Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD
NOV 13 2019
RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0063798

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.
BROADSIDE 13 ~~FED COM~~ W FED COM
1H (326424)

2. Name of Operator
BC OPERATING INCORPORATED

9. API Well No.
30-025-46417

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
4000 N Big Spring Street, Suite 310 Midland TX 79705	(432)684-9696	WC-025 G-09 S243310P / WOLFCAMP

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

At surface SESW / 350 FSL / 2330 FWL / LAT 32.2258036 / LONG -103.5270718

At proposed prod. zone SESW / 20 FSL / 2310 FWL / LAT 32.2103901 / LONG -103.5271266

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 12 / T24S / R33E / NMP

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
22 miles	LEA	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
350 feet	2480	160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
680 feet	12100 feet / 17513 feet	FED: NMB001345

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3595 feet	07/01/2018	40 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.
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 requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Melanie Wilson / Ph: (918)527-5260	04/17/2019

Title
Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	11/08/2019

Title	Office
Assistant Field Manager Lands & Minerals	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 11/19/19

APPROVED WITH CONDITIONS

KB 11/19/19

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/08/2019

Additional Operator Remarks

Location of Well

1. SHL: SESW / 350 FSL / 2330 FWL / TWSP: 24S / RANGE: 33E / SECTION: 12 / LAT: 32.2258036 / LONG: -103.5270718 (TVD: 0 feet, MD: 0 feet)
   PPP: NENW / 330 FNL / 2310 FWL / TWSP: 24S / RANGE: 33E / SECTION: 13 / LAT: 32.2239332 / LONG: -103.5271333 (TVD: 12150 feet, MD: 12586 feet)
   PPP: NESW / 2640 FSL / 2310 FWL / TWSP: 24S / RANGE: 33E / SECTION: 13 / LAT: 32.2175838 / LONG: -103.5271804 (TVD: 12125 feet, MD: 14896 feet)
   BHL: SESW / 20 FSL / 2310 FWL / TWSP: 24S / RANGE: 33E / SECTION: 13 / LAT: 32.2103901 / LONG: -103.5271266 (TVD: 12100 feet, MD: 17513 feet)

BLM Point of Contact

Name: Candy Vigil
Title: Admin Support Assistant
Phone: 5752345982
Email: cvigil@blm.gov

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**BC OPERATING INCORPORATED**
LEASE NO.:	**NMLC0063798**
WELL NAME & NO.:	BROADSIDE 13 FED COM W 1H
SURFACE HOLE FOOTAGE:	350'/S & 2330'/W
BOTTOM HOLE FOOTAGE	20'/S & 2310'/W
LOCATION:	Section 12, T.24 S., R.33 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	◉ Yes	○ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	◉ Conventional	○ Multibowl	○ Both
Other	☑ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Brushy Canyon** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1400 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **10-3/4** inch intermediate casing shall be set at approximately **5230 feet** is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

3. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **10-3/4** inch intermediate casing shoe shall be **5000 (5M)** psi.

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8** inch intermediate casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. 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. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

AFMSS

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

Operator Certification Data Report

11/09/2019

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: Melanie Wilson **Signed on:** 04/17/2019

Title: Regulatory Analyst

Street Address:

City: **State:** **Zip:**

Phone: (918)527-5260

Email address: erich@kfoc.net

Field Representative

Representative Name: Eric Hansen

Street Address: P.O. Box 21468

City: Tulsa **State:** OK **Zip:** 74121-1468

Phone: (918)527-5260

Email address:

AFMSS

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

Application Data Report

11/09/2019

APD ID: 10400039853 **Submission Date:** 04/17/2019

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

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

[redacted]

Show Final Text

Section 1 - General

APD ID: 10400039853 **Tie to previous NOS?** N **Submission Date:** 04/17/2019

BLM Office: CARLSBAD **User:** Melanie Wilson **Title:** Regulatory Analyst

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

Lease number: NMLC0063798 **Lease Acres:** 2480

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? YES **APD Operator:** BC OPERATING INCORPORATED

Operator letter of designation: BC_Operating_Inc___NMOGRS_authorization_20190311153650.pdf

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

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** WC-025 G-09 S243310P **Pool Name:** WOLFCAMP

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

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

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

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: 22 Miles **Distance to nearest well:** 680 FT **Distance to lease line:** 350 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Broadside_13_Fed_Com_W_1H_Pymt_Rec_20190417162526.pdf

Broadside_13_Fed_Com_W_1H_C_102_20190829133814.pdf

Well work start Date: 07/01/2018 **Duration:** 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:**

Wellbore	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	350	FSL	2330	FWL	24S	33E	12	Aliquot SESW	32.2258036	-103.5270718	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	3595	0	0
KOP Leg #1	100	FNL	2313	FWL	24S	33E	12	Aliquot NWNW	32.2245654	-103.5271246	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-7983	11578	11578

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

Wellbore	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
PPP Leg #1	330	FNL	2310	FWL	24S	33E	13	Aliquot NENW	32.2239332	-103.5271333	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8555	12586	12150
PPP Leg #1	2640	FSL	2310	FWL	24S	33E	13	Aliquot NESW	32.2175838	-103.5271804	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8530	14896	12125
EXIT Leg #1	100	FSL	2310	FWL	24S	33E	13	Aliquot SESW	32.2106099	-103.5271267	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8505	17433	12100
BHL Leg #1	20	FSL	2310	FWL	24S	33E	13	Aliquot SESW	32.2103901	-103.5271266	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8505	17513	12100

BC OPERATING, INC.

P.O. Box 50820
Midland, Texas 79710

4000 N. Big Spring Street, STE 310
Midland, Texas 79705
(432) 684-9696
Fax (432) 686-0600

February 11, 2019

Bureau of Land Management
301 Dinosaur Trail
Santa Fe, NM 87508

Re: Broadside 13 Fed Com W 1H
Broadside 13 Fed Com W 2H
Broadside 13 Fed Com W 3H
Authorization to Act as Agent

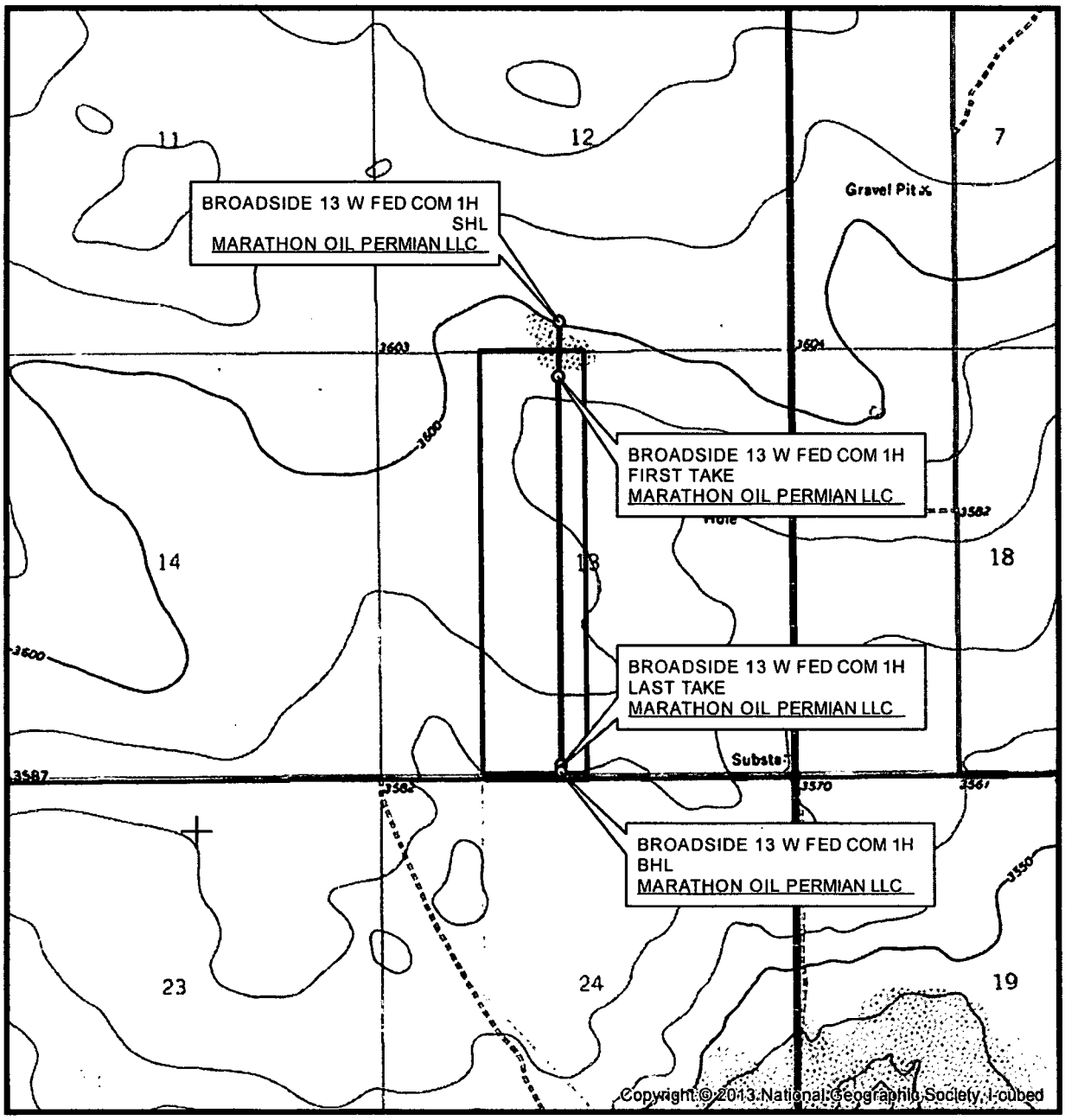
To Whom it May Concern:

New Mexico Oil and Gas Regulatory Services is hereby authorized to act on behalf of BC Operating, Inc. in all regulatory matters regarding the processing of well permits and filing associated documents with the BLM and NM OCD. Should there by and questions, please contact Thomas Wolfmueller at the above letterhead phone number.

Sincerely,

Thomas Wolfmueller
Drilling Manager

LOCATION VERIFICATION MAP



SEC. 12 TWP. 24-S RGE. 33-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: B.C. OPERATING, INC.
DESCRIPTION: 350' FSL & 2330' FWL
ELEVATION: 3595'
LEASE: BROADSIDE 13 FED COM
U.S.G.S. TOPOGRAPHIC MAP: BELL LAKE, NM.

1 " = 2,000 '
CONTOUR INTERVAL = 20'

R-SQUARED GLOBAL

SHEET 2 OF 3

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE

JOB No. R3785_004A

AFMSS

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

Drilling Plan Data Report

11/09/2019

APD ID: 10400039853 **Submission Date:** 04/17/2019

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

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

[redacted]

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	—	3595	0	0		NONE	N
2	RUSTLER	2335	1260	1260		NONE	N
3	TOP SALT	2194	1401	1401		NONE	N
4	BASE OF SALT	-1362	4957	4957		NONE	N
5	LAMAR	-1605	5200	5200		NATURAL GAS,OIL	N
6	CHERRY CANYON	-2619	6214	6214		NATURAL GAS,OIL	N
7	BRUSHY CANYON	-3947	7542	7542		NATURAL GAS,OIL	N
8	BONE SPRING LIME	-5385	8980	8980		NATURAL GAS,OIL	N
9	FIRST BONE SPRING SAND	-6270	9865	9865		NATURAL GAS,OIL	N
10	BONE SPRING 2ND	-6927	10522	10522		NATURAL GAS,OIL	N
11	BONE SPRING 3RD	-7898	11493	11493		NATURAL GAS,OIL	N
12	WOLFCAMP	-8265	11860	11860		NATURAL GAS,OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M **Rating Depth:** 18000

Equipment: A 10M system will be installed according to Onshore Order #2 consisting of an Annular Preventer, BOP with two rams, a blind ram and safety valves and appropriate handles located on the rig floor. BOP will be equipped with 2 side outlets (choke side shall be a minimum 3" line, and kill side will be a minimum 2" line). Kill line will be installed with (2) valves and a check valve (2" min) of proper pressure rating for the system. Remote kill line (2' min) will be installed and ran to the outer edge of the substructure and be unobstructed. A manual and hydraulic valve (3" min) will be installed on the choke line, 3 chokes will be used with one being remotely controlled. Fill up line will be installed above the uppermost preventer. Pressure gauge of proper pressure rating will be installed on choke manifold. Upper and lower kelly cocks will be utilized with handles readily available in plain sight. A float sub will be available at all times. All connections subject to well pressure will be

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

flanged, welded, or clamped.

Requesting Variance? NO

Variance request:

[redacted]

Choke Diagram Attachment:

Broadside_13_Fed_Com_W_1H_Choke_Manifold_20190326154449.pdf

BOP Diagram Attachment:

Broadside_13_Fed_Com_W_1H_BOP_20190326154253.pdf

BC_Operating_Inc_Well_Control_Plan_20190920071805.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	SURFACE	17.5	13.375	NEW	API	N	0	1400	0	1400			1400	J-55	54.5	ST&C	1.125	1.125	DRY	1.6	DRY	1.6
2	INTERMEDIATE	12.25	10.75	NEW	API	N	0	5230	0	5230			5230	J-55	45.5	BUTT	1.125	1.125	DRY	1.6	DRY	1.6
3	INTERMEDIATE	9.875	7.625	NEW	API	N	0	12278	0	12116			12278	P-110	29.7	BUTT	1.125	1.125	DRY	1.6	DRY	1.6
4	PRODUCTION	6.75	5.5	NEW	API	N	0	17513	0	12100			17513	P-110	23	OTHER - T-L Wedge	1.125	1.125	DRY	1.6	DRY	1.6

Casing Attachments

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Broadside_13_Fed_Com_W_1H_Csg_Assumptions_20190417151745.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Broadside_13_Fed_Com_W_1H_Csg_Assumptions_20190417151759.pdf

Broadside_13_Fed_Com_W_1H_10.75_Spec_Sheet_20190830110305.pdf

---

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Broadside_13_Fed_Com_W_1H_Csg_Assumptions_20190417151809.pdf

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Broadside_13_Fed_Com_W_1H_Csg_Assumptions_20190417151818.pdf

Broadside_13_Fed_Com_W_1H_5.5_Spec_Sheet_20190830110319.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead					1.11					
SURFACE	Tail										
INTERMEDIATE	Lead					2.28					
INTERMEDIATE	Tail										
INTERMEDIATE	Lead					2.34					
INTERMEDIATE	Tail										
PRODUCTION	Lead					2.67					
PRODUCTION	Tail										

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

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

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
12100	12151	OIL-BASED MUD	11.8	13.2							
5230	12116	OTHER : Cut Brine	8.4	9.3							
1400	5230	OTHER : Brine	9.9	10.1							
0	1400	OTHER : Fresh Water	8.4	9							

Section 6 - Test, Logging, Coring

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

None planned

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

DS,GR,MUDLOG

Coring operation description for the well:

None planned

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5770 **Anticipated Surface Pressure:** 3097

Anticipated Bottom Hole Temperature(F): 155

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Broadside_13_Fed_Com_W_1H_H2S_Plan_20190326160720.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Broadside_13_Fed_Com_W_1H_Directional_Plan_20190417152605.pdf

Other proposed operations facets description:

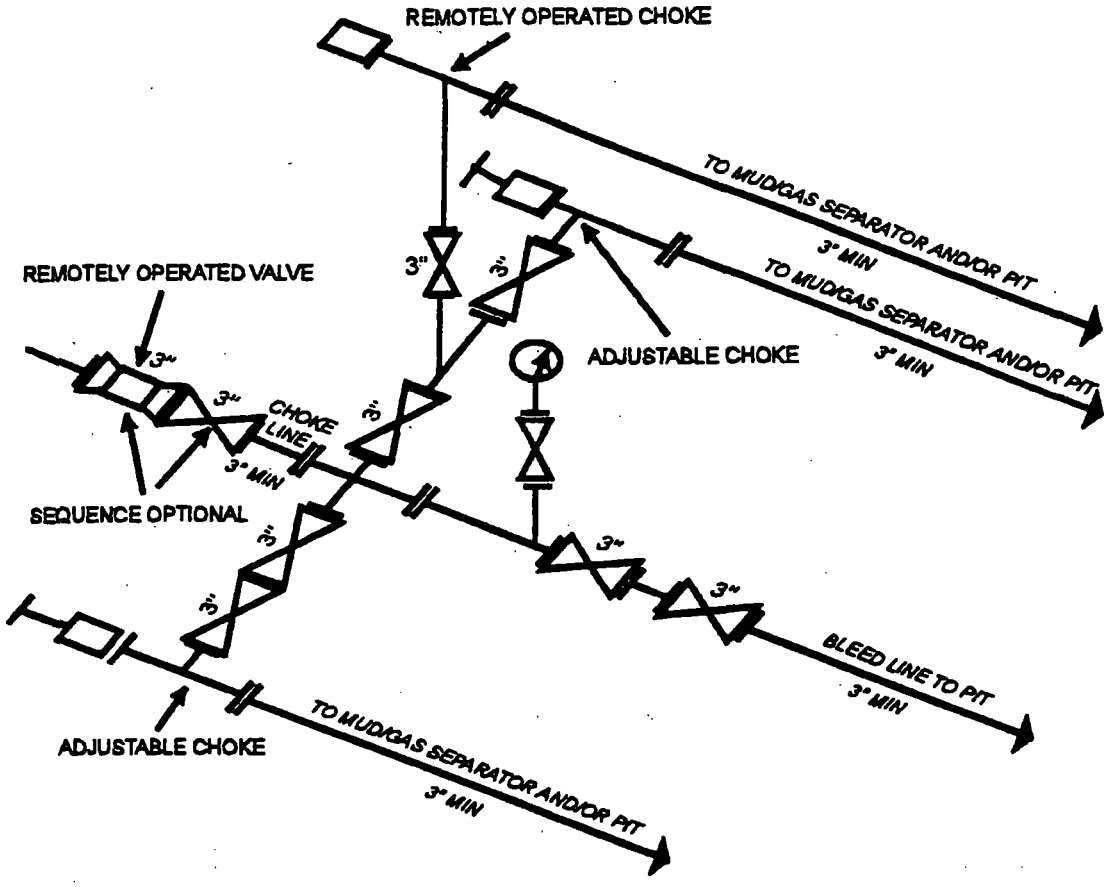
Request Flex Hose Variance

Other proposed operations facets attachment:

Broadside_13_Fed_Com_W_1H_GCP_20190417155855.pdf

Other Variance attachment:

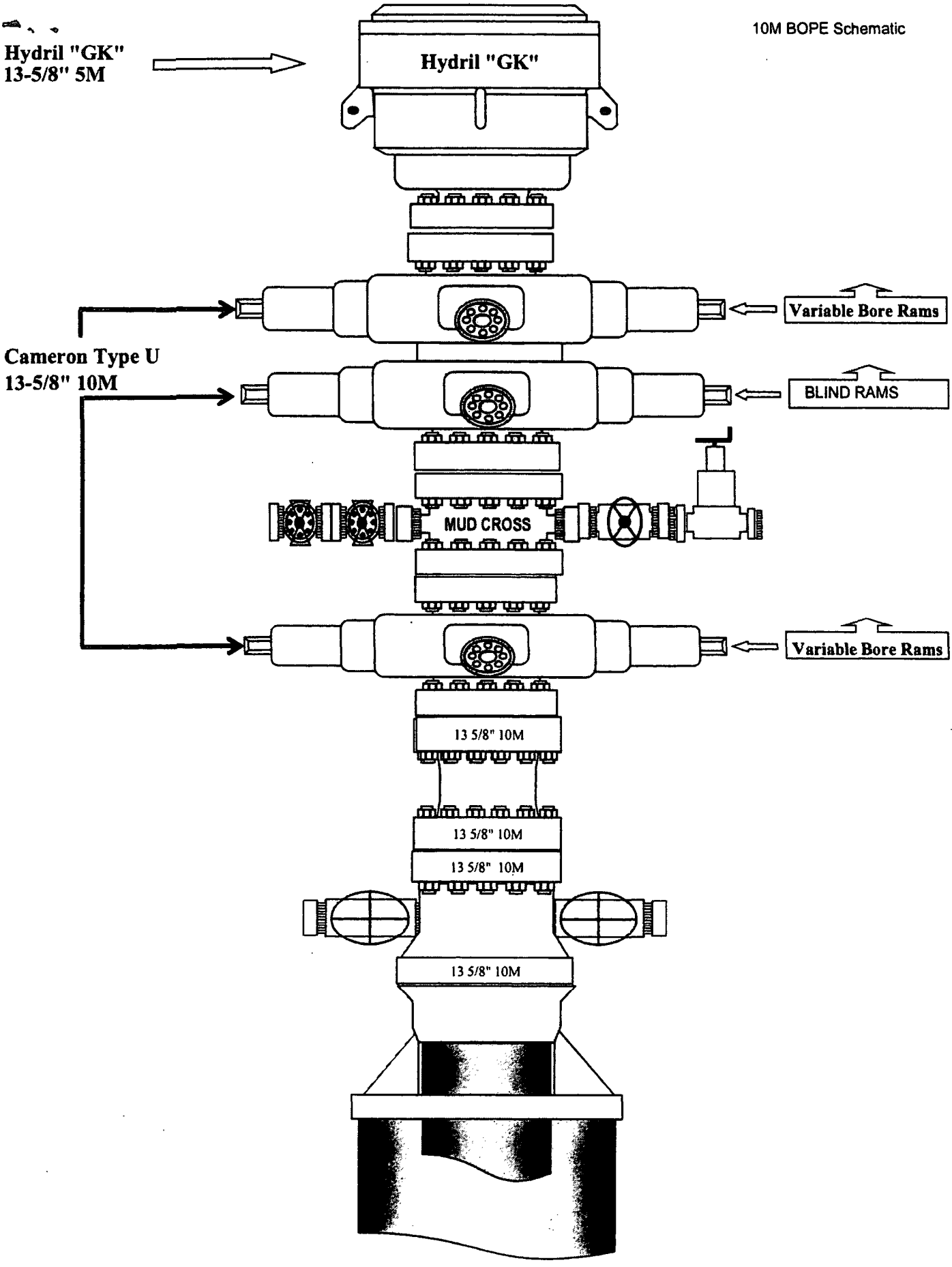
Broadside_13_Fed_Com_W_1H_Flex_Hose_Data_20190417152804.pdf



10M AND 15M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

[53 FR 49661, Dec. 9, 1988 and 54 FR 39528, Sept. 27, 1989]

10M BOPE Schematic



TUBING COUPLING - BASIC DIMENSIONS

External-Upset Tubing Coupling ("For Reference Purposes Only")

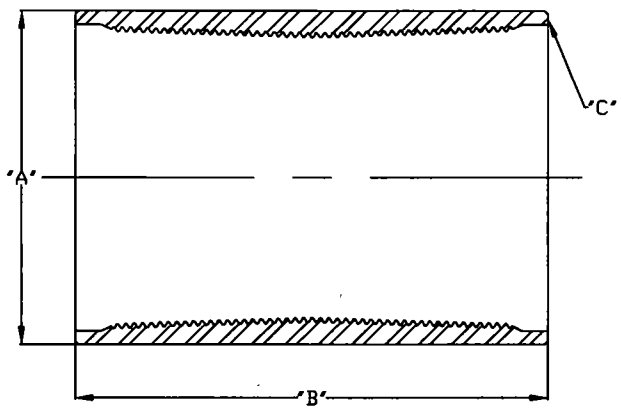
Connection	"A" Coupling Outside Diameter		"B" Minimum Coupling Length	"C" Bearing Face & Bevel		
	Regular	Special Clearance		Regular Coupling "Face Width" (45° Bevel)	20° Special Bevel Max Dia.	Special Clearance "Face Max Dia" (20° Bevel)
1.050 EU	1.660	n/a	3.250	0.094	1.488	n/a
1.315 EU	1.900	n/a	3.500	0.094	1.684	n/a
1.660 EU	2.200	n/a	3.750	0.125	2.006	n/a
1.900 EU	2.500	n/a	3.875	0.125	2.297	n/a
2 3/8 EU	3.063	2.910	4.875	0.156	2.828	2.752
2 7/8 EU	3.668	3.460	5.250	0.219	3.381	3.277
3 1/2 EU	4.500	4.180	5.750	0.250	1.125	3.965
4 EU	5.000	n/a	6.000	0.250	4.625	n/a
4 1/2 EU	5.563	n/a	6.250	0.250	5.156	n/a

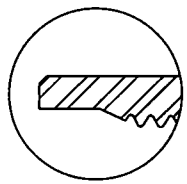
Non-Upset Tubing Coupling ("For Reference Purposes Only")

Connection	"A" Coupling Outside Diameter		"B" Minimum Coupling Length	"C" Bearing Face & Bevel		
	Regular	Special Clearance		Regular Coupling "Face Width" (45° Bevel)	20° Special Bevel Max Dia.	Special Clearance "Face Max Dia" (20° Bevel)
1.050 NU	1.313	n/a	3.187	0.062	1.181	n/a
1.315 NU	1.660	n/a	3.250	0.094	1.488	n/a
1.660 NU	2.054	n/a	3.500	0.125	1.857	n/a
1.900 NU	2.200	n/a	3.750	0.062	2.050	n/a
2 3/8 NU	2.875	n/a	4.250	0.187	2.625	n/a
2 7/8 NU	3.500	n/a	5.125	0.187	3.188	n/a
3 1/2 NU	4.250	n/a	5.625	0.187	3.875	n/a
4 NU	4.750	n/a	5.750	0.187	4.375	n/a
4 1/2 NU	5.200	n/a	6.125	0.187	4.850	n/a

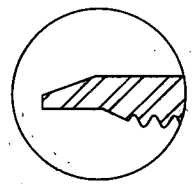
WESTCAN OILFIELD SUPPLY

PLEASE NOTE: THAT ALL DIMENSIONS ARE FOR ORDERING PURPOSES ONLY!

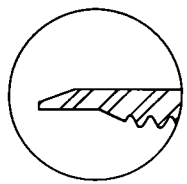




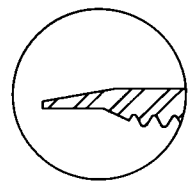
Standard Coupling



20° Special Bevel Coupling



Tubing
Special Clearance Coupling
20° Bevel



Casing
Special Clearance Coupling
10° Bevel

CASING COUPLINGS - BASIC DIMENSIONS

Round Thread Casing Coupling ("For Reference Purposes Only")

Connection	"A" Coupling Outside Diameter	"B" Coupling Minimum Length		"C" Bearing Face & Bevel	
		Short	Long	Regular Coupling "Face Width" (45° Bevel)	Special Clearance "Face Max Dia" (10° Bevel)
4 1/2	5.000	6.250	7.000	0.156	n/a
5	5.563	6.500	7.750	0.187	n/a
5 1/2	6.050	6.750	8.000	0.125	n/a
6 5/8	7.390	7.250	8.750	0.250	n/a
7	7.875	7.250	9.000	0.187	n/a
7 5/8	8.500	7.500	9.250	0.218	n/a
8 5/8	9.625	7.750	10.000	0.250	n/a
9 5/8	10.625	7.750	10.500	0.250	n/a
10 3/4	11.750	8.000	n/a	0.250	n/a
11 3/4	12.750	8.000	n/a	0.250	n/a
13 3/8	14.375	8.000	n/a	0.218	n/a
16	17.000	9.000	n/a	0.218	n/a
18 5/8	20.000	9.000	n/a	0.218	n/a
20	21.000	9.000	11.500	0.218	n/a

Buttress Thread Casing Coupling ("For Reference Purposes Only")

Connection	"A" Coupling Outside Diameter		"B" Coupling Minimum Length	"C" Bearing Face & Bevel	
	Regular	Special Clearance		Regular Coupling "Face Width" (45° Bevel)	Special Clearance "Face Max Dia" (10° Bevel)
4 1/2	5.000	4.875	8.875	0.125	Special Request
5	5.563	5.375	9.125	0.156	
5 1/2	6.050	5.875	9.250	0.156	
6 5/8	7.390	7.000	9.625	0.250	
7	7.875	7.375	10.000	0.218	
7 5/8	8.500	8.125	10.375	0.312	
8 5/8	9.625	9.125	10.625	0.375	
9 5/8	10.625	10.125	10.625	0.375	
10 3/4	11.750	11.250	10.625	0.375	
11 3/4	12.750	n/a	10.625	0.375	n/a
13 3/8	14.375	n/a	10.625	0.375	n/a
16	17.000	n/a	10.625	0.375	n/a
18 5/8	20.000	n/a	10.625	0.375	n/a
20	21.000	n/a	10.625	0.375	n/a

BC Operating, Inc.
Well Control Plan

A. Component and Preventer Compatibility Table

Component	OD	Preventer	RWP
Drill Pipe	5"	Upper VBR: 4" - 7" Lower: 5" fixed	10M
Heavyweight Drill Pipe	5"	Upper VBR: 4" - 7" Lower: 5" fixed	10M
Drill Collars & MWD Tools	6 1/2"	Upper VBR: 4" – 7"	10M
Mud Motor	6 1/2"	Upper VBR: 4" – 7"	10M
Production Casing	5 1/2"	Upper VBR: 4" – 7"	10M
All	0 – 13 5/8"	Annular	5M
Open Hole		Brind Rams	10M

B. Well Control Procedures

I. <u>General Procedures While Drilling</u>:

a. Sound alarm – alert crew
b. Space out drill string
c. Shut down pumps and stop rotary
d. Open HCR
e. Shut well in, utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and BC Operating, Inc. company representative
i. Call BC Operating, Inc. engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

II. <u>General Procedures While Tripping</u>:

a. Sound alarm – alert crew
b. Stab full opening safety valve and close
c. Space out drill string
d. Open HCR
e. Shut well in, utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and BC Operating, Inc. company representative
i. Call BC Operating, Inc. engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

III. General Procedures While Running Casing:

a. Sound alarm – alert crew
b. Stab full opening safety valve and close
c. Space out drill string
d. Open HCR
e. Shut well in, utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and BC Operating, Inc. company representative
i. Call BC Operating, Inc. engineer
j. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
k. Regroup, identify forward plan

IV. General Procedures With No Pipe in Hole (Open Hole):

a. Sound alarm – alert crew
b. Open HCR
c. Shut well in with blind rams
d. Close choke
e. Confirm shut in
f. Notify rig manager and BC Operating, Inc. company representative
g. Call BC Operating, Inc. engineer
h. Read and record:
    i. Shut in drill pressure and shut in casing pressure
    ii. Pit gain
    iii. Time
i. Regroup, identify forward plan

V. General Procedures While Pulling BHL Through BOP Stack:

1. Prior to pulling last joint of drill pipe through stack
    A. Perform flow check and if flowing:
        a. Sound alarm – alert crew
        b. Stab full opening safety valve and close
        c. Space out drill string with tool joint just beneath upper pipe ram
        d. Open HCR
        e. Shut well in utilizing upper VBRs
        f. Close choke
        g. Confirm shut in
        h. Notify rig manager and BC Operating, Inc. company representative
        i. Call BC Operating, Inc. engineer
        j. Read and record:
            i. Shut in drill pressure and shut in casing pressure
            ii. Pit gain
            iii. Time
        k. Regroup, identify forward plan

2. With BHL in the BOP stack and compatible ram preventer and pipe combo immediately available.
   a. Sound alarm – alert crew
   b. Stab full opening safety valve and close
   c. Space out drill string with tool joint just beneath upper pipe ram
   d. Open HCR
   e. Shut well in utilizing upper VBRs
   f. Close choke
   g. Confirm shut in
   h. Notify rig manager and BC Operating, Inc. company representative
   i. Call BC Operating, Inc. engineer
   j. Read and record:
      i. Shut in drill pressure and shut in casing pressure
      ii. Pit gain
      iii. Time
   k. Regroup, identify forward plan

3. With BHA in the BOP stack and no compatible ram preventer and pipe combo immediately available
   a. Sound alarm – alert crew
   b. If possible to pick up high enough, pull string clear of the stack and follow Open Hole scenario (III)
   c. If impossible to pick up high enough to pull the string clear of the stack:
      i. Stab crossover, make up one joint/stand of drill pipe and full opening safety valve and close
      ii. Space out drill string with tool joint just beneath the upper pipe ram
      iii. Open HCR
      iv. Shut in utilizing upper VBRs
      v. Close choke
      vi. Confirm shut in
      vii. Notify rig manager and BC Operating, Inc. company representative
      viii. Read and record:
         1. Shut in drill pipe pressure and shut in casing pressure
         2. Pit gain
         3. Time
   d. Regroup and identify forward plan

** If annular is used to shut in well and pressure build to or is expected to get to 50% of RWP, confirm space-out and swap to upper VBRs for shut in.

BC Operating, Inc.
Broadside 13 Fed Com W 1H
Casing Assumptions

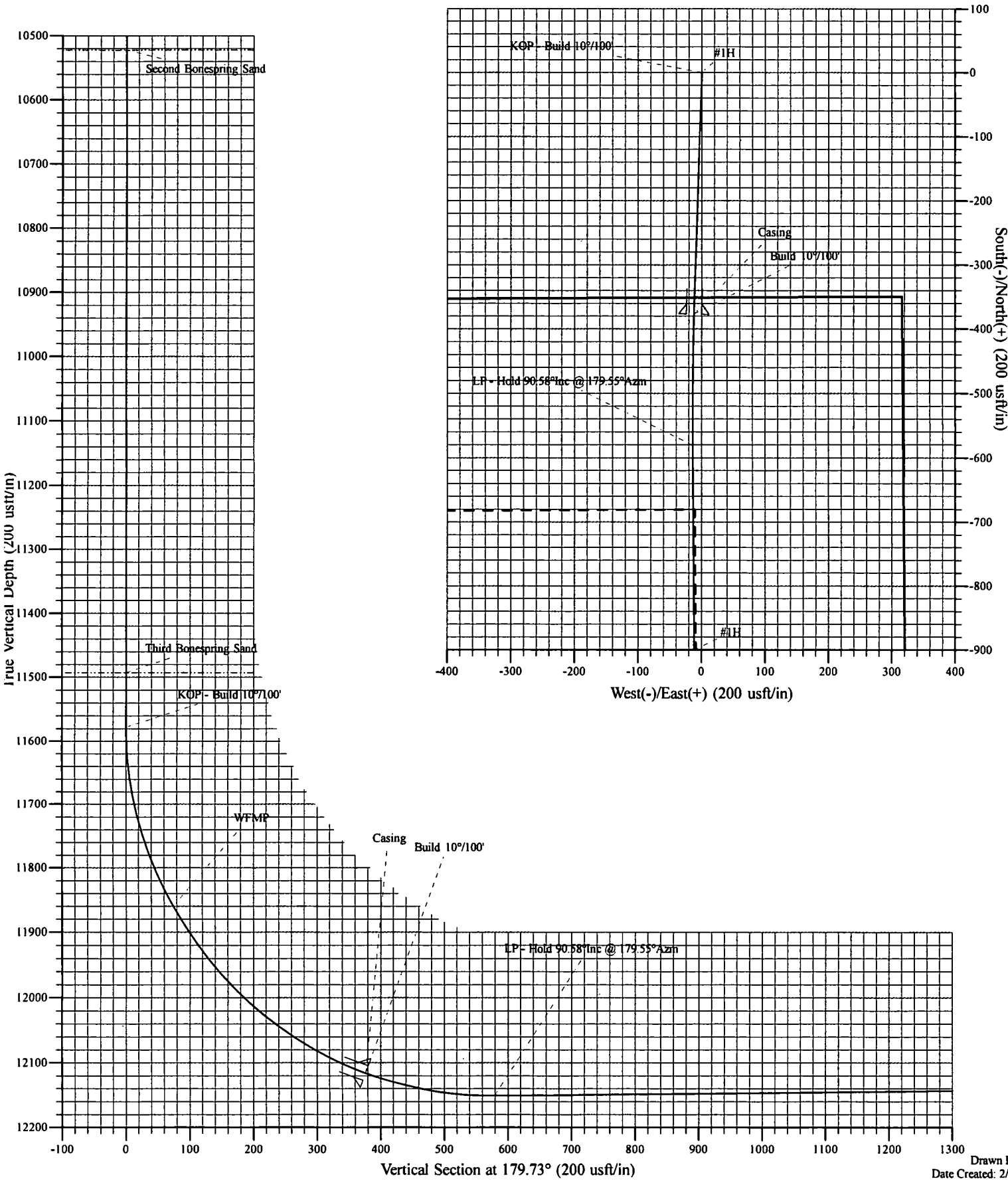
Hole	Casing Interval		Casing	Weight			SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)	Grade	Conn.	Collapse	Burst	Tension	Tension
17.5"	0	1400	13.375"	54.5	J55	STC	1.99	2.93	4.84	4.84
12.25"	1400	5200	10.75"	45.5	J55	BTC-SC	1.2	1.94	3	3
9.875"	5200	12278	7.625"	29.7	P110	BTC	1.25	1.93	2.04	1.85
6.75"	12278	17513	5.5"	23	HCP110	T-L Wedge	2.2	2.14	1.84	1.23

BC OPERATING

BC Operating, Inc.

Broadside 13 Fed Com W 1H
Lea Co., NM (NAD 83 NME)
Job No. WT-19-***
Rig - N/A
Lateral 1r0

Aim Directional Services



Drawn By: PBI
Date Created: 2/12/201
Date Revised: 4/5/201

BC OPERATING

Survey Report

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Site:	Broadside 13 Fed Com W 1H	**MD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Well:	#1H	**North Reference:**	Grid
Wellbore:	Planning	**Survey Calculation Method:**	Minimum Curvature
Design:	Lateral 1r0	**Database:**	EDMRESTORED

Project Lea Co., NM (NAD 83 NME)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Broadside 13 Fed Com W 1H

Site Position:		**Northing:**	446,816.61 usft	**Latitude:**	32° 13' 32.893 N
From:	Map	**Easting:**	790,658.07 usft	**Longitude:**	103° 31' 37.459 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.43 °

Well #1H

Well Position	**+N/-S**	0.00 usft	**Northing:**	446,816.61 usft	**Latitude:**	32° 13' 32.893 N
	+E/-W	0.00 usft	**Easting:**	790,658.07 usft	**Longitude:**	103° 31' 37.459 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,595.00 usft

Wellbore Planning

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	5/1/2019	6.61	59.88	47,857.93599778

Design Lateral 1r0

Audit Notes:

Version: **Phase:** PROTOTYPE **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.73

Survey Tool Program **Date** 4/5/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	17,513.07	Lateral 1r0 (Planning)		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.000	0.000	0.000
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.000	0.000	0.000
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.000	0.000	0.000
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.000	0.000	0.000
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.000	0.000	0.000
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.000	0.000	0.000

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Site:	Broadside 13 Fed Com W 1H	**MD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Well:	#1H	**North Reference:**	Grid
Wellbore:	Planning	**Survey Calculation Method:**	Minimum Curvature
Design:	Lateral 1r0	**Database:**	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.000	0.000	0.000
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.000	0.000	0.000
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.000	0.000	0.000
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.000	0.000	0.000
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.000	0.000	0.000
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.000	0.000	0.000
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.000	0.000	0.000
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.000	0.000	0.000
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.000	0.000	0.000
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.000	0.000	0.000
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.000	0.000	0.000
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.000	0.000	0.000
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.000	0.000	0.000
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.000	0.000	0.000
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.000	0.000	0.000
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.000	0.000	0.000
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.000	0.000	0.000
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.000	0.000	0.000
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.000	0.000	0.000
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.000	0.000	0.000
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.000	0.000	0.000
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.000	0.000	0.000
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.000	0.000	0.000
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.000	0.000	0.000
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.000	0.000	0.000
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.000	0.000	0.000
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.000	0.000	0.000
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.000	0.000	0.000
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.000	0.000	0.000
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.000	0.000	0.000
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.000	0.000	0.000
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.000	0.000	0.000
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.000	0.000	0.000
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.000	0.000	0.000
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.000	0.000	0.000
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.000	0.000	0.000
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.000	0.000	0.000
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.000	0.000	0.000
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.000	0.000	0.000
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.000	0.000	0.000
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.000	0.000	0.000
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.000	0.000	0.000
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.000	0.000	0.000
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.000	0.000	0.000

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Site:	Broadside 13 Fed Com W 1H	**MD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Well:	#1H	**North Reference:**	Grid
Wellbore:	Planning	**Survey Calculation Method:**	Minimum Curvature
Design:	Lateral 1r0	**Database:**	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.000	0.000	0.000
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.000	0.000	0.000
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.000	0.000	0.000
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.000	0.000	0.000
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.000	0.000	0.000
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.000	0.000	0.000
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.000	0.000	0.000
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.000	0.000	0.000
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.000	0.000	0.000
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.000	0.000	0.000
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.000	0.000	0.000
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.000	0.000	0.000
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.000	0.000	0.000
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.000	0.000	0.000
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.000	0.000	0.000
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.000	0.000	0.000
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.000	0.000	0.000
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.000	0.000	0.000
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.000	0.000	0.000
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.000	0.000	0.000
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.000	0.000	0.000
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.000	0.000	0.000
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.000	0.000	0.000
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.000	0.000	0.000
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.000	0.000	0.000
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.000	0.000	0.000
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.000	0.000	0.000
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.000	0.000	0.000
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.000	0.000	0.000
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.000	0.000	0.000
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.000	0.000	0.000
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.000	0.000	0.000
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.000	0.000	0.000
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.000	0.000	0.000
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.000	0.000	0.000
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.000	0.000	0.000
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.000	0.000	0.000
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.000	0.000	0.000
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.000	0.000	0.000
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.000	0.000	0.000
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.000	0.000	0.000
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.000	0.000	0.000
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.000	0.000	0.000

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Site:	Broadside 13 Fed Com W 1H	**MD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Well:	#1H	**North Reference:**	Grid
Wellbore:	Planning	**Survey Calculation Method:**	Minimum Curvature
Design:	Lateral 1r0	**Database:**	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.000	0.000	0.000
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.000	0.000	0.000
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.000	0.000	0.000
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.000	0.000	0.000
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.000	0.000	0.000
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.000	0.000	0.000
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.000	0.000	0.000
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.000	0.000	0.000
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.000	0.000	0.000
10,600.00	0.00	0.00	10,600.00	0.00	0.00	0.00	0.000	0.000	0.000
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.000	0.000	0.000
10,800.00	0.00	0.00	10,800.00	0.00	0.00	0.00	0.000	0.000	0.000
10,900.00	0.00	0.00	10,900.00	0.00	0.00	0.00	0.000	0.000	0.000
11,000.00	0.00	0.00	11,000.00	0.00	0.00	0.00	0.000	0.000	0.000
11,100.00	0.00	0.00	11,100.00	0.00	0.00	0.00	0.000	0.000	0.000
11,200.00	0.00	0.00	11,200.00	0.00	0.00	0.00	0.000	0.000	0.000
11,300.00	0.00	0.00	11,300.00	0.00	0.00	0.00	0.000	0.000	0.000
11,400.00	0.00	0.00	11,400.00	0.00	0.00	0.00	0.000	0.000	0.000
11,500.00	0.00	0.00	11,500.00	0.00	0.00	0.00	0.000	0.000	0.000
11,577.90	0.00	0.00	11,577.90	0.00	0.00	0.00	0.000	0.000	0.000
KOP - Build 10°/100'									
11,600.00	2.21	181.80	11,599.99	-0.43	-0.01	0.43	10.000	10.000	0.000
11,650.00	7.21	181.80	11,649.81	-4.53	-0.14	4.53	10.000	10.000	0.000
11,700.00	12.21	181.80	11,699.08	-12.95	-0.41	12.95	10.000	10.000	0.000
11,750.00	17.21	181.80	11,747.42	-25.64	-0.81	25.64	10.000	10.000	0.000
11,800.00	22.21	181.80	11,794.48	-42.49	-1.34	42.48	10.000	10.000	0.000
11,850.00	27.21	181.80	11,839.89	-63.37	-1.99	63.36	10.000	10.000	0.000
11,900.00	32.21	181.80	11,883.30	-88.13	-2.77	88.12	10.000	10.000	0.000
11,950.00	37.21	181.80	11,924.39	-116.58	-3.66	116.56	10.000	10.000	0.000
12,000.00	42.21	181.80	11,962.84	-148.50	-4.67	148.48	10.000	10.000	0.000
12,050.00	47.21	181.80	11,998.36	-183.65	-5.77	183.62	10.000	10.000	0.000
12,100.00	52.21	181.80	12,030.69	-221.76	-6.97	221.72	10.000	10.000	0.000
12,150.00	57.21	181.80	12,059.56	-262.54	-8.25	262.49	10.000	10.000	0.000
12,200.00	62.21	181.80	12,084.77	-305.68	-9.61	305.63	10.000	10.000	0.000
12,250.00	67.21	181.80	12,106.13	-350.85	-11.03	350.79	10.000	10.000	0.000
12,277.90	70.00	181.80	12,116.30	-376.81	-11.84	376.75	9.999	9.999	0.000
Build 10°/100'									
12,278.00	70.00	181.80	12,116.34	-376.90	-11.84	376.84	0.000	0.000	0.000
Casing									
12,300.00	72.20	181.54	12,123.46	-397.71	-12.45	397.64	10.046	9.985	-1.170
12,350.00	77.17	180.98	12,136.67	-445.90	-13.51	445.84	10.000	9.941	-1.121
12,400.00	82.14	180.44	12,145.64	-495.07	-14.12	495.00	10.000	9.944	-1.078
12,450.00	87.11	179.92	12,150.33	-544.84	-14.28	544.76	10.000	9.945	-1.052
12,484.89	90.58	179.55	12,151.03	-579.71	-14.11	579.64	9.999	9.945	-1.043

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Site:	Broadside 13 Fed Com W 1H	**MD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Well:	#1H	**North Reference:**	Grid
Wellbore:	Planning	**Survey Calculation Method:**	Minimum Curvature
Design:	Lateral 1r0	**Database:**	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
LP - Hold 90.58°Inc @ 179.55°Azm									
12,500.00	90.58	179.55	12,150.88	-594.82	-14.00	594.75	0.000	0.000	0.000
12,585.74	90.58	179.55	12,150.01	-680.56	-13.33	680.49	0.000	0.000	0.000
FTP - Broadside 13 Fed Com W 1H									
12,600.00	90.58	179.55	12,149.86	-694.81	-13.22	694.74	0.000	0.000	0.000
12,700.00	90.58	179.55	12,148.85	-794.81	-12.44	794.74	0.000	0.000	0.000
12,800.00	90.58	179.55	12,147.83	-894.80	-11.65	894.73	0.000	0.000	0.000
12,900.00	90.58	179.55	12,146.82	-994.79	-10.87	994.73	0.000	0.000	0.000
13,000.00	90.58	179.55	12,145.80	-1,094.78	-10.09	1,094.72	0.000	0.000	0.000
13,100.00	90.58	179.55	12,144.79	-1,194.77	-9.31	1,194.72	0.000	0.000	0.000
13,200.00	90.58	179.55	12,143.77	-1,294.76	-8.53	1,294.71	0.000	0.000	0.000
13,300.00	90.58	179.55	12,142.76	-1,394.76	-7.75	1,394.70	0.000	0.000	0.000
13,400.00	90.58	179.55	12,141.74	-1,494.75	-6.97	1,494.70	0.000	0.000	0.000
13,500.00	90.58	179.55	12,140.73	-1,594.74	-6.19	1,594.69	0.000	0.000	0.000
13,600.00	90.58	179.55	12,139.71	-1,694.73	-5.41	1,694.69	0.000	0.000	0.000
13,700.00	90.58	179.55	12,138.70	-1,794.72	-4.63	1,794.68	0.000	0.000	0.000
13,800.00	90.58	179.55	12,137.68	-1,894.72	-3.85	1,894.68	0.000	0.000	0.000
13,900.00	90.58	179.55	12,136.67	-1,994.71	-3.07	1,994.67	0.000	0.000	0.000
14,000.00	90.58	179.55	12,135.65	-2,094.70	-2.29	2,094.66	0.000	0.000	0.000
14,100.00	90.58	179.55	12,134.64	-2,194.69	-1.51	2,194.66	0.000	0.000	0.000
14,200.00	90.58	179.55	12,133.62	-2,294.68	-0.73	2,294.65	0.000	0.000	0.000
14,300.00	90.58	179.55	12,132.61	-2,394.67	0.05	2,394.65	0.000	0.000	0.000
14,400.00	90.58	179.55	12,131.59	-2,494.67	0.83	2,494.64	0.000	0.000	0.000
14,500.00	90.58	179.55	12,130.58	-2,594.66	1.61	2,594.64	0.000	0.000	0.000
14,600.00	90.58	179.55	12,129.56	-2,694.65	2.39	2,694.63	0.000	0.000	0.000
14,700.00	90.58	179.55	12,128.55	-2,794.64	3.17	2,794.63	0.000	0.000	0.000
14,800.00	90.58	179.55	12,127.53	-2,894.63	3.95	2,894.62	0.000	0.000	0.000
14,900.00	90.58	179.55	12,126.52	-2,994.63	4.73	2,994.61	0.000	0.000	0.000
15,000.00	90.58	179.55	12,125.50	-3,094.62	5.51	3,094.61	0.000	0.000	0.000
15,100.00	90.58	179.55	12,124.49	-3,194.61	6.29	3,194.60	0.000	0.000	0.000
15,200.00	90.58	179.55	12,123.47	-3,294.60	7.07	3,294.60	0.000	0.000	0.000
15,300.00	90.58	179.55	12,122.46	-3,394.59	7.85	3,394.59	0.000	0.000	0.000
15,400.00	90.58	179.55	12,121.44	-3,494.58	8.63	3,494.59	0.000	0.000	0.000
15,500.00	90.58	179.55	12,120.43	-3,594.58	9.41	3,594.58	0.000	0.000	0.000
15,600.00	90.58	179.55	12,119.42	-3,694.57	10.19	3,694.57	0.000	0.000	0.000
15,700.00	90.58	179.55	12,118.40	-3,794.56	10.97	3,794.57	0.000	0.000	0.000
15,800.00	90.58	179.55	12,117.39	-3,894.55	11.75	3,894.56	0.000	0.000	0.000
15,900.00	90.58	179.55	12,116.37	-3,994.54	12.53	3,994.56	0.000	0.000	0.000
16,000.00	90.58	179.55	12,115.36	-4,094.54	13.31	4,094.55	0.000	0.000	0.000
16,100.00	90.58	179.55	12,114.34	-4,194.53	14.09	4,194.55	0.000	0.000	0.000
16,200.00	90.58	179.55	12,113.33	-4,294.52	14.87	4,294.54	0.000	0.000	0.000
16,300.00	90.58	179.55	12,112.31	-4,394.51	15.65	4,394.54	0.000	0.000	0.000
16,400.00	90.58	179.55	12,111.30	-4,494.50	16.43	4,494.53	0.000	0.000	0.000
16,500.00	90.58	179.55	12,110.28	-4,594.49	17.22	4,594.52	0.000	0.000	0.000

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Site:	Broadside 13 Fed Com W 1H	**MD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Well:	#1H	**North Reference:**	Grid
Wellbore:	Planning	**Survey Calculation Method:**	Minimum Curvature
Design:	Lateral 1r0	**Database:**	EDMRESTORED

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,600.00	90.58	179.55	12,109.27	-4,694.49	18.00	4,694.52	0.000	0.000	0.000
16,700.00	90.58	179.55	12,108.25	-4,794.48	18.78	4,794.51	0.000	0.000	0.000
16,800.00	90.58	179.55	12,107.24	-4,894.47	19.56	4,894.51	0.000	0.000	0.000
16,900.00	90.58	179.55	12,106.22	-4,994.46	20.34	4,994.50	0.000	0.000	0.000
17,000.00	90.58	179.55	12,105.21	-5,094.45	21.12	5,094.50	0.000	0.000	0.000
17,100.00	90.58	179.55	12,104.19	-5,194.44	21.90	5,194.49	0.000	0.000	0.000
17,200.00	90.58	179.55	12,103.18	-5,294.44	22.68	5,294.48	0.000	0.000	0.000
17,300.00	90.58	179.55	12,102.16	-5,394.43	23.46	5,394.48	0.000	0.000	0.000
17,400.00	90.58	179.55	12,101.15	-5,494.42	24.24	5,494.47	0.000	0.000	0.000
17,433.09	90.58	179.55	12,100.81	-5,527.51	24.50	5,527.56	0.000	0.000	0.000
LTP - Broadside 13 Fed Com W 1H									
17,500.00	90.58	179.55	12,100.13	-5,594.41	25.02	5,594.47	0.000	0.000	0.000
17,513.10	90.58	179.55	12,100.00	-5,607.51	25.12	5,607.57	0.000	0.000	0.000
PBHL - BHL - Broadside 13 Fed Com W 1H									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL - Broadside 13 F	0.00	0.00	12,100.00	-5,607.51	25.12	441,209.10	790,683.19	32° 12' 37.404 N	103° 31' 37.656 W
- plan hits target center - Point									
LTP - Broadside 13 F	0.00	0.00	12,100.80	-5,527.51	24.49	441,289.10	790,682.56	32° 12' 38.196 N	103° 31' 37.656 W
- plan misses target center by 0.01usft at 17433.09usft MD (12100.81 TVD, -5527.51 N, 24.50 E) - Point									
FTP - Broadside 13 F	0.00	0.01	12,150.00	-680.56	-13.90	446,136.05	790,644.17	32° 13' 26.160 N	103° 31' 37.680 W
- plan misses target center by 0.57usft at 12585.74usft MD (12150.00 TVD, -680.56 N, -13.33 E) - Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
12,278.00	12,116.34	Casing	7-5/8	7-5/8

BC OPERATING

Survey Report

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Site:	Broadside 13 Fed Com W 1H	**MD Reference:**	Assumed KB @ 3622.00usft (27' KB)
Well:	#1H	**North Reference:**	Grid
Wellbore:	Planning	**Survey Calculation Method:**	Minimum Curvature
Design:	Lateral 1r0	**Database:**	EDMRESTORED

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,260.00	1,260.00	Rustler		0.00	
3,750.00	3,750.00	Castille		0.00	
5,200.00	5,200.00	Delaware/Lamar		0.00	
5,240.00	5,240.00	Bell Canyon		0.00	
6,214.00	6,214.00	Cherry Canyon		0.00	
7,542.00	7,542.00	Brushy Canyon		0.00	
8,980.00	8,980.00	Bonespring Lime		0.00	
9,865.00	9,865.00	First Bonespring Sand		0.00	
10,522.00	10,522.00	Second Bonespring Sand		0.00	
11,493.00	11,493.00	Third Bonespring Sand		0.00	
11,872.86	11,860.00	WFMP		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
11,578	11,578	0	0	KOP - Build 10°/100'
12,278	12,116	-377	-12	Build 10°/100'
12,485	12,151	-580	-14	LP - Hold 90.58°Inc @ 179.55°Azm
17,513	12,100	-5608	25	PBHL

Checked By: _____ Approved By: _____ Date: _____

AFMSS

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

PWD Data Report

11/09/2019

APD ID: 10400039853 **Submission Date:** 04/17/2019

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

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

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:

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

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 disturbance (acres): **PWD surface owner:**

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?

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

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):**

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 1H

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

11/09/2019

APD ID: 10400039853

Submission Date: 04/17/2019

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W

Well Number: 1H

Well Type: OIL WELL

Well Work Type: Drill

[redacted]

Show Final Text

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: