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NMOCD ARTESIA

Form 3160-3
(April 2004)

OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007tes
9/25/2012

1a. Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NM-19836; NM-15296	
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Climarex Energy Co. of Colorado		7. If Unit or CA Agreement, Name and No.	
3a. Address 600 N. Marlenfeld St., Ste. 600, Midland, TX 79701		8. Lease Name and Well No. Ringer Federal Com No. 13	
3b. Phone No. (include area code) 432-571-7800		9. API Well No. 30-015--	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At Surface 1980 FSL & 400 FEL NON-STANDARD LOCATION		10. Field and Pool, or Exploratory Sage Draw; Wolfcamp, E	
At proposed prod. Zone 1980 FSL & 660 FWL Horizontal Wolfcamp Test		11. Sec., T., R., M. or Blk. and Survey or Area 3-255-26E	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish Eddy	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 400'	16. No of acres in lease 160.00 359.86	17. Spacing Unit dedicated to this well S2 320 acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1120'	19. Proposed Depth MD 13627, TVD 9561	20. BLM/BIA Bond No. on file NM-2575	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3346' GR	22. Approximate date work will start* 08.05.12	23. Estimated duration 30-35 days	
24. Attachments			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan | 5. Operator Certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Zeno Farris</i>	Name (Printed/Typed) Zeno Farris	Date 05/31/12
Title Manager Operations Administration		
Approved By (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Peterson	Date SEP 19 2012
Title FIELD MANAGER	Office CARLSBAD 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.C. 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)

APPROVAL FOR TWO YEARS

Carlsbad Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVALApproval Subject to General Requirements
& Special Stipulations Attached

Operator Certification Statement
Ringer Federal Com No. 13
Cimarex Energy Co. of Colorado
Unit I, Section 3
T25S-R26E, Eddy County, NM

Operator's Representative

Cimarex Energy Co. of Colorado
600 N. Marienfeld St., Ste. 600
Midland, TX 79701
Office Phone: (432) 571-7800
Zeno Farris

CERTIFICATION: I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 31st day of May, 2012

NAME: Zeno Farris
Zeno Farris

TITLE: Manager Operations Administration

ADDRESS: 600 N. Marienfeld St., Ste. 600
Midland, TX 79701

TELEPHONE: (432) 620-1938

EMAIL: zfarris@cimarex.com

Field Representative: Same as above

DISTRICT I

1026 N. French Dr., Hobbs, NM 88240

DISTRICT II

1301 W. Grand Avenue, Artesia, NM 88210

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

Form C-102

Revised July 10, 2010

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015- 40743	Pool Code 96890	Pool Name Sage Draw, Wolfcamp East
Property Code 38964	Property Name RINGER FEDERAL COM	Well Number 13
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3346'

215699

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	3	25 S	26 E		1980	SOUTH	400	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	3	25 S	26 E		1980	SOUTH	660	WEST	EDDY

Dedicated Acres 318.6 320.	Joint or Infill	Consolidation Code Pending	Order No.
--------------------------------------	-----------------	-------------------------------	-----------

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

LOT 4	LOT 3	LOT 2	LOT 1
PROPOSED BOTTOM HOLE LOCATION Lat - N 32°09'25.96" Long - W 104°17'14.23" NMSPCE - N 420932.1 E 555586.9 (NAD-83)		SURFACE LOCATION Lat - N 32°09'25.27" Long - W 104°16'25.52" NMSPCE - N 420863.5 E 559774.4 (NAD-83)	
Fee NM-15296 NM-19836 Ringer Fed Com 12			

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Zeno Farris 5/31/2012
Signature Date

Zeno Farris
Printed Name

zfarris@cimarex.com
Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.

GARY L. JONES
Date Surveyed

GARY L. JONES
Signature & Seal of Professional Surveyor

W.O. 86-26583
Certificate No. Gary L. Jones 7977

BASIN SURVEYS 25024

Drilling Plan
Ringer Federal Com No. 13
Cimarex Energy Co.
Unit I, Section 3
T25S-R26E, Eddy County, NM

In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

- 1 **Location:** SHL 1980 FNL & 400 FEL
 BHL 1980 FSL & 660 FWL
- 2 **Elevation above sea level:** 3346' GR
- 3 **Geologic name of surface formation:** Quaternary 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:** MD 13627 TVD 9561

6 **Estimated tops of geological markers:**

Rustler	Spotty	1st Bone Spring Ss	6377'
Top Salt	1097'	2nd Bone Spring Ss	6843'
Base Salt	1714'	2nd BS Ss Lower	7620'
Delaware	1922'	3rd Bone Spring Ss	8180'
Cherry Canyon	2878'	Wolfcamp	8520'
Brushy Canyon	4034'	Wolfcamp B	9105'
Bone Spring	5373'	Wolfcamp C	9291'
Bone Spring "A" Shale	5547'	Wolfcamp D	9395'
Bone Spring "C" Shale	5822'	Wolfcamp E	9734'

7 **Possible mineral bearing formations:**

Bone Spring Oil
 Delaware Oil

8 **Proposed Mud Circulating System:**

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 450'	8.4 -8.6	28	NC	FW
0' to 1902'	10.0	30-32	NC	Brine
1902' to 13627'	8.4-9.5	27-45	NC	FW and brine

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.

Proposed drilling Plan

Drill 8 3/4" hole with kickoff point @ 9275' TVD. Drill through curve to 13627' MD, 9561' TVD. Run 7" 26# P-110 LTC from 0-9160' and 4 1/2" 11.6# P-110 LTC from 9060-13627' and cement.

Drilling Plan
Ringer Federal Com No. 13
 Cimarex Energy Co. of Colorado
 Unit I, Section 3
 T25S-R26E, Eddy County, NM

9 Casing & Cementing Program:

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface 1	17½"	0' to 450'	New 13¾"	48#	STC	H-40
Intermediate	12¼"	0' to 1902'	New 9¾"	40#	LTC	J-55
Production	8¾"	0' to 9160'	New 7"	26#	LTC	P-110
Lateral	6¾"	9000' to 13627'	New 4½"	11.6#	LTC	P-110

10 Cementing:

Surface

Lead: 260SKS ExtendaCem - CZ 13.5ppg 1.76yield 100% Excess,
 Tail: 120SKS HalCem - C, 2% Calcium Chloride 14.8ppg 1.35 yield 50% Excess,

TOC Surface Centralizers per Onshorder 2.III.B.1.f

Intermediate

Lead: 540SKS EconoCem - HLC 5% Salt, 5lbm/sk Kol-seal 12.9ppg 1.88yield 70% Excess
 Tail: 150SKS HalCem - C2% Calcium Chloride 14.8ppg 1.34 yield 25% Excess

TOC Surface

Production

Lead: 945SKS EconoCem - HLH5% Salt, 5lbm/sk Kol-seal 12.9ppg 1.89yield 80% Excess ,
 Tail: 345SKS VersaCem - H0.4% LAP1, 0.4% CFR-3, 0.5% Halad-322, 0.2% HR-601, 1lbm/sk Salt 14.5ppg 1.22 yield 50% Excess

TOC Surface Centralizers every 3rd joint through the curve or legal location hardline to provide adequate cement coverage every 100' unless hole conditions require greater spacing between centralizers.

Lateral

Lead: 505SKS VersaCem - H14.5ppg 1.22 yield 25% Excess, Liner Hanger - 9000ft

TOC Liner hanger @ 9000'

According to the NM State Enginner, depth to ground water is 200 feet. Fresh water zones will be protected by setting 13 3/8" casing at 450' and 9 5/8" casing at 1902' and cementing to surface. Hydrocarbon zones will be protected by setting 7" casing at 9160' and 4 1/2" liner at 13627' and cementing to 9060'.

<u>Collapse Factor</u>	<u>Burst Factor</u>	<u>Tension Factor</u>
1.125	1.125	1.6

11 Pressure control Equipment:

Exhibit "E". A 13¾" 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 4900.' 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. Mud gas seperator will be available if drilling in H2S areas.

BOP unit will be hydraulically operated. BOP will be nipped 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.

** See COA*
 Before drilling out of the surface casing BOPs will be tested to 250 psi low and 3000 psi high by an independent service company. Hydril will be tested to 250 psi low and 1500 psi high. Before drilling out of the intermediate casing BOPs will be tested to 250 psi low and 5000 psi high. Hydril will be tested to 250 psi low and 2500 high.

Cimarex Energy Co. of Colorado (operator) requests a variance if Cactus 122 (rig name) is used to drill this well to use a co-flex line between the BOP and choke manifold.

Manufacturer: Midwest Hose & Specialty

Serial Number: 211964

Length: 35' Size: 4-1/16" Ends - flanges/clamps

WP rating: 10,000 psi Anchors required by manufacturer – Yes/No (No)

Drilling Plan
Ringer Federal Com No. 13
Cimarex Energy Co. of Colorado
Unit I, Section 3
T25S-R26E, Eddy County, NM

12 Testing, Logging and Coring Program: * - See COA

- A. Mud logging program: 2-man unit from 1902' to TD;
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR Surface to TD
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H₂S Safety package on all wells, attached is an "H₂S Drilling Operations Plan." 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 4250 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 25-35 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.

Wolfcamp pay will be perforated and stimulated.

The proposed well will be tested and potentialized as an oil well



Planned Wellpath Report

Prelim_1
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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No.13 SHL
Area	Eddy County, NM	Well	No.13
Field	(Ringer) Sec 3, T25S, R26E	Wellbore	No.13 PWB
Facility	Ringer Fed Com No.13		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999909	Report Generated	1/17/2012 at 8:21:03 AM
Convergence at slot	0.03° East	Database/Source file	WA Midland/No.13_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W
Facility Reference Pt			559774.40	420863.50	32°09'25.265"N	104°16'25.520"W
Field Reference Pt			559747.40	419544.40	32°09'12.211"N	104°16'25.842"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.13 SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No.13 SHL (RT) to Mean Sea Level	3346.00ft
Vertical Reference Pt	Rig on No.13 SHL (RT)	Rig on No.13 SHL (RT) to Mud Line at Slot (No.13 SHL)	0.00ft
MD Reference Pt	Rig on No.13 SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	270.94°



Planned Wellpath Report

Prelim_1
Page 2 of 5



REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No.13.SHL
Area	Eddy County, NM	Well	No.13
Field	(Ringer) Sec 3, T25S, R26E	Wellbore	No.13 PWB
Facility	Ringer Fed Com No.13		

WELLPATH DATA (158 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	270.939	0.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Tie On
100.00†	0.000	270.939	100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
200.00†	0.000	270.939	200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
300.00†	0.000	270.939	300.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
400.00†	0.000	270.939	400.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
500.00†	0.000	270.939	500.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
600.00†	0.000	270.939	600.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
700.00†	0.000	270.939	700.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
800.00†	0.000	270.939	800.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
900.00†	0.000	270.939	900.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1000.00†	0.000	270.939	1000.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1100.00†	0.000	270.939	1100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1113.00†	0.000	270.939	1113.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Top Salt
1200.00†	0.000	270.939	1200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1300.00†	0.000	270.939	1300.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1400.00†	0.000	270.939	1400.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1500.00†	0.000	270.939	1500.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1600.00†	0.000	270.939	1600.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1700.00†	0.000	270.939	1700.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1730.00†	0.000	270.939	1730.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Base Salt
1800.00†	0.000	270.939	1800.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1900.00†	0.000	270.939	1900.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
1938.00†	0.000	270.939	1938.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Delware
2000.00†	0.000	270.939	2000.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
2100.00†	0.000	270.939	2100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
2200.00†	0.000	270.939	2200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
2300.00†	0.000	270.939	2300.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
2400.00†	0.000	270.939	2400.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
2500.00†	0.000	270.939	2500.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
2600.00†	0.000	270.939	2600.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
2700.00†	0.000	270.939	2700.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
2800.00†	0.000	270.939	2800.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
2894.00†	0.000	270.939	2894.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Cherry Canyon
2900.00†	0.000	270.939	2900.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3000.00†	0.000	270.939	3000.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3100.00†	0.000	270.939	3100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3200.00†	0.000	270.939	3200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3300.00†	0.000	270.939	3300.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3400.00†	0.000	270.939	3400.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3500.00†	0.000	270.939	3500.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3600.00†	0.000	270.939	3600.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3700.00†	0.000	270.939	3700.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3800.00†	0.000	270.939	3800.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
3900.00†	0.000	270.939	3900.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
4000.00†	0.000	270.939	4000.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No.13 SHL
Area	Eddy County, NM	Well	No.13
Field	(Ringer) Sec 3, T25S, R26E	Wellbore	No.13 PWB
Facility	Ringer Fed Com No.13		

WELLPATH DATA (158 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4050.00†	0.000	270.939	4050.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Brushy Canyon
4100.00†	0.000	270.939	4100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
4200.00†	0.000	270.939	4200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
4300.00†	0.000	270.939	4300.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
4400.00†	0.000	270.939	4400.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
4500.00†	0.000	270.939	4500.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
4600.00†	0.000	270.939	4600.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
4700.00†	0.000	270.939	4700.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
4800.00†	0.000	270.939	4800.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
4900.00†	0.000	270.939	4900.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5000.00†	0.000	270.939	5000.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5096.00†	0.000	270.939	5096.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Brushy Canyon Lower
5100.00†	0.000	270.939	5100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5200.00†	0.000	270.939	5200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5300.00†	0.000	270.939	5300.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5389.00†	0.000	270.939	5389.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Bone Spring
5400.00†	0.000	270.939	5400.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5500.00†	0.000	270.939	5500.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5563.00†	0.000	270.939	5563.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Bone Spring "A" Shale
5600.00†	0.000	270.939	5600.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5700.00†	0.000	270.939	5700.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5800.00†	0.000	270.939	5800.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
5838.00†	0.000	270.939	5838.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Bone Spring "C" Shale
5900.00†	0.000	270.939	5900.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6000.00†	0.000	270.939	6000.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6100.00†	0.000	270.939	6100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6200.00†	0.000	270.939	6200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6300.00†	0.000	270.939	6300.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6393.00†	0.000	270.939	6393.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	1st Bone Spring Ss
6400.00†	0.000	270.939	6400.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6500.00†	0.000	270.939	6500.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6600.00†	0.000	270.939	6600.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6700.00†	0.000	270.939	6700.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6800.00†	0.000	270.939	6800.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
6859.00†	0.000	270.939	6859.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	2nd Bone Spring Ss
6900.00†	0.000	270.939	6900.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
7000.00†	0.000	270.939	7000.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
7100.00†	0.000	270.939	7100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
7200.00†	0.000	270.939	7200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
7300.00†	0.000	270.939	7300.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
7400.00†	0.000	270.939	7400.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
7500.00†	0.000	270.939	7500.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
7600.00†	0.000	270.939	7600.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
7636.00†	0.000	270.939	7636.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	2nd BS Ss-Lower
7700.00†	0.000	270.939	7700.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No.13 SHL
Area	Eddy County, NM	Well	No.13
Field	(Ringer) Sec 3, T25S, R26E	Wellbore	No.13 PWB
Facility	Ringer Fed Com No.13		

WELLPATH DATA (158 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7800.00†	0.000	270.939	7800.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
7900.00†	0.000	270.939	7900.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8000.00†	0.000	270.939	8000.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8100.00†	0.000	270.939	8100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8196.00†	0.000	270.939	8196.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	3rd Bone Spring Ss
8200.00†	0.000	270.939	8200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8300.00†	0.000	270.939	8300.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8400.00†	0.000	270.939	8400.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8500.00†	0.000	270.939	8500.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8536.00†	0.000	270.939	8536.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Wolfcamp
8600.00†	0.000	270.939	8600.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8700.00†	0.000	270.939	8700.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8800.00†	0.000	270.939	8800.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
8900.00†	0.000	270.939	8900.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
9000.00†	0.000	270.939	9000.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
9100.00†	0.000	270.939	9100.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
9121.00†	0.000	270.939	9121.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Wolfcamp B
9200.00†	0.000	270.939	9200.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	
9275.00	0.000	270.939	9275.00	0.00	0.00	0.00	559774.40	420863.50	32°09'25.265"N	104°16'25.520"W	0.00	Est KOP
9300.00†	5.008	270.939	9299.97	1.09	0.02	-1.09	559773.31	420863.52	32°09'25.265"N	104°16'25.532"W	-20.03	
9307.07†	6.424	270.939	9307.00	1.80	0.03	-1.80	559772.60	420863.53	32°09'25.265"N	104°16'25.540"W	-20.03	Wolfcamp C
9400.00†	25.042	270.939	9396.06	26.88	0.44	-26.88	559747.52	420863.94	32°09'25.270"N	104°16'25.832"W	-20.03	
9416.73†	28.394	270.939	9411.00	34.41	0.56	-34.40	559740.00	420864.06	32°09'25.271"N	104°16'25.920"W	-20.03	Wolfcamp D
9500.00†	45.075	270.939	9477.50	84.03	1.38	-84.02	559690.39	420864.88	32°09'25.279"N	104°16'26.497"W	-20.03	
9600.00†	65.109	270.939	9534.43	165.62	2.71	-165.60	559608.81	420866.21	32°09'25.293"N	104°16'27.446"W	-20.03	
9700.00†	85.142	270.939	9559.97	261.78	4.29	-261.75	559512.68	420867.79	32°09'25.309"N	104°16'28.564"W	-20.03	
9724.25	90.000	270.939	9561.00	286.00	4.69	-285.96	559488.46	420868.19	32°09'25.313"N	104°16'28.846"W	-20.03	EOC
9724.27	90.000	270.939	9561.00	286.02	4.69	-285.99	559488.44	420868.19	32°09'25.313"N	104°16'28.846"W	-20.03	Target Line
9800.00†	90.000	270.939	9561.00	361.75	5.93	-361.70	559412.73	420869.43	32°09'25.326"N	104°16'29.727"W	0.00	
9900.00†	90.000	270.939	9561.00	461.75	7.57	-461.69	559312.75	420871.06	32°09'25.342"N	104°16'30.890"W	0.00	
10000.00†	90.000	270.939	9561.00	561.75	9.20	-561.68	559212.78	420872.70	32°09'25.359"N	104°16'32.053"W	0.00	
10100.00†	90.000	270.939	9561.00	661.75	10.84	-661.66	559112.80	420874.34	32°09'25.376"N	104°16'33.216"W	0.00	
10200.00†	90.000	270.939	9561.00	761.75	12.48	-761.65	559012.82	420875.98	32°09'25.393"N	104°16'34.379"W	0.00	
10300.00†	90.000	270.939	9561.00	861.75	14.12	-861.64	558912.84	420877.62	32°09'25.409"N	104°16'35.542"W	0.00	
10400.00†	90.000	270.939	9561.00	961.75	15.76	-961.62	558812.87	420879.25	32°09'25.426"N	104°16'36.705"W	0.00	
10500.00†	90.000	270.939	9561.00	1061.75	17.39	-1061.61	558712.89	420880.89	32°09'25.443"N	104°16'37.868"W	0.00	
10600.00†	90.000	270.939	9561.00	1161.75	19.03	-1161.60	558612.91	420882.53	32°09'25.460"N	104°16'39.031"W	0.00	
10700.00†	90.000	270.939	9561.00	1261.75	20.67	-1261.58	558512.93	420884.17	32°09'25.476"N	104°16'40.194"W	0.00	
10800.00†	90.000	270.939	9561.00	1361.75	22.31	-1361.57	558412.96	420885.80	32°09'25.493"N	104°16'41.357"W	0.00	
10900.00†	90.000	270.939	9561.00	1461.75	23.94	-1461.56	558312.98	420887.44	32°09'25.510"N	104°16'42.520"W	0.00	
11000.00†	90.000	270.939	9561.00	1561.75	25.58	-1561.54	558213.00	420889.08	32°09'25.526"N	104°16'43.683"W	0.00	
11100.00†	90.000	270.939	9561.00	1661.75	27.22	-1661.53	558113.02	420890.72	32°09'25.543"N	104°16'44.846"W	0.00	
11200.00†	90.000	270.939	9561.00	1761.75	28.86	-1761.52	558013.05	420892.36	32°09'25.560"N	104°16'46.010"W	0.00	
11300.00†	90.000	270.939	9561.00	1861.75	30.50	-1861.50	557913.07	420893.99	32°09'25.576"N	104°16'47.173"W	0.00	
11400.00†	90.000	270.939	9561.00	1961.75	32.13	-1961.49	557813.09	420895.63	32°09'25.593"N	104°16'48.336"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No.13 SHL
Area	Eddy County, NM	Well	No.13
Field	(Ringer) Sec 3, T25S, R26E	Wellbore	No.13 PWB
Facility	Ringer Fed Com No.13		

WELLPATH DATA (158 stations) † = Interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11500.00†	90.000	270.939	9561.00	2061.75	33.77	-2061.48	557713.12	420897.27	32°09'25.610"N	104°16'49.499"W	0.00	
11600.00†	90.000	270.939	9561.00	2161.75	35.41	-2161.46	557613.14	420898.91	32°09'25.627"N	104°16'50.662"W	0.00	
11700.00†	90.000	270.939	9561.00	2261.75	37.05	-2261.45	557513.16	420900.54	32°09'25.643"N	104°16'51.825"W	0.00	
11800.00†	90.000	270.939	9561.00	2361.75	38.69	-2361.44	557413.18	420902.18	32°09'25.660"N	104°16'52.988"W	0.00	
11900.00†	90.000	270.939	9561.00	2461.75	40.32	-2461.42	557313.21	420903.82	32°09'25.677"N	104°16'54.151"W	0.00	
12000.00†	90.000	270.939	9561.00	2561.75	41.96	-2561.41	557213.23	420905.46	32°09'25.693"N	104°16'55.314"W	0.00	
12100.00†	90.000	270.939	9561.00	2661.75	43.60	-2661.40	557113.25	420907.10	32°09'25.710"N	104°16'56.477"W	0.00	
12200.00†	90.000	270.939	9561.00	2761.75	45.24	-2761.38	557013.27	420908.73	32°09'25.727"N	104°16'57.640"W	0.00	
12300.00†	90.000	270.939	9561.00	2861.75	46.88	-2861.37	556913.30	420910.37	32°09'25.743"N	104°16'58.803"W	0.00	
12400.00†	90.000	270.939	9561.00	2961.75	48.51	-2961.35	556813.32	420912.01	32°09'25.760"N	104°16'59.966"W	0.00	
12500.00†	90.000	270.939	9561.00	3061.75	50.15	-3061.34	556713.34	420913.65	32°09'25.777"N	104°17'01.129"W	0.00	
12600.00†	90.000	270.939	9561.00	3161.75	51.79	-3161.33	556613.36	420915.28	32°09'25.793"N	104°17'02.292"W	0.00	
12700.00†	90.000	270.939	9561.00	3261.75	53.43	-3261.31	556513.39	420916.92	32°09'25.810"N	104°17'03.455"W	0.00	
12800.00†	90.000	270.939	9561.00	3361.75	55.07	-3361.30	556413.41	420918.56	32°09'25.827"N	104°17'04.618"W	0.00	
12900.00†	90.000	270.939	9561.00	3461.75	56.70	-3461.29	556313.43	420920.20	32°09'25.843"N	104°17'05.781"W	0.00	
13000.00†	90.000	270.939	9561.00	3561.75	58.34	-3561.27	556213.46	420921.84	32°09'25.860"N	104°17'06.944"W	0.00	
13100.00†	90.000	270.939	9561.00	3661.75	59.98	-3661.26	556113.48	420923.47	32°09'25.877"N	104°17'08.108"W	0.00	
13200.00†	90.000	270.939	9561.00	3761.75	61.62	-3761.25	556013.50	420925.11	32°09'25.893"N	104°17'09.271"W	0.00	
13300.00†	90.000	270.939	9561.00	3861.75	63.26	-3861.23	555913.52	420926.75	32°09'25.910"N	104°17'10.434"W	0.00	
13400.00†	90.000	270.939	9561.00	3961.75	64.89	-3961.22	555813.55	420928.39	32°09'25.927"N	104°17'11.597"W	0.00	
13500.00†	90.000	270.939	9561.00	4061.75	66.53	-4061.21	555713.57	420930.02	32°09'25.943"N	104°17'12.760"W	0.00	
13600.00†	90.000	270.939	9561.00	4161.75	68.17	-4161.19	555613.59	420931.66	32°09'25.960"N	104°17'13.923"W	0.00	
13626.70	90.000	270.939	9561.00	4188.45	68.61	-4187.89	555586.90	420932.10	32°09'25.964"N	104°17'14.233"W	0.00	No.13 PBHL

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No.13 PBHL	13626.70	9561.00	68.61	-4187.89	555586.90	420932.10	32°09'25.964"N	104°17'14.233"W	point

SURVEY PROGRAM - Ref Wellbore: No.13 PWB Ref Wellpath: Prelim-1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13626.70	NaviTrak (Standard)		No.13 PWB

SR & A

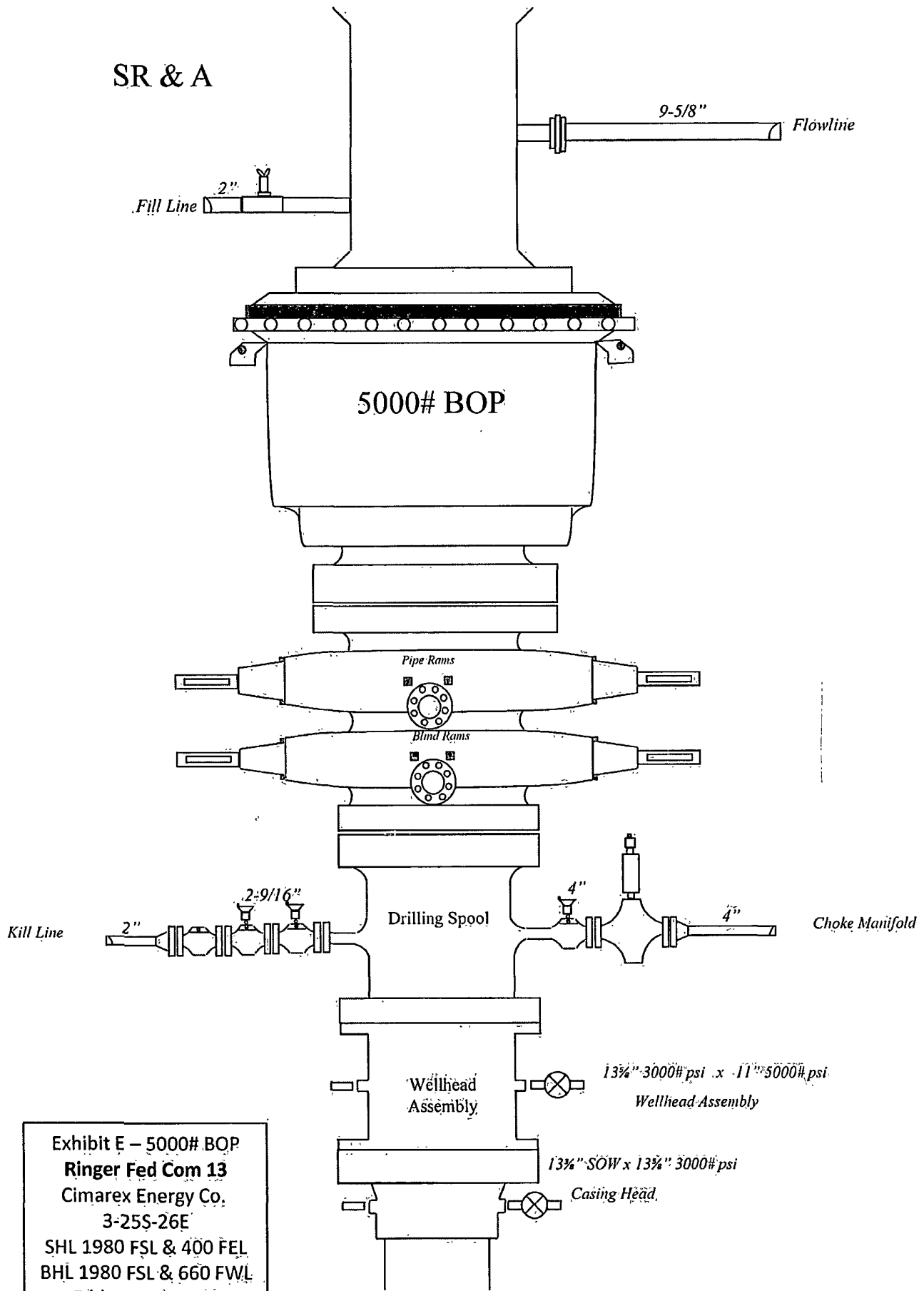


Exhibit E – 5000# BOP
 Ringer Fed Com 13
 Cimarex Energy Co.
 3-25S-26E
 SHL 1980 FSL & 400 FEL
 BHL 1980 FSL & 660 FWL
 Eddy County, NM

Drilling Operations Choke Manifold 5M Service

Exhibit E-1 – Choke Manifold Diagram

Ringer Fed Com 13

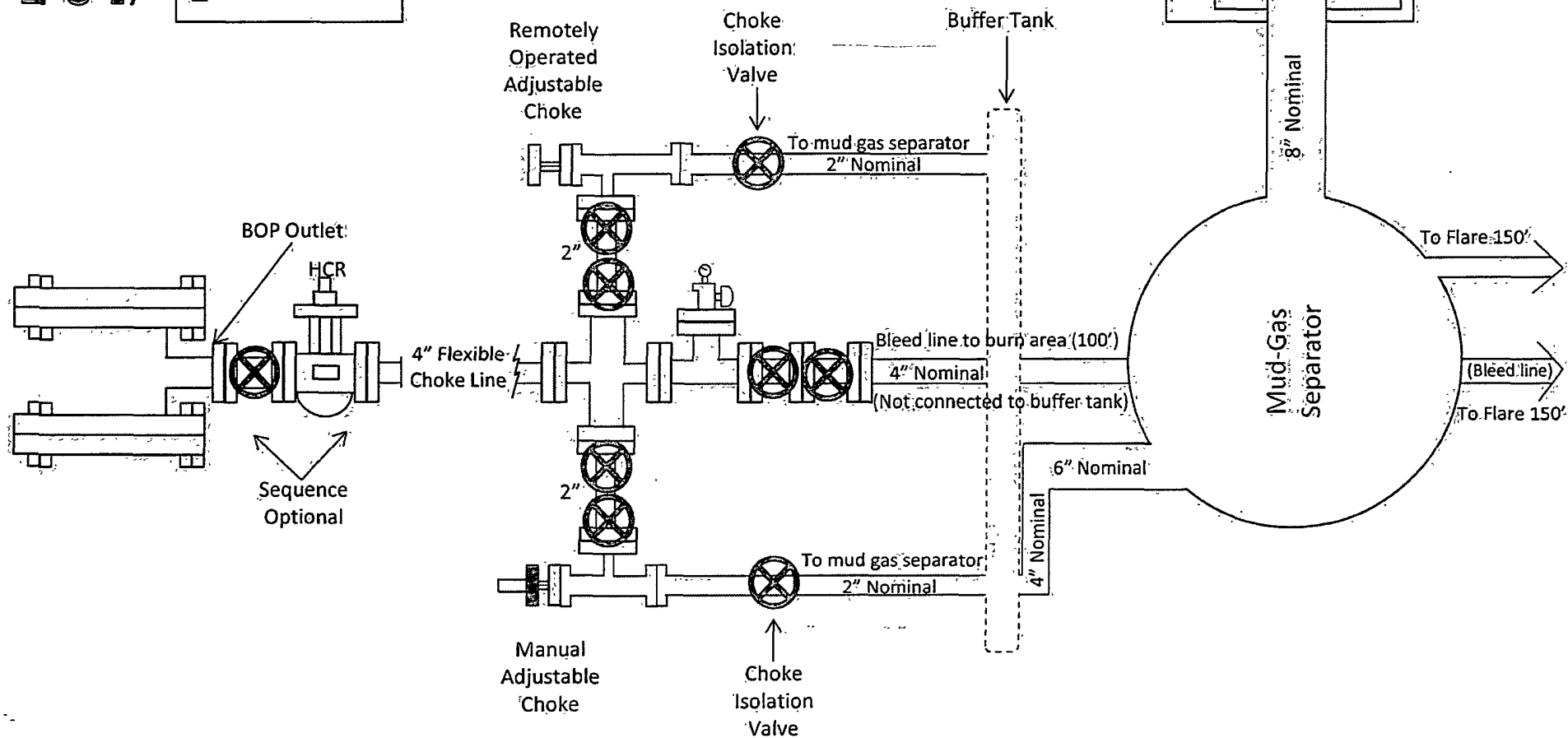
Cimarex Energy Co.

3-25S-26E

SHL 1980 FSL & 400 FEL

BHL 1980 FSL & 660 FWL

Eddy County, NM



M I D W E S T
HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT			
Customer: CACTUS		P.O. Number: Asset#M4812	
HOSE SPECIFICATIONS			
Type: CHOKER LINE		Length: 35'	
I.D. 4" INCHES		O.D. 8" INCHES	
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI		BURST PRESSURE PSI
COUPLINGS			
Type of End Fitting 4 1/16 10K FLANGE			
Type of Coupling: SWEDGED		MANUFACTURED BY MIDWEST HOSE & SPECIALTY	
PROCEDURE			
<i>Hose assembly pressure tested with water at ambient temperature:</i>			
TIME HELD AT TEST PRESSURE 15 MIN.		ACTUAL BURST PRESSURE: 0 PSI	
COMMENTS: s/n#O211964 Hose is covered with stainless steel armour cover and wrapped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes			
Date: 6/28/2006	Tested By: BOBBY FINK		Approved: MENDI JACKSON



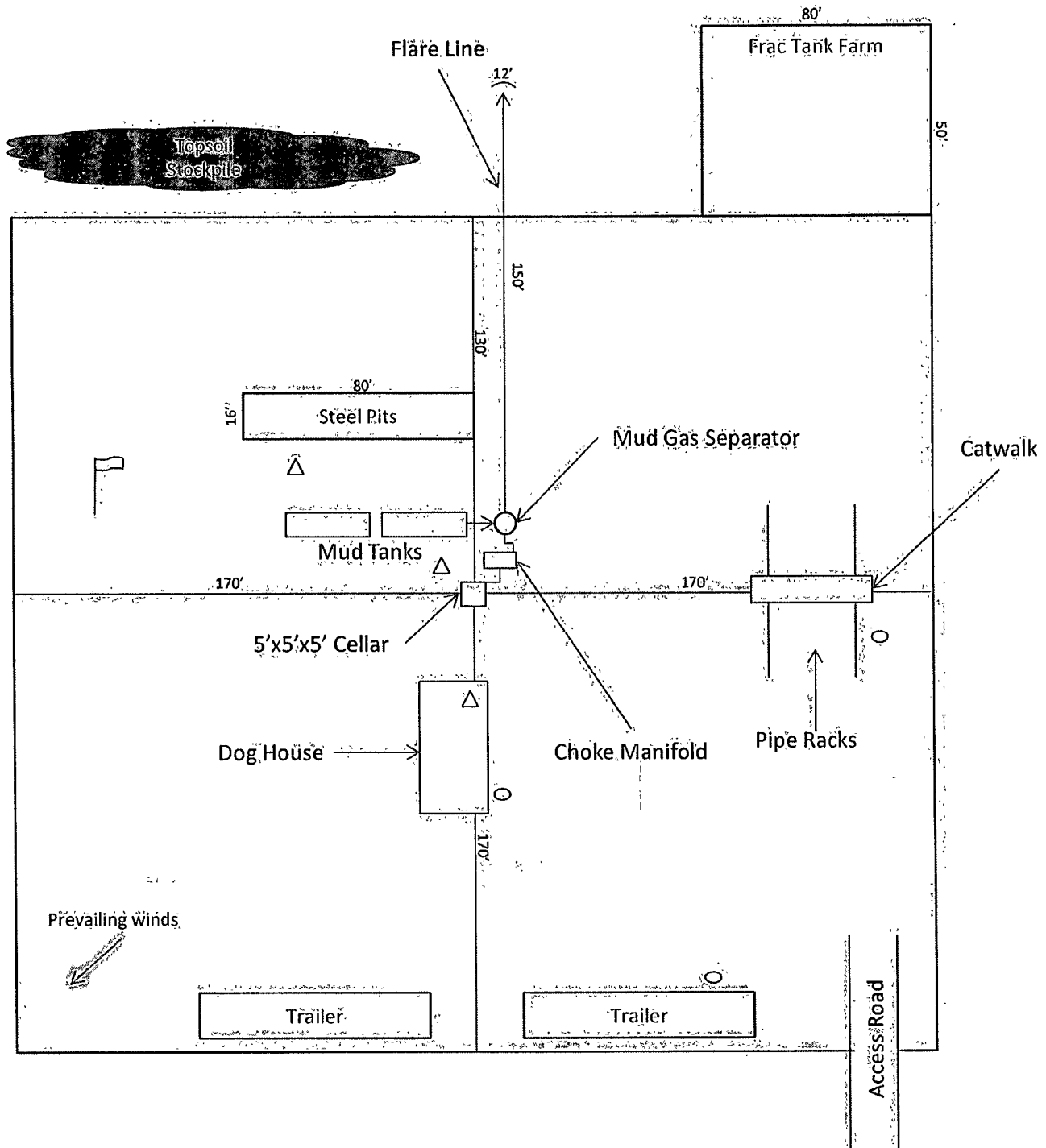
Midwest Hose
& Specialty, Inc.

Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

Working Pressure:	5,000 or 10,000 psi working pressure
Test Pressure:	10,000 or 15,000 psi test pressure
Reinforcement:	Multiple steel cables
Cover:	Stainless Steel Armor
Inner Tube:	Petroleum resistant, Abrasion resistant
End Fitting:	API flanges, API male threads, threaded or butt weld hammer unions, unbolt and other special connections
Maximum Length:	110 Feet
ID:	2-1/2", 3", 3-1/2", 4"
Operating Temperature:	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

Cactus 122



-  Wind Direction Indicators (wind sock or streamers)
-  H2S Monitors (alarms at bell nipple and shale shaker)
-  Briefing Areas

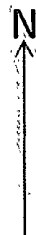


Exhibit D – Rig Diagram
Ringer Fed Com 13
 Cimarex Energy Co.
 3-25S-26E
 SHL 1980 FSL & 400 FEL
 BHL 1980 FSL & 660 FWL
 Eddy County, NM

Hydrogen Sulfide Drilling Operations Plan
Ringer Federal Com No. 13
Cimarex Energy Co. of Colorado
Unit 1, Section 3
T25S-R26E, Eddy County, NM

H₂S equipment will be rigged up at Surface. The plan should be implemented before drilling out from the surface.

1. Due to a one-time encounter on a previous well, an Intra-salt Pocket was charged with H₂S and a burnable amount of hydrocarbons.

First Potential Problem Zone:

Initial suspected problem zone	Salt Zone @ 1,333'
Potential Open Flow Capacity	1 mcf
Expected H ₂ S Concentration	11,000 ppm
100' ROE	6'
500' ROE	3'

Cimarex will have 24-hour H₂S Safety Supervisors on location while drilling the first 2,000' on this well.

2. Second Potential Problem Zone:

Initial suspected problem zone	Delaware Mountain Group @ 1,800'
Potential Open Flow Capacity	100 mcf
Expected H ₂ S Concentration	1,000 ppm
100' ROE	24'
500' ROE	11'

3. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:

- A. Characteristics of H₂S
- B. Physical effects and hazards
- C. Proper use of safety equipment and life support systems.
- D. Principle and operation of H₂S detectors, warning system and briefing areas.
- E. Evacuation procedure, routes and first aid.
- F. Proper use of 30 minute pressure demand air pack.

4. H₂S Detection and Alarm Systems:

- A. H₂S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.

5. Windsöck and/or wind streamers:

- A. Windsöck at mudpit area should be high enough to be visible.
- B. Windsöck at briefing area should be high enough to be visible.

6. 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.

Hydrogen Sulfide Drilling Operations Plan
Ringer Federal Com No. 12
Cimarex Energy Co.
Unit P, Section 3
T25S-R26E, Eddy County, NM

7. Well control equipment:

A. See exhibit "E"

8. 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

9. Drillstem Testing:

DSTs or Cores:

10. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and

11. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H_2S scavengers if necessary.

H₂S Contingency Plan
Ringer Federal Com No. 13
Cimarex Energy Co. of Colorado
Unit 1, Section 3
T25S-R26E, Eddy County, NM

Emergency Procedures

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

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

Ignition of Gas Source

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

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	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).

H₂S Contingency Plan-Emergency Contacts

Ringer Federal Com No. 13

Cimarex Energy Co. of Colorado

Unit I, Section 3

T255-R26E, Eddy County, NM

Company Office

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

Key Personnel

Name	Title	Office	Mobile
Larry Selgrist	Drilling Manager	432-620-1934	580-243-8285
Scott Lucas	Field Drilling Super		432-894-5572
Jeff Lajoie	Field Drilling Super		432-257-9889
Roy Shirley	Field Super		432-634-2136

Artesia

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	575-748-1283

Carlsbad

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

Santa Fe

New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635

National

National Emergency Response Center (Washington, D.C.)	800-424-8802
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Medical

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; Albuquerque, NM	505-842-4433
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM	505-842-4949

Other

Boots & Coots IWC	800-256-9688	or	281-931-8884
Cudd Pressure Control	432-699-0139	or	432-563-3356
Halliburton	575-746-2757		
B.J. Services	575-746-3569		

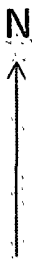
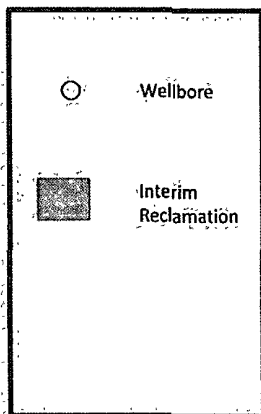
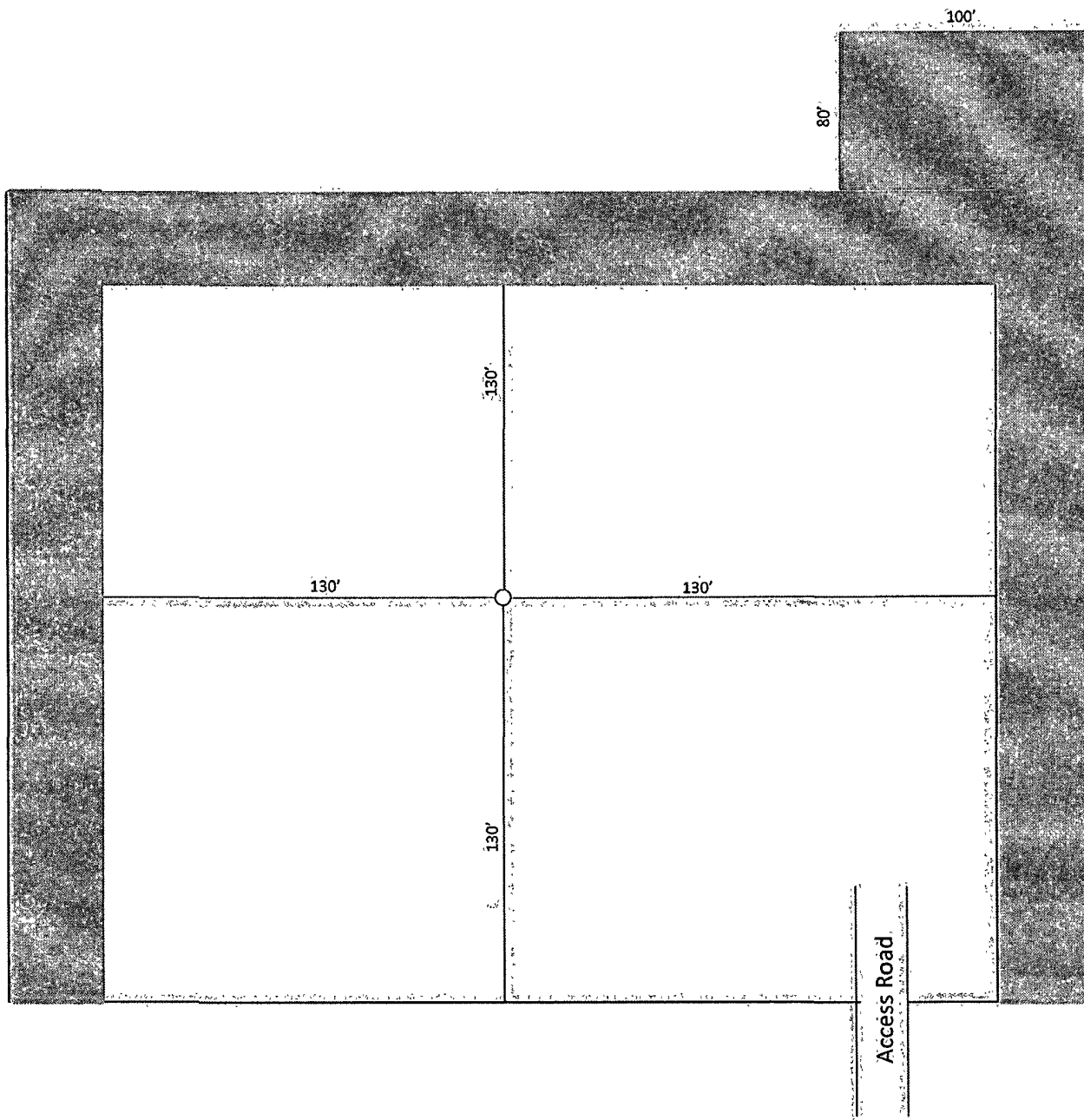


Exhibit D-1
Interim Reclamation Diagram
Ringer Fed Com 13
Cimarex Energy Co.
3-25S-26E
SHL 1980 FSL & 400 FEL
BHL 1980 FSL & 660 FWL
Eddy County, NM

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CIMAREX ENERGY
LEASE NO.:	NM15296
WELL NAME & NO.:	13-RINGER FEDERAL COM
SURFACE HOLE FOOTAGE:	1980'/S. & 400'/E.
BOTTOM HOLE FOOTAGE:	1980'/S. & 660'/W.
LOCATION:	Section 3, T. 25 S., R. 26 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Cave/Karst
 - Communitization Agreement
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - H2S – Onshore Order 6 Requirements
 - Critical Cave/Karst Requirements
 - Logging Requirements
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**