Form 3160-3
(June 2015)

OCD – HOBBS
05/06/2020
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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.
NMNM014492

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.
MESA 8105 11 FED
[328173]
45H

2. Name of Operator
BTA OIL PRODUCERS LLC [260297]

9. API Well No. **30-025-47155**

3a. Address
104 S. Pecos, Midland, TX 79701

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

10. Field and Pool, or Exploratory **[97838]**
BOBCAT DRAW/BOBCAT DRAW; UPPE

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NWNE / 330 FNL / 2428 FEL / LAT 32.064103 / LONG -103.644817
At proposed prod. zone SESW / 50 FSL / 1980 FWL / LAT 32.050444 / LONG -103.647751

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 11/T26S/R32E/NMP

14. Distance in miles and direction from nearest town or post office*
12 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)
330 feet

16. No of acres in lease
1960

17. Spacing Unit dedicated to this well
160.0

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

19. Proposed Depth
8987 feet / 14146 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3251 feet

22. Approximate date work will start*
01/14/2020

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	10/28/2019

Title
Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Christopher Walls / Ph: (575) 234-2234	04/30/2020

Title	Office
Petroleum Engineer	Carlsbad Field Office

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

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 05/06/2020

KZ
05/06/2020

SL

APPROVED WITH CONDITIONS

Approval Date: 04/30/2020

(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**BTA OIL PRODUCTION COMPANY**
LEASE NO.:	**NMNM014492**
WELL NAME & NO.:	MESA 8105 1-12 FED 45H
SURFACE HOLE FOOTAGE:	330'/N & 2428'/E
BOTTOM HOLE FOOTAGE	50'/S & 1980'/W
LOCATION:	Section 11, T.26 S., R.32 E., NMP
COUNTY:	Lea County, New Mexico

COA

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

Break Testing	(•) Yes	( ) No

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the Red Hills 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

Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1100** 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.

2. The **9-5/8** inch intermediate casing shall be set at approximately **4616** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- 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.**

❖ 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 **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. 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 **3000 (3M)** 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)

BOP Break Testing Variance (Note: For 5M BOP or less)

- BOPE Break Testing is ONLY permitted for 5M BOPE or less.
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required.
- The BLM is to be contacted (575-361-2822 Eddy County) (575-393-3612 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.

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.

OTA04242020

AFMSS

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

Operator Certification Data Report

05/06/2020

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:** 10/28/2019

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 S. Pecos

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

Phone: (432)682-3753

Email address: shajar@btaoil.com

APD ID: 10400050233 **Submission Date:** 10/28/2019

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED **Well Number:** 45H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400050233 **Tie to previous NOS?** **Submission Date:** 10/28/2019

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: NMNM014492 **Lease Acres:** 1960

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

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? Y

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 8105 11 FED **Well Number:** 45H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** BOBCAT DRAW **Pool Name:** BOBCAT DRAW; UPPER WOLFCAMP

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

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED **Well Number:** 45H

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?** Y **New surface disturbance?** Y

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** MESA 8105 **Number:** 6H, 44H, and 45H

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 12 Miles **Distance to nearest well:** 362 FT **Distance to lease line:** 330 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Mesa_8105_45H_C102_20191028151443.pdf

Well work start Date: 01/14/2020 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NGVD29

Survey number: **Reference Datum:** GROUND LEVEL

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	330	FNL	2428	FEL	26S	32E	11	Aliquot NWNE	32.064103	-103.644817	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 014492	3251	0	0	N
KOP Leg #1	100	FNL	1980	FWL	26S	32E	11	Aliquot NENW	32.064735	-103.647849	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 014492	-5258	8588	8509	Y
PPP Leg #1-1	100	FNL	1980	FWL	26S	32E	11	Aliquot NENW	32.064735	-103.647849	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 014492	-5736	9338	8987	Y

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED **Well Number:** 45H

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	1980	FWL	26S	32E	11	Aliquot SESW	32.050581	-103.647752	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 014492	-5736	13866	8987	Y
BHL Leg #1	50	FSL	1980	FWL	26S	32E	11	Aliquot SESW	32.050444	-103.647751	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 014492	-5736	14146	8987	Y

APD ID: 10400050233 **Submission Date:** 10/28/2019

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED **Well Number:** 45H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
573846	QUATERNARY	3251	0	0	ALLUVIUM	NONE	N
573847	RUSTLER	2589	662	662	ANHYDRITE	NONE	N
573848	TOP SALT	2279	972	972	SALT	NONE	N
573849	BASE OF SALT	-756	4007	4007	SALT	NONE	N
573850	DELAWARE	-1365	4616	4616	LIMESTONE	NATURAL GAS, OIL	N
573859	BELL CANYON	-1389	4640	4640	SANDSTONE	NONE	N
573852	CHERRY CANYON	-2627	5878	5878	SANDSTONE	NATURAL GAS, OIL	N
573853	BRUSHY CANYON	-3994	7245	7245	SANDSTONE	NATURAL GAS, OIL	N
573857	BONE SPRING	-5608	8859	8859	LIMESTONE, SANDSTONE	CO2, NATURAL GAS, OIL	N
573860	UPPER AVALON SHALE	-5736	8987	8987	SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 11000

Equipment: The blowout preventer equipment (BOP) shown in Exhibit A will consist of a (5M system) double ram type (5,000 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 BOPs 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 5M 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 5,000 psi WP rating. The 5M annular will be tested as per BLM drilling Operations Order No. 2.

Requesting Variance? NO

Variance request:

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 drillers log. All BOPs and associated equipment will be tested as per BLM drilling Operations Order No. 2.

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED **Well Number:** 45H

Choke Diagram Attachment:

5M_choke_mannifold_20190723082749.pdf

Choke_Hose___Test_Chart_and_Specs_20190723082742.pdf

BOP Diagram Attachment:

5M_BOP_diagram_20190723082754.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	1100	0	1100	3251	2151	1100	J-55	54.5	ST&C	2.4	5.8	DRY	8.6	DRY	14.2
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4647	0	4616	3018	-1365	4647	J-55	40	LT&C	2.1	1.8	DRY	2.8	DRY	3.4
3	PRODUCTION	8.75	5.5	NEW	API	N	0	14146	0	8987	3018	-5736	14146	P-110	17	BUTT	1.7	2.4	DRY	2.4	DRY	2.3

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Mesa_45H_casing_assumption_20191028153124.JPG

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED **Well Number:** 45H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

vaca_draw_5.5_tapered_string_spec_20190723093759.JPG

Casing Design Assumptions and Worksheet(s):

Mesa_45H_casing_assumption_20191028153141.JPG

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Mesa_45H_casing_assumption_20191028153254.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		0	905	730	1.73	13.5	1262.9	100	Class C	2% CaCl2
SURFACE	Tail		905	1100	200	1.35	14.8	270	100	Class C	2% CaCl2
INTERMEDIATE	Lead		0	4090	1205	2.46	12.8	2964.3	100	Class C	0.5% CaCl2
INTERMEDIATE	Tail		4090	4647	200	1.34	14.8	268	25	Class C	1% CaCl2
PRODUCTION	Lead		3647	9910	615	3.9	10.5	2398.5	60	25% Poz 75% Class C	0.4% Fluid Loss

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED **Well Number:** 45H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		9910	14146	1070	1.25	14.4	1337.5	25	Class H	0.2% LT Retarder

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	1100	OTHER : FW SPUD	8.3	8.4							
1100	4616	OTHER : FW GEL	9	9.4							
4616	8987	OTHER : CUT BRINE	8.7	9.3							

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED **Well Number:** 45H

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:

MUD LOG/GEOLOGICAL LITHOLOGY LOG,GAMMA RAY LOG,CEMENT BOND LOG,

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4393 **Anticipated Surface Pressure:** 2415

Anticipated Bottom Hole Temperature(F): 151

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:

BTA_Oil_Producers_LLC___EMERGENCY_CALL_LIST_20190723161502.pdf
H2S_Equipment_Schematic_20190723161502.pdf
H2S_Plan_20190723161502.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Mesa_45H_Wall_plot_20191028153917.pdf
Mesa_45H_directional_plan_20191028153917.pdf
Mesa_8105_45H_Gas_Capture_Plan_20191028153931.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Other Variance attachment:

Casing_Head_Running_Procedure_20190723163249.pdf
BOP_Break_Testing_Variance_20200416093115.pdf
Multi_Bowl_Diagram_13_38_x_9_58_x_5_12_20200416093115.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.

W A R N I N G

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

WELL DETAILS: 8105 JV-p Mesa #45H					
+N/-S	+E/-W	Northing	Ground Level Easting	3250.0 Latittude	Longitude
0.0	0.0	387739.10	754711.00	32° 3' 50.770 N	103° 38' 40.318 W

T G M

Azimuths to Grid North
True North: -0.37°
Magnetic North: 7.41°

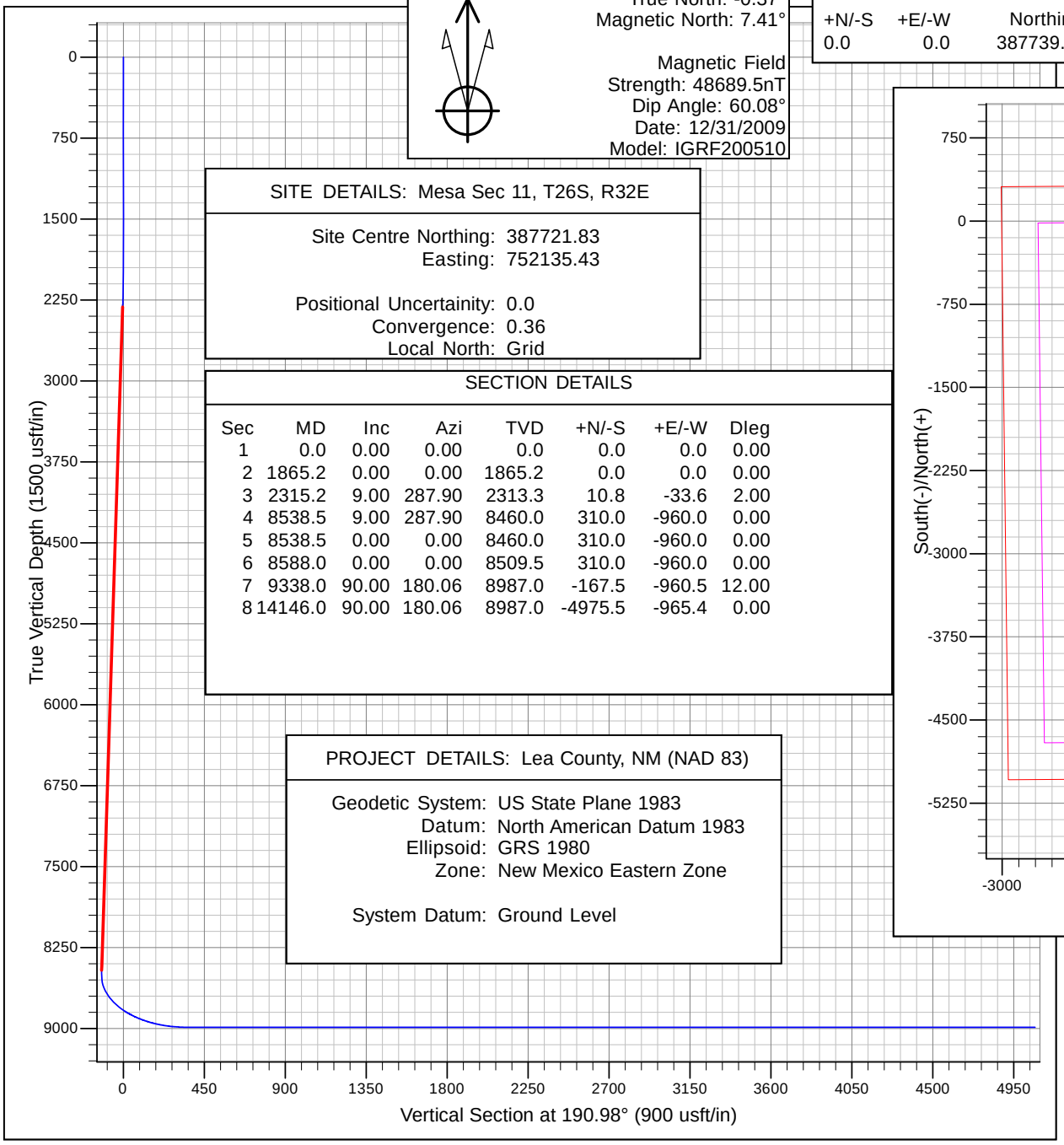
Magnetic Field
Strength: 48689.5nT
Dip Angle: 60.08°
Date: 12/31/2009
Model: IGRF200510

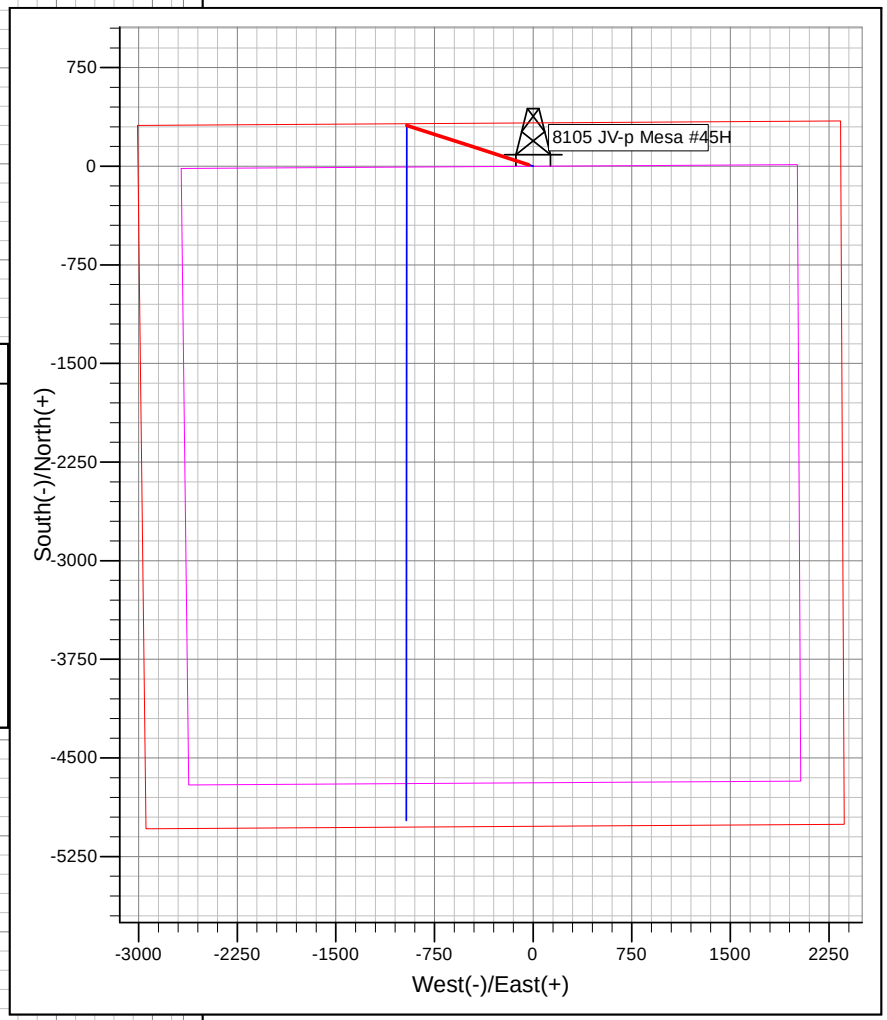
SITE DETAILS: Mesa Sec 11, T26S, R32E	
Site Centre Northing:	387721.83
Easting:	752135.43
Positional Uncertainity:	0.0
Convergence:	0.36
Local North:	Grid

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00
2	1865.2	0.00	0.00	1865.2	0.0	0.0	0.00
3	2315.2	9.00	287.90	2313.3	10.8	-33.6	2.00
4	8538.5	9.00	287.90	8460.0	310.0	-960.0	0.00
5	8538.5	0.00	0.00	8460.0	310.0	-960.0	0.00
6	8588.0	0.00	0.00	8509.5	310.0	-960.0	0.00
7	9338.0	90.00	180.06	8987.0	-167.5	-960.5	12.00
8	14146.0	90.00	180.06	8987.0	-4975.5	-965.4	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





BTA Oil Producers, LLC

Lea County, NM (NAD 83)
Mesa Sec 11, T26S, R32E
8105 JV-p Mesa #45H

Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

10 October, 2019

Database:	Old	**Local Co-ordinate Reference:**	Well 8105 JV-p Mesa #45H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3250.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3250.0usft
Site:	Mesa Sec 11, T26S, R32E	**North Reference:**	Grid
Well:	8105 JV-p Mesa #45H	**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 Sec 11, T26S, R32E

Site Position:		**Northing:**	387,721.83 usft	**Latitude:**	32° 3' 50.761 N
From:	Map	**Easting:**	752,135.43 usft	**Longitude:**	103° 39' 10.249 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.36 °

Well 8105 JV-p Mesa #45H

Well Position	**+N/-S**	0.0 usft	**Northing:**	387,739.10 usft	**Latitude:**	32° 3' 50.770 N
	+E/-W	0.0 usft	**Easting:**	754,711.00 usft	**Longitude:**	103° 38' 40.318 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,250.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.77	60.08	48,689.50805122

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	190.98

Plan Survey Tool Program **Date** 10/10/2019

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	14,146.0	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	
1,865.2	0.00	0.00	1,865.2	0.0	0.0	0.00	0.00	0.00	0.00	
2,315.2	9.00	287.90	2,313.3	10.8	-33.6	2.00	2.00	0.00	287.90	
8,538.5	9.00	287.90	8,460.0	310.0	-960.0	0.00	0.00	0.00	0.00	
8,538.5	0.00	0.00	8,460.0	310.0	-960.0	0.00	0.00	0.00	180.00	
8,588.0	0.00	0.00	8,509.5	310.0	-960.0	0.00	0.00	0.00	0.00	
9,338.0	90.00	180.06	8,987.0	-167.5	-960.5	12.00	12.00	0.00	180.06	
14,146.0	90.00	180.06	8,987.0	-4,975.5	-965.4	0.00	0.00	0.00	0.00	Mesa #45H BHL

Database:	Old	**Local Co-ordinate Reference:**	Well 8105 JV-p Mesa #45H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3250.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3250.0usft
Site:	Mesa Sec 11, T26S, R32E	**North Reference:**	Grid
Well:	8105 JV-p Mesa #45H	**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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
100.0	0.00	0.00	100.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
200.0	0.00	0.00	200.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
300.0	0.00	0.00	300.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
400.0	0.00	0.00	400.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
500.0	0.00	0.00	500.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
600.0	0.00	0.00	600.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
700.0	0.00	0.00	700.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
800.0	0.00	0.00	800.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
900.0	0.00	0.00	900.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,865.2	0.00	0.00	1,865.2	0.0	0.0	387,739.10	754,711.00	32° 3' 50.770 N	103° 38' 40.318 W
1,900.0	0.70	287.90	1,900.0	0.1	-0.2	387,739.16	754,710.80	32° 3' 50.771 N	103° 38' 40.321 W
2,000.0	2.70	287.90	2,000.0	1.0	-3.0	387,740.07	754,707.98	32° 3' 50.780 N	103° 38' 40.353 W
2,100.0	4.70	287.90	2,099.7	3.0	-9.2	387,742.05	754,701.84	32° 3' 50.800 N	103° 38' 40.424 W
2,200.0	6.70	287.90	2,199.2	6.0	-18.6	387,745.11	754,692.40	32° 3' 50.831 N	103° 38' 40.534 W
2,300.0	8.70	287.90	2,298.3	10.1	-31.3	387,749.22	754,679.65	32° 3' 50.872 N	103° 38' 40.682 W
2,315.2	9.00	287.90	2,313.3	10.8	-33.6	387,749.94	754,677.43	32° 3' 50.879 N	103° 38' 40.708 W
2,400.0	9.00	287.90	2,397.1	14.9	-46.2	387,754.02	754,664.80	32° 3' 50.921 N	103° 38' 40.854 W
2,500.0	9.00	287.90	2,495.9	19.7	-61.1	387,758.82	754,649.92	32° 3' 50.969 N	103° 38' 41.027 W
2,600.0	9.00	287.90	2,594.6	24.5	-76.0	387,763.63	754,635.03	32° 3' 51.018 N	103° 38' 41.199 W
2,700.0	9.00	287.90	2,693.4	29.3	-90.9	387,768.44	754,620.15	32° 3' 51.066 N	103° 38' 41.372 W
2,800.0	9.00	287.90	2,792.2	34.1	-105.7	387,773.24	754,605.26	32° 3' 51.115 N	103° 38' 41.544 W
2,900.0	9.00	287.90	2,891.0	39.0	-120.6	387,778.05	754,590.37	32° 3' 51.163 N	103° 38' 41.717 W
3,000.0	9.00	287.90	2,989.7	43.8	-135.5	387,782.86	754,575.49	32° 3' 51.212 N	103° 38' 41.890 W
3,100.0	9.00	287.90	3,088.5	48.6	-150.4	387,787.66	754,560.60	32° 3' 51.260 N	103° 38' 42.062 W
3,200.0	9.00	287.90	3,187.3	53.4	-165.3	387,792.47	754,545.72	32° 3' 51.309 N	103° 38' 42.235 W
3,300.0	9.00	287.90	3,286.0	58.2	-180.2	387,797.28	754,530.83	32° 3' 51.357 N	103° 38' 42.408 W
3,400.0	9.00	287.90	3,384.8	63.0	-195.1	387,802.08	754,515.94	32° 3' 51.406 N	103° 38' 42.580 W
3,500.0	9.00	287.90	3,483.6	67.8	-209.9	387,806.89	754,501.06	32° 3' 51.454 N	103° 38' 42.753 W
3,600.0	9.00	287.90	3,582.3	72.6	-224.8	387,811.70	754,486.17	32° 3' 51.503 N	103° 38' 42.926 W
3,700.0	9.00	287.90	3,681.1	77.4	-239.7	387,816.51	754,471.29	32° 3' 51.551 N	103° 38' 43.098 W
3,800.0	9.00	287.90	3,779.9	82.2	-254.6	387,821.31	754,456.40	32° 3' 51.600 N	103° 38' 43.271 W
3,900.0	9.00	287.90	3,878.6	87.0	-269.5	387,826.12	754,441.51	32° 3' 51.648 N	103° 38' 43.443 W
4,000.0	9.00	287.90	3,977.4	91.8	-284.4	387,830.93	754,426.63	32° 3' 51.697 N	103° 38' 43.616 W
4,100.0	9.00	287.90	4,076.2	96.6	-299.3	387,835.73	754,411.74	32° 3' 51.745 N	103° 38' 43.789 W
4,200.0	9.00	287.90	4,174.9	101.4	-314.2	387,840.54	754,396.86	32° 3' 51.794 N	103° 38' 43.961 W
4,300.0	9.00	287.90	4,273.7	106.3	-329.0	387,845.35	754,381.97	32° 3' 51.842 N	103° 38' 44.134 W
4,400.0	9.00	287.90	4,372.5	111.1	-343.9	387,850.15	754,367.08	32° 3' 51.891 N	103° 38' 44.307 W
4,500.0	9.00	287.90	4,471.3	115.9	-358.8	387,854.96	754,352.20	32° 3' 51.939 N	103° 38' 44.479 W
4,600.0	9.00	287.90	4,570.0	120.7	-373.7	387,859.77	754,337.31	32° 3' 51.988 N	103° 38' 44.652 W
4,700.0	9.00	287.90	4,668.8	125.5	-388.6	387,864.57	754,322.43	32° 3' 52.036 N	103° 38' 44.824 W
4,800.0	9.00	287.90	4,767.6	130.3	-403.5	387,869.38	754,307.54	32° 3' 52.085 N	103° 38' 44.997 W
4,900.0	9.00	287.90	4,866.3	135.1	-418.4	387,874.19	754,292.66	32° 3' 52.133 N	103° 38' 45.170 W
5,000.0	9.00	287.90	4,965.1	139.9	-433.2	387,879.00	754,277.77	32° 3' 52.182 N	103° 38' 45.342 W
5,100.0	9.00	287.90	5,063.9	144.7	-448.1	387,883.80	754,262.88	32° 3' 52.230 N	103° 38' 45.515 W
5,200.0	9.00	287.90	5,162.6	149.5	-463.0	387,888.61	754,248.00	32° 3' 52.279 N	103° 38' 45.688 W

Database:	Old	**Local Co-ordinate Reference:**	Well 8105 JV-p Mesa #45H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3250.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3250.0usft
Site:	Mesa Sec 11, T26S, R32E	**North Reference:**	Grid
Well:	8105 JV-p Mesa #45H	**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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,300.0	9.00	287.90	5,261.4	154.3	-477.9	387,893.42	754,233.11	32° 3' 52.327 N	103° 38' 45.860 W
5,400.0	9.00	287.90	5,360.2	159.1	-492.8	387,898.22	754,218.23	32° 3' 52.376 N	103° 38' 46.033 W
5,500.0	9.00	287.90	5,458.9	163.9	-507.7	387,903.03	754,203.34	32° 3' 52.424 N	103° 38' 46.205 W
5,600.0	9.00	287.90	5,557.7	168.7	-522.6	387,907.84	754,188.45	32° 3' 52.473 N	103° 38' 46.378 W
5,700.0	9.00	287.90	5,656.5	173.6	-537.5	387,912.64	754,173.57	32° 3' 52.521 N	103° 38' 46.551 W
5,800.0	9.00	287.90	5,755.2	178.4	-552.3	387,917.45	754,158.68	32° 3' 52.570 N	103° 38' 46.723 W
5,900.0	9.00	287.90	5,854.0	183.2	-567.2	387,922.26	754,143.80	32° 3' 52.618 N	103° 38' 46.896 W
6,000.0	9.00	287.90	5,952.8	188.0	-582.1	387,927.06	754,128.91	32° 3' 52.667 N	103° 38' 47.069 W
6,100.0	9.00	287.90	6,051.6	192.8	-597.0	387,931.87	754,114.02	32° 3' 52.715 N	103° 38' 47.241 W
6,200.0	9.00	287.90	6,150.3	197.6	-611.9	387,936.68	754,099.14	32° 3' 52.764 N	103° 38' 47.414 W
6,300.0	9.00	287.90	6,249.1	202.4	-626.8	387,941.49	754,084.25	32° 3' 52.812 N	103° 38' 47.586 W
6,400.0	9.00	287.90	6,347.9	207.2	-641.7	387,946.29	754,069.37	32° 3' 52.861 N	103° 38' 47.759 W
6,500.0	9.00	287.90	6,446.6	212.0	-656.5	387,951.10	754,054.48	32° 3' 52.909 N	103° 38' 47.932 W
6,600.0	9.00	287.90	6,545.4	216.8	-671.4	387,955.91	754,039.59	32° 3' 52.958 N	103° 38' 48.104 W
6,700.0	9.00	287.90	6,644.2	221.6	-686.3	387,960.71	754,024.71	32° 3' 53.006 N	103° 38' 48.277 W
6,800.0	9.00	287.90	6,742.9	226.4	-701.2	387,965.52	754,009.82	32° 3' 53.055 N	103° 38' 48.450 W
6,900.0	9.00	287.90	6,841.7	231.2	-716.1	387,970.33	753,994.94	32° 3' 53.103 N	103° 38' 48.622 W
7,000.0	9.00	287.90	6,940.5	236.0	-731.0	387,975.13	753,980.05	32° 3' 53.152 N	103° 38' 48.795 W
7,100.0	9.00	287.90	7,039.2	240.9	-745.9	387,979.94	753,965.16	32° 3' 53.200 N	103° 38' 48.968 W
7,200.0	9.00	287.90	7,138.0	245.7	-760.7	387,984.75	753,950.28	32° 3' 53.249 N	103° 38' 49.140 W
7,300.0	9.00	287.90	7,236.8	250.5	-775.6	387,989.55	753,935.39	32° 3' 53.297 N	103° 38' 49.313 W
7,400.0	9.00	287.90	7,335.5	255.3	-790.5	387,994.36	753,920.51	32° 3' 53.346 N	103° 38' 49.485 W
7,500.0	9.00	287.90	7,434.3	260.1	-805.4	387,999.17	753,905.62	32° 3' 53.394 N	103° 38' 49.658 W
7,600.0	9.00	287.90	7,533.1	264.9	-820.3	388,003.98	753,890.73	32° 3' 53.443 N	103° 38' 49.831 W
7,700.0	9.00	287.90	7,631.9	269.7	-835.2	388,008.78	753,875.85	32° 3' 53.491 N	103° 38' 50.003 W
7,800.0	9.00	287.90	7,730.6	274.5	-850.1	388,013.59	753,860.96	32° 3' 53.540 N	103° 38' 50.176 W
7,900.0	9.00	287.90	7,829.4	279.3	-865.0	388,018.40	753,846.08	32° 3' 53.588 N	103° 38' 50.349 W
8,000.0	9.00	287.90	7,928.2	284.1	-879.8	388,023.20	753,831.19	32° 3' 53.637 N	103° 38' 50.521 W
8,100.0	9.00	287.90	8,026.9	288.9	-894.7	388,028.01	753,816.30	32° 3' 53.685 N	103° 38' 50.694 W
8,200.0	9.00	287.90	8,125.7	293.7	-909.6	388,032.82	753,801.42	32° 3' 53.734 N	103° 38' 50.866 W
8,300.0	9.00	287.90	8,224.5	298.5	-924.5	388,037.62	753,786.53	32° 3' 53.782 N	103° 38' 51.039 W
8,400.0	9.00	287.90	8,323.2	303.3	-939.4	388,042.43	753,771.65	32° 3' 53.831 N	103° 38' 51.212 W
8,500.0	9.00	287.90	8,422.0	308.2	-954.3	388,047.24	753,756.76	32° 3' 53.879 N	103° 38' 51.384 W
8,538.5	0.00	0.00	8,460.0	310.0	-960.0	388,049.09	753,751.03	32° 3' 53.898 N	103° 38' 51.451 W
8,588.0	0.00	0.00	8,509.5	310.0	-960.0	388,049.09	753,751.03	32° 3' 53.898 N	103° 38' 51.451 W
8,600.0	1.44	180.06	8,521.5	309.8	-960.0	388,048.94	753,751.03	32° 3' 53.897 N	103° 38' 51.451 W
8,700.0	13.44	180.06	8,620.5	296.9	-960.0	388,036.01	753,751.02	32° 3' 53.769 N	103° 38' 51.452 W
8,800.0	25.44	180.06	8,714.6	263.7	-960.0	388,002.79	753,750.99	32° 3' 53.440 N	103° 38' 51.455 W
8,900.0	37.44	180.06	8,799.8	211.6	-960.1	387,950.73	753,750.93	32° 3' 52.925 N	103° 38' 51.459 W
9,000.0	49.44	180.06	8,872.3	143.0	-960.2	387,882.10	753,750.86	32° 3' 52.246 N	103° 38' 51.465 W
9,100.0	61.44	180.06	8,928.9	60.8	-960.3	387,799.90	753,750.78	32° 3' 51.432 N	103° 38' 51.472 W
9,200.0	73.44	180.06	8,967.2	-31.4	-960.4	387,707.72	753,750.68	32° 3' 50.520 N	103° 38' 51.480 W
9,300.0	85.44	180.06	8,985.5	-129.5	-960.5	387,609.60	753,750.58	32° 3' 49.549 N	103° 38' 51.488 W
9,338.0	90.00	180.06	8,987.0	-167.5	-960.5	387,571.64	753,750.54	32° 3' 49.174 N	103° 38' 51.492 W
9,400.0	90.00	180.06	8,987.0	-229.5	-960.6	387,509.65	753,750.48	32° 3' 48.560 N	103° 38' 51.497 W
9,500.0	90.00	180.06	8,987.0	-329.5	-960.7	387,409.65	753,750.38	32° 3' 47.571 N	103° 38' 51.506 W
9,600.0	90.00	180.06	8,987.0	-429.5	-960.8	387,309.65	753,750.27	32° 3' 46.581 N	103° 38' 51.514 W
9,700.0	90.00	180.06	8,987.0	-529.5	-960.9	387,209.66	753,750.17	32° 3' 45.592 N	103° 38' 51.523 W
9,800.0	90.00	180.06	8,987.0	-629.5	-961.0	387,109.66	753,750.07	32° 3' 44.602 N	103° 38' 51.531 W
9,900.0	90.00	180.06	8,987.0	-729.5	-961.1	387,009.67	753,749.96	32° 3' 43.612 N	103° 38' 51.540 W
10,000.0	90.00	180.06	8,987.0	-829.5	-961.2	386,909.67	753,749.86	32° 3' 42.623 N	103° 38' 51.549 W
10,100.0	90.00	180.06	8,987.0	-929.5	-961.3	386,809.67	753,749.76	32° 3' 41.633 N	103° 38' 51.557 W
10,200.0	90.00	180.06	8,987.0	-1,029.5	-961.4	386,709.68	753,749.66	32° 3' 40.644 N	103° 38' 51.566 W
10,300.0	90.00	180.06	8,987.0	-1,129.5	-961.5	386,609.68	753,749.55	32° 3' 39.654 N	103° 38' 51.574 W
10,400.0	90.00	180.06	8,987.0	-1,229.5	-961.6	386,509.69	753,749.45	32° 3' 38.665 N	103° 38' 51.583 W

Database:	Old	**Local Co-ordinate Reference:**	Well 8105 JV-p Mesa #45H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3250.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3250.0usft
Site:	Mesa Sec 11, T26S, R32E	**North Reference:**	Grid
Well:	8105 JV-p Mesa #45H	**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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,500.0	90.00	180.06	8,987.0	-1,329.5	-961.7	386,409.69	753,749.35	32° 3' 37.675 N	103° 38' 51.591 W
10,600.0	90.00	180.06	8,987.0	-1,429.5	-961.8	386,309.69	753,749.24	32° 3' 36.686 N	103° 38' 51.600 W
10,700.0	90.00	180.06	8,987.0	-1,529.5	-961.9	386,209.70	753,749.14	32° 3' 35.696 N	103° 38' 51.609 W
10,800.0	90.00	180.06	8,987.0	-1,629.5	-962.0	386,109.70	753,749.04	32° 3' 34.707 N	103° 38' 51.617 W
10,900.0	90.00	180.06	8,987.0	-1,729.5	-962.1	386,009.70	753,748.94	32° 3' 33.717 N	103° 38' 51.626 W
11,000.0	90.00	180.06	8,987.0	-1,829.5	-962.2	385,909.71	753,748.83	32° 3' 32.728 N	103° 38' 51.634 W
11,100.0	90.00	180.06	8,987.0	-1,929.5	-962.3	385,809.71	753,748.73	32° 3' 31.738 N	103° 38' 51.643 W
11,200.0	90.00	180.06	8,987.0	-2,029.5	-962.4	385,709.72	753,748.63	32° 3' 30.749 N	103° 38' 51.651 W
11,300.0	90.00	180.06	8,987.0	-2,129.5	-962.5	385,609.72	753,748.52	32° 3' 29.759 N	103° 38' 51.660 W
11,400.0	90.00	180.06	8,987.0	-2,229.5	-962.6	385,509.72	753,748.42	32° 3' 28.770 N	103° 38' 51.669 W
11,500.0	90.00	180.06	8,987.0	-2,329.5	-962.7	385,409.73	753,748.32	32° 3' 27.780 N	103° 38' 51.677 W
11,600.0	90.00	180.06	8,987.0	-2,429.5	-962.8	385,309.73	753,748.22	32° 3' 26.791 N	103° 38' 51.686 W
11,700.0	90.00	180.06	8,987.0	-2,529.5	-962.9	385,209.74	753,748.11	32° 3' 25.801 N	103° 38' 51.694 W
11,800.0	90.00	180.06	8,987.0	-2,629.5	-963.0	385,109.74	753,748.01	32° 3' 24.812 N	103° 38' 51.703 W
11,900.0	90.00	180.06	8,987.0	-2,729.5	-963.1	385,009.74	753,747.91	32° 3' 23.822 N	103° 38' 51.711 W
12,000.0	90.00	180.06	8,987.0	-2,829.5	-963.2	384,909.75	753,747.80	32° 3' 22.833 N	103° 38' 51.720 W
12,100.0	90.00	180.06	8,987.0	-2,929.5	-963.3	384,809.75	753,747.70	32° 3' 21.843 N	103° 38' 51.729 W
12,200.0	90.00	180.06	8,987.0	-3,029.5	-963.4	384,709.76	753,747.60	32° 3' 20.854 N	103° 38' 51.737 W
12,300.0	90.00	180.06	8,987.0	-3,129.5	-963.5	384,609.76	753,747.50	32° 3' 19.864 N	103° 38' 51.746 W
12,400.0	90.00	180.06	8,987.0	-3,229.5	-963.6	384,509.76	753,747.39	32° 3' 18.875 N	103° 38' 51.754 W
12,500.0	90.00	180.06	8,987.0	-3,329.5	-963.7	384,409.77	753,747.29	32° 3' 17.885 N	103° 38' 51.763 W
12,600.0	90.00	180.06	8,987.0	-3,429.5	-963.8	384,309.77	753,747.19	32° 3' 16.896 N	103° 38' 51.771 W
12,700.0	90.00	180.06	8,987.0	-3,529.5	-963.9	384,209.78	753,747.08	32° 3' 15.906 N	103° 38' 51.780 W
12,800.0	90.00	180.06	8,987.0	-3,629.5	-964.1	384,109.78	753,746.98	32° 3' 14.917 N	103° 38' 51.789 W
12,900.0	90.00	180.06	8,987.0	-3,729.5	-964.2	384,009.78	753,746.88	32° 3' 13.927 N	103° 38' 51.797 W
13,000.0	90.00	180.06	8,987.0	-3,829.5	-964.3	383,909.79	753,746.78	32° 3' 12.937 N	103° 38' 51.806 W
13,100.0	90.00	180.06	8,987.0	-3,929.5	-964.4	383,809.79	753,746.67	32° 3' 11.948 N	103° 38' 51.814 W
13,200.0	90.00	180.06	8,987.0	-4,029.5	-964.5	383,709.80	753,746.57	32° 3' 10.958 N	103° 38' 51.823 W
13,300.0	90.00	180.06	8,987.0	-4,129.5	-964.6	383,609.80	753,746.47	32° 3' 9.969 N	103° 38' 51.832 W
13,400.0	90.00	180.06	8,987.0	-4,229.5	-964.7	383,509.80	753,746.36	32° 3' 8.979 N	103° 38' 51.840 W
13,500.0	90.00	180.06	8,987.0	-4,329.5	-964.8	383,409.81	753,746.26	32° 3' 7.990 N	103° 38' 51.849 W
13,600.0	90.00	180.06	8,987.0	-4,429.5	-964.9	383,309.81	753,746.16	32° 3' 7.000 N	103° 38' 51.857 W
13,700.0	90.00	180.06	8,987.0	-4,529.5	-965.0	383,209.81	753,746.06	32° 3' 6.011 N	103° 38' 51.866 W
13,800.0	90.00	180.06	8,987.0	-4,629.5	-965.1	383,109.82	753,745.95	32° 3' 5.021 N	103° 38' 51.874 W
13,900.0	90.00	180.06	8,987.0	-4,729.5	-965.2	383,009.82	753,745.85	32° 3' 4.032 N	103° 38' 51.883 W
14,000.0	90.00	180.06	8,987.0	-4,829.5	-965.3	382,909.83	753,745.75	32° 3' 3.042 N	103° 38' 51.892 W
14,100.0	90.00	180.06	8,987.0	-4,929.5	-965.4	382,809.83	753,745.64	32° 3' 2.053 N	103° 38' 51.900 W
14,146.0	90.00	180.06	8,987.0	-4,975.5	-965.4	382,763.80	753,745.60	32° 3' 1.597 N	103° 38' 51.904 W

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 #45H BHL - plan hits target center - Point	0.00	0.00	8,987.0	-4,975.5	-965.4	382,763.80	753,745.60	32° 3' 1.597 N	103° 38' 51.904 W

APD ID: 10400050233 **Submission Date:** 10/28/2019

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED **Well Number:** 45H

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? N

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 8105 11 FED **Well Number:** 45H

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? N

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 8105 11 FED **Well Number:** 45H

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? N

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? N

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? N

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 8105 11 FED **Well Number:** 45H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

05/06/2020

APD ID: 10400050233

Submission Date: 10/28/2019

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 11 FED

Well Number: 45H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

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: