

HOBBS OCD

ATS-12-1101

OCT 28 2013

Form 3160-3
(April 2004)

RECEIVED

OCD Hobbs

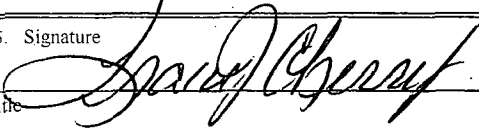
FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NM-126495	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Cimarex Energy Co. of Colorado		7. If Unit or CA Agreement, Name and No.	
3a. Address 600 N. Marienfeld St., Ste. 600; Midland, TX 79701		8. Lease Name and Well No. <39608> W. Bell Lake "26" Federal #2H	
3b. Phone No. (include area code) 432-571-7800		9. API Well No. 30-025- 41473	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 26-23S-33E 330 FSL & 2310 FWL At proposed prod. Zone 26-23S-33E 330 FNL & 1980 FWL Horizontal Bone Spring test		10. Field and Pool or Exploratory Bell Lake; Bone Spring Wildcat <59900>	
14. Distance in miles and direction from nearest town or post office* Approx 23 miles West from Jal, NM		12. County or Parish Lea	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 330'		13. State NM	
16. No of acres in lease 320		17. Spacing Unit dedicated to this well 160	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320' to #1		20. BLM/BIA Bond No. on File NM2575; NMB000835	
21. Elevations (Show whether-DF, KDB, RT, GL, etc.) 3643' GR		22. Approximate date work will start* 10.01.12	
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 	Name (Printed/Typed) Tracie J Cherry	Date 08.02.12
Title Sr. Regulatory Analyst		
Approved By (Signature) IS/STEPHEN J. CAFFEY	Name (Printed/Typed)	Date OCT 22 2013
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.

APPROVAL FOR TWO YEARS

Title 18 U.S.S. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

* (Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL
OCT 31 2013

Operator - Landowner Agreement

Company: Cimarex Energy Co. of Colorado
Proposed Well: W. Bell Lake "26" Federal #2H
Federal Lease Number: NM-126495

This is to advise that Cimarex Energy Co. of Colorado has an agreement with: Brininstool XL Ranch LLC (424 XL Road, Jal NM 88252, (575) 390-1881), 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 2, 2012
Date


Signature Tracie J Cherry
Sr. Regulatory Analyst

Drilling Plan
W. Bell Lake "26" Federal #2H
 Cimarex Energy Co. of Colorado
 Unit M, Section 26
 T23S-R33E; Lea 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 26-23S-33E 330 FSL & 2310 FWL
 BHL 26-23S-33E 330 FNL & 1980 FWL

- 2 **Elevation above sea level:** 3643 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 15850 TVD 11330

- 6 **Estimated tops of geological markers:**

Water per OSE	142	Bone Spring	9160	
Rustler	1350	Avalon Shale	9500	Possible hydroca
T. Salt	1700	1st BSS	10280	Possible hydroca
Castille	3800	2nd BSS	10910	Possible hydroca
B. Salt	4800	3rd BS Carbonate	11500	
Lamar	5275			
Bell Canyon	5300	Possible hydrocarbons		
Cherry Canyon	6230			
Brushy Canyon	7600			

- 7 **Possible mineral bearing formations:**
 Shown above

8 **Proposed Mud Circulating System:**

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 1375'	8.4 - 8.6	28	NC	FW
1375' to 5200'	10.0	30-32	NC	Brine water
5200' to 15851'	8.6-8.8	28-32	NC	FW/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.

Proposed Drilling Plan

After setting surface & intermediate csg, drill 8 3/4" or 7 7/8" hole to KOP @ 11044 & and log kick off and drill through the curve to lateral TD @ 15850' MD, 11330' TVD. Run 5-1/2" csg to TD.

Drilling Plan
W. Bell Lake "26" Federal #2H
 Cimarex Energy Co. of Colorado
 Unit M, Section 26
 T23S-R33E; Lea County, NM

9 Casing & Cementing Program:

See COA

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface	17 1/2"	0' to 1375'	New 13 3/8"	48#	STC	H-40
Intermediate	12 1/4"	0' to 3400'	New 9 5/8"	36#	LTC	N-80
Intermediate	12 1/4"	3400' to 5200'	New 9 5/8"	40#	LTC	N-80
Production	8 3/4" or 7 7/8"	0' to 10100'	New 5 1/2"	17#	LTC	P-110
Production	8 3/4" or 7 7/8"	10100' to 15851'	New 5 1/2"	17#	BTC	P-110

10 Cementing:

Surface

Lead:700SKS Premium Plus + 2% CaCl+4% Gel. 13.5ppg 1.75yield 100% Excess

Tail:240SKS Premium Plus + 2% CaCl. 14.8ppg 1.34 yield 50% Excess

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

Intermediate

Lead:1100SKS HLPP + 5% salt + 5 lbm gilsonite 12.9ppg 1.92yield 75% Excess

Tail:350SKS Premium Plus + 1% CaCl 14.8ppg 1.34 yield 50% Excess

TOC Surface

Intermediate

Lead:850SKS EconoCem - H + 0.5/10 % HR-601 .5/10% Halad 322. 11.9ppg 2.48 yield 50% Excess

Tail:1460SKS Versacem - H + 0.5% Halad(R)-344 + 0.4% CFR-3 + 1 lbm/sk salt + 0.2% HR-601 14.5ppg 1.22 yield 25% Excess

TOC 4700' 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.

<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 13 3/8" 5000 psi working pressure BOP system 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 as needed. 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 separator will be installed before drilling out of surface casing.

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. From the base of the 13 3/8" casing through the running of production casing, the well will be equipped with a 5000 psi BOP system.

BOPs will be tested by an independent service company to 250 psi low and 3000 psi high on the surface casing and 250 psi low and 5000 psi high on the intermediate. Hyderil will be tested to 250 psi low and 2500 psi high on the surface and intermediate casings.

Cimarex Energy Co. of Colorado requests a variance to use a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

Drilling Plan
W. Bell Lake "26" Federal #2H
Cimarex Energy Co. of Colorado
Unit M, Section 26
T23S-R33E; Lea County, NM

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

- A. Mud logging program: 2 man unit from 5200' 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 **5099** Estimated BHT **140°**

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

Drilling expected to take 30-35 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.

Bone Spring pay will be perforated and stimulated.

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



Cimarex Energy Co. of Colorado

Location: Lea County, NM
Field: (W. Bell) Sec 26, T23S, R33E
Facility: W. Bell Lake 26 Fed No.2H

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



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	355.463	0.00	0.00	0.00	0.00	0.00
Est KOP	11044.00	0.000	355.463	11044.00	0.00	0.00	0.00	0.00
EOC	11493.25	90.000	355.463	11330.00	285.10	-22.62	20.03	286.00
No.2H PBHL	15850.61	90.000	355.463	11330.00	4628.81	-367.31	0.00	4643.37

Plot reference wellpath is Prelim_1

True vertical depths are referenced to Rig on No.2H SHL (RT)

Measured depths are referenced to Rig on No.2H SHL (RT)

Rig on No.2H SHL (RT) to Mean Sea Level: 3643 feet

Mean Sea Level to Mud line (At Slot: No.2H SHL): -3643 feet

Coordinates are in feet referenced to Slot

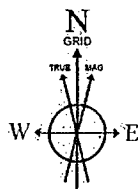
Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet

North Reference: Grid north

Scale: True distance

Depths are in feet

Created by: gentbry on 2/17/2012



BGGM (1945.0 to 2013.0) Dip: 60.18° Field: 48586.5 nT

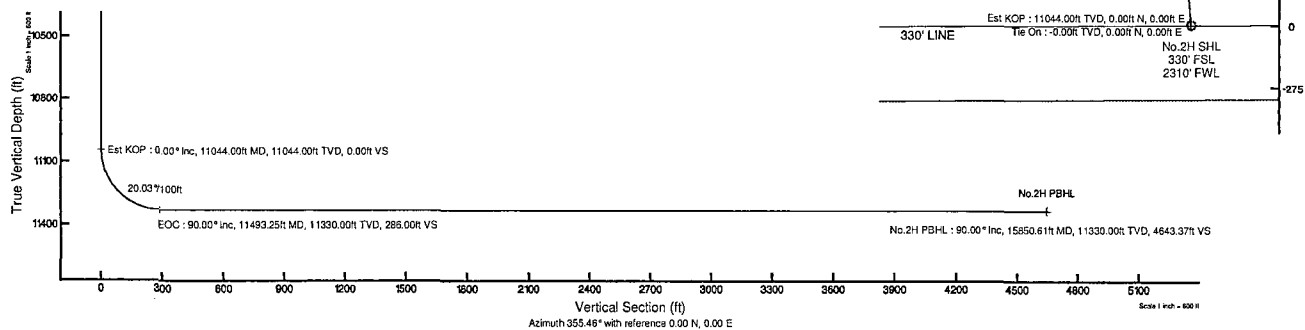
Magnetic North is 7.57 degrees East of True North (at 2/17/2012)

Grid North is 0.42 degrees East of True North

To correct azimuth from True to Grid subtract 0.42 degrees

To correct azimuth from Magnetic to Grid add 7.15 degrees

For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.15 = 97.15





Planned Wellpath Report

Prelim_1
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(W. Bell) Sec 26, T23S, R33E	Wellbore	No.2H PWB
Facility	W. Bell Lake 26 Fed No.2H		

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	0.999977	Report Generated	2/17/2012 at 3:33:14 PM
Convergence at slot	0.42° East	Database/Source file	WA Midland/No.2H_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	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W
Facility Reference Pt			785250.60	462593.30	32°16'09.402"N	103°32'39.056"W
Field Reference Pt			783450.90	462583.60	32°16'09.436"N	103°33'00.017"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No.2H SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No.2H SHL (RT) to Mean Sea Level	3643.00ft
Vertical Reference Pt	Rig on No.2H SHL (RT)	Rig on No.2H SHL (RT) to Mud Line at Slot (No.2H SHL)	0.00ft
MD Reference Pt	Rig on No.2H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	355.46°



Planned Wellpath Report

Prelim_1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(W. Bell) Sec 26, T23S, R33E	Wellbore	No.2H PWB
Facility	W. Bell Lake 26 Fed No.2H		

WELLPATH DATA (165 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	355.463	0.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	Tie On
100.00†	0.000	355.463	100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
200.00†	0.000	355.463	200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
300.00†	0.000	355.463	300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
400.00†	0.000	355.463	400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
500.00†	0.000	355.463	500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
600.00†	0.000	355.463	600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
700.00†	0.000	355.463	700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
800.00†	0.000	355.463	800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
900.00†	0.000	355.463	900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1000.00†	0.000	355.463	1000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1100.00†	0.000	355.463	1100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1200.00†	0.000	355.463	1200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1300.00†	0.000	355.463	1300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1400.00†	0.000	355.463	1400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1500.00†	0.000	355.463	1500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1600.00†	0.000	355.463	1600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1700.00†	0.000	355.463	1700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1800.00†	0.000	355.463	1800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
1900.00†	0.000	355.463	1900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2000.00†	0.000	355.463	2000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2100.00†	0.000	355.463	2100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2200.00†	0.000	355.463	2200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2300.00†	0.000	355.463	2300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2400.00†	0.000	355.463	2400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2500.00†	0.000	355.463	2500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2600.00†	0.000	355.463	2600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2700.00†	0.000	355.463	2700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2800.00†	0.000	355.463	2800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
2900.00†	0.000	355.463	2900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3000.00†	0.000	355.463	3000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3100.00†	0.000	355.463	3100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3200.00†	0.000	355.463	3200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3300.00†	0.000	355.463	3300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3400.00†	0.000	355.463	3400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3500.00†	0.000	355.463	3500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3600.00†	0.000	355.463	3600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3700.00†	0.000	355.463	3700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3800.00†	0.000	355.463	3800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
3900.00†	0.000	355.463	3900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
4000.00†	0.000	355.463	4000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
4100.00†	0.000	355.463	4100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
4200.00†	0.000	355.463	4200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
4300.00†	0.000	355.463	4300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
4400.00†	0.000	355.463	4400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	



Planned Wellpath Report

Prelim_1
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(W. Bell) Sec 26, T23S, R33E	Wellbore	No.2H PWB
Facility	W. Bell Lake 26 Fed No.2H		

WELLPATH DATA (165 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
4500.00†	0.000	355.463	4500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
4600.00†	0.000	355.463	4600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
4700.00†	0.000	355.463	4700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
4800.00†	0.000	355.463	4800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
4900.00†	0.000	355.463	4900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
5000.00†	0.000	355.463	5000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
5100.00†	0.000	355.463	5100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
5200.00†	0.000	355.463	5200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
5300.00†	0.000	355.463	5300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	Delaware Sands
5400.00†	0.000	355.463	5400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
5500.00†	0.000	355.463	5500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
5600.00†	0.000	355.463	5600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
5700.00†	0.000	355.463	5700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
5800.00†	0.000	355.463	5800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
5900.00†	0.000	355.463	5900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6000.00†	0.000	355.463	6000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6100.00†	0.000	355.463	6100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6200.00†	0.000	355.463	6200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6300.00†	0.000	355.463	6300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6400.00†	0.000	355.463	6400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6500.00†	0.000	355.463	6500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6600.00†	0.000	355.463	6600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6700.00†	0.000	355.463	6700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6800.00†	0.000	355.463	6800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
6900.00†	0.000	355.463	6900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7000.00†	0.000	355.463	7000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7100.00†	0.000	355.463	7100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7200.00†	0.000	355.463	7200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7300.00†	0.000	355.463	7300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7400.00†	0.000	355.463	7400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7500.00†	0.000	355.463	7500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7600.00†	0.000	355.463	7600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7700.00†	0.000	355.463	7700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7800.00†	0.000	355.463	7800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
7900.00†	0.000	355.463	7900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8000.00†	0.000	355.463	8000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8100.00†	0.000	355.463	8100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8200.00†	0.000	355.463	8200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8300.00†	0.000	355.463	8300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8400.00†	0.000	355.463	8400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8500.00†	0.000	355.463	8500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8600.00†	0.000	355.463	8600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8700.00†	0.000	355.463	8700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8800.00†	0.000	355.463	8800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
8900.00†	0.000	355.463	8900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(W. Bell) Sec 26, T23S, R33E	Wellbore	No.2H PWB
Facility	W. Bell Lake 26 Fed No.2H		

WELLPATH DATA (165 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
9000.00†	0.000	355.463	9000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
9100.00†	0.000	355.463	9100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
9160.00†	0.000	355.463	9160.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	Bone Spring
9200.00†	0.000	355.463	9200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
9300.00†	0.000	355.463	9300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
9400.00†	0.000	355.463	9400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
9500.00†	0.000	355.463	9500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	Avalon Shale
9600.00†	0.000	355.463	9600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
9700.00†	0.000	355.463	9700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
9800.00†	0.000	355.463	9800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
9900.00†	0.000	355.463	9900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10000.00†	0.000	355.463	10000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10100.00†	0.000	355.463	10100.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10200.00†	0.000	355.463	10200.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10280.00†	0.000	355.463	10280.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	1st BSS
10300.00†	0.000	355.463	10300.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10400.00†	0.000	355.463	10400.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10500.00†	0.000	355.463	10500.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10600.00†	0.000	355.463	10600.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10700.00†	0.000	355.463	10700.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10800.00†	0.000	355.463	10800.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10900.00†	0.000	355.463	10900.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
10910.00†	0.000	355.463	10910.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	2nd BSS
11000.00†	0.000	355.463	11000.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	
11044.00	0.000	355.463	11044.00	0.00	0.00	0.00	785250.60	462593.30	32°16'09.402"N	103°32'39.056"W	0.00	Est KOP
11100.00†	11.219	355.463	11099.64	5.47	5.45	-0.43	785250.17	462598.75	32°16'09.456"N	103°32'39.061"W	20.03	
11200.00†	31.252	355.463	11192.38	41.50	41.37	-3.28	785247.32	462634.67	32°16'09.811"N	103°32'39.091"W	20.03	
11300.00†	51.286	355.463	11267.16	107.13	106.79	-8.47	785242.13	462700.09	32°16'10.459"N	103°32'39.146"W	20.03	
11400.00†	71.319	355.463	11314.93	194.40	193.79	-15.38	785235.22	462787.08	32°16'11.320"N	103°32'39.219"W	20.03	
11493.25	90.000	355.463	11330.00	286.00	285.10	-22.62	785227.98	462878.40	32°16'12.224"N	103°32'39.295"W	20.03	EOC
11500.00†	90.000	355.463	11330.00	292.75	291.83	-23.16	785227.44	462885.13	32°16'12.291"N	103°32'39.301"W	0.00	
11600.00†	90.000	355.463	11330.00	392.75	391.52	-31.07	785219.53	462984.81	32°16'13.278"N	103°32'39.385"W	0.00	
11700.00†	90.000	355.463	11330.00	492.75	491.21	-38.98	785211.62	463084.50	32°16'14.265"N	103°32'39.468"W	0.00	
11800.00†	90.000	355.463	11330.00	592.75	590.89	-46.89	785203.71	463184.18	32°16'15.252"N	103°32'39.552"W	0.00	
11900.00†	90.000	355.463	11330.00	692.75	690.58	-54.80	785195.80	463283.86	32°16'16.239"N	103°32'39.635"W	0.00	
12000.00†	90.000	355.463	11330.00	792.75	790.27	-62.71	785187.89	463383.55	32°16'17.226"N	103°32'39.719"W	0.00	
12100.00†	90.000	355.463	11330.00	892.75	889.95	-70.62	785179.98	463483.23	32°16'18.213"N	103°32'39.802"W	0.00	
12200.00†	90.000	355.463	11330.00	992.75	989.64	-78.53	785172.07	463582.92	32°16'19.200"N	103°32'39.886"W	0.00	
12300.00†	90.000	355.463	11330.00	1092.75	1089.33	-86.44	785164.16	463682.60	32°16'20.187"N	103°32'39.970"W	0.00	
12400.00†	90.000	355.463	11330.00	1192.75	1189.01	-94.35	785156.25	463782.29	32°16'21.174"N	103°32'40.053"W	0.00	
12500.00†	90.000	355.463	11330.00	1292.75	1288.70	-102.26	785148.34	463881.97	32°16'22.161"N	103°32'40.137"W	0.00	
12600.00†	90.000	355.463	11330.00	1392.75	1388.39	-110.17	785140.43	463981.65	32°16'23.148"N	103°32'40.220"W	0.00	
12700.00†	90.000	355.463	11330.00	1492.75	1488.07	-118.08	785132.52	464081.34	32°16'24.135"N	103°32'40.304"W	0.00	
12800.00†	90.000	355.463	11330.00	1592.75	1587.76	-125.99	785124.61	464181.02	32°16'25.122"N	103°32'40.388"W	0.00	
12900.00†	90.000	355.463	11330.00	1692.75	1687.45	-133.90	785116.70	464280.71	32°16'26.108"N	103°32'40.471"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(W. Bell) Sec 26, T23S, R33E	Wellbore	No.2H PWB
Facility	W. Bell Lake 26 Fed No.2H		

WELLPATH DATA (165 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
13000.00†	90.000	355.463	11330.00	1792.75	1787.13	-141.81	785108.79	464380.39	32°16'27.095"N	103°32'40.555"W	0.00	
13100.00†	90.000	355.463	11330.00	1892.75	1886.82	-149.72	785100.88	464480.07	32°16'28.082"N	103°32'40.638"W	0.00	
13200.00†	90.000	355.463	11330.00	1992.75	1986.51	-157.63	785092.97	464579.76	32°16'29.069"N	103°32'40.722"W	0.00	
13300.00†	90.000	355.463	11330.00	2092.75	2086.19	-165.54	785085.06	464679.44	32°16'30.056"N	103°32'40.806"W	0.00	
13400.00†	90.000	355.463	11330.00	2192.75	2185.88	-173.45	785077.15	464779.13	32°16'31.043"N	103°32'40.889"W	0.00	
13500.00†	90.000	355.463	11330.00	2292.75	2285.57	-181.36	785069.24	464878.81	32°16'32.030"N	103°32'40.973"W	0.00	
13600.00†	90.000	355.463	11330.00	2392.75	2385.25	-189.27	785061.33	464978.50	32°16'33.017"N	103°32'41.056"W	0.00	
13700.00†	90.000	355.463	11330.00	2492.75	2484.94	-197.18	785053.42	465078.18	32°16'34.004"N	103°32'41.140"W	0.00	
13800.00†	90.000	355.463	11330.00	2592.75	2584.63	-205.09	785045.51	465177.86	32°16'34.991"N	103°32'41.224"W	0.00	
13900.00†	90.000	355.463	11330.00	2692.75	2684.31	-213.01	785037.60	465277.55	32°16'35.978"N	103°32'41.307"W	0.00	
14000.00†	90.000	355.463	11330.00	2792.75	2784.00	-220.92	785029.69	465377.23	32°16'36.965"N	103°32'41.391"W	0.00	
14100.00†	90.000	355.463	11330.00	2892.75	2883.69	-228.83	785021.78	465476.92	32°16'37.952"N	103°32'41.474"W	0.00	
14200.00†	90.000	355.463	11330.00	2992.75	2983.37	-236.74	785013.87	465576.60	32°16'38.939"N	103°32'41.558"W	0.00	
14300.00†	90.000	355.463	11330.00	3092.75	3083.06	-244.65	785005.96	465676.28	32°16'39.926"N	103°32'41.642"W	0.00	
14400.00†	90.000	355.463	11330.00	3192.75	3182.75	-252.56	784998.05	465775.97	32°16'40.913"N	103°32'41.725"W	0.00	
14500.00†	90.000	355.463	11330.00	3292.75	3282.43	-260.47	784990.14	465875.65	32°16'41.900"N	103°32'41.809"W	0.00	
14600.00†	90.000	355.463	11330.00	3392.75	3382.12	-268.38	784982.23	465975.34	32°16'42.887"N	103°32'41.892"W	0.00	
14700.00†	90.000	355.463	11330.00	3492.75	3481.81	-276.29	784974.32	466075.02	32°16'43.874"N	103°32'41.976"W	0.00	
14800.00†	90.000	355.463	11330.00	3592.75	3581.49	-284.20	784966.41	466174.71	32°16'44.861"N	103°32'42.060"W	0.00	
14900.00†	90.000	355.463	11330.00	3692.75	3681.18	-292.11	784958.50	466274.39	32°16'45.848"N	103°32'42.143"W	0.00	
15000.00†	90.000	355.463	11330.00	3792.75	3780.87	-300.02	784950.59	466374.07	32°16'46.835"N	103°32'42.227"W	0.00	
15100.00†	90.000	355.463	11330.00	3892.75	3880.55	-307.93	784942.68	466473.76	32°16'47.821"N	103°32'42.310"W	0.00	
15200.00†	90.000	355.463	11330.00	3992.75	3980.24	-315.84	784934.77	466573.44	32°16'48.808"N	103°32'42.394"W	0.00	
15300.00†	90.000	355.463	11330.00	4092.75	4079.93	-323.75	784926.86	466673.13	32°16'49.795"N	103°32'42.478"W	0.00	
15400.00†	90.000	355.463	11330.00	4192.75	4179.61	-331.66	784918.95	466772.81	32°16'50.782"N	103°32'42.561"W	0.00	
15500.00†	90.000	355.463	11330.00	4292.75	4279.30	-339.57	784911.04	466872.49	32°16'51.769"N	103°32'42.645"W	0.00	
15600.00†	90.000	355.463	11330.00	4392.75	4378.99	-347.48	784903.13	466972.18	32°16'52.756"N	103°32'42.728"W	0.00	
15700.00†	90.000	355.463	11330.00	4492.75	4478.67	-355.39	784895.22	467071.86	32°16'53.743"N	103°32'42.812"W	0.00	
15800.00†	90.000	355.463	11330.00	4592.75	4578.36	-363.30	784887.31	467171.55	32°16'54.730"N	103°32'42.896"W	0.00	
15850.61	90.000	355.463	11330.00†	4643.37	4628.81	-367.31	784883.30	467222.00	32°16'55.230"N	103°32'42.938"W	0.00	No.2H PBHL



Planned Wellpath Report

Prelim_1

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(W. Bell) Sec 26, T23S, R33E	Wellbore	No.2H PWB
Facility	W. Bell Lake 26 Fed No.2H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No.2H PBHL	15850.61	11330.00	4628.81	-367.31	784883.30	467222.00	32°16'55.230"N	103°32'42.938"W	point

SURVEY PROGRAM - Ref Wellbore: No.2H PWB Ref Wellpath: Prelim_1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	15850.61	NaviTrak (Standard)		No.2H PWB

SR & A

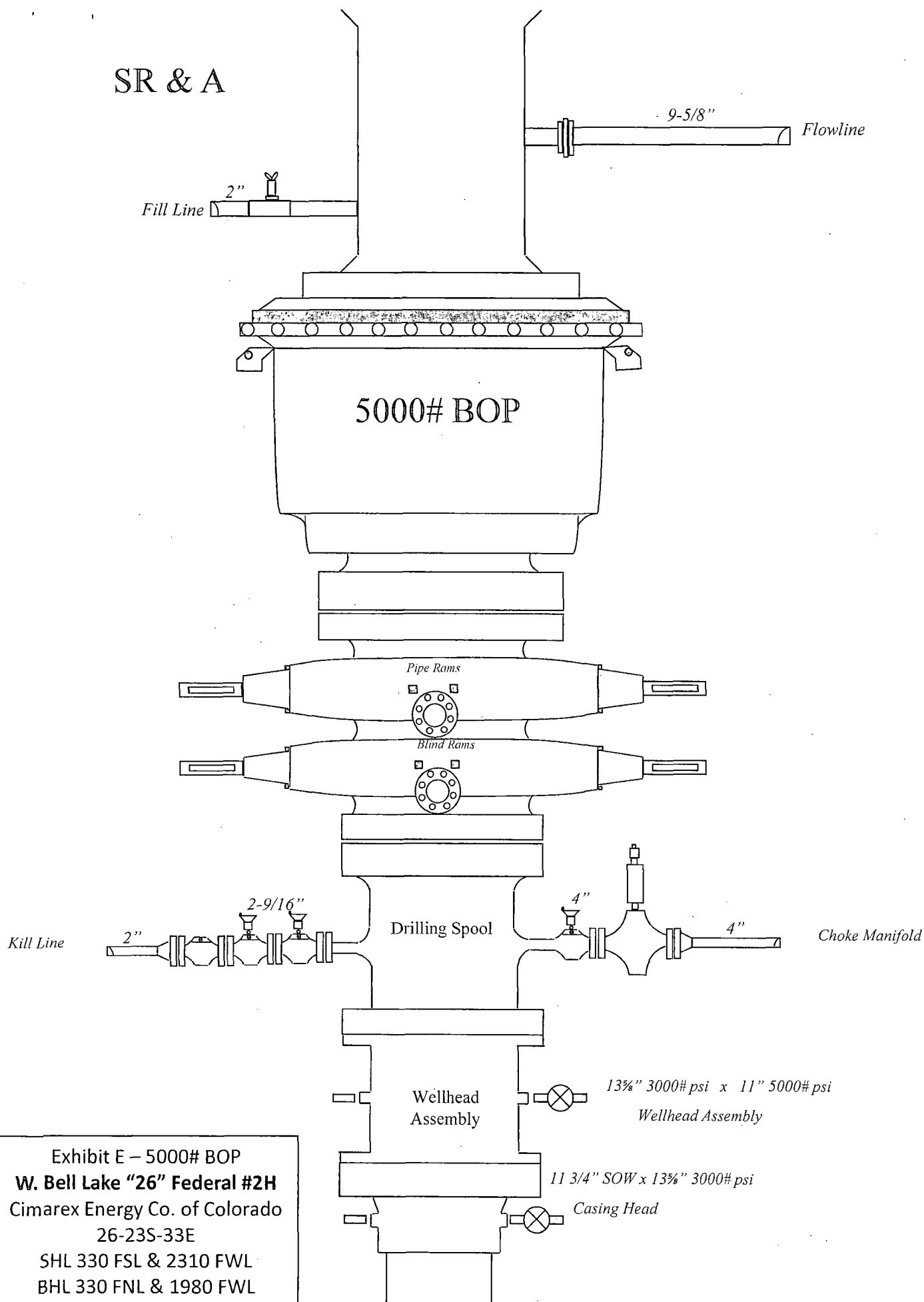


Exhibit E - 5000# BOP
W. Bell Lake "26" Federal #2H
Cimarex Energy Co. of Colorado
26-23S-33E
SHL 330 FSL & 2310 FWL
BHL 330 FNL & 1980 FWL
Lea County, NM

Drilling Operations Choke Manifold 5M Service

Exhibit E-1 – Choke Manifold Diagram

W. Bell Lake "26" Federal #2H

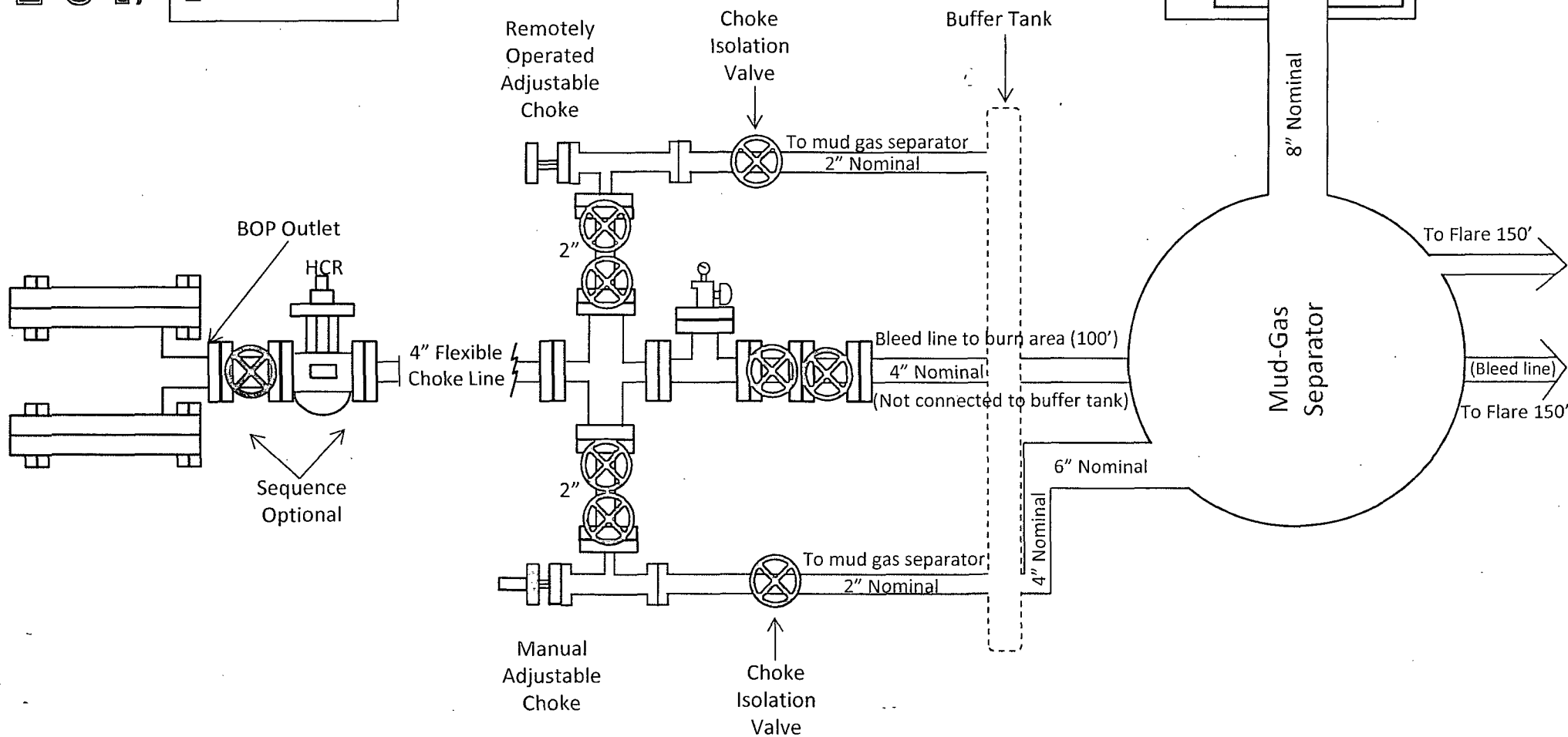
Cimarex Energy Co. of Colorado

26-23S-33E

SHL 330 FSL & 2310 FWL

BHL 330 FNL & 1980 FWL

Lea County, NM



MIDWEST
HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT		
Customer: CACTUS DRILLING		P.O. Number: RIG#147
HOSE SPECIFICATIONS		
Type: CHOK & KILL		Length: 35'
I.D. 4" INCHES		O.D. 8"
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000	BURST PRESSURE
COUPLINGS		
Stem Part No. E4.0X64WB		Ferrule No. FERRULE-128
Type of Coupling: 4-1/16 10K FLANGE(BX-155)		Die Size:
PROCEDURE		
<i><u>Hose assembly pressure tested with water at ambient temperature.</u></i>		
TIME HELD AT TEST PRESSURE 15 MIN.		ACTUAL BURST PRESSURE: 0 PSI
COMMENTS: SERIAL#63270		
Date: 7/14/2010	Tested By: BOBBY FINK	Approved: BRENT BURNETT

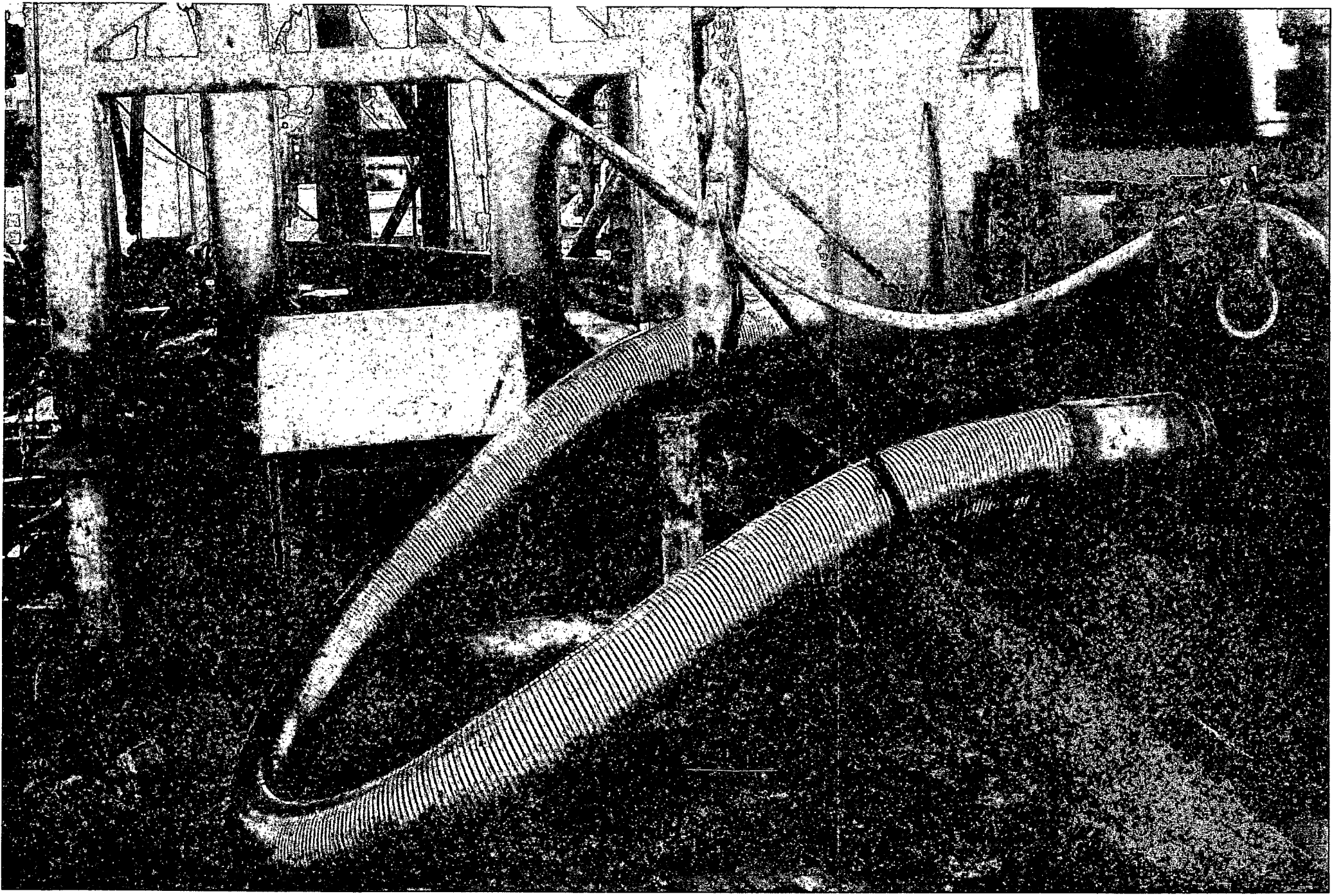


Midwest Hose
& Specialty, Inc.

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)



80'

'Frac Tank Farm

100'

12'

Flare Line

150'

130'

80'

Steel Pits

16'



Mud Gas Separator

Catwalk

Mud Tanks

170'

170'

5'x5'x5' Cellar

Dog House

Choke Manifold

Pipe Racks

Prevailing Winds

170'

Primary
Briefing
Area

Trailer

Trailer

Access Road

Topsoil
StockpileWind Direction Indicators
(wind sock or streamers)

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



Briefing areas

N

W. Bell Lake "26" Federal #2H
 Cimarex Energy Co. of Colorado
 26-23S-33E
 SHL 330 FSL & 2310 FWL
 BHL 330 FNL & 1980 FWL
 Lea County, NM