SECRETARY'S POTASH

ATS-15-494

Form 3160-3
(March 2012)

OCD Hobbs

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD

MAR 28 2016

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NMNM 114984
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6. If Indian, Allotee or Tribe Name
2. Name of Operator BC Operating, Inc. (160825)	7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 50820 Midland, Texas 79710	3b. Phone No. (include area code) 432-684-9696
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* NORTHODOX LOCATION At surface 240' FSL & 2200' FEL of Unit Letter 'O', Section 8, T-22S, R-33E At proposed prod. zone 240' FSL & 2200' FEL of Unit Letter 'O', Section 17, T-22S, R-33E	8. Lease Name and Well No. Chili Parlor 17 Federal Com #3H (313309) 9. API Well No. 30-025-43138 10. Field and Pool, or Exploratory Red Tank; Bone Spring, East (51687) 11. Sec., T. R. M. or Blk. and Survey or Area Section 8, T-22S, R-33E Section 17, T-22S, R-33E
14. Distance in miles and direction from nearest town or post office* 25 miles West of Eunice	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) 240'	16. No. of acres in lease 320 / 17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1840'	19. Proposed Depth 16,889' MD / 11,850' TVD / 20. BLM/BIA Bond No. on file NM2572
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3569' GL	22. Approximate date work will start* 01/01/2016 / 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.
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 Pam Stevens	Name *(Printed/Typed)* Pam Stevens	Date 03/05/2015
Title Regulatory Analyst		
Approved by *(Signature)* /s/George MacDonell	Name *(Printed/Typed)*	Date MAR 24 2016
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.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)

KZ 03/28/16

Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

MAR 28 2016

BC Operating, Inc., Chili Parlor 17 Federal Com #3H

1. Geologic Formations

TVD of target	11850	Pilot hole depth	12150
MD at TD:	16889	Deepest expected fresh water:	490

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	970	Water	
Top of Salt	1120	Salt	
Lamar	4850	Barren	
Delaware Group	4950	Oil/Gas	
Bone Spring	8700	Oil/Gas	
2nd Bone Spring Lime	10075	Target Zone	
3rd Bone Spring Sand	11750	Target Zone	
Wolfcamp	11950		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

See COA

Hole Size	Casing Interval From	To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
16"	0	1070	13.375"	54.5	J55	STC	2.28	1.08	8.81
12.25"	0	~~4875~~ 4800	9.625"	40	J55	LTC	1.76	1.32	2.67
8.75"	0	16889	5.5"	17	P110	Semi-Buttr.	1.4	1.9	2.82
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

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

Must have table for contingency casing. See attached semi-premium connection Specs.

	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.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
See COA 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?	
Is well within the designated 4 string boundary.	N

Is well located in SOPA but not in R-111-P?	Y
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	Y
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_2O gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	410	13.5	1.757	9.09	10	Lead: ExtendaCem + 2 lbm Kol-Seal + 0.125 lbm Poly-E-Flake
	240	14.8	1.345	6.23	8	Tail: HalCem + 2 lbm Kol-Seal + 0.125 lbm Poly-E-Flake + 1% Calcium Chloride - flake
Inter.	1490	12.6	1.934	10.36	15	Lead: EconoCem + 0.25 lbm Poly-E-Flake + 0.60% Halad®-9 + 3 lbm Kol-Seal
	230	14.8	1.339	6.13	11	Tail: HalCem + 3 lbm Kol-Seal + 0.25 lbm Poly-E-Flake
Prod.	1410	11.9	2.303	13.19	24	Lead: VersaCem + 10% Bentonite + 2 lbm Kol-Seal + 0.25 lbm D-Air 5000 + 0.50% HR-601
	900	15	2.625	11.40	10	Tail: SoluCem + 0.25 lbm D-Air 5000 + 0.80% HR-601 (Acid Soluble Cement)

See COA

Optional DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Optional DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	100%
Production	0'	30%

Include Pilot Hole Cementing specs:
Pilot hole depth 12150
KOP 11280

See COA

Plug top	Plug Bottom	% Excess	No. Sacks	Wt. lb/gal	Yld ft3/sack	Water gal/sk	Slurry Description and Cement Type
11270	11800	10	230	16.4	1.06	4.3	Class H
11930	12150	10	100	16.4	1.06	4.3	Class H

4. Pressure Control Equipment

See COA

	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		
			Other*		
8 3/4" ~~8-1/2"~~ Per Casing Program	11"	~~3M~~ 5M See COA	Annular	x	50% testing pressure
			Blind Ram	x	~~3M~~ 5M See COA
			Pipe Ram	x	
			Double Ram		
			Other *		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other *		

*Specify if additional ram is utilized.

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.

Y	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.
Y	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.
Y	Are anchors required by manufacturer?
	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. • Provide description here See attached schematic.

See COA

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. shoe	FW Gel	8.4-8.8	28-34	N/C
Surf csg	Int shoe	Saturated Brine	9.8-10.0	28-34	N/C
Int shoe	TD	Cut Brine	8.4-9.1	30-36	<12

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

See COA

Logging, Coring and Testing.	
Y	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.
N	Drill stem test? If yes, explain
N	Coring? If yes, explain

Additional logs planned		Interval
Y	Resistivity	Int. shoe to KOP
Y	Density	Int. shoe to KOP
N	CBL	Production casing
Y	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

See COA

Condition	Specify what type and where?
BH Pressure at deepest TVD	3800 psi
Abnormal Temperature	Yes/No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

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.	
Y	H2S is present
Y	H2S Plan attached

8. Other facets of operation

Is this a walking operation? No. If yes, describe.
Will be pre-setting casing? No. If yes, describe.

Attachments
_X_ Directional Plan
_X_ Other, describe

- Improved 5.5" casing thread design example
- 20" annular
- 13-5/8" annular
- 11" BOPE
- Flexible hose specs and test chart