

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

HOBBS OCD  
FEB 05 2020  
RECEIVED

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMINM0554252
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator TAP ROCK OPERATING LLC 772043		8. Lease Name and Well No. THE CONTEST FED COM 201H 726773
3a. Address 602 Park Point Drive Suite 200 Golden CO 80401	3b. Phone No. (include area code) (720)460-3316	9. API Well No. 30-025-46883 (2220)
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWSW / 1426 FSL / 1272 FWL / LAT 32.2287127 / LONG -103.4793401 At proposed prod. zone NWNW / 30 FNL / 825 FWL / LAT 32.2392493 / LONG -103.4807944		10. Field and Pool, or Exploratory ANTELOPE RIDGE; WOLFCAMP
11. Sec., T. R. M. or Blk. and Survey or Area SEC 9 / T24S / R34E / NMP		
14. Distance in miles and direction from nearest town or post office* 18 miles		12. County or Parish LEA
13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1223 feet	16. No of acres in lease 240	17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 25 feet	19. Proposed Depth 11927 feet / 17332 feet	20. BLM/BIA Bond No. in file FED: NMB001443
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3563 feet	22. Approximate date work will start* 12/01/2019	23. Estimated duration 60 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 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). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature (Electronic Submission)	Name (Printed/Typed) Brian Wood / Ph: (505)466-8120	Date 07/17/2019
Title President		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 02/03/2020
Title Assistant Field Manager Lands & Minerals CARLSBAD		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 02/05/2020

KZ  
02/16/2020

APPROVED WITH CONDITIONS  
Approval Date: 02/03/2020

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	Tap Rock Operating LLC
<b>WELL NAME &amp; NO.:</b>	The Contest Fed Com 201H
<b>SURFACE HOLE FOOTAGE:</b>	1426'/S & 1172'/W
<b>BOTTOM HOLE FOOTAGE:</b>	30'/N & 825'/W
<b>LOCATION:</b>	Section 9, T.24 S., R.34 E., NMPM
<b>COUNTY:</b>	Lea County, New Mexico

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input type="radio"/> Multibowl	<input checked="" type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

## A. HYDROGEN SULFIDE

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

## B. CASING

1. The 13-3/8 inch surface casing shall be set at approximately 1260 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of 8

hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

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

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

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
3. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
4. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

### **C. PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.

- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

#### **D. SPECIAL REQUIREMENT (S)**

##### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

### **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County  
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

☒ Lea County  
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)  
393-3612

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

- a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> 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 integrity 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 integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### **B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
- a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
  - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).





- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

#### **C. DRILLING MUD**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### **D. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.



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## Operator Certification Data Report

02/04/2020

### Operator Certification

*I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.*

**NAME:** Brian Wood

**Signed on:** 07/17/2019

**Title:** President

**Street Address:** 37 Verano Looop

**City:** Santa Fe

**State:** NM

**Zip:** 87508

**Phone:** (505)466-8120

**Email address:** afmss@permitswest.com

### Field Representative

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**



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

## Application Data Report

02/04/2020

APD ID: 10400043777

Submission Date: 07/17/2019

Highlighted data  
reflects the most  
recent changes

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM

Well Number: 201H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - General

APD ID: 10400043777

Tie to previous NOS? N

Submission Date: 07/17/2019

BLM Office: CARLSBAD

User: Brian Wood

Title: President

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM0554252

Lease Acres: 240

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? YES

APD Operator: TAP ROCK OPERATING LLC

Operator letter of designation:

### Operator Info

Operator Organization Name: TAP ROCK OPERATING LLC

Operator Address: 602 Park Point Drive Suite 200

Zip: 80401

Operator PO Box:

Operator City: Golden

State: CO

Operator Phone: (720)460-3316

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: THE CONTEST FED COM

Well Number: 201H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: ANTELOPE RIDGE; Pool Name:  
WOLFCAMP

Is the proposed well in an area containing other mineral resources? USEABLE WATER, NATURAL GAS, OIL

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM

Well Number: 201H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

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

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: THE Number: 131H

Well Class: HORIZONTAL

CONTEST

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: 18 Miles

Distance to nearest well: 25 FT

Distance to lease line: 1223 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Contest\_201H\_C102\_ETAL\_20190716142537.pdf

Well work start Date: 12/01/2019

Duration: 60 DAYS

### Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 11401

Reference Datum:

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	1426	FSL	1272	FWL	24S	34E	9	Aliquot NWS W	32.2287127	-103.4793401	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	3563	0	0	
KOP Leg #1	51	FSL	831	FWL	24S	34E	9	Aliquot SWS W	32.2249479	-103.4807658	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	-8040	11793	11603	
PPP Leg #1-1	2640	FNL	825	FWL	24S	34E	9	Aliquot SWN W	32.232122	-103.480788	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 0554252	-8504	14732	12067	



Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM

Well Number: 201H

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?
PPP Leg #1-2	119	FSL	830	FW L	24S	34E	9	Aliquot SWN W	32.22513 41	- 103.4807 69	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 831 0	120 74	118 73	
EXIT Leg #1	30	FNL	825	FW L	24S	34E	9	Aliquot NWN W	32.23924 93	- 103.4807 944	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 013642	- 836 4	173 32	119 27	
BHL Leg #1	30	FNL	825	FW L	24S	34E	9	Aliquot NWN W	32.23924 93	- 103.4807 944	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 013642	- 836 4	173 32	119 27	



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

## Drilling Plan Data Report

02/04/2020

APD ID: 10400043777

Submission Date: 07/17/2019

Highlighted data  
reflects the most  
recent changes

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM

Well Number: 201H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
500189	QUATERNARY	3563	0	0	ALLUVIUM	OTHER, USEABLE WATER : Salt	N
500190	RUSTLER ANHYDRITE	2353	1210	1210		OTHER : Salt	N
500191	SALADO	1827	1736	1736	SALT	OTHER : Salt	N
500192	BASE OF SALT	-1518	5081	5196		OTHER : Salt	N
500193	LAMAR	-1787	5350	5475	LIMESTONE	NONE	N
500194	BELL CANYON	-1805	5368	5494	SANDSTONE	NATURAL GAS, OIL	N
500195	CHERRY CANYON	-2699	6262	6423	SANDSTONE	NATURAL GAS, OIL	N
500196	BRUSHY CANYON	-4091	7654	7843	SANDSTONE	NATURAL GAS	N
500197	BONE SPRING	-5483	9046	9235	LIMESTONE	NATURAL GAS, OIL	N
500198	BONE SPRING 1ST	-6521	10084	10273	SANDSTONE	NATURAL GAS, OIL	N
500199	BONE SPRING 2ND	-6765	10328	10517	SANDSTONE	NATURAL GAS, OIL	N
500200	BONE SPRING 3RD	-7555	11118	11307	SANDSTONE	NATURAL GAS, OIL	N
500201	WOLFCAMP	-8310	11873	12074	SHALE	NATURAL GAS, OIL	Y

### Section 2 - Blowout Prevention

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** THE CONTEST FED COM

**Well Number:** 201H

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

**Rating Depth:** 15000

**Equipment:** A 10,000 psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.

**Requesting Variance?** YES

**Variance request:** Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate 1, Intermediate 2, and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, after drilling surface, 1st intermediate, and 2nd intermediate hole sections and cementing 2nd intermediate casing, a 10M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test. Tap Rock requests a variance to run 7-5/8" BTC casing inside 9-5/8" BTC casing will be less than the 0.422" stand off regulation. Through conversations with BLM representatives, Tap Rock has received approval for this design as long as the 7-5/8" flush casing was run throughout the entire 300' cement tie back section between 9-5/8" and 7-5/8" casing. Tap Rock requests a variance to use a 5000 psi annular BOP on a 10M BOP stack. The annular will be tested to 250 psi low and 5000 psi high.

**Testing Procedure:** After surface casing is set and the BOP is nipped up, the BOP pressure tests will be made with a third party tester to 250 psi low, 5000 psi high, and the annular preventer will be tested to 2,500 psi. The BOP will be tested in this manner after nipple-up if any break of the stack occurs. Before drilling out from 7.625" casing shoe, the BOP pressure tests will be made with a third party tester to 250 psi low, 10,000 psi high, and the annular preventer will be tested to 5,000 psi. The BOP will be tested in this manner if passage of allotted time occurs.

**Choke Diagram Attachment:**

Contest\_201H\_Choke\_032918\_20190716143815.pdf

**BOP Diagram Attachment:**

Contest\_201H\_BOP\_20190716143823.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	1260	0	1260	3563		1260	J-55	54.5	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
2	INTERMEDIATE	8.75	7.625	NEW	API	N	0	5225	0	5109	3563		5225	P-110	29.7	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5525	0	5396	3563		5525	J-55	40	BUTT	1.13	1.15	DRY	1.6	DRY	1.6



**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** THE CONTEST FED COM

**Well Number:** 201H

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
4	PRODUCTI ON	6.75	5.5	NEW	NON API	N	0	11490	0	11299	3563		11490	P- 110	20	OTHER - TXP	1.13	1.15	DRY	1.6	DRY	1.6
5	INTERMED IATE	8.75	7.625	NEW	NON API	Y	5225	11690	5109	11499			6465	P- 110	29.7	OTHER - W- 513	1.13	1.15	DRY	1.6	DRY	1.6
6	PRODUCTI ON	6.75	5.0	NEW	NON API	Y	11490	17330	11299	11927			5840	P- 110	18	OTHER - W- 521	1.13	1.15	DRY	1.6	DRY	1.6

#### Casing Attachments

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

**Inspection Document:**

**Spec Document:**

Contest\_131H\_5in\_W521\_Casing\_Spec\_20190716093612.pdf

**Tapered String Spec:**

Contest\_131H\_5in\_W521\_Casing\_Spec\_20190716093624.pdf

**Casing Design Assumptions and Worksheet(s):**

Contest\_201H\_Casing\_Design\_Assumptions\_20190716143942.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Contest\_201H\_Casing\_Design\_Assumptions\_20190716153358.pdf

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** THE CONTEST FED COM

**Well Number:** 201H

### Casing Attachments

---

**Casing ID:** 3      **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Contest\_201H\_Casing\_Design\_Assumptions\_20190716153412.pdf

---

**Casing ID:** 4      **String Type:** PRODUCTION

**Inspection Document:**

**Spec Document:**

Contest\_201H\_5.5in\_TXP\_Casing\_Spec\_20190716153429.PDF

**Tapered String Spec:**

Contest\_131H\_7.625in\_W513\_Casing\_Spec\_20190716093113.pdf

**Casing Design Assumptions and Worksheet(s):**

Contest\_201H\_Casing\_Design\_Assumptions\_20190716153444.pdf

---

**Casing ID:** 5      **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

Contest\_201H\_7.625in\_W513\_Casing\_Spec\_20190716153506.pdf

**Tapered String Spec:**

Contest\_201H\_7.625in\_W513\_Casing\_Spec\_20190716153517.pdf

**Casing Design Assumptions and Worksheet(s):**

Contest\_201H\_Casing\_Design\_Assumptions\_20190716153534.pdf

---

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM

Well Number: 201H

#### Casing Attachments

Casing ID: 6 String Type: PRODUCTION

Inspection Document:

Spec Document:

Contest\_201H\_5in\_W521\_Casing\_Spec\_20190716153556.pdf

Tapered String Spec:

Contest\_201H\_5in\_W521\_Casing\_Spec\_20190716153607.pdf

Casing Design Assumptions and Worksheet(s):

Contest\_201H\_Casing\_Design\_Assumptions\_20190716153626.pdf

#### Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0	0	0	0	None	None
PRODUCTION	Tail		1099 0	1733 0	520	1.71	14.2	889	25	Class H	Fluid Loss + Dispersant + Retarder + LCM
INTERMEDIATE	Lead		0	0	0	0	0	0	0	None	None

PRODUCTION	Lead		0	0	0	0	0	0	0	None	None
------------	------	--	---	---	---	---	---	---	---	------	------

SURFACE	Lead		0	960	741	1.8	13.5	1334	100	Class C	None
SURFACE	Tail		960	1260	309	1.35	14.8	417	100	Class C	5% NaCl + LCM
INTERMEDIATE	Lead		0	4525	1073	2.18	12.7	2339	65	Class C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
INTERMEDIATE	Tail		4525	5525	389	1.33	14.8	517	65	Class C	5% NaCl + LCM
INTERMEDIATE	Lead		5225 0	1069 0	258	2.87	11.5	740	35	TXI	Fluid Loss + Dispersant + Retarder + LCM

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM

Well Number: 201H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		1069 0	1169 0	107	1.27	15	136	35	Class H	Fluid Loss + Dispersant + Retarder + LCM

### 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:** All necessary mud products (e. g., barite, cedar bark) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions.

**Describe the mud monitoring system utilized:** Electronic Pason mud monitor system complying with Onshore Order 1 will be used.

### 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
1260	5525	OTHER : Brine water	10	10							
1169 0	1733 0	OIL-BASED MUD	11.5	11.5							
0	1260	OTHER : FW Spud Mud	8.3	8.3							
5525	1169 0	OTHER : FW/Cut Brine	9	9							

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** THE CONTEST FED COM

**Well Number:** 201H

## Section 6 - Test, Logging, Coring

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

Electric Logging Program: No open-hole logs are planned at this time for the pilot hole; GR will be collected while drilling through the MWD tools from 9.625" casing shoe to TD; A 2-person mud logging program will be used from 9.625" casing shoe to TD; CBL w/ CCL from as far as gravity will let it fall to TOC.

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

CBL,GR

**Coring operation description for the well:**

No DSTs or cores are planned at this time.

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 7280

**Anticipated Surface Pressure:** 4625.26

**Anticipated Bottom Hole Temperature(F):** 170

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

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

Contest\_201H\_H2S\_Plan\_20190716145238.pdf

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

Contest\_201H\_Horizontal\_Plan\_20190716145301.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

Contest\_201H\_Speedhead\_Specs\_033018\_20190716145324.pdf

Contest\_201H\_CoFlex\_Certs\_20190716145400.pdf

Contest\_201H\_Anti\_Collision\_Report\_20190716145411.pdf

Contest\_201H\_Drill\_Plan\_20190716145422.pdf

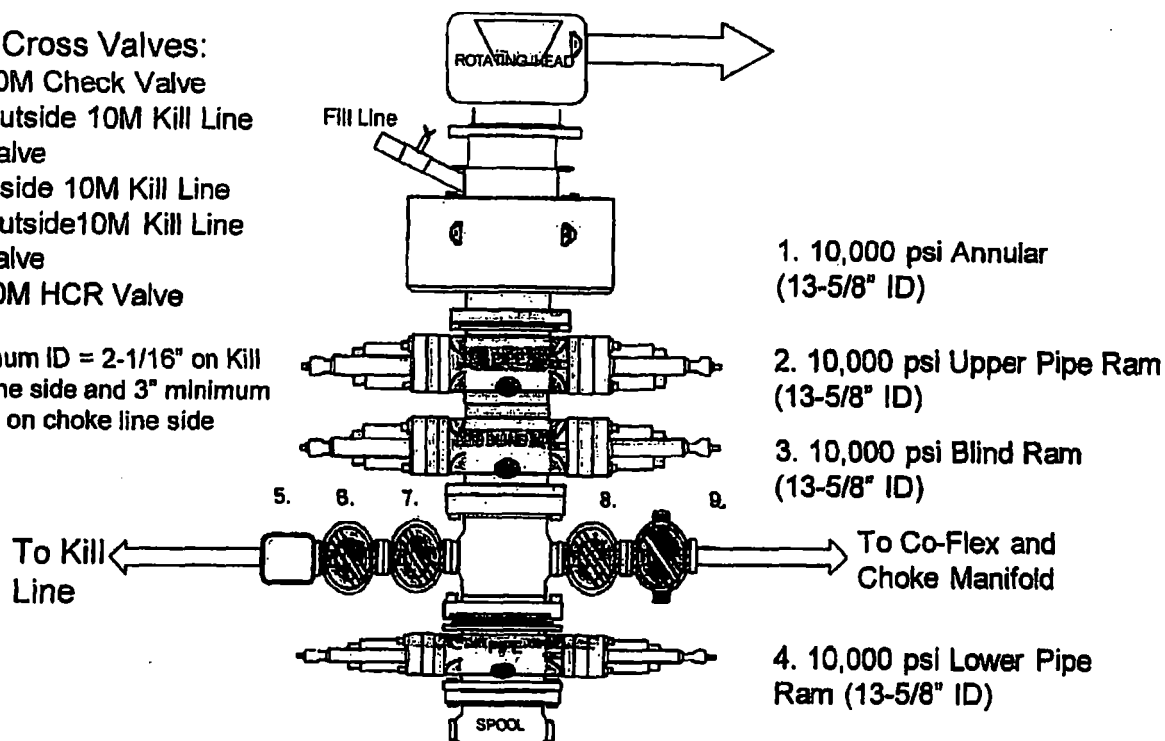
**Other Variance attachment:**

# 10,000 psi BOP Stack

## Mud Cross Valves:

5. 10M Check Valve
6. Outside 10M Kill Line Valve
7. Inside 10M Kill Line Valve
8. Outside 10M Kill Line Valve
9. 10M HCR Valve

\*Minimum ID = 2-1/16" on Kill Line side and 3" minimum ID on choke line side





## Hydrogen Sulfide Drilling

### Operations Plan

#### Tap Rock Resources

##### 1 H2S safety instructions to the following:

- Characteristics of H2S
- Physical effects and hazards
- Principal and operation of H2S detectors, warning system and briefing areas
- Evacuation procedures, routes and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30min pressure demand air packs

##### 2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
- An audio alarm system will be installed on the derrick floor and in the doghouse

##### 3 Windssocks and / Wind Streamers:

- Windssocks at mud pit area should be high enough to be visible
- Windssock on the rig floor and / top of doghouse should be high enough to be visible

##### 4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
  - Green Flag – Normal Safe Operation Condition
  - Yellow Flag – Potential Pressure and Danger
  - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

##### 5 Well Control Equipment:

- See Drilling Operations Plan Schematics

##### 6 Communication:

- While working under masks chalkboards will be used for communications
- Hand signals will be used where chalk board is inappropriate
- Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.



**7 Drilling Stem Testing:**

- No DST cores are planned at this time

8 Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubulars good and other mechanical equipment

9 If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary

**11 Emergency Contacts**

<b>Emergency Contacts</b>		
Carlsbad Police Department	575.887.7551	911
Carlsbad Medical Center	575.887.4100	911
Eddy County Fire Service	575.628.5450	911
Eddy County Sherriff	575.887.7551	911
Lea County Fire Service	575.391.2983	911
Lea County Sherriff	575.396.3611	911
Jal Police Department	575.395.2121	911
Jal Fire Department	575.395.2221	911
Tap Rock Resources Operating, LLC	720.772.5090	

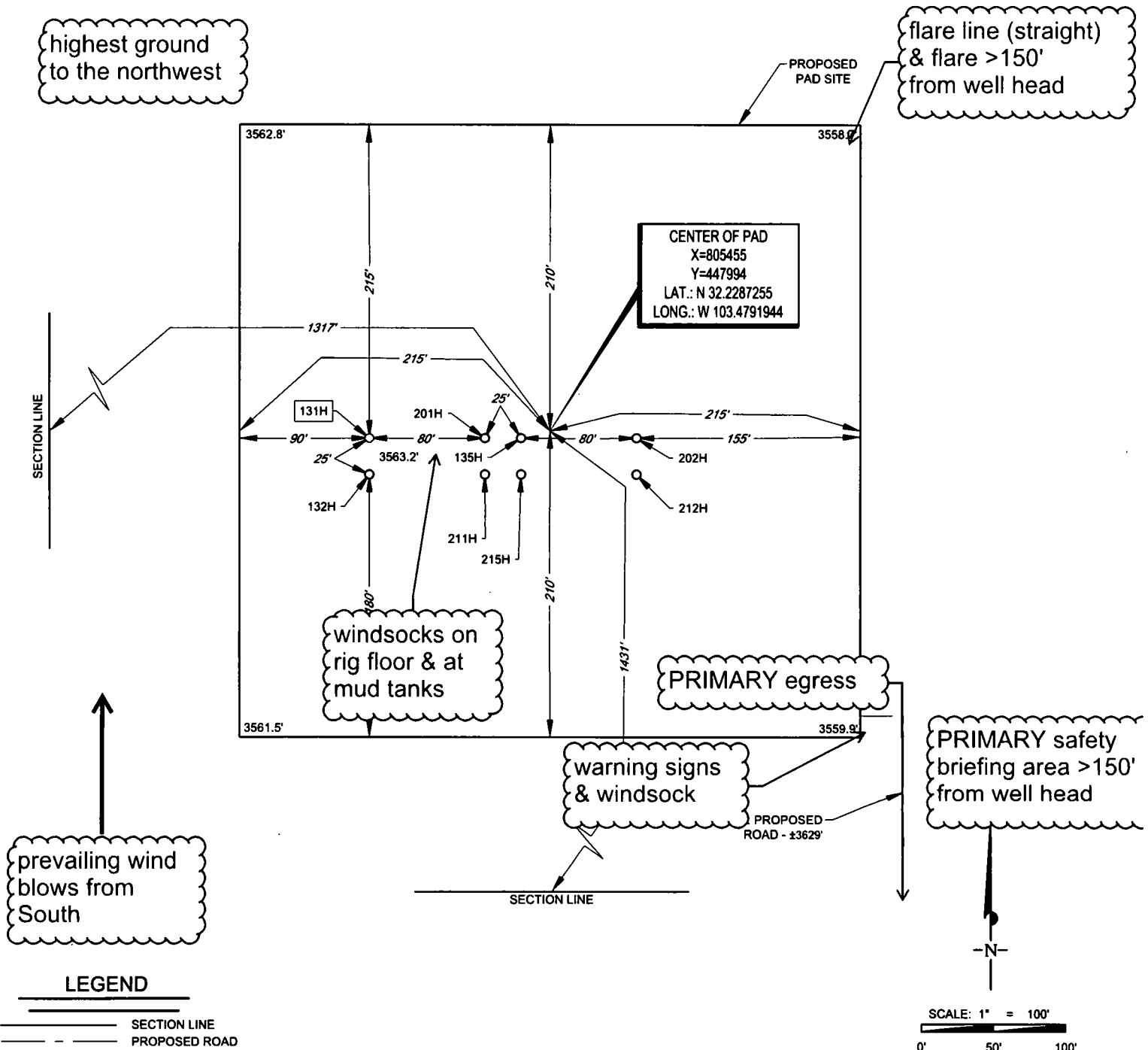


# EXHIBIT 2B



SECTION 9, TOWNSHIP 24-S, RANGE 34-E, N.M.P.M.  
LEA COUNTY, NEW MEXICO

DETAIL VIEW  
SCALE: 1" = 100'



## LEGEND

SECTION LINE  
PROPOSED ROAD

LEASE NAME & WELL NO.: THE CONTEST FED COM 131H  
131H LATITUDE N 32.2287144 131H LONGITUDE W 103.4795988

CENTER OF PAD IS 1431' FSL & 1317' FWL

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



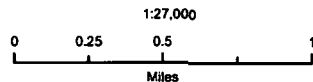
**TOPOGRAPHIC**  
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 148 • FT. WORTH, TEXAS 76140  
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554  
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705  
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743  
WWW.TOPOGRAPHIC.COM

# Tap Rock Operating LLC

The Contest Fed Com  
H2S Contingency Plan:  
2 Mile Radius Map

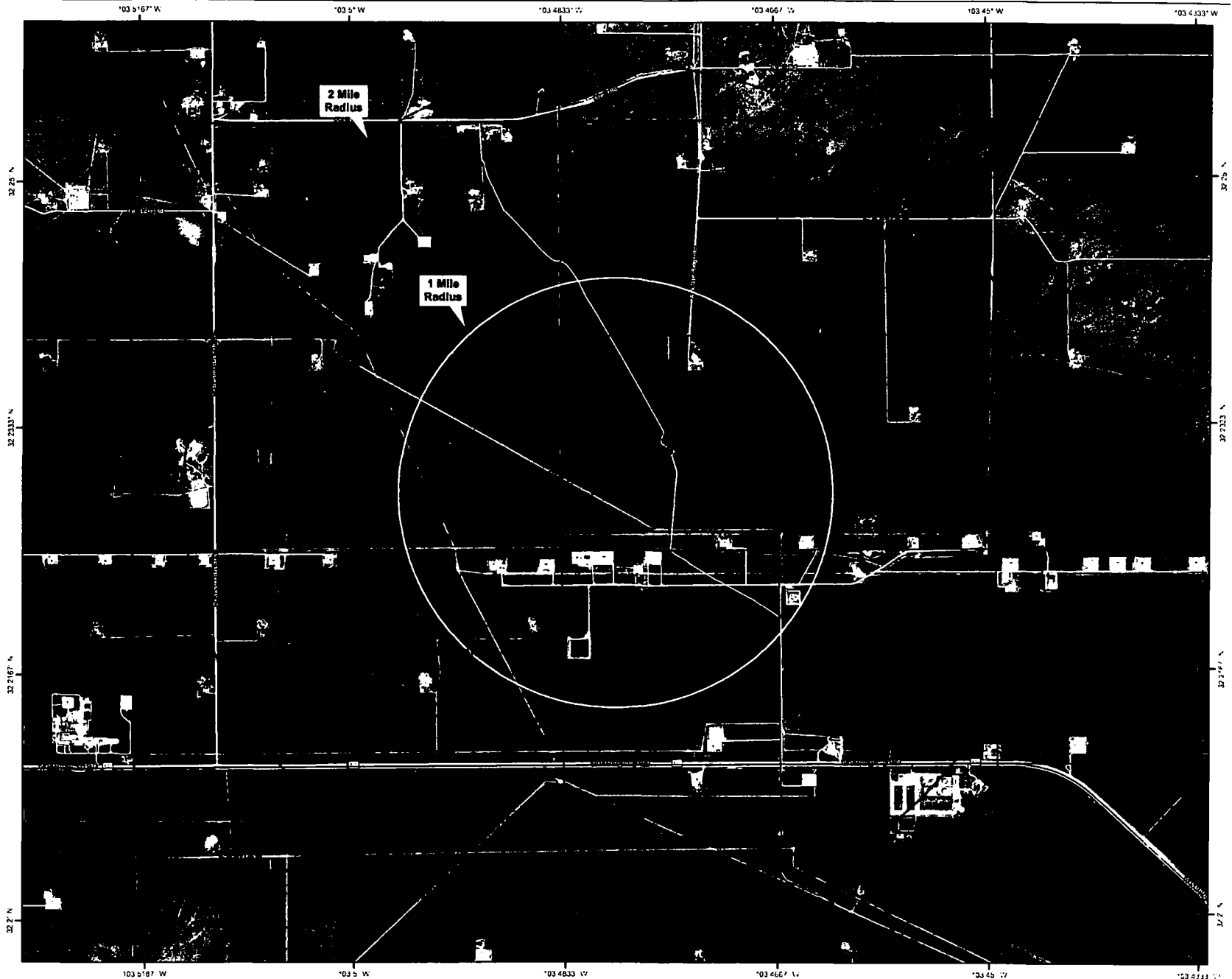
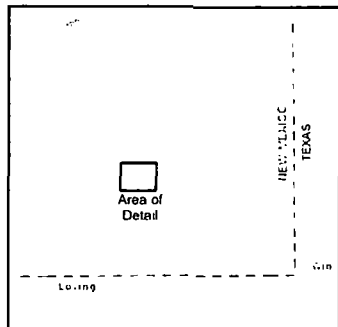
Sec. 9, Township 24S, Range 34E  
Lea County, New Mexico



NAD 1983 New Mexico State Plane East  
FIPS 3001 Feet

PERMITS WEST  
PROVIDING PERMITS TO LAND OWNERS

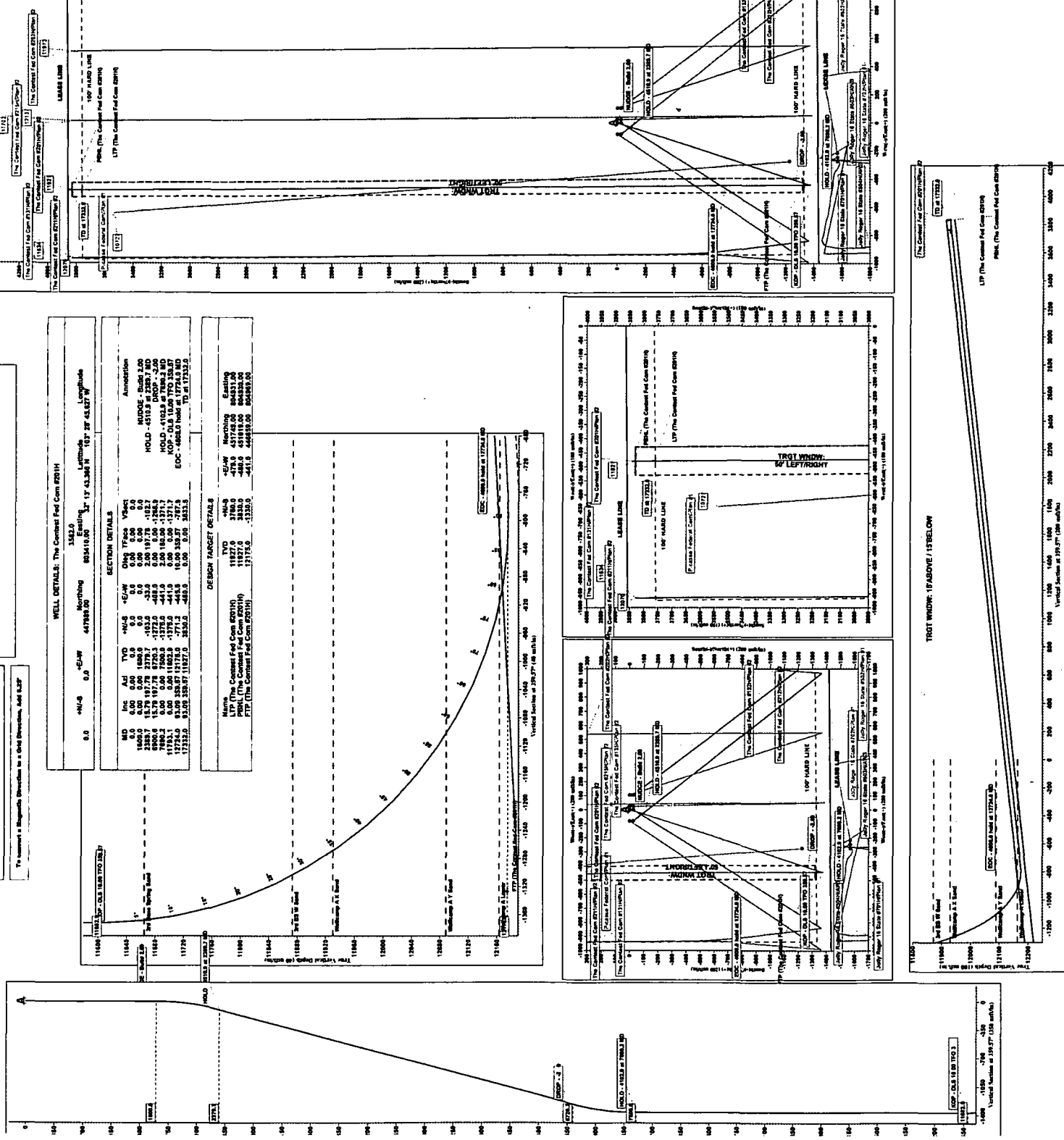
Prepared by Permits West, Inc., June 26, 2019  
for Tap Rock Operating, LLC





Azimuths to Grid North  
 True North:  $-0.48^\circ$   
 Magnetic North:  $6.25^\circ$   
 Magnetic Field  
 Strength: 47753.0nT  
 Dip Angle:  $60.06^\circ$   
 Date: 04/24/2018  
 Model: KSRF2015

42000  
The "Simplest" of Cars For Sale





# **Tap Rock Resources, LLC**

**Lea County, NM (NAD 83 NME)  
(Contest Fed) Sec-9\_T-24-S\_R-34-E  
The Contest Fed Com #201H**

**OWB**

**Plan: Plan #2**

## **Standard Planning Report**

**21 May, 2019**





# Intrepid Planning Report



**Database:** EDM 5000.15 Single User Db  
**Company:** Tap Rock Resources, LLC  
**Project:** Lea County, NM (NAD 83 NME)  
**Site:** (Contest Fed) Sec-9\_T-24-S\_R-34-E  
**Well:** The Contest Fed Com #201H  
**Wellbore:** OWB  
**Design:** Plan #2

**Local Co-ordinate Reference:** Well The Contest Fed Com #201H  
**TVD Reference:** KB @ 3588.0usft (H&P 388)  
**MD Reference:** KB @ 3588.0usft (H&P 388)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

<b>Project</b>	Lea County, NM (NAD 83 NME)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	(Contest Fed) Sec-9_T-24-S_R-34-E		
<b>Site Position:</b>		<b>Northing:</b>	447,954.00 usft
<b>From:</b>	Map	<b>Easting:</b>	805,330.00 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 13' 43.026 N
		<b>Longitude:</b>	103° 28' 46.561 W
		<b>Grid Convergence:</b>	0.46 °

<b>Well</b>	The Contest Fed Com #201H		
<b>Well Position</b>	<b>+N/-S</b>	35.0 usft	<b>Northing:</b> 447,989.00 usft
	<b>+E/-W</b>	80.0 usft	<b>Easting:</b> 805,410.00 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 32° 13' 43.366 N
			<b>Longitude:</b> 103° 28' 45.627 W
			<b>Ground Level:</b> 3,562.0 usft

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	04/24/19	6.71	60.06	47,758.99649839

<b>Design</b>	Plan #2				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	359.57	

<b>Plan Survey Tool Program</b>	<b>Date</b> 05/21/19				
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	17,332.0 Plan #2 (OWB)	MWD		
			OWSG MWD - Standard		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Bulld 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	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,389.7	15.79	197.78	2,379.7	-103.0	-33.0	2.00	2.00	0.00	197.78	
6,900.6	15.79	197.78	6,720.3	-1,272.0	-408.0	0.00	0.00	0.00	0.00	
7,690.2	0.00	0.00	7,500.0	-1,375.0	-441.0	2.00	-2.00	0.00	180.00	
11,793.1	0.00	0.00	11,602.9	-1,375.0	-441.0	0.00	0.00	0.00	0.00	
12,724.0	93.09	359.57	12,175.0	-771.2	-445.5	10.00	10.00	-0.05	359.57	
17,332.0	93.09	359.57	11,927.0	3,830.0	-480.0	0.00	0.00	0.00	0.00	PBHL (The Contest)



# Intrepid Planning Report



Database: EDM 5000.15 Single User Db  
Company: Tap Rock Resources, LLC  
Project: Lea County, NM (NAD 83 NME)  
Site: (Contest Fed) Sec-9\_T-24-S\_R-34-E  
Well: The Contest Fed Com #201H  
Wellbore: OWB  
Design: Plan #2

Local Co-ordinate Reference: Well The Contest Fed Com #201H  
TVD Reference: KB @ 3588.0usft (H&P 388)  
MD Reference: KB @ 3588.0usft (H&P 388)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,209.0	0.00	0.00	1,209.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Rustler Anhydrite</b>									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>NUDGE - Build 2.00</b>									
1,700.0	2.00	197.78	1,700.0	-1.7	-0.5	-1.7	2.00	2.00	0.00
1,735.0	2.70	197.78	1,735.0	-3.0	-1.0	-3.0	2.00	2.00	0.00
<b>Top Salt</b>									
1,800.0	4.00	197.78	1,799.8	-6.6	-2.1	-6.6	2.00	2.00	0.00
1,900.0	6.00	197.78	1,899.5	-14.9	-4.8	-14.9	2.00	2.00	0.00
2,000.0	8.00	197.78	1,998.7	-26.5	-8.5	-26.5	2.00	2.00	0.00
2,100.0	10.00	197.78	2,097.5	-41.4	-13.3	-41.3	2.00	2.00	0.00
2,200.0	12.00	197.78	2,195.6	-59.6	-19.1	-59.5	2.00	2.00	0.00
2,300.0	14.00	197.78	2,293.1	-81.0	-26.0	-80.8	2.00	2.00	0.00
2,389.7	15.79	197.78	2,379.7	-103.0	-33.0	-102.7	2.00	2.00	0.00
<b>HOLD - 4510.9 at 2389.7 MD</b>									
2,400.0	15.79	197.78	2,389.6	-105.7	-33.9	-105.4	0.00	0.00	0.00
2,500.0	15.79	197.78	2,485.9	-131.6	-42.2	-131.3	0.00	0.00	0.00
2,600.0	15.79	197.78	2,582.1	-157.5	-50.5	-157.1	0.00	0.00	0.00
2,700.0	15.79	197.78	2,678.3	-183.4	-58.8	-183.0	0.00	0.00	0.00
2,800.0	15.79	197.78	2,774.5	-209.3	-67.1	-208.8	0.00	0.00	0.00
2,900.0	15.79	197.78	2,870.8	-235.2	-75.4	-234.7	0.00	0.00	0.00
3,000.0	15.79	197.78	2,967.0	-261.2	-83.8	-260.5	0.00	0.00	0.00
3,100.0	15.79	197.78	3,063.2	-287.1	-92.1	-286.4	0.00	0.00	0.00
3,200.0	15.79	197.78	3,159.4	-313.0	-100.4	-312.2	0.00	0.00	0.00
3,300.0	15.79	197.78	3,255.7	-338.9	-108.7	-338.1	0.00	0.00	0.00
3,400.0	15.79	197.78	3,351.9	-364.8	-117.0	-363.9	0.00	0.00	0.00
3,500.0	15.79	197.78	3,448.1	-390.7	-125.3	-389.8	0.00	0.00	0.00
3,600.0	15.79	197.78	3,544.3	-416.7	-133.6	-415.6	0.00	0.00	0.00
3,700.0	15.79	197.78	3,640.6	-442.6	-141.9	-441.5	0.00	0.00	0.00
3,800.0	15.79	197.78	3,736.8	-468.5	-150.3	-467.3	0.00	0.00	0.00
3,900.0	15.79	197.78	3,833.0	-494.4	-158.6	-493.2	0.00	0.00	0.00
4,000.0	15.79	197.78	3,929.2	-520.3	-166.9	-519.0	0.00	0.00	0.00
4,100.0	15.79	197.78	4,025.5	-546.2	-175.2	-544.9	0.00	0.00	0.00
4,200.0	15.79	197.78	4,121.7	-572.1	-183.5	-570.8	0.00	0.00	0.00
4,300.0	15.79	197.78	4,217.9	-598.1	-191.8	-596.6	0.00	0.00	0.00
4,400.0	15.79	197.78	4,314.1	-624.0	-200.1	-622.5	0.00	0.00	0.00
4,500.0	15.79	197.78	4,410.4	-649.9	-208.4	-648.3	0.00	0.00	0.00
4,600.0	15.79	197.78	4,506.6	-675.8	-216.8	-674.2	0.00	0.00	0.00



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Survey Calculation Method: Minimum Curvature

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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	15.79	197.78	4,602.8	-701.7	-225.1	-700.0	0.00	0.00	0.00
4,800.0	15.79	197.78	4,699.1	-727.6	-233.4	-725.9	0.00	0.00	0.00
4,900.0	15.79	197.78	4,795.3	-753.6	-241.7	-751.7	0.00	0.00	0.00
5,000.0	15.79	197.78	4,891.5	-779.5	-250.0	-777.6	0.00	0.00	0.00
5,100.0	15.79	197.78	4,987.7	-805.4	-258.3	-803.4	0.00	0.00	0.00
5,195.9	15.79	197.78	5,080.0	-830.2	-266.3	-828.2	0.00	0.00	0.00
<b>Base Salt</b>									
5,200.0	15.79	197.78	5,084.0	-831.3	-266.6	-829.3	0.00	0.00	0.00
5,300.0	15.79	197.78	5,180.2	-857.2	-274.9	-855.1	0.00	0.00	0.00
5,400.0	15.79	197.78	5,276.4	-883.1	-283.2	-881.0	0.00	0.00	0.00
5,466.1	15.79	197.78	5,340.0	-900.3	-288.7	-898.1	0.00	0.00	0.00
<b>Delaware Mountain Gp</b>									
5,475.4	15.79	197.78	5,349.0	-902.7	-289.5	-900.5	0.00	0.00	0.00
<b>Lamar</b>									
5,494.2	15.79	197.78	5,367.0	-907.5	-291.1	-905.3	0.00	0.00	0.00
<b>Bell Canyon</b>									
5,500.0	15.79	197.78	5,372.6	-909.1	-291.6	-906.8	0.00	0.00	0.00
5,510.8	15.79	197.78	5,383.0	-911.8	-292.5	-909.6	0.00	0.00	0.00
<b>Ramsey Sand</b>									
5,600.0	15.79	197.78	5,468.9	-935.0	-299.9	-932.7	0.00	0.00	0.00
5,700.0	15.79	197.78	5,565.1	-960.9	-308.2	-958.5	0.00	0.00	0.00
5,800.0	15.79	197.78	5,661.3	-986.8	-316.5	-984.4	0.00	0.00	0.00
5,900.0	15.79	197.78	5,757.5	-1,012.7	-324.8	-1,010.3	0.00	0.00	0.00
6,000.0	15.79	197.78	5,853.8	-1,038.6	-333.1	-1,036.1	0.00	0.00	0.00
6,100.0	15.79	197.78	5,950.0	-1,064.6	-341.4	-1,062.0	0.00	0.00	0.00
6,200.0	15.79	197.78	6,046.2	-1,090.5	-349.7	-1,087.8	0.00	0.00	0.00
6,300.0	15.79	197.78	6,142.4	-1,116.4	-358.1	-1,113.7	0.00	0.00	0.00
6,400.0	15.79	197.78	6,238.7	-1,142.3	-366.4	-1,139.5	0.00	0.00	0.00
6,423.2	15.79	197.78	6,261.0	-1,148.3	-368.3	-1,145.5	0.00	0.00	0.00
<b>Cherry Canyon</b>									
6,500.0	15.79	197.78	6,334.9	-1,168.2	-374.7	-1,165.4	0.00	0.00	0.00
6,600.0	15.79	197.78	6,431.1	-1,194.1	-383.0	-1,191.2	0.00	0.00	0.00
6,700.0	15.79	197.78	6,527.3	-1,220.0	-391.3	-1,217.1	0.00	0.00	0.00
6,800.0	15.79	197.78	6,623.6	-1,246.0	-399.6	-1,242.9	0.00	0.00	0.00
6,900.6	15.79	197.78	6,720.3	-1,272.0	-408.0	-1,268.9	0.00	0.00	0.00
<b>DROP - -2.00</b>									
7,000.0	13.80	197.78	6,816.5	-1,296.2	-415.7	-1,293.1	2.00	-2.00	0.00
7,100.0	11.80	197.78	6,914.0	-1,317.3	-422.5	-1,314.1	2.00	-2.00	0.00
7,200.0	9.80	197.78	7,012.2	-1,335.2	-428.2	-1,331.9	2.00	-2.00	0.00
7,300.0	7.80	197.78	7,111.0	-1,349.7	-432.9	-1,346.4	2.00	-2.00	0.00
7,400.0	5.80	197.78	7,210.3	-1,361.0	-436.5	-1,357.7	2.00	-2.00	0.00
7,500.0	3.80	197.78	7,309.9	-1,369.0	-439.1	-1,365.7	2.00	-2.00	0.00
7,600.0	1.80	197.78	7,409.8	-1,373.6	-440.6	-1,370.3	2.00	-2.00	0.00
7,690.2	0.00	0.00	7,500.0	-1,375.0	-441.0	-1,371.7	2.00	-2.00	0.00
<b>HOLD - 4102.9 at 7690.2 MD</b>									
7,700.0	0.00	0.00	7,509.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,609.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
7,843.2	0.00	0.00	7,653.0	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
<b>Brushy Canyon</b>									
7,900.0	0.00	0.00	7,709.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,809.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
8,100.0	0.00	0.00	7,909.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,009.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00



# Intrepid Planning Report



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**Survey Calculation Method:** Minimum Curvature

## 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)
8,300.0	0.00	0.00	8,109.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,209.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,309.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,409.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,509.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,609.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,709.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,809.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,100.0	0.00	0.00	8,909.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,009.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,235.2	0.00	0.00	9,045.0	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
<b>Bone Spring Lime</b>									
9,300.0	0.00	0.00	9,109.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,309.2	0.00	0.00	9,119.0	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
<b>Upper Avalon</b>									
9,400.0	0.00	0.00	9,209.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,309.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,564.2	0.00	0.00	9,374.0	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
<b>Middle Avalon</b>									
9,600.0	0.00	0.00	9,409.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,509.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,609.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,900.0	0.00	0.00	9,709.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
9,917.2	0.00	0.00	9,727.0	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
<b>Lower Avalon</b>									
10,000.0	0.00	0.00	9,809.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
10,100.0	0.00	0.00	9,909.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
10,200.0	0.00	0.00	10,009.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
10,273.2	0.00	0.00	10,083.0	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
<b>1st Bone Spring Sand</b>									
10,300.0	0.00	0.00	10,109.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
10,400.0	0.00	0.00	10,209.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
10,500.0	0.00	0.00	10,309.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
10,517.2	0.00	0.00	10,327.0	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
<b>2nd Bone Spring Carb</b>									
10,600.0	0.00	0.00	10,409.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
10,700.0	0.00	0.00	10,509.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
10,800.0	0.00	0.00	10,609.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
10,814.2	0.00	0.00	10,624.0	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
<b>2nd Bone Spring Sand</b>									
10,900.0	0.00	0.00	10,709.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
11,000.0	0.00	0.00	10,809.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
11,100.0	0.00	0.00	10,909.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
11,200.0	0.00	0.00	11,009.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
11,300.0	0.00	0.00	11,109.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
11,307.2	0.00	0.00	11,117.0	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
<b>3rd Bone Spring Carb</b>									
11,400.0	0.00	0.00	11,209.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
11,500.0	0.00	0.00	11,309.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
11,600.0	0.00	0.00	11,409.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
11,700.0	0.00	0.00	11,509.8	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00
11,793.1	0.00	0.00	11,602.9	-1,375.0	-441.0	-1,371.7	0.00	0.00	0.00

**KOP - DLS 10.00 TFO 359.57**





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11,800.0	0.69	359.57	11,609.8	-1,375.0	-441.0	-1,371.6	10.00	10.00	0.00
11,850.0	5.69	359.57	11,659.7	-1,372.2	-441.0	-1,368.8	10.00	10.00	0.00
11,855.3	6.22	359.57	11,665.0	-1,371.6	-441.0	-1,368.3	10.00	10.00	0.00
<b>3rd Bone Spring Sand</b>									
11,900.0	10.69	359.57	11,709.2	-1,365.1	-441.1	-1,361.7	10.00	10.00	0.00
11,950.0	15.69	359.57	11,757.8	-1,353.7	-441.2	-1,350.3	10.00	10.00	0.00
12,000.0	20.69	359.57	11,805.3	-1,338.1	-441.3	-1,334.7	10.00	10.00	0.00
12,050.0	25.69	359.57	11,851.3	-1,318.4	-441.4	-1,315.0	10.00	10.00	0.00
12,074.4	28.13	359.57	11,873.0	-1,307.3	-441.5	-1,304.0	10.00	10.00	0.00
<b>3rd BS W Sand</b>									
12,100.0	30.69	359.57	11,895.3	-1,294.8	-441.6	-1,291.4	10.00	10.00	0.00
12,141.2	34.81	359.57	11,930.0	-1,272.5	-441.8	-1,269.1	10.00	10.00	0.00
<b>Wolfcamp A X Sand</b>									
12,150.0	35.69	359.57	11,937.2	-1,267.4	-441.8	-1,264.0	10.00	10.00	0.00
12,200.0	40.69	359.57	11,976.4	-1,236.5	-442.0	-1,233.1	10.00	10.00	0.00
12,250.0	45.69	359.57	12,012.9	-1,202.3	-442.3	-1,198.9	10.00	10.00	0.00
12,300.0	50.69	359.57	12,046.2	-1,165.0	-442.6	-1,161.7	10.00	10.00	0.00
12,350.0	55.69	359.57	12,076.2	-1,125.0	-442.9	-1,121.7	10.00	10.00	0.00
12,373.5	58.04	359.57	12,089.0	-1,105.3	-443.0	-1,102.0	10.00	10.00	0.00
<b>Wolfcamp A Y Sand</b>									
12,400.0	60.69	359.57	12,102.5	-1,082.5	-443.2	-1,079.2	10.00	10.00	0.00
12,450.0	65.69	359.57	12,125.1	-1,037.9	-443.5	-1,034.6	10.00	10.00	0.00
12,500.0	70.69	359.57	12,143.6	-991.5	-443.9	-988.2	10.00	10.00	0.00
12,550.0	75.69	359.57	12,158.1	-943.7	-444.2	-940.3	10.00	10.00	0.00
12,571.5	77.84	359.57	12,163.0	-922.8	-444.4	-919.4	10.00	10.00	0.00
<b>Wolfcamp A Lower</b>									
12,600.0	80.69	359.57	12,168.3	-894.8	-444.6	-891.4	10.00	10.00	0.00
12,650.0	85.69	359.57	12,174.2	-845.1	-445.0	-841.8	10.00	10.00	0.00
12,700.0	90.69	359.57	12,175.8	-795.2	-445.3	-791.8	10.00	10.00	0.00
12,724.0	93.09	359.57	12,175.0	-771.2	-445.5	-767.9	10.00	10.00	0.00
<b>EOC - 4608.0 hold at 12724.0 MD</b>									
12,800.0	93.09	359.57	12,170.9	-695.3	-446.1	-691.9	0.00	0.00	0.00
12,900.0	93.09	359.57	12,165.6	-595.4	-446.8	-592.1	0.00	0.00	0.00
13,000.0	93.09	359.57	12,160.2	-495.6	-447.6	-492.2	0.00	0.00	0.00
13,100.0	93.09	359.57	12,154.8	-395.7	-448.3	-392.4	0.00	0.00	0.00
13,200.0	93.09	359.57	12,149.4	-295.9	-449.1	-292.5	0.00	0.00	0.00
13,300.0	93.09	359.57	12,144.0	-196.0	-449.8	-192.6	0.00	0.00	0.00
13,400.0	93.09	359.57	12,138.6	-96.2	-450.6	-92.8	0.00	0.00	0.00
13,500.0	93.09	359.57	12,133.3	3.7	-451.3	7.1	0.00	0.00	0.00
13,600.0	93.09	359.57	12,127.9	103.5	-452.1	106.9	0.00	0.00	0.00
13,700.0	93.09	359.57	12,122.5	203.4	-452.8	206.8	0.00	0.00	0.00
13,800.0	93.09	359.57	12,117.1	303.2	-453.6	306.6	0.00	0.00	0.00
13,900.0	93.09	359.57	12,111.7	403.1	-454.3	406.5	0.00	0.00	0.00
14,000.0	93.09	359.57	12,106.3	502.9	-455.1	506.3	0.00	0.00	0.00
14,100.0	93.09	359.57	12,101.0	602.8	-455.8	606.2	0.00	0.00	0.00
14,200.0	93.09	359.57	12,095.6	702.6	-456.6	706.0	0.00	0.00	0.00
14,300.0	93.09	359.57	12,090.2	802.5	-457.3	805.9	0.00	0.00	0.00
14,400.0	93.09	359.57	12,084.8	902.3	-458.1	905.8	0.00	0.00	0.00
14,500.0	93.09	359.57	12,079.4	1,002.2	-458.8	1,005.6	0.00	0.00	0.00
14,600.0	93.09	359.57	12,074.0	1,102.0	-459.6	1,105.5	0.00	0.00	0.00
14,700.0	93.09	359.57	12,068.7	1,201.9	-460.3	1,205.3	0.00	0.00	0.00
14,800.0	93.09	359.57	12,063.3	1,301.8	-461.1	1,305.2	0.00	0.00	0.00
14,900.0	93.09	359.57	12,057.9	1,401.6	-461.8	1,405.0	0.00	0.00	0.00



# Intrepid Planning Report



**Database:** EDM 5000.15 Single User Db  
**Company:** Tap Rock Resources, LLC  
**Project:** Lea County, NM (NAD 83 NME)  
**Site:** (Contest Fed) Sec-9\_T-24-S\_R-34-E  
**Well:** The Contest Fed Com #201H  
**Wellbore:** OWB  
**Design:** Plan #2

**Local Co-ordinate Reference:** Well The Contest Fed Com #201H  
**TVD Reference:** KB @ 3588.0usft (H&P 388)  
**MD Reference:** KB @ 3588.0usft (H&P 388)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## 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)
15,000.0	93.09	359.57	12,052.5	1,501.5	-462.6	1,504.9	0.00	0.00	0.00
15,100.0	93.09	359.57	12,047.1	1,601.3	-463.3	1,604.7	0.00	0.00	0.00
15,200.0	93.09	359.57	12,041.8	1,701.2	-464.0	1,704.6	0.00	0.00	0.00
15,300.0	93.09	359.57	12,036.4	1,801.0	-464.8	1,804.5	0.00	0.00	0.00
15,400.0	93.09	359.57	12,031.0	1,900.9	-465.5	1,904.3	0.00	0.00	0.00
15,500.0	93.09	359.57	12,025.6	2,000.7	-466.3	2,004.2	0.00	0.00	0.00
15,600.0	93.09	359.57	12,020.2	2,100.6	-467.0	2,104.0	0.00	0.00	0.00
15,700.0	93.09	359.57	12,014.8	2,200.4	-467.8	2,203.9	0.00	0.00	0.00
15,800.0	93.09	359.57	12,009.5	2,300.3	-468.5	2,303.7	0.00	0.00	0.00
15,900.0	93.09	359.57	12,004.1	2,400.1	-469.3	2,403.6	0.00	0.00	0.00
16,000.0	93.09	359.57	11,998.7	2,500.0	-470.0	2,503.4	0.00	0.00	0.00
16,100.0	93.09	359.57	11,993.3	2,599.8	-470.8	2,603.3	0.00	0.00	0.00
16,200.0	93.09	359.57	11,987.9	2,699.7	-471.5	2,703.1	0.00	0.00	0.00
16,300.0	93.09	359.57	11,982.5	2,799.5	-472.3	2,803.0	0.00	0.00	0.00
16,400.0	93.09	359.57	11,977.2	2,899.4	-473.0	2,902.9	0.00	0.00	0.00
16,500.0	93.09	359.57	11,971.8	2,999.2	-473.8	3,002.7	0.00	0.00	0.00
16,600.0	93.09	359.57	11,966.4	3,099.1	-474.5	3,102.6	0.00	0.00	0.00
16,700.0	93.09	359.57	11,961.0	3,198.9	-475.3	3,202.4	0.00	0.00	0.00
16,800.0	93.09	359.57	11,955.6	3,298.8	-476.0	3,302.3	0.00	0.00	0.00
16,900.0	93.09	359.57	11,950.3	3,398.7	-476.8	3,402.1	0.00	0.00	0.00
17,000.0	93.09	359.57	11,944.9	3,498.5	-477.5	3,502.0	0.00	0.00	0.00
17,100.0	93.09	359.57	11,939.5	3,598.4	-478.3	3,601.8	0.00	0.00	0.00
17,200.0	93.09	359.57	11,934.1	3,698.2	-479.0	3,701.7	0.00	0.00	0.00
17,300.0	93.09	359.57	11,928.7	3,798.1	-479.8	3,801.6	0.00	0.00	0.00
17,332.0	93.09	359.57	11,927.0	3,830.0	-480.0	3,833.5	0.00	0.00	0.00

TD at 17332.0

## Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
<b>hit/miss target</b> <b>Shape</b> PBHL (The Contest Fed) - plan hits target center - Rectangle (sides W100.0 H5,160.0 D30.0)	-3.09	359.57	11,927.0	3,830.0	-480.0	451,819.00	804,930.00	32° 14' 21.301 N	103° 28' 50.861 W
LTP (The Contest Fed) - plan misses target center by 3.8usft at 17262.1usft MD (11930.8 TVD, 3760.2 N, -479.5 E) - Point	0.00	0.00	11,927.0	3,760.0	-479.0	451,749.00	804,931.00	32° 14' 20.608 N	103° 28' 50.855 W
FTP (The Contest Fed) - plan misses target center by 205.6usft at 12262.9usft MD (12021.8 TVD, -1193.0 N, -442.4 E) - Point	0.00	0.00	12,175.0	-1,330.0	-441.0	446,659.00	804,969.00	32° 13' 30.240 N	103° 28' 50.883 W



# Intrepid Planning Report



**Database:** EDM 5000.15 Single User Db  
**Company:** Tap Rock Resources, LLC  
**Project:** Lea County, NM (NAD 83 NME)  
**Site:** (Contest Fed) Sec-9\_T-24-S\_R-34-E  
**Well:** The Contest Fed Com #201H  
**Wellbore:** OWB  
**Design:** Plan #2

**Local Co-ordinate Reference:** Well The Contest Fed Com #201H  
**TVD Reference:** KB @ 3588.0usft (H&P 388)  
**MD Reference:** KB @ 3588.0usft (H&P 388)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,209.0	1,209.0	Rustler Anhydrite			
1,735.0	1,735.0	Top Salt			
5,195.9	5,080.0	Base Salt			
5,466.1	5,340.0	Delaware Mountain Gp			
5,475.4	5,349.0	Lamar			
5,494.2	5,367.0	Bell Canyon			
5,510.8	5,383.0	Ramsey Sand			
6,423.2	6,261.0	Cherry Canyon			
7,843.2	7,653.0	Brushy Canyon			
9,235.2	9,045.0	Bone Spring Lime			
9,309.2	9,119.0	Upper Avalon			
9,564.2	9,374.0	Middle Avalon			
9,917.2	9,727.0	Lower Avalon			
10,273.2	10,083.0	1st Bone Spring Sand			
10,517.2	10,327.0	2nd Bone Spring Carb			
10,814.2	10,624.0	2nd Bone Spring Sand			
11,307.2	11,117.0	3rd Bone Spring Carb			
11,855.3	11,665.0	3rd Bone Spring Sand			
12,074.4	11,873.0	3rd BS W Sand			
12,141.2	11,930.0	Wolfcamp A X Sand			
12,373.5	12,089.0	Wolfcamp A Y Sand			
12,571.5	12,163.0	Wolfcamp A Lower			

## Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,600.0	1,600.0	0.0	0.0	NUDGE - Build 2.00
2,389.7	2,379.7	-103.0	-33.0	HOLD - 4510.9 at 2389.7 MD
6,900.6	6,720.3	-1,272.0	-408.0	DROP - -2.00
7,690.2	7,500.0	-1,375.0	-441.0	HOLD - 4102.9 at 7690.2 MD
11,793.1	11,602.9	-1,375.0	-441.0	KOP - DLS 10.00 TFO 359.57
12,724.0	12,175.0	-771.2	-445.5	EOC - 4608.0 hold at 12724.0 MD
17,332.0	11,927.0	3,830.0	-480.0	TD at 17332.0



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

## PWD Data Report

02/04/2020

APD ID: 10400043777

Submission Date: 07/17/2019

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM

Well Number: 201H

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - General

Would you like to address long-term produced water disposal? NO

### Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe 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:** TAP ROCK OPERATING LLC

**Well Name:** THE CONTEST FED COM

**Well Number:** 201H

**Lined pit Monitor description:**

**Lined pit Monitor attachment:**

**Lined pit: do you have a reclamation bond for the pit?**

**Is the reclamation bond a rider under the BLM bond?**

**Lined pit bond number:**

**Lined pit bond amount:**

**Additional bond information attachment:**

### **Section 3 - Unlined Pits**

**Would you like to utilize Unlined Pit PWD options?** NO

**Produced Water Disposal (PWD) Location:**

**PWD disturbance (acres):**

**PWD surface owner:**

**Unlined pit PWD on or off channel:**

**Unlined pit PWD discharge volume (bbl/day):**

**Unlined pit specifications:**

**Precipitated solids disposal:**

**Describe 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:** TAP ROCK OPERATING LLC

**Well Name:** THE CONTEST FED COM

**Well Number:** 201H

**Is the reclamation bond a rider under the BLM bond?**

**Unlined pit bond number:**

**Unlined pit bond amount:**

**Additional bond information attachment:**

#### **Section 4 - Injection**

**Would you like to utilize Injection PWD options?** NO

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Injection PWD discharge volume (bbl/day):**

**Injection well mineral owner:**

**Injection well type:**

**Injection well number:**

**Injection well name:**

**Assigned injection well API number?**

**Injection well API number:**

**Injection well new surface disturbance (acres):**

**Minerals protection information:**

**Mineral protection attachment:**

**Underground Injection Control (UIC) Permit?**

**UIC Permit attachment:**

#### **Section 5 - Surface Discharge**

**Would you like to utilize Surface Discharge PWD options?** NO

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Surface discharge PWD discharge volume (bbl/day):**

**Surface Discharge NPDES Permit?**

**Surface Discharge NPDES Permit attachment:**

**Surface Discharge site facilities information:**

**Surface discharge site facilities map:**

#### **Section 6 - Other**

**Would you like to utilize Other PWD options?** NO

**Produced Water Disposal (PWD) Location:**

**PWD surface owner:**

**PWD disturbance (acres):**

**Other PWD discharge volume (bbl/day):**

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** THE CONTEST FED COM

**Well Number:** 201H

**Other PWD type description:**

**Other PWD type attachment:**

**Have other regulatory requirements been met?**

**Other regulatory requirements attachment:**



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

## Bond Info Data Report

02/04/2020

**APD ID:** 10400043777

**Submission Date:** 07/17/2019

Highlighted data  
reflects the most  
recent changes

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** THE CONTEST FED COM

**Well Number:** 201H

[Show Final Text](#)

**Well Type:** OIL WELL

**Well Work Type:** Drill

### Bond Information

**Federal/Indian APD:** FED

**BLM Bond number:** NMB001443

**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:**