Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

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.

[327302]

2. Name of Operator **[260297]**

9. API Well No. **30-025-50875**

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool, or Exploratory **[97293]**
XXXXXXXXX **XXX**

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

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

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

12. County or Parish

13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

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
Title		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	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.

NGMP Rec 12/06/2022

KZ
12/20/2022

SL

APPROVED WITH CONDITIONS

Approval Date: 12/02/2022

(Continued on page 2)

*(Instructions on page 2)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-50875	97293	OJO CHISO;BONE SPRING, SOUTH

Property Code	Property Name	Well Number
327302	NORTH RIDGE 8040 FEDERAL COM	10H

OGRID No.	Operator Name	Elevation
260297	BTA OIL PRODUCERS, LLC	3407'

Surface Location

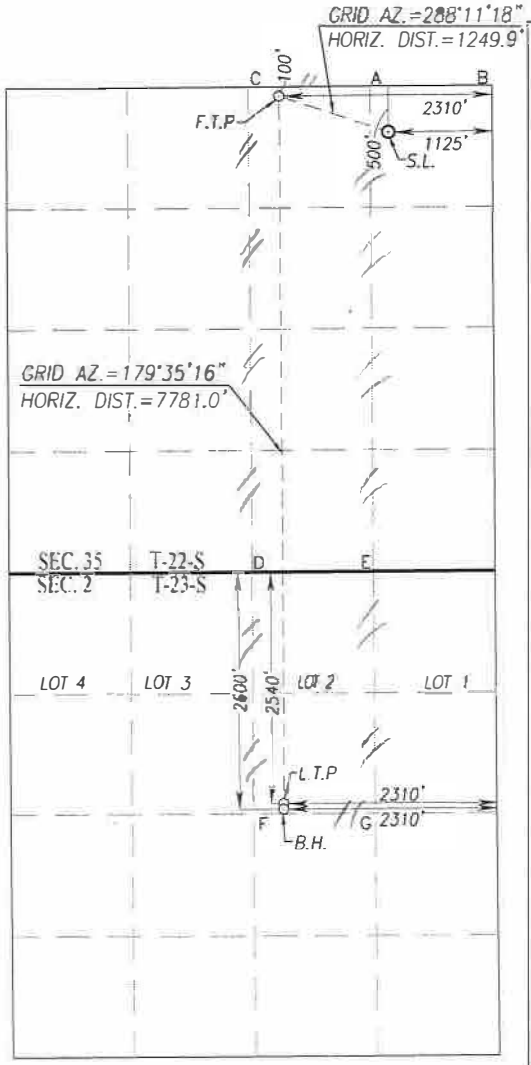
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	35	22-S	34-E		500	NORTH	1125	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	2	23-S	34-E		2600	NORTH	2310	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
240			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



SCALE: 1"=2000'

GEODETIC COORDINATES
NAD 83 NME
SURFACE LOCATION
Y= 493696.1 N
X= 818452.9 E
LAT.=32.354049° N
LONG.=103.435929° W

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y= 493635.8 N
X= 777269.3 E
LAT.=32.353924° N
LONG.=103.435451° W

FIRST TAKE POINT
NAD 83 NME
Y= 494086.2 N
X= 817265.7 E
LAT.=32.355148° N
LONG.=103.439762° W

FIRST TAKE POINT
NAD 27 NME
Y= 494025.9 N
X= 776082.1 E
LAT.=32.355024° N
LONG.=103.439284° W

CORNER COORDINATES TABLE
NAD 27 NME
A - Y= 494134.1 N, X= 777069.1 E
B - Y= 494145.1 N, X= 778391.0 E
C - Y= 494123.1 N, X= 775747.3 E
D - Y= 488843.3 N, X= 775782.6 E
E - Y= 488854.0 N, X= 777103.3 E
F - Y= 486194.4 N, X= 775806.2 E
G - Y= 486203.5 N, X= 777127.4 E

CORNER COORDINATES TABLE
NAD 83 NME
A - Y= 494194.4 N, X= 818252.7 E
B - Y= 494205.5 N, X= 819574.6 E
C - Y= 494183.4 N, X= 816930.8 E
D - Y= 488903.5 N, X= 816966.2 E
E - Y= 488914.1 N, X= 818287.0 E
F - Y= 486254.4 N, X= 816989.8 E
G - Y= 486263.6 N, X= 818311.1 E

LAST TAKE POINT
NAD 83 NME
Y= 486366.7 N
X= 817321.2 E
LAT.=32.333929° N
LONG.=103.439791° W

LAST TAKE POINT
NAD 27 NME
Y= 486306.6 N
X= 776137.5 E
LAT.=32.333805° N
LONG.=103.439314° W

BOTTOM HOLE LOCATION
NAD 83 NME
Y= 486306.7 N
X= 817321.6 E
LAT.=32.333765° N
LONG.=103.439791° W

BOTTOM HOLE LOCATION
NAD 27 NME
Y= 486246.6 N
X= 776137.9 E
LAT.=32.333640° N
LONG.=103.439314° W

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 4/5/2021 Date

Sammy Hajar
Printed Name

SHAJAR@BTAOIL.COM
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

OCTOBER 29, 2020
Date of Survey

Signature & Seal of Professional Surveyor

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

12/02/2020

Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239

ACK JWSC W.O. 20.11.0504

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: BTA Oil Producers, LLC **OGRID:** 260297 **Date:** 12 / 5 / 2022

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
NORTH RIDGE FEDERAL COM 10H	30-025-50875	A-35-22S-34E	500 FNL, 1125 FEL	+/- 800	+/- 2000	+/- 1200

IV. Central Delivery Point Name: NORTH RIDGE CTB [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
NORTH RIDGE FEDERAL COM 10H	30-025-50875	3/22/2023	4/11/2023	4/25/2023	5/16/2023	6/15/2023

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	Sammy Hajar
Printed Name:	Sammy Hajar
Title:	Regulatory Analyst
E-mail Address:	SHAJAR@BTAOIL.COM
Date:	12/5/2022
Phone:	432-682-3753

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Separation equipment will allow for adequate retention time to allow gas and liquids to separate.
- Separation equipment will separate all three phases (Oil, Water, and Gas).
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release gas from the well.

VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.

Drilling Operations

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

Completions/Recompletions Operations

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

Production Operations

- Weekly AVOs will be performed on all facilities that produce more than 60 MCFD.
- Leaking thief hatches and pressure safety valves found during AVOs will be cleaned and properly re-sealed.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All gas lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.

Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- All gas will have multiple points of separation to ensure no liquids enter flares, combustors, or gas sales line.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 MCFD.
- All OOOOa facilities will be filmed with an Optical Gas Imaging Thermographer camera once per month to check for fugitive emissions.

Measurement & Estimation

- All volume that is flared and vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- All meters will be calibrated at regular intervals according to meter manufacturer recommendations.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- During downhole well maintenance, BTA will use best management practices to vent as minimally as possible.
- Prior to the commencement of any maintenance, the tank or vessel will be isolated from the rest of the facilities.
- All valves upstream of the equipment will be closed and isolated.
- After equipment has been isolated, the equipment will be blown down to as low a pressure as possible into the collection system.
- If the equipment being maintained cannot be relieved into the collection system, it shall be released to a tank where the vapor can either be captured or combusted if possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.

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

Drilling Plan Data Report
12/05/2022

APD ID: 10400073016 **Submission Date:** 04/13/2021

Operator Name: BTA OIL PRODUCERS LLC

Well Name: NORTH RIDGE 8040 FEDERAL COM **Well Number:** 10H

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	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
3705648	QUATERNARY	3407	0	0	ALLUVIUM	NONE	N
3705649	RUSTLER	1625	1782	1782	ANHYDRITE	NONE	N
3705650	TOP SALT	1275	2132	2132	SALT	NONE	N
3705651	BASE OF SALT	75	3332	3332	SALT	NONE	N
8024402	CAPITAN REEF	-805	4212	4212	LIMESTONE, SHALE	NONE	N
3705652	DELAWARE	-2225	5632	5632	LIMESTONE	NATURAL GAS, OIL	N
3705661	BELL CANYON	-2285	5692	5692	SANDSTONE	NATURAL GAS, OIL	N
3705654	CHERRY CANYON	-2935	6342	6342	SANDSTONE	NATURAL GAS, OIL	N
3705655	BRUSHY CANYON	-3795	7202	7202	SANDSTONE	NATURAL GAS, OIL	N
3705656	BONE SPRING LIME	-5175	8582	8582	LIMESTONE	NATURAL GAS, OIL	N
3705670	FIRST BONE SPRING SAND	-6235	9642	9642	SANDSTONE	NATURAL GAS, OIL	N
3705673	BONE SPRING 2ND	-6775	10182	10182	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 12000

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

Operator Name: BTA OIL PRODUCERS LLC

Well Name: NORTH RIDGE 8040 FEDERAL COM **Well Number:** 10H

rating. The 5M annular will be tested as per BLM drilling Operations Order No. 2, and will be test to 100% of working pressure.

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.

Choke Diagram Attachment:

5M_choke_mannifold_20200917143047.pdf

Choke_Hose___Test_Chart_and_Specs_20190723082742.pdf

BOP Diagram Attachment:

5M_BOP_diagram_20200917143053.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	1775	0	1775	3407	1632	1775	J-55	54.5	ST&C	1.5	3.6	DRY	5.3	DRY	8.8
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5668	0	5612	3419	-2205	5668	J-55	40	LT&C	1.5	1.4	DRY	2.3	DRY	2.8
3	PRODUCTION	8.75	5.5	NEW	API	N	0	17976	0	10197	3419	-6790	17976	P-110	17	BUTT	1.5	2.1	DRY	1.9	DRY	1.8

Casing Attachments

Operator Name: BTA OIL PRODUCERS LLC

Well Name: NORTH RIDGE 8040 FEDERAL COM **Well Number:** 10H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

North_Ridge_10H_Casing_assumption_20210413142954.JPG

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

North_Ridge_10H_Casing_assumption_20210413143004.JPG

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

North_Ridge_10H_Casing_assumption_20210413143131.JPG

Section 4 - Cement

Operator Name: BTA OIL PRODUCERS LLC

Well Name: NORTH RIDGE 8040 FEDERAL COM **Well Number:** 10H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1140	1160	1.73	13.5	2006.8	100	Class C	2% CaCl2
SURFACE	Tail		1440	1775	340	1.35	14.8	459	100	Class C	2% CaCl2
INTERMEDIATE	Lead	4062	0	3505	1035	2.46	12.8	2546.1	100	Class C	0.5% CaCl2
INTERMEDIATE	Tail		3505	4062	200	1.34	14.8	268	25	Class C	1% CaCl2
INTERMEDIATE	Lead		4062	5110	1505	2.46	12.8	3702.3	100	Class C	0.5% CaCl2
INTERMEDIATE	Tail		5110	5668	200	1.34	14.8	268	25	Class C	1% CaCl2
PRODUCTION	Lead		4688	9830	500	3.9	10.5	1950	60	25% Poz 75% Class C	0.4% Fluid Loss
PRODUCTION	Tail		9830	17976	2060	1.25	14.4	2575	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	1775	OTHER : FW SPUD	8.3	8.4							

Operator Name: BTA OIL PRODUCERS LLC

Well Name: NORTH RIDGE 8040 FEDERAL COM **Well Number:** 10H

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
1775	5612	OTHER : Brine	10	10.2							
5612	10197	OTHER : CUT BRINE	8.7	9.3							

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: 4984 **Anticipated Surface Pressure:** 2740

Anticipated Bottom Hole Temperature(F): 162

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

BTA_Oil_Producers_LLC___EMERGENCY_CALL_LIST_20190723161502.pdf
H2S_Equipment_Schematic_20190723161502.pdf
H2S_Plan_20190723161502.pdf

Operator Name: BTA OIL PRODUCERS LLC

Well Name: NORTH RIDGE 8040 FEDERAL COM **Well Number:** 10H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

North_Ridge_10H_Wall_plot_20210413144455.pdf

North_Ridge_10H_directional_plan_20210413144455.pdf

North_Ridge_10H_Gas_Capture_Plan_20210413144503.pdf

Other proposed operations facets description:

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

Other proposed operations facets attachment:

Other Variance attachment:

BOP_Break_Testing_Variance_20200917143242.pdf

Multi_Bowl_Diagram_13_38_x_9_58_x_5_12_20200917143315.pdf

BTA Oil Producers, LLC

T G M

Azimuths to Grid North
True North: -0.48°
Magnetic North: 7.22°

Magnetic Field
Strength: 48887.4nT
Dip Angle: 60.39°
Date: 12/31/2009
Model: IGRF200510

WELL DETAILS: North Ridge #10H

+N/-S	+E/-W	Northing	Easting	Ground Level 3407.0 Latittude	Longitude
0.0	0.0	493696.10	818542.90	32° 21' 14.567 N	103° 26' 8.293 W

SITE DETAILS: North Ridge

Site Centre Northing: 493872.00
Easting: 815680.00

Positional Uncertainity: 0.0
Convergence: 0.48
Local North: Grid

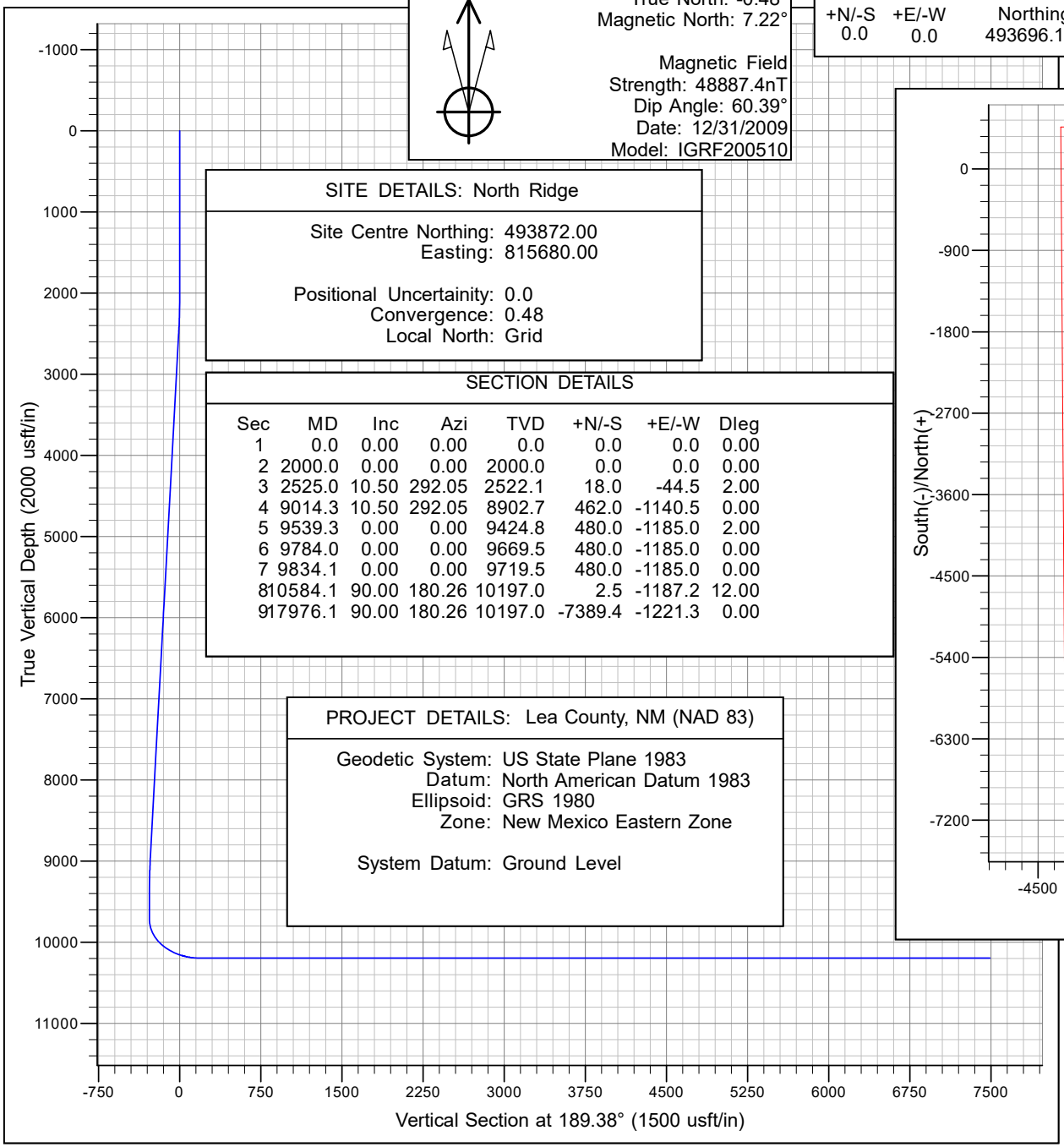
SECTION DETAILS

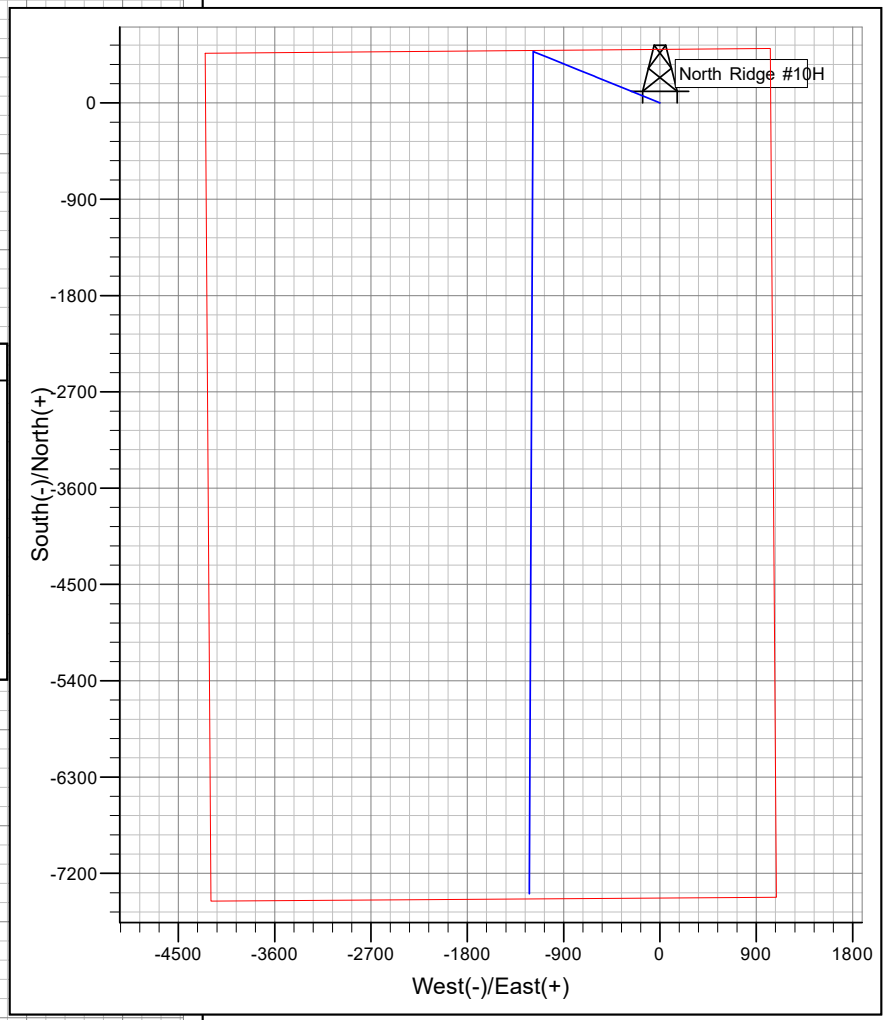
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00
3	2525.0	10.50	292.05	2522.1	18.0	-44.5	2.00
4	9014.3	10.50	292.05	8902.7	462.0	-1140.5	0.00
5	9539.3	0.00	0.00	9424.8	480.0	-1185.0	2.00
6	9784.0	0.00	0.00	9669.5	480.0	-1185.0	0.00
7	9834.1	0.00	0.00	9719.5	480.0	-1185.0	0.00
8	10584.1	90.00	180.26	10197.0	2.5	-1187.2	12.00
9	17976.1	90.00	180.26	10197.0	-7389.4	-1221.3	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)
North Ridge
North Ridge #10H

Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

08 April, 2021

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well North Ridge #10H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Site:	North Ridge	**North Reference:**	Grid
Well:	North Ridge #10H	**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 North Ridge

Site Position:		**Northing:**	493,872.00 usft	**Latitude:**	32° 21' 16.544 N
From:	Map	**Easting:**	815,680.00 usft	**Longitude:**	103° 26' 41.649 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well North Ridge #10H

Well Position	**+N/-S**	0.0 usft	**Northing:**	493,696.10 usft	**Latitude:**	32° 21' 14.567 N
	+E/-W	0.0 usft	**Easting:**	818,542.90 usft	**Longitude:**	103° 26' 8.293 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,407.0 usft
Grid Convergence:		0.48 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.70	60.39	48,887.39056159

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	189.38

Plan Survey Tool Program **Date** 4/8/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,976.1	Design #1 (Wellbore #1)		

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well North Ridge #10H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Site:	North Ridge	**North Reference:**	Grid
Well:	North Ridge #10H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,525.0	10.50	292.05	2,522.1	18.0	-44.5	2.00	2.00	0.00	292.05	
9,014.3	10.50	292.05	8,902.7	462.0	-1,140.5	0.00	0.00	0.00	0.00	
9,539.3	0.00	0.00	9,424.8	480.0	-1,185.0	2.00	-2.00	0.00	180.00	
9,784.0	0.00	0.00	9,669.5	480.0	-1,185.0	0.00	0.00	0.00	0.00	
9,834.1	0.00	0.00	9,719.5	480.0	-1,185.0	0.00	0.00	0.00	0.00	
10,584.1	90.00	180.26	10,197.0	2.5	-1,187.2	12.00	12.00	0.00	180.26	
17,976.1	90.00	180.26	10,197.0	-7,389.4	-1,221.3	0.00	0.00	0.00	0.00	North Ridge #10H BH

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well North Ridge #10H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Site:	North Ridge	**North Reference:**	Grid
Well:	North Ridge #10H	**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	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
100.0	0.00	0.00	100.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
200.0	0.00	0.00	200.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
300.0	0.00	0.00	300.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
400.0	0.00	0.00	400.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
500.0	0.00	0.00	500.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
600.0	0.00	0.00	600.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
700.0	0.00	0.00	700.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
800.0	0.00	0.00	800.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
900.0	0.00	0.00	900.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
2,000.0	0.00	0.00	2,000.0	0.0	0.0	493,696.10	818,542.90	32° 21' 14.567 N	103° 26' 8.293 W
2,100.0	2.00	292.05	2,100.0	0.7	-1.6	493,696.76	818,541.28	32° 21' 14.574 N	103° 26' 8.312 W
2,200.0	4.00	292.05	2,199.8	2.6	-6.5	493,698.72	818,536.43	32° 21' 14.594 N	103° 26' 8.369 W
2,300.0	6.00	292.05	2,299.5	5.9	-14.5	493,701.99	818,528.35	32° 21' 14.627 N	103° 26' 8.462 W
2,400.0	8.00	292.05	2,398.7	10.5	-25.8	493,706.57	818,517.06	32° 21' 14.673 N	103° 26' 8.594 W
2,500.0	10.00	292.05	2,497.5	16.3	-40.3	493,712.44	818,502.56	32° 21' 14.732 N	103° 26' 8.762 W
2,525.0	10.50	292.05	2,522.1	18.0	-44.5	493,714.11	818,498.44	32° 21' 14.749 N	103° 26' 8.810 W
2,600.0	10.50	292.05	2,595.8	23.1	-57.1	493,719.24	818,485.77	32° 21' 14.801 N	103° 26' 8.957 W
2,700.0	10.50	292.05	2,694.1	30.0	-74.0	493,726.08	818,468.88	32° 21' 14.870 N	103° 26' 9.153 W
2,800.0	10.50	292.05	2,792.5	36.8	-90.9	493,732.93	818,451.99	32° 21' 14.939 N	103° 26' 9.350 W
2,900.0	10.50	292.05	2,890.8	43.7	-107.8	493,739.77	818,435.10	32° 21' 15.008 N	103° 26' 9.546 W
3,000.0	10.50	292.05	2,989.1	50.5	-124.7	493,746.61	818,418.21	32° 21' 15.077 N	103° 26' 9.742 W
3,100.0	10.50	292.05	3,087.4	57.3	-141.6	493,753.45	818,401.32	32° 21' 15.146 N	103° 26' 9.938 W
3,200.0	10.50	292.05	3,185.8	64.2	-158.5	493,760.29	818,384.43	32° 21' 15.215 N	103° 26' 10.134 W
3,300.0	10.50	292.05	3,284.1	71.0	-175.4	493,767.13	818,367.54	32° 21' 15.284 N	103° 26' 10.331 W
3,400.0	10.50	292.05	3,382.4	77.9	-192.3	493,773.98	818,350.64	32° 21' 15.354 N	103° 26' 10.527 W
3,500.0	10.50	292.05	3,480.7	84.7	-209.1	493,780.82	818,333.75	32° 21' 15.423 N	103° 26' 10.723 W
3,600.0	10.50	292.05	3,579.1	91.6	-226.0	493,787.66	818,316.86	32° 21' 15.492 N	103° 26' 10.919 W
3,700.0	10.50	292.05	3,677.4	98.4	-242.9	493,794.50	818,299.97	32° 21' 15.561 N	103° 26' 11.116 W
3,800.0	10.50	292.05	3,775.7	105.2	-259.8	493,801.34	818,283.08	32° 21' 15.630 N	103° 26' 11.312 W
3,900.0	10.50	292.05	3,874.0	112.1	-276.7	493,808.18	818,266.19	32° 21' 15.699 N	103° 26' 11.508 W
4,000.0	10.50	292.05	3,972.4	118.9	-293.6	493,815.03	818,249.30	32° 21' 15.768 N	103° 26' 11.704 W
4,100.0	10.50	292.05	4,070.7	125.8	-310.5	493,821.87	818,232.41	32° 21' 15.837 N	103° 26' 11.900 W
4,200.0	10.50	292.05	4,169.0	132.6	-327.4	493,828.71	818,215.52	32° 21' 15.906 N	103° 26' 12.097 W
4,300.0	10.50	292.05	4,267.3	139.5	-344.3	493,835.55	818,198.63	32° 21' 15.975 N	103° 26' 12.293 W
4,400.0	10.50	292.05	4,365.7	146.3	-361.2	493,842.39	818,181.74	32° 21' 16.045 N	103° 26' 12.489 W
4,500.0	10.50	292.05	4,464.0	153.1	-378.0	493,849.23	818,164.85	32° 21' 16.114 N	103° 26' 12.685 W
4,600.0	10.50	292.05	4,562.3	160.0	-394.9	493,856.08	818,147.96	32° 21' 16.183 N	103° 26' 12.882 W
4,700.0	10.50	292.05	4,660.6	166.8	-411.8	493,862.92	818,131.07	32° 21' 16.252 N	103° 26' 13.078 W
4,800.0	10.50	292.05	4,759.0	173.7	-428.7	493,869.76	818,114.18	32° 21' 16.321 N	103° 26' 13.274 W
4,900.0	10.50	292.05	4,857.3	180.5	-445.6	493,876.60	818,097.29	32° 21' 16.390 N	103° 26' 13.470 W
5,000.0	10.50	292.05	4,955.6	187.3	-462.5	493,883.44	818,080.40	32° 21' 16.459 N	103° 26' 13.666 W
5,100.0	10.50	292.05	5,053.9	194.2	-479.4	493,890.28	818,063.51	32° 21' 16.528 N	103° 26' 13.863 W
5,200.0	10.50	292.05	5,152.3	201.0	-496.3	493,897.13	818,046.62	32° 21' 16.597 N	103° 26' 14.059 W
5,300.0	10.50	292.05	5,250.6	207.9	-513.2	493,903.97	818,029.73	32° 21' 16.666 N	103° 26' 14.255 W

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well North Ridge #10H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Site:	North Ridge	**North Reference:**	Grid
Well:	North Ridge #10H	**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
5,400.0	10.50	292.05	5,348.9	214.7	-530.1	493,910.81	818,012.84	32° 21' 16.735 N	103° 26' 14.451 W
5,500.0	10.50	292.05	5,447.2	221.6	-547.0	493,917.65	817,995.95	32° 21' 16.805 N	103° 26' 14.648 W
5,600.0	10.50	292.05	5,545.6	228.4	-563.8	493,924.49	817,979.06	32° 21' 16.874 N	103° 26' 14.844 W
5,700.0	10.50	292.05	5,643.9	235.2	-580.7	493,931.33	817,962.16	32° 21' 16.943 N	103° 26' 15.040 W
5,800.0	10.50	292.05	5,742.2	242.1	-597.6	493,938.18	817,945.27	32° 21' 17.012 N	103° 26' 15.236 W
5,900.0	10.50	292.05	5,840.6	248.9	-614.5	493,945.02	817,928.38	32° 21' 17.081 N	103° 26' 15.433 W
6,000.0	10.50	292.05	5,938.9	255.8	-631.4	493,951.86	817,911.49	32° 21' 17.150 N	103° 26' 15.629 W
6,100.0	10.50	292.05	6,037.2	262.6	-648.3	493,958.70	817,894.60	32° 21' 17.219 N	103° 26' 15.825 W
6,200.0	10.50	292.05	6,135.5	269.4	-665.2	493,965.54	817,877.71	32° 21' 17.288 N	103° 26' 16.021 W
6,300.0	10.50	292.05	6,233.9	276.3	-682.1	493,972.39	817,860.82	32° 21' 17.357 N	103° 26' 16.217 W
6,400.0	10.50	292.05	6,332.2	283.1	-699.0	493,979.23	817,843.93	32° 21' 17.426 N	103° 26' 16.414 W
6,500.0	10.50	292.05	6,430.5	290.0	-715.9	493,986.07	817,827.04	32° 21' 17.496 N	103° 26' 16.610 W
6,600.0	10.50	292.05	6,528.8	296.8	-732.7	493,992.91	817,810.15	32° 21' 17.565 N	103° 26' 16.806 W
6,700.0	10.50	292.05	6,627.2	303.7	-749.6	493,999.75	817,793.26	32° 21' 17.634 N	103° 26' 17.002 W
6,800.0	10.50	292.05	6,725.5	310.5	-766.5	494,006.59	817,776.37	32° 21' 17.703 N	103° 26' 17.199 W
6,900.0	10.50	292.05	6,823.8	317.3	-783.4	494,013.44	817,759.48	32° 21' 17.772 N	103° 26' 17.395 W
7,000.0	10.50	292.05	6,922.1	324.2	-800.3	494,020.28	817,742.59	32° 21' 17.841 N	103° 26' 17.591 W
7,100.0	10.50	292.05	7,020.5	331.0	-817.2	494,027.12	817,725.70	32° 21' 17.910 N	103° 26' 17.787 W
7,200.0	10.50	292.05	7,118.8	337.9	-834.1	494,033.96	817,708.81	32° 21' 17.979 N	103° 26' 17.983 W
7,300.0	10.50	292.05	7,217.1	344.7	-851.0	494,040.80	817,691.92	32° 21' 18.048 N	103° 26' 18.180 W
7,400.0	10.50	292.05	7,315.4	351.5	-867.9	494,047.64	817,675.03	32° 21' 18.117 N	103° 26' 18.376 W
7,500.0	10.50	292.05	7,413.8	358.4	-884.8	494,054.49	817,658.14	32° 21' 18.186 N	103° 26' 18.572 W
7,600.0	10.50	292.05	7,512.1	365.2	-901.7	494,061.33	817,641.25	32° 21' 18.256 N	103° 26' 18.768 W
7,700.0	10.50	292.05	7,610.4	372.1	-918.5	494,068.17	817,624.36	32° 21' 18.325 N	103° 26' 18.965 W
7,800.0	10.50	292.05	7,708.7	378.9	-935.4	494,075.01	817,607.47	32° 21' 18.394 N	103° 26' 19.161 W
7,900.0	10.50	292.05	7,807.1	385.8	-952.3	494,081.85	817,590.57	32° 21' 18.463 N	103° 26' 19.357 W
8,000.0	10.50	292.05	7,905.4	392.6	-969.2	494,088.69	817,573.68	32° 21' 18.532 N	103° 26' 19.553 W
8,100.0	10.50	292.05	8,003.7	399.4	-986.1	494,095.54	817,556.79	32° 21' 18.601 N	103° 26' 19.749 W
8,200.0	10.50	292.05	8,102.0	406.3	-1,003.0	494,102.38	817,539.90	32° 21' 18.670 N	103° 26' 19.946 W
8,300.0	10.50	292.05	8,200.4	413.1	-1,019.9	494,109.22	817,523.01	32° 21' 18.739 N	103° 26' 20.142 W
8,400.0	10.50	292.05	8,298.7	420.0	-1,036.8	494,116.06	817,506.12	32° 21' 18.808 N	103° 26' 20.338 W
8,500.0	10.50	292.05	8,397.0	426.8	-1,053.7	494,122.90	817,489.23	32° 21' 18.877 N	103° 26' 20.534 W
8,600.0	10.50	292.05	8,495.3	433.6	-1,070.6	494,129.74	817,472.34	32° 21' 18.946 N	103° 26' 20.731 W
8,700.0	10.50	292.05	8,593.7	440.5	-1,087.4	494,136.59	817,455.45	32° 21' 19.016 N	103° 26' 20.927 W
8,800.0	10.50	292.05	8,692.0	447.3	-1,104.3	494,143.43	817,438.56	32° 21' 19.085 N	103° 26' 21.123 W
8,900.0	10.50	292.05	8,790.3	454.2	-1,121.2	494,150.27	817,421.67	32° 21' 19.154 N	103° 26' 21.319 W
9,000.0	10.50	292.05	8,888.6	461.0	-1,138.1	494,157.11	817,404.78	32° 21' 19.223 N	103° 26' 21.516 W
9,014.3	10.50	292.05	8,902.7	462.0	-1,140.5	494,158.09	817,402.36	32° 21' 19.233 N	103° 26' 21.544 W
9,100.0	8.79	292.05	8,987.2	467.4	-1,153.8	494,163.48	817,389.06	32° 21' 19.287 N	103° 26' 21.698 W
9,200.0	6.79	292.05	9,086.3	472.5	-1,166.4	494,168.56	817,376.50	32° 21' 19.339 N	103° 26' 21.844 W
9,300.0	4.79	292.05	9,185.7	476.2	-1,175.7	494,172.35	817,367.16	32° 21' 19.377 N	103° 26' 21.953 W
9,400.0	2.79	292.05	9,285.5	478.7	-1,181.9	494,174.83	817,361.04	32° 21' 19.402 N	103° 26' 22.024 W
9,500.0	0.79	292.05	9,385.5	479.9	-1,184.8	494,176.00	817,358.15	32° 21' 19.414 N	103° 26' 22.057 W
9,539.3	0.00	0.00	9,424.8	480.0	-1,185.0	494,176.10	817,357.90	32° 21' 19.415 N	103° 26' 22.060 W
9,600.0	0.00	0.00	9,485.5	480.0	-1,185.0	494,176.10	817,357.90	32° 21' 19.415 N	103° 26' 22.060 W
9,700.0	0.00	0.00	9,585.5	480.0	-1,185.0	494,176.10	817,357.90	32° 21' 19.415 N	103° 26' 22.060 W
9,784.0	0.00	0.00	9,669.5	480.0	-1,185.0	494,176.10	817,357.90	32° 21' 19.415 N	103° 26' 22.060 W
9,800.0	0.00	0.00	9,685.5	480.0	-1,185.0	494,176.10	817,357.90	32° 21' 19.415 N	103° 26' 22.060 W
9,834.1	0.00	0.00	9,719.5	480.0	-1,185.0	494,176.10	817,357.90	32° 21' 19.415 N	103° 26' 22.060 W
9,900.0	7.91	180.26	9,785.3	475.5	-1,185.0	494,171.55	817,357.88	32° 21' 19.370 N	103° 26' 22.061 W
10,000.0	19.91	180.26	9,882.1	451.5	-1,185.1	494,147.56	817,357.77	32° 21' 19.132 N	103° 26' 22.064 W
10,100.0	31.91	180.26	9,971.9	407.8	-1,185.3	494,103.94	817,357.57	32° 21' 18.701 N	103° 26' 22.071 W
10,200.0	43.91	180.26	10,050.7	346.5	-1,185.6	494,042.61	817,357.29	32° 21' 18.094 N	103° 26' 22.080 W
10,300.0	55.91	180.26	10,115.0	270.1	-1,186.0	493,966.24	817,356.93	32° 21' 17.338 N	103° 26' 22.092 W
10,400.0	67.91	180.26	10,162.0	182.1	-1,186.4	493,878.18	817,356.53	32° 21' 16.467 N	103° 26' 22.105 W

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well North Ridge #10H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Site:	North Ridge	**North Reference:**	Grid
Well:	North Ridge #10H	**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	79.91	180.26	10,189.6	86.2	-1,186.8	493,782.27	817,356.08	32° 21' 15.518 N	103° 26' 22.120 W
10,584.1	90.00	180.26	10,197.0	2.5	-1,187.2	493,698.64	817,355.70	32° 21' 14.690 N	103° 26' 22.132 W
10,600.0	90.00	180.26	10,197.0	-13.4	-1,187.3	493,682.71	817,355.63	32° 21' 14.533 N	103° 26' 22.135 W
10,700.0	90.00	180.26	10,197.0	-113.4	-1,187.7	493,582.71	817,355.16	32° 21' 13.543 N	103° 26' 22.150 W
10,800.0	90.00	180.26	10,197.0	-213.4	-1,188.2	493,482.71	817,354.70	32° 21' 12.554 N	103° 26' 22.165 W
10,900.0	90.00	180.26	10,197.0	-313.4	-1,188.7	493,382.71	817,354.24	32° 21' 11.565 N	103° 26' 22.180 W
11,000.0	90.00	180.26	10,197.0	-413.4	-1,189.1	493,282.71	817,353.78	32° 21' 10.575 N	103° 26' 22.195 W
11,100.0	90.00	180.26	10,197.0	-513.4	-1,189.6	493,182.71	817,353.32	32° 21' 9.586 N	103° 26' 22.210 W
11,200.0	90.00	180.26	10,197.0	-613.4	-1,190.0	493,082.72	817,352.86	32° 21' 8.596 N	103° 26' 22.225 W
11,300.0	90.00	180.26	10,197.0	-713.4	-1,190.5	492,982.72	817,352.40	32° 21' 7.607 N	103° 26' 22.240 W
11,400.0	90.00	180.26	10,197.0	-813.4	-1,191.0	492,882.72	817,351.94	32° 21' 6.618 N	103° 26' 22.256 W
11,500.0	90.00	180.26	10,197.0	-913.4	-1,191.4	492,782.72	817,351.47	32° 21' 5.628 N	103° 26' 22.271 W
11,600.0	90.00	180.26	10,197.0	-1,013.4	-1,191.9	492,682.72	817,351.01	32° 21' 4.639 N	103° 26' 22.286 W
11,700.0	90.00	180.26	10,197.0	-1,113.4	-1,192.4	492,582.72	817,350.55	32° 21' 3.649 N	103° 26' 22.301 W
11,800.0	90.00	180.26	10,197.0	-1,213.4	-1,192.8	492,482.72	817,350.09	32° 21' 2.660 N	103° 26' 22.316 W
11,900.0	90.00	180.26	10,197.0	-1,313.4	-1,193.3	492,382.73	817,349.63	32° 21' 1.670 N	103° 26' 22.331 W
12,000.0	90.00	180.26	10,197.0	-1,413.4	-1,193.7	492,282.73	817,349.17	32° 21' 0.681 N	103° 26' 22.346 W
12,100.0	90.00	180.26	10,197.0	-1,513.4	-1,194.2	492,182.73	817,348.71	32° 20' 59.692 N	103° 26' 22.361 W
12,200.0	90.00	180.26	10,197.0	-1,613.4	-1,194.7	492,082.73	817,348.24	32° 20' 58.702 N	103° 26' 22.376 W
12,300.0	90.00	180.26	10,197.0	-1,713.4	-1,195.1	491,982.73	817,347.78	32° 20' 57.713 N	103° 26' 22.392 W
12,400.0	90.00	180.26	10,197.0	-1,813.4	-1,195.6	491,882.73	817,347.32	32° 20' 56.723 N	103° 26' 22.407 W
12,500.0	90.00	180.26	10,197.0	-1,913.4	-1,196.0	491,782.73	817,346.86	32° 20' 55.734 N	103° 26' 22.422 W
12,600.0	90.00	180.26	10,197.0	-2,013.4	-1,196.5	491,682.74	817,346.40	32° 20' 54.745 N	103° 26' 22.437 W
12,700.0	90.00	180.26	10,197.0	-2,113.4	-1,197.0	491,582.74	817,345.94	32° 20' 53.755 N	103° 26' 22.452 W
12,800.0	90.00	180.26	10,197.0	-2,213.4	-1,197.4	491,482.74	817,345.48	32° 20' 52.766 N	103° 26' 22.467 W
12,900.0	90.00	180.26	10,197.0	-2,313.4	-1,197.9	491,382.74	817,345.02	32° 20' 51.776 N	103° 26' 22.482 W
13,000.0	90.00	180.26	10,197.0	-2,413.4	-1,198.3	491,282.74	817,344.55	32° 20' 50.787 N	103° 26' 22.497 W
13,100.0	90.00	180.26	10,197.0	-2,513.4	-1,198.8	491,182.74	817,344.09	32° 20' 49.797 N	103° 26' 22.512 W
13,200.0	90.00	180.26	10,197.0	-2,613.4	-1,199.3	491,082.74	817,343.63	32° 20' 48.808 N	103° 26' 22.528 W
13,300.0	90.00	180.26	10,197.0	-2,713.4	-1,199.7	490,982.74	817,343.17	32° 20' 47.819 N	103° 26' 22.543 W
13,400.0	90.00	180.26	10,197.0	-2,813.4	-1,200.2	490,882.75	817,342.71	32° 20' 46.829 N	103° 26' 22.558 W
13,500.0	90.00	180.26	10,197.0	-2,913.4	-1,200.7	490,782.75	817,342.25	32° 20' 45.840 N	103° 26' 22.573 W
13,600.0	90.00	180.26	10,197.0	-3,013.4	-1,201.1	490,682.75	817,341.79	32° 20' 44.850 N	103° 26' 22.588 W
13,700.0	90.00	180.26	10,197.0	-3,113.4	-1,201.6	490,582.75	817,341.32	32° 20' 43.861 N	103° 26' 22.603 W
13,800.0	90.00	180.26	10,197.0	-3,213.4	-1,202.0	490,482.75	817,340.86	32° 20' 42.872 N	103° 26' 22.618 W
13,900.0	90.00	180.26	10,197.0	-3,313.4	-1,202.5	490,382.75	817,340.40	32° 20' 41.882 N	103° 26' 22.633 W
14,000.0	90.00	180.26	10,197.0	-3,413.4	-1,203.0	490,282.75	817,339.94	32° 20' 40.893 N	103° 26' 22.648 W
14,100.0	90.00	180.26	10,197.0	-3,513.4	-1,203.4	490,182.76	817,339.48	32° 20' 39.903 N	103° 26' 22.663 W
14,200.0	90.00	180.26	10,197.0	-3,613.4	-1,203.9	490,082.76	817,339.02	32° 20' 38.914 N	103° 26' 22.679 W
14,300.0	90.00	180.26	10,197.0	-3,713.4	-1,204.3	489,982.76	817,338.56	32° 20' 37.925 N	103° 26' 22.694 W
14,400.0	90.00	180.26	10,197.0	-3,813.4	-1,204.8	489,882.76	817,338.10	32° 20' 36.935 N	103° 26' 22.709 W
14,500.0	90.00	180.26	10,197.0	-3,913.4	-1,205.3	489,782.76	817,337.63	32° 20' 35.946 N	103° 26' 22.724 W
14,600.0	90.00	180.26	10,197.0	-4,013.4	-1,205.7	489,682.76	817,337.17	32° 20' 34.956 N	103° 26' 22.739 W
14,700.0	90.00	180.26	10,197.0	-4,113.3	-1,206.2	489,582.76	817,336.71	32° 20' 33.967 N	103° 26' 22.754 W
14,800.0	90.00	180.26	10,197.0	-4,213.3	-1,206.7	489,482.76	817,336.25	32° 20' 32.977 N	103° 26' 22.769 W
14,900.0	90.00	180.26	10,197.0	-4,313.3	-1,207.1	489,382.77	817,335.79	32° 20' 31.988 N	103° 26' 22.784 W
15,000.0	90.00	180.26	10,197.0	-4,413.3	-1,207.6	489,282.77	817,335.33	32° 20' 30.999 N	103° 26' 22.799 W
15,100.0	90.00	180.26	10,197.0	-4,513.3	-1,208.0	489,182.77	817,334.87	32° 20' 30.009 N	103° 26' 22.814 W
15,200.0	90.00	180.26	10,197.0	-4,613.3	-1,208.5	489,082.77	817,334.40	32° 20' 29.020 N	103° 26' 22.830 W
15,300.0	90.00	180.26	10,197.0	-4,713.3	-1,209.0	488,982.77	817,333.94	32° 20' 28.030 N	103° 26' 22.845 W
15,400.0	90.00	180.26	10,197.0	-4,813.3	-1,209.4	488,882.77	817,333.48	32° 20' 27.041 N	103° 26' 22.860 W
15,500.0	90.00	180.26	10,197.0	-4,913.3	-1,209.9	488,782.77	817,333.02	32° 20' 26.052 N	103° 26' 22.875 W
15,600.0	90.00	180.26	10,197.0	-5,013.3	-1,210.3	488,682.78	817,332.56	32° 20' 25.062 N	103° 26' 22.890 W
15,700.0	90.00	180.26	10,197.0	-5,113.3	-1,210.8	488,582.78	817,332.10	32° 20' 24.073 N	103° 26' 22.905 W
15,800.0	90.00	180.26	10,197.0	-5,213.3	-1,211.3	488,482.78	817,331.64	32° 20' 23.083 N	103° 26' 22.920 W

Microsoft

Planning Report - Geographic

Database:	EDM16	**Local Co-ordinate Reference:**	Well North Ridge #10H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	WELL @ 3407.0usft (Original Well Elev)
Site:	North Ridge	**North Reference:**	Grid
Well:	North Ridge #10H	**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
15,900.0	90.00	180.26	10,197.0	-5,313.3	-1,211.7	488,382.78	817,331.18	32° 20' 22.094 N	103° 26' 22.935 W
16,000.0	90.00	180.26	10,197.0	-5,413.3	-1,212.2	488,282.78	817,330.71	32° 20' 21.104 N	103° 26' 22.950 W
16,100.0	90.00	180.26	10,197.0	-5,513.3	-1,212.6	488,182.78	817,330.25	32° 20' 20.115 N	103° 26' 22.966 W
16,200.0	90.00	180.26	10,197.0	-5,613.3	-1,213.1	488,082.78	817,329.79	32° 20' 19.126 N	103° 26' 22.981 W
16,300.0	90.00	180.26	10,197.0	-5,713.3	-1,213.6	487,982.79	817,329.33	32° 20' 18.136 N	103° 26' 22.996 W
16,400.0	90.00	180.26	10,197.0	-5,813.3	-1,214.0	487,882.79	817,328.87	32° 20' 17.147 N	103° 26' 23.011 W
16,500.0	90.00	180.26	10,197.0	-5,913.3	-1,214.5	487,782.79	817,328.41	32° 20' 16.157 N	103° 26' 23.026 W
16,600.0	90.00	180.26	10,197.0	-6,013.3	-1,215.0	487,682.79	817,327.95	32° 20' 15.168 N	103° 26' 23.041 W
16,700.0	90.00	180.26	10,197.0	-6,113.3	-1,215.4	487,582.79	817,327.49	32° 20' 14.179 N	103° 26' 23.056 W
16,800.0	90.00	180.26	10,197.0	-6,213.3	-1,215.9	487,482.79	817,327.02	32° 20' 13.189 N	103° 26' 23.071 W
16,900.0	90.00	180.26	10,197.0	-6,313.3	-1,216.3	487,382.79	817,326.56	32° 20' 12.200 N	103° 26' 23.086 W
17,000.0	90.00	180.26	10,197.0	-6,413.3	-1,216.8	487,282.79	817,326.10	32° 20' 11.210 N	103° 26' 23.101 W
17,100.0	90.00	180.26	10,197.0	-6,513.3	-1,217.3	487,182.80	817,325.64	32° 20' 10.221 N	103° 26' 23.117 W
17,200.0	90.00	180.26	10,197.0	-6,613.3	-1,217.7	487,082.80	817,325.18	32° 20' 9.231 N	103° 26' 23.132 W
17,300.0	90.00	180.26	10,197.0	-6,713.3	-1,218.2	486,982.80	817,324.72	32° 20' 8.242 N	103° 26' 23.147 W
17,400.0	90.00	180.26	10,197.0	-6,813.3	-1,218.6	486,882.80	817,324.26	32° 20' 7.253 N	103° 26' 23.162 W
17,500.0	90.00	180.26	10,197.0	-6,913.3	-1,219.1	486,782.80	817,323.79	32° 20' 6.263 N	103° 26' 23.177 W
17,600.0	90.00	180.26	10,197.0	-7,013.3	-1,219.6	486,682.80	817,323.33	32° 20' 5.274 N	103° 26' 23.192 W
17,700.0	90.00	180.26	10,197.0	-7,113.3	-1,220.0	486,582.80	817,322.87	32° 20' 4.284 N	103° 26' 23.207 W
17,800.0	90.00	180.26	10,197.0	-7,213.3	-1,220.5	486,482.81	817,322.41	32° 20' 3.295 N	103° 26' 23.222 W
17,900.0	90.00	180.26	10,197.0	-7,313.3	-1,221.0	486,382.81	817,321.95	32° 20' 2.306 N	103° 26' 23.237 W
17,976.1	90.00	180.26	10,197.0	-7,389.4	-1,221.3	486,306.70	817,321.60	32° 20' 1.553 N	103° 26' 23.249 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
North Ridge #10H BHL - plan hits target center - Point	0.00	0.00	10,197.0	-7,389.4	-1,221.3	486,306.70	817,321.60	32° 20' 1.553 N	103° 26' 23.249 W

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**BTA Oil Producers LLC**
LEASE NO.:	**NMNM16830**
WELL NAME & NO.:	North Ridge 8040 Federal Com 10H
SURFACE HOLE FOOTAGE:	500'/N & 1125'/E
BOTTOM HOLE FOOTAGE	2600'/N & 2310'/E
LOCATION:	Section 35, T.22 S., R.34 E., NMPM
COUNTY:	Lea County, New Mexico

COA

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

A. HYDROGEN SULFIDE

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

Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1,832** 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 **3,850** feet. The minimum required fill of cement behind the **9-5/8** 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, potash or capitan reef.**

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 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, potash or capitan reef.**

❖ In Capitan Reef 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.

❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
(Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based mud used across the capitan interval)

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.

- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

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

    - Cement should tie-back at least **50 feet** on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.

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)

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.

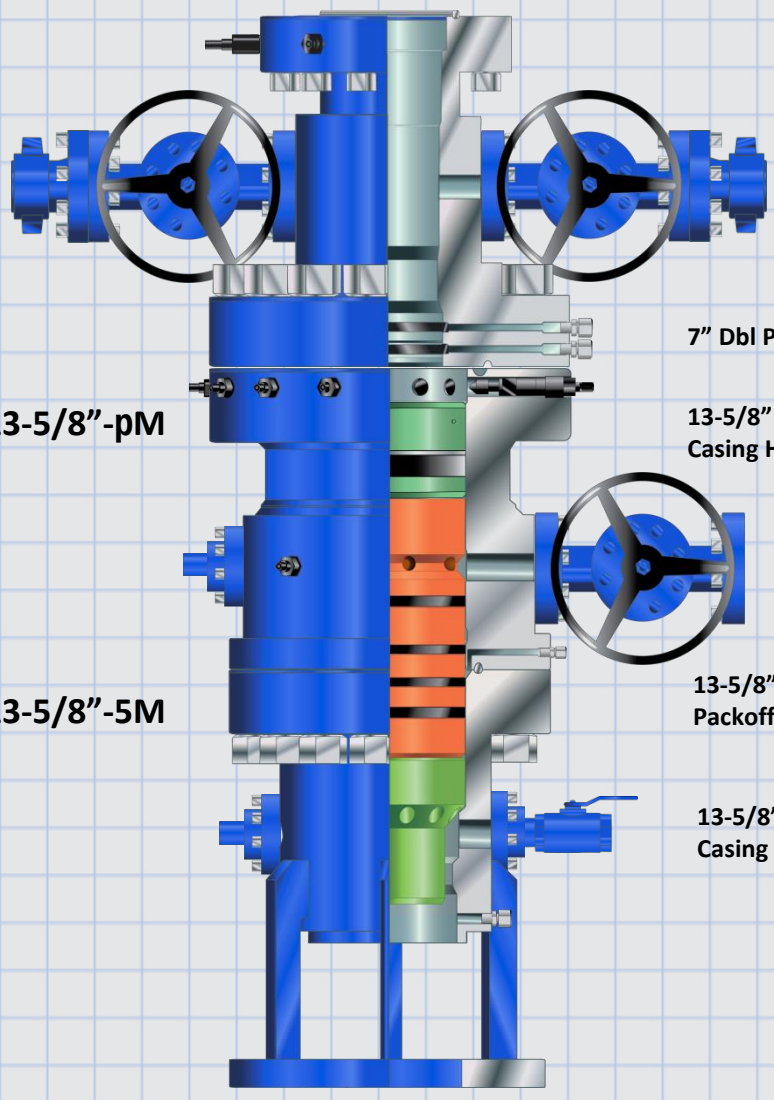
OTA02022022

Multi-Bowl System
13-3/8” X 9-5/8” X 5-1/2”

Tubing Head-TCM-PP
13-5/8”- pM X 7-1/16”- pM
w/(2) 1-13/16”- pM Gate Valves

Casing Spool- MBS
13-5/8”-5M X 13-5/8”-pM
w/(2) 1-13/16” pM SSO

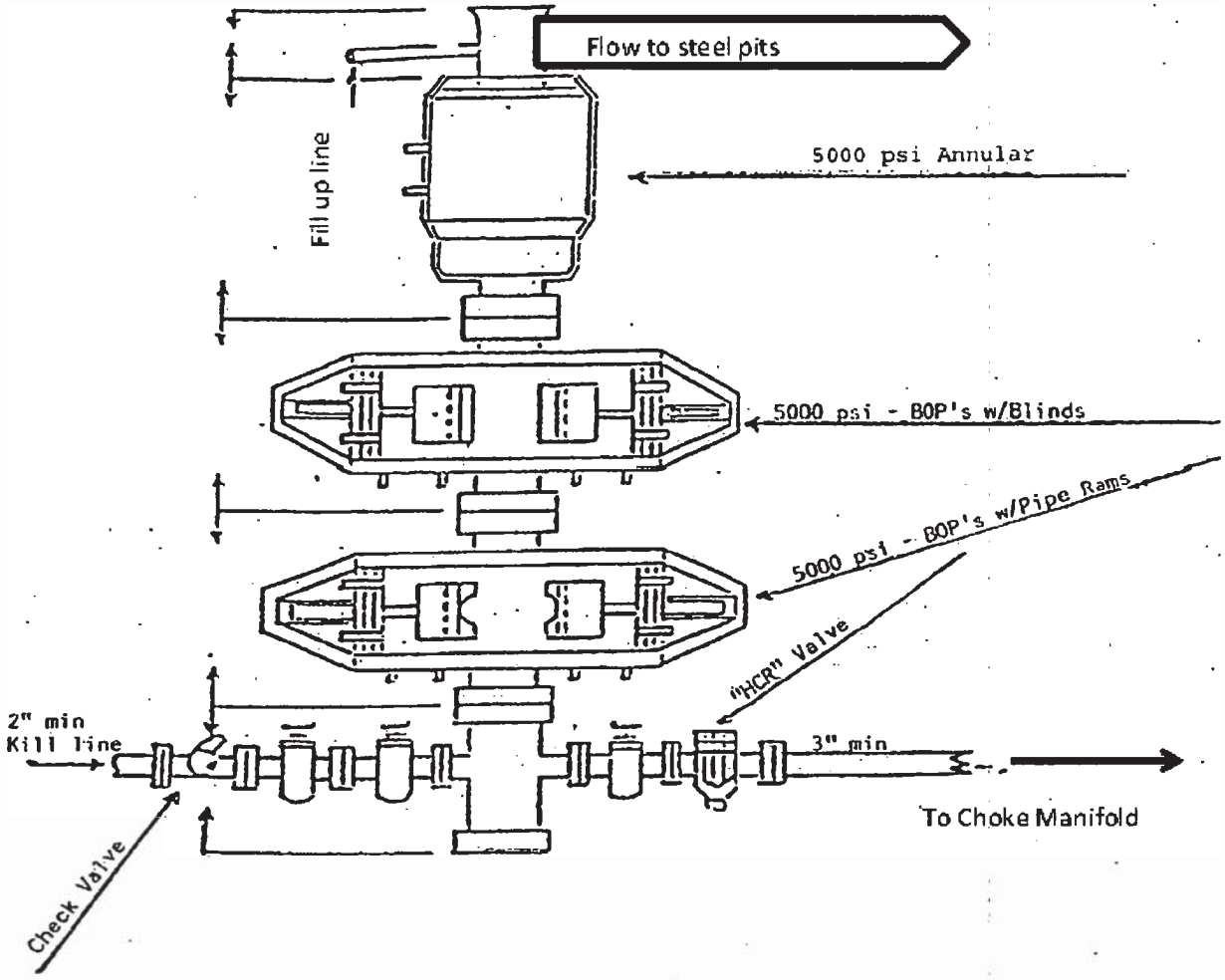
Casing Head- MBS
13-5/8”-5M X 13-3/8” SOW
w/36” Base Plate



SYENERGY
WELLHEAD & FRAC

email: sales@syenergypg.com

13-5/8" 5,000 PSI BOP



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1625 N. French Dr., Hobbs, NM 88240
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 163668

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 163668
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	12/20/2022
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	12/20/2022
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	12/20/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	12/20/2022