

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

HOBBS OCD  
FEB 19 2018  
RECEIVED

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM132945
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator CAZA OPERATING LLC (249099)		7. If Unit or CA Agreement, Name and No.
3a. Address 200 N. Loraine Street, Suite 1550 Midland TX	3b. Phone No. (include area code) (432)682-7424	8. Lease Name and Well No. (320711) EAGLECLAW FEDERAL 2H
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NENW / 190 FNL / 2173 FWL / LAT 32.609071 / LONG -103.481016 At proposed prod. zone NESW / 1675 FSL / 2175 FWL / LAT 32.585038 / LONG -103.480831		9. API Well No. 30-025-44495
14. Distance in miles and direction from nearest town or post office* 13 miles		10. Field and Pool, or Exploratory WOLFCAMP / WC-025 G-08 S203517M;
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 190 feet		11. Sec., T. R. M. or Blk. and Survey or Area SEC 5 / T20S / R35E / NMP
16. No. of acres in lease 322.32		12. County or Parish LEA
17. Spacing Unit dedicated to this well 280		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, 1200 feet applied for, on this lease, ft.		20. BLM/BIA Bond No. on file FED: NMB000471
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3694 feet		22. Approximate date work will start* 01/30/2018
		23. Estimated duration 45 days

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.   | 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 required by the BLM.             |

25. Signature (Electronic Submission)	Name (Printed Typed) Tony B Sam / Ph: (432)682-7424	Date 12/07/2017
Title VP Operations		
Approved by (Signature) (Electronic Submission)	Name (Printed Typed) Cody Layton / Ph: (575)234-5959	Date 02/01/2018
Title Supervisor Multiple Resources		

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)

APPROVED WITH CONDITIONS  
Approval Date: 01/31/2018

KB  
02/19/18

## **Additional Operator Remarks**

### **Location of Well**

1. SHL: NENW / 190 FNL / 2173 FWL / TWSP: 20S / RANGE: 35E / SECTION: 5 / LAT: 32.609071 / LONG: -103.481016 ( TVD: 0 feet, MD: 0 feet )  
PPP: NENW / 456 FNL / 2176 FWL / TWSP: 20S / RANGE: 35E / SECTION: 5 / LAT: 32.608321 / LONG: -103.481011 ( TVD: 11250 feet, MD: 11577 feet )  
BHL: NESW / 1675 FSL / 2175 FWL / TWSP: 20S / RANGE: 35E / SECTION: 8 / LAT: 32.585038 / LONG: -103.480831 ( TVD: 11250 feet, MD: 19748 feet )

## **BLM Point of Contact**

Name: Judith Yeager

Title: Legal Instruments Examiner

Phone: 5752345936

Email: jyeager@blm.gov

# Eagleclaw Federal 2H Casing and Cement Design

In a Lesser Prairie-Chicken section.

13 3/8	surface csg in a	17 1/2	inch hole.	Design Factors			SURFACE		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	54.50	J 55	ST&C	4.81	1.25	1.04	1,960	106,820	
"B"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,056			Tail Cmt	does not	circ to sfc.	Totals:	1,960	106,820	
Comparison of Proposed to Minimum Required Cement Volumes									
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	1166	2152	1435	50	8.90	1514	2M	1.56

9 5/8	casing inside the	13 3/8	Design Factors				INTERMEDIATE		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	40.00	L 80	LT&C	4.43	1.45	1.08	4,100	164,000	
"B"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500						Totals:	4,100	164,000	
The cement volume(s) are intended to achieve a top of				0	ft from surface or a		1960	overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	1050	2097	1400	50	10.00	2843	3M	0.81
Setting Depths for D V Tool(s):			3100				sum of sx	Σ CuFt	Σ%excess
excess cmt by stage % :			454	38			1636	3309	136
Class 'C' tail cmt yld > 1.35									

5 1/2	casing inside the		9 5/8	Design Factors			PRODUCTION			
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	Weight		
"A"	17.00	P 110	BUTT	2.85	1.48	2	10,677	181,509		
"B"	17.00	P 110	BUTT	-1.05	7.66	2	9,071	154,207		
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,349						Totals:	19,748	335,716		
B	Segment Design Factors would be:			56.04	1.41	if it were a vertical wellbore.				
No Pilot Hole Planned				MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC
				19748	11250	11250	10677	90	-90	10577
The cement volume(s) are intended to achieve a top of					0	ft from surface or a		4100	overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg	
8 3/4	0.2526	3825	7565	5027	50	9.10			1.35	
Class 'H' tail cmt yld > 1.20										

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