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. **[317432]**

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

9. API Well No. **30-025-49724**

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory **[96392]**

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 01/19/2022

KZ
01/20/2022

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 07/23/2021

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
30-025-49724	96392	DRAPER MILL;BONE SPRING

Property Code	Property Name	Well Number
317432	VACA DRAW 9418 10 FEDERAL	41H

OGRID No.	Operator Name	Elevation
260297	BTA OIL PRODUCERS, LLC	3415'

Surface Location

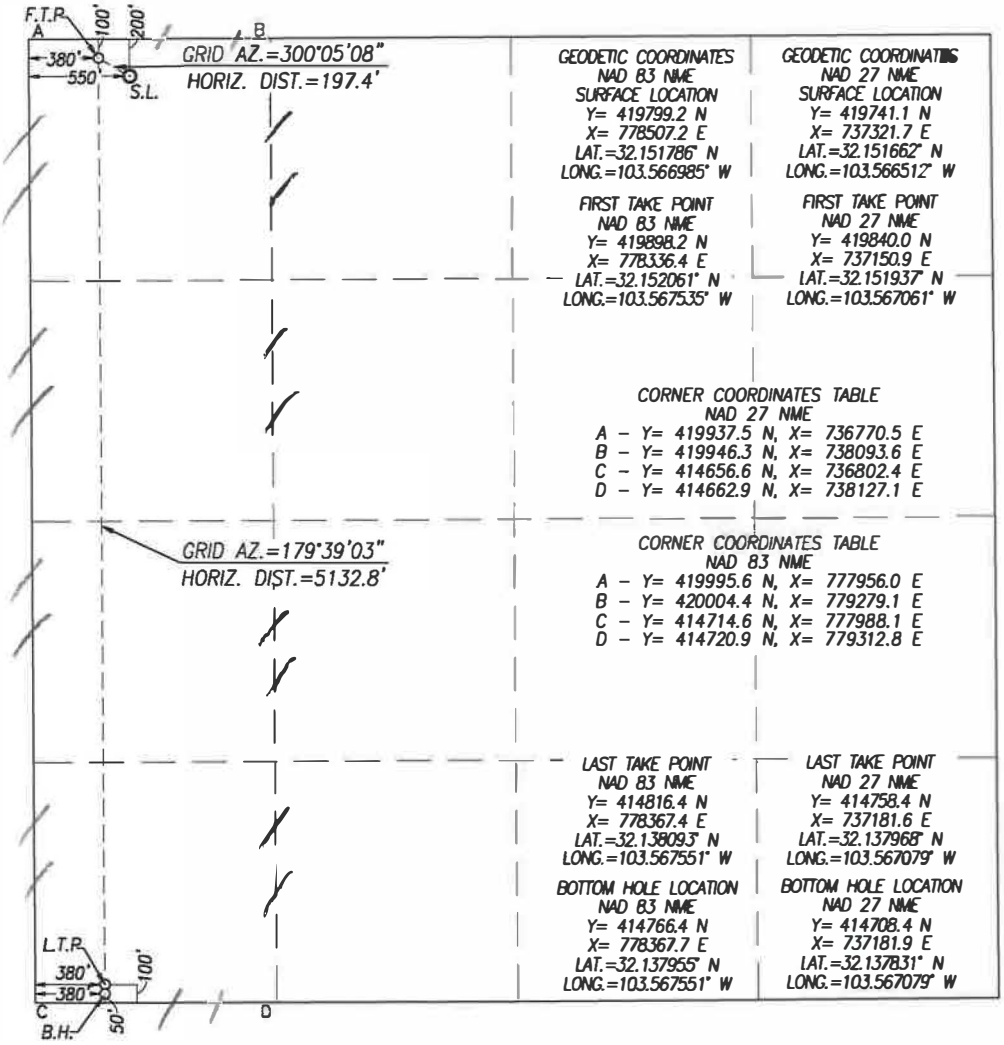
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	10	25-S	33-E		200	NORTH	550	WEST	LEA

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
M	10	25-S	33-E		50	SOUTH	380	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



GEODETIC COORDINATES
NAD 83 NME
SURFACE LOCATION
Y= 419799.2 N
X= 778507.2 E
LAT.=32.151786° N
LONG.=103.566985° W

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y= 419741.1 N
X= 737321.7 E
LAT.=32.151662° N
LONG.=103.566512° W

FIRST TAKE POINT
NAD 83 NME
Y= 419898.2 N
X= 778336.4 E
LAT.=32.152061° N
LONG.=103.567535° W

FIRST TAKE POINT
NAD 27 NME
Y= 419840.0 N
X= 737150.9 E
LAT.=32.151937° N
LONG.=103.567061° W

CORNER COORDINATES TABLE
NAD 27 NME
A - Y= 419937.5 N, X= 736770.5 E
B - Y= 419946.3 N, X= 738093.6 E
C - Y= 414656.6 N, X= 736802.4 E
D - Y= 414662.9 N, X= 738127.1 E

CORNER COORDINATES TABLE
NAD 83 NME
A - Y= 419995.6 N, X= 777956.0 E
B - Y= 420004.4 N, X= 779279.1 E
C - Y= 414714.6 N, X= 777988.1 E
D - Y= 414720.9 N, X= 779312.8 E

LAST TAKE POINT
NAD 83 NME
Y= 414816.4 N
X= 778367.4 E
LAT.=32.138093° N
LONG.=103.567551° W

LAST TAKE POINT
NAD 27 NME
Y= 414758.4 N
X= 737181.6 E
LAT.=32.137968° N
LONG.=103.567079° W

BOTTOM HOLE LOCATION
NAD 83 NME
Y= 414766.4 N
X= 778367.7 E
LAT.=32.137955° N
LONG.=103.567551° W

BOTTOM HOLE LOCATION
NAD 27 NME
Y= 414708.4 N
X= 737181.9 E
LAT.=32.137831° N
LONG.=103.567079° 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 9/17/2020 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.

JULY 9, 2020

Date of Survey

Signature & Seal of Professional Surveyor:

RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

Ronald J Eidson 08/17/2020

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

ACK JWSC W.O.: 20.11.0350

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**BTA OIL PRODUCERS LLC**
LEASE NO.:	**NMNM97153**
WELL NAME & NO.:	VACA DRAW 9418 10 FEDERAL 41H
SURFACE HOLE FOOTAGE:	200'/N & 550'/W
BOTTOM HOLE FOOTAGE	50'/S & 380'/W
LOCATION:	Section 10, T.25 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

COA

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

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the Wildcat Pool 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 **1,165** 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

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completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing, which shall be set at approximately **5,042** feet is:

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

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.

Option 1:

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

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

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Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

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

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

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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:

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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.

OTA07122021

Approval Date: 07/23/2021

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

Operator Certification Data Report
07/27/2021

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:** 10/07/2020

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:

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

Phone:

Email address:

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

Application Data Report
07/27/2021

APD ID: 10400063016
Submission Date: 10/12/2020
Operator Name: BTA OIL PRODUCERS LLC
Well Name: VACA DRAW 9418 10 FEDERAL
Well Number: 41H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400063016
Tie to previous NOS?
Submission Date: 10/12/2020
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: NMNM97153
Lease Acres:
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: VACA DRAW 9418 10 FEDERAL
Well Number: 41H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: WildCat upper Wolfcamp
Pool Name: 2ND BONE SPRING
Is the proposed well in an area containing other mineral resources? NONE

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

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:** VACA DRAW 9418 10 FEDERAL **Number:** 39H, 40H, 41H and 42H

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: **Distance to nearest well:** 220 FT **Distance to lease line:** 200 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Signed_Vaca_Draw_9418_10_Federal_41H___C102_20201007140204.pdf

Well work start Date: 03/07/2021 **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	200	FNL	550	FWL	25S	33E	10	Aliquot NWNW	32.151786	-103.566985	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 097153	3415	0	0	Y
KOP Leg #1	100	FNL	380	FWL	25S	33E	10	Aliquot NWNW	32.152061	-103.567535	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 097153	-7187	10609	10602	Y
PPP Leg #1-1	100	FNL	380	FWL	25S	33E	10	Aliquot NWNW	32.152061	-103.567535	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 097153	-7345	10769	10760	Y

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

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	380	FWL	25S	33E	10	Aliquot SWSW	32.138093	-103.567551	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 097153	-7680	15813	11095	Y
BHL Leg #1	50	FSL	380	FWL	25S	33E	10	Aliquot SWSW	32.137955	-103.567551	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 097153	-7680	16093	11095	Y

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

Drilling Plan Data Report
07/27/2021

APD ID: 10400063016
Submission Date: 10/12/2020
Operator Name: BTA OIL PRODUCERS LLC
Well Name: VACA DRAW 9418 10 FEDERAL
Well Number: 41H
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
899048	QUATERNARY	3415	0	0	ALLUVIUM	NONE	N
899049	RUSTLER	2325	1090	1090	ANHYDRITE	NONE	N
899050	TOP SALT	475	2940	2940	SALT	NONE	N
899051	BASE OF SALT	-1325	4740	4740	SALT	NONE	N
899052	DELAWARE	-1650	5065	5065	LIMESTONE	NATURAL GAS, OIL	N
899061	BELL CANYON	-1725	5140	5140	SANDSTONE	NATURAL GAS, OIL	N
899054	CHERRY CANYON	-3045	6460	6460	SANDSTONE	NATURAL GAS, OIL	N
899055	BRUSHY CANYON	-4185	7600	7600	SANDSTONE	NATURAL GAS, OIL	N
899056	BONE SPRING LIME	-5795	9210	9210	LIMESTONE	NATURAL GAS, OIL	N
899057	FIRST BONE SPRING SAND	-6745	10160	10160	SANDSTONE	NATURAL GAS, OIL	Y
899066	BONE SPRING 2ND	-7345	10760	10760	SANDSTONE	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, and will be test to 100% of working pressure.
Requesting Variance? NO

Variance request:

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

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	1150	0	1150	3415	2265	1150	J-55	54.5	ST&C	2.3	5.5	DRY	8.2	DRY	13.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5052	0	5047	3419	-1632	5052	J-55	40	LT&C	1.7	1.5	DRY	2.6	DRY	3.1
3	PRODUCTION	8.75	5.5	NEW	API	N	0	16093	0	11095	3419	-7680	16093	P-110	17	BUTT	1.4	2	DRY	2.1	DRY	2

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Vaca_Draw_41H_Casing_Assumption_20201012092231.JPG

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Vaca_Draw_41H_Casing_Assumption_20201012092150.JPG

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Vaca_Draw_41H_Casing_Assumption_20201012092051.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	955	770	1.73	13.5	1332.1	100	Class C	2% CaCl2
SURFACE	Tail		955	1150	200	1.35	14.8	270	100	Class C	2% CaCl2
INTERMEDIATE	Lead		0	4495	1325	2.46	12.8	3259.5	100	Class C	0.5% CaCl2
INTERMEDIATE	Tail		4495	5052	200	1.34	14.8	268	25	Class C	1% CaCl2
PRODUCTION	Lead		4052	9910	575	3.9	10.5	2242.5	60	25% Poz 75% Class C	0.4% Fluid Loss

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		9910	16093	1565	1.25	14.4	1956.25	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	1150	OTHER : FW SPUD	8.3	8.4							
1150	5047	OTHER : BRINE	10	10							
5047	11095	OTHER : CUT BRINE	8.7	9.3							

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

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: 5423 **Anticipated Surface Pressure:** 2982

Anticipated Bottom Hole Temperature(F): 169

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:

Vaca_Draw_9418_10_Fed_41H___D1_WM_20201012092611.pdf
Vaca_Draw_9418_10_Fed_41H___D1_20201012092611.pdf
Vaca_Draw_9418_10_Federal_41H_Gas_Capture_Plan_20201012092814.pdf

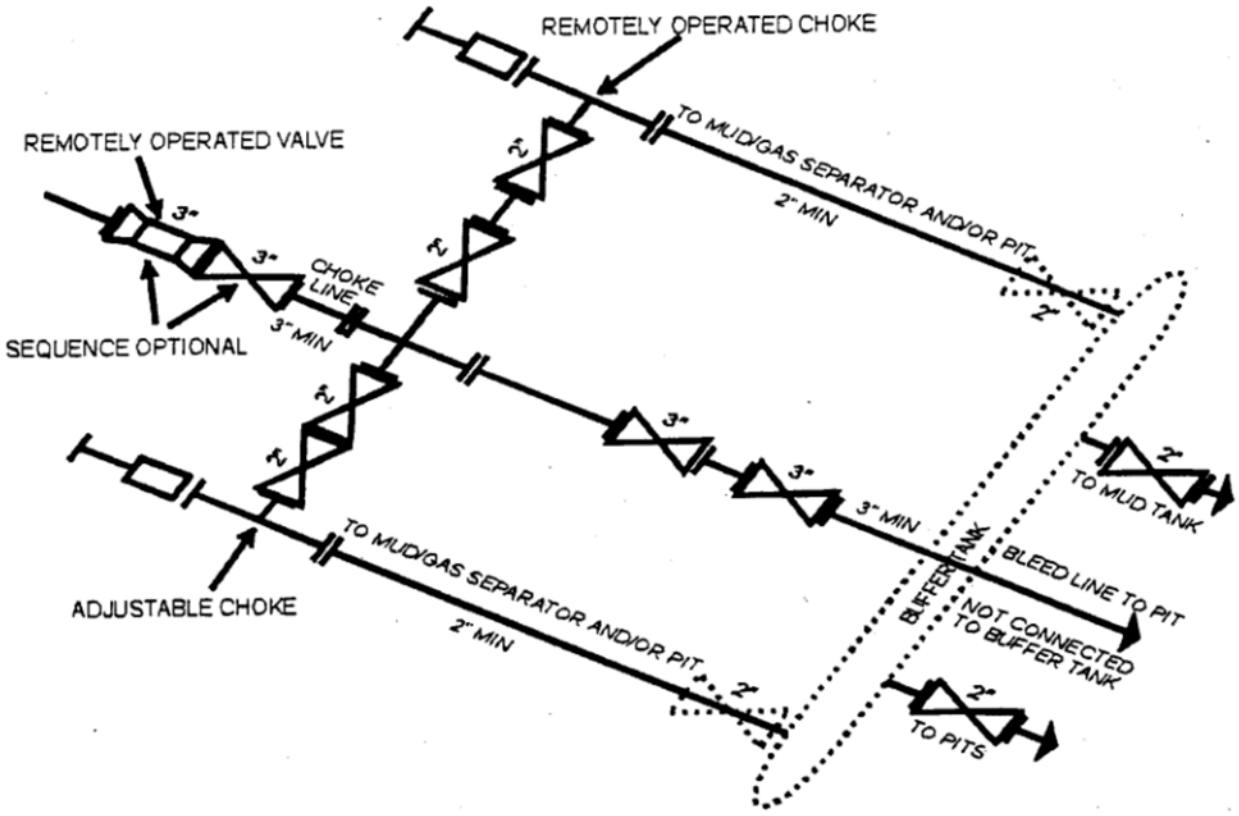
Other proposed operations facets description:

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



5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 2M, 3M, 10M, OR 15M drawings, it would also be applicable to those situations.

[54 FR 39528, Sept. 27, 1989]

Continental
ContiTech

CONTITECH RUBBER Industrial Kft.	No:QC-DB- 599/ 2014
	Page: 16 / 176

Rig 94 Asset 24455

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE

CERT. N°: 1592

PURCHASER:	ContiTech Oil & Marine Corp.	P.O. N°:	4500461753
CONTITECH ORDER N°:	539225	HOSE TYPE:	3" ID Choke & Kill Hose
HOSE SERIAL N°:	68547	NOMINAL / ACTUAL LENGTH:	7,62 m / 7,66 m

W.P.	T.P.	Duration:
68,9 MPa 10000 psi	103,4 MPa 15000 psi	60 min.

Pressure test with water at ambient temperature

See attachment. (1 page)

→ 10 Min.
↑ 50 MPa

COUPLINGS Type	Serial N°	Quality	Heat N°
3" coupling with	2574 5533	AISI 4130	A1582N H8672
4 1/16" 10K API Swivel Flange end		AISI 4130	58855
Hub		AISI 4130	A1199N A1423N

Not Designed For Well Testing **API Spec 16 C**

Fire Rated **Temperature rate:"B"**

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

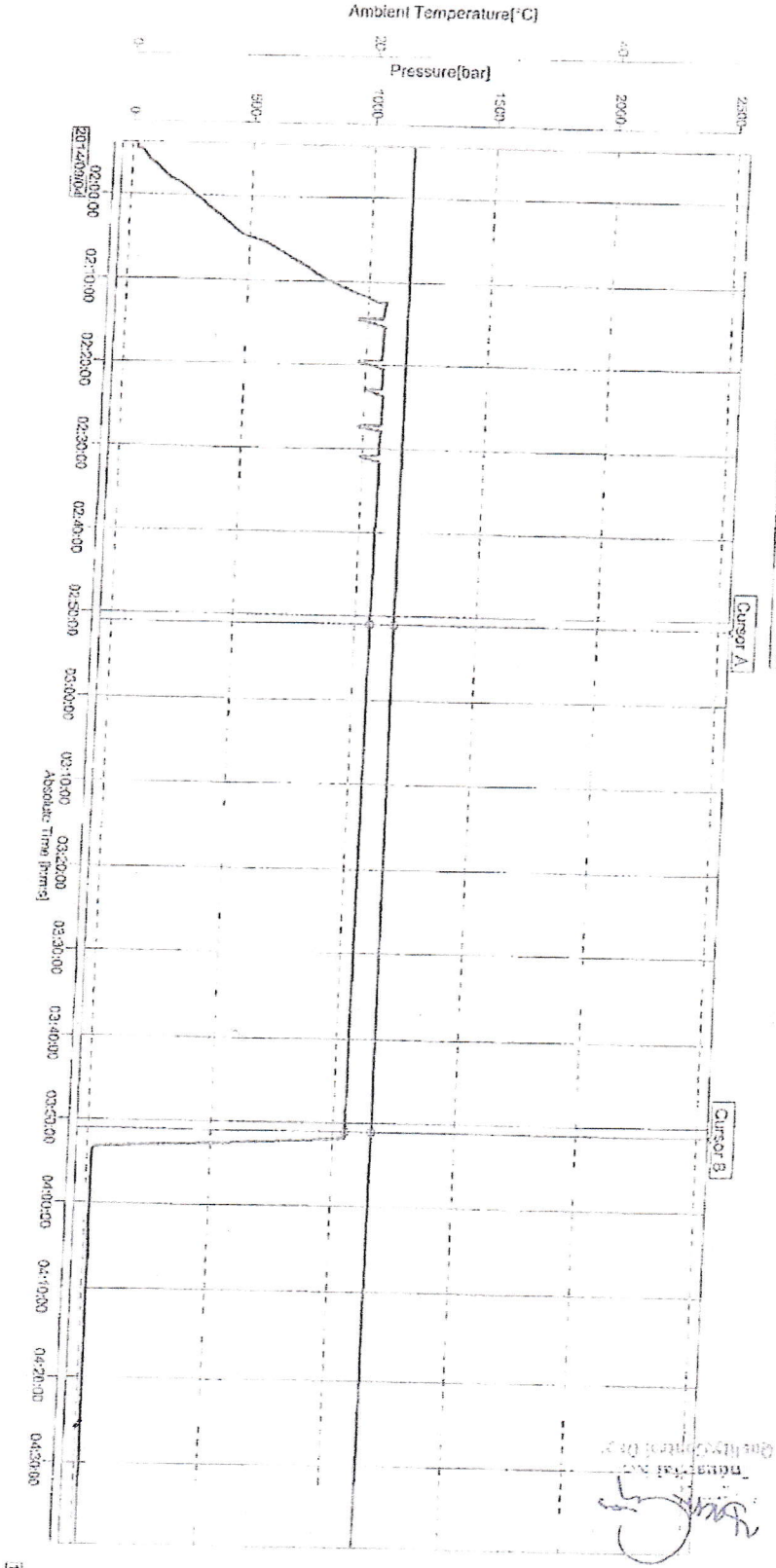
Date:	Inspector	Quality Control
04. September 2014.		ContiTech Rubber Industrial Kft. Quality Control Dept.

File Name : 000220_68543,68545-547.GEV.....000236_68543,68545-547.GEV
File Message : 68543,68545,68547
Device Type : GX10
Serial No. : S5P606389
Data Count : 9948

Print Group : Press-Temp
Print Range : 2014/09/04 01:53:54.000 - 2014/09/04 04:39:39.000
Comment :

Sampling Int. : 1.000 sec
Start Time : 2014/09/04 01:53:54.000
Stop Time : 2014/09/04 04:39:39.000

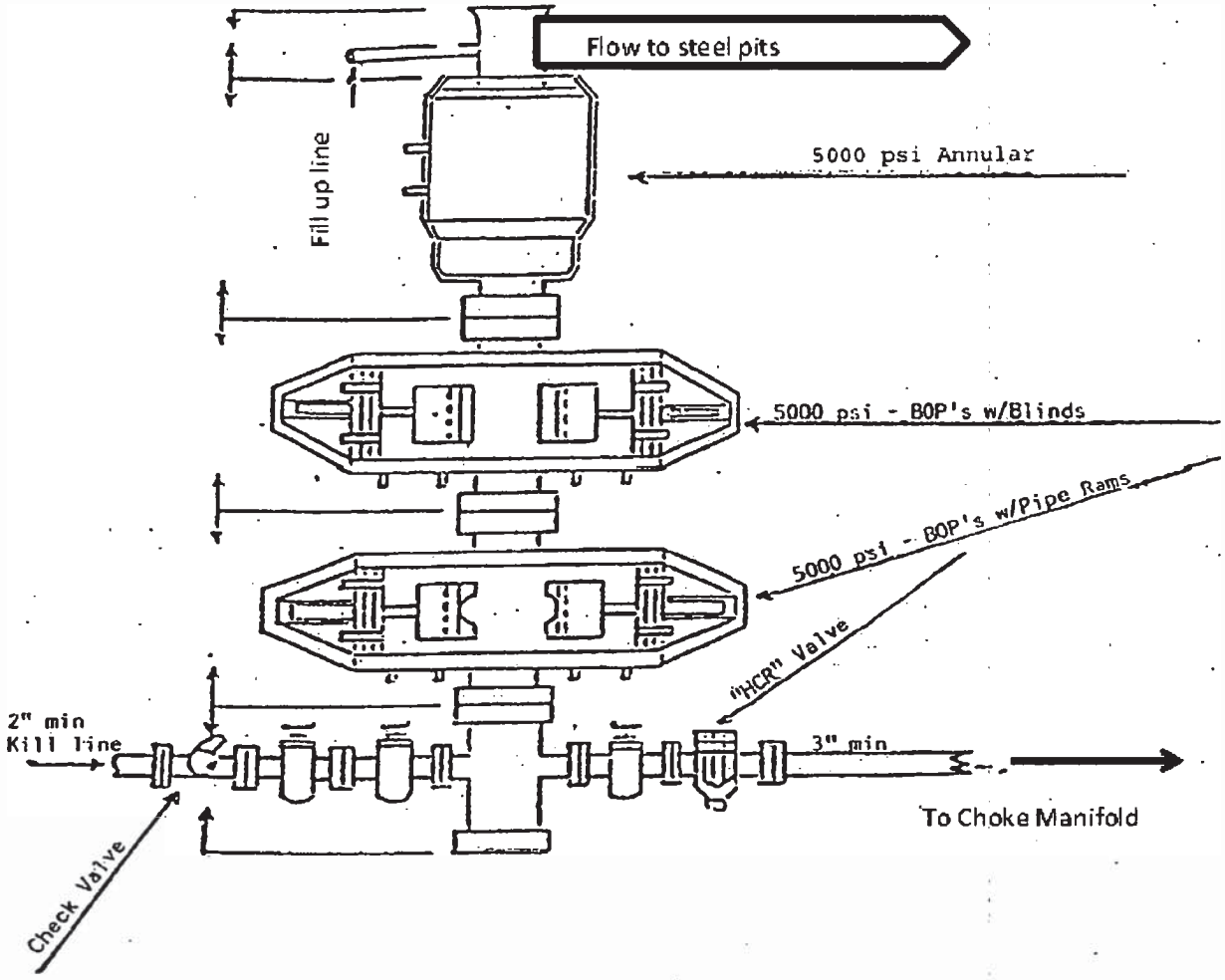
Data No.	Cursor A	Cursor B	Difference
Absolute Time	2014/09/04 02:51:05.000	2014/09/04 03:51:06.002	01:00:01.000
Tag Comment			
Pressure[bar]	Value A	Value B	Value B-A
	1092.95	1045.57	-14.39
Ambient Temperature[°C]	23.24	23.14	-0.10



ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE No: 1588, 1590, 1592

Page: 1 / 1

13-5/8" 5,000 PSI BOP



BTA Oil Producers, LLC
104 S Pecos
Midland, TX 79701

WELL: Vaca Draw 9418 10 Fed #41H
TVD: 11095
MD: 16093

DRILLING PLAN

Casing Program

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
17 1/2	13 3/8	0	1150	0	1150	No	54.5	J-55	STC	2.3	5.5	13.6	8.2	Dry	8.3
12 1/4	9 5/8	0	5052	0	5047	No	40	J-55	LTC	1.7	1.5	3.1	2.6	Dry	10
8 3/4	5.5	0	16093	0	11095	No	17	P110	Buttress	1.4	2.0	2.0	2.1	Dry	9.4

BTA Oil Producers, LLC
104 S Pecos
Midland, TX 79701

WELL: Vaca Draw 9418 10 Fed #41H
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DRILLING PLAN

Casing Program

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
17 1/2	13 3/8	0	1150	0	1150	No	54.5	J-55	STC	2.3	5.5	13.6	8.2	Dry	8.3
12 1/4	9 5/8	0	5052	0	5047	No	40	J-55	LTC	1.7	1.5	3.1	2.6	Dry	10
8 3/4	5.5	0	16093	0	11095	No	17	P110	Buttress	1.4	2.0	2.0	2.1	Dry	9.4

BTA Oil Producers, LLC
104 S Pecos
Midland, TX 79701

WELL: Vaca Draw 9418 10 Fed #41H
TVD: 11095
MD: 16093

DRILLING PLAN

Casing Program

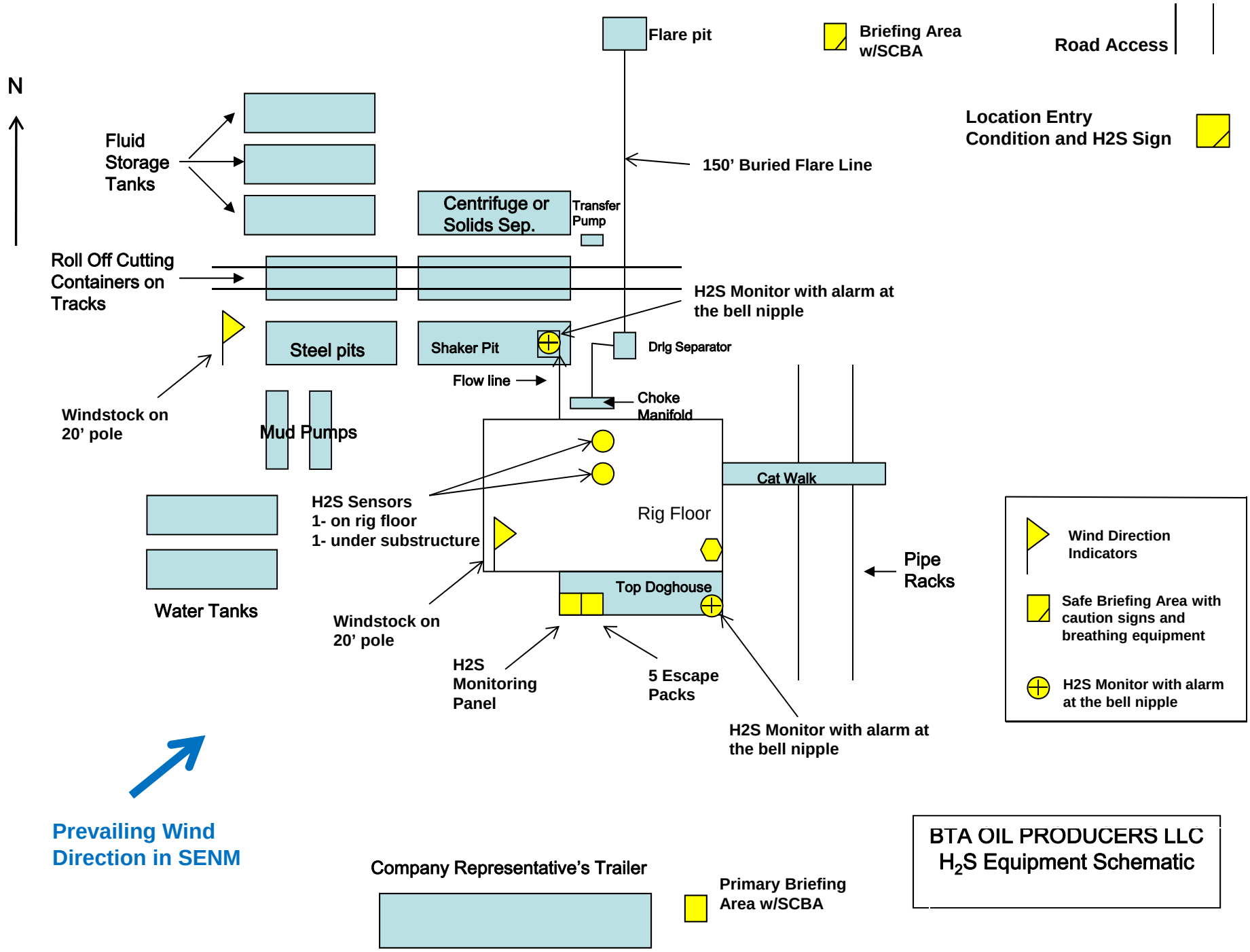
Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
17 1/2	13 3/8	0	1150	0	1150	No	54.5	J-55	STC	2.3	5.5	13.6	8.2	Dry	8.3
12 1/4	9 5/8	0	5052	0	5047	No	40	J-55	LTC	1.7	1.5	3.1	2.6	Dry	10
8 3/4	5.5	0	16093	0	11095	No	17	P110	Buttress	1.4	2.0	2.0	2.1	Dry	9.4

EMERGENCY CALL LIST

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

EMERGENCY RESPONSE NUMBERS

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



BTA OIL PRODUCERS LLC
H_2S Equipment Schematic

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

Company Name: BTA Oil Producers, LLC
Vaca Draw 9418 10 Fed #41H
Lea County, NM (NAD 83)
Rig: Patterson
Created By: Shane Robbins
Date: 10/6/2020

Vaca Draw 9418 10 Fed #41H
Lea County, NM (NAD 83)
Q200*** & WT-200***
Design #1

QUINTANA ENERGY SERVICES

Azimuths to Grid North	
Magnetic North:	6.08°
Magnetic Field	
Strength:	47685.0nT
Dip Angle:	59.75°
Date:	10/6/2020
Model:	HDGM2020

PROJECT DETAILS: Lea County, NM (NAD 83)

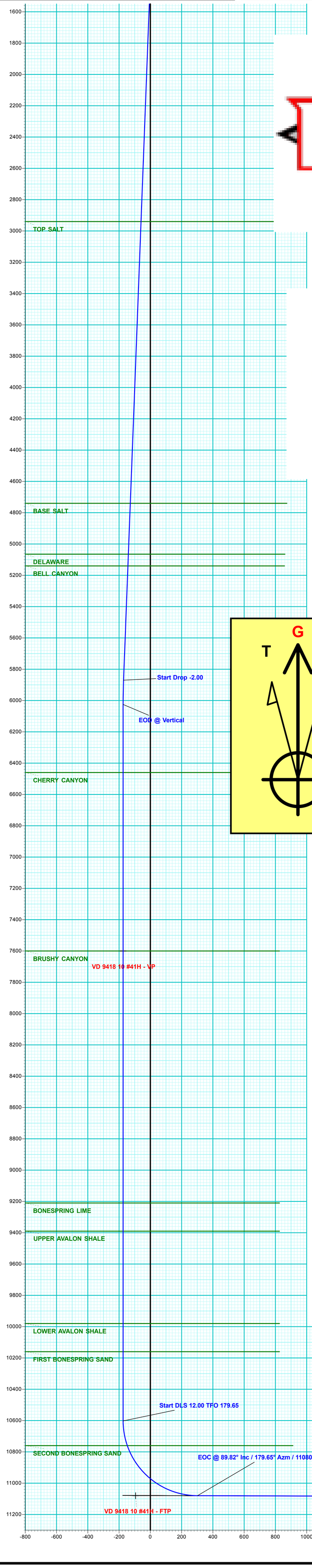
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

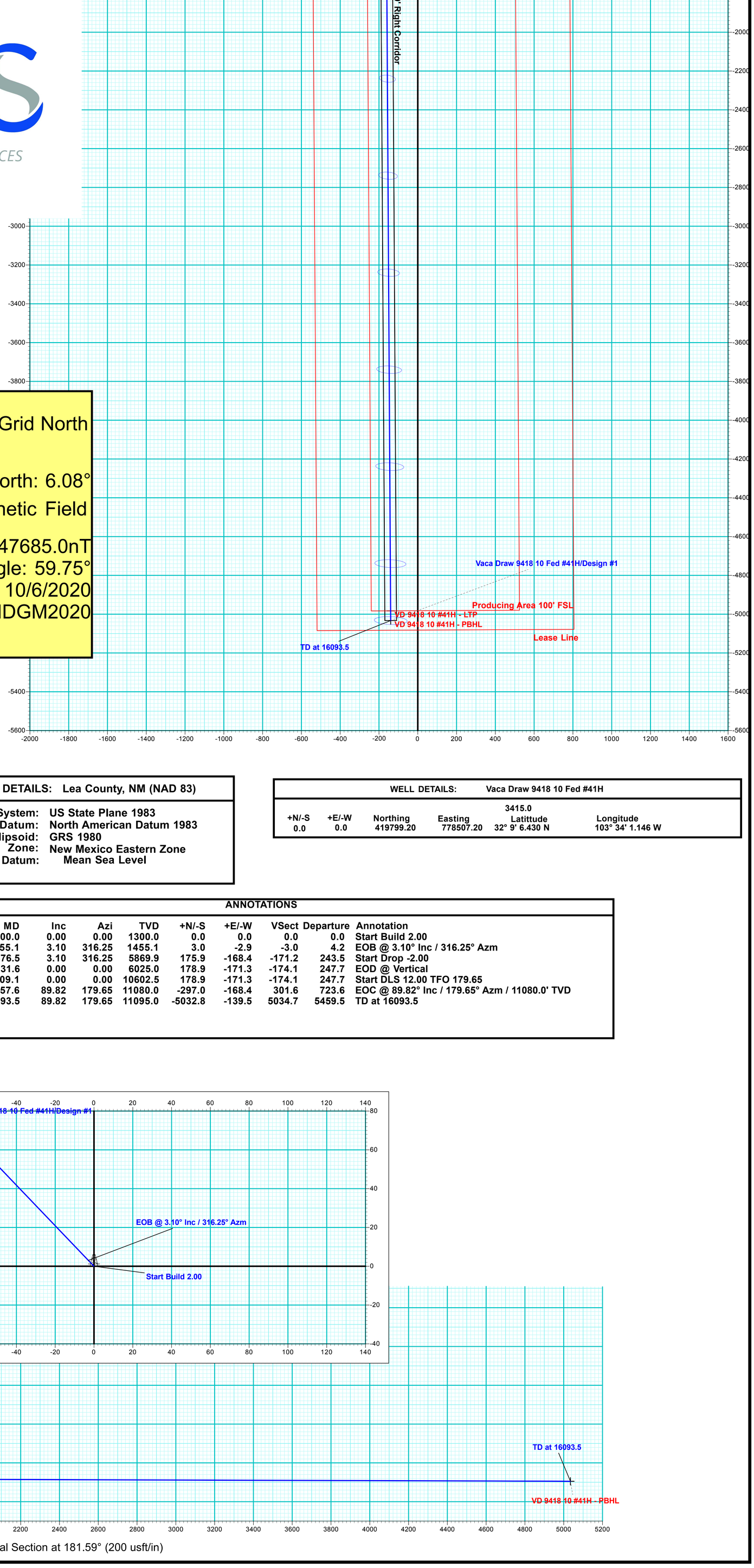
WELL DETAILS: Vaca Draw 9418 10 Fed #41H

+N/-S	+E/-W	Northing	Easting	3415.0 Latittude	Longitude
0.0	0.0	419799.20	778507.20	32° 9' 6.430 N	103° 34' 1.146 W

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1300.0	0.00	0.00	1300.0	0.0	0.0	0.0	0.0	Start Build 2.00
1455.1	3.10	316.25	1455.1	3.0	-2.9	-3.0	4.2	EOB @ 3.10° Inc / 316.25° Azm
5876.5	3.10	316.25	5869.9	175.9	-168.4	-171.2	243.5	Start Drop -2.00
6031.6	0.00	0.00	6025.0	178.9	-171.3	-174.1	247.7	EOD @ Vertical
10609.1	0.00	0.00	10602.5	178.9	-171.3	-174.1	247.7	Start DLS 12.00 TFO 179.65
11357.6	89.82	179.65	11080.0	-297.0	-168.4	301.6	723.6	EOC @ 89.82° Inc / 179.65° Azm / 11080.0' TVD
16093.5	89.82	179.65	11095.0	-5032.8	-139.5	5034.7	5459.5	TD at 16093.5





BTA Oil Producers, LLC

Lea County, NM (NAD 83)
Sec 10, T25-S, R33-E
Vaca Draw 9418 10 Fed #41H

Wellbore #1

Plan: Design #1

QES Well Planning Report

06 October, 2020

QUINTANA ENERGY SERVICES

Well Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Vaca Draw 9418 10 Fed #41H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	KB=25' @ 3440.0usft (Patterson)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	KB=25' @ 3440.0usft (Patterson)
Site:	Sec 10, T25-S, R33-E	**North Reference:**	Grid
Well:	Vaca Draw 9418 10 Fed #41H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project Lea County, NM (NAD 83)

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

Site Sec 10, T25-S, R33-E

Site Position:		**Northing:**	414,940.60 usft	**Latitude:**	32° 8' 18.299 N
From:	Map	**Easting:**	779,261.40 usft	**Longitude:**	103° 33' 52.777 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.41 °

Well Vaca Draw 9418 10 Fed #41H

Well Position	**+N/-S**	4,858.6 usft	**Northing:**	419,799.20 usft	**Latitude:**	32° 9' 6.430 N
	+E/-W	-754.2 usft	**Easting:**	778,507.20 usft	**Longitude:**	103° 34' 1.146 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,415.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	10/6/2020	6.48	59.75	47,685.00000000

Design Design #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	181.59

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	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,455.1	3.10	316.25	1,455.1	3.0	-2.9	2.00	2.00	0.00	316.25	
5,876.5	3.10	316.25	5,869.9	175.9	-168.4	0.00	0.00	0.00	0.00	
6,031.6	0.00	0.00	6,025.0	178.9	-171.3	2.00	-2.00	0.00	180.00	
10,609.1	0.00	0.00	10,602.5	178.9	-171.3	0.00	0.00	0.00	0.00	
11,357.6	89.82	179.65	11,080.0	-297.0	-168.4	12.00	12.00	24.00	179.65	
16,093.5	89.82	179.65	11,095.0	-5,032.8	-139.5	0.00	0.00	0.00	0.00	VD 9418 10 #41H - P

Well Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Vaca Draw 9418 10 Fed #41H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	KB=25' @ 3440.0usft (Patterson)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	KB=25' @ 3440.0usft (Patterson)
Site:	Sec 10, T25-S, R33-E	**North Reference:**	Grid
Well:	Vaca Draw 9418 10 Fed #41H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
RUSLTER									
1,090.0	0.00	0.00	1,090.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	2.00	316.25	1,400.0	1.3	-1.2	-1.2	2.00	2.00	0.00
Start 4421.4 hold at 1455.1 MD									
1,455.1	3.10	316.25	1,455.1	3.0	-2.9	-3.0	2.00	2.00	0.00
1,500.0	3.10	316.25	1,499.9	4.8	-4.6	-4.7	0.00	0.00	0.00
1,600.0	3.10	316.25	1,599.7	8.7	-8.3	-8.5	0.00	0.00	0.00
1,700.0	3.10	316.25	1,699.6	12.6	-12.1	-12.3	0.00	0.00	0.00
1,800.0	3.10	316.25	1,799.4	16.5	-15.8	-16.1	0.00	0.00	0.00
1,900.0	3.10	316.25	1,899.3	20.4	-19.6	-19.9	0.00	0.00	0.00
2,000.0	3.10	316.25	1,999.1	24.3	-23.3	-23.7	0.00	0.00	0.00
2,100.0	3.10	316.25	2,099.0	28.2	-27.0	-27.5	0.00	0.00	0.00
2,200.0	3.10	316.25	2,198.8	32.2	-30.8	-31.3	0.00	0.00	0.00
2,300.0	3.10	316.25	2,298.7	36.1	-34.5	-35.1	0.00	0.00	0.00
2,400.0	3.10	316.25	2,398.5	40.0	-38.3	-38.9	0.00	0.00	0.00
2,500.0	3.10	316.25	2,498.4	43.9	-42.0	-42.7	0.00	0.00	0.00
2,600.0	3.10	316.25	2,598.2	47.8	-45.8	-46.5	0.00	0.00	0.00
2,700.0	3.10	316.25	2,698.1	51.7	-49.5	-50.3	0.00	0.00	0.00
2,800.0	3.10	316.25	2,798.0	55.6	-53.2	-54.1	0.00	0.00	0.00
2,900.0	3.10	316.25	2,897.8	59.5	-57.0	-57.9	0.00	0.00	0.00
TOP SALT									
2,942.3	3.10	316.25	2,940.0	61.2	-58.6	-59.5	0.00	0.00	0.00
3,000.0	3.10	316.25	2,997.7	63.4	-60.7	-61.7	0.00	0.00	0.00
3,100.0	3.10	316.25	3,097.5	67.3	-64.5	-65.5	0.00	0.00	0.00
3,200.0	3.10	316.25	3,197.4	71.3	-68.2	-69.3	0.00	0.00	0.00
3,300.0	3.10	316.25	3,297.2	75.2	-72.0	-73.1	0.00	0.00	0.00
3,400.0	3.10	316.25	3,397.1	79.1	-75.7	-76.9	0.00	0.00	0.00
3,500.0	3.10	316.25	3,496.9	83.0	-79.4	-80.7	0.00	0.00	0.00
3,600.0	3.10	316.25	3,596.8	86.9	-83.2	-84.6	0.00	0.00	0.00
3,700.0	3.10	316.25	3,696.6	90.8	-86.9	-88.4	0.00	0.00	0.00
3,800.0	3.10	316.25	3,796.5	94.7	-90.7	-92.2	0.00	0.00	0.00
3,900.0	3.10	316.25	3,896.3	98.6	-94.4	-96.0	0.00	0.00	0.00
4,000.0	3.10	316.25	3,996.2	102.5	-98.2	-99.8	0.00	0.00	0.00
4,100.0	3.10	316.25	4,096.0	106.4	-101.9	-103.6	0.00	0.00	0.00
4,200.0	3.10	316.25	4,195.9	110.3	-105.6	-107.4	0.00	0.00	0.00
4,300.0	3.10	316.25	4,295.8	114.3	-109.4	-111.2	0.00	0.00	0.00
4,400.0	3.10	316.25	4,395.6	118.2	-113.1	-115.0	0.00	0.00	0.00
4,500.0	3.10	316.25	4,495.5	122.1	-116.9	-118.8	0.00	0.00	0.00
4,600.0	3.10	316.25	4,595.3	126.0	-120.6	-122.6	0.00	0.00	0.00

Well Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Vaca Draw 9418 10 Fed #41H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	KB=25' @ 3440.0usft (Patterson)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	KB=25' @ 3440.0usft (Patterson)
Site:	Sec 10, T25-S, R33-E	**North Reference:**	Grid
Well:	Vaca Draw 9418 10 Fed #41H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.0	3.10	316.25	4,695.2	129.9	-124.4	-126.4	0.00	0.00	0.00
BASE SALT									
4,744.9	3.10	316.25	4,740.0	131.7	-126.0	-128.1	0.00	0.00	0.00
4,800.0	3.10	316.25	4,795.0	133.8	-128.1	-130.2	0.00	0.00	0.00
4,900.0	3.10	316.25	4,894.9	137.7	-131.8	-134.0	0.00	0.00	0.00
5,000.0	3.10	316.25	4,994.7	141.6	-135.6	-137.8	0.00	0.00	0.00
DELAWARE									
5,070.4	3.10	316.25	5,065.0	144.4	-138.2	-140.5	0.00	0.00	0.00
5,100.0	3.10	316.25	5,094.6	145.5	-139.3	-141.6	0.00	0.00	0.00
BELL CANYON									
5,145.5	3.10	316.25	5,140.0	147.3	-141.0	-143.3	0.00	0.00	0.00
5,200.0	3.10	316.25	5,194.4	149.4	-143.1	-145.4	0.00	0.00	0.00
5,300.0	3.10	316.25	5,294.3	153.4	-146.8	-149.2	0.00	0.00	0.00
5,400.0	3.10	316.25	5,394.1	157.3	-150.5	-153.0	0.00	0.00	0.00
5,500.0	3.10	316.25	5,494.0	161.2	-154.3	-156.8	0.00	0.00	0.00
5,600.0	3.10	316.25	5,593.8	165.1	-158.0	-160.6	0.00	0.00	0.00
5,700.0	3.10	316.25	5,693.7	169.0	-161.8	-164.4	0.00	0.00	0.00
5,800.0	3.10	316.25	5,793.6	172.9	-165.5	-168.2	0.00	0.00	0.00
Start Drop -2.00									
5,876.5	3.10	316.25	5,869.9	175.9	-168.4	-171.2	0.00	0.00	0.00
5,900.0	2.63	316.25	5,893.4	176.7	-169.2	-172.0	2.00	-2.00	0.00
6,000.0	0.63	316.25	5,993.4	178.8	-171.2	-174.0	2.00	-2.00	0.00
Start 4577.5 hold at 6031.6 MD									
6,031.6	0.00	0.00	6,025.0	178.9	-171.3	-174.1	2.00	-2.00	138.31
6,100.0	0.00	0.00	6,093.4	178.9	-171.3	-174.1	0.00	0.00	0.00
6,200.0	0.00	0.00	6,193.4	178.9	-171.3	-174.1	0.00	0.00	0.00
6,300.0	0.00	0.00	6,293.4	178.9	-171.3	-174.1	0.00	0.00	0.00
6,400.0	0.00	0.00	6,393.4	178.9	-171.3	-174.1	0.00	0.00	0.00
CHERRY CANYON									
6,466.6	0.00	0.00	6,460.0	178.9	-171.3	-174.1	0.00	0.00	0.00
6,500.0	0.00	0.00	6,493.4	178.9	-171.3	-174.1	0.00	0.00	0.00
6,600.0	0.00	0.00	6,593.4	178.9	-171.3	-174.1	0.00	0.00	0.00
6,700.0	0.00	0.00	6,693.4	178.9	-171.3	-174.1	0.00	0.00	0.00
6,800.0	0.00	0.00	6,793.4	178.9	-171.3	-174.1	0.00	0.00	0.00
6,900.0	0.00	0.00	6,893.4	178.9	-171.3	-174.1	0.00	0.00	0.00
7,000.0	0.00	0.00	6,993.4	178.9	-171.3	-174.1	0.00	0.00	0.00
7,100.0	0.00	0.00	7,093.4	178.9	-171.3	-174.1	0.00	0.00	0.00
7,200.0	0.00	0.00	7,193.4	178.9	-171.3	-174.1	0.00	0.00	0.00
7,300.0	0.00	0.00	7,293.4	178.9	-171.3	-174.1	0.00	0.00	0.00
7,400.0	0.00	0.00	7,393.4	178.9	-171.3	-174.1	0.00	0.00	0.00
7,500.0	0.00	0.00	7,493.4	178.9	-171.3	-174.1	0.00	0.00	0.00
7,600.0	0.00	0.00	7,593.4	178.9	-171.3	-174.1	0.00	0.00	0.00
BRUSHY CANYON									
7,606.6	0.00	0.00	7,600.0	178.9	-171.3	-174.1	0.00	0.00	0.00
7,700.0	0.00	0.00	7,693.4	178.9	-171.3	-174.1	0.00	0.00	0.00
7,800.0	0.00	0.00	7,793.4	178.9	-171.3	-174.1	0.00	0.00	0.00
7,900.0	0.00	0.00	7,893.4	178.9	-171.3	-174.1	0.00	0.00	0.00
8,000.0	0.00	0.00	7,993.4	178.9	-171.3	-174.1	0.00	0.00	0.00
8,100.0	0.00	0.00	8,093.4	178.9	-171.3	-174.1	0.00	0.00	0.00
8,200.0	0.00	0.00	8,193.4	178.9	-171.3	-174.1	0.00	0.00	0.00
8,300.0	0.00	0.00	8,293.4	178.9	-171.3	-174.1	0.00	0.00	0.00
8,400.0	0.00	0.00	8,393.4	178.9	-171.3	-174.1	0.00	0.00	0.00
8,500.0	0.00	0.00	8,493.4	178.9	-171.3	-174.1	0.00	0.00	0.00

Well Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Vaca Draw 9418 10 Fed #41H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	KB=25' @ 3440.0usft (Patterson)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	KB=25' @ 3440.0usft (Patterson)
Site:	Sec 10, T25-S, R33-E	**North Reference:**	Grid
Well:	Vaca Draw 9418 10 Fed #41H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.0	0.00	0.00	8,593.4	178.9	-171.3	-174.1	0.00	0.00	0.00
8,700.0	0.00	0.00	8,693.4	178.9	-171.3	-174.1	0.00	0.00	0.00
8,800.0	0.00	0.00	8,793.4	178.9	-171.3	-174.1	0.00	0.00	0.00
8,900.0	0.00	0.00	8,893.4	178.9	-171.3	-174.1	0.00	0.00	0.00
9,000.0	0.00	0.00	8,993.4	178.9	-171.3	-174.1	0.00	0.00	0.00
9,100.0	0.00	0.00	9,093.4	178.9	-171.3	-174.1	0.00	0.00	0.00
9,200.0	0.00	0.00	9,193.4	178.9	-171.3	-174.1	0.00	0.00	0.00
BONESPRING LIME									
9,216.6	0.00	0.00	9,210.0	178.9	-171.3	-174.1	0.00	0.00	0.00
9,300.0	0.00	0.00	9,293.4	178.9	-171.3	-174.1	0.00	0.00	0.00
UPPER AVALON SHALE									
9,396.6	0.00	0.00	9,390.0	178.9	-171.3	-174.1	0.00	0.00	0.00
9,400.0	0.00	0.00	9,393.4	178.9	-171.3	-174.1	0.00	0.00	0.00
9,500.0	0.00	0.00	9,493.4	178.9	-171.3	-174.1	0.00	0.00	0.00
9,600.0	0.00	0.00	9,593.4	178.9	-171.3	-174.1	0.00	0.00	0.00
9,700.0	0.00	0.00	9,693.4	178.9	-171.3	-174.1	0.00	0.00	0.00
9,800.0	0.00	0.00	9,793.4	178.9	-171.3	-174.1	0.00	0.00	0.00
9,900.0	0.00	0.00	9,893.4	178.9	-171.3	-174.1	0.00	0.00	0.00
LOWER AVALON SHALE									
9,986.6	0.00	0.00	9,980.0	178.9	-171.3	-174.1	0.00	0.00	0.00
10,000.0	0.00	0.00	9,993.4	178.9	-171.3	-174.1	0.00	0.00	0.00
10,100.0	0.00	0.00	10,093.4	178.9	-171.3	-174.1	0.00	0.00	0.00
FIRST BONESPRING SAND									
10,166.6	0.00	0.00	10,160.0	178.9	-171.3	-174.1	0.00	0.00	0.00
10,200.0	0.00	0.00	10,193.4	178.9	-171.3	-174.1	0.00	0.00	0.00
10,300.0	0.00	0.00	10,293.4	178.9	-171.3	-174.1	0.00	0.00	0.00
10,400.0	0.00	0.00	10,393.4	178.9	-171.3	-174.1	0.00	0.00	0.00
10,500.0	0.00	0.00	10,493.4	178.9	-171.3	-174.1	0.00	0.00	0.00
Start DLS 12.00 TFO 179.65									
10,609.1	0.00	0.00	10,602.5	178.9	-171.3	-174.1	0.00	0.00	0.00
10,625.0	1.90	179.65	10,618.4	178.7	-171.3	-173.8	12.00	12.00	0.00
10,650.0	4.90	179.65	10,643.3	177.2	-171.3	-172.4	12.00	12.00	0.00
10,675.0	7.90	179.65	10,668.2	174.4	-171.3	-169.6	12.00	12.00	0.00
10,700.0	10.90	179.65	10,692.8	170.3	-171.2	-165.5	12.00	12.00	0.00
10,725.0	13.90	179.65	10,717.2	164.9	-171.2	-160.1	12.00	12.00	0.00
10,750.0	16.90	179.65	10,741.3	158.3	-171.2	-153.5	12.00	12.00	0.00
SECOND BONESPRING SAND									
10,769.6	19.26	179.65	10,760.0	152.2	-171.1	-147.4	12.00	12.00	0.00
10,775.0	19.90	179.65	10,765.1	150.4	-171.1	-145.6	12.00	12.00	0.00
10,800.0	22.90	179.65	10,788.3	141.3	-171.1	-136.5	12.00	12.00	0.00
10,825.0	25.90	179.65	10,811.1	131.0	-171.0	-126.2	12.00	12.00	0.00
10,850.0	28.90	179.65	10,833.3	119.4	-170.9	-114.7	12.00	12.00	0.00
10,875.0	31.90	179.65	10,854.8	106.8	-170.8	-102.0	12.00	12.00	0.00
10,900.0	34.90	179.65	10,875.7	93.0	-170.8	-88.3	12.00	12.00	0.00
10,925.0	37.90	179.65	10,895.8	78.2	-170.7	-73.4	12.00	12.00	0.00
10,950.0	40.90	179.65	10,915.1	62.3	-170.6	-57.6	12.00	12.00	0.00
10,975.0	43.90	179.65	10,933.6	45.5	-170.5	-40.7	12.00	12.00	0.00
11,000.0	46.90	179.65	10,951.2	27.7	-170.4	-22.9	12.00	12.00	0.00
11,025.0	49.90	179.65	10,967.7	9.0	-170.3	-4.3	12.00	12.00	0.00
11,050.0	52.90	179.65	10,983.3	-10.6	-170.1	15.3	12.00	12.00	0.00
11,075.0	55.90	179.65	10,997.9	-30.9	-170.0	35.6	12.00	12.00	0.00
11,100.0	58.90	179.65	11,011.4	-51.9	-169.9	56.6	12.00	12.00	0.00
11,125.0	61.90	179.65	11,023.7	-73.7	-169.7	78.3	12.00	12.00	0.00

Well Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Vaca Draw 9418 10 Fed #41H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	KB=25' @ 3440.0usft (Patterson)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	KB=25' @ 3440.0usft (Patterson)
Site:	Sec 10, T25-S, R33-E	**North Reference:**	Grid
Well:	Vaca Draw 9418 10 Fed #41H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,150.0	64.90	179.65	11,034.9	-96.0	-169.6	100.7	12.00	12.00	0.00
11,175.0	67.90	179.65	11,044.9	-118.9	-169.5	123.6	12.00	12.00	0.00
11,200.0	70.90	179.65	11,053.7	-142.3	-169.3	147.0	12.00	12.00	0.00
11,225.0	73.90	179.65	11,061.2	-166.2	-169.2	170.8	12.00	12.00	0.00
11,250.0	76.90	179.65	11,067.5	-190.3	-169.0	195.0	12.00	12.00	0.00
11,275.0	79.90	179.65	11,072.6	-214.8	-168.9	219.4	12.00	12.00	0.00
11,300.0	82.90	179.65	11,076.3	-239.5	-168.7	244.1	12.00	12.00	0.00
11,325.0	85.90	179.65	11,078.7	-264.4	-168.6	269.0	12.00	12.00	0.00
11,350.0	88.90	179.65	11,079.9	-289.4	-168.4	294.0	12.00	12.00	0.00
Start 4735.9 hold at 11357.6 MD									
11,357.6	89.82	179.65	11,080.0	-297.0	-168.4	301.6	12.00	12.00	0.00
11,400.0	89.82	179.65	11,080.1	-339.4	-168.1	343.9	0.00	0.00	0.00
11,500.0	89.82	179.65	11,080.4	-439.4	-167.5	443.9	0.00	0.00	0.00
11,600.0	89.82	179.65	11,080.7	-539.4	-166.9	543.8	0.00	0.00	0.00
11,700.0	89.82	179.65	11,081.0	-639.4	-166.3	643.8	0.00	0.00	0.00
11,800.0	89.82	179.65	11,081.4	-739.4	-165.7	743.7	0.00	0.00	0.00
11,900.0	89.82	179.65	11,081.7	-839.4	-165.1	843.6	0.00	0.00	0.00
12,000.0	89.82	179.65	11,082.0	-939.4	-164.5	943.6	0.00	0.00	0.00
12,100.0	89.82	179.65	11,082.3	-1,039.4	-163.9	1,043.5	0.00	0.00	0.00
12,200.0	89.82	179.65	11,082.6	-1,139.4	-163.2	1,143.5	0.00	0.00	0.00
12,300.0	89.82	179.65	11,083.0	-1,239.4	-162.6	1,243.4	0.00	0.00	0.00
12,400.0	89.82	179.65	11,083.3	-1,339.4	-162.0	1,343.3	0.00	0.00	0.00
12,500.0	89.82	179.65	11,083.6	-1,439.4	-161.4	1,443.3	0.00	0.00	0.00
12,600.0	89.82	179.65	11,083.9	-1,539.4	-160.8	1,543.2	0.00	0.00	0.00
12,700.0	89.82	179.65	11,084.2	-1,639.4	-160.2	1,643.2	0.00	0.00	0.00
12,800.0	89.82	179.65	11,084.5	-1,739.4	-159.6	1,743.1	0.00	0.00	0.00
12,900.0	89.82	179.65	11,084.9	-1,839.4	-159.0	1,843.1	0.00	0.00	0.00
13,000.0	89.82	179.65	11,085.2	-1,939.4	-158.4	1,943.0	0.00	0.00	0.00
13,100.0	89.82	179.65	11,085.5	-2,039.4	-157.8	2,042.9	0.00	0.00	0.00
13,200.0	89.82	179.65	11,085.8	-2,139.4	-157.1	2,142.9	0.00	0.00	0.00
13,300.0	89.82	179.65	11,086.1	-2,239.4	-156.5	2,242.8	0.00	0.00	0.00
13,400.0	89.82	179.65	11,086.4	-2,339.3	-155.9	2,342.8	0.00	0.00	0.00
13,500.0	89.82	179.65	11,086.8	-2,439.3	-155.3	2,442.7	0.00	0.00	0.00
13,600.0	89.82	179.65	11,087.1	-2,539.3	-154.7	2,542.7	0.00	0.00	0.00
13,700.0	89.82	179.65	11,087.4	-2,639.3	-154.1	2,642.6	0.00	0.00	0.00
13,800.0	89.82	179.65	11,087.7	-2,739.3	-153.5	2,742.5	0.00	0.00	0.00
13,900.0	89.82	179.65	11,088.0	-2,839.3	-152.9	2,842.5	0.00	0.00	0.00
14,000.0	89.82	179.65	11,088.4	-2,939.3	-152.3	2,942.4	0.00	0.00	0.00
14,100.0	89.82	179.65	11,088.7	-3,039.3	-151.7	3,042.4	0.00	0.00	0.00
14,200.0	89.82	179.65	11,089.0	-3,139.3	-151.0	3,142.3	0.00	0.00	0.00
14,300.0	89.82	179.65	11,089.3	-3,239.3	-150.4	3,242.3	0.00	0.00	0.00
14,400.0	89.82	179.65	11,089.6	-3,339.3	-149.8	3,342.2	0.00	0.00	0.00
14,500.0	89.82	179.65	11,089.9	-3,439.3	-149.2	3,442.1	0.00	0.00	0.00
14,600.0	89.82	179.65	11,090.3	-3,539.3	-148.6	3,542.1	0.00	0.00	0.00
14,700.0	89.82	179.65	11,090.6	-3,639.3	-148.0	3,642.0	0.00	0.00	0.00
14,800.0	89.82	179.65	11,090.9	-3,739.3	-147.4	3,742.0	0.00	0.00	0.00
14,900.0	89.82	179.65	11,091.2	-3,839.3	-146.8	3,841.9	0.00	0.00	0.00
15,000.0	89.82	179.65	11,091.5	-3,939.3	-146.2	3,941.8	0.00	0.00	0.00
15,100.0	89.82	179.65	11,091.8	-4,039.3	-145.6	4,041.8	0.00	0.00	0.00
15,200.0	89.82	179.65	11,092.2	-4,139.3	-144.9	4,141.7	0.00	0.00	0.00
15,300.0	89.82	179.65	11,092.5	-4,239.3	-144.3	4,241.7	0.00	0.00	0.00
15,400.0	89.82	179.65	11,092.8	-4,339.3	-143.7	4,341.6	0.00	0.00	0.00
15,500.0	89.82	179.65	11,093.1	-4,439.3	-143.1	4,441.6	0.00	0.00	0.00

Well Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Vaca Draw 9418 10 Fed #41H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	KB=25' @ 3440.0usft (Patterson)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	KB=25' @ 3440.0usft (Patterson)
Site:	Sec 10, T25-S, R33-E	**North Reference:**	Grid
Well:	Vaca Draw 9418 10 Fed #41H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,600.0	89.82	179.65	11,093.4	-4,539.3	-142.5	4,541.5	0.00	0.00	0.00
15,700.0	89.82	179.65	11,093.8	-4,639.3	-141.9	4,641.4	0.00	0.00	0.00
15,800.0	89.82	179.65	11,094.1	-4,739.3	-141.3	4,741.4	0.00	0.00	0.00
15,900.0	89.82	179.65	11,094.4	-4,839.3	-140.7	4,841.3	0.00	0.00	0.00
16,000.0	89.82	179.65	11,094.7	-4,939.3	-140.1	4,941.3	0.00	0.00	0.00
TD at 16093.5									
16,093.5	89.82	179.65	11,095.0	-5,032.8	-139.5	5,034.7	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VD 9418 10 #41H - LTP	0.00	0.00	-2.0	-4,982.8	-139.8	414,816.40	778,367.40	32° 8' 17.133 N	103° 34' 3.185 W
- plan misses target center by 4984.8usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Point									
VD 9418 10 #41H - VP	0.00	0.00	7,600.0	178.9	-171.3	419,978.13	778,335.91	32° 9' 8.212 N	103° 34' 3.124 W
- plan hits target center									
- Point									
VD 9418 10 #41H - FTP	0.00	0.00	11,080.0	99.0	-170.8	419,898.20	778,336.40	32° 9' 7.421 N	103° 34' 3.125 W
- plan misses target center by 143.9usft at 11025.0usft MD (10967.7 TVD, 9.0 N, -170.3 E)									
- Point									
VD 9418 10 #41H - PBH	0.18	179.65	11,095.0	-5,032.8	-139.5	414,766.40	778,367.70	32° 8' 16.638 N	103° 34' 3.185 W
- plan hits target center									
- Rectangle (sides W60.0 H5,213.0 D0.0)									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,090.0	1,090.0	RUSLTER			
2,942.3	2,940.0	TOP SALT			
4,744.9	4,740.0	BASE SALT			
5,070.4	5,065.0	DELAWARE			
5,145.5	5,140.0	BELL CANYON			
6,466.6	6,460.0	CHERRY CANYON			
7,606.6	7,600.0	BRUSHY CANYON			
9,216.6	9,210.0	BONESPRING LIME			
9,396.6	9,390.0	UPPER AVALON SHALE			
9,986.6	9,980.0	LOWER AVALON SHALE			
10,166.6	10,160.0	FIRST BONESPRING SAND			
10,769.6	10,760.0	SECOND BONESPRING SAND			

Well Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Vaca Draw 9418 10 Fed #41H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	KB=25' @ 3440.0usft (Patterson)
Project:	Lea County, NM (NAD 83)	**MD Reference:**	KB=25' @ 3440.0usft (Patterson)
Site:	Sec 10, T25-S, R33-E	**North Reference:**	Grid
Well:	Vaca Draw 9418 10 Fed #41H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
1,300.0	1,300.0	0.0	0.0	Start Build 2.00
1,455.1	1,455.1	3.0	-2.9	Start 4421.4 hold at 1455.1 MD
5,876.5	5,869.9	175.9	-168.4	Start Drop -2.00
6,031.6	6,025.0	178.9	-171.3	Start 4577.5 hold at 6031.6 MD
10,609.1	10,602.5	178.9	-171.3	Start DLS 12.00 TFO 179.65
11,357.6	11,080.0	-297.0	-168.4	Start 4735.9 hold at 11357.6 MD
16,093.5	11,095.0	-5,032.8	-139.5	TD at 16093.5

BTA

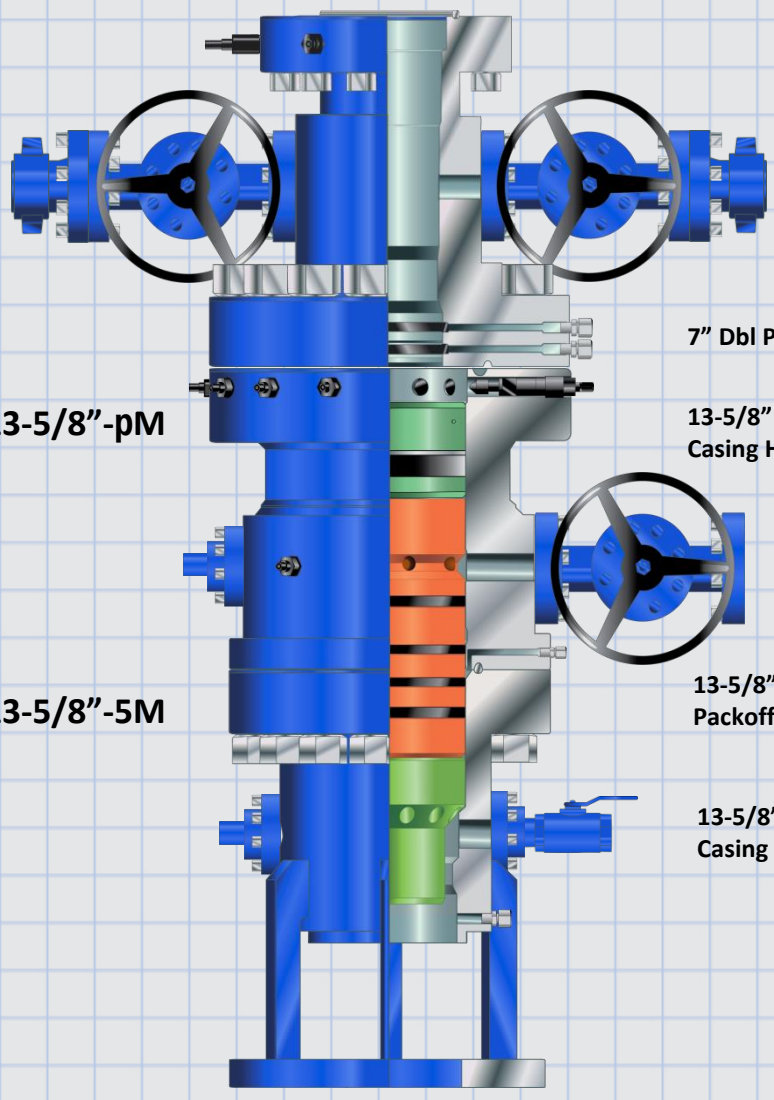
Multi-Bowl System

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

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

SUPO Data Report
07/27/2021

APD ID: 10400063016
Submission Date: 10/12/2020
Operator Name: BTA OIL PRODUCERS LLC
Well Name: VACA DRAW 9418 10 FEDERAL
Well Number: 41H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

20110350_Vaca_Draw_9418_10_Fed_41H_Vicinity_Topographical___Access_Rd_20201007141326.pdf

Existing Road Purpose: ACCESS
Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

20110350_Vaca_Draw_9418_10_Fed_41H_1_Mile_Radius___C102_20201007141342.pdf

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

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

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: Defer, CTB will be sundried at a later date.

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: PIT

Water source use type: SURFACE CASING
STIMULATION
DUST CONTROL
INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: PRIVATE

Water source volume (barrels): 100000 **Source volume (acre-feet):** 12.88930963

Source volume (gal): 4200000

Water source and transportation map:

VACA_DRAW_9418_10_Federal_28H__42H_Water_Transportation_Map_20200921082754.pdf

Water source comments: Water Pit is in NENE QUARTER QUARTER OF SEC 10 ; T25S ; R33E

New water well? N

New Water Well Info

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche used for construction of the drilling pad and access road will be obtained from the closest existing caliche pit as approved by the BLM or from prevailing deposits found under the location. If there is not sufficient material available, caliche will be purchased from the nearest caliche pit located in the NWNW Quarter Quarter of Section 1, T25S, R33E Lea County, NM.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluids and cuttings.

Amount of waste: 4164 barrels

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to a state approved disposal facility.

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

Waste type: SEWAGE

Waste content description: Human waste and grey water.

Amount of waste: 1000 gallons

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to a state approved disposal facility.

Waste type: GARBAGE

Waste content description: Trash

Amount of waste: 500 pounds

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to a state approved disposal facility.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? N

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

Description of cuttings location

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Rig_Layout_20190930140859.pdf

20110350_Vaca_Draw_9418_10_Fed_41H_Well_Site_Plan__600s__20201007141411.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** VACA DRAW 9418 10 FEDERAL

Multiple Well Pad Number: 39H, 40H, 41H and 42H

Recontouring attachment:

Drainage/Erosion control construction: During construction proper erosion control methods will be used to control erosion, runoff, and siltation of the surrounding area.

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

Well pad proposed disturbance (acres): 5.05 **Well pad interim reclamation (acres):** 0.56 **Well pad long term disturbance (acres):** 4.49

Road proposed disturbance (acres): 0 **Road interim reclamation (acres):** 0 **Road long term disturbance (acres):** 0

Powerline proposed disturbance (acres): 0 **Powerline interim reclamation (acres):** 0 **Powerline long term disturbance (acres):** 0

Pipeline proposed disturbance (acres): 0 **Pipeline interim reclamation (acres):** 0 **Pipeline long term disturbance (acres):** 0

Other proposed disturbance (acres): 0 **Other interim reclamation (acres):** 0 **Other long term disturbance (acres):** 0

Total interim reclamation: 0.56

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

Total proposed disturbance: 5.05 **Total long term disturbance:** 4.49

Disturbance Comments:

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations.
Soil treatment: To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
Existing Vegetation at the well pad: The historic climax plant community is a grassland dominated by black grama, dropseeds, and blue stems with sand sage and shinnery oak distributed evenly throughout. Current landscape displays mesquite, shinnery oak, yucca, desert sage, fourwing saltbush, snakeweed, and bunch grasses.
Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Refer to "Existing Vegetation at the well pad"

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Refer to "Existing Vegetation at the well pad"

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Refer to "Existing Vegetation at the well pad"

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation?

Seed harvest description:

Seed harvest description attachment:

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

Seed Management

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Chad **Last Name:** Smith

Phone: (432)682-3753 **Email:** csmith@btaoil.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: No invasive species present. Standard regular maintenance to maintain a clear location and road.

Weed treatment plan attachment:

Monitoring plan description: Identify areas supporting weeds prior to construction; prevent the introduction and spread of weeds from construction equipment during construction; and contain weed seeds and propagules by preventing segregated topsoil from being spread to adjacent areas. No invasive species present. Standard regular maintenance to maintain a clear location and road.

Monitoring plan attachment:

Success standards: To maintain all disturbed areas as per Gold Book standards.

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other Information

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information:

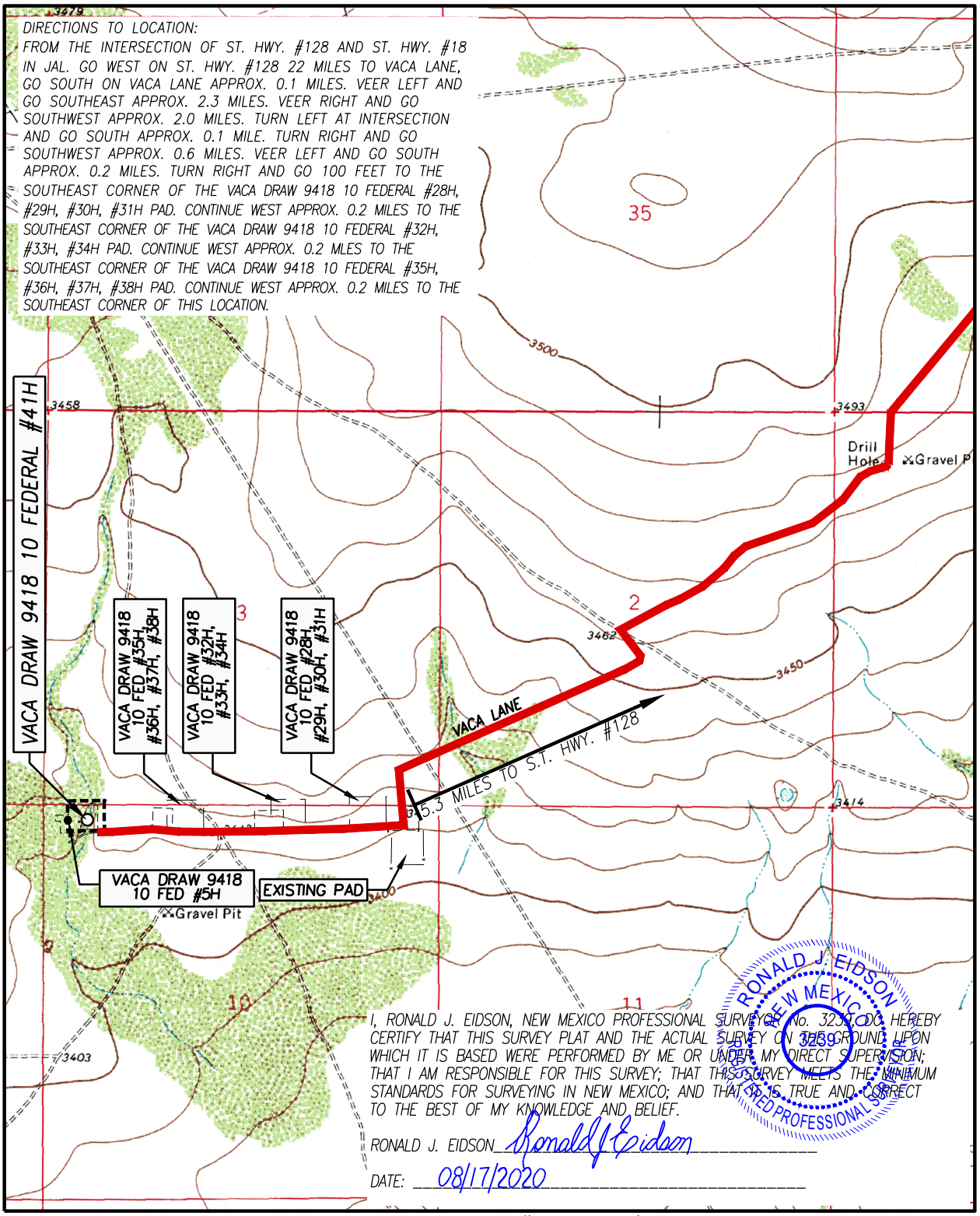
Use a previously conducted onsite? Y

Previous Onsite information: Onsite conducted by McKenna Ryder BLM on 9/15/2020

Other SUPO Attachment

VICINITY, TOPOGRAPHIC AND ACCESS ROAD MAP

DIRECTIONS TO LOCATION:
FROM THE INTERSECTION OF ST. HWY. #128 AND ST. HWY. #18 IN JAL. GO WEST ON ST. HWY. #128 22 MILES TO VACA LANE, GO SOUTH ON VACA LANE APPROX. 0.1 MILES. VEER LEFT AND GO SOUTHEAST APPROX. 2.3 MILES. VEER RIGHT AND GO SOUTHWEST APPROX. 2.0 MILES. TURN LEFT AT INTERSECTION AND GO SOUTH APPROX. 0.1 MILE. TURN RIGHT AND GO SOUTHWEST APPROX. 0.6 MILES. VEER LEFT AND GO SOUTH APPROX. 0.2 MILES. TURN RIGHT AND GO 100 FEET TO THE SOUTHEAST CORNER OF THE VACA DRAW 9418 10 FEDERAL #28H, #29H, #30H, #31H PAD. CONTINUE WEST APPROX. 0.2 MILES TO THE SOUTHEAST CORNER OF THE VACA DRAW 9418 10 FEDERAL #32H, #33H, #34H PAD. CONTINUE WEST APPROX. 0.2 MLES TO THE SOUTHEAST CORNER OF THE VACA DRAW 9418 10 FEDERAL #35H, #36H, #37H, #38H PAD. CONTINUE WEST APPROX. 0.2 MILES TO THE SOUTHEAST CORNER OF THIS LOCATION.



I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 08/17/2020

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

SEC. 10 TWP. 25-S RGE. 33-E
COUNTY LEA STATE NEW MEXICO
DESCRIPTION 200' FNL & 550' FWL
ELEVATION 3415'
OPERATOR BTA OIL PRODUCERS, LLC
LEASE VACA DRAW 9418 10 FEDERAL
U.S.G.S. TOPOGRAPHIC MAP
BELL LAKE, N.M. SURVEY N.M.P.M.

SCALE: 1" = 2000'

CONTOUR INTERVAL:
BELL LAKE, N.M. - 10'

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

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
		Red Hills ; 2nd Bone Spring

Property Code	Property Name	Well Number
	VACA DRAW 9418 10 FEDERAL	41H

OGRID No.	Operator Name	Elevation
260297	BTA OIL PRODUCERS, LLC	3415'

Surface Location

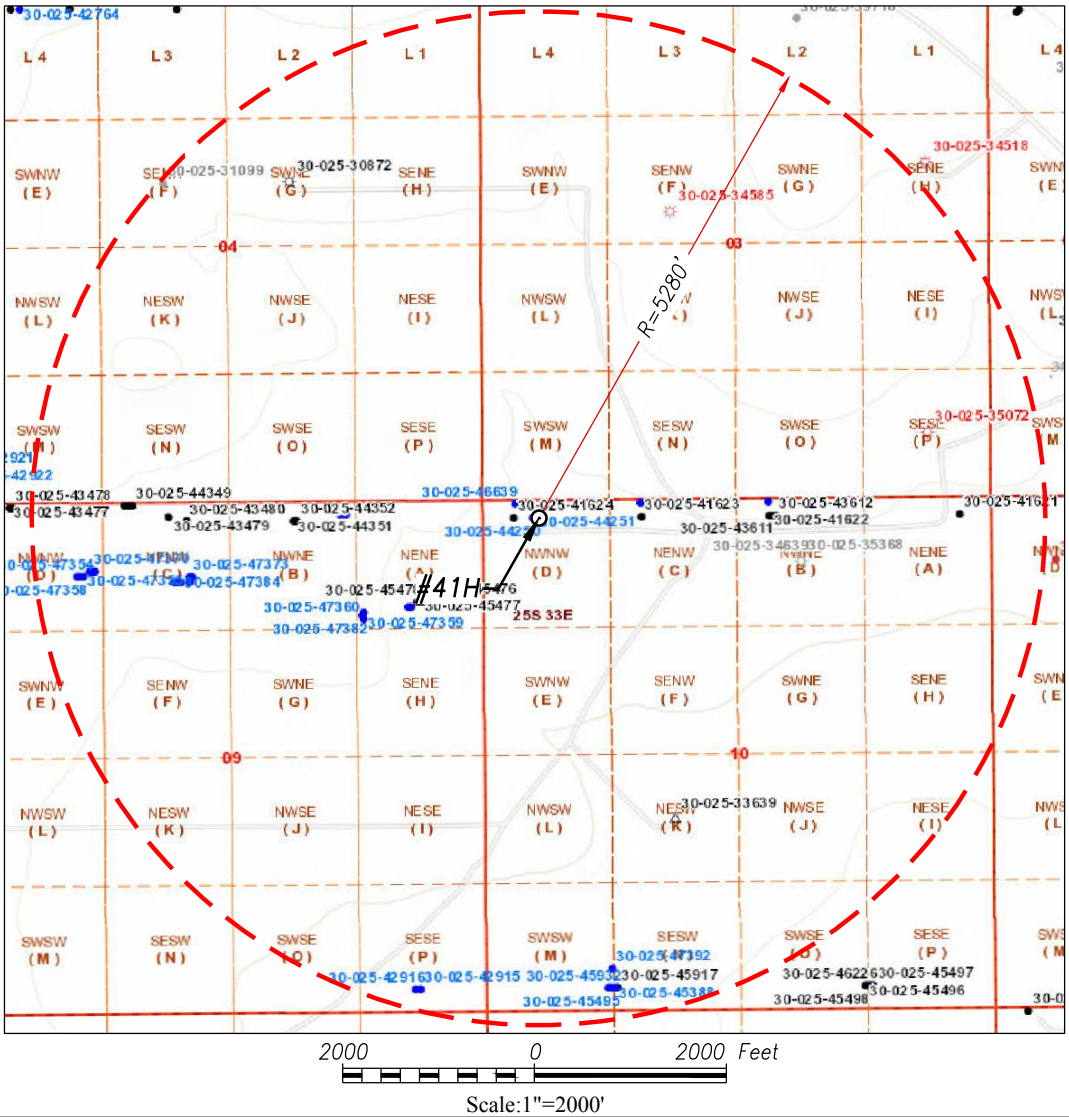
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	10	25-S	33-E		200	NORTH	550	WEST	LEA

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
M	10	25-S	33-E		50	SOUTH	380	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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'

LEGEND
⊙ DENOTES PROPOSED WELL

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.

JULY 9, 2020

Date of Survey

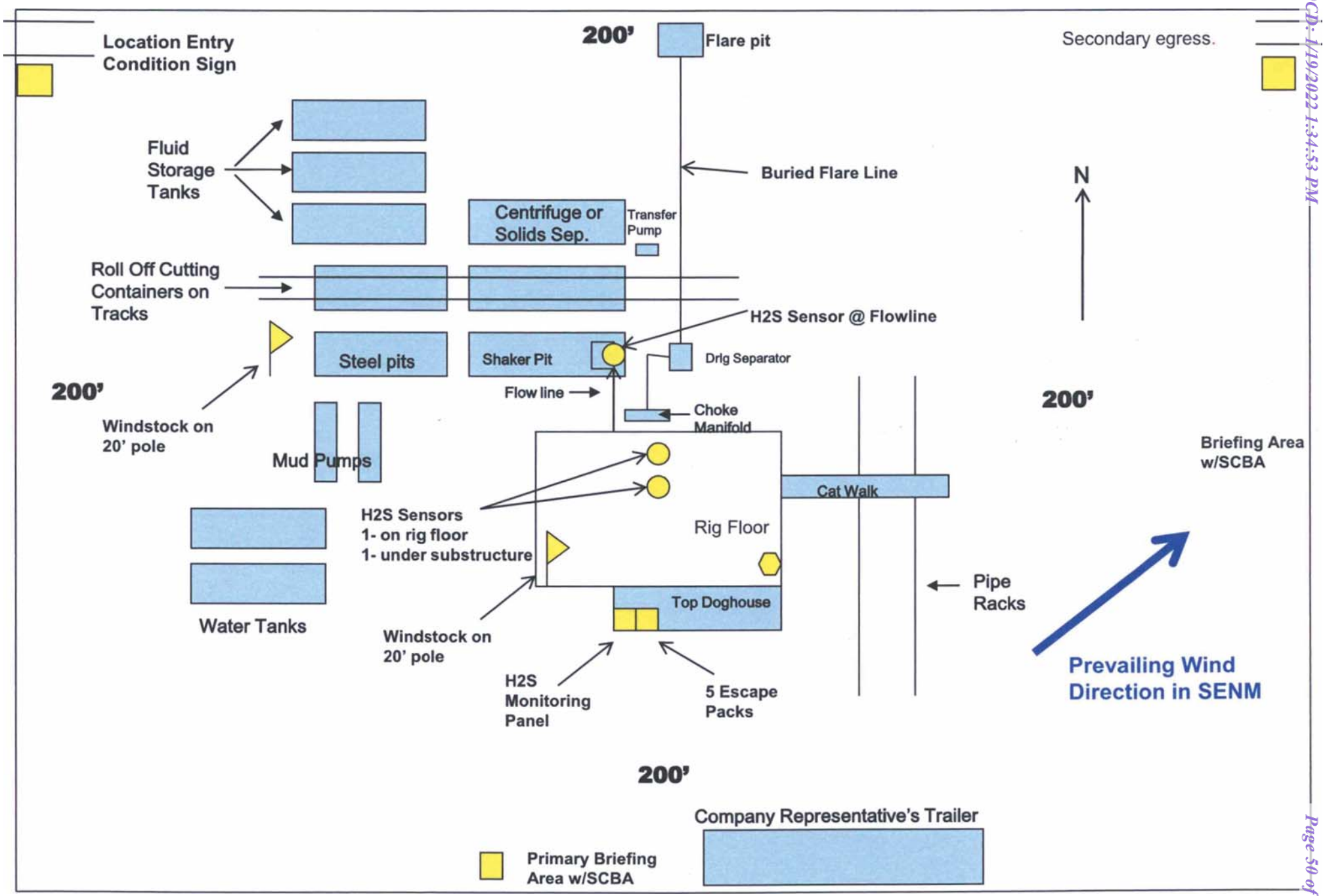
Signature & Seal of Professional Surveyor:

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

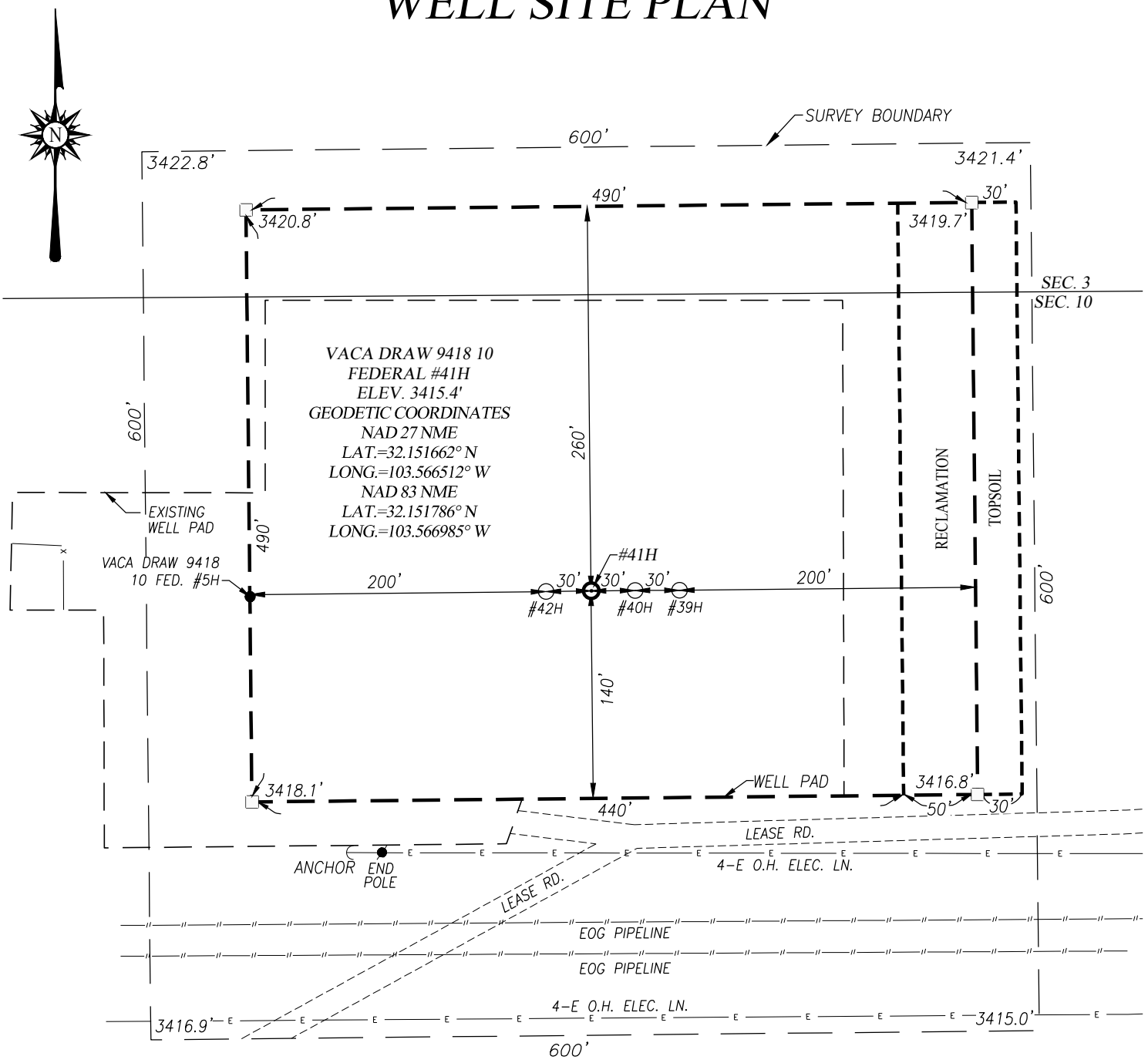
Ronald J Eidson 08/17/2020

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

ACK JWSC W.O.: 20.11.0350



WELL SITE PLAN



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RONALD J. EIDSON Ronald J Eidson

DATE: 08/17/2020

NOTE:
SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR ACCESS ROAD LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

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SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

BTA OIL PRODUCERS, LLC

VACA DRAW 9418 10 FEDERAL #41H WELL LOCATED 200 FEET FROM THE NORTH LINE AND 550 FEET FROM THE WEST LINE OF SECTION 10, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 07/09/2020	CAD Date: 08/12/2020	Drawn By: ACK
W.O. No.: 20110350	Rev: .	Rel. W.O.:	Sheet 1 of 1

AFMSS

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

PWD Data Report

07/27/2021

APD ID: 10400063016 **Submission Date:** 10/12/2020

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

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: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

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: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

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: VACA DRAW 9418 10 FEDERAL **Well Number:** 41H

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

07/27/2021

APD ID: 10400063016

Submission Date: 10/12/2020

Operator Name: BTA OIL PRODUCERS LLC

Well Name: VACA DRAW 9418 10 FEDERAL

Well Number: 41H

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:

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:** 08 / 09 / 2021

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
VACA DRAW 9418 10 Federal 41H	30-025-49724	D ; SEC 10 ; 25S ; 33E	200 FNL, 550 FWL	+/- 800	+/- 2000	+/- 1200

IV. Central Delivery Point Name: Vaca Draw 9418 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
VACA DRAW 9418 10 Federal 41H	30-025-49724	8/9/2022	8/29/2022	9/12/2022	10/3/2022	11/2/2022

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:	8/9/2021
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.

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District IV
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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 73539

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 73539
	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	1/20/2022
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	1/20/2022
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	1/20/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	1/20/2022