10-747

Form 3160-3
(August 2007)

OCD Artesia

EC

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM0144698

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
SECRETARY'S POTASH

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
SUPERIOR FEDERAL 010

2. Name of Operator
CIMAREX ENERGY CO. OF COLORADO
Contact: NATALIE E KRUEGER
E-Mail: nkrueger@cimarex.com
162683

9. API Well No.
30-015-38465

3a. Address
600 N. MARIENFELD ST., STE. 600
MIDLAND, TX 79701

3b. Phone No. (include area code)
Ph: 432-620-1936
Fx: 432-620-1940

10. Field and Pool, or Exploratory
PARKWAY; BONE SPRING

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface NWNW Lot 4 330FNL 560FWL 32.60886 N Lat, 104.03520 W Lon

At proposed prod. zone SWSW Lot M 330FSL 660FWL 32.59611 N Lat, 104.03494 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 1 T20S R29E Mer NMP

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)	16. No. of Acres in Lease	17. Spacing Unit dedicated to this well
330	1743.50	160.59
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
	12785 MD 8300 TVD Pilot Hole 8550'	NM-2575
21. Elevations (Show whether DF, KB, RT, GL, etc.	**22. Approximate date work will start**	**23. Estimated duration**
3323 GL	11/01/2010	35 DAYS

RECEIVED
JAN 13 2011
NMOCD ARTESIA

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
(Electronic Submission)	NATALIE E KRUEGER Ph: 432-620-1936	09/21/2010

Title
REGULATORY ANALYST

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ Linda S.C. Rundell		JAN 4 2011
Title	**Office**	
STATE DIRECTOR	NM STATE OFFICE	

Application approval does not warrant or certify 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.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.

Electronic Submission #93141 verified by the BLM Well Information System
For CIMAREX ENERGY CO. OF COLORADO, sent to the Carlsbad

CAPITAN CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

NS

Application to Drill
Superior Federal No. 10
Cimarex Energy Co. of Colorado
Unit D, Section 1
T20S-R29E, Eddy County, NM

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

1 Location: SHL 330 FNL & 560 FWL
BHL 330 FSL & 660 FWL

2 Elevation above sea level: 3323' GR

3 Geologic name of surface formation: Quaternery Alluvium Deposits

4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating m removal.

5 Proposed drilling depth: Pilot Hole 8550' MD 12785' TVD 8300'

6 Estimated tops of geological markers:

Delaware Sands	3500'
Bone Spring	6120'
FBSS	7460'
SBSS	8150'

7 Possible mineral bearing formation:
Bone Spring Oil

8 Proposed Mud Circulating System:

Depth			Mud Wt	Visc	Fluid Loss	Type Mud
0'	to	320'	8.4 - 8.6	28	NC	FW
320'	to	1600'	10.0	30-32	NC	Brine water
1600' 3200	to	3200' 8550	8.4 - 8.8 8.4-8.8	28	NC	FW
8026'	to	12785'	8.4	28-32	NC	2% KCl

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpect run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet th

Per operator RGH 12/01/2010

Proposed drilling Plan 9⅝" 8000'

After drilling and setting ~~surface~~ casing, drill to vertical TD 8550' and log. Set kick off plug from ~~6846~~-8550' w H (15.8, 1.19) and kick off @ 8026' and drill to TD @ 12785.' Run 5½" 17# P-110 LTC from 0-12785.'

Application to Drill
Superior Federal No. 10
Cimarex Energy Co. of Colorado
Unit D, Section 1
T20S-R29E, Eddy County, NM

9 Casing & Cementing Program:

String	Hole Size	Depth			Casing OD		Weight	Collar	Grade
Surface 1	26"	0'	to	320'	New	20"	94#	BTC	J/K-55
Surface 2	17½"	0'	to	1600'	New	13⅜"	61#	BTC	J-55
Intermediate	12¼"	0'	to	3435	New	9⅝"	40#	LTC	J/K-55
Production	8¾"	0'	to	12785'	New	5½"	17#	LTC	P-110

see COA

10 Cementing:

Surface 1 1963 sx Premium Plus + 2% $CaCl_2$ (wt 14.8, yld 1.35)
TOC Surface

Surface 2 Lead: 1354 sx Econocem + 3% Salt + 2% $CaCl_2$ + 3# Gilsonite (wt 11.7, yld 2.06)
Tail: 610 sx Premium Plus + 1% $CaCl_2$ (wt 14.8, yld 1.34)
TOC Surface

Intermediate Lead: 708 sx Econocem + 3% Salt + 2% $CaCl_2$ + 3 lbm/sk Gilsonite (wt 11.7, yld 2.06)
Tail: 210 sks Premium Plus + 1% $CaCl_2$ (wt 14.8, yld 1.34)
TOC Surface

Production Lead: 240 sx EconoCem + 3% Salt + 5 lbm/sk gilsonite (wt 13.0, yld 1.71)
Tail: 485 sx HalCem (wt 14.8, yld 1.34)
TOC 3000' — See COA

Fresh water/Hydrocarbon

Fresh water zones will be protected by setting 20" casing at 320' and 13⅜" casing at 1600' and cementing to surface. ~~Hydrocarbon~~ zones will be protected by setting 9⅝" casing at ~~3200~~ 3435 - See COA and cementing to surface, and by setting 5½" casing at 12785' and cementing to 3000.'

Collapse Factor	*Burst Factor*	*Tension Factor*
1.125	1.125	1.6

11 Pressure control Equipment:
Exhibit "E". A 13⅝" 5000 PSI working pressure BOP tested to 3000 psi 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.

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 13⅜" casing through the running of production casing, the well will be equipped with a 5000 psi BOP system tested to 3000 psi.

BOPS will be tested by an independent service company to 250 psi low and 3000 psi high. Hydril will be tested to 250 psi low and 1500 psi high.

12 Testing, Logging and Coring Program:

A. Mud logging program: 2 man unit from 3200' to TD
B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR — See COA
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 H_2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H_2S Safety package on all wells, attached is an "H_2S 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 **3000 psi** Estimated BHT **130°**

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 potentialed as **an oil well.**

Cimarex Energy Co.

Location: Eddy County, NM
Field: (Superior) Sec 1, T20S, R29E
Facility: Superior Fed No. 10H

Slot: No. 10H SHL
Well: No. 10H
Wellbore: No. 10H PWB

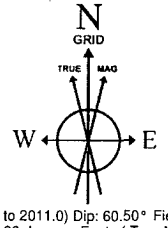
Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	178.870	0.00	0.00	0.00	0.00	0.00
EST. KOP	8026.00	0.000	178.870	8026.00	0.00	0.00	0.00	0.00
END OF CURVE	8344.23	89.105	178.870	8230.60	-201.39	3.97	28.00	201.43
No. 10H PBHL	12784.76	89.105	178.870	8300.00	-4640.52	91.57	0.00	4641.42

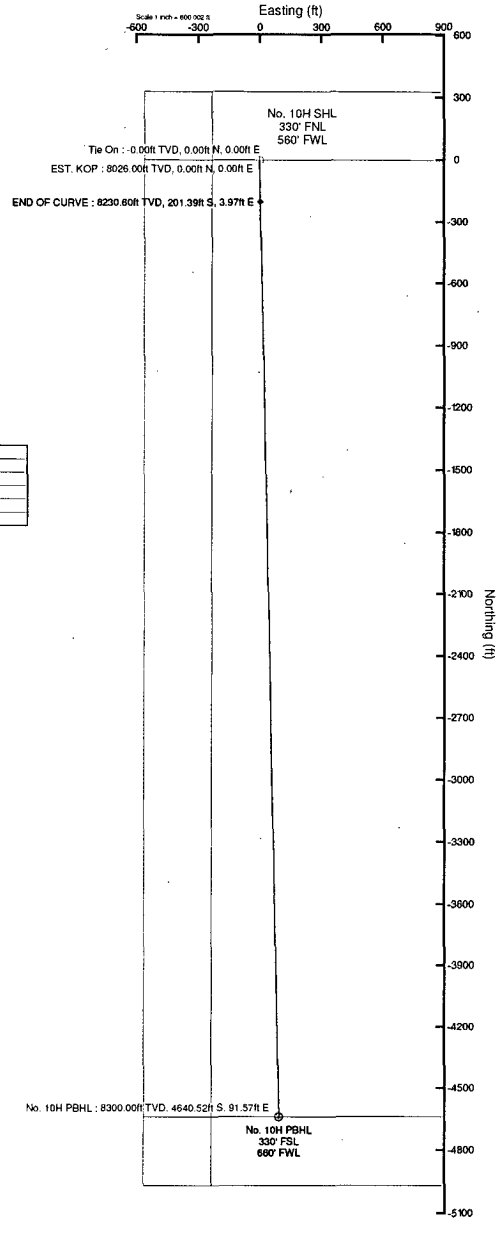
CIMAREX

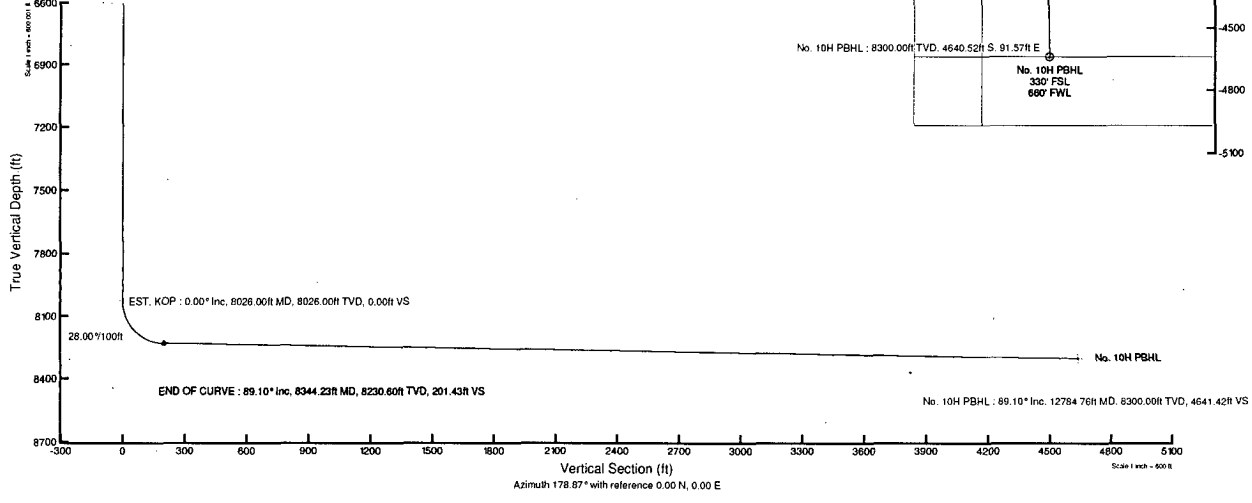
BAKER HUGHES

Plot reference wellpath is Prelim_1	
True vertical depths are referenced to Rig on No. 10H SHL (GL)	Grid System: NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 10H SHL (GL)	North Reference: Grid north
Rig on No. 10H SHL (GL) to Mean Sea Level: 3323 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Superior Fed No. 10H): -3323 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: Victor Hernandez on 9/14/2010



BGGM (1945.0 to 2011.0) Dip: 60.50° Field: 48938.5 nT
Magnetic North is 7.96 degrees East of True North (at 9/14/2010)
Grid North is 0.16 degrees East of True North
To correct azimuth from True to Grid subtract 0.16 degrees
To correct azimuth from Magnetic to Grid add 7.80 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.80 = 97.80





Planned Wellpath Report

Prelim_1

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 10H SHL**
Area	**Eddy County, NM**	Well	**No. 10H**
Field	**(Superior) Sec 1, T20S, R29E**	Wellbore	**No. 10H PWB**
Facility	**Superior Fed No. 10H**		

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	**0.999919**	Report Generated	**9/14/2010** at **11:29:12 AM**
Convergence at slot	**0.16° East**	Database/Source file	**WA_Midland/No._10H_PWB.xml**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[USft]**	**Northing[USft]**	**Latitude**	**Longitude**
Slot Location	**0.00**	**0.00**	633140.30	585364.20	32°36'31.910"N	104°02'06.711"W
Facility Reference Pt			**633140.30**	**585364.20**	32°36'31.910"N	104°02'06.711"W
Field Reference Pt			**633140.30**	**585364.20**	32°36'31.910"N	104°02'06.711"W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig on No. 10H SHL (GL) to Facility Vertical Datum	**0.00ft**
Horizontal Reference Pt	**Facility Center**	Rig on No. 10H SHL (GL) to Mean Sea Level	**3323.00ft**
Vertical Reference Pt	**Rig on No. 10H SHL (GL)**	Facility Vertical Datum to Mud Line (Facility)	**0.00ft**
MD Reference Pt	**Rig on No. 10H SHL (GL)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**178.87°**

Planned Wellpath Report

Prelim_1

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 10H SHL**
Area	**Eddy County, NM**	Well	**No. 10H**
Field	**(Superior) Sec 1, T20S, R29E**	Wellbore	**No. 10H PWB**
Facility	**Superior Fed No. 10H**		

WELLPATH DATA (51 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	178.870	0.00	0.00	0.00	0.00	633140.30	585364.20	32°36'31.910"N	104°02'06.711"W	0.00	Tie On
8026.00	0.000	178.870	8026.00	0.00	0.00	0.00	633140.30	585364.20	32°36'31.910"N	104°02'06.711"W	0.00	EST. KOP
8126.00†	28.000	178.870	8122.07	23.95	-23.95	0.47	633140.77	585340.25	32°36'31.673"N	104°02'06.706"W	28.00	
8226.00†	56.000	178.870	8195.64	90.20	-90.18	1.78	633142.08	585274.02	32°36'31.018"N	104°02'06.693"W	28.00	
8326.00†	84.000	178.870	8229.51	183.24	-183.20	3.61	633143.91	585181.01	32°36'30.098"N	104°02'06.675"W	28.00	
8344.23	89.105	178.870	8230.60	201.43	-201.39	3.97	633144.27	585162.83	32°36'29.918"N	104°02'06.671"W	28.00	END OF CURVE
8426.00†	89.105	178.870	8231.88	283.19	-283.13	5.59	633145.89	585081.09	32°36'29.109"N	104°02'06.655"W	0.00	
8526.00†	89.105	178.870	8233.44	383.18	-383.10	7.56	633147.86	584981.13	32°36'28.120"N	104°02'06.635"W	0.00	
8626.00†	89.105	178.870	8235.01	483.16	-483.07	9.53	633149.83	584881.17	32°36'27.130"N	104°02'06.615"W	0.00	
8726.00†	89.105	178.870	8236.57	583.15	-583.04	11.50	633151.80	584781.21	32°36'26.141"N	104°02'06.595"W	0.00	
8826.00†	89.105	178.870	8238.13	683.14	-683.01	13.48	633153.78	584681.25	32°36'25.152"N	104°02'06.576"W	0.00	
8926.00†	89.105	178.870	8239.69	783.13	-782.98	15.45	633155.75	584581.29	32°36'24.163"N	104°02'06.556"W	0.00	
9026.00†	89.105	178.870	8241.26	883.12	-882.94	17.42	633157.72	584481.33	32°36'23.174"N	104°02'06.536"W	0.00	
9126.00†	89.105	178.870	8242.82	983.10	-982.91	19.40	633159.69	584381.37	32°36'22.184"N	104°02'06.516"W	0.00	
9226.00†	89.105	178.870	8244.38	1083.09	-1082.88	21.37	633161.67	584281.41	32°36'21.195"N	104°02'06.497"W	0.00	
9326.00†	89.105	178.870	8245.95	1183.08	-1182.85	23.34	633163.64	584181.45	32°36'20.206"N	104°02'06.477"W	0.00	
9426.00†	89.105	178.870	8247.51	1283.07	-1282.82	25.31	633165.61	584081.49	32°36'19.217"N	104°02'06.457"W	0.00	
9526.00†	89.105	178.870	8249.07	1383.06	-1382.79	27.29	633167.58	583981.53	32°36'18.228"N	104°02'06.437"W	0.00	
9626.00†	89.105	178.870	8250.63	1483.04	-1482.75	29.26	633169.56	583881.57	32°36'17.238"N	104°02'06.417"W	0.00	
9726.00†	89.105	178.870	8252.20	1583.03	-1582.72	31.23	633171.53	583781.61	32°36'16.249"N	104°02'06.398"W	0.00	
9826.00†	89.105	178.870	8253.76	1683.02	-1682.69	33.20	633173.50	583681.65	32°36'15.260"N	104°02'06.378"W	0.00	
9926.00†	89.105	178.870	8255.32	1783.01	-1782.66	35.18	633175.47	583581.69	32°36'14.271"N	104°02'06.358"W	0.00	
10026.00†	89.105	178.870	8256.89	1882.99	-1882.63	37.15	633177.45	583481.73	32°36'13.282"N	104°02'06.338"W	0.00	
10126.00†	89.105	178.870	8258.45	1982.98	-1982.60	39.12	633179.42	583381.77	32°36'12.292"N	104°02'06.319"W	0.00	
10226.00†	89.105	178.870	8260.01	2082.97	-2082.56	41.09	633181.39	583281.81	32°36'11.303"N	104°02'06.299"W	0.00	
10326.00†	89.105	178.870	8261.57	2182.96	-2182.53	43.07	633183.36	583181.85	32°36'10.314"N	104°02'06.279"W	0.00	
10426.00†	89.105	178.870	8263.14	2282.95	-2282.50	45.04	633185.34	583081.89	32°36'09.325"N	104°02'06.259"W	0.00	
10526.00†	89.105	178.870	8264.70	2382.93	-2382.47	47.01	633187.31	582981.93	32°36'08.336"N	104°02'06.239"W	0.00	
10626.00†	89.105	178.870	8266.26	2482.92	-2482.44	48.98	633189.28	582881.97	32°36'07.346"N	104°02'06.220"W	0.00	
10726.00†	89.105	178.870	8267.83	2582.91	-2582.41	50.96	633191.25	582782.01	32°36'06.357"N	104°02'06.200"W	0.00	

Planned Wellpath Report

Prelim_1

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 10H SHL**
Area	**Eddy County, NM**	Well	**No. 10H**
Field	**(Superior) Sec 1, T20S, R29E**	Wellbore	**No. 10H PWB**
Facility	**Superior Fed No. 10H**		

WELLPATH DATA (51 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10826.00†	89.105	178.870	8269.39	2682.90	-2682.37	52.93	633193.22	582682.05	32°36'05.368"N	104°02'06.180"W	0.00	
10926.00†	89.105	178.870	8270.95	2782.88	-2782.34	54.90	633195.20	582582.09	32°36'04.379"N	104°02'06.160"W	0.00	
11026.00†	89.105	178.870	8272.51	2882.87	-2882.31	56.87	633197.17	582482.13	32°36'03.390"N	104°02'06.141"W	0.00	
11126.00†	89.105	178.870	8274.08	2982.86	-2982.28	58.85	633199.14	582382.17	32°36'02.401"N	104°02'06.121"W	0.00	
11226.00†	89.105	178.870	8275.64	3082.85	-3082.25	60.82	633201.11	582282.21	32°36'01.411"N	104°02'06.101"W	0.00	
11326.00†	89.105	178.870	8277.20	3182.84	-3182.22	62.79	633203.09	582182.25	32°36'00.422"N	104°02'06.081"W	0.00	
11426.00†	89.105	178.870	8278.77	3282.82	-3282.18	64.76	633205.06	582082.29	32°35'59.433"N	104°02'06.061"W	0.00	
11526.00†	89.105	178.870	8280.33	3382.81	-3382.15	66.74	633207.03	581982.33	32°35'58.444"N	104°02'06.042"W	0.00	
11626.00†	89.105	178.870	8281.89	3482.80	-3482.12	68.71	633209.00	581882.37	32°35'57.455"N	104°02'06.022"W	0.00	
11726.00†	89.105	178.870	8283.45	3582.79	-3582.09	70.68	633210.98	581782.41	32°35'56.465"N	104°02'06.002"W	0.00	
11826.00†	89.105	178.870	8285.02	3682.77	-3682.06	72.66	633212.95	581682.45	32°35'55.476"N	104°02'05.982"W	0.00	
11926.00†	89.105	178.870	8286.58	3782.76	-3782.03	74.63	633214.92	581582.49	32°35'54.487"N	104°02'05.963"W	0.00	
12026.00†	89.105	178.870	8288.14	3882.75	-3881.99	76.60	633216.89	581482.53	32°35'53.498"N	104°02'05.943"W	0.00	
12126.00†	89.105	178.870	8289.70	3982.74	-3981.96	78.57	633218.87	581382.57	32°35'52.509"N	104°02'05.923"W	0.00	
12226.00†	89.105	178.870	8291.27	4082.73	-4081.93	80.55	633220.84	581282.61	32°35'51.519"N	104°02'05.903"W	0.00	
12326.00†	89.105	178.870	8292.83	4182.71	-4181.90	82.52	633222.81	581182.65	32°35'50.530"N	104°02'05.883"W	0.00	
12426.00†	89.105	178.870	8294.39	4282.70	-4281.87	84.49	633224.78	581082.69	32°35'49.541"N	104°02'05.864"W	0.00	
12526.00†	89.105	178.870	8295.96	4382.69	-4381.84	86.46	633226.76	580982.73	32°35'48.552"N	104°02'05.844"W	0.00	
12626.00†	89.105	178.870	8297.52	4482.68	-4481.80	88.44	633228.73	580882.77	32°35'47.563"N	104°02'05.824"W	0.00	
12726.00†	89.105	178.870	8299.08	4582.66	-4581.77	90.41	633230.70	580782.81	32°35'46.573"N	104°02'05.804"W	0.00	
12784.76	89.105	178.870	8300.00[1]	4641.42	-4640.52	91.57	633231.86	580724.07	32°35'45.992"N	104°02'05.793"W	0.00	No. 10H PBHL

Planned Wellpath Report

Prelim_1

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 10H SHL**
Area	**Eddy County, NM**	Well	**No. 10H**
Field	**(Superior) Sec 1, T20S, R29E**	Wellbore	**No. 10H PWB**
Facility	**Superior Fed No. 10H**		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 10H PBHL	12784.76	8300.00	-4640.52	91.57	**633231.86**	**580724.07**	32°35'45.992"N	104°02'05.793"W	point

SURVEY PROGRAM Ref Wellbore: No. 10H PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	12784.76	NaviTrak (Standard)		No. 10H PWB

SR & A

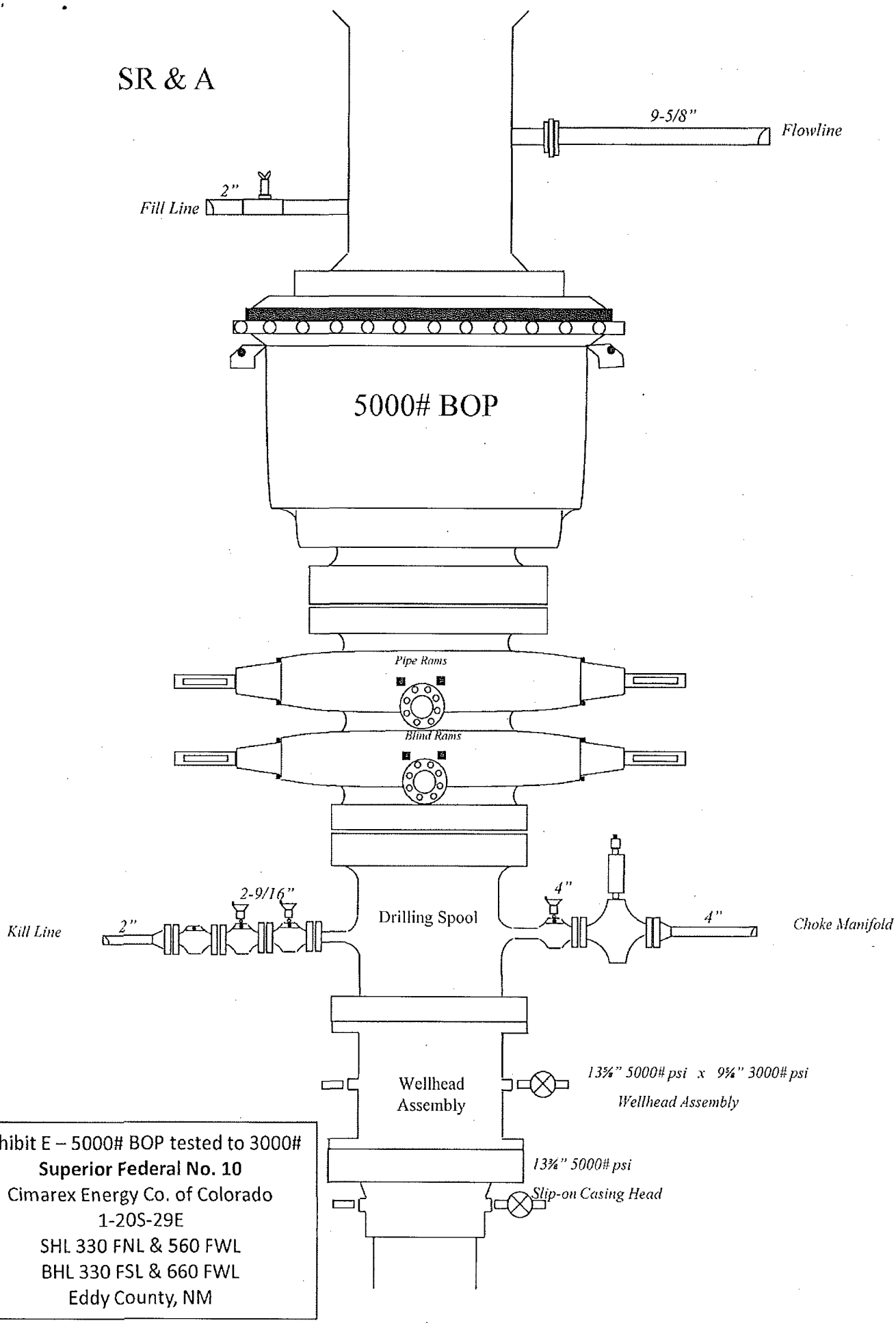


Exhibit E – 5000# BOP tested to 3000#
Superior Federal No. 10
Cimarex Energy Co. of Colorado
1-20S-29E
SHL 330 FNL & 560 FWL
BHL 330 FSL & 660 FWL
Eddy County, NM

Drilling Operations
Choke Manifold
5M Service tested to 3M

Exhibit E-1 – Choke Manifold Diagram
East Lusk 24 Federal Com No. 2
Cimarex Energy Co. of Colorado
24-19S-32E
SHL 660 FNL & 1980 FWL
BHL 660 FSL & 1980 FWL
Lea County, NM