Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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 3H 326428

2. Name of Operator
BC OPERATING INCORPORATED (160825)

9. API Well No.
30-025-46519

3a. Address
4000 N Big Spring Street, Suite 310 Midland TX 79705

3b. Phone No. *(include area code)*
(432)684-9696

10. Field and Pool, or Exploratory
WC-025 G-09 S243310P / WOLFCAMP (98135)

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

At surface SESE / 374 FSL / 313 FEL / LAT 32.2258516 / LONG -103.5185261

At proposed prod. zone SESE / 20 FSL / 330 FEL / LAT 32.2103707 / LONG -103.518579

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 / 17537 feet	FED: NMB001345

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3601 feet	09/01/2019	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	05/31/2019
Title: Regulatory Analyst		
Approved by *(Signature)*: (Electronic Submission)	Name *(Printed/Typed)*: Cody Layton / Ph: (575)234-5959	Date: 11/08/2019
Title: Assistant Field Manager Lands & Minerals	Office: 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.

APPROVED WITH CONDITIONS

KZ 11/19/19

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/08/2019

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**BC OPERATING INCORPORATED**
LEASE NO.:	**NMLC0063798**
WELL NAME & NO.:	Broadside 13 Fed Com W 3H
SURFACE HOLE FOOTAGE:	374'/S & 313'/E
BOTTOM HOLE FOOTAGE	20'/S & 330'/E
LOCATION:	Section 12, T.24 S., R.33 E., NMPM
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**

Approval Date: 11/08/2019

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.**

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.

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL
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Broadside 13 Federal Com W No. 3H
Surface Hole Location: 374' FSL & 313' FEL, Section 12, T. 24 S., R. 33 E.
Bottom Hole Location: 20' FSL & 330' FEL, Section 13, T. 24 S, R 33 E.

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for

acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Hydrology

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

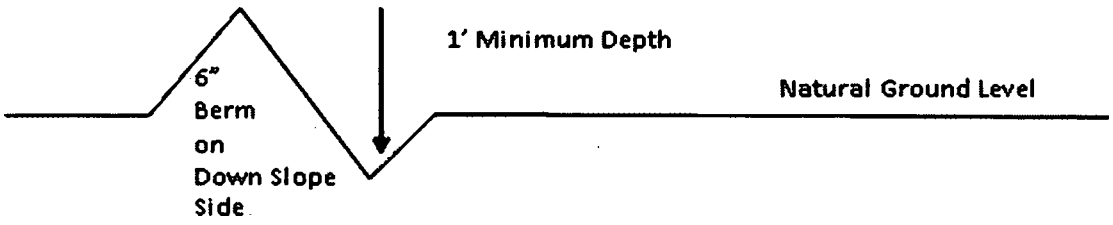
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Livestock Watering Requirement

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Construction Steps 1. Salvage topsoil 2. Construct road 3. Redistribute topsoil 4. Revegetate slopes

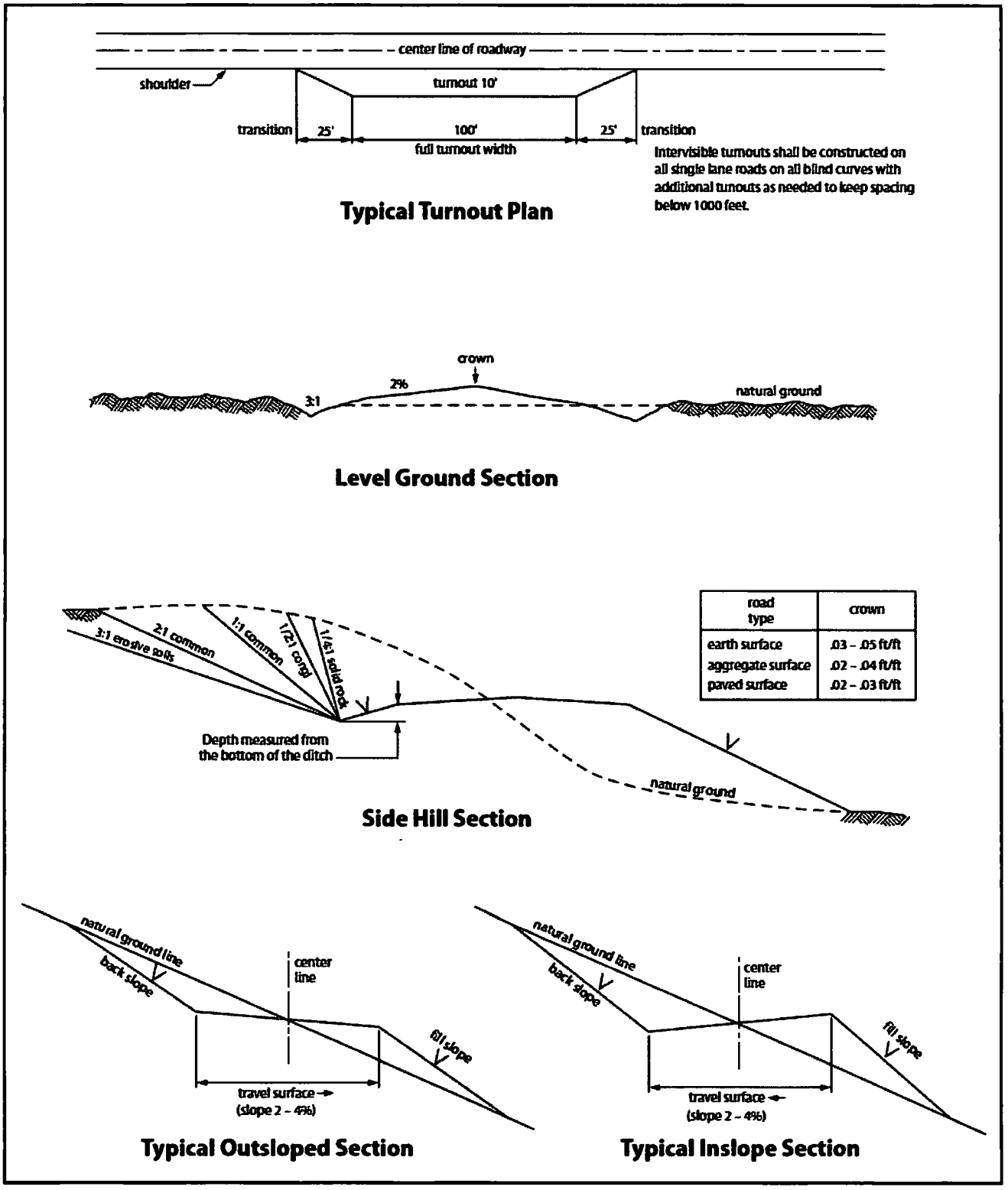


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

written approval granted by the Authorized Officer.

VII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

VIII. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved

methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Below Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

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:** 05/27/2019

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: 10400042195 **Submission Date:** 05/31/2019

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

[redacted]

Show Final Text

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

Section 1 - General

APD ID: 10400042195 **Tie to previous NOS?** **Submission Date:** 05/31/2019

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:** 3H **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:** 3H

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_3H_Pay.gov_20190531123738.pdf

Broadside_13_Fed_Com_W_3H_C_102_20190903114618.pdf

Well work start Date: 09/01/2019 **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	374	FSL	313	FEL	24S	33E	12	Aliquot SESE	32.2258516	-103.5185261	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	3601	0	0
KOP Leg #1	374	FSL	313	FEL	24S	33E	12	Aliquot SESE	32.2258516	-103.5185261	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-7977	11578	11578

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

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	330	FEL	24S	33E	13	Aliquot NENE	32.223916	-103.5185807	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8549	12609	12150
PPP Leg #1	2640	FSL	330	FEL	24S	33E	13	Aliquot NESE	32.217566	-103.518637	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8526	14919	12127
EXIT Leg #1	100	FSL	330	FEL	24S	33E	13	Aliquot SESE	32.210596	-103.5185791	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8499	17500	12100
BHL Leg #1	20	FSL	330	FEL	24S	33E	13	Aliquot SESE	32.210377	-103.518579	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8499	17537	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

AFMSS

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

Drilling Plan Data Report

11/09/2019

APD ID: 10400042195 **Submission Date:** 05/31/2019

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

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:** 3H

flanged, welded, or clamped.

Requesting Variance? YES

Variance request: Variance request for use of 5M annular

Choke Diagram Attachment:

Broadside_13_Fed_Com_W_3H_Choke_Manifold_20190527184329.pdf

BOP Diagram Attachment:

Broadside_13_Fed_Com_W_3H_BOP_20190527184405.pdf

BC_Operating_Inc_Well_Control_Plan_20190903123940.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	1.99	2.93	DRY	4.84	DRY	4.84
2	INTERMEDIATE	12.25	10.75	NEW	API	N	0	5200	0	5200			5200	J-55	45.5	BUTT	1.2	1.94	DRY	3	DRY	3
3	INTERMEDIATE	9.875	7.625	NEW	API	N	0	12278	0	12110			12278	P-110	29.7	BUTT	1.25	1.93	DRY	2.04	DRY	1.85
4	PRODUCTION	6.75	5.5	NEW	API	N	0	17537	0	12150			17537	P-110	23	OTHER - T-L Wedge	2.2	2.14	DRY	1.84	DRY	1.23

Casing Attachments

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

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_3H_Csg_Assumptions_20190530080746.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_3H_Csg_Assumptions_20190530080815.pdf

Broadside_13_Fed_Com_W_3H__10.75_Specs_20190903124119.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_3H_Csg_Assumptions_20190530080840.pdf

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

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_3H_Csg_Assumptions_20190530080853.pdf

Broadside_13_Fed_Com_W_3H__5.5_Specs_20190903124135.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:** 3H

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	12150	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:** 3H

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_3H_H2S_Plan_20190527185017.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Broadside_13_Fed_Com_W_3H_Directional_Plan_20190527185137.pdf

Other proposed operations facets description:

Request Flex Hose Variance

Other proposed operations facets attachment:

Broadside_13_Fed_Com_W_3H_GCP_20190527185035.pdf

Other Variance attachment:

Broadside_13_Fed_Com_W_3H_Flex_Hose_Data_20190527185047.pdf

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 3H
Casing Assumptions

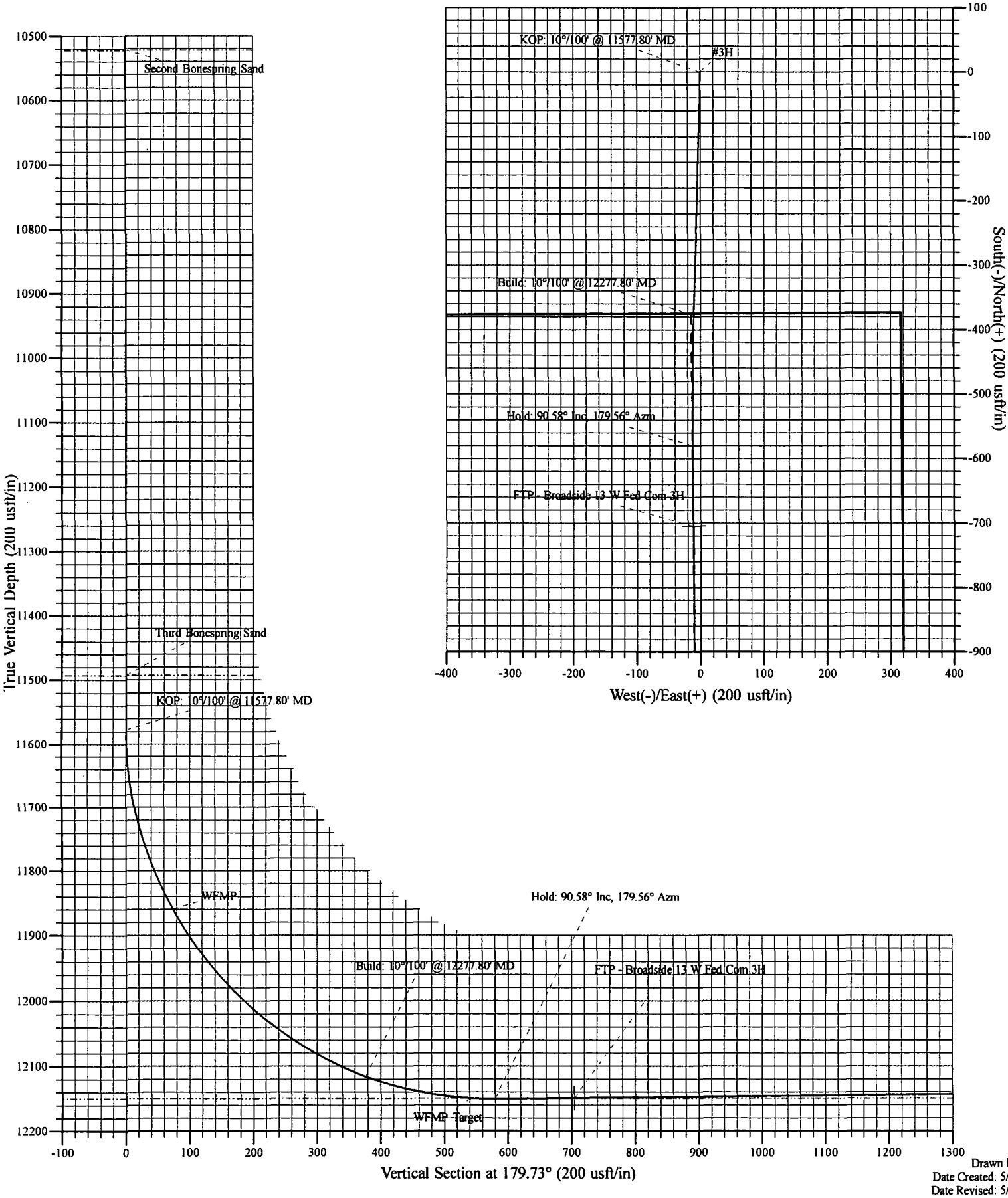
Hole Size	Casing Interval		Casing Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0	1400	13.375"	54.5	J55	STC	1.99	2.93	4.84	4.84
12.25"	1400	5200	10.75"	45.5	J55	BTC-SC	1.2	1.94	3	3
9.875"	5200	12278	7.625"	29.7	P110	BTC	1.25	1.93	2.04	1.85
6.75"	12278	17537	5.5"	23	HCP110	T-L Wedge	2.2	2.14	1.84	1.23

BC OPERATING

BC Operating, Inc.

Broadside 13 W Fed Com 3H
Lea Co., NM (NAD 83 NME)
Job No. WT-19-***
Rig - N/A
Lateral 1r0

Aim Directional Services



Drawn By: PBl
Date Created: 5/20/201
Date Revised: 5/20/201

BC OPERATING

Survey Report

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #3H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed @ 3628.00usft (27'KB)
Site:	Broadside 13 W Fed Com 3H	**MD Reference:**	Assumed @ 3628.00usft (27'KB)
Well:	#3H	**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 W Fed Com 3H				
Site Position:		**Northing:**	446,854.02 usft	**Latitude:**	32° 13' 33.066 N
From:	Map	**Easting:**	793,300.60 usft	**Longitude:**	103° 31' 6.694 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.43 °

Well	#3H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	446,854.02 usft	**Latitude:**	32° 13' 33.066 N
	+E/-W	0.00 usft	**Easting:**	793,300.60 usft	**Longitude:**	103° 31' 6.694 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,601.00 usft

Wellbore Planning

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	MVHD	5/20/2019	6.60	59.87	47,860.17923437

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** 5/20/2019

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	17,537.47	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 #3H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed @ 3628.00usft (27'KB)
Site:	Broadside 13 W Fed Com 3H	**MD Reference:**	Assumed @ 3628.00usft (27'KB)
Well:	#3H	**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 #3H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed @ 3628.00usft (27'KB)
Site:	Broadside 13 W Fed Com 3H	**MD Reference:**	Assumed @ 3628.00usft (27'KB)
Well:	#3H	**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 #3H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed @ 3628.00usft (27'KB)
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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
11,577.80	0.00	0.00	11,577.80	0.00	0.00	0.00	0.000	0.000	0.000
KOP: 10°/100' @ 11577.80' MD									
11,600.00	2.22	181.60	11,599.99	-0.43	-0.01	0.43	10.000	10.000	0.000
11,650.00	7.22	181.60	11,649.81	-4.54	-0.13	4.54	10.000	10.000	0.000
11,700.00	12.22	181.60	11,699.08	-12.98	-0.36	12.98	10.000	10.000	0.000
11,750.00	17.22	181.60	11,747.42	-25.67	-0.72	25.67	10.000	10.000	0.000
11,800.00	22.22	181.60	11,794.47	-42.53	-1.19	42.53	10.000	10.000	0.000
11,850.00	27.22	181.60	11,839.88	-63.43	-1.77	63.42	10.000	10.000	0.000
11,900.00	32.22	181.60	11,883.29	-88.20	-2.46	88.18	10.000	10.000	0.000
11,950.00	37.22	181.60	11,924.37	-116.66	-3.26	116.64	10.000	10.000	0.000
12,000.00	42.22	181.60	11,962.82	-148.58	-4.15	148.56	10.000	10.000	0.000
12,050.00	47.22	181.60	11,998.33	-183.74	-5.13	183.72	10.000	10.000	0.000
12,100.00	52.22	181.60	12,030.65	-221.86	-6.20	221.83	10.000	10.000	0.000
12,150.00	57.22	181.60	12,059.52	-262.65	-7.34	262.61	10.000	10.000	0.000
12,200.00	62.22	181.60	12,084.72	-305.80	-8.54	305.75	10.000	10.000	0.000
12,250.00	67.22	181.60	12,106.07	-350.98	-9.80	350.93	10.000	10.000	0.000
12,277.80	70.00	181.60	12,116.20	-376.85	-10.53	376.79	9.999	9.999	0.000
Build: 10°/100' @ 12277.80' MD									
12,300.00	72.21	181.36	12,123.39	-397.84	-11.07	397.79	10.001	9.950	-1.059
12,350.00	77.18	180.86	12,136.58	-446.05	-12.00	445.99	10.000	9.952	-1.019
12,400.00	82.16	180.37	12,145.55	-495.22	-12.52	495.15	10.000	9.953	-0.980
12,450.00	87.14	179.89	12,150.21	-544.98	-12.63	544.92	10.000	9.955	-0.956
12,484.54	90.58	179.56	12,150.89	-579.51	-12.47	579.45	9.999	9.954	-0.948
Hold: 90.58° Inc, 179.56° Azm									
12,500.00	90.58	179.56	12,150.74	-594.97	-12.35	594.91	0.000	0.000	0.000

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Site:	Broadside 13 W Fed Com 3H	**MD Reference:**	Assumed @ 3628.00usft (27'KB)
Well:	#3H	**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)
12,600.00	90.58	179.56	12,149.73	-694.96	-11.58	694.90	0.000	0.000	0.000
12,609.34	90.58	179.56	12,149.64	-704.31	-11.51	704.24	0.000	0.000	0.000
FTP - Broadside 13 W Fed Com 3H									
12,700.00	90.58	179.56	12,148.72	-794.95	-10.81	794.90	0.000	0.000	0.000
12,800.00	90.58	179.56	12,147.72	-894.95	-10.04	894.89	0.000	0.000	0.000
12,900.00	90.58	179.56	12,146.71	-994.94	-9.28	994.88	0.000	0.000	0.000
13,000.00	90.58	179.56	12,145.70	-1,094.93	-8.51	1,094.88	0.000	0.000	0.000
13,100.00	90.58	179.56	12,144.69	-1,194.92	-7.74	1,194.87	0.000	0.000	0.000
13,200.00	90.58	179.56	12,143.69	-1,294.91	-6.97	1,294.87	0.000	0.000	0.000
13,300.00	90.58	179.56	12,142.68	-1,394.91	-6.20	1,394.86	0.000	0.000	0.000
13,400.00	90.58	179.56	12,141.67	-1,494.90	-5.44	1,494.86	0.000	0.000	0.000
13,500.00	90.58	179.56	12,140.67	-1,594.89	-4.67	1,594.85	0.000	0.000	0.000
13,600.00	90.58	179.56	12,139.66	-1,694.88	-3.90	1,694.85	0.000	0.000	0.000
13,700.00	90.58	179.56	12,138.65	-1,794.87	-3.13	1,794.84	0.000	0.000	0.000
13,800.00	90.58	179.56	12,137.64	-1,894.87	-2.36	1,894.83	0.000	0.000	0.000
13,900.00	90.58	179.56	12,136.64	-1,994.86	-1.60	1,994.83	0.000	0.000	0.000
14,000.00	90.58	179.56	12,135.63	-2,094.85	-0.83	2,094.82	0.000	0.000	0.000
14,100.00	90.58	179.56	12,134.62	-2,194.84	-0.06	2,194.82	0.000	0.000	0.000
14,200.00	90.58	179.56	12,133.62	-2,294.83	0.71	2,294.81	0.000	0.000	0.000
14,300.00	90.58	179.56	12,132.61	-2,394.83	1.48	2,394.81	0.000	0.000	0.000
14,400.00	90.58	179.56	12,131.60	-2,494.82	2.24	2,494.80	0.000	0.000	0.000
14,500.00	90.58	179.56	12,130.59	-2,594.81	3.01	2,594.80	0.000	0.000	0.000
14,600.00	90.58	179.56	12,129.59	-2,694.80	3.78	2,694.79	0.000	0.000	0.000
14,700.00	90.58	179.56	12,128.58	-2,794.79	4.55	2,794.78	0.000	0.000	0.000
14,800.00	90.58	179.56	12,127.57	-2,894.79	5.32	2,894.78	0.000	0.000	0.000
14,900.00	90.58	179.56	12,126.57	-2,994.78	6.08	2,994.77	0.000	0.000	0.000
15,000.00	90.58	179.56	12,125.56	-3,094.77	6.85	3,094.77	0.000	0.000	0.000
15,100.00	90.58	179.56	12,124.55	-3,194.76	7.62	3,194.76	0.000	0.000	0.000
15,200.00	90.58	179.56	12,123.54	-3,294.75	8.39	3,294.76	0.000	0.000	0.000
15,300.00	90.58	179.56	12,122.54	-3,394.75	9.16	3,394.75	0.000	0.000	0.000
15,400.00	90.58	179.56	12,121.53	-3,494.74	9.92	3,494.75	0.000	0.000	0.000
15,500.00	90.58	179.56	12,120.52	-3,594.73	10.69	3,594.74	0.000	0.000	0.000
15,600.00	90.58	179.56	12,119.51	-3,694.72	11.46	3,694.74	0.000	0.000	0.000
15,700.00	90.58	179.56	12,118.51	-3,794.71	12.23	3,794.73	0.000	0.000	0.000
15,800.00	90.58	179.56	12,117.50	-3,894.71	13.00	3,894.72	0.000	0.000	0.000
15,900.00	90.58	179.56	12,116.49	-3,994.70	13.76	3,994.72	0.000	0.000	0.000
16,000.00	90.58	179.56	12,115.49	-4,094.69	14.53	4,094.71	0.000	0.000	0.000
16,100.00	90.58	179.56	12,114.48	-4,194.68	15.30	4,194.71	0.000	0.000	0.000
16,200.00	90.58	179.56	12,113.47	-4,294.67	16.07	4,294.70	0.000	0.000	0.000
16,300.00	90.58	179.56	12,112.46	-4,394.67	16.84	4,394.70	0.000	0.000	0.000
16,400.00	90.58	179.56	12,111.46	-4,494.66	17.60	4,494.69	0.000	0.000	0.000
16,500.00	90.58	179.56	12,110.45	-4,594.65	18.37	4,594.69	0.000	0.000	0.000
16,600.00	90.58	179.56	12,109.44	-4,694.64	19.14	4,694.68	0.000	0.000	0.000

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #3H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed @ 3628.00usft (27'KB)
Site:	Broadside 13 W Fed Com 3H	**MD Reference:**	Assumed @ 3628.00usft (27'KB)
Well:	#3H	**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)
16,700.00	90.58	179.56	12,108.44	-4,794.63	19.91	4,794.67	0.000	0.000	0.000
16,800.00	90.58	179.56	12,107.43	-4,894.63	20.68	4,894.67	0.000	0.000	0.000
16,900.00	90.58	179.56	12,106.42	-4,994.62	21.44	4,994.66	0.000	0.000	0.000
17,000.00	90.58	179.56	12,105.41	-5,094.61	22.21	5,094.66	0.000	0.000	0.000
17,100.00	90.58	179.56	12,104.41	-5,194.60	22.98	5,194.65	0.000	0.000	0.000
17,200.00	90.58	179.56	12,103.40	-5,294.59	23.75	5,294.65	0.000	0.000	0.000
17,300.00	90.58	179.56	12,102.39	-5,394.59	24.52	5,394.64	0.000	0.000	0.000
17,400.00	90.58	179.56	12,101.38	-5,494.58	25.28	5,494.64	0.000	0.000	0.000
17,457.47	90.58	179.56	12,100.81	-5,552.04	25.73	5,552.10	0.000	0.000	0.000
LTP - Broadside 13 W Fed Com 3H									
17,500.00	90.58	179.56	12,100.38	-5,594.57	26.05	5,594.63	0.000	0.000	0.000
17,537.47	90.58	179.56	12,100.00	-5,632.04	26.34	5,632.10	0.000	0.000	0.000
TD @ 17537.47' MD/12100.00' TVD - BHL - Broadside 13 W Fed Com 3H									

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 W	0.00	0.00	12,100.00	-5,632.04	26.34	441,221.98	793,326.94	32° 12' 37.334 N	103° 31' 6.885 W
- plan hits target center - Point									
LTP - Broadside 13 W	0.00	0.00	12,100.80	-5,552.04	25.72	441,301.98	793,326.32	32° 12' 38.126 N	103° 31' 6.885 W
- plan misses target center by 0.01usft at 17457.47usft MD (12100.81 TVD, -5552.04 N, 25.73 E) - Point									
FTP - Broadside 13 W	0.00	0.00	12,150.00	-704.31	-11.53	446,149.71	793,289.07	32° 13' 26.097 N	103° 31' 6.890 W
- plan misses target center by 0.36usft at 12609.34usft MD (12149.64 TVD, -704.31 N, -11.51 E) - Point									

BC OPERATING

Survey Report

Company:	BC Operating, Inc.	**Local Co-ordinate Reference:**	Well #3H
Project:	Lea Co., NM (NAD 83 NME)	**TVD Reference:**	Assumed @ 3628.00usft (27'KB)
Site:	Broadside 13 W Fed Com 3H	**MD Reference:**	Assumed @ 3628.00usft (27'KB)
Well:	#3H	**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			
3,750.00	3,750.00	Castille			
5,200.00	5,200.00	Delaware/Lamar			
5,240.00	5,240.00	Bell Canyon			
6,214.00	6,214.00	Cherry Canyon			
7,542.00	7,542.00	Brushy Canyon			
8,980.00	8,980.00	Bonespring Lime			
9,865.00	9,865.00	First Bonespring Sand			
10,522.00	10,522.00	Second Bonespring Sand			
11,493.00	11,493.00	Third Bonespring Sand			
11,872.87	11,860.00	WFMP			
12,446.14	12,150.00	WFMP Target			

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: 10°/100' @ 11577.80' MD
12,278	12,116	-377	-11	Build: 10°/100' @ 12277.80' MD
12,485	12,151	-580	-12	Hold: 90.58° Inc, 179.56° Azm
17,537	12,100	-5632	26	TD @ 17537.47' MD/12100.00' TVD

Checked By: _____ Approved By: _____ Date: _____

GATES E & S NORTH AMERICA, INC.
7603 Prairie Oak Dr.
Houston, TX 77086

PHONE:(281) 602 -4119
FAX:
EMAIL:Troy.Schmidt@gates.com
WEB: www.gates.com

10K CHOKE & KILL ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	AUSTIN	Test Date:	1/22/2018
Customer Ref. :	4090529	Hose Serial No.:	H-012218-8
Invoice No. :	509594	Created By:	Irene Pizana

Product Description:	10K3.035.0CK41/1610KFLGFXxFL L/E

End Fitting 1 :	4 1/16 10K Flange Fixed	End Fitting 2 :	4 1/16 10K Flange Float
Gates Part No. :	68503010-9721632	Assembly Code :	L40125120817H-012218-8
Working Pressure :	10,000 psi.	Test Pressure :	15,000 psi.

Gates E & S North America, Inc. certifies that the following hose assembly has successfully passed all pressure testing requirements set forth in Section 9.7.7 and Table 10 of API 7K, Sixth Edition (December 2015).

Quality:	QUALITY	Produciton:	PRODUCTION
Date :	1/22/2018	Date :	1/22/2018
Signature :		Signature :	

Form PTC - 01 Rev.0 2

POWERING PROGRESS™

Gates E&S North America, Inc.
7603 Prairie Oak Dr.
Houston, TX. 77086
PHONE :
FAX:
Troy.Schmidt@gates.com

CERTIFICATE OF CONFORMANCE

This is to verify that all Parts and/or Materials included in this shipment have been manufactured and/or processed in Conformance with applicable drawings and specifications, and that Records of Required Tests are on file and subject to examination. The following items were assembled at **Gates E & S, North America Inc.**, facilities in Houston, TX, USA. This hose assembly was designed and manufactured to meet all the requirements of API Spec 7K.

CUSTOMER: AUSTIN
CUSTOMERS P.O.#: 4090529
PART DESCRIPTION: 10K3.035.0CK41/1610KFLGFXxFL L/E
SALES ORDER #: 509594
QUANTITY: 1
SERIAL #: H-012218-8

SIGNATURE: _____

TITLE: QUALITY ASSURANCE

DATE: 1/22/2018

APD ID: 10400042195 **Submission Date:** 05/31/2019

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

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

[redacted]

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Broadside_13_Fed_Com_W_3H_Existing_Roads_20190530082218.pdf

Existing Road Purpose: 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 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Broadside_13_Fed_Com_W_3H_Access_Road_20190903121208.pdf

New road type: ICE ROAD,RESOURCE

Length: 216 Feet **Width (ft.):** 30

Max slope (%): 2 **Max grade (%):** 3

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Road construction requirements and regular maintenance would alleviate potential impacts to the access road from water erosion damage.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

Turnout? N

Access surfacing type: OTHER

Access topsoil source: BOTH

Access surfacing type description: Native caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description: Material will be obtained from BLM caliche pit in SWSW Section 22-T24S-R34E or NENE Section 20-T23S-R33E

Onsite topsoil removal process: The top 6 inches of topsoil is pushed off and stockpiled along the side of the location. An approximate 160' X 160' area is used within the proposed well site to remove caliche. Subsoil is removed and stockpiled within the pad site to build the location and road. Then subsoil is pushed back in the hole and caliche is spread accordingly across proposed access road.

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Proposed access road will be crowned and ditched and constructed of 6 inch rolled and compacted caliche. Water will be diverted where necessary to avoid ponding, maintain good drainage, and to be consistentwith local drainage patterns.

Road Drainage Control Structures (DCS) description: The ditches will be 3' wide with 3:1 slopes

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Broadside_13_Fed_Com_W_3H_1_Mile_Wells_20190530082613.pdf

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

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: Production facilities are planned for the south side of pad. Plan for initial wells: 2-1000 bbl water tanks and 5-1000 bbl oil tanks, a temporary 6X20 horizontal 3-phase sep, a 48" X 10' 3-phase sep, a 8 X 20' heater treater and a 48"X 10' 2-phase sep

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: FRESH WATER

Water source use type: STIMULATION

OTHER **Describe use type:** ROAD/PAD CONSTRUCTION /

SURFACE CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER **Describe transportation land ownership:**

Water source volume (barrels): 250000 **Source volume (acre-feet):** 32.223274

Source volume (gal): 10500000

Water source type: OTHER

Describe type: BRINE WATER

Water source use type: INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER **Describe transportation land ownership:**

Water source volume (barrels): 20000 **Source volume (acre-feet):** 2.577862

Source volume (gal): 840000

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

Water source and transportation map:

Broadside_13_Fed_Com_W_3H_Wtr_Source_Map_20190903121649.pdf

Water source comments: Source transportation land ownership is a mixture of Federal, State and County.

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

Using any construction materials: YES

Construction Materials description: On site caliche will be used for construction if sufficient. In the event insufficient quantities of caliche are available onsite, caliche will be trucked in from BLM's caliche pit in SWSW Section 22-T24-R34E or NENE Section 20- T23S-R33E.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluids produced from water based mud system and drill cuttings

Amount of waste: 3900 barrels

Waste disposal frequency : Weekly

Safe containment description: All drilling fluids will be stored safely and disposed of properly

Safe containmant attachment:

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

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

Disposal location description: Cuttings will be hauled to R360's facility on US 62/180 at Halfway, NM in Section 27-T20S-R32E periodically as needed.

Waste type: SEWAGE

Waste content description: Human waste and grey water

Amount of waste: 1000 gallons

Waste disposal frequency : One Time Only

Safe containment description: Waste material will be stored safely and disposed of properly

Safe containmant attachment:

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

Disposal location description: Human waste and grey water will be hauled to the Carlsbad sewer plan in the SENW of Section 10-T22S-R27E by a commercial waste disposal company.

Waste type: GARBAGE

Waste content description: Miscellaneous trash

Amount of waste: 500 pounds

Waste disposal frequency : One Time Only

Safe containment description: Trash produced during drilling and completion operations will be collected in a trash container and disposed of properly
Safe containmant attachment:

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

Disposal location description: Trucked to an Sandpoint Landfill in NW/4 Section 11-T21S-R28E.

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

Operator Name: BC OPERATING INCORPORATED

Well Name: BROADSIDE 13 FED COM W **Well Number:** 3H

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Cuttings will be stored in roll off bins and hauled to R360 on US 62/180 near Halfway.

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

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Broadside_13_Fed_Com_W_3H_Wellsite_Layout_20190530082806.pdf
Broadside_13_Fed_Com_W_3H_IR_Plat_20190903122407.pdf
Broadside_13_Fed_Com_W_3H_Rig_Layout_20190903122538.pdf
Comments: IR Plat shows topsoil stockpile detail.

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:**

Multiple Well Pad Number:

Recontouring attachment:

Drainage/Erosion control construction: During construction proper erosion control methods will be used to control erosion, runoff and siltation of the surrounding area. As per request of rancher, a berm will be constructed along the east side of well pad.

Drainage/Erosion control reclamation: Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.