

ATS-13-858

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Hobbs

HOBBS OCD

OCT 03 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☐ DRILL ☒ REENTER

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

2. Name of Operator

Cimarex Energy Co.

3a. Address

600 N. Marienfeld St. Ste. 600 Midland Tx 79701

3b. Phone No. (include area code)

432-571-7800

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

At Surface

2310' FNL & 1650' FWL

At proposed prod. Zone

Same

14. Distance in miles and direction from nearest town or post office\*

27 miles west of Jal, NM, off Orla Road

15 Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line if  
any) 1650'

16. No of acres in lease

1600

17. Spacing Unit dedicated to this well

40

18 Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. 1320'

19. Proposed Depth

8,870' MD 8,870' TVD

20. BLM/BIA Bond No. on File

NM2575; NMB000835

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3454' GR

22. Approximate date work will start\*

10.01.13

23. Estimated duration

20

24. Attachments

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

- Well plat certified by a registered surveyor
- A Drilling Plan
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

- Bond to cover the operations unless covered by an existing bond on Item 20 above).
- Operator Certification
- Such other site specific information and/or plans as may be required authorized officer.

25. Signature

Paula Brunson

Name (Printed/Typed)

Paula Brunson

Date

07.18.13

Title

Regulatory Compliance

Approved By (Signature)

Steve Caffey

Name (Printed/Typed)

Date

Title

CARLSBAD FIELD OFFICE

Office

FIELD MANAGER

SEP 29 2014

Application approval does not warrant or certify the conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.S. Section 1001 and Title 43 U.S.C. Se States any false, fictitious, or fraudulent statements (Continued on page 2)

E-PERMITTING - - New Well

Comp P&A TA

CSNG Loc Chng

ReComp Add New Well

Cancl Well Create Pool

lease which would entitle the applicant to

APPROVAL FOR TWO YEARS

nake to any department or agency of the United

\*Instructions on page 21

CONDITION OF APPROVAL: Operator shall give the OCD District Office 24 hour notice before running the MIT test and chart

Carlsbad Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

OCT 08 2014

OIL CONSERVATION DIVISION  
CONDITION OF APPROVAL - Approval for  
drilling / workover ONLY - CANNOT INJECT OR  
DISPOSAL until the injection/disposal order has  
been approved by the OCD Santa Fe office.

Operator Certification Statement

**Paduca AIU Federal 1**

Cimarex Energy Co. of Colorado

UL: F, Sec 14-25S-32E

Lea County, NM

**HOBBS OCD**

**OCT 03 2014**

**RECEIVED**

Operator's Representative

Cimarex Energy Co. of Colorado

600 N. Marienfeld St., Ste. 600

Midland, TX 79701

Office Phone: (432) 571-7800

**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 18th day of July, 2013

NAME:

Paula Brunson  
Paula Brunson

TITLE: Regulatory Compliance

ADDRESS: 600 N. Marienfeld St., Ste. 600

Midland, TX 79701

TELEPHONE: 432-571-7848

EMAIL: pbrunson@cimarex.com

Field Representative: Same as above

Application to Drill  
**Paduca AIU Federal 1**  
 Cimarex Energy Co. of Colorado  
 UL: F, Sec 14-25S-32E  
 Lea County, NM

HOBBS OCD

OCT 03 2014

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

- 1 Location: SHL 2310' FNL & 1650' FWL  
 BHL Same
- 2 Elevation above sea level: 3454' 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 Original Drilled Depth: 8,870' MD 8,870' TVD  
Proposed Re-Entry Depth: 8,870' MD 8,870' TVD
- 6 Estimated tops of geological markers:

Formation	Est. Top	Bearing
Rustler	783	NA
Top of Salt	1120	NA
Base of Salt	4535	NA
Lamar	4752	NA
Bell Canyon	4780	NA
Cherry Canyon	5702	NA
Brushy Canyon	7170	NA
Bone Springs	8784	Hydrocarbons

- 7 Possible mineral bearing formation:  
 Shown above

7A OSE Ground Water estimated depth: 75'

- 8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 4747'	8.4 - 9.0	28	NC	FW
4747' to TD	8.4 - 9.0	28	NC	FW

Note: Hole is completely cased from surface to TD @ 8870'.

- 9 Casing and Cementing Program:

Hole is presently cased:

13-3/8" 54.5# J-55 set @ 816' w/ 800 sx cmt circulated to surface.

8-5/8" 32# J-55 & N-80 set @ 4747' w/ 1450 sx cmt circulated 75 sx to surface.

5-1/2" 15.5# & 17# J-55 cmt w/ 990 sx, TOC (Yates) 3950'.

Original operator perf'd 4797'-4834', shot @ 5000' and sqzd w/ 200 sx cmt. Cut 5-1/2" @ 3950' and pulled.

Cut 5-1/2" will be tagged, trimmed, tied-onto w/ 5-1/2" 15.5# J-55 and cmt circulated to surface.

**Drilling Plan**  
**Paduca AIU Federal 1**  
Cimarex Energy Co. of Colorado  
UL: F, Sec 14-25S-32E  
Lea County, NM

**10 Cementing Program:**

Circulate 5-1/2" annulus inside 8-5/8" 32# intermediate:

Lead: 650 sx Econocem + 5% Salt + 5 lbm/sk Gilsonite (wt 1.88, yld 1.88)

Tail: 350 sx Halcem + 1% CaCl<sub>2</sub> (wt 14.8, yld 1/34) 50% Excess

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

**11 Pressure Control Equipment:**

Exhibit "E-1". A 5000 PSI working pressure BOP, tested to 3000 psi on the surface casing and 5000 psi on the intermediate, consisting of one set of blind rams and one set of pipe rams. A stripping head will be used while drilling. A choke manifold will be used on the return line to reverse pit. 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 installed and operated at least once a day and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected.

Cimarex Energy Co. of Colorado requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached (please see Exhibit F, F-1, F-2, F-3). 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.

Sul  
COA

Application to Drill  
**Paduca AIU Federal 1**  
Cimarex Energy Co. of Colorado  
UL: F, Sec 14-25S-32E  
Lea County, NM

11 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 4747'	8.4 - 9.0	28	NC	FW
4747' to TD	8.4 - 9.0	28	NC	FW

Note: Hole is completely cased from surface to TD @ 8870'.

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.

12 Proposed Re-Entry Plan

Using 7-7/8" bit drill surface plug and CO to tag top of cut 5-1/2". Dress off and tie in 5-1/2". Cement 5-1/2" to surface. Drill cement and CO to cement on CIBP 7760'. Circ clean, perf for SWD 4792' to 7136'.

13 Testing, Logging and Coring Program:

- A. Mud logging program: None
- B. Electric logging program: Original logs on file with NM OCD
- C. No DSTs or cores are planned at this time.
- D. CBL w/ CCL from as far as gravity will let it fall to TOC

14 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<sub>2</sub>S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H<sub>2</sub>S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H<sub>2</sub>S Safety package on all wells, attached is an "H<sub>2</sub>S 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                      **3992 psi**                      Estimated BHT                      **160°**

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

Drilling expected to take :                      **20 days**

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

16 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from TD over possible pay intervals.

Delaware Sands pay will be perforated and stimulated.

The proposed well will be tested and potentialized as                      **SWD**

**Operator: Cimarex Energy Co**  
**Surface Lease: NM110835**  
**Case No: NM110835**  
 Subsurface Concerns for Casing Designs:  
 Well Status: reentry of P&A  
 Spud date: 4/9/1991  
 WDW, Rt of Way: 0  
 Admn Order, date: SWD-1384, 01/13/2013  
 Formation, Depths, psig: Bell & Cherry Cyn, 4970-7136, 994psig

**Well: Paduca AIU - 01**  
**API: 3002531177**  
 @ Srfce: T25S-R32E, Sec 14, 2310FNL & 1650FWL  
 @ M TD: T25S-R32E, Sec 14, 2310FNL & 1650FWL

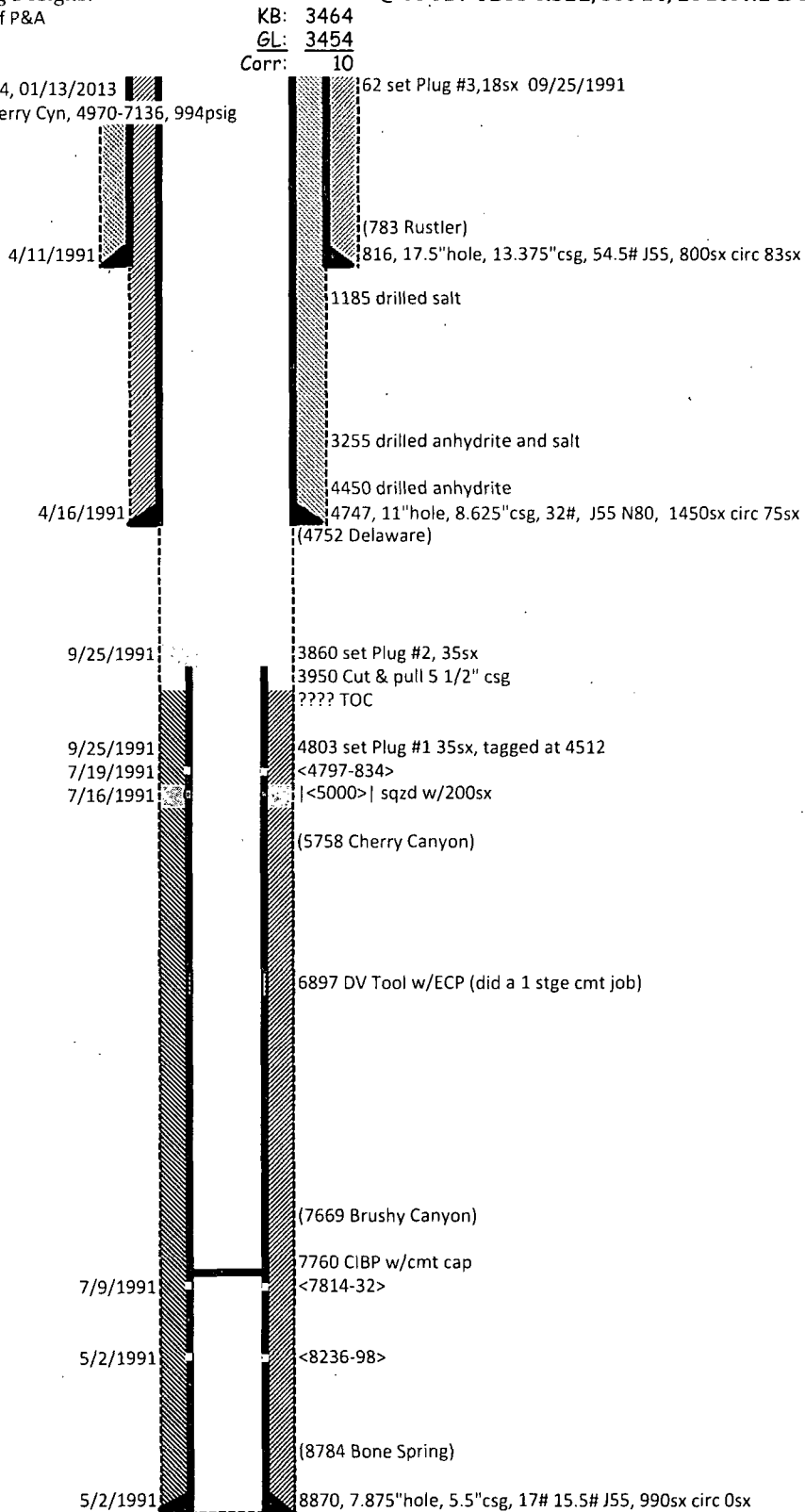


Diagram last updated: 10/30/2013

Operator: Cimarex Energy Co  
 Surface Lease: NM110835  
 Producing Lse No: NM110835  
 Unit Agreement No:  
 Communitization Agrmnt:  
 WDW Right of Way No.:

BLM Review Date: 10/30/13  
 NMOCD Form C-108 Date:  
 Administrative Order(s) - Date: SWD-1384, 01/13/2013  
 Formation, Depth, Pressure: Bell & Cherry Cyn, 4970-7136, 994psig  
 Frac Gradient to Top Perf: 0.20

Well: Paduca AIU - 01  
 API: 3002531177  
 Legal Surface Loc: T255-R32E, Sec 14, 2310FNL & 1650FWL  
 @ Measured T.D.: T255-R32E, Sec 14, 2310FNL & 1650FWL

as of 10/30/2013 - 01 OFFSET WELLS listed in a Radius of 2700'  
 includes the wells listed by web site: <http://www.wellpromapping.com/FPL-PET/PET-WEL/>

OPERATOR	WELL NAME	No.	Lease #	API	SPUD	TD'	± Horizontal Distance to Well	Date Plugged	Evaluation considerations and comments.
Cimarex	Paduca AIU 1		NM110835	31177	Apr-91	8870	0	Sep-91	
Hill & Meeker	Ora Hill 1		LC71986b	08181	Nov-60	4845	1327'	Dec-60	
J I Oneill Jr	Federal O 2			22430			3155'		
WestStates	Continental 1			08180			3422'		
Texaco	Cotton Draw U 17			08188			3658'		
O'Neil	Federal O 1			22137			3783'		
Devon	GE Jordan NCT-1 10			08184			3856'		
Texaco	Cotton Draw U 21			08189			3993'		
J I Oneill Jr	Federal P 1			22215			4004'		
Yates	Paduca U 2			28928			4507'		
Devon	E F Ray B NCT-1 1			08173			4695'		
Oxy	Cotton Draw U 2			08183			4999'		
Texaco	Cotton Draw U 8			08185			5091'		
Texaco	Cotton Draw U 5			08186			5251'		

# Below 13 3/8" Casing

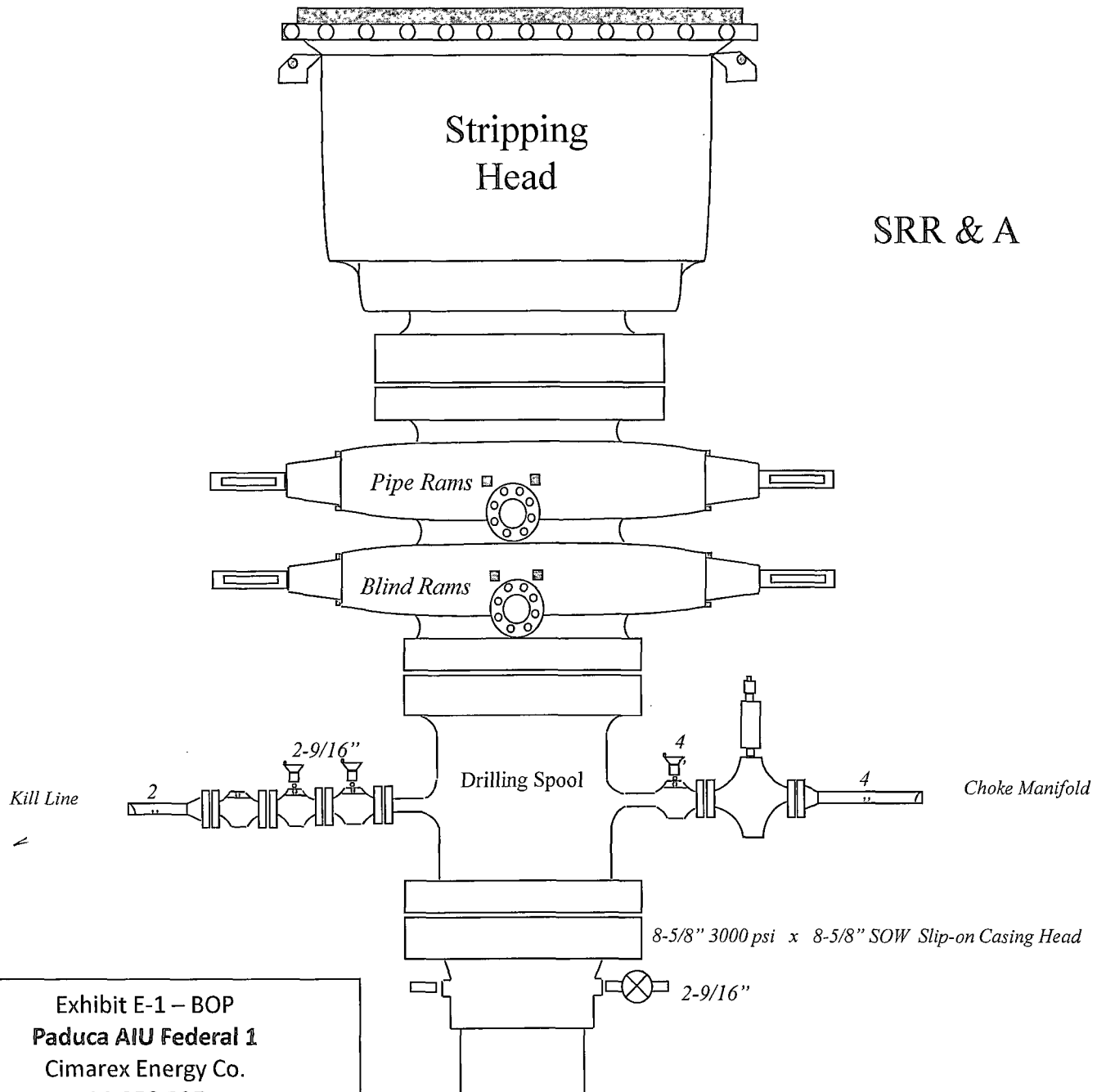


Exhibit E-1 – BOP  
Paduca AIU Federal 1  
Cimarex Energy Co.  
14-25S-32E  
SHL 330' FSL & 1650' FWL  
Eddy County, NM



## Below 9 5/8" Casing

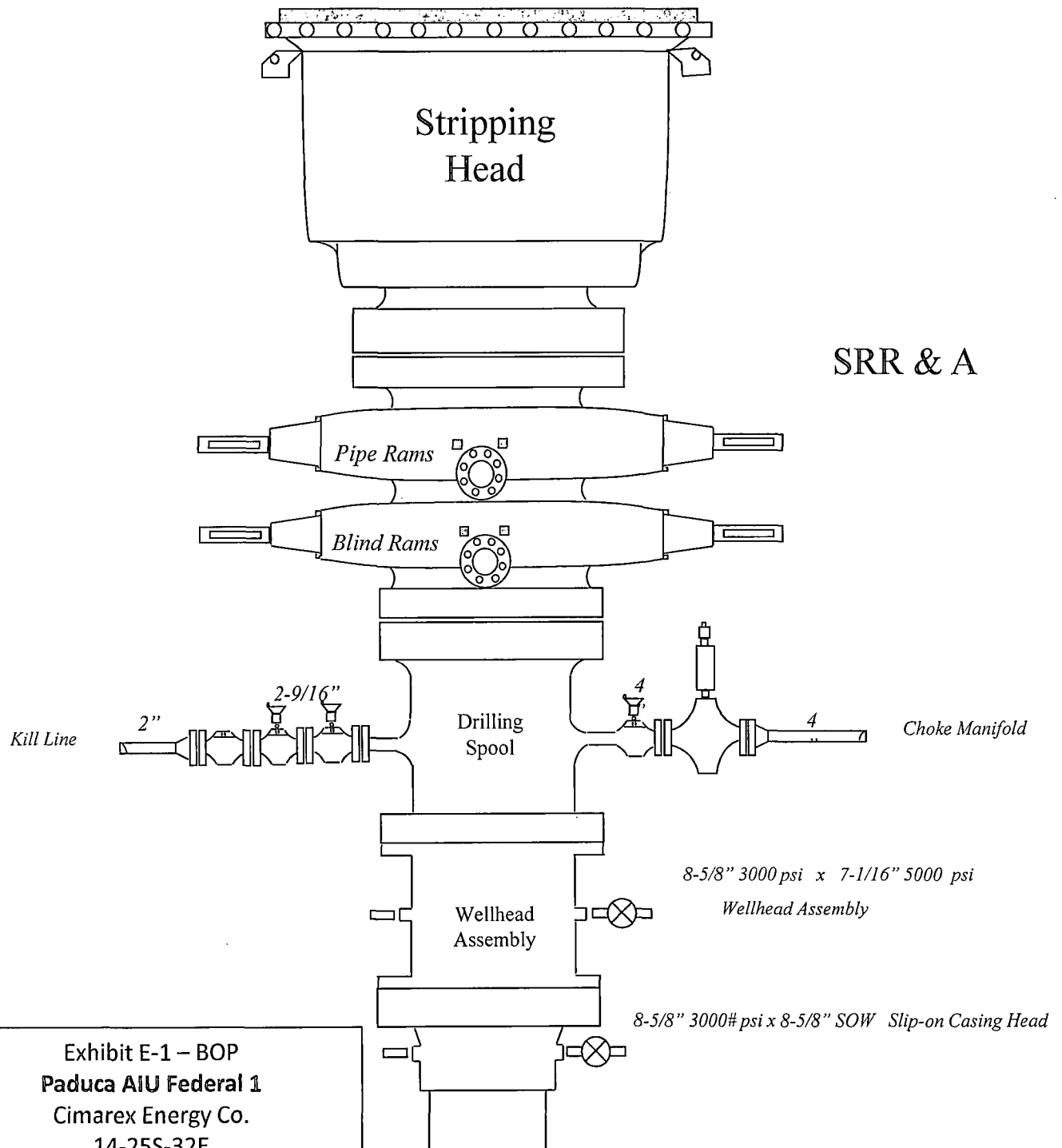


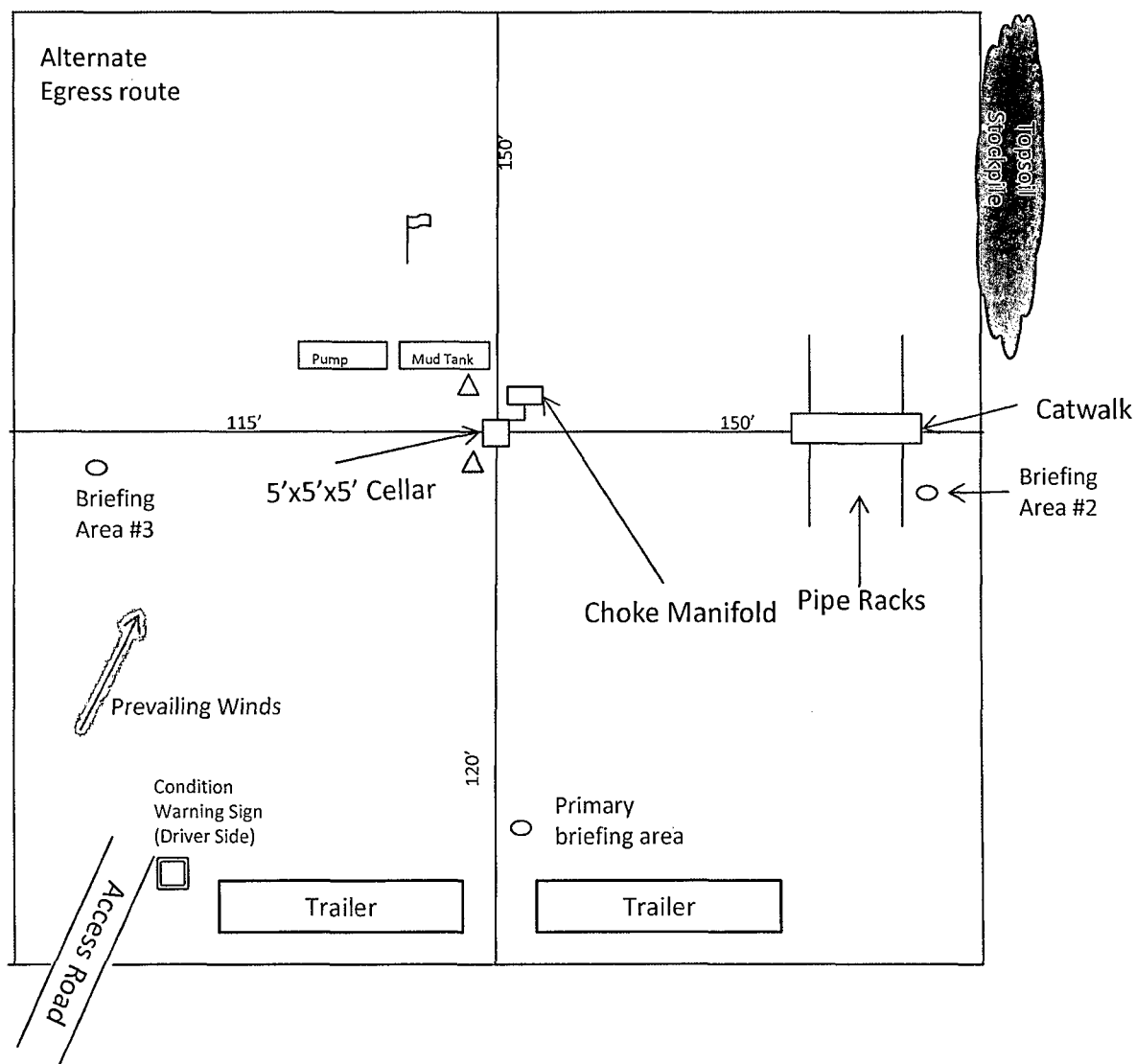
Exhibit E-1 – BOP  
Paduca AIU Federal 1

Cimarex Energy Co.

14-25S-32E

SHL 330' FSL & 1650' FWL

Eddy County, NM






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



Exhibit D – Rig Diagram for Workover Rig  
**Paduca AIU Federal 1**  
 Cimarex Energy Co.  
 14-25S-32E  
 SHL 2310' FNL & 1650' FWL  
 Eddy County, NM