

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

**OCD - HOBBS**  
**09/13/2018**  
**RECEIVED**

FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM128835
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator CIMAREX ENERGY COMPANY [215099]		8. Lease Name and Well No. LEA 7 FEDERAL COM 29H [313878]
3a. Address 202 S. Cheyenne Ave., Ste 1000 Tulsa OK 74103	3b. Phone No. (include area code) (432)620-1936	9. API Well No. 30-025-45199
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE / 191 FSL / 1160 FEL / LAT 32.580939 / LONG -103.491804 At proposed prod. zone NENE / 330 FNL / 660 FEL / LAT 32.594037 / LONG -103.490186		10. Field and Pool, or Exploratory BONE SPRING / WILDCAT BONE SPRING [97983]
11. Sec., T, R, M, or Blk. and Survey or Area SEC 7 / T20S / R35E / NMP		
14. Distance in miles and direction from nearest town or post office* 14 miles	12. County or Parish LEA	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 191 feet	16. No of acres in lease 319.67	17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 20 feet	19. Proposed Depth 10980 feet / 15563 feet	20. BLM/BIA Bond No. in file FED: NMB001188
21. Elevations (Show whether DF, KDB, RT, GL., etc.) 3676 feet	22. Approximate date work will start* 07/01/2018	23. Estimated duration 30 days
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- |  |   |
|--|---|
| 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 must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature (Electronic Submission)	Name (Printed/Typed) Aricka Easterling / Ph: (918)560-7060	Date 01/31/2018
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 09/10/2018
Title Assistant Field Manager Lands & Minerals		
Office CARLSBAD		

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.

**GCP Rec 09/13/2018**

**APPROVED WITH CONDITIONS**  
Approval Date: 09/10/2018

**KZ**  
09/14/2018



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# Operator Certification Data Report

09/11/2018

## Operator 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.*

**NAME:** Aricka Easterling

**Signed on:** 01/31/2018

**Title:** Regulatory Analyst

**Street Address:** 202 S. Cheyenne Ave, Ste 1000

**City:** Tulsa

**State:** OK

**Zip:** 74103

**Phone:** (918)560-7060

**Email address:** aeasterling@cimarex.com

## Field Representative

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**



APD ID: 10400026665

Submission Date: 01/31/2018

Highlighted data reflects the most recent changes.

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LEA 7 FEDERAL COM

Well Number: 29H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - General

APD ID: 10400026665

Tie to previous NOS? 10400014628

Submission Date: 01/31/2018

BLM Office: CARLSBAD

User: Aricka Easterling

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? IND

Lease number: NMNM128835

Lease Acres: 319.67

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO

APD Operator: CIMAREX ENERGY COMPANY

Operator letter of designation:

### Operator Info

Operator Organization Name: CIMAREX ENERGY COMPANY

Operator Address: 202 S. Cheyenne Ave., Ste 1000

Zip: 74103

Operator PO Box:

Operator City: Tulsa

State: OK

Operator Phone: (432)620-1936

Operator Internet Address: tstathem@cimarex.com

### Section 2 - Well Information

Well in Master Development Plan? NO

Mater Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: LEA 7 FEDERAL COM

Well Number: 29H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: BONE SPRING

Pool Name: WILDCAT BONE SPRING

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LEA 7 FEDERAL COM

Well Number: 29H

Describe other minerals:

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: LEA 7 Number: E2E2  
FEDERAL COM

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 14 Miles

Distance to nearest well: 20 FT

Distance to lease line: 191 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Lea\_7\_Fed\_Com\_29H\_C102\_Plat\_20180129085535.pdf

Well work start Date: 07/01/2018

Duration: 30 DAYS

### Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	191	FSL	1160	FEL	20S	35E	7	Aliquot SESE	32.580939	-103.491804	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	3676	0	0
KOP Leg #1	191	FSL	1160	FEL	20S	35E	7	Aliquot SESE	32.580939	-103.491804	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	-6826	10521	10502
PPP Leg #1	376	FSL	700	FWL	20S	35E	7	Aliquot SESE	32.5814361	-103.4903056	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	-7204	10957	10880

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	264 0	FSL	660	FWL	20S	35E	7	Aliquot NESE	32.58754 17	- 103.4902 472	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 730 4	132 00	109 80
BHL Leg #1	330	FNL	660	FEL	20S	35E	7	Aliquot NENE	32.59403 7	- 103.4901 86	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 128835	- 730 4	155 63	109 80



APD ID: 10400026665

Submission Date: 01/31/2018

Highlighted data  
reflects the most  
recent changes

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LEA 7 FEDERAL COM

Well Number: 29H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	RUSTLER	3673	1730	1730		USEABLE WATER	No
2	SALADO	1843	1830	1830		NONE	No
3	TANSILL	293	3380	3380		NONE	No
4	CAPITAN REEF	-327	4000	4000		NONE	No
5	DELAWARE SAND	-2067	5740	5740		NONE	No
6	BRUSHY CANYON	-4477	8150	8150		NATURAL GAS,OIL	No
7	BONE SPRING	-4686	8359	8359		NATURAL GAS,OIL	No
8	BONE SPRING 1ST	-5993	9666	9666		NATURAL GAS,OIL	No
9	BONE SPRING 2ND	-6620	10293	10293		NATURAL GAS,OIL	No
10	BONE SPRING 3RD	-7447	11120	11120		NATURAL GAS,OIL	Yes
11	WOLFCAMP	-7487	11160	11160		NATURAL GAS,OIL	No

### Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M

Rating Depth: 1780

**Equipment:** A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock 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.

**Requesting Variance?** YES

**Variance request:** 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. Variance to include Hammer Union connections on lines downstream of the buffer tank only..

**Testing Procedure:** A multi-bowl wellhead system will be utilized. After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 3000 psi will be installed on the wellhead system and will be

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

pressure tested to 250 psi low followed by a 3000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office. The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 3000 psi. The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater. The casing string utilizing steel body pack-off will be tested to 70% of casing burst. If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

**Choke Diagram Attachment:**

Lea\_7\_Fed\_Com\_29H\_Choke\_2M3M\_20180130133304.pdf

**BOP Diagram Attachment:**

Lea\_7\_Fed\_Com\_29H\_BOP\_2M\_20180130133317.pdf

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**Pressure Rating (PSI):** 3M

**Rating Depth:** 5720

**Equipment:** A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock 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.

**Requesting Variance?** YES

**Variance request:** 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. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

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**Choke Diagram Attachment:**

Lea\_7\_Fed\_Com\_29H\_Choke\_2M3M\_20180130133345.pdf

**BOP Diagram Attachment:**

Lea\_7\_Fed\_Com\_29H\_BOP\_3M\_20180130133354.pdf

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Operator Name: CIMAREX ENERGY COMPANY

Well Name: LEA 7 FEDERAL COM

Well Number: 29H

### Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1780	0	1780	0	1780	1780	J-55	54.5	STC	1.39	3.36	BUOY	5.3	BUOY	5.3
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5720	0	5720	0	5720	5720	J-55	40	LTC	1.32	1.3	BUOY	2.27	BUOY	2.27
3	PRODUCTION	8.75	5.5	NEW	API	N	0	10521	0	10521	0	10521	10521	L-80	17	LTC	1.28	1.57	BUOY	1.81	BUOY	1.81
4	PRODUCTION	8.75	5.5	NEW	API	N	10521	15563	10521	15563	10521	15563	5042	L-80	17	BUTT	1.22	1.51	BUOY	50.88	BUOY	50.88

#### Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Lea\_7\_Fed\_Com\_29H\_Casing\_Assumptions\_20180130133507.pdf

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

**Casing Attachments**

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**Casing ID:** 2      **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Lea\_7\_Fed\_Com\_29H\_Casing\_Assumptions\_20180130133608.pdf

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**Casing ID:** 3      **String Type:** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Lea\_7\_Fed\_Com\_29H\_Casing\_Assumptions\_20180130133653.pdf

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**Casing ID:** 4      **String Type:** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Lea\_7\_Fed\_Com\_29H\_Casing\_Assumptions\_20180130133829.pdf

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**Section 4 - Cement**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1780	863	1.72	13.5	1483	50	Class C	Bentonite
SURFACE	Tail		0	1780	231	1.34	14.8	309	25	Class C	LCM
INTERMEDIATE	Lead		0	5720	1079	1.88	12.9	2027	50	35:65 (Poz:C)	Salt, Bentonite
INTERMEDIATE	Tail		0	5720	292	1.34	14.8	391	25	Class C	LCM
PRODUCTION	Lead		0	1052 1	432	3.64	10.3	1569	25	Tuned Light	LCM
PRODUCTION	Tail		0	1052 1	1078	1.3	14.2	1401	10	50:50 (Poz:H)	Salt, Bentonite, Fluid Loss, Dispersant, SMS
PRODUCTION	Lead		1052 1	1556 3	432	3.64	10.3	1569	25	Tuned Light	LCM
PRODUCTION	Tail		1052 1	1556 3	1078	1.3	14.2	1401	10	50:50 (Poz:H)	Salt, Bentonite, Fluid Loss, Dispersant, SMS

### Section 5 - Circulating Medium

**Mud System Type:** Closed

**Will an air or gas system be Used?** NO

**Description of the equipment for the circulating system in accordance with Onshore Order #2:**

**Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

**Describe what will be on location to control well or mitigate other conditions:** 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.

**Describe the mud monitoring system utilized:** PVT/Pason/Visual Monitoring

### Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1780	SPUD MUD	8.3	8.8							

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1780	5720	SALT SATURATED	9.7	10.2							
5720	15563	OTHER : FW/Cut Brine	8.5	9							

### Section 6 - Test, Logging, Coring

**List of production tests including testing procedures, equipment and safety measures:**

No DST Planned

**List of open and cased hole logs run in the well:**

CNL,DS,GR

**Coring operation description for the well:**

n/a

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 5138

**Anticipated Surface Pressure:** 2722.4

**Anticipated Bottom Hole Temperature(F):** 178

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** YES

**Describe:**

Lost circulation may be encountered in the Delaware mountain group. Abnormal pressure as well as hole stability issues may be encountered in the Wolfcamp.

**Contingency Plans geohazards description:**

Lost circulation material will be available, as well as additional drilling fluid along with the fluid volume in the drilling rig pit system. Drilling fluid can be mixed on location or mixed in vendor mud plant and trucked to location if needed. Sufficient barite will be available to maintain appropriate mud weight for the Wolfcamp interval.

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

Lea\_7\_Fed\_Com\_29H\_H2S\_Plan\_20180130134901.pdf

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

## **Section 8 - Other Information**

**Proposed horizontal/directional/multi-lateral plan submission:**

Lea\_7\_Fed\_Com\_29H\_Directional\_Plan\_20180130134915.pdf

**Other proposed operations facets description:**

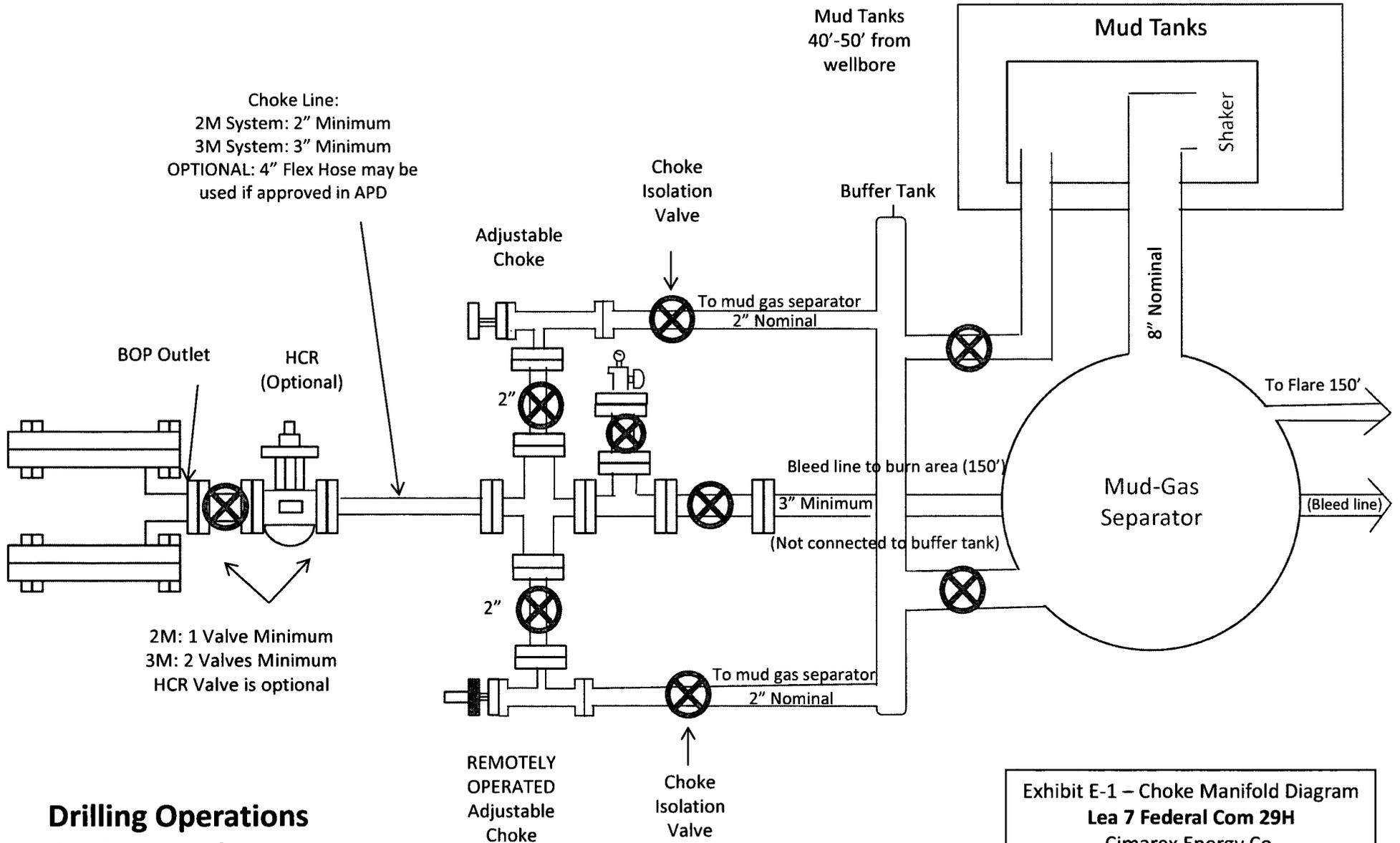
**Other proposed operations facets attachment:**

Lea\_7\_Fed\_Com\_29H\_Drilling\_Plan\_20180130134933.pdf

Lea\_7\_Fed\_Com\_29H\_Flex\_Hose\_20180130134937.pdf

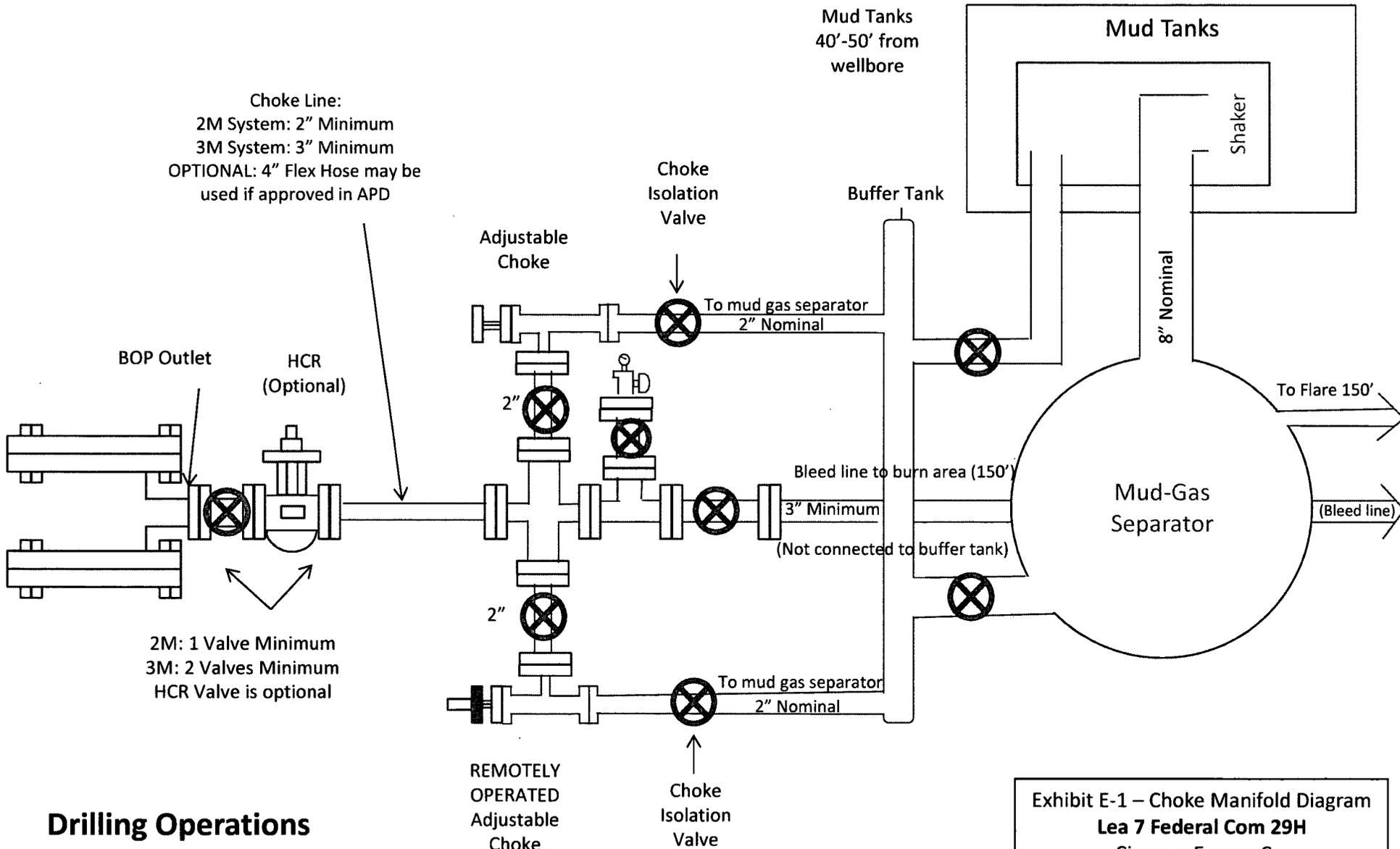
Lea\_7\_Fed\_Com\_29H\_Gas\_Capture\_Plan\_20180131061808.pdf

**Other Variance attachment:**



**Drilling Operations  
 Choke Manifold  
 2M/3M Service**

**Exhibit E-1 – Choke Manifold Diagram  
 Lea 7 Federal Com 29H  
 Cimarex Energy Co.  
 7-20S-35E  
 Lea County, NM**



**Drilling Operations  
 Choke Manifold  
 2M/3M Service**

2M: 1 Valve Minimum  
 3M: 2 Valves Minimum  
 HCR Valve is optional

Exhibit E-1 – Choke Manifold Diagram  
 Lea 7 Federal Com 29H  
 Cimarex Energy Co.  
 7-20S-35E  
 Lea County, NM

Drilling 12-1/4" hole  
below 13 3/8" Casing

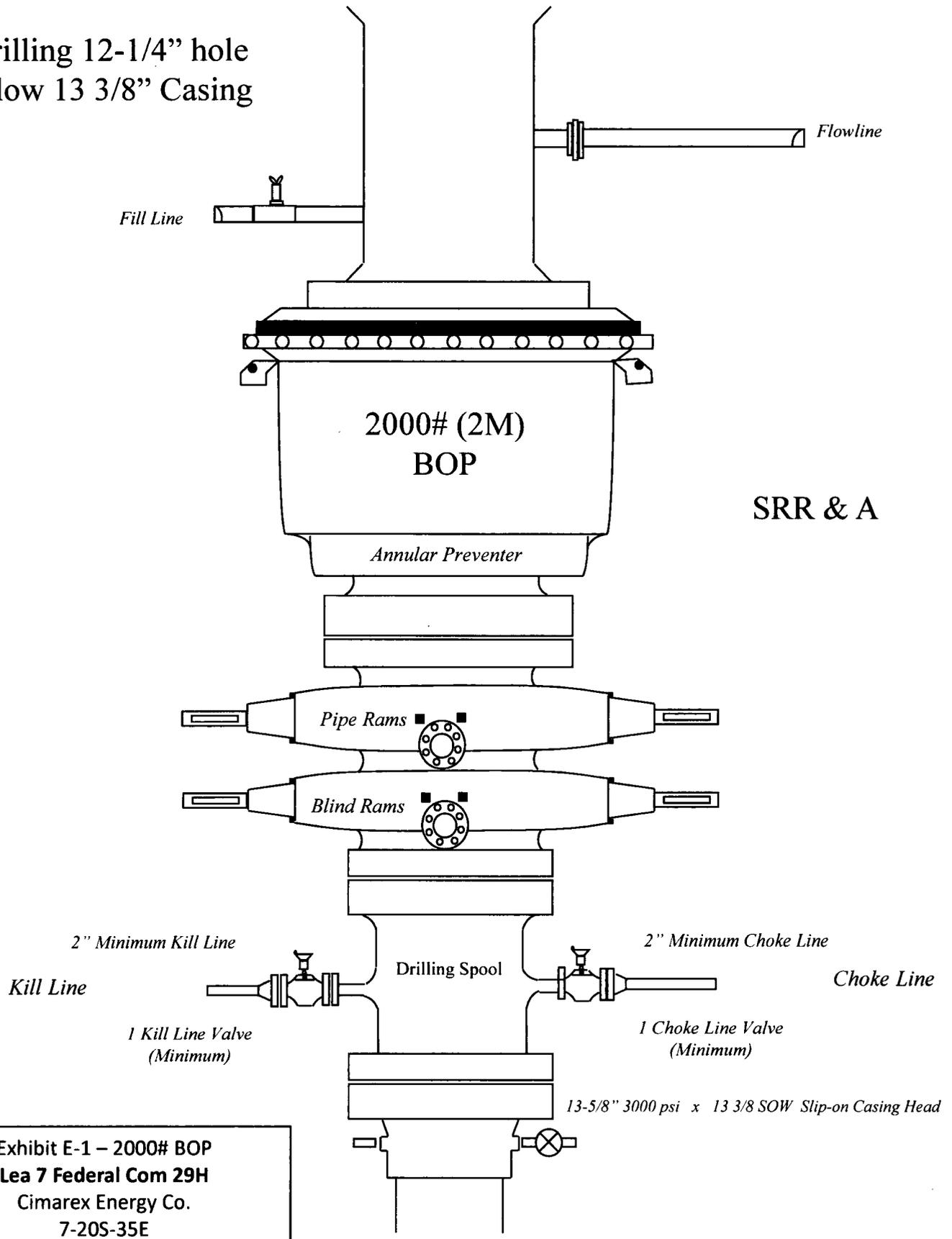
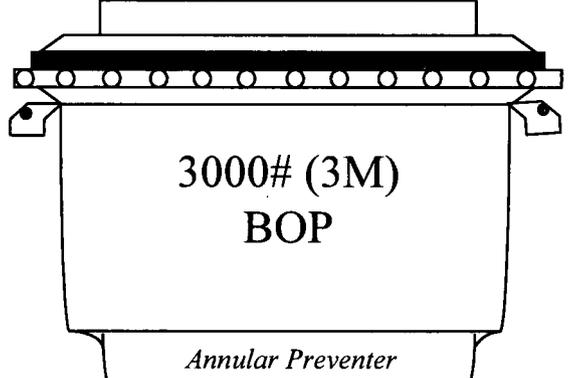
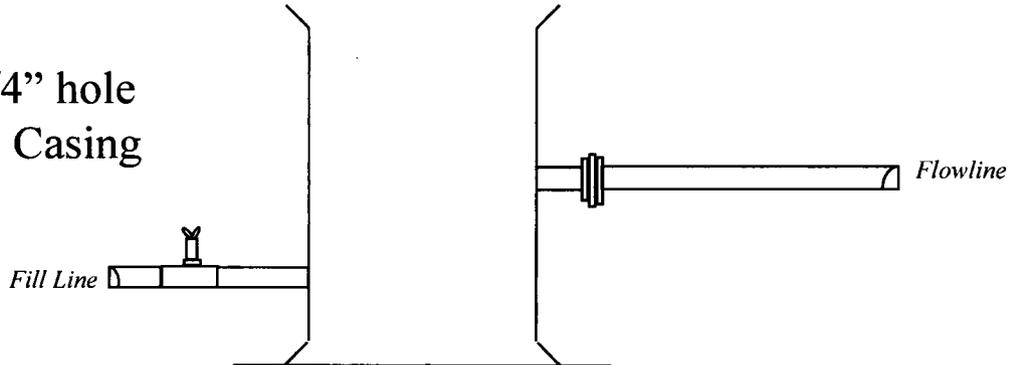
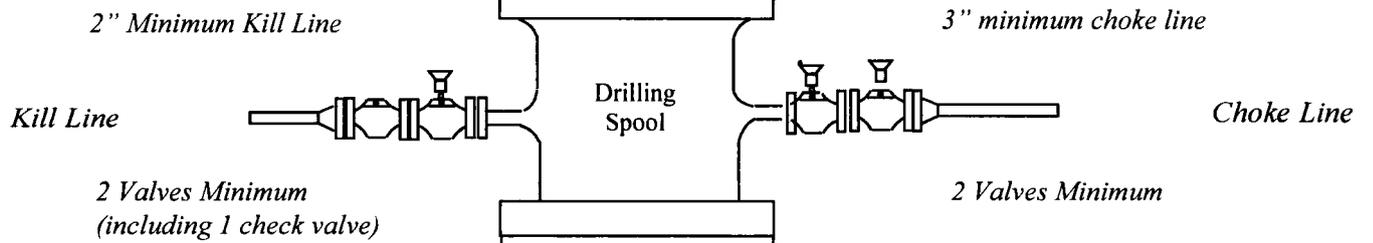
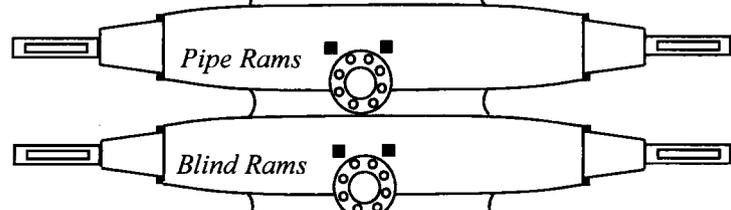


Exhibit E-1 – 2000# BOP  
Lea 7 Federal Com 29H  
Cimarex Energy Co.  
7-20S-35E  
Lea County, NM

Drilling 8-3/4" hole  
below 9 5/8" Casing



SRR & A



2" Minimum Kill Line

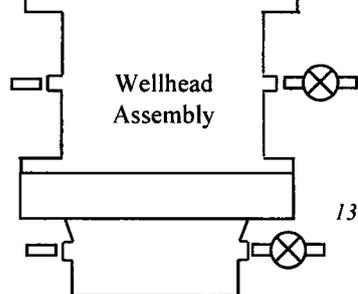
3" minimum choke line

Kill Line

Choke Line

2 Valves Minimum  
(including 1 check valve)

2 Valves Minimum



13-5/8" 3000 psi x 11" 5000 psi  
Wellhead Assembly

13-5/8" 3000# psi x 13-3/8" SOW Casing Head

Exhibit E-1 – 3000# BOP  
Lea 7 Federal Com 29H  
Cimarex Energy Co.  
7-20S-35E  
Lea County, NM

**1. Geological Formations**

TVD of target 10,980  
MD at TD 15,563

Pilot Hole TD N/A  
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1730	N/A	
Top of Salt	1830	N/A	
Tansil	3380	N/A	
Capitan	4000	N/A	
Base Capitan	4740	N/A	
Delaware Sands	5740	N/A	
Brushy Canyon	8150	Hydrocarbons	
Bone Spring	8359	Hydrocarbons	
1st Bone Spring Sand	9666	Hydrocarbons	
2nd Bone Spring Sand	10293	Hydrocarbons	
3rd Bone Spring Sand	11045	Hydrocarbons	
3rd Bone Spring Target	11120	Hydrocarbons	
Wolfcamp	11160	Hydrocarbons	

**2. Casing Program**

Hole Size	Casing Depth From	Casing Depth To	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1780	13-3/8"	54.50	J-55	ST&C	1.39	3.36	5.30
12 1/4	0	5720	9-5/8"	40.00	J-55	LT&C	1.32	1.30	2.27
8 3/4	0	10521	5-1/2"	17.00	L-80	LT&C	1.28	1.57	1.81
8 3/4	10521	15563	5-1/2"	17.00	L-80	BT&C	1.22	1.51	50.88
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Cimarex Energy Co., Lea 7 Federal Com 29H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N

**3. Cementing Program**

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	863	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	231	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	1079	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	292	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	432	10.30	3.64	22.18		Lead: Tuned Light + LCM
	1078	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	45
Intermediate	0	44
Production	5520	17

**4. Pressure Control Equipment**

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?

**5. Mud Program**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1780'	FW Spud Mud	8.30 - 8.80	30-32	N/C
1780' to 5720'	Brine Water	9.70 - 10.20	30-32	N/C
5720' to 15563'	FW/Cut Brine	8.50 - 9.00	30-32	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

**6. Logging and Testing Procedures**

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval

**7. Drilling Conditions**

Condition	
BH Pressure at deepest TVD	5138 psi
Abnormal Temperature	No

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

X	H2S is present
X	H2S plan is attached

**8. Other Facets of Operation**

**9. Wellhead**

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 3000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office.

The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 3000 psi.

The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

The casing string utilizing steel body pack-off will be tested to 70% of casing burst.

If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.



APD ID: 10400026665

Submission Date: 01/31/2018

Highlighted data reflects the most recent changes.

Operator Name: CIMAREX ENERGY COMPANY

Well Name: LEA 7 FEDERAL COM

Well Number: 29H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - Existing Roads

Will existing roads be used? NO

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Lea\_7\_Fed\_Com\_E2E2\_Road\_ROW\_20180129085517.pdf

Lea\_7\_Fed\_Com\_East\_CTB\_Road\_ROW\_20180129085519.pdf

New road type: COLLECTOR

Length: 674 Feet Width (ft.): 30

Max slope (%): 20 Max grade (%): 6

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 18

**New road access erosion control:** The side slopes of any drainage channels or swales that are crossed will be re-contoured to original grade and compacted and mulched as necessary to avoid erosion. Where steeper slopes cannot be avoided, water bars or silt fence will be constructed, mulch/rip-rap applied, or other measures employed as necessary to control erosion. Hay bales, straw waddles or silt fence may also be installed to control erosion as needed. All disturbed areas will be seeded with a mix appropriate for the area unless specified otherwise by the landowner.

**New road access plan or profile prepared?** NO

**New road access plan attachment:**

**Access road engineering design?** NO

**Access road engineering design attachment:**

**Access surfacing type:** GRAVEL

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

**Access topsoil source:** ONSITE

**Access surfacing type description:**

**Access onsite topsoil source depth:** 6

**Offsite topsoil source description:**

**Onsite topsoil removal process:** Push off and stockpile alongside the location.

**Access other construction information:**

**Access miscellaneous information:**

**Number of access turnouts:**

**Access turnout map:**

## Drainage Control

**New road drainage crossing:** CULVERT,LOW WATER,OTHER

**Drainage Control comments:** To control and prevent potentially contaminated precipitation from leaving the pad site, a perimeter berm and settlement pond will be installed. Contaminated water will be removed from pond, stored in waste tanks, and disposed of at a state approved facility. Standing water or puddles will not be allowed. Drainage ditches would be established and maintained on the pad and along access roads to divert water away from operations. Natural drainage areas disturbed during construction would be re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured, and reclaimed to near original condition to re-establish natural drainage.

**Road Drainage Control Structures (DCS) description:** N/A

**Road Drainage Control Structures (DCS) attachment:**

## Access Additional Attachments

**Additional Attachment(s):**

## Section 2 - New or Reconstructed Access Roads

**Will new roads be needed?** YES

**New Road Map:**

Lea\_7\_Fed\_Com\_E2E2\_Road\_ROW\_20180129085517.pdf

Lea\_7\_Fed\_Com\_East\_CTB\_Road\_ROW\_20180129085519.pdf

**New road type:**

**Length:**

**Width (ft.):**

**Max slope (%):**

**Max grade (%):**

**Army Corp of Engineers (ACOE) permit required?**

**ACOE Permit Number(s):**

**New road travel width:**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

**New road access erosion control:**

**New road access plan or profile prepared?**

**New road access plan attachment:**

**Access road engineering design?**

**Access road engineering design attachment:**

**Access surfacing type:**

**Access topsoil source:**

**Access surfacing type description:**

**Access onsite topsoil source depth:**

**Offsite topsoil source description:**

**Onsite topsoil removal process:**

**Access other construction information:**

**Access miscellaneous information:**

**Number of access turnouts:**

**Access turnout map:**

### **Drainage Control**

**New road drainage crossing:**

**Drainage Control comments:**

**Road Drainage Control Structures (DCS) description:**

**Road Drainage Control Structures (DCS) attachment:**

### **Access Additional Attachments**

**Additional Attachment(s):**

### **Section 2 - New or Reconstructed Access Roads**

**Will new roads be needed? YES**

**New Road Map:**

Lea\_7\_Fed\_Com\_E2E2\_Road\_ROW\_20180129085517.pdf

Lea\_7\_Fed\_Com\_East\_CTB\_Road\_ROW\_20180129085519.pdf

**New road type:**

**Length:**

**Width (ft.):**

**Max slope (%):**

**Max grade (%):**

**Army Corp of Engineers (ACOE) permit required?**

**ACOE Permit Number(s):**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

**New road travel width:**

**New road access erosion control:**

**New road access plan or profile prepared?**

**New road access plan attachment:**

**Access road engineering design?**

**Access road engineering design attachment:**

**Access surfacing type:**

**Access topsoil source:**

**Access surfacing type description:**

**Access onsite topsoil source depth:**

**Offsite topsoil source description:**

**Onsite topsoil removal process:**

**Access other construction information:**

**Access miscellaneous information:**

**Number of access turnouts:**

**Access turnout map:**

### **Drainage Control**

**New road drainage crossing:**

**Drainage Control comments:**

**Road Drainage Control Structures (DCS) description:**

**Road Drainage Control Structures (DCS) attachment:**

### **Access Additional Attachments**

**Additional Attachment(s):**

### **Section 3 - Location of Existing Wells**

**Existing Wells Map? YES**

**Attach Well map:**

Lea\_7\_Fed\_Com\_E2E2\_One\_Mile\_Radius\_Existing\_Wells\_20180129081627.pdf

**Existing Wells description:**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

## Section 4 - Location of Existing and/or Proposed Production Facilities

**Submit or defer a Proposed Production Facilities plan?** SUBMIT

**Production Facilities description:**

**Production Facilities map:**

Lea\_7\_Fed\_Com\_East\_CTB\_Layout\_20180129082442.pdf

## Section 5 - Location and Types of Water Supply

### Water Source Table

**Water source use type:** INTERMEDIATE/PRODUCTION CASING,  
SURFACE CASING

**Water source type:** MUNICIPAL

**Describe type:**

**Source latitude:**

**Source longitude:**

**Source datum:**

**Water source permit type:** WATER RIGHT,WATER RIGHT

**Permit Number:**

**Source land ownership:** STATE

**Water source transport method:**  
PIPELINE,PIPELINE,TRUCKING,TRUCKING

**Source transportation land ownership:** STATE

**Water source volume (barrels):** 5000

**Source volume (acre-feet):** 0.6444655

**Source volume (gal):** 210000

**Water source and transportation map:**

Lea\_7\_Fed\_Com\_E2E2\_Drilling\_Water\_Route\_20180129082607.pdf

**Water source comments:**

**New water well?** NO

### New Water Well Info

**Well latitude:**

**Well Longitude:**

**Well datum:**

**Well target aquifer:**

**Est. depth to top of aquifer(ft):**

**Est thickness of aquifer:**

**Aquifer comments:**

**Aquifer documentation:**

**Well depth (ft):**

**Well casing type:**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

**Well casing outside diameter (in.):**

**Well casing inside diameter (in.):**

**New water well casing?**

**Used casing source:**

**Drilling method:**

**Drill material:**

**Grout material:**

**Grout depth:**

**Casing length (ft.):**

**Casing top depth (ft.):**

**Well Production type:**

**Completion Method:**

**Water well additional information:**

**State appropriation permit:**

**Additional information attachment:**

## Section 6 - Construction Materials

**Construction Materials description:** The drilling and testing operations will be conducted on a watered and compacted native soil grade. Soft spots will be covered with scoria, free of large rocks (3" diameter). Upon completion as a commercial producer the location will be covered with scoria, free of large rocks (3" dia.) from an existing privately owned gravel pit.  
**Construction Materials source location attachment:**

## Section 7 - Methods for Handling Waste

**Waste type:** DRILLING

**Waste content description:** Drilling Fluids, drill cuttings, water and other waste produced from the well during drilling operations.

**Amount of waste:** 15000 barrels

**Waste disposal frequency :** Weekly

**Safe containment description:** n/a

**Safe containmant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

**Disposal type description:**

**Disposal location description:** Haul to R360 commercial Disposal

**Waste type:** GARBAGE

**Waste content description:** Garbage and trash produced during drilling and completion operations

**Amount of waste:** 32500 pounds

**Waste disposal frequency :** Weekly

**Safe containment description:** n/a

**Safe containmant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

**Disposal type description:**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

**Disposal location description:** Windmill Spraying Service hauls trash to Lea County Landfill

### Reserve Pit

**Reserve Pit being used?** NO

**Temporary disposal of produced water into reserve pit?**

**Reserve pit length (ft.)**                      **Reserve pit width (ft.)**

**Reserve pit depth (ft.)**    **Reserve pit volume (cu. yd.)**

**Is at least 50% of the reserve pit in cut?**

**Reserve pit liner**

**Reserve pit liner specifications and installation description**

### Cuttings Area

**Cuttings Area being used?** NO

**Are you storing cuttings on location?** NO

**Description of cuttings location**

**Cuttings area length (ft.)**    **Cuttings area width (ft.)**

**Cuttings area depth (ft.)**    **Cuttings area volume (cu. yd.)**

**Is at least 50% of the cuttings area in cut?**

**WCuttings area liner**

**Cuttings area liner specifications and installation description**

### Section 8 - Ancillary Facilities

**Are you requesting any Ancillary Facilities?:** NO

**Ancillary Facilities attachment:**

**Comments:**

### Section 9 - Well Site Layout

**Well Site Layout Diagram:**

Lea\_7\_Fed\_Com\_29H\_Wellsite\_Layout\_20180129082650.pdf

**Comments:**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** New Surface Disturbance

**Multiple Well Pad Name:** LEA 7 FEDERAL COM

**Multiple Well Pad Number:** E2E2

### Recontouring attachment:

Lea\_7\_Fed\_Com\_E2E2\_Interim\_Reclaim\_20180129084358.pdf

**Drainage/Erosion control construction:** To control and prevent potentially contaminated precipitation from leaving the pad site, a perimeter berm and settlement pond will be installed. Contaminated water will be removed from pond, stored in waste tanks, and disposed of at a state approved facility. Standing water or puddles will not be allowed. Drainage ditches would be established and maintained on the pad and along access roads to divert water away from operations. Natural drainage areas disturbed during construction would be re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured, and reclaimed to near original condition to re-establish natural drainage.

**Drainage/Erosion control reclamation:** All disturbed and re-contoured areas would be reseeded according to specifications. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

<b>Well pad proposed disturbance (acres):</b> 6.907	<b>Well pad interim reclamation (acres):</b> 2.711	<b>Well pad long term disturbance (acres):</b> 3.356
<b>Road proposed disturbance (acres):</b> 0.395	<b>Road interim reclamation (acres):</b> 0	<b>Road long term disturbance (acres):</b> 0.395
<b>Powerline proposed disturbance (acres):</b> 2.809	<b>Powerline interim reclamation (acres):</b> 0	<b>Powerline long term disturbance (acres):</b> 2.809
<b>Pipeline proposed disturbance (acres):</b> 7.175	<b>Pipeline interim reclamation (acres):</b> 0	<b>Pipeline long term disturbance (acres):</b> 7.175
<b>Other proposed disturbance (acres):</b> 4	<b>Other interim reclamation (acres):</b> 0	<b>Other long term disturbance (acres):</b> 4
<b>Total proposed disturbance:</b> 21.286	<b>Total interim reclamation:</b> 2.711	<b>Total long term disturbance:</b> 17.735

**Disturbance Comments:** Flowline: 1084', Gas lift: 1084', SWD: 2928', Sales: 2948', Power: 4080' Temp fresh water line: 13837'

**Reconstruction method:** After well plugging, all disturbed areas would be returned to the original contour or a contour that blends with the surrounding landform including roads unless the surface owner requests that they be left intact. In consultation with the surface owners it will be determined if any gravel or similar materials used to reinforce an area are to be removed, buried, or left in place during final reclamation. Salvaged topsoil, if any, would be re-spread evenly over the surfaces to be re-vegetated. As necessary, the soil surface would be prepared to provide a seedbed for re-establishment of desirable vegetation. Site preparation may include gouging, scarifying, dozer track-walking, mulching, or fertilizing. Reclamation, Re-vegetation, and Drainage: All disturbed and re-contoured areas would be reseeded using techniques outlined under Phase I and II of this plan or as specified by the land owner. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage. **Topsoil redistribution:** Salvaged topsoil, if any, would be re-spread evenly over the surfaces to be re-vegetated.

**Soil treatment:** As necessary, the soil surface would be prepared to provide a seedbed for re-establishment of desirable vegetation. Site preparation may include gouging, scarifying, dozer track-walking, mulching or fertilizing.

**Existing Vegetation at the well pad:**

**Existing Vegetation at the well pad attachment:**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

**Existing Vegetation Community at the road:**

**Existing Vegetation Community at the road attachment:**

**Existing Vegetation Community at the pipeline:**

**Existing Vegetation Community at the pipeline attachment:**

**Existing Vegetation Community at other disturbances:**

**Existing Vegetation Community at other disturbances attachment:**

**Non native seed used?**

**Non native seed description:**

**Seedling transplant description:**

**Will seedlings be transplanted for this project?**

**Seedling transplant description attachment:**

**Will seed be harvested for use in site reclamation?**

**Seed harvest description:**

**Seed harvest description attachment:**

## **Seed Management**

### **Seed Table**

**Seed type:**

**Seed source:**

**Seed name:**

**Source name:**

**Source address:**

**Source phone:**

**Seed cultivar:**

**Seed use location:**

**PLS pounds per acre:**

**Proposed seeding season:**

### **Seed Summary**

**Total pounds/Acre:**

**Seed Type**

**Pounds/Acre**

**Seed reclamation attachment:**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

### **Operator Contact/Responsible Official Contact Info**

**First Name:**

**Last Name:**

**Phone:**

**Email:**

**Seedbed prep:**

**Seed BMP:**

**Seed method:**

**Existing invasive species?** NO

**Existing invasive species treatment description:**

**Existing invasive species treatment attachment:**

**Weed treatment plan description:** N/A

**Weed treatment plan attachment:**

**Monitoring plan description:** N/A

**Monitoring plan attachment:**

**Success standards:** N/A

**Pit closure description:** N/A

**Pit closure attachment:**

### **Section 11 - Surface Ownership**

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Operator Name:** CIMAREX ENERGY COMPANY

**Well Name:** LEA 7 FEDERAL COM

**Well Number:** 29H

**Fee Owner:** S&S Inc, Pearl Valley Limited  
Partnership (Pat Sims)  
**Phone:** (575)390-2642

**Fee Owner Address:** PO BOx 1046 Eunice, NM 88231

**Email:**

**Surface use plan certification:** YES

**Surface use plan certification document:**

Lea\_7\_Fed\_Com\_29H\_Operator\_Land\_Owner\_Agmt\_20180129085331.pdf

**Surface access agreement or bond:** Agreement

**Surface Access Agreement Need description:** See Operator-Land Owner Agreement

**Surface Access Bond BLM or Forest Service:**

**BLM Surface Access Bond number:**

**USFS Surface access bond number:**

## Section 12 - Other Information

**Right of Way needed?** YES

**Use APD as ROW?** YES

**ROW Type(s):** 288100 ROW – O&G Pipeline,Other

### ROW Applications

**SUPO Additional Information:** The proposed routes for SWD, Road, Power, Sales, Gas lift & Flowlines are the same for the Lea 7 Federal Com 29H & 30H APD Applications.

**Use a previously conducted onsite?** YES

**Previous Onsite information:** Onsite with BLM (Barry Hunt) and Cimarex (Barry Hunt) on 6/1/17.

### Other SUPO Attachment

Lea\_7\_Fed\_Com\_E2E2\_Flow\_Gas\_lift\_ROW\_20180129085452.pdf

Lea\_7\_Fed\_Com\_E2E2\_Power\_ROW\_20180129085453.pdf

Lea\_7\_Fed\_Com\_E2E2\_Road\_Description\_20180129085455.pdf

Lea\_7\_Fed\_Com\_E2E2\_Public\_Access\_20180129085454.pdf

Lea\_7\_Fed\_Com\_E2E2\_Temp\_Water\_Route\_20180129085456.pdf

Lea\_7\_Fed\_Com\_East\_CTB\_Gas\_Sales\_ROWpdf\_20180129085457.pdf

Lea\_7\_Fed\_Com\_East\_CTB\_SWD\_ROW\_20180129085459.pdf

Lea\_7\_Fed\_Com\_Marshall\_and\_Winston\_\_Agreement\_to\_Operate\_E2\_Sec\_7\_T20S\_R35E\_20180129085459.pdf

Lea\_7\_Fed\_Com\_29H\_SUPO\_20180131062256.pdf



## Section 1 - General

Would you like to address long-term produced water disposal? NO

## Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

### Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

### Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

**Injection well type:**

**Injection well number:**

**Assigned injection well API number?**

**Injection well new surface disturbance (acres):**

**Minerals protection information:**

**Mineral protection attachment:**

**Underground Injection Control (UIC) Permit?**

**UIC Permit attachment:**

**Injection well name:**

**Injection well API number:**

## **Section 5 - Surface Discharge**

**Would you like to utilize Surface Discharge PWD options? NO**

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Surface discharge PWD discharge volume (bbl/day):**

**Surface Discharge NPDES Permit?**

**Surface Discharge NPDES Permit attachment:**

**Surface Discharge site facilities information:**

**Surface discharge site facilities map:**

## **Section 6 - Other**

**Would you like to utilize Other PWD options? NO**

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Other PWD discharge volume (bbl/day):**

**Other PWD type description:**

**Other PWD type attachment:**

**Have other regulatory requirements been met?**

**Other regulatory requirements attachment:**



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Bond Info Data Report

09/11/2018

### Bond Information

**Federal/Indian APD:** FED

**BLM Bond number:** NMB001188

**BIA Bond number:**

**Do you have a reclamation bond?** NO

**Is the reclamation bond a rider under the BLM bond?**

**Is the reclamation bond BLM or Forest Service?**

**BLM reclamation bond number:**

**Forest Service reclamation bond number:**

**Forest Service reclamation bond attachment:**

**Reclamation bond number:**

**Reclamation bond amount:**

**Reclamation bond rider amount:**

**Additional reclamation bond information attachment:**