.00	0.00		
4300.00†	0.000	269.766	4300.00	0.00	0.00	0.00	0.00		
4400.00+	0.000	1 269.766	4400.00	0.00	0.00	0.00	0.00		
4500.00†	0.000	269.766	4500.00	0.00	0.00	0.00	0.00		
4600.00†	0.000	269.766	4600.00	0.00	0.00	0.00	0.00		
4700.00†	0.000	269.766	4700.00	0.00	0.00	0.00	0.00		
4800.00†	0.000	269.766	4800.00	0.00	0.00	0.00	0.00		
4900.00+	0.000	269.766	4900.00	0.00	0.00	0.00	0.00	<u> </u>	
5000.00†	0.000	269.766	5000.00	0.00	0.00	0.00	0.00		
5100.00†	0.000	269.766	5100.00	0.00	0.00	0.00	0.00		
5200.00†	0.000	269.766	5200.00	0.00	0.00	0.00	0.00		
5300.00†	0.000	269.766	5300.00	0.00	0.00	0.00	0.00	•	
5400.001	0.000	269.766	, 5400.00	10.00	0.00	0.00	0.00		
5500.00†	0.000	269.766	5500.00	0.00	0.00	0.00	0.00		
5600.00†	0.000	269.766	5600.00	0.00	0.00	0.00	0.00		
5700.00†	0.000	269.766	5700.00	0.00	0.00	0.00	0.00		
5800.00†	0.000	269.766	5800.00	0.00	0.00	0.00	0.00		
	0.000		and the same sector to be be a sector to be a secto	+ (0.00	0.00	0.00	0.00	1. 2. 1. Kar	



Planned Wellpath Report Preliminary Page 4 of 6



REFERI	REFERENCE WELLPATH IDENTIFICATION							
Operator	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL					
Area	Chaves County, NM	Well	No. 1H					
Field	(Coral) Sec 7, T15S, R31E	Wellbore	No. 1H PWB					
Facility	Coral Sea 7 Fed No. 1H							

LLPATH DATA (134 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6000.00†	0.000	269.766	6000.00	0.00	0.00	0.00	0.00	
6100.00†	0.000	269.766	6100.00	0.00	0.00	0.00	0.00	
6200.00†	0.000	269.766	6200.00	0.00	0.00	0.00	0.00	
6300.00†	0.000	269.766	6300.00	0.00	0.00	0.00	0.00	
6400.00†	0.000	269.766	6400.00	0.00	0.00	0.00	(0.00)	
6500.00†	0.000	269.766	6500.00	0.00	0.00	0.00	0.00	
6600.00†	0.000	269.766	6600.00	0.00	0.00	0.00	0.00	
6700.00†	0.000	269.766	6700.00	0.00	0.00	0.00	0.00	
6800.00†	0.000	269.766	6800.00	0.00	0.00	0.00	0.00	
² 6900.00†	0.000	269.766	[6900.00]	0.00	0.00	0.00		
7000.00†	0.000	269.766	7000.00	0.00	0.00	0.00	0.00	
7100.00†	0.000	269.766	7100.00	0.00	0.00	0.00	0.00	
7200.00†	0.000	269.766	7200.00	0.00	0.00	0.00	0.00	
7300.00†	0.000	269.766	7300.00	0.00	0.00	0.00	0.00	
7400.00†	0.000	269.766	7400.00	0.00	0.00	0.00	0.00	
7500.00†	0.000	269.766	7500.00	0.00	0.00	0.00	0.00	
7600.00†	0.000	269.766	7600.00	0.00	0.00	0.00	0.00	
7700.00†	0.000	269.766	7700.00	0.00	0.00	0.00	0.00	
7800.00†	0.000	269.766	7800.00	0.00	0.00	0.00	0.00	
7900.00†	0.000	269.766	7900.00	0.00	0.00	0.00	0.00	and the second sec
8000.00†	0.000	269.766	8000.00	0.00	0.00	0.00	0.00	
8100.00†	0.000	269.766	8100.00	0.00	0.00	0.00	0.00	
8200.00†	0.000	269.766	8200.00	0.00	0.00	0.00	0.00	
8300.00†	0.000	269.766	8300.00	0.00	0.00	0.00	0.00	
8395:00	0.000	269.766	8395.00	0.00	0.00	0.00	0.00	KOP
8400.00†	1.500	269.766	8400.00	0.07	0.00	-0.07	30.00	
8500.00†	31.500	269.766	8494.79	28.14	-0.12	-28.14	30.00	
8600.00†	61.500	269.766	8562.84	99.86	-0.41	-99.85	30.00	
8693.74	89.622	269.766	8585.98	189.73	-0.78	-189.72		End Of Curve
8700.00†	89.622	269.766	8586.02	195.99	<u></u> =0.80	-195:98	0.00	1 1 1 1 1 K 1 1 1 1



Planned Wellpath Report Preliminary Page 5 of 6



REFER	REFERENCE WELLPATH IDENTIFICATION.							
Operator	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL					
Area	Chaves County, NM	Well	No. 1H					
Field	(Coral) Sec 7, T15S, R31E	Wellbore	No. 1H PWB					
Facility	Coral Sea 7 Fed No. 1H							

MD	Inclination	Azimuth	TVD	Vert Sect	North	East		Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[°/100ft]	
8800.00†	89.622	269.766	8586.68	295.98	-1.21	-295.98	0.00	ļ
8900.00†	89.622	269.766	8587.34	395.98	-1.62	-395.98	0.00	
9000.00†	89.622	269.766	8588.00	495.98	-2.03	-495.98	0.00	
9100.00†	89.622	269.766	8588.66	595.98	-2.44	-595.97	0.00	1
-9200.00†	89.622	269.766	8589.32	695.97	<u>-</u> 2.85	£695 <u>:97</u>		
9300.00†	89.622	269.766	8589.98	795.97	-3.25	-795.97	0.00	
9400.00†	89.622	269.766	8590.64	895.97	-3.66	-895.96	0.00	
9500.00†	89.622	269.766	8591.30	995.97	-4.07	-995.96	0.00	
9600.00†	89.622	269.766	8591.96	1095.97	-4.48	-1095.96	0.00	
9700.00+		269.766	8592.62	1195.96	-4:89	<u>-1195:95</u>	0.00	
9800.00†	89.622	269.766	8593.28	1295.96	-5.30	-1295.95	0.00	
9900.00†	89.622	269.766	8593.94	1395.96	-5.71	-1395.95	0.00	
10000.00†	89.622	269.766	8594.60	1495.96	-6.12	-1495.95	0.00	
10100.00†	89.622	269.766	8595.26	1595.96	-6.52	-1595.94	0.00	
10200.00	89.622	269.766	8595.92	1695.95	-6.93	-1695.94		a provide the state of the second state of the
10300.00†	89.622	269.766	8596.58	1795.95	-7.34	-1795.94	0.00	
10400.00†	89.622	269.766	8597.24	1895.95	-7.75	-1895.93	0.00	
10500.00†	89.622	269.766	8597.90	1995.95	-8.16	-1995.93	0.00	
10600.00†	89.622	269.766	8598.56	2095.94	-8.57	-2095.93	0.00	
10700.00+		269.766	8599.22	2195.94	-8.98	2195.92	0.00	
10800.00†	89.622	269.766	8599.88	2295.94	-9.39	-2295.92	0.00	
10900.00†	89.622	269.766	8600.54	2395.94	-9.80	-2395.92	0.00	
11000.00†	89.622	269.766	8601.20	2495.94	-10.20	-2495.91	0.00	
11100.00†	89.622	269.766	8601.86	2595.93	-10.61	-2595.91	0.00	
11200:00	\$89.622	269.766	8602.52	2695.93	-11.02	-2695:91	0.00	
11300.00†	89.622	269.766	8603.18	2795.93	-11.43	-2795.91	0.00	
11400.00†	89.622	269.766	8603.84	2895.93	-11.84	-2895.90	0.00)
11500.00†	89.622			2995.92	-12.25	-2995.90	0.00)
11600.00†	89.622		8605.16	3095.92	-12.66	-3095.90)
	89.622		1	3195.92	13.07	3195.89	0.00	



Planned Wellpath Report Preliminary Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION							
Operator	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL				
Area	Chaves County, NM	Well	No. 1H				
Field	(Coral) Sec 7, T15S, R31E	Wellbore	No. 1H PWB				
Facility	Coral Sea 7 Fed No. 1H						

WELLPATH DATA (134 stations) † = interpolated/extrapolated station								
MD [ft]	AIA (134 Station Inclination [°]	$\frac{\text{Azimuth}}{\text{Azimuth}}$	TVD [ft]	Vert Sect	North [ft]	East [ft]	DLS [°/100ft]	Comments
11800.00†	89.622	269.766	8606.48	3295.92	-13.47	-3295.89	0.00	
11900.00†	89.622	269.766	8607.14	3395.92	-13.88	-3395.89	0.00	
12000.00†	89.622	269.766	8607.80	3495.91	-14.29	-3495.88	0.00	
12100.00†	89.622	269.766	8608.46	3595.91	-14.70	-3595.88	0.00	
12200.00+	89.622	269.766	8609.12	3695:91	-15.11	-3695.88	, 0.00	A RATE A
12300.00†	89.622	269.766	8609.78	3795.91	-15.52	-3795.88	0.00	
12400.00†	89.622	269.766	8610.44	3895.91	-15.93	-3895.87	0.00	
12500.00†	89.622	269.766	8611.10	3995.90	-16.34	-3995.87	0.00	
12600.00†	89.622	269.766	8611.76	4095.90	-16.74	-4095.87	0.00	
12700.00+	89.622	269.766	8612.42	4195:90	<u>_</u> 17•15	4195.86	10.00	
12800.00†	89.622	269.766	8613.07	4295.90	-17.56	-4295.86	0.00	
12900.00†	89.622	269.766	8613.73	4395.89	-17.97	-4395.86	0.00	
13000.00†	89.622	269.766	8614.39	4495.89	-18.38	-4495.85	0.00	
13091.78	89.622	269.766	8615.00 ¹	4587.67	-18.76	-4587.63	0.00	No. 1H BHL

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 1H BHL	13091.78	8615,00	-18.76	-4587.63	683730.18	738252.35	33°01'42:918"N	103°52'07.410"W	point

SURVEY PROGRAM Ref Wellbore: No. 1H PWB Ref Wellpath: Preliminary								
Start MD	End MD	Positional Uncertainty Model	Log Name/Comment	Wellbore				
[ft]	[ft]							
18.00	13091.78	NaviTrak (Standard)		No. 1H PWB				



EXHIBIT A GENERAL LOCATION MAP

.



EXHIBIT B PECOS DISTRICT - RFO CONDITIONS OF APPROVAL

January 5, 2009

Coral Sea 7 Federal #1 Cimarex Energy Company of Colorado Lease Number: NM-0153471 Surface: 1980' FSL & 330' FEL, Sec. 7 T15S-R31E Bottom: 1980' FSL & 330' FWL, Sec. 7 T15S-R31E Chaves County, New Mexico NMPM

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, payment shall be made to the BLM prior to removal of any federal mineral material. 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: 400' + 100' = 200' lead-off ditch interval 4%

Cattleguards

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

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

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) 627-0205 or after office hours call (575) 910-6024. 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 24 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-4 Hours Minimum Call Out

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.

B. CASING:

1. The <u>13-3/8</u> inch surface casing shall be set <u>at approximately 340 feet</u> 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 $\underline{13-3/8}$ 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 $\underline{9-5/8}$ 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 <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> casing 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	I Site; Loamy CP-2; Gyp Upland	1 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.					
Globernallow or	(S. coccinea)	,					
Annual sunflower	(Helianthus annuus)	<u>0.75 LB.</u>					
TOTAL POUNDS PURE LIVE SEED (pls) PER ACRE9.75 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

- 1. Before starting abandonment operations the operator must submit a Notice of Intent to Abandon on Sundry Notices and Reports on Wells, Form 3160–5. If the operator proposes to modify the plans for surface reclamation approved at the APD stage, the operator must attach these modifications to the Notice of Intent to Abandon. For wells not having an approved plan for surface reclamation, operators must submit to the BLM a proposal describing the procedures to be followed for complete abandonment, including a map showing the disturbed area and roads to be reclaimed. If applicable, the private surface owner will be notified and their views will be carefully considered.
- 2. Earthwork for interim and final reclamation must be completed within 6 months of well completion or well plugging (weather permitting). All pads, pits, and roads must be reclaimed to a satisfactorily revegetated, safe, and stable condition, unless an agreement is made with the landowner or Surface Managing Agency to keep the road or pad in place. Upon completion of reclamation operations, the lessee or operator must notify the BLM using Form 3160–5, Final Abandonment Notice, when the location is ready for inspection. Final abandonment will not be approved until the surface reclamation work required in the Surface Use Plan of Operations or Subsequent Report of Plug and Abandon has been completed to the satisfaction of the Surface Managing Agency.

3. Upon abandonment of the well, all casing shall be cut-off at the base of the cellar or 3feet 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).