

OCD Hobbs

**HOBBS OCD**

AUG 08 2017

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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**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM 13647
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 <del>BC OPERATING INCORPORATED</del> <i>Marathon Oil</i> <i>(372098) Permian UC</i>		7. If Unit or CA Agreement, Name and No.
3a. Address 4000 N Big Spring Street, Suite 310 Midland T		8. Lease Name and Well No. CAVE LION 5 FEDERAL BC 1H <i>(319699)</i>
3b. Phone No. (include area code) (432)684-9696		9. API Well No. <i>30-025-44087</i>
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSW / 185 FSL / 330 FWL / LAT 32.0656037 / LONG -103.3969543 At proposed prod. zone NWNW / 330 FNL / 330 FWL / LAT 32.0787135 / LONG -103.3969775		10. Field and Pool, or Exploratory JABALINA / BRUSHY CANYON <i>(91597)</i>
14. Distance in miles and direction from nearest town or post office* 12.38 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 5 / T26S / R35E / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 185 feet	16. No. of acres in lease 1281.31	17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, 157 feet applied for, on this lease, ft.	19. Proposed Depth 9100 feet / 13750 feet	20. BLM/BIA Bond No. on file FED: NMB001345
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3271 feet	22. Approximate date work will start* 04/17/2017	23. Estimated duration 40 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) Sarah Presley / Ph: (432)684-9696	Date 01/26/2017
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 07/28/2017
Title Supervisor Multiple Resources	Office HOBBS	

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**

*Kz*  
*09/29/17*

<b>APD ID:</b> 10400008461	<b>Submission Date:</b> 01/26/2017	Highlight All Changes
<b>Operator Name:</b> BC OPERATING INCORPORATED	<b>Federal/Indian APD:</b> FED	
<b>Well Name:</b> CAVE LION 5 FEDERAL BC	<b>Well Number:</b> 1H	
<b>Well Type:</b> OIL WELL	<b>Well Work Type:</b> Drill	

## Application

### Section 1 - General

<b>APD ID:</b> 10400008461	<b>Tie to previous NOS?</b> 10400007782	<b>Submission Date:</b> 01/26/2017
<b>BLM Office:</b> HOBBS	<b>User:</b> Sarah Presley	<b>Title:</b> Regulatory Analyst
<b>Federal/Indian APD:</b> FED	<b>Is the first lease penetrated for production Federal or Indian?</b> FED	
<b>Lease number:</b> NMNM 13647	<b>Lease Acres:</b> 1281.31	
<b>Surface access agreement in place?</b>	<b>Allotted?</b>	<b>Reservation:</b>
<b>Agreement in place?</b> NO	<b>Federal or Indian agreement:</b>	
<b>Agreement number:</b>		
<b>Agreement name:</b>		
<b>Keep application confidential?</b> NO		
<b>Permitting Agent?</b> NO	<b>APD Operator:</b> BC OPERATING INCORPORATED	
<b>Operator letter of designation:</b>	Cave Lion 5 Federal BC 1H_Acceptance of Responsibility.Signed_01-25-2017.pdf	
<b>Keep application confidential?</b> NO		

### Operator Info

**Operator Organization Name:** BC OPERATING INCORPORATED

**Operator Address:** 4000 N Big Spring Street, Suite 310 **Zip:** 79705

**Operator PO Box:**

**Operator City:** Midland **State:** TX

**Operator Phone:** (432)684-9696

**Operator Internet Address:**

### Section 2 - Well Information

<b>Well in Master Development Plan?</b> NO	<b>Mater Development Plan name:</b>
<b>Well in Master SUPO?</b> NO	<b>Master SUPO name:</b>
<b>Well in Master Drilling Plan?</b> NO	<b>Master Drilling Plan name:</b>

Operator Name: BC OPERATING INCORPORATED

Well Name: CAVE LION 5 FEDERAL BC

Well Number: 1H

Well Name: CAVE LION 5 FEDERAL BC

Well Number: 1H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: JABALINA

Pool Name: BRUSHY CANYON

Is the proposed well in an area containing other mineral resources? USEABLE WATER

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: SINGLE WELL

Multiple Well Pad Name:

Number:

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: 12.38 Miles

Distance to nearest well: 157 FT

Distance to lease line: 185 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Cave\_Lion\_5\_Federal\_BC\_1H\_C\_102.Signed\_03-27-2017.pdf

Well work start Date: 04/17/2017

Duration: 40 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	185	FSL	330	FWL	26S	35E	5	Aliquot SWS W	32.06560 37	- 103.3969 543	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 13647	327 1	0	0
KOP Leg #1	185	FSL	330	FWL	26S	35E	5	Aliquot SWS W	32.06560 37	- 103.3969 543	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 13647	- 537 9	865 0	865 0
PPP Leg #1	330	FSL	330	FWL	26S	35E	5	Aliquot SWS W	32.06600 23	- 103.3969 548	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 13647	- 582 9	960 0	910 0

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**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	26S	35E	5	Aliquot NWN W	32.07871 35	- 103.3969 775	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 13647	- 582 9	137 50	910 0
BHL Leg #1	330	FNL	330	FWL	26S	35E	5	Aliquot NWN W	32.07871 35	- 103.3969 775	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 13647	- 582 9	137 50	910 0

## Drilling Plan

### Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
17351	RUSTLER ANHYDRITE	3271	1085	1085	GYPSUM	USEABLE WATER	No
17360	LAMAR LS	-2077	5348	5348	LIMESTONE,SALT, HALITE,POTASH	POTASH	No
17315	DELAWARE	-2129	5400	5400	SHALE,SANDSTONE	NATURAL GAS,OIL	No
17376	BRUSHY CANYON LOWER	-5829	9100	9100	SHALE,MUDSTONE,SANDSTONE	NATURAL GAS,OIL	Yes

### Section 2 - Blowout Prevention

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

**Rating Depth:** 14000

**Equipment:** A 5,000# WP Double Ram BOP and 5,000 annular will be installed after running the 13-5/8" casing and used for the entire well. Pressure test will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOP's will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the Kelly is not in use, float sub will be available. 13-3/8" and 9-5/8" BOP will be tested to 5000# and the annular to 5000# with a third party testing company before drilling below each shoe all test well be recorded and provided to BLM if requested. If operations last more than 30 days from 1st test, will test again as per BLM Onshore Oil and Gas order #2.

**Requesting Variance?** NO

**Variance request:**

**Testing Procedure:** A 5,000# WP Double Ram BOP and 5,000 annular will be installed after running the 13-5/8" casing and used for the entire well. Pressure test will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOP's will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the Kelly is not in use, float sub will be available. 13-3/8" and 9-5/8" BOP will be tested to 5000# and the annular to 5000# with a third party testing company before drilling below each shoe all test well be recorded and provided to BLM if requested. If operations last more than 30

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

days from 1st test, will test again as per BLM Onshore Oil and Gas order #2.

**Choke Diagram Attachment:**

Cave Lion 5 Federal BC 1H\_Choke

**BOP Diagram Attachment:**

Cave Lion 5 Federal BC 1H\_8.75

Cave Lion 5 Federal BC 1H\_17.5 BOP Diagram\_01-26-2017.pdf

**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	40	0	40	-5829	-5869	40	H-40	94	OTHER						
2	SURFACE	17.5	13.375	NEW	API	N	0	1050	0	1050	-5829	-6879	1050	J-55	61	OTHER	1.125	1.125	BUOY	1.8	BUOY	1.8
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5400	0	5400	-5829	-11229	5400	L-80	40	OTHER	1.125	1.125	BUOY	1.8	BUOY	1.8
4	PRODUCTION	8.75	5.5	NEW	API	N	0	13750	0	9100	-9729		13750	P-110	20	OTHER	1.125	1.125	BUOY	1.8	BUOY	1.8

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Taperd String Spec:**

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

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

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**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Taperd String Spec:**

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

Cave Lion 5 Federal BC 1H\_Casing Calculations\_01-26-2017.pdf

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

**Inspection Document:**

**Spec Document:**

**Taperd String Spec:**

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

Cave Lion 5 Federal BC 1H\_Casing Calculations\_01-26-2017.pdf

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

**Inspection Document:**

**Spec Document:**

**Taperd String Spec:**

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

Cave Lion 5 Federal BC 1H\_Casing Calculations\_01-26-2017.pdf

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**Section 4 - Cement**

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**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	40	90	1.33	14.8	90	100	READY MIX CEMENT	NONE
SURFACE	Lead		0	1050	530	1.82	12.8	964		CLASS C	5% P-402, ¼ CELLO FLAKE
SURFACE	Tail		0	1050	450	1.33	14.8	598	100	CLASS C	¼#/ SACK CELLO FLAKE, 2% CACL
INTERMEDIATE	Lead		0	5400	1030	2.61	11.6	2688	75	50/50 CLASS C	10% GEL, 5% P-402, .4% P-101, ¼ LB/SX CELLO FLAKE
INTERMEDIATE	Tail		0	5400	230	1.6	13.8	305	50	CLASS C	.3% P-101 ¼#/ SACK CELLO FLAKE
PRODUCTION	Lead		3900	13750	800	2.37	11.8	1896	50	50/50 CLASS C	+10% BENTONITE +.15% C-20
PRODUCTION	Tail		3900	13750	1070	1.99	13.5	2129	50	PRO-VALUE H	RETARDER +3# GILSONITE +.3% C-12 FLUID LOSS+.3% SALT+.25% 30% CACL

### 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:** BOP, FLOAT SUB, CHOKE MANIFOLD, HYDRAULIC CHOKE, FLARE & STABBING VALVE

**Describe the mud monitoring system utilized:** Mud monitoring system: Mud will be maintained and checked daily for mud weight, viscosity, API water loss, pH, etc. Additional electronic monitoring will include a pit volume totalizer to monitor mud volume in active system, pump rate, and mud return flow percentage. H2S monitors and alarms will be located on rig floor, shale shakers, and mud tanks (see rig plat). Gas chromatograph with monitor hydrocarbon gas content of mud from 5,400' to TD. Third party corrosion company will utilize H2S/oxygen scavengers to monitor for corrosion and limit damage to tubulars.

### Circulating Medium Table

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

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
1050	5400	SALT SATURATED	9.8	10.5							
5400	13750	WATER-BASED MUD	9	9.5							
0	1050	WATER-BASED MUD	8.33	9.5							

## Section 6 - Test, Logging, Coring

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

TESTING, LOGGING & CORING PROGRAM:

- Testing: No DST's will be conducted.
- Cased hole Gamma and Cement bond log for 5.5" casing
- Mud logging will take place from 5,400ft to TD 10ft samples
- Gyro survey will be run at 1,150'
- MWD (directional surveys) and LWD (gamma) surveys will be taken from KOP (8,527') to TD 13,623ft

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

CBL,GR

**Coring operation description for the well:**

NO CORING

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 5005

**Anticipated Surface Pressure:** 3003

**Anticipated Bottom Hole Temperature(F):** 145

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

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

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

**Hydrogen sulfide drilling operations plan:**

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

Cave\_Lion\_5\_Federal\_BC\_1H\_Drilling\_\_Operations\_Plan\_\_Application\_\_05-15-2017.pdf

## Section 8 - Other Information

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

Cave\_Lion\_5\_Federal\_BC\_1H\_Drilling\_Plan\_05-15-2017.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

Cave Lion 5 Federal BC 1H\_Closed Loop System Plan\_01-26-2017.pdf

Cave Lion 5 Federal BC 1H\_Emergency Contacts\_01-26-2017.pdf

Cave\_Lion\_5\_Federal\_1H\_Drilling\_Operations\_Plan\_05-15-2017.pdf

Cave\_Lion\_5\_Federal\_BC\_1H\_Gas\_Capture\_Plan\_05-30-2017.pdf

**Other Variance attachment:**

SUPO

## Section 1 - Existing Roads

**Will existing roads be used?** YES

**Existing Road Map:**

CAVE\_LION\_5\_FEDERAL\_BC\_\_1H\_Revised\_Plats\_05-15-2017.pdf

**Existing Road Purpose:** ACCESS,FLUID TRANSPORT

**Row(s) Exist?** NO

### ROW ID(s)

**ID:**

**Do the existing roads need to be improved?** NO

**Existing Road Improvement Description:**

**Existing Road Improvement Attachment:**

## Section 1 - Existing Roads

**Will existing roads be used?** YES

**Existing Road Map:**

CAVE\_LION\_5\_FEDERAL\_BC\_\_1H\_Revised\_Plats\_05-15-2017.pdf

**Existing Road Purpose:**

**Row(s) Exist?**

### ROW ID(s)

Operator Name: BC OPERATING INCORPORATED

Well Name: CAVE LION 5 FEDERAL BC

Well Number: 1H

ID:

Do the existing roads need to be improved?

Existing Road Improvement Description:

Existing Road Improvement Attachment:

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

CAVE\_LION\_5\_FEDERAL\_BC\_\_1H\_Revised\_Plats\_05-15-2017.pdf

New road type: RESOURCE

Length: 84 Feet Width (ft.): 25

Max slope (%): 2 Max grade (%): 2

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: SEE SURFACE USE PLAN

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: OTHER

Access topsoil source: OFFSITE

Access surfacing type description: CALICHE

Access onsite topsoil source depth:

Offsite topsoil source description: CALICHE

Onsite topsoil removal process:

Access other construction information:

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

## Drainage Control

Operator Name: BC OPERATING INCORPORATED

Well Name: CAVE LION 5 FEDERAL BC

Well Number: 1H

New road drainage crossing: CULVERT

Drainage Control comments: SEE SURFACE USE PLAN

Road Drainage Control Structures (DCS) description: SEE SURFACE USE PLAN

Road Drainage Control Structures (DCS) attachment:

Cave\_Lion\_5\_Federal\_BC\_1H\_Surface\_Use\_Plan\_05-15-2017.pdf

### Access Additional Attachments

Additional Attachment(s):

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

CAVE\_LION\_5\_FEDERAL\_BC\_\_1H\_Revised\_Plats\_05-15-2017.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:

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:

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

## Drainage Control

**New road drainage crossing:**

**Drainage Control comments:**

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

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

Cave\_Lion\_5\_Federal\_BC\_1H\_Surface\_Use\_Plan\_05-15-2017.pdf

## Access Additional Attachments

**Additional Attachment(s):**

## Section 3 - Location of Existing Wells

**Existing Wells Map?** YES

**Attach Well map:**

Cave Lion 5 Federal BC 1H\_Mile Radius Map\_01-25-2017.pdf

**Existing Wells description:**

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

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

**Estimated Production Facilities description:**

**Production Facilities description:**

**Production Facilities map:**

Cave\_Lion\_5\_Federal\_BC\_1H\_Battery\_Diagram\_05-15-2017.pdf

Cave\_Lion\_5\_Federal\_1H\_\_\_5H\_Battery\_Diagram\_05-15-2017.pdf

## Section 5 - Location and Types of Water Supply

### Water Source Table

**Water source use type:** CAMP USE

**Water source type:** GW WELL

**Describe type:**

**Source latitude:**

**Source longitude:**

**Source datum:**

**Water source permit type:** WATER WELL

**Source land ownership:** PRIVATE

**Water source transport method:** TRUCKING

**Source transportation land ownership:** FEDERAL

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

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

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

**Source volume (gal):** 210000

**Water source and transportation map:**

Cave Lion 5 Federal BC 1H\_Water Source Map\_01-26-2017.pdf

Cave\_Lion\_5\_Federal\_1H\_\_5H\_2nd\_Water\_and\_Caliche\_Location\_04-27-2017.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:**

**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:** NATIVE CALICHE

**Construction Materials source location attachment:**

Cave\_Lion\_5\_Federal\_1H\_\_5H\_2nd\_Water\_and\_Caliche\_Location\_05-15-2017.pdf

Cave\_Lion\_5\_Federal\_BC\_1H\_2nd\_Construction\_Material\_Source\_05-15-2017.pdf

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

## Section 7 - Methods for Handling Waste

**Waste type:** DRILLING

**Waste content description:** DRILLING MUD WASTE

**Amount of waste:** 1500 barrels

**Waste disposal frequency :** Daily

**Safe containment description:** CONTAINMENT BARRIERS AROUND ALL MUD PITS

**Safe containmant attachment:**

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

**Disposal type description:**

**Disposal location description:** R360 HALFWAY LOCATION. HWY 62/180

### 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**

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

## Section 8 - Ancillary Facilities

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

**Ancillary Facilities attachment:**

**Comments:**

## Section 9 - Well Site Layout

**Well Site Layout Diagram:**

Cave\_Lion\_5\_Federal\_BC\_1H\_Rig\_Diagram\_04-27-2017.pdf

**Comments:**

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** NEW

**Recontouring attachment:**

Cave\_Lion\_5\_Federal\_BC\_1H\_Surface\_Use\_Plan\_05-15-2017.pdf

**Drainage/Erosion control construction:** SEE SURFACE USE PLAN

**Drainage/Erosion control reclamation:** SEE SURFACE USE PLAN

**Wellpad long term disturbance (acres):** 1.75

**Wellpad short term disturbance (acres):** 2.5

**Access road long term disturbance (acres):** 0.05

**Access road short term disturbance (acres):** 0.05

**Pipeline long term disturbance (acres):** 0

**Pipeline short term disturbance (acres):** 0

**Other long term disturbance (acres):** 0

**Other short term disturbance (acres):** 0

**Total long term disturbance:** 1.8

**Total short term disturbance:** 2.55

**Reconstruction method:** SEE SURFACE USE PLAN

**Topsoil redistribution:** SEE SURFACE USE PLAN

**Soil treatment:** SEE SURFACE USE PLAN

**Existing Vegetation at the well pad:** SEE SURFACE USE PLAN

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

**Existing Vegetation Community at the road:** SEE SURFACE USE PLAN

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

**Existing Vegetation Community at the pipeline:** SEE SURFACE USE PLAN

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

**Existing Vegetation Community at other disturbances:** SEE SURFACE USE PLAN

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

**Non native seed used?** NO

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

**Non native seed description:**

**Seedling transplant description:**

**Will seedlings be transplanted for this project?** NO

**Seedling transplant description attachment:**

**Will seed be harvested for use in site reclamation?** NO

**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
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**Seed reclamation attachment:**

### 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:** SEE SURFACE USE PLAN

**Weed treatment plan attachment:**

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

**Monitoring plan description:** SEE SURFACE USE PLAN

**Monitoring plan attachment:**

**Success standards:** RECLAIM TO ORIGINAL CONTOUR AND RESEED TO ORIGINAL VEGETATION

**Pit closure description:** SEE SURFACE USE PLAN

**Pit closure attachment:**

## Section 11 - Surface Ownership

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**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:**

## Section 12 - Other Information

**Right of Way needed?** NO

**Use APD as ROW?**

**ROW Type(s):**

## ROW Applications

**SUPO Additional Information:**

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

Use a previously conducted onsite? YES

Previous Onsite information: MET WITH NICK FRANKE OF THE BLM 11/15/2016

## Other SUPO Attachment

PWD

## 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:

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

**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:**

Operator Name: BC OPERATING INCORPORATED

Well Name: CAVE LION 5 FEDERAL BC

Well Number: 1H

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

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

**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:**

## Bond Info

### Bond Information

**Federal/Indian APD:** FED

**BLM Bond number:** NMB001345

**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:**

## Operator Certification

### 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:** Sarah Presley

**Signed on:** 01/26/2017

**Title:** Regulatory Analyst

**Street Address:** 4000 N Big Spring Street, Suite 310

**Operator Name:** BC OPERATING INCORPORATED

**Well Name:** CAVE LION 5 FEDERAL BC

**Well Number:** 1H

**City:** Midland

**State:** TX

**Zip:** 79705

**Phone:** (432)684-9696

**Email address:** spresley@bcoperating.com

### Field Representative

**Representative Name:** JASON GOSS

**Street Address:** 4000 N. BIG SPRING, SUITE 310

**City:** MIDLAND

**State:** TX

**Zip:** 79705

**Phone:** (432)684-9696

**Email address:** JGOSS@BCOPERATING.COM

### Payment Info

#### Payment

**APD Fee Payment Method:** BLM DIRECT

**CBS Receipt number:** 3749235

BC  PERATING, INC.

P.O. Box 50820  
Midland, Texas 79710  
(432) 684-9696

4000 N. Big Spring Street, Suite 310  
Midland, Texas 79705  
Fax (432) 686-0600

January 25, 2017

**UNITED STATES DEPARTMENT OF INTERIOR**  
Bureau of Land Management  
620 E. Greene Street  
Carlsbad, NM 88220

**RE: STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS**

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease Name: Cave Lion 5 Federal BC #1H

Lease Number: NMNM 013647

Legal Description of Land: Sec. 5-T26S-T35E

Lease Covers: NMNM 013647 – All Sec. 5-T26S-R35E (1281.31 Acres)

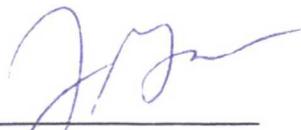
Formations: Brushy Canyon

Bond Coverage: Blanket Statewide

BLM Bond File Number: NMB001345

Surface Ownership: United States of America

Grazing Lessee: Beckham Ranch  
236 Beckham Rd.  
Jal, NM 88252

  
\_\_\_\_\_  
Jason Goss  
Drilling Engineer, P.E.