

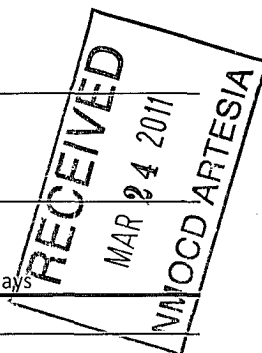
Form 3160-3
(April 2004)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. LC-068960
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> 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. Bluetail 8 Federal No. 1
3b. Phone No. (include area code) 432-571-7800		9. API Well No. 30-015- 38653
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 2160 FNL & 330 FWL		10. Field and Pool, or Exploratory Empire; Glorieta-Yeso, East
At proposed prod. Zone		11. Sec., T. R. M. or Blk. and Survey or Area 8-17S-29E
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) 330	16. No of acres in lease 40	17. Spacing Unit dedicated to this well SWNW 40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 310'	19. Proposed Depth 6000'	20. BLM/BIA Bond No. on File NM-2575
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3648' GR	22. Approximate date work will start* 02.15.11	23. Estimated duration 20-25 days



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 Zeno Farris	Name (Printed/Typed) Zeno Farris	Date 12.10.10
Title Manager Operations Administration		
Approved By (Signature) /s/ James A. Amos	Name (Printed/Typed)	Date MAR 21 2011
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)

Roswell Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

Application to Drill
Bluetail 8 Federal No. 1
Cimarex Energy Co. of Colorado
Unit E, Section 8
T17S R29E, 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 2160 FNL & 330 FWL
- 2 Elevation above sea level: 3648' 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: 6,000'
- 6 Estimated tops of geological markers:

Yates	850'
San Andres	2410'
Glorieta	3820'
Paddock	3900'
Blaine	4375'
Tubb	5220'
- 7 Possible mineral bearing formation:

Paddock	Oil
Blaine	Oil

8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 450' 210	8.4 - 8.8	40-45	NC	FW
450' to 1100'	9.9 - 10.1	28-32	NC	Brine
1100' to 6000'	9.1	28-32	NC	Cut 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.

Application to Drill
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9 Casing Plan:

Sec COA

String	Hole Size	Depth		Casing OD		Weight	Thread	Collar	Grade
Surface	16"	0'	to ^{216'} 450'	New	11 3/4"	42#	8-R	STC	H-40
Intermediate	11"	0'	to 1100'	New	8 7/8"	24#	8-R	STC	J-55
Production	7 7/8"	0'	to 6000'	New	5 1/2"	17#	8-R	LTC	J-55

10 Cementing:

Surface

Lead: 150 sx Class "C" + 4% D020 (Extender) + 2% S001 (CaCl2) + 0.2% D046 (Defoamer) , Mixed at 12.9 ppg, 1.97 cuft/sx, 10.861 gal/sx fresh water

Tail: 200 sx Class C + 1% S001 (wt 14.8, yield 1.34)

TOC Surface

Intermediate

Lead: 200 sx 50:50 Poz: Class "C" + 0.2% Defoamer (D046) + 5% D044 (Salt) +10% D020 (Extender Gel) + 1/8 pps Polyflake (D130) + 2 pps Gilsontite (D042) Mixed at 11.8 ppg, Yeild 2.57 cuft/sx, 15.061 gal/sx fresh water

Tail: 300 sx Class "C" + 1% S001 (CaCl2), Mixed at 14.8 ppg, 1.33 cuft/sx, 6.365 gal/sx fresh water

TOC Surface

Production

Lead: 450 sacks (100 lb per sx of Blend)LiteCrete + 0.2% Defoamer (D046) + 0.3% Dispersant (D065) + 1 lb/sx Extender (D042) + 0.03% gal/sx Retarder (D177) Mixed at 10.2 ppg. Yeild 2.16 cuft/sx, 7.558 gal/sx Fresh Water

Tail: 400 sacks PVL + 1.3% NaCl (D044) + 0.2% Fluid Loss (D167) + 0.2% Cement Retarder (D013) + 0.2% Dispersant (D065). Mixed at 13.0 ppg, Yeild 1.40 cuft/sx, 7.277 gal/sx Fresh Water

TOC 900'

According to the State Engineer, average depth to ground water is 75.' Fresh water zones will be protected by setting 11 3/4" casing at ^{216'} 450' and cementing to surface. Hydrocarbon zones will be protected by setting 8 7/8" casing at 1100' and cementing to surface and by setting 5 1/2" casing at 6000' and cementing to 900.'

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

Application to Drill
Bluetail 8 Federal No. 1
Cimarex Energy Co. of Colorado
Unit E, Section 8
T17S R29E, Eddy County, NM

11 Pressure control Equipment:

Exhibit "E-1" - An 11 $\frac{3}{4}$ " 3000 PSI working pressure B.O.P. consisting of a one set of blind rams and one set of pipe rams and a 3000 psi annular-type preventor. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. 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. Below ~~intermediate~~ ^{Surface} casing shoe, BOP will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling. From the base of the surface pipe through the running of production casing, the well will be equipped with a 3000 psi BOP system.

Test BOP equipment and choke manifold to 250 psi low and 3000 ^{psi} high and annular BOP to 250 psi low and 1500 psi high by an independent service company.

12 Testing, Logging and Coring Program:

See COA's

- A. Mud logging No mud logging program.
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. The area has a potential H2S hazard. An H2S drilling plan is attached. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP **2300 psi** Estimated BHT **110°**

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

Drilling expected to take 20-25 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.

Yes pay will be perforated and stimulated.

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

SR & A

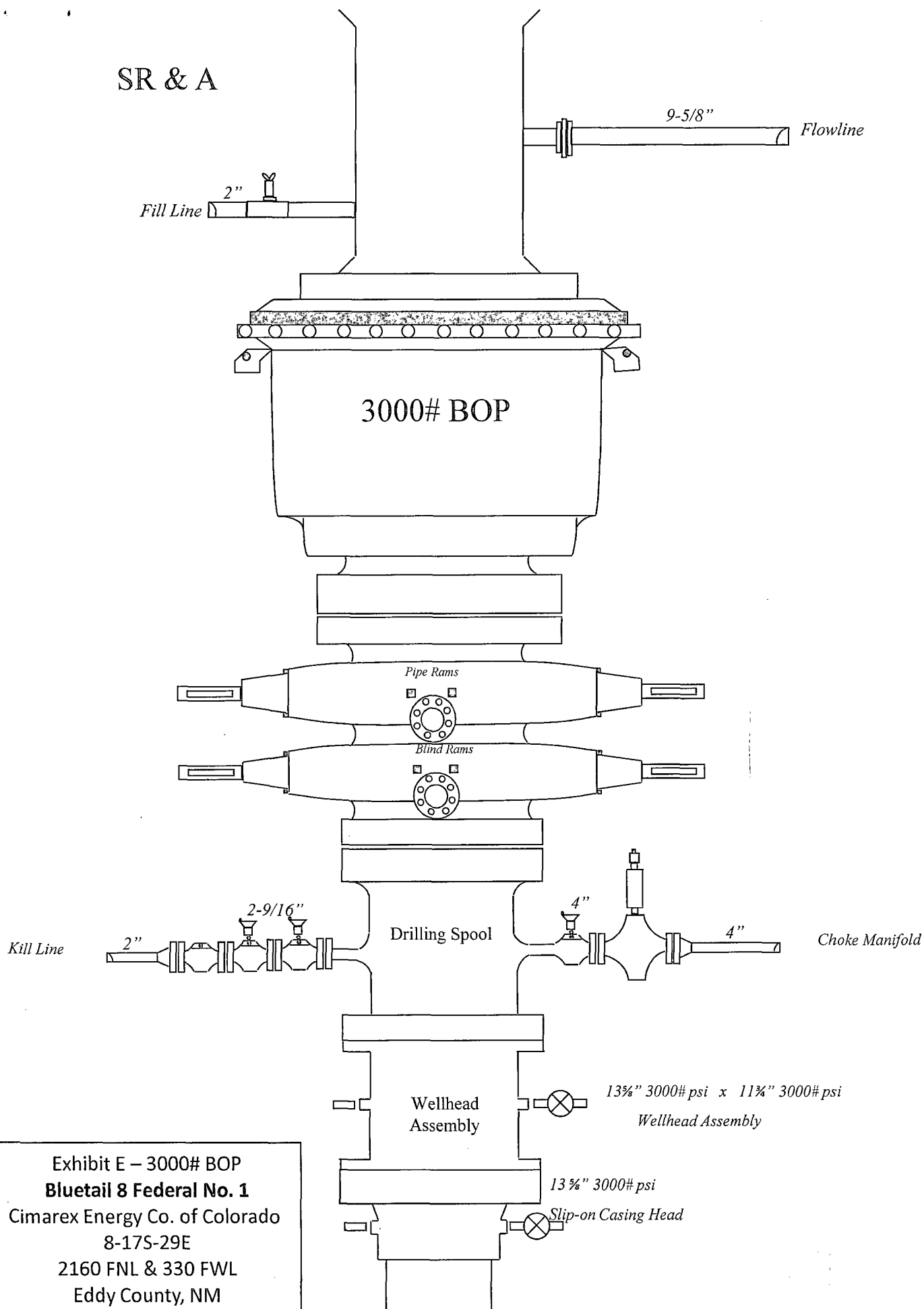


Exhibit E – 3000# BOP

Bluetail 8 Federal No. 1

Cimarex Energy Co. of Colorado

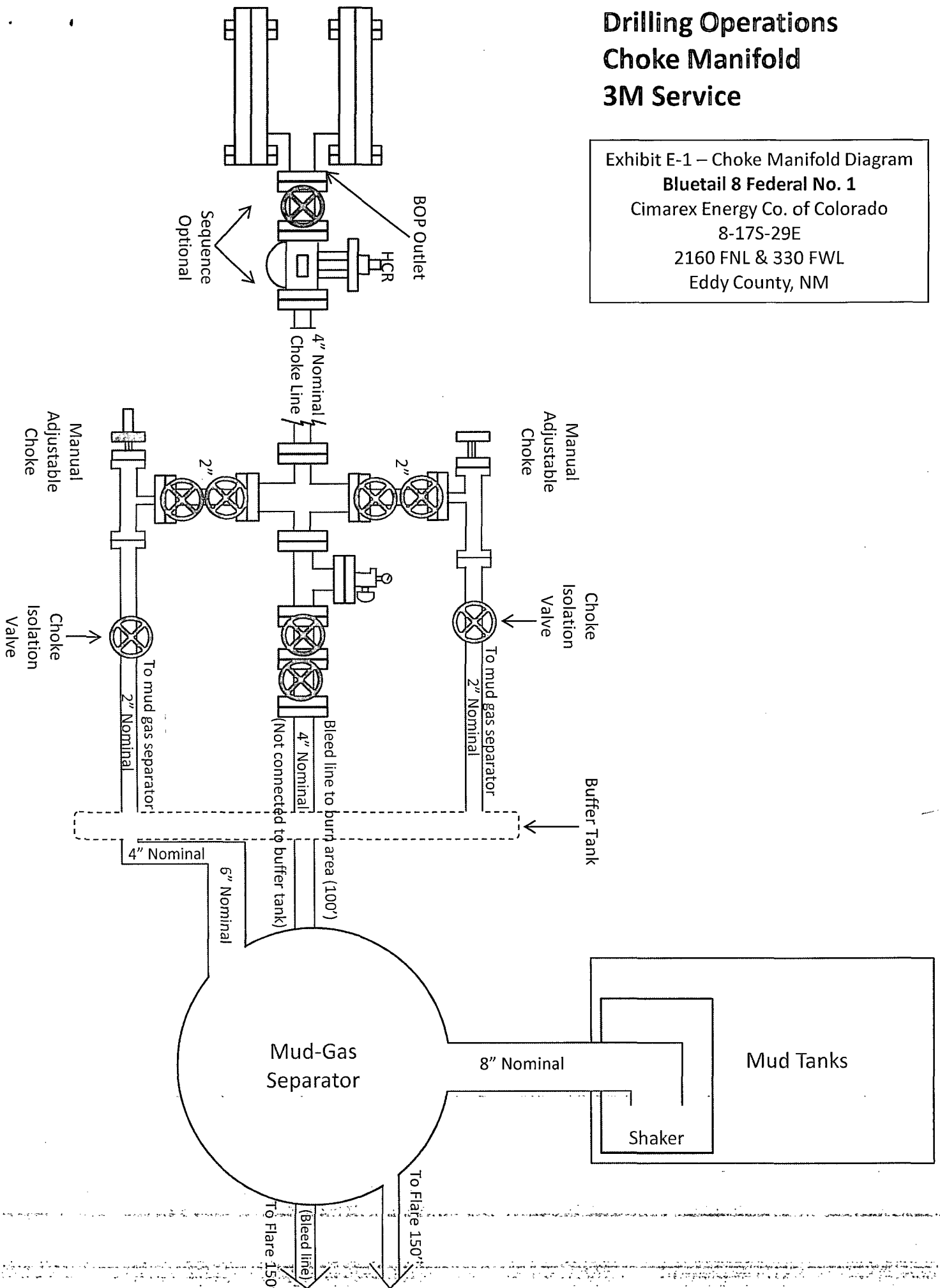
8-17S-29E

2160 FNL & 330 FWL

Eddy County, NM

Drilling Operations Choke Manifold 3M Service

Exhibit E-1 – Choke Manifold Diagram
Bluetail 8 Federal No. 1
Cimarex Energy Co. of Colorado
8-17S-29E
2160 FNL & 330 FWL
Eddy County, NM



DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator CIMAREX ENERGY CO. of COLORADO OGRID # 162683
 38549 Well Name & # BLUETAIL 8 FEDERAL # 1 Surface Type (F) (S) (P)
 Location: UL 8, Sect 8, Twnship 12 s, RNG 29 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd / / C101 reviewed / /

B. 1. Check mark, Information is OK on Forms:

OGRID X, BONDING FED PROP CODE X, WELL # , SIGNATURE
 2. Inactive Well list as of: 4/1/11 # wells 1153 # Inactive wells 8

a. District Grant APD but see number of inactive wells:

No letter required X; Sent Letter to Operator , to Santa Fe

3. Additional Bonding as of: 4/1/11

a. District Denial because operator needs addition bonding:

No Letter required X; Sent Letter to Operator , To Santa Fe

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required X; Sent Letter to Operator , To Santa Fe

C. C102 YES X, NO , Signature

1. Pool EMPIRE/LORETA YES, EAST 96610, Code 96610

a. Dedicated acreage 40, What Units E

b. SUR. Location Standard X; Non-Standard Location

c. Well shares acres: Yes , No , # of wells plus this well #

2. 2nd. Operator in same acreage, Yes , No

Agreement Letter , Disagreement letter

3. Intent to Directional Drill Yes , No X

a. Dedicated acreage , What Units

b. Bottomhole Location Standard , Non-Standard Bottomhole

4. Downhole Commingle: Yes , No X

a. Pool #2 , Code , Acres

Pool #3 , Code , Acres

Pool #4 , Code , Acres

5. POTASH Area Yes , No FED

D. Blowout Preventer Yes X, No

E. H2S Yes , No PART RED APD

F. C144 Pit Registration Yes , No X, need

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes , No X, NSL #

2. Non-Standard Proration: Yes , No X, NSP #

3. Simultaneous Dedication: Yes , No X, SD #

Number of wells Plus #

4. Injection order Yes , No X; PMX # or WFX #

5. SWD order Yes , NO X; SWD #

6. DHC from SF ; DHC-HOB ; Holding

7. OCD Approval Date / /

API #30-0 13-38653

8. Reviewers