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.
NMNM0160973

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.
NMNM082045

8. Lease Name and Well No.
MESA B 8115 FED COM
15H (326144)

2. Name of Operator
BTA OIL PRODUCERS LLC 260297

9. API Well No.
30-025-46740

3a. Address
104 S. Pecos Midland TX 79701

3b. Phone No. *(include area code)*
(432)682-3753

10. Field and Pool, or Exploratory (98097)
SANDERS TANK / UPPER WOLFCAMP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NENE / 430 FNL / 800 FEL / LAT 32.064115 / LONG -103.60543
At proposed prod. zone SESE / 50 FSL / 990 FEL / LAT 32.050926 / LONG -103.606032

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 7 / T26S / R33E / NMP

14. Distance in miles and direction from nearest town or post office*
30 miles

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
445 feet

16. No of acres in lease
1238.72

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
2600 feet

19. Proposed Depth
12700 feet / 17689 feet

20. BLM/BIA Bond No. in file
FED: NMB001711

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3301 feet

22. Approximate date work will start*
05/10/2019

23. Estimated duration
30 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)	Sammy Hajar / Ph: (432)682-3753	12/07/2018
Title: Regulatory Analyst		
Approved by *(Signature)* (Electronic Submission)	Name *(Printed/Typed)* Christopher Walls / Ph: (575)234-2234	Date 01/06/2020
Title: Petroleum Engineer	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.

GCP Rec 01/10/2020

APPROVED WITH CONDITIONS

KZ 01/17/2020

Approval Date: 01/06/2020

(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BTA OIL PRODUCERS LLC
LEASE NO.:	NMNM0160973
WELL NAME & NO.:	15H – MESA B 8115 FED COM
SURFACE HOLE FOOTAGE:	430'/N & 800'/E
BOTTOM HOLE FOOTAGE	50'/S & 990'/E
LOCATION:	SECTION 7, T26S, R33E, NMPM
COUNTY:	LEA

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

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **880 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 **7-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the 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.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 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.**

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface 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.**

    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. 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.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

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.

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

Operator Certification Data Report
01/07/2020

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: Sammy Hajar **Signed on:** 12/04/2018

Title: Regulatory Analyst

Street Address: 104 S. Pecos

City: Midland **State:** TX **Zip:** 79701

Phone: (432)682-3753

Email address: shajar@btaoil.com

Field Representative

Representative Name:

Street Address: 104 South Pecos

City: Midland **State:** TX **Zip:** 79701

Phone: (432)682-3753

Email address: neaton@btaoil.com

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

Application Data Report

01/07/2020

APD ID: 10400036935 **Submission Date:** 12/07/2018

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

Show Final Text

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

Section 1 - General

APD ID: 10400036935 **Tie to previous NOS?** **Submission Date:** 12/07/2018

BLM Office: CARLSBAD **User:** Sammy Hajar **Title:** Regulatory Analyst

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

Lease number: NMNM0160973 **Lease Acres:** 1238.72

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? YES **Federal or Indian agreement:** FEDERAL

Agreement number: NMNM082045

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** BTA OIL PRODUCERS LLC

Operator letter of designation:

Operator Info

Operator Organization Name: BTA OIL PRODUCERS LLC

Operator Address: 104 S. Pecos **Zip:** 79701

Operator PO Box:

Operator City: Midland **State:** TX

Operator Phone: (432)682-3753

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: MESA B 8115 FED COM **Well Number:** 15H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** SANDERS TANK **Pool Name:** UPPER WOLFCAMP

Is the proposed well in an area containing other mineral resources? NONE

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

Is the proposed well in an area containing other mineral resources? NONE

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** MESA B 8115 FED COM **Number:** 14-17

Well Class: HORIZONTAL **Number of Legs:**

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 30 Miles **Distance to nearest well:** 2600 FT **Distance to lease line:** 445 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Mesa_B_8115_Fed_Com_15H_C102_20191120095234.pdf

Well work start Date: 05/10/2019 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NGVD29

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	Will this well produce from this lease?
SHL Leg #1	430	FNL	800	FEL	26S	33E	7	Aliquot NENE	32.064115	-103.60543	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0160973	3301	0	0	
KOP Leg #1	100	FNL	990	FEL	26S	33E	7	Aliquot NENE	32.065022	-103.606045	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0160973	-8826	12152	12127	
PPP Leg #1-1	100	FNL	990	FEL	26S	33E	7	Aliquot NENE	32.065022	-103.606045	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0160973	-8719	12045	12020	

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

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	Will this well produce from this lease?
EXIT Leg #1	100	FSL	990	FEL	26S	33E	7	Aliquot SESE	32.051063	-103.606032	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-9399	17409	12700	
BHL Leg #1	50	FSL	990	FEL	26S	33E	7	Aliquot SESE	32.050926	-103.606032	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-9399	17689	12700	

APD ID: 10400036935 **Submission Date:** 12/07/2018

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

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

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
354335	QUATERNARY	3301	0	0	ALLUVIUM	NONE	N
354333	RUSTLER	2485	816	816		NONE	N
354338	TOP SALT	1456	1845	1845		NONE	N
354340	BASE OF SALT	-1187	4488	4488		NONE	N
354339	DELAWARE	-1428	4729	4729		NATURAL GAS, OIL	N
392792	BELL CANYON	-1470	4771	4771		NATURAL GAS, OIL	N
392797	CHERRY CANYON	-2749	6050	6050		NATURAL GAS, OIL	N
392798	BRUSHY CANYON	-4164	7465	7465		NATURAL GAS, OIL	N
354341	BONE SPRING LIME	-5659	8960	8960		NATURAL GAS, OIL	N
392802	FIRST BONE SPRING SAND	-6605	9906	9906		NATURAL GAS, OIL	N
392803	BONE SPRING 2ND	-7169	10470	10470		NATURAL GAS, OIL	N
392804	BONE SPRING 3RD	-8293	11594	11594		NATURAL GAS, OIL	N
354342	WOLFCAMP	-8719	12020	12020		NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

Pressure Rating (PSI): 10M **Rating Depth:** 14000

Equipment: The blowout preventer equipment (BOP) shown in Exhibit A will consist of a (10M system) double ram type (10,000 psi WP) preventer and a bag-type (Hydril) preventer (5000 psi WP). Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and 5" drill pipe rams on bottom. The BOP's will be installed on the 13-3/8" surface casing and utilized continuously until total depth is reached. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. A remote kill line will be used for the 10M system as per onshore order #2. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines, and choke manifold having a 10,000 psi WP rating. The 5M annular on the 10M system will be tested to 100% of rated working pressure.
Requesting Variance? YES

Variance request: A Choke Hose Variance is requested. See attached test chart and spec. 5M annular variance requested.

Testing Procedure: Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. All BOP's and associated equipment will be tested as per BLM drilling Operations Order No. 2.
Choke Diagram Attachment:

Choke_Hose___Test_Chart_and_Specs_20181129153440.pdf

10M_choke_mannifold_20181129153440.pdf

BOP Diagram Attachment:

5M_annular_well_control_plan_for_BLM_20181129153535.docx

BLM_10M_BOP_with_5M_annular_20190206145507.pdf

10M_annular_variance__20190206145525.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	14.75	10.75	NEW	API	N	0	890	0	890			890	J-55	40.5	ST&C	4.1	8.1	DRY	11.7	DRY	17.5
2	INTERMEDIATE	9.875	7.625	NEW	API	Y	0	8025	0	8000			8025	P-110	29.7	BUTT	1.4	2.4	DRY	4	DRY	3.9
3	PRODUCTION	6.75	5.5	NEW	API	Y	0	11902	0	11877			11902	P-110	20	BUTT	1.8	1.4	DRY	2.8	DRY	2.7
4	INTERMEDIATE	8.75	7.625	NEW	API	Y	8025	12102	8000	12077			4077	P-110	29.7	FJ	1.6	1.6	DRY	2.7	DRY	2.6
5	PRODUCTION	6.75	5.0	NEW	API	Y	11902	17689	11663	12700			5787	P-110	18	BUTT	1.8	1.4	DRY	1.9	DRY	1.8

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

New_Mesa_B_15H_casing_assumption_20191218121655.JPG

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

Inspection Document:

Spec Document:

Tapered String Spec:

7_5_8_tapered_string_spec_9_7_8_hole_20191120104832.jpg

Casing Design Assumptions and Worksheet(s):

New_Mesa_B_15H_casing_assumption_20191218121646.JPG

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

5.5_tapered_string_spec_20191120105239.jpg

Casing Design Assumptions and Worksheet(s):

New_Mesa_B_15H_casing_assumption_20191218121639.JPG

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

Casing Attachments

Casing ID: 4 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

7_5_8_tapered_string_spec_20191120105055.jpg

Casing Design Assumptions and Worksheet(s):

New_Mesa_B_15H_casing_assumption_20191218121631.JPG

Casing ID: 5 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

5_tapered_string_spec_20191120105403.jpg

Casing Design Assumptions and Worksheet(s):

New_Mesa_B_15H_casing_assumption_20191218121621.JPG

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					1.8					
SURFACE	Tail										
INTERMEDIATE	Lead					2.19					
INTERMEDIATE	Tail										
INTERMEDIATE	Lead					2.64					

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail										
PRODUCTION	Lead					0					
PRODUCTION	Lead					1.27					

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
0	890	OTHER : FW Spud	8.3	8.4							
890	12102	OTHER : DBE	9	9.4							
12102	12700	OIL-BASED MUD	11	14							

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

Section 6 - Test, Logging, Coring

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

Drill Stem Tests will be based on geological sample shows.

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

CBL,GR,MUDLOG

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 9246 **Anticipated Surface Pressure:** 6452

Anticipated Bottom Hole Temperature(F): 183

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:

H2S_Plan_20181129153648.pdf

H2S_Equipment_Schematic_20181129153733.pdf

BTA_Oil_Producers_LLC___EMERGENCY_CALL_LIST_20190206152827.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Mesa_B__15H_directional_plan_20191120111850.pdf

Mesa_B__15H_Wall_plot_20191120111851.pdf

Mesa_B_8115_Fed_Com_15H_Gas_Capture_Plan_20191120111900.pdf

Other proposed operations facets description:

A variance is requested for a Multi Bowl Wellhead. See the attached schematic and running procedure. *All strings will be kept 1/3 full while running.

Other proposed operations facets attachment:

Other Variance attachment:

Casing_Head_Running_Procedure_20181129153916.pdf

Multi_Bowl_Diagram_20181129153852.pdf

BTA OIL PRODUCERS LLC

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

a. The hazards and characteristics of hydrogen sulfide (H_2S).
b. The proper use and maintenance of personal protective equipment and life support systems.
c. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

a. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
c. The contents and requirements of the H_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S. If H2S greater than 100 ppm is encountered in the gas stream we will shut in and install H2S equipment.

a. Well Control Equipment:
Flare line.
Choke manifold with remotely operated choke.
Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.
b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
c. H2S detection and monitoring equipment:

2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.

d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.

f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

g. Communication:
Company vehicles equipped with cellular telephone.

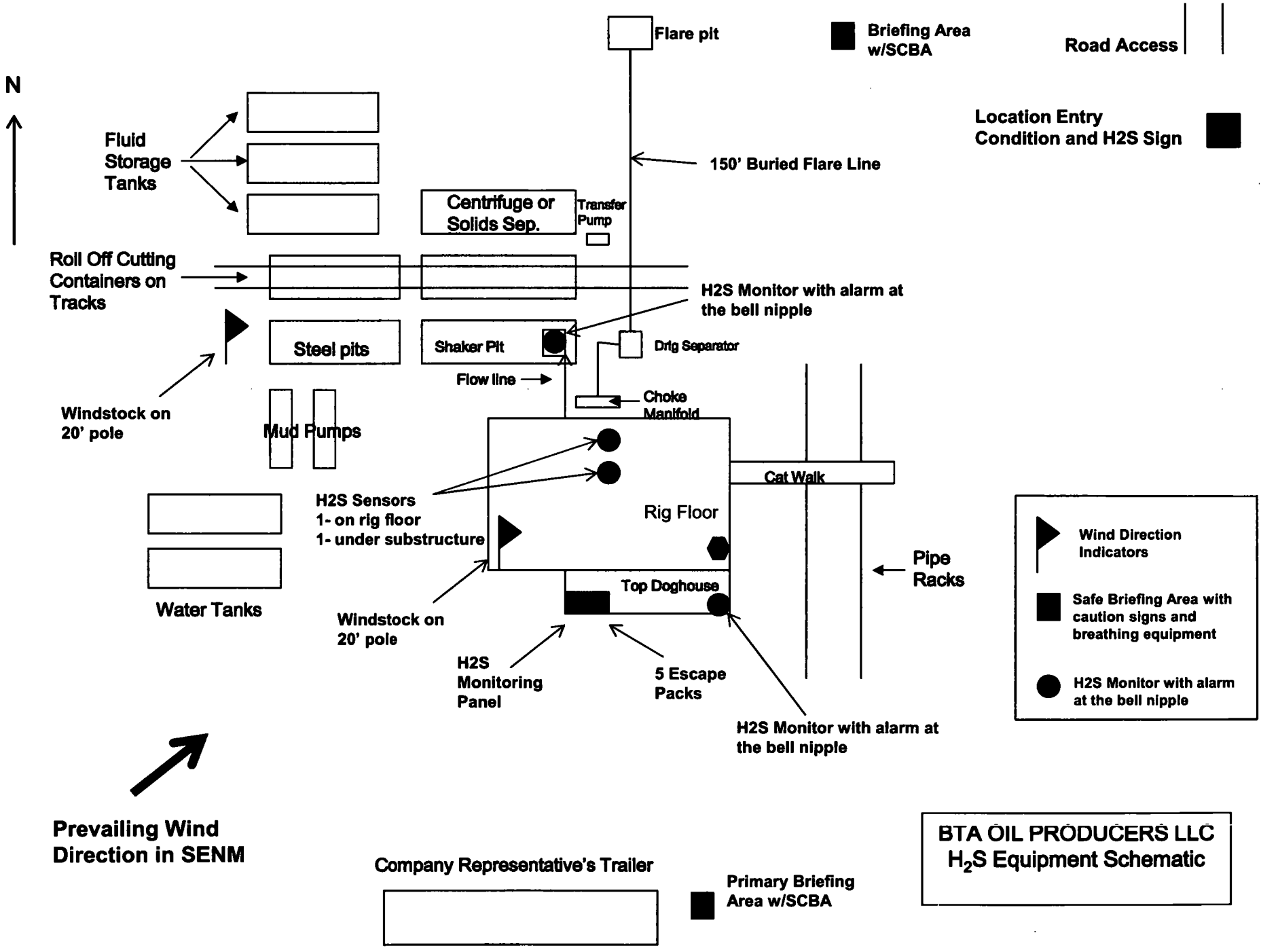
WARNING

YOU ARE ENTERING AN H_2S AREA
AUTHORIZED PERSONNEL ONLY

1. ***BEARDS OR CONTACT LENSES NOT ALLOWED***
2. ***HARD HATS REQUIRED***
3. ***SMOKING IN DESIGNATED AREAS ONLY***
4. ***BE WIND CONSCIOUS AT ALL TIMES***
5. ***CK WITH BTA OIL PRODUCERS LLC FOREMAN AT MAIN OFFICE***

BTA OIL PRODUCERS LLC

1-432-682-3753



BTA OIL PRODUCERS LLC
H_2S Equipment Schematic

EMERGENCY CALL LIST

	OFFICE	MOBILE
BTA Oil Producers LLC OFFICE	432-682-3753	
BEN GRIMES, Operations	432-682-3753	432-559-4309
NICK EATON, Drilling	432-682-3753	432-260-7841
TRACE WOHLFAHRT, Completions	432-682-3753	

EMERGENCY RESPONSE NUMBERS

	OFFICE
STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451

BTA Oil Producers, LLC

Lea County, NM (NAD 83)
Mesa B
Mesa B #15H

Wellbore #1

Plan: Design #1

Standard Planning Report

06 November, 2019

Database:	Old	**Local Co-ordinate Reference:**	Well Mesa B #15H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL* @ 3290.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL* @ 3290.0usft
Site:	Mesa B	**North Reference:**	Grid
Well:	Mesa B #15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Lea County, NM (NAD 83), Lea County, NM		
Map System:	US State Plane 1983	**System Datum:**	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site	Mesa B				
Site Position:		**Northing:**	383,154.37 usft	**Latitude:**	32° 3' 4.704 N
From:	Map	**Easting:**	765,479.20 usft	**Longitude:**	103° 36' 35.543 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.38 °

Well	Mesa B #15H					
Well Position	**+N/-S**	4,668.9 usft	**Northing:**	387,823.10 usft	**Latitude:**	32° 3' 50.815 N
	+E/-W	1,345.0 usft	**Easting:**	766,824.20 usft	**Longitude:**	103° 36' 19.550 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	3,290.0 usft

Wellbore	Wellbore #1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	12/31/2009	7.75	60.09	48,693.57808122

Design	Design #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	181.84	

Plan Survey Tool Program **Date** 11/6/2019

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,688.7	Design #1 (Wellbore #1)		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.1	0.00	0.00	2,000.1	0.0	0.0	0.00	0.00	0.00	0.00	
2,325.1	6.50	335.14	2,324.4	16.7	-7.7	2.00	2.00	0.00	335.14	
5,991.6	6.50	335.14	5,967.3	393.3	-182.3	0.00	0.00	0.00	0.00	
6,316.6	0.00	0.00	6,291.6	410.0	-190.0	2.00	-2.00	0.00	180.00	
12,102.0	0.00	0.00	12,077.0	410.0	-190.0	0.00	0.00	0.00	0.00	
12,152.0	0.00	0.00	12,127.0	410.0	-190.0	0.00	0.00	0.00	0.00	
13,052.0	90.00	179.60	12,700.0	-162.9	-186.0	10.00	10.00	0.00	179.60	
17,688.7	90.00	179.60	12,700.0	-4,799.6	-154.0	0.00	0.00	0.00	0.00	Mesa B #15H BHL

Database:	Old	**Local Co-ordinate Reference:**	Well Mesa B #15H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL* @ 3290.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL* @ 3290.0usft
Site:	Mesa B	**North Reference:**	Grid
Well:	Mesa B #15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.1	0.00	0.00	2,000.1	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	2.00	335.14	2,100.0	1.6	-0.7	-1.6	2.00	2.00	0.00
2,200.0	4.00	335.14	2,199.8	6.3	-2.9	-6.2	2.00	2.00	0.00
2,300.0	6.00	335.14	2,299.5	14.2	-6.6	-14.0	2.00	2.00	0.00
2,325.1	6.50	335.14	2,324.4	16.7	-7.7	-16.5	2.00	2.00	0.00
2,400.0	6.50	335.14	2,398.8	24.4	-11.3	-24.0	0.00	0.00	0.00
2,500.0	6.50	335.14	2,498.2	34.7	-16.1	-34.1	0.00	0.00	0.00
2,600.0	6.50	335.14	2,597.5	44.9	-20.8	-44.3	0.00	0.00	0.00
2,700.0	6.50	335.14	2,696.9	55.2	-25.6	-54.4	0.00	0.00	0.00
2,800.0	6.50	335.14	2,796.3	65.5	-30.3	-64.5	0.00	0.00	0.00
2,900.0	6.50	335.14	2,895.6	75.8	-35.1	-74.6	0.00	0.00	0.00
3,000.0	6.50	335.14	2,995.0	86.0	-39.9	-84.7	0.00	0.00	0.00
3,100.0	6.50	335.14	3,094.3	96.3	-44.6	-94.8	0.00	0.00	0.00
3,200.0	6.50	335.14	3,193.7	106.6	-49.4	-104.9	0.00	0.00	0.00
3,300.0	6.50	335.14	3,293.0	116.8	-54.1	-115.0	0.00	0.00	0.00
3,400.0	6.50	335.14	3,392.4	127.1	-58.9	-125.2	0.00	0.00	0.00
3,500.0	6.50	335.14	3,491.8	137.4	-63.7	-135.3	0.00	0.00	0.00
3,600.0	6.50	335.14	3,591.1	147.7	-68.4	-145.4	0.00	0.00	0.00
3,700.0	6.50	335.14	3,690.5	157.9	-73.2	-155.5	0.00	0.00	0.00
3,800.0	6.50	335.14	3,789.8	168.2	-77.9	-165.6	0.00	0.00	0.00
3,900.0	6.50	335.14	3,889.2	178.5	-82.7	-175.7	0.00	0.00	0.00
4,000.0	6.50	335.14	3,988.5	188.7	-87.5	-185.8	0.00	0.00	0.00
4,100.0	6.50	335.14	4,087.9	199.0	-92.2	-195.9	0.00	0.00	0.00
4,200.0	6.50	335.14	4,187.3	209.3	-97.0	-206.1	0.00	0.00	0.00
4,300.0	6.50	335.14	4,286.6	219.6	-101.7	-216.2	0.00	0.00	0.00
4,400.0	6.50	335.14	4,386.0	229.8	-106.5	-226.3	0.00	0.00	0.00
4,500.0	6.50	335.14	4,485.3	240.1	-111.3	-236.4	0.00	0.00	0.00
4,600.0	6.50	335.14	4,584.7	250.4	-116.0	-246.5	0.00	0.00	0.00
4,700.0	6.50	335.14	4,684.0	260.6	-120.8	-256.6	0.00	0.00	0.00
4,800.0	6.50	335.14	4,783.4	270.9	-125.5	-266.7	0.00	0.00	0.00
4,900.0	6.50	335.14	4,882.8	281.2	-130.3	-276.9	0.00	0.00	0.00
5,000.0	6.50	335.14	4,982.1	291.4	-135.1	-287.0	0.00	0.00	0.00
5,100.0	6.50	335.14	5,081.5	301.7	-139.8	-297.1	0.00	0.00	0.00

Database:	Old	**Local Co-ordinate Reference:**	Well Mesa B #15H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL* @ 3290.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL* @ 3290.0usft
Site:	Mesa B	**North Reference:**	Grid
Well:	Mesa B #15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.0	6.50	335.14	5,180.8	312.0	-144.6	-307.2	0.00	0.00	0.00
5,300.0	6.50	335.14	5,280.2	322.3	-149.3	-317.3	0.00	0.00	0.00
5,400.0	6.50	335.14	5,379.5	332.5	-154.1	-327.4	0.00	0.00	0.00
5,500.0	6.50	335.14	5,478.9	342.8	-158.9	-337.5	0.00	0.00	0.00
5,600.0	6.50	335.14	5,578.3	353.1	-163.6	-347.6	0.00	0.00	0.00
5,700.0	6.50	335.14	5,677.6	363.3	-168.4	-357.8	0.00	0.00	0.00
5,800.0	6.50	335.14	5,777.0	373.6	-173.1	-367.9	0.00	0.00	0.00
5,900.0	6.50	335.14	5,876.3	383.9	-177.9	-378.0	0.00	0.00	0.00
5,991.6	6.50	335.14	5,967.3	393.3	-182.3	-387.2	0.00	0.00	0.00
6,000.0	6.33	335.14	5,975.7	394.1	-182.7	-388.1	2.00	-2.00	0.00
6,100.0	4.33	335.14	6,075.2	402.6	-186.6	-396.4	2.00	-2.00	0.00
6,200.0	2.33	335.14	6,175.1	407.8	-189.0	-401.6	2.00	-2.00	0.00
6,300.0	0.33	335.14	6,275.0	410.0	-190.0	-403.7	2.00	-2.00	0.00
6,316.6	0.00	0.00	6,291.6	410.0	-190.0	-403.7	2.00	-2.00	0.00
6,400.0	0.00	0.00	6,375.0	410.0	-190.0	-403.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,475.0	410.0	-190.0	-403.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,575.0	410.0	-190.0	-403.7	0.00	0.00	0.00
6,700.0	0.00	0.00	6,675.0	410.0	-190.0	-403.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,775.0	410.0	-190.0	-403.7	0.00	0.00	0.00
6,900.0	0.00	0.00	6,875.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,975.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,100.0	0.00	0.00	7,075.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,175.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,300.0	0.00	0.00	7,275.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,375.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,500.0	0.00	0.00	7,475.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,575.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,675.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,775.0	410.0	-190.0	-403.7	0.00	0.00	0.00
7,900.0	0.00	0.00	7,875.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,975.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,100.0	0.00	0.00	8,075.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,175.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,275.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,375.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,475.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,575.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,675.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,775.0	410.0	-190.0	-403.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,875.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,975.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,100.0	0.00	0.00	9,075.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,175.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,275.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,400.0	0.00	0.00	9,375.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,475.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,575.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,675.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,775.0	410.0	-190.0	-403.7	0.00	0.00	0.00
9,900.0	0.00	0.00	9,875.0	410.0	-190.0	-403.7	0.00	0.00	0.00
10,000.0	0.00	0.00	9,975.0	410.0	-190.0	-403.7	0.00	0.00	0.00
10,100.0	0.00	0.00	10,075.0	410.0	-190.0	-403.7	0.00	0.00	0.00
10,200.0	0.00	0.00	10,175.0	410.0	-190.0	-403.7	0.00	0.00	0.00
10,300.0	0.00	0.00	10,275.0	410.0	-190.0	-403.7	0.00	0.00	0.00

Database:	Old	**Local Co-ordinate Reference:**	Well Mesa B #15H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL* @ 3290.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL* @ 3290.0usft
Site:	Mesa B	**North Reference:**	Grid
Well:	Mesa B #15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,400.0	0.00	0.00	10,375.0	410.0	-190.0	-403.7	0.00	0.00	0.00
10,500.0	0.00	0.00	10,475.0	410.0	-190.0	-403.7	0.00	0.00	0.00
10,600.0	0.00	0.00	10,575.0	410.0	-190.0	-403.7	0.00	0.00	0.00
10,700.0	0.00	0.00	10,675.0	410.0	-190.0	-403.7	0.00	0.00	0.00
10,800.0	0.00	0.00	10,775.0	410.0	-190.0	-403.7	0.00	0.00	0.00
10,900.0	0.00	0.00	10,875.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,000.0	0.00	0.00	10,975.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,100.0	0.00	0.00	11,075.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,200.0	0.00	0.00	11,175.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,300.0	0.00	0.00	11,275.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,400.0	0.00	0.00	11,375.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,500.0	0.00	0.00	11,475.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,600.0	0.00	0.00	11,575.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,700.0	0.00	0.00	11,675.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,800.0	0.00	0.00	11,775.0	410.0	-190.0	-403.7	0.00	0.00	0.00
11,900.0	0.00	0.00	11,875.0	410.0	-190.0	-403.7	0.00	0.00	0.00
12,000.0	0.00	0.00	11,975.0	410.0	-190.0	-403.7	0.00	0.00	0.00
12,100.0	0.00	0.00	12,075.0	410.0	-190.0	-403.7	0.00	0.00	0.00
12,102.0	0.00	0.00	12,077.0	410.0	-190.0	-403.7	0.00	0.00	0.00
12,152.0	0.00	0.00	12,127.0	410.0	-190.0	-403.7	0.00	0.00	0.00
12,200.0	4.80	179.60	12,175.0	408.0	-190.0	-401.7	10.00	10.00	0.00
12,300.0	14.80	179.60	12,273.4	391.0	-189.9	-384.7	10.00	10.00	0.00
12,400.0	24.80	179.60	12,367.4	357.2	-189.6	-350.9	10.00	10.00	0.00
12,500.0	34.80	179.60	12,454.0	307.5	-189.3	-301.3	10.00	10.00	0.00
12,600.0	44.80	179.60	12,530.8	243.6	-188.9	-237.4	10.00	10.00	0.00
12,700.0	54.80	179.60	12,595.2	167.3	-188.3	-161.2	10.00	10.00	0.00
12,800.0	64.80	179.60	12,645.5	81.0	-187.7	-74.9	10.00	10.00	0.00
12,900.0	74.80	179.60	12,680.0	-12.7	-187.1	18.7	10.00	10.00	0.00
13,000.0	84.80	179.60	12,697.6	-111.0	-186.4	116.9	10.00	10.00	0.00
13,052.0	90.00	179.60	12,700.0	-162.9	-186.0	168.8	10.00	10.00	0.00
13,100.0	90.00	179.60	12,700.0	-210.9	-185.7	216.8	0.00	0.00	0.00
13,200.0	90.00	179.60	12,700.0	-310.9	-185.0	316.7	0.00	0.00	0.00
13,300.0	90.00	179.60	12,700.0	-410.9	-184.3	416.6	0.00	0.00	0.00
13,400.0	90.00	179.60	12,700.0	-510.9	-183.6	516.6	0.00	0.00	0.00
13,500.0	90.00	179.60	12,700.0	-610.9	-182.9	616.5	0.00	0.00	0.00
13,600.0	90.00	179.60	12,700.0	-710.9	-182.3	716.4	0.00	0.00	0.00
13,700.0	90.00	179.60	12,700.0	-810.9	-181.6	816.3	0.00	0.00	0.00
13,800.0	90.00	179.60	12,700.0	-910.9	-180.9	916.3	0.00	0.00	0.00
13,900.0	90.00	179.60	12,700.0	-1,010.9	-180.2	1,016.2	0.00	0.00	0.00
14,000.0	90.00	179.60	12,700.0	-1,110.9	-179.5	1,116.1	0.00	0.00	0.00
14,100.0	90.00	179.60	12,700.0	-1,210.9	-178.8	1,216.0	0.00	0.00	0.00
14,200.0	90.00	179.60	12,700.0	-1,310.9	-178.1	1,316.0	0.00	0.00	0.00
14,300.0	90.00	179.60	12,700.0	-1,410.9	-177.4	1,415.9	0.00	0.00	0.00
14,400.0	90.00	179.60	12,700.0	-1,510.9	-176.7	1,515.8	0.00	0.00	0.00
14,500.0	90.00	179.60	12,700.0	-1,610.9	-176.0	1,615.7	0.00	0.00	0.00
14,600.0	90.00	179.60	12,700.0	-1,710.9	-175.3	1,715.6	0.00	0.00	0.00
14,700.0	90.00	179.60	12,700.0	-1,810.9	-174.7	1,815.6	0.00	0.00	0.00
14,800.0	90.00	179.60	12,700.0	-1,910.9	-174.0	1,915.5	0.00	0.00	0.00
14,900.0	90.00	179.60	12,700.0	-2,010.9	-173.3	2,015.4	0.00	0.00	0.00
15,000.0	90.00	179.60	12,700.0	-2,110.9	-172.6	2,115.3	0.00	0.00	0.00
15,100.0	90.00	179.60	12,700.0	-2,210.9	-171.9	2,215.3	0.00	0.00	0.00
15,200.0	90.00	179.60	12,700.0	-2,310.9	-171.2	2,315.2	0.00	0.00	0.00
15,300.0	90.00	179.60	12,700.0	-2,410.9	-170.5	2,415.1	0.00	0.00	0.00
15,400.0	90.00	179.60	12,700.0	-2,510.9	-169.8	2,515.0	0.00	0.00	0.00

Database:	Old	**Local Co-ordinate Reference:**	Well Mesa B #15H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL* @ 3290.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL* @ 3290.0usft
Site:	Mesa B	**North Reference:**	Grid
Well:	Mesa B #15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

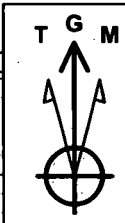
Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,500.0	90.00	179.60	12,700.0	-2,610.9	-169.1	2,615.0	0.00	0.00	0.00
15,600.0	90.00	179.60	12,700.0	-2,710.9	-168.4	2,714.9	0.00	0.00	0.00
15,700.0	90.00	179.60	12,700.0	-2,810.9	-167.7	2,814.8	0.00	0.00	0.00
15,800.0	90.00	179.60	12,700.0	-2,910.9	-167.1	2,914.7	0.00	0.00	0.00
15,900.0	90.00	179.60	12,700.0	-3,010.9	-166.4	3,014.7	0.00	0.00	0.00
16,000.0	90.00	179.60	12,700.0	-3,110.9	-165.7	3,114.6	0.00	0.00	0.00
16,100.0	90.00	179.60	12,700.0	-3,210.9	-165.0	3,214.5	0.00	0.00	0.00
16,200.0	90.00	179.60	12,700.0	-3,310.9	-164.3	3,314.4	0.00	0.00	0.00
16,300.0	90.00	179.60	12,700.0	-3,410.9	-163.6	3,414.4	0.00	0.00	0.00
16,400.0	90.00	179.60	12,700.0	-3,510.9	-162.9	3,514.3	0.00	0.00	0.00
16,500.0	90.00	179.60	12,700.0	-3,610.9	-162.2	3,614.2	0.00	0.00	0.00
16,600.0	90.00	179.60	12,700.0	-3,710.9	-161.5	3,714.1	0.00	0.00	0.00
16,700.0	90.00	179.60	12,700.0	-3,810.9	-160.8	3,814.1	0.00	0.00	0.00
16,800.0	90.00	179.60	12,700.0	-3,910.9	-160.1	3,914.0	0.00	0.00	0.00
16,900.0	90.00	179.60	12,700.0	-4,010.8	-159.5	4,013.9	0.00	0.00	0.00
17,000.0	90.00	179.60	12,700.0	-4,110.8	-158.8	4,113.8	0.00	0.00	0.00
17,100.0	90.00	179.60	12,700.0	-4,210.8	-158.1	4,213.7	0.00	0.00	0.00
17,200.0	90.00	179.60	12,700.0	-4,310.8	-157.4	4,313.7	0.00	0.00	0.00
17,300.0	90.00	179.60	12,700.0	-4,410.8	-156.7	4,413.6	0.00	0.00	0.00
17,400.0	90.00	179.60	12,700.0	-4,510.8	-156.0	4,513.5	0.00	0.00	0.00
17,500.0	90.00	179.60	12,700.0	-4,610.8	-155.3	4,613.4	0.00	0.00	0.00
17,600.0	90.00	179.60	12,700.0	-4,710.8	-154.6	4,713.4	0.00	0.00	0.00
17,688.7	90.00	179.60	12,700.0	-4,799.6	-154.0	4,802.0	0.00	0.00	0.00

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
Mesa B #15H BHL - plan hits target center - Point	0.00	0.00	12,700.0	-4,799.6	-154.0	383,023.70	766,670.20	32° 3' 3.332 N	103° 36' 21.715 W

BTA Oil Producers, LLC



Azimuths to Grid North
True North: -0.39°
Magnetic North: 7.37°

Magnetic Field
Strength: 48693.6nT
Dip Angle: 60.09°
Date: 12/31/2009
Model: IGRF200510

WELL DETAILS: Mesa B #15H

Ground Level Ground Level: 3290.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	387823.10	766824.20	32° 3' 50.815 N	103° 36' 19.550 W

SITE DETAILS: Mesa B

Site Centre Northing: 383154.37
Easting: 765479.20

Positional Uncertainity: 0.0
Convergence: 0.38
Local North: Grid

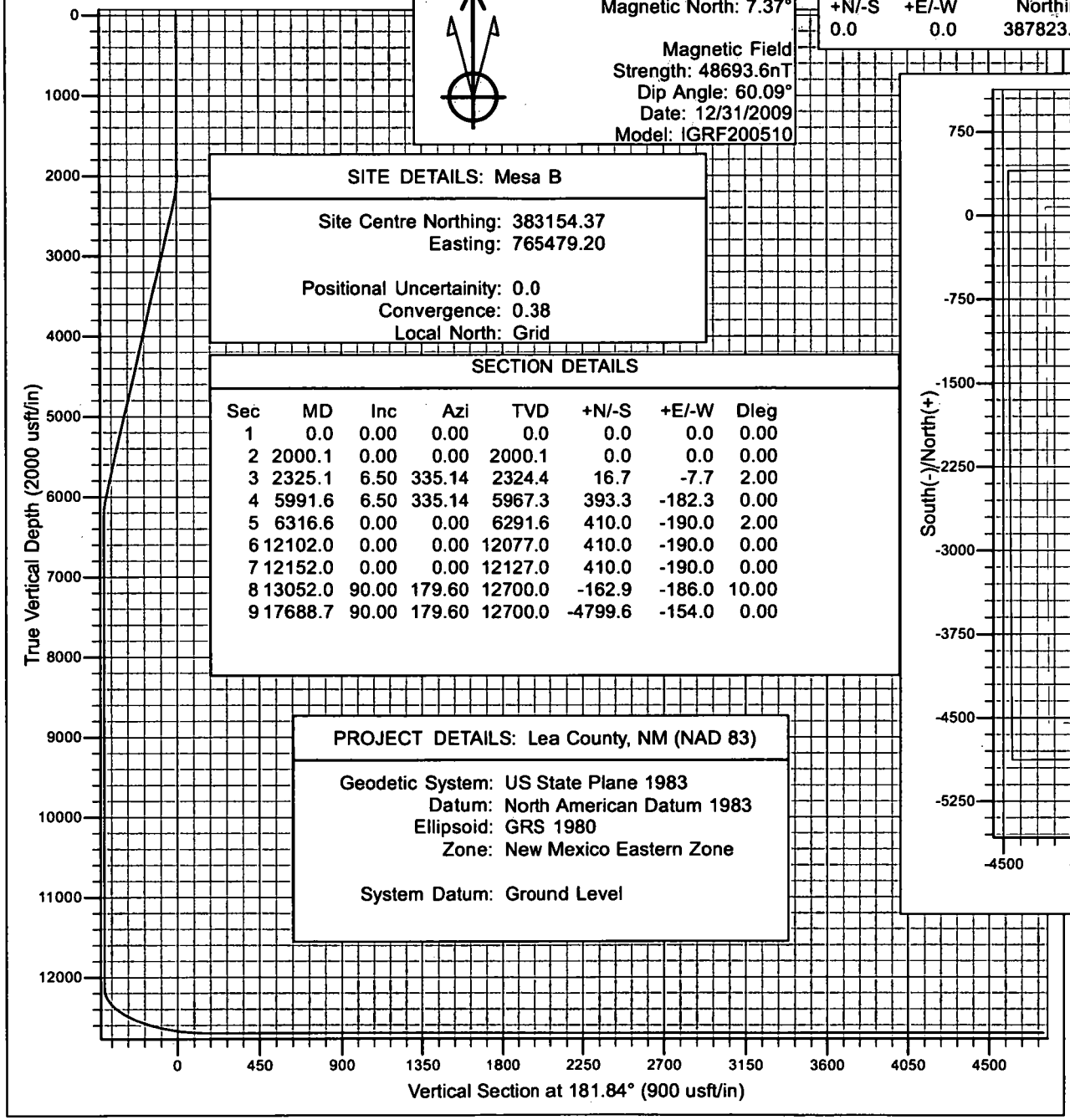
SECTION DETAILS

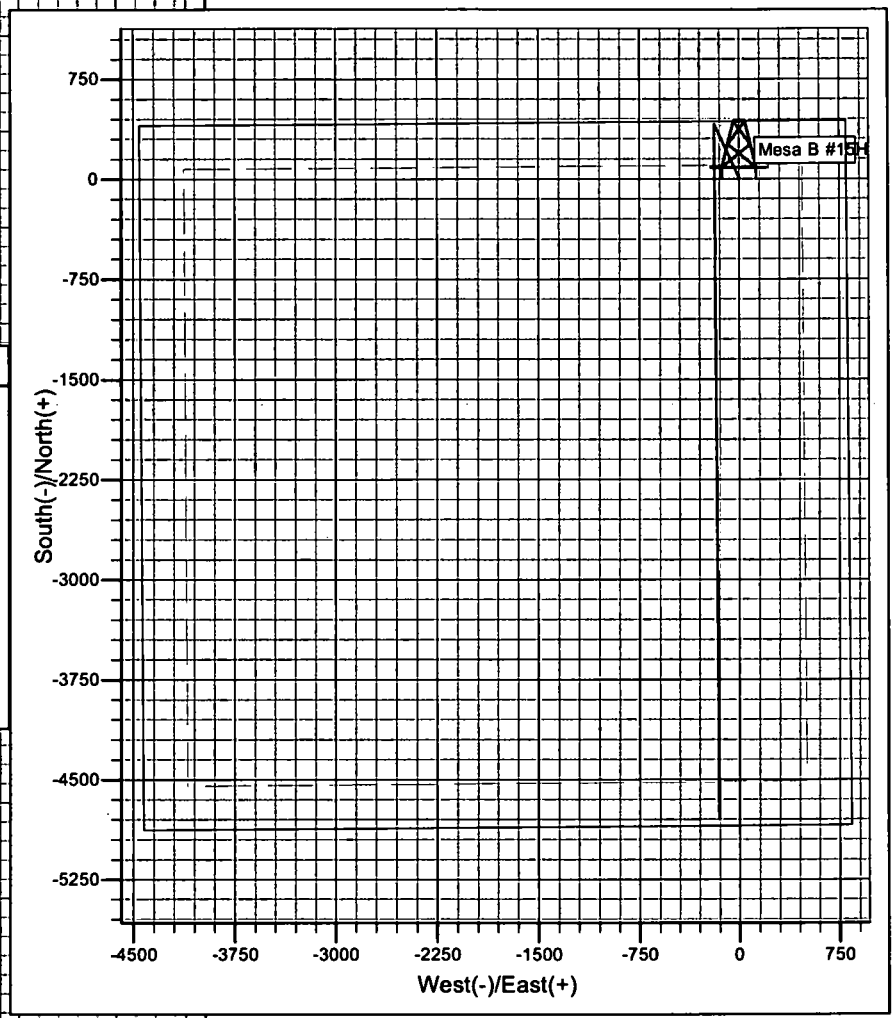
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00
2	2000.1	0.00	0.00	2000.1	0.0	0.0	0.00
3	2325.1	6.50	335.14	2324.4	16.7	-7.7	2.00
4	5991.6	6.50	335.14	5967.3	393.3	-182.3	0.00
5	6316.6	0.00	0.00	6291.6	410.0	-190.0	2.00
6	12102.0	0.00	0.00	12077.0	410.0	-190.0	0.00
7	12152.0	0.00	0.00	12127.0	410.0	-190.0	0.00
8	13052.0	90.00	179.60	12700.0	-162.9	-186.0	10.00
9	17688.7	90.00	179.60	12700.0	-4799.6	-154.0	0.00

PROJECT DETAILS: Lea County, NM (NAD 83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Ground Level





APD ID: 10400036935 **Submission Date:** 12/07/2018

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

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: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM Well Number: 15H

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: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM Well Number: 15H

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):

Other PWD discharge volume (bbl/day):

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

APD ID: 10400036935 **Submission Date:** 12/07/2018

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA B 8115 FED COM **Well Number:** 15H

Show Final Text

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

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001711

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:

WFT Casing Head (Slip on Weld with O-Ring) Running Procedure

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