Form 3160-3
(March 2012)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM131588

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.:

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

8. Lease Name and Well No.: ~~372165~~ (32201) CHEDDAR 3BS FEDERAL COM 1H

2. Name of Operator: CENTENNIAL RESOURCE PRODUCTION LLC 372165

9. API Well No.: 30-025-44692

3a. Address: 1001 17th Street, Suite 1800 Denver CO 8020

3b. Phone No. *(include area code)*: (720)499-1400

10. Field and Pool, or Exploratory: BILBREY BASIN / BONE SPRING 5695

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

At surface: TR SWSW / 244 FSL / 370 FWL / LAT 32.414016 / LONG -103.704182

At proposed prod. zone: TR NWNW / 330 FNL / 330 FWL / LAT 32.44146 / LONG -103.7043

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 5 / T22S / R32E / NMP

14. Distance in miles and direction from nearest town or post office*: 25 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): 244 feet

16. No. of acres in lease: 886.41

17. Spacing Unit dedicated to this well: 320

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1040 feet

19. Proposed Depth: 11730 feet / 22100 feet

20. BLM/BIA Bond No. on file: FED: NMB001471

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3668 feet

22. Approximate date work will start*: 12/01/2017

23. Estimated duration: 45 days

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APR 17 2018
RECEIVED

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 must 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 BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Melissa Luke / Ph: (720)499-1482	06/28/2017

Title: Sr. Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	04/13/2018

Title	Office
Supervisor Multiple Resources	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.

(Continued on page 2)

*(Instructions on page 2)

GCP received 04/17/2018

APPROVED WITH CONDITIONS

Approval Date: 04/13/2018

KZ 04/17/18

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160
PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.
ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.
EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

(Continued on page 3)

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BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

04/13/2018

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: Melissa Luke **Signed on:** 06/28/2017

Title: Sr. Regulatory Analyst

Street Address: 1001 17th Street, Suite 1800

City: Denver **State:** CO **Zip:** 80202

Phone: (720)499-1482

Email address: Melissa.Luke@cdevinc.com

Field Representative

Representative Name: Richard Crawford

Street Address: 400 W ILLINOIS AVE, SUITE 1601

City: MIDLAND **State:** TX **Zip:** 79701

Phone: (432)219-5450

Email address: Richard.Crawford@cdevinc.com

APD ID: 10400014977 **Submission Date:** 06/28/2017

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400014977 **Tie to previous NOS?** **Submission Date:** 06/28/2017

BLM Office: CARLSBAD **User:** Melissa Luke **Title:** Sr. Regulatory Analyst

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM131588 **Lease Acres:** 886.41

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:** CENTENNIAL RESOURCE PRODUCTION LLC

Operator letter of designation:

Operator Info

Operator Organization Name: CENTENNIAL RESOURCE PRODUCTION LLC

Operator Address: 1001 17th Street, Suite 1800 **Zip:** 80202

Operator PO Box:

Operator City: Denver **State:** CO

Operator Phone: (720)499-1400

Operator Internet Address:

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: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** BILBREY BASIN **Pool Name:** BONE SPRING

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

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

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:** CHEDDAR WELLS **Number:** 1

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EVALUATION

Describe sub-type:

Distance to town: 25 Miles **Distance to nearest well:** 1040 FT **Distance to lease line:** 244 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: CHEDDAR_3BS_FEDERAL_COM_1H_REVISED_PLATS_2.1.18_20180212104454.pdf

Well work start Date: 12/01/2017 **Duration:** 45 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	244	FSL	370	FWL	22S	32E	5	Tract SWSW	32.414016	-103.704182	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 131588	3668	0	0
KOP Leg #1	244	FSL	370	FWL	22S	32E	5	Tract SWSW	32.414016	-103.704182	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 131588	-7487	11155	11155
PPP Leg #1	330	FSL	330	FWL	22S	32E	5	Tract SWSW	32.414252	-103.70431	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 131588	-7682	11655	11350

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

	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	330	FNL	330	FWL	21S	32E	32	Tract NWNW	32.44146	-103.70434	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8062	22100	11730
BHL Leg #1	330	FNL	330	FWL	21S	32E	32	Tract NWNW	32.44146	-103.7043	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8062	22100	11730

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BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

04/13/2018

APD ID: 10400014977 **Submission Date:** 06/28/2017

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	RUSTLER	3716	670	670	SANDSTONE	USEABLE WATER	No
2	TOP SALT	2716	1000	1000	SALT	NONE	No
3	DELAWARE	-914	4630	4630	SILTSTONE	NONE	No
4	BELL CANYON	-1019	4735	4735	LIMESTONE,SHALE,SANDSTONE	NATURAL GAS,OIL	No
5	CHERRY CANYON	-1844	5560	5560	LIMESTONE,SHALE,SANDSTONE	NATURAL GAS,OIL	No
6	BRUSHY CANYON	-3444	7160	7160	LIMESTONE,SHALE,MUDSTONE,SANDSTONE	NATURAL GAS,OIL	No
7	BRUSHY CANYON LOWER	-4624	8340	8340	LIMESTONE,SHALE,SANDSTONE	NATURAL GAS,OIL	No
8	BONE SPRING	-4889	8605	8605	LIMESTONE	NATURAL GAS,OIL	No
9	AVALON SAND	-5084	8800	8800	SHALE	NATURAL GAS,OIL	No
10	BONE SPRING 1ST	-5924	9640	9640	LIMESTONE,SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 2ND	-6599	10315	10315	SANDSTONE	NATURAL GAS,OIL	No
12	BONE SPRING LIME	-6984	10700	10700	LIMESTONE	NATURAL GAS,OIL	No
13	BONE SPRING 3RD	-7719	11435	11435	SANDSTONE	NATURAL GAS,OIL	No
14	BONE SPRING 3RD	-8014	11730	11730	SANDSTONE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

Pressure Rating (PSI): 5M **Rating Depth:** 11750

Equipment: The BOP and related equipment will meet or exceed the requirements of a 5M-psi system as set forth in On Shore Order No. 2. See attached BOP Schematic. A. Casinghead: 13" – 5000 psi SOW x 13" – 5000 psi WP Intermediate Spool: 13" – 5000 psi WP x 11" – 5000 psi WP Tubinghead: 11" – 5000 psi WP x 7 1/16" – 5000 psi WP B. Minimum Specified Pressure Control Equipment • Annular preventer • One Pipe ram, One blind ram • Drilling spool, or blowout preventer with 2 side outlets. Choke side will be a 3-inch minimum diameter, kill line shall be at least 2-inch diameter • 3 inch diameter choke line • 2 – 3 inch choke line valves • 2 inch kill line • 2 chokes with 1 remotely controlled from rig floor (see Figure 2) • 2 – 2 inch kill line valves and a check valve • Upper kelly cock valve with handle available • When the expected pressures approach working pressure of the system, 1 remote kill line tested to stack pressure (which shall run to the outer edge of the substructure and be unobstructed) • Lower kelly cock valve with handle available • Safety valve(s) and subs to fit all drill string connections in use • Inside BOP or float sub available • Pressure gauge on choke manifold • All BOPE connections subjected to well pressure shall be flanged, welded, or clamped • Fill-up line above the uppermost preventer. C. Auxiliary Equipment • Audio and visual mud monitoring equipment shall be placed to detect volume changes indicating loss or gain of circulating fluid volume. (OOS 1, III.C.2) • Gas Buster will be used below intermediate casing setting depth. • Upper and lower kelly cocks with handles, safety valve and subs to fit all drill string connections and a pressure gauge installed on choke manifold.

Requesting Variance? NO

Variance request:

Testing Procedure: The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum: a. when initially installed b. whenever any seal subject to test pressure is broken c. following related repairs d. at 30 day intervals e. checked daily as to mechanical operating conditions. The ram type preventer(s) will be tested using a test plug to 250 psi (low) and 5000 psi (high) (casinghead WP) with a test plug upon its installation onto the 13" surface casing. If a test plug is not used, the ram type preventer(s) shall be tested to 70% of the minimum internal yield pressure of the casing. The annular type preventer(s) shall be tested to 50% of its working pressure. Pressure will be maintained for at least 10 minutes or until provisions of the test are met, whichever is longer. • A Sundry Notice (Form 3160 5), along with a copy of the BOP test report, shall be submitted to the local BLM office within 5 working days following the test. • If the bleed line is connected into the buffer tank (header), all BOP equipment including the buffer tank and associated valves will be rated at the required BOP pressure. • The BLM office will be provided with a minimum of four (4) hours' notice of BOP testing to allow witnessing. The BOP Configuration, choke manifold layout, and accumulator system, will be in compliance with Onshore Order 2 for a 5000 psi system. A remote accumulator will be used. Pressures, capacities, and specific placement and use of the manual and/or hydraulic controls, accumulator controls, bleed lines, etc., will be identified at the time of the BLM witnessed BOP test. Any remote controls will be capable of both opening and closing all preventers and shall be readily accessible

Choke Diagram Attachment:

Cheddar_3BS_Choke_Manifold_Diagram_20180201155258.pdf

BOP Diagram Attachment:

Cheddar_3BS_Federal_Com_1H_BOP_20180130155810.pdf

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

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	CONDUCTOR	26	20.0	NEW	API	N	0	80	0	80	-8064	-8144	80	H-40	94	OTHER - Weld						
2	SURFACE	17.5	13.375	NEW	API	N	0	700	0	700	-8064	-8764	700	J-55	48	STC	1.125	1	DRY	1.6	DRY	1.6
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4750	0	4750	-8064	-12814	4750	J-55	40	LTC	1.125	1	DRY	1.6	DRY	1.6
4	PRODUCTION	8.5	5.5	NEW	API	N	0	22100	0	10730	-8064	-18794	22100	P-110	20	OTHER - Lonestar EZGO	1.125	1	DRY	1.6	DRY	1.6

Casing Attachments

Casing ID: 1 **String Type:** CONDUCTOR

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

Casing Attachments

Casing ID: 2 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Cheddar_3BS_Fed_Com_1H_Casing_Assumptions_06-22-2017.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Cheddar_3BS_Fed_Com_1H_Casing_Assumptions_06-22-2017.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Cheddar_3BS_Fed_Com_1H_Casing_Assumptions_06-22-2017.pdf

Section 4 - Cement

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
CONDUCTOR	Lead		0	80	96	1.49	12.9	143		Class C	Bentonite 4% BWOC, Cellophane 0.25 pps CACL2 2% BWOC
SURFACE	Lead		0	700	320	1.74	13.5	556.8		Class C	Mix Water 9.18 gps Extender - Bentonite 4% BWOC Lost Circ - Cellophane 0.25 pps Accelerator - CACL2 2% BWOC
SURFACE	Tail		0	700	340	1.33	14.8	452.2		Class C	Mix Water 6.33 gps Accelerator - CACL2 2% BWOC
INTERMEDIATE	Lead		0	4750	320	2.32	11.9	742.4		50:50 Poz Class C	Mix Water 12.45 gps Extender 1 - Bentonite 7% BWOC Anti Foam - CPT-503P 0.40% Fluid Loss - COT-19 0.30% Gas Migration - CPT-45 0.80% Lost Circ - Kol Seal 3.0 pps pps Accelerator - Sodium 5% BWOC
INTERMEDIATE	Tail		0	4750	320	1.33	14.8	425.6		Class C	Mix Water 6.33 gps Fluid Loss - COT-19 0.20% Gas Migration - CPT-45 0.80%
PRODUCTION	Lead		4000	22100	680	2.64	11.5	1795.2		50:50 Poz Class H	Mix Water 14.77 gps Extender 1 - Bentonite 7% BWOC Anti Foam - CPT-503P 0.40% Fluid Loss - COT-19 0.50% Gas Migration - CPT-45 0.30% Lost Circ - Kol Seal 3.0 pps pps Retarder - Citric Acid 0.10%
PRODUCTION	Tail		4000	22100	1930	1.62	13.2	3126.6		Class H	Mix Water 8.09 gps Extender 1 - Bentonite 1% BWOC Anti Foam - CPT-503P 0.25% Fluid Loss - COT-19 0.50% Accelerator - Sodium 3% Expander - CPT 49 0.30% Retarder - CPT 20 0.30% Fluid Loss - COT-15 0.80%

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											Dispersant - CPT 35 0.40%

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 quantities of mud materials shall be maintained at the well site at all times for the purpose of assuring well control. From 0' to 700' we will employ fresh water mud mix. From 700' to 4750' a salt water brine will be used. The brine will be of sufficient density to prevent washouts in the salt section. From 4750' to TMD we will use weight non-dispersed mud of appropriate density to maintain control.
Describe the mud monitoring system utilized: Centrifugal separation and open tank monitoring of mud, cuttings and returns.

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
700	4750	SALT SATURATED	9.7	10							
0	700	WATER-BASED MUD	8.6	9							
4750	22100	LOW SOLIDS NON-DISPERSED (LSND)	8.7	9.4							

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: CHEDDAR 3BS FEDERAL COM **Well Number:** 1H

Section 6 - Test, Logging, Coring

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

MWD/LWD Intermediate to TD

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

GR

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4873 **Anticipated Surface Pressure:** 2292.4

Anticipated Bottom Hole Temperature(F): 200

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? NO

Hydrogen sulfide drilling operations plan:

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Cheddar_3BS_Federal_Com_1H_PLAN_3_AC_REPORT_06-22-2017.pdf
Cheddar_3BS_Federal_Com_1H_PLAN_3_REPORT_06-22-2017.pdf
Cheddar_3BS_Federal_Com_1H_PLAN_3_SM_DWG_06-22-2017.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Other Variance attachment:

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:

Decribe 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:

AFMSS

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

PWD Data Report
04/13/2018

Section 1 - General

30-025-44692

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:

Decribe 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:

Decribe 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: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

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:

AFMSS

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

Bond Info Data Report

04/13/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001471

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:

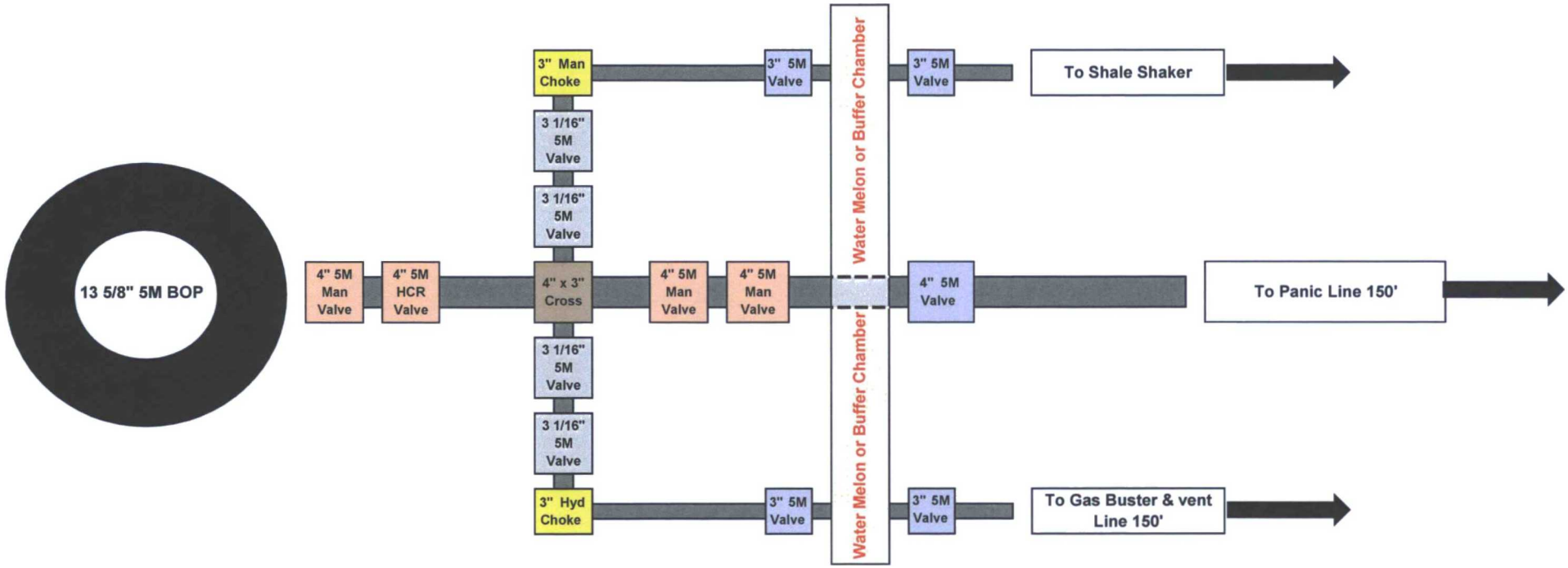
Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

30-025-44692

5M system - Minimum Configuration of Choke Side



For Well Design	
Surface	13 3/8
Intermediate	9 5/8
Production	5 1/2

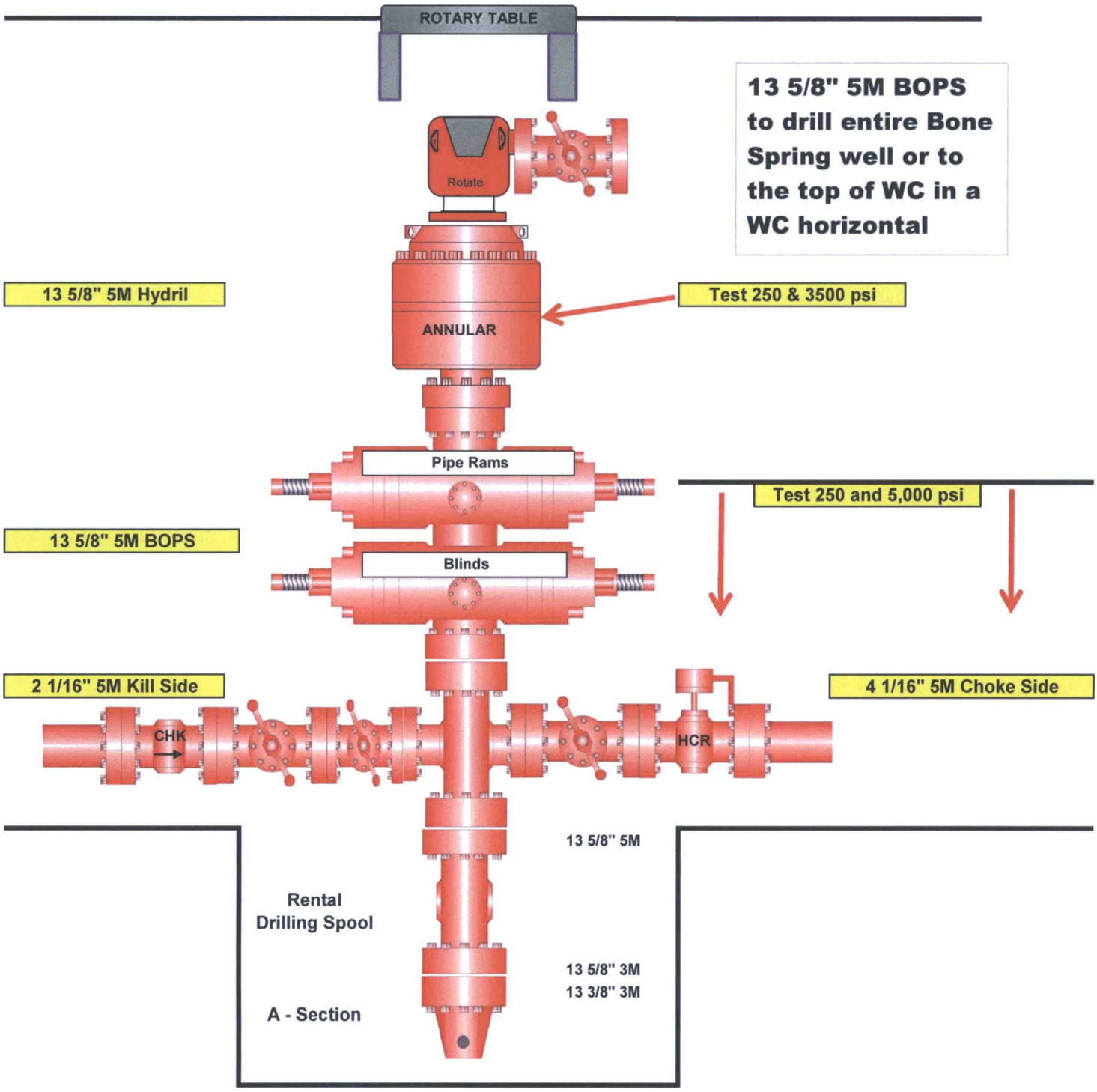
WELL: Cheddar 3BS Federal Com 1H

LOCATION: West of Jal NM

COUNTY: Lea STATE: New Mexico

RIG NAME & No. Any Rig

GL ELEVATION: KB



Centralizer Program:

Surface:
- 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)
- No Cement baskets will be run

Production:
- 1 welded bow spring centralizer on a stop ring 6' above float shoe
- 1 centralizer every other joint to the top of the tail cement
- 1 centralizer every 4 joints to 500' below the top of the lead cement
- The actual number and placement of centralizers will be determined from hole deviation and potential production zones. Centralizers will be run for maximum practical standoff and through all potential productive zones.

- All casing strings below the conductor shall be tested, prior to drilling out the casing shoe, to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the internal yield pressure of the casing. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

  No freshly hard banded pipe will be rotated in the surface casing

  - We will not employ an air-drill rig for the surface casing. The casing shoe will be tested by drilling 5'-10' out from under the shoe and pressure testing to the maximum expected mud weight equivalent as shown in the mud program listed in the drilling plan.

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