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Form 3160-3
(June 2015)

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

5. Lease Serial No.
NMNM0554252

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.
THE CONTEST FED COM
212H (326773)

2. Name of Operator
TAP ROCK OPERATING LLC (372043)

9. API Well No.
30-025-46674

3a. Address
602 Park Point Drive Suite 200 Golden CO 80401

3b. Phone No. *(include area code)*
(720)460-3316

10. Field and Pool, or Exploratory (2280)
ANTELOPE RIDGE; WOLFCAMP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NESW / 1400 FSL / 1377 FWL / LAT 32.2286417 / LONG -103.4790012
At proposed prod. zone NENW / 30 FNL / 2306 FWL / LAT 32.2392443 / LONG -103.4760048

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)
1248 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
12169 feet / 17640 feet

20. BLM/BIA Bond No. in file
FED: NMB001443

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3562 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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Brian Wood / Ph: (505)466-8120	07/17/2019

Title
President

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Christopher Walls / Ph: (575)234-2234	12/30/2019

Title	Office
Petroleum Engineer	CARLSBAD

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

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

GCP Rec 01/02/20

KZ 01/02/20

SL

APPROVED WITH CONDITIONS

Approval Date: 12/30/2019

(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Tap Rock Operating LLC**
LEASE NO.:	**NMNM0554252**
WELL NAME & NO.:	THE CONTEST FED COM 212H
SURFACE HOLE FOOTAGE:	1400'/S & 1377'/W
BOTTOM HOLE FOOTAGE	30'/N & 2306'/W
LOCATION:	Section 9, T.24 S., R.34 E., NMP
COUNTY:	Lea County, New Mexico

COA

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

A. HYDROGEN SULFIDE

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

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 shall be set at approximately **5433 feet** is:

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

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

3. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

4. The minimum required fill of cement behind the production casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

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

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **3000 (3M)** psi.

c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

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

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

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

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

GENERAL REQUIREMENTS

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

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

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

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

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

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

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

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

AFMSS

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

Operator Certification Data Report

12/30/2019

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:

APD ID: 10400043809 **Submission Date:** 07/17/2019

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400043809 **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:** 212H **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:** 212H

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 CONTEST **Number:** 131H

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: 18 Miles **Distance to nearest well:** 25 FT **Distance to lease line:** 1248 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Contest_212H_C102_ETAL_20190717093727.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	1400	FSL	1377	FWL	24S	34E	9	Aliquot NESW	32.2286417	-103.4790012	LEA	NEW MEXICO	NEW MEXICO	F	FEE	3562	0	0	
KOP Leg #1	60	FSL	2392	FWL	24S	34E	9	Aliquot SESW	32.2249727	-103.4757199	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8301	12096	11863	
PPP Leg #1-1	2640	FNL	2306	FWL	24S	34E	9	Aliquot SENW	32.23209	-103.476	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0554252	-8757	15040	12319	

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

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	69	FSL	2391	FWL	24S	34E	9	Aliquot SESW	32.2249974	-103.4757231	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8401	12196	11963	
EXIT Leg #1	30	FNL	2306	FWL	24S	34E	9	Aliquot NENW	32.2392443	-103.4760048	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 013642	-8607	17640	12169	
BHL Leg #1	30	FNL	2306	FWL	24S	34E	9	Aliquot NENW	32.2392443	-103.4760048	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 013642	-8607	17640	12169	

APD ID: 10400043809 **Submission Date:** 07/17/2019

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

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

Highlighted data reflects the most recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
501237	QUATERNARY	3562	0	0	ALLUVIUM	OTHER, USEABLE WATER : Salt	N
501238	RUSTLER ANHYDRITE	2354	1209	1209		OTHER : Salt	N
501239	SALADO	1828	1735	1743	SALT	OTHER : Salt	N
501240	BASE OF SALT	-1538	5100	5252		OTHER : Salt	N
501241	LAMAR	-1807	5369	5533	LIMESTONE	NONE	N
501242	BELL CANYON	-1841	5403	5552	SANDSTONE	NATURAL GAS, OIL	N
501243	CHERRY CANYON	-2719	6281	6484	SANDSTONE	NATURAL GAS, OIL	N
501244	BRUSHY CANYON	-4111	7673	7905	SANDSTONE	NATURAL GAS	N
501245	BONE SPRING	-5503	9065	9297	LIMESTONE	NATURAL GAS, OIL	N
501246	BONE SPRING 1ST	-6561	10123	10355	SANDSTONE	NATURAL GAS, OIL	N
501247	BONE SPRING 2ND	-6805	10367	10599	SANDSTONE	NATURAL GAS, OIL	N
501248	BONE SPRING 3RD	-7595	11157	11389	SANDSTONE	NATURAL GAS, OIL	N
501249	WOLFCAMP	-8401	11963	12196	SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

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 nippled 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_212H_Choke_032918_20190717095116.pdf

BOP Diagram Attachment:

Contest_212H_BOP_REVISED_20191217144710.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	3562		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	5300	0	5145	3562		5300	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	5600	0	5433	3562		5600	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:** 212H

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	PRODUCTION	6.75	5.5	NEW	NON API	N	0	11890	0	11657	3562		11890	P-110	20	OTHER - TXP	1.13	1.15	DRY	1.6	DRY	1.6
5	INTERMEDIATE	8.75	7.625	NEW	NON API	Y	5300	12090	5145	11863			6790	P-110	29.7	OTHER - W-513	1.13	1.15	DRY	1.6	DRY	1.6
6	PRODUCTION	6.75	5.0	NEW	NON API	Y	11890	17640	11657	12169			5750	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_212H_Casing_Design_Assumptions_20190717095407.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Contest_212H_Casing_Design_Assumptions_20190717095513.pdf

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Contest_212H_Casing_Design_Assumptions_20190717095442.pdf

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

Inspection Document:

Spec Document:

Contest_212H_5.5in_TXP_Casing_Spec_20190717095707.PDF

Tapered String Spec:

Contest_131H_7.625in_W513_Casing_Spec_20190716093113.pdf

Casing Design Assumptions and Worksheet(s):

Contest_212H_Casing_Design_Assumptions_20190717095728.pdf

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

Inspection Document:

Spec Document:

Contest_212H_7.625in_W513_Casing_Spec_20190717095557.pdf

Tapered String Spec:

Contest_212H_7.625in_W513_Casing_Spec_20190717095608.pdf

Casing Design Assumptions and Worksheet(s):

Contest_212H_Casing_Design_Assumptions_20190717095633.pdf

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

Casing Attachments

Casing ID: 6 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Contest_212H_5in_W521_Casing_Spec_20190717095810.pdf

Tapered String Spec:

Contest_212H_5in_W521_Casing_Spec_20190717095822.pdf

Casing Design Assumptions and Worksheet(s):

Contest_212H_Casing_Design_Assumptions_20190717095838.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		1390	17640	512	1.71	14.2	876	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	4600	1090	2.18	12.7	2376	65	Class C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
INTERMEDIATE	Tail		4600	5600	389	1.33	14.8	517	65	Class C	5% NaCl + LCM
INTERMEDIATE	Lead		5300	11090	274	2.87	11.5	786	35	TXI	Fluid Loss + Dispersant + Retarder + LCM

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		11090	12090	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	5600	OTHER : Brine water	10	10							
12090	17640	OIL-BASED MUD	11.5	11.5							
0	1260	OTHER : FW Spud Mud	8.3	8.3							
5600	12090	OTHER : FW/Cut Brine	9	9							

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

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: 7430 **Anticipated Surface Pressure:** 4719.82

Anticipated Bottom Hole Temperature(F): 170

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:

Contest_212H_H2S_Plan_20190717100201.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Contest_212H_Horizontal_Plan_20190717100225.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Contest_212H_Speedhead_Specs_033018_20190717100243.pdf
Contest_212H_CoFlex_Certs_20190717100304.pdf
Contest_212H_Anti_Collision_Report_20190717100324.pdf
Contest_212H_Drill_Plan_REVISED_20191217144625.pdf

Other Variance attachment:

TAP ROCK

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 Windsocks and / Wind Streamers:

- Windsocks at mud pit area should be high enough to be visible
- Windsock 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 H2S has on tubulars good and other mechanical equipment

9 If H2S 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 H2S scavengers if necessary

11 Emergency Contacts

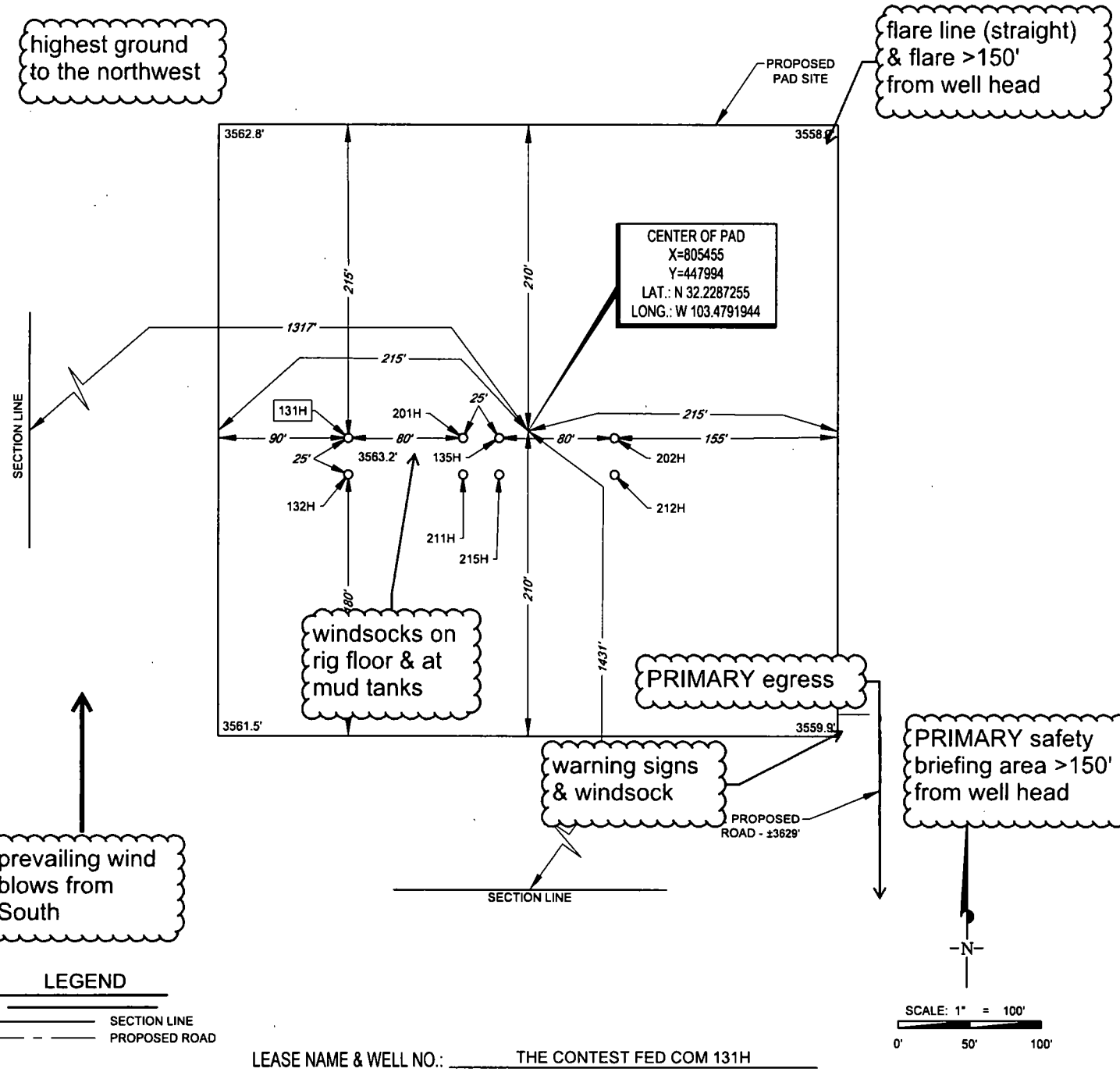
Emergency Contacts		
Carlsbad Police Department	575.887.7551	911
Carlsbad Medical Center	575.887.4100	911
Eddy County Fire Service	575.628.5450	911
Eddy County Sherriff	575.887.7551	911
Lea County Fire Service	575.391.2983	911
Lea County Sherriff	575.396.3611	911
Jal Police Department	575.395.2121	911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

EXHIBIT 2B

TAP ROCK

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.

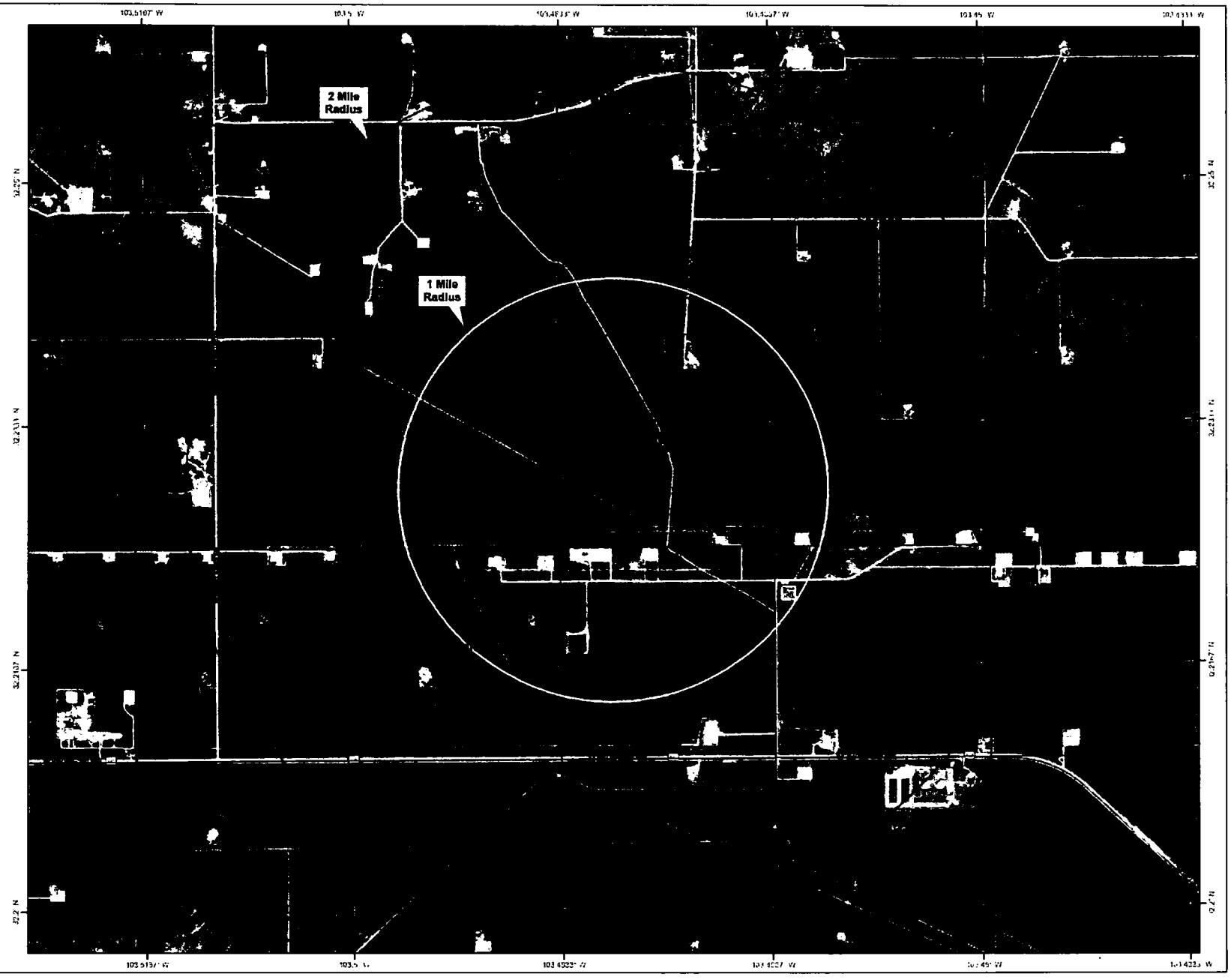
TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

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



Well Pad Location

1:27,000

0 0.25 0.5 1

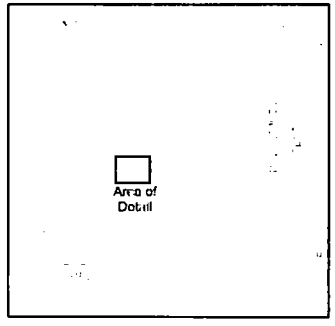
Miles

N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

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



TAP ROCK RESOURCES

INTREPID

T G M

Azimuths to Grid North:
True North: -0.48°
Magnetic North: 8.25°

Magnetic Field
Strength: 47759.0nT
Dip Angle: 60.06°
Date: 04/24/2018
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 8.25°

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 #212H
Wellbore: OWB
Design: Plan #2
Lat: 32° 13' 43.110 N
Long: 103° 28' 44.407 W
Pad GL: 3562.0
KB: KB @ 3588.0usft (H&P 388)

WELL DETAILS: The Contest Fed Com #212H

	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
	0.0	0.0	447964.00	803519.00	32° 13' 43.110 N	103° 28' 44.407 W

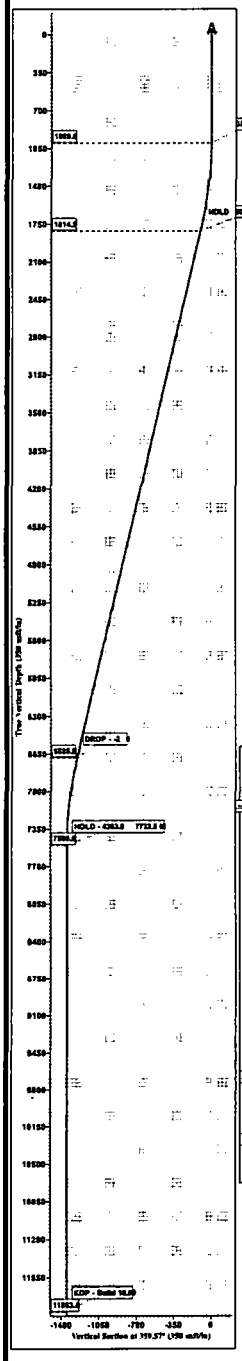
3562.0

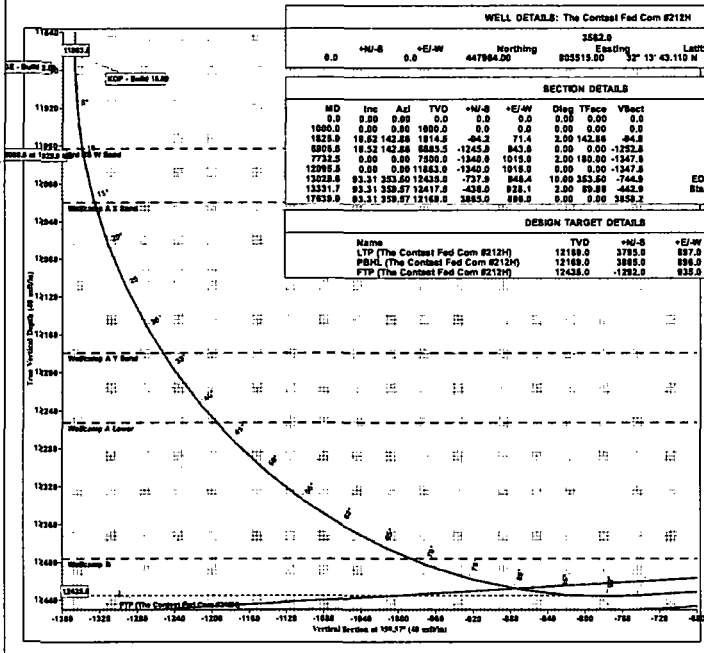
SECTION DETAILS

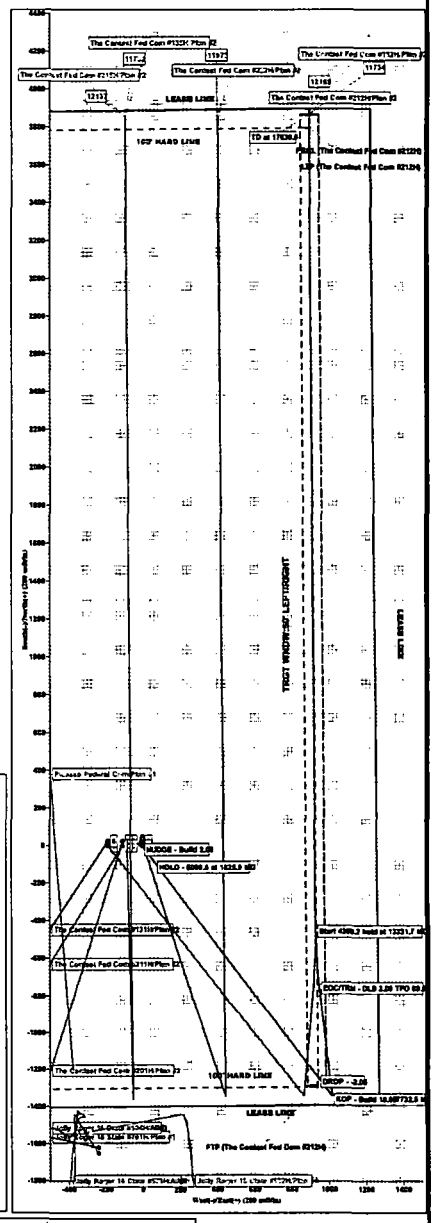
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	NUDGE - Build 2.00
1825.9	16.52	142.86	1814.8	-94.2	71.4	2.00	142.86	-94.8	HOLD - 5080.8 at 1825.9 MD
5906.8	16.52	142.86	5885.5	-1245.8	943.8	0.00	0.00	-1252.8	DROP - -2.00
7732.5	0.00	0.00	7900.0	-1340.0	1015.0	2.00	180.00	-1347.5	HOLD - 4363.0 at 7732.5 MD
12095.5	0.00	0.00	11863.0	-1340.0	1015.0	0.00	0.00	-1347.5	KOP - Build 10.00
13028.6	93.31	353.50	12435.0	-737.9	948.4	10.00	353.50	-744.8	EOC/TRN - DLS 2.00 TFO 89.86
13331.7	93.31	359.57	12417.8	-436.0	928.1	2.00	89.86	-442.9	Start 4308.2 hold at 13331.7 MD
17639.9	93.31	359.57	12168.0	3885.0	896.0	0.00	0.00	3858.2	TD at 17639.9

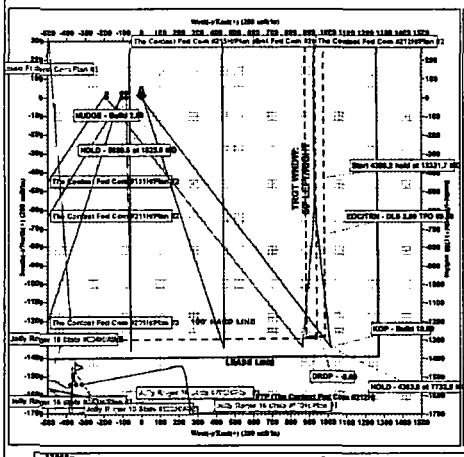
DESIGN TARGET DETAILS

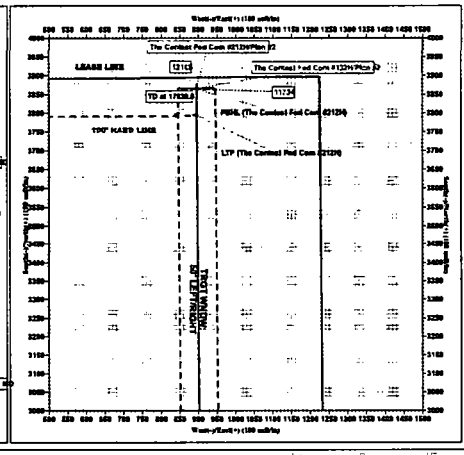
Name	TVD	+N/-S	+E/-W	Northing	Easting
LTP (The Contest Fed Com #212H)	12168.0	3785.0	897.0	451759.00	806412.00
PBHL (The Contest Fed Com #212H)	12168.0	3885.0	896.0	451829.00	806411.00
FTP (The Contest Fed Com #212H)	12438.0	-1292.0	935.0	446672.00	806450.00

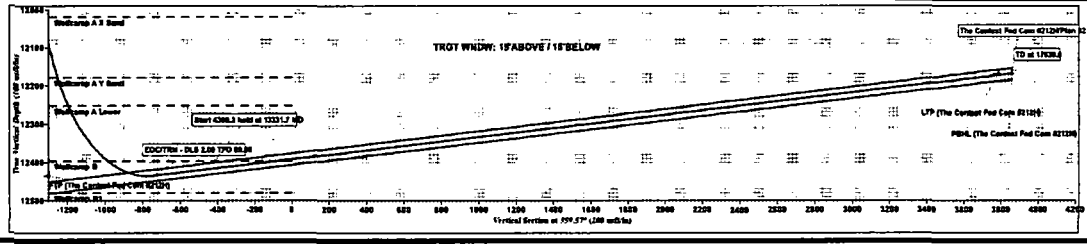












Tap Rock Resources, LLC

Lea County, NM (NAD 83 NME)
(Contest Fed) Sec-9_T-24-S_R-34-E
The Contest Fed Com #212H

OWB

Plan: Plan #2

Standard Planning Report

21 May, 2019

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well The Contest Fed Com #212H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3588.0usft (H&P 388)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3588.0usft (H&P 388)
Site:	(Contest Fed) Sec-9_T-24-S_R-34-E	**North Reference:**	Grid
Well:	The Contest Fed Com #212H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Project Lea County, NM (NAD 83 NME)

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

Site (Contest Fed) Sec-9_T-24-S_R-34-E

Site Position:		**Northing:**	447,954.00 usft	**Latitude:**	32° 13' 43.026 N
From:	Map	**Easting:**	805,330.00 usft	**Longitude:**	103° 28' 46.561 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.46 °

Well The Contest Fed Com #212H

Well Position	**+N/-S**	10.0 usft	**Northing:**	447,964.00 usft	**Latitude:**	32° 13' 43.110 N
	+E/-W	185.0 usft	**Easting:**	805,515.00 usft	**Longitude:**	103° 28' 44.407 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,562.0 usft

Wellbore OWB

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	04/24/19	6.71	60.06	47,758.98947657

Design Plan #2

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	359.57

Plan Survey Tool Program **Date** 05/21/19

	Depth From (usft)	**Depth To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Remarks**
1	0.0	17,639.9	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)**	**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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,825.9	16.52	142.86	1,814.5	-94.2	71.4	2.00	2.00	0.00	142.86	
6,906.6	16.52	142.86	6,685.5	-1,245.8	943.6	0.00	0.00	0.00	0.00	
7,732.5	0.00	0.00	7,500.0	-1,340.0	1,015.0	2.00	-2.00	0.00	180.00	
12,095.5	0.00	0.00	11,863.0	-1,340.0	1,015.0	0.00	0.00	0.00	0.00	
13,028.6	93.31	353.50	12,435.0	-737.9	946.4	10.00	10.00	0.00	353.50	
13,331.7	93.31	359.57	12,417.5	-436.0	928.1	2.00	0.00	2.00	89.86	
17,639.9	93.31	359.57	12,169.0	3,865.0	896.0	0.00	0.00	0.00	0.00	PBHL (The Contest

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well The Contest Fed Com #212H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3588.0usft (H&P 388)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3588.0usft (H&P 388)
Site:	(Contest Fed) Sec-9_T-24-S_R-34-E	**North Reference:**	Grid
Well:	The Contest Fed Com #212H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

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
NUDGE - Build 2.00									
1,100.0	2.00	142.86	1,100.0	-1.4	1.1	-1.4	2.00	2.00	0.00
1,200.0	4.00	142.86	1,199.8	-5.6	4.2	-5.6	2.00	2.00	0.00
1,209.2	4.18	142.86	1,209.0	-6.1	4.6	-6.1	2.00	2.00	0.00
Rustler Anhydrite									
1,300.0	6.00	142.86	1,299.5	-12.5	9.5	-12.6	2.00	2.00	0.00
1,400.0	8.00	142.86	1,398.7	-22.2	16.8	-22.3	2.00	2.00	0.00
1,500.0	10.00	142.86	1,497.5	-34.7	26.3	-34.9	2.00	2.00	0.00
1,600.0	12.00	142.86	1,595.6	-49.9	37.8	-50.2	2.00	2.00	0.00
1,700.0	14.00	142.86	1,693.1	-67.8	51.4	-68.2	2.00	2.00	0.00
1,743.3	14.87	142.86	1,735.0	-76.4	57.9	-76.9	2.00	2.00	0.00
Top Salt									
1,800.0	16.00	142.86	1,789.6	-88.5	67.0	-89.0	2.00	2.00	0.00
1,825.9	16.52	142.86	1,814.5	-94.2	71.4	-94.8	2.00	2.00	0.00
HOLD - 5080.6 at 1825.9 MD									
1,900.0	16.52	142.86	1,885.5	-111.0	84.1	-111.7	0.00	0.00	0.00
2,000.0	16.52	142.86	1,981.4	-133.7	101.3	-134.5	0.00	0.00	0.00
2,100.0	16.52	142.86	2,077.3	-156.4	118.4	-157.3	0.00	0.00	0.00
2,200.0	16.52	142.86	2,173.2	-179.0	135.6	-180.0	0.00	0.00	0.00
2,300.0	16.52	142.86	2,269.0	-201.7	152.8	-202.8	0.00	0.00	0.00
2,400.0	16.52	142.86	2,364.9	-224.4	169.9	-225.6	0.00	0.00	0.00
2,500.0	16.52	142.86	2,460.8	-247.0	187.1	-248.4	0.00	0.00	0.00
2,600.0	16.52	142.86	2,556.7	-269.7	204.3	-271.2	0.00	0.00	0.00
2,700.0	16.52	142.86	2,652.5	-292.4	221.4	-294.0	0.00	0.00	0.00
2,800.0	16.52	142.86	2,748.4	-315.0	238.6	-316.8	0.00	0.00	0.00
2,900.0	16.52	142.86	2,844.3	-337.7	255.8	-339.6	0.00	0.00	0.00
3,000.0	16.52	142.86	2,940.1	-360.3	273.0	-362.4	0.00	0.00	0.00
3,100.0	16.52	142.86	3,036.0	-383.0	290.1	-385.2	0.00	0.00	0.00
3,200.0	16.52	142.86	3,131.9	-405.7	307.3	-408.0	0.00	0.00	0.00
3,300.0	16.52	142.86	3,227.8	-428.3	324.5	-430.8	0.00	0.00	0.00
3,400.0	16.52	142.86	3,323.6	-451.0	341.6	-453.6	0.00	0.00	0.00
3,500.0	16.52	142.86	3,419.5	-473.7	358.8	-476.4	0.00	0.00	0.00
3,600.0	16.52	142.86	3,515.4	-496.3	376.0	-499.1	0.00	0.00	0.00
3,700.0	16.52	142.86	3,611.3	-519.0	393.1	-521.9	0.00	0.00	0.00
3,800.0	16.52	142.86	3,707.1	-541.7	410.3	-544.7	0.00	0.00	0.00
3,900.0	16.52	142.86	3,803.0	-564.3	427.5	-567.5	0.00	0.00	0.00
4,000.0	16.52	142.86	3,898.9	-587.0	444.6	-590.3	0.00	0.00	0.00
4,100.0	16.52	142.86	3,994.8	-609.7	461.8	-613.1	0.00	0.00	0.00
4,200.0	16.52	142.86	4,090.6	-632.3	479.0	-635.9	0.00	0.00	0.00
4,300.0	16.52	142.86	4,186.5	-655.0	496.1	-658.7	0.00	0.00	0.00
4,400.0	16.52	142.86	4,282.4	-677.7	513.3	-681.5	0.00	0.00	0.00
4,500.0	16.52	142.86	4,378.2	-700.3	530.5	-704.3	0.00	0.00	0.00
4,600.0	16.52	142.86	4,474.1	-723.0	547.6	-727.1	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well The Contest Fed Com #212H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3588.0usft (H&P 388)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3588.0usft (H&P 388)
Site:	(Contest Fed) Sec-9_T-24-S_R-34-E	**North Reference:**	Grid
Well:	The Contest Fed Com #212H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

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	16.52	142.86	4,570.0	-745.6	564.8	-749.9	0.00	0.00	0.00
4,800.0	16.52	142.86	4,665.9	-768.3	582.0	-772.7	0.00	0.00	0.00
4,900.0	16.52	142.86	4,761.7	-791.0	599.1	-795.4	0.00	0.00	0.00
5,000.0	16.52	142.86	4,857.6	-813.6	616.3	-818.2	0.00	0.00	0.00
5,100.0	16.52	142.86	4,953.5	-836.3	633.5	-841.0	0.00	0.00	0.00
5,200.0	16.52	142.86	5,049.4	-859.0	650.6	-863.8	0.00	0.00	0.00
5,252.8	16.52	142.86	5,100.0	-870.9	659.7	-875.9	0.00	0.00	0.00
Base Salt									
5,300.0	16.52	142.86	5,145.2	-881.6	667.8	-886.6	0.00	0.00	0.00
5,400.0	16.52	142.86	5,241.1	-904.3	685.0	-909.4	0.00	0.00	0.00
5,500.0	16.52	142.86	5,337.0	-927.0	702.1	-932.2	0.00	0.00	0.00
5,524.0	16.52	142.86	5,360.0	-932.4	706.3	-937.7	0.00	0.00	0.00
Delaware Mountain Gp									
5,533.4	16.52	142.86	5,369.0	-934.5	707.9	-939.8	0.00	0.00	0.00
Lamar									
5,552.2	16.52	142.86	5,387.0	-938.8	711.1	-944.1	0.00	0.00	0.00
Bell Canyon									
5,568.9	16.52	142.86	5,403.0	-942.6	714.0	-947.9	0.00	0.00	0.00
Ramsey Sand									
5,600.0	16.52	142.86	5,432.8	-949.6	719.3	-955.0	0.00	0.00	0.00
5,700.0	16.52	142.86	5,528.7	-972.3	736.5	-977.8	0.00	0.00	0.00
5,800.0	16.52	142.86	5,624.6	-995.0	753.6	-1,000.6	0.00	0.00	0.00
5,900.0	16.52	142.86	5,720.5	-1,017.6	770.8	-1,023.4	0.00	0.00	0.00
6,000.0	16.52	142.86	5,816.3	-1,040.3	788.0	-1,046.2	0.00	0.00	0.00
6,100.0	16.52	142.86	5,912.2	-1,062.9	805.1	-1,069.0	0.00	0.00	0.00
6,200.0	16.52	142.86	6,008.1	-1,085.6	822.3	-1,091.8	0.00	0.00	0.00
6,300.0	16.52	142.86	6,104.0	-1,108.3	839.5	-1,114.5	0.00	0.00	0.00
6,400.0	16.52	142.86	6,199.8	-1,130.9	856.6	-1,137.3	0.00	0.00	0.00
6,484.7	16.52	142.86	6,281.0	-1,150.1	871.2	-1,156.6	0.00	0.00	0.00
Cherry Canyon									
6,500.0	16.52	142.86	6,295.7	-1,153.6	873.8	-1,160.1	0.00	0.00	0.00
6,600.0	16.52	142.86	6,391.6	-1,176.3	891.0	-1,182.9	0.00	0.00	0.00
6,700.0	16.52	142.86	6,487.4	-1,198.9	908.1	-1,205.7	0.00	0.00	0.00
6,800.0	16.52	142.86	6,583.3	-1,221.6	925.3	-1,228.5	0.00	0.00	0.00
6,906.6	16.52	142.86	6,685.5	-1,245.8	943.6	-1,252.8	0.00	0.00	0.00
DROP - -2.00									
7,000.0	14.65	142.86	6,775.5	-1,265.8	958.8	-1,272.9	2.00	-2.00	0.00
7,100.0	12.65	142.86	6,872.6	-1,284.6	973.0	-1,291.8	2.00	-2.00	0.00
7,200.0	10.65	142.86	6,970.6	-1,300.7	985.2	-1,308.0	2.00	-2.00	0.00
7,300.0	8.65	142.86	7,069.2	-1,314.0	995.3	-1,321.5	2.00	-2.00	0.00
7,400.0	6.65	142.86	7,168.3	-1,324.6	1,003.4	-1,332.1	2.00	-2.00	0.00
7,500.0	4.65	142.86	7,267.8	-1,332.5	1,009.3	-1,340.0	2.00	-2.00	0.00
7,600.0	2.65	142.86	7,367.6	-1,337.6	1,013.2	-1,345.1	2.00	-2.00	0.00
7,700.0	0.65	142.86	7,467.5	-1,339.9	1,014.9	-1,347.4	2.00	-2.00	0.00
7,732.5	0.00	0.00	7,500.0	-1,340.0	1,015.0	-1,347.6	2.00	-2.00	0.00
HOLD - 4363.0 at 7732.5 MD									
7,800.0	0.00	0.00	7,567.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
7,900.0	0.00	0.00	7,667.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
7,905.5	0.00	0.00	7,673.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
Brushy Canyon									
8,000.0	0.00	0.00	7,767.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
8,100.0	0.00	0.00	7,867.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
8,200.0	0.00	0.00	7,967.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well The Contest Fed Com #212H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3588.0usft (H&P 388)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3588.0usft (H&P 388)
Site:	(Contest Fed) Sec-9_T-24-S_R-34-E	**North Reference:**	Grid
Well:	The Contest Fed Com #212H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

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	8,067.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
8,400.0	0.00	0.00	8,167.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
8,500.0	0.00	0.00	8,267.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
8,600.0	0.00	0.00	8,367.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
8,700.0	0.00	0.00	8,467.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
8,800.0	0.00	0.00	8,567.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
8,900.0	0.00	0.00	8,667.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,000.0	0.00	0.00	8,767.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,100.0	0.00	0.00	8,867.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,200.0	0.00	0.00	8,967.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,297.5	0.00	0.00	9,065.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
Bone Spring Lime									
9,300.0	0.00	0.00	9,067.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,371.5	0.00	0.00	9,139.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
Upper Avalon									
9,400.0	0.00	0.00	9,167.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,500.0	0.00	0.00	9,267.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,600.0	0.00	0.00	9,367.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,626.5	0.00	0.00	9,394.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
Middle Avalon									
9,700.0	0.00	0.00	9,467.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,800.0	0.00	0.00	9,567.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,900.0	0.00	0.00	9,667.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
9,999.5	0.00	0.00	9,767.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
Lower Avalon									
10,000.0	0.00	0.00	9,767.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
10,100.0	0.00	0.00	9,867.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
10,200.0	0.00	0.00	9,967.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
10,300.0	0.00	0.00	10,067.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
10,355.5	0.00	0.00	10,123.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
1st Bone Spring Sand									
10,400.0	0.00	0.00	10,167.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
10,500.0	0.00	0.00	10,267.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
10,599.5	0.00	0.00	10,367.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
2nd Bone Spring Carb									
10,600.0	0.00	0.00	10,367.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
10,700.0	0.00	0.00	10,467.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
10,800.0	0.00	0.00	10,567.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
10,876.5	0.00	0.00	10,644.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
2nd Bone Spring Sand									
10,900.0	0.00	0.00	10,667.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,000.0	0.00	0.00	10,767.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,100.0	0.00	0.00	10,867.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,200.0	0.00	0.00	10,967.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,300.0	0.00	0.00	11,067.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,389.5	0.00	0.00	11,157.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
3rd Bone Spring Carb									
11,400.0	0.00	0.00	11,167.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,500.0	0.00	0.00	11,267.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,600.0	0.00	0.00	11,367.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,700.0	0.00	0.00	11,467.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,800.0	0.00	0.00	11,567.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
11,900.0	0.00	0.00	11,667.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well The Contest Fed Com #212H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3588.0usft (H&P 388)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3588.0usft (H&P 388)
Site:	(Contest Fed) Sec-9_T-24-S_R-34-E	**North Reference:**	Grid
Well:	The Contest Fed Com #212H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

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)
11,957.5	0.00	0.00	11,725.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
3rd Bone Spring Sand									
12,000.0	0.00	0.00	11,767.5	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
12,095.5	0.00	0.00	11,863.0	-1,340.0	1,015.0	-1,347.6	0.00	0.00	0.00
KOP - Build 10.00									
12,100.0	0.45	353.50	11,867.5	-1,340.0	1,015.0	-1,347.6	10.00	10.00	0.00
12,150.0	5.45	353.50	11,917.4	-1,337.4	1,014.7	-1,345.0	10.00	10.00	0.00
12,196.0	10.05	353.50	11,963.0	-1,331.3	1,014.0	-1,338.8	10.00	10.00	0.00
3rd BS W Sand									
12,200.0	10.45	353.50	11,966.9	-1,330.6	1,013.9	-1,338.1	10.00	10.00	0.00
12,250.0	15.45	353.50	12,015.7	-1,319.4	1,012.7	-1,327.0	10.00	10.00	0.00
12,254.5	15.90	353.50	12,020.0	-1,318.2	1,012.5	-1,325.8	10.00	10.00	0.00
Wolfcamp A X Sand									
12,300.0	20.45	353.50	12,063.2	-1,304.1	1,010.9	-1,311.7	10.00	10.00	0.00
12,350.0	25.45	353.50	12,109.2	-1,284.7	1,008.7	-1,292.3	10.00	10.00	0.00
12,400.0	30.45	353.50	12,153.4	-1,261.5	1,006.1	-1,269.0	10.00	10.00	0.00
12,430.2	33.47	353.50	12,179.0	-1,245.6	1,004.2	-1,253.1	10.00	10.00	0.00
Wolfcamp A Y Sand									
12,450.0	35.45	353.50	12,195.3	-1,234.5	1,003.0	-1,241.9	10.00	10.00	0.00
12,500.0	40.45	353.50	12,234.7	-1,203.9	999.5	-1,211.4	10.00	10.00	0.00
12,524.4	42.90	353.50	12,253.0	-1,187.8	997.7	-1,195.2	10.00	10.00	0.00
Wolfcamp A Lower									
12,550.0	45.45	353.50	12,271.3	-1,170.1	995.6	-1,177.5	10.00	10.00	0.00
12,600.0	50.45	353.50	12,304.8	-1,133.2	991.4	-1,140.6	10.00	10.00	0.00
12,650.0	55.45	353.50	12,334.9	-1,093.6	986.9	-1,100.9	10.00	10.00	0.00
12,700.0	60.45	353.50	12,361.4	-1,051.5	982.1	-1,058.8	10.00	10.00	0.00
12,750.0	65.45	353.50	12,384.2	-1,007.2	977.1	-1,014.5	10.00	10.00	0.00
12,780.2	68.48	353.50	12,396.0	-979.6	973.9	-986.9	10.00	10.00	0.00
Wolfcamp B									
12,800.0	70.45	353.50	12,402.9	-961.2	971.8	-968.5	10.00	10.00	0.00
12,850.0	75.45	353.50	12,417.6	-913.7	966.4	-920.9	10.00	10.00	0.00
12,900.0	80.45	353.50	12,428.0	-865.1	960.9	-872.3	10.00	10.00	0.00
12,950.0	85.45	353.50	12,434.2	-815.9	955.3	-823.0	10.00	10.00	0.00
13,000.0	90.45	353.50	12,435.9	-766.2	949.6	-773.3	10.00	10.00	0.00
13,028.6	93.31	353.50	12,435.0	-737.9	946.4	-744.9	10.00	10.00	0.00
EOC/TRN - DLS 2.00 TFO 89.86									
13,100.0	93.31	354.93	12,430.9	-666.9	939.2	-673.9	2.00	0.00	2.00
13,200.0	93.31	356.93	12,425.1	-567.3	932.1	-574.3	2.00	0.00	2.00
13,300.0	93.31	358.94	12,419.3	-467.6	928.5	-474.5	2.00	0.00	2.00
13,331.7	93.31	359.57	12,417.5	-436.0	928.1	-442.9	2.00	-0.01	2.00
Start 4308.2 hold at 13331.7 MD									
13,400.0	93.31	359.57	12,413.6	-367.7	927.6	-374.7	0.00	0.00	0.00
13,500.0	93.31	359.57	12,407.8	-267.9	926.9	-274.9	0.00	0.00	0.00
13,600.0	93.31	359.57	12,402.0	-168.1	926.1	-175.0	0.00	0.00	0.00
13,700.0	93.31	359.57	12,396.2	-68.3	925.4	-75.2	0.00	0.00	0.00
13,800.0	93.31	359.57	12,390.5	31.6	924.6	24.6	0.00	0.00	0.00
13,900.0	93.31	359.57	12,384.7	131.4	923.9	124.5	0.00	0.00	0.00
14,000.0	93.31	359.57	12,378.9	231.2	923.1	224.3	0.00	0.00	0.00
14,100.0	93.31	359.57	12,373.2	331.1	922.4	324.1	0.00	0.00	0.00
14,200.0	93.31	359.57	12,367.4	430.9	921.6	424.0	0.00	0.00	0.00
14,300.0	93.31	359.57	12,361.6	530.7	920.9	523.8	0.00	0.00	0.00
14,400.0	93.31	359.57	12,355.9	630.6	920.2	623.6	0.00	0.00	0.00
14,500.0	93.31	359.57	12,350.1	730.4	919.4	723.5	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well The Contest Fed Com #212H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3588.0usft (H&P 388)
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3588.0usft (H&P 388)
Site:	(Contest Fed) Sec-9_T-24-S_R-34-E	**North Reference:**	Grid
Well:	The Contest Fed Com #212H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

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)
14,600.0	93.31	359.57	12,344.3	830.2	918.7	823.3	0.00	0.00	0.00
14,700.0	93.31	359.57	12,338.6	930.1	917.9	923.1	0.00	0.00	0.00
14,800.0	93.31	359.57	12,332.8	1,029.9	917.2	1,023.0	0.00	0.00	0.00
14,900.0	93.31	359.57	12,327.0	1,129.7	916.4	1,122.8	0.00	0.00	0.00
15,000.0	93.31	359.57	12,321.3	1,229.5	915.7	1,222.6	0.00	0.00	0.00
15,100.0	93.31	359.57	12,315.5	1,329.4	914.9	1,322.5	0.00	0.00	0.00
15,200.0	93.31	359.57	12,309.7	1,429.2	914.2	1,422.3	0.00	0.00	0.00
15,300.0	93.31	359.57	12,304.0	1,529.0	913.4	1,522.1	0.00	0.00	0.00
15,400.0	93.31	359.57	12,298.2	1,628.9	912.7	1,622.0	0.00	0.00	0.00
15,500.0	93.31	359.57	12,292.4	1,728.7	912.0	1,721.8	0.00	0.00	0.00
15,600.0	93.31	359.57	12,286.7	1,828.5	911.2	1,821.6	0.00	0.00	0.00
15,700.0	93.31	359.57	12,280.9	1,928.4	910.5	1,921.5	0.00	0.00	0.00
15,800.0	93.31	359.57	12,275.1	2,028.2	909.7	2,021.3	0.00	0.00	0.00
15,900.0	93.31	359.57	12,269.4	2,128.0	909.0	2,121.1	0.00	0.00	0.00
16,000.0	93.31	359.57	12,263.6	2,227.9	908.2	2,221.0	0.00	0.00	0.00
16,100.0	93.31	359.57	12,257.8	2,327.7	907.5	2,320.8	0.00	0.00	0.00
16,200.0	93.31	359.57	12,252.1	2,427.5	906.7	2,420.6	0.00	0.00	0.00
16,300.0	93.31	359.57	12,246.3	2,527.3	906.0	2,520.5	0.00	0.00	0.00
16,400.0	93.31	359.57	12,240.5	2,627.2	905.2	2,620.3	0.00	0.00	0.00
16,500.0	93.31	359.57	12,234.7	2,727.0	904.5	2,720.1	0.00	0.00	0.00
16,600.0	93.31	359.57	12,229.0	2,826.8	903.8	2,820.0	0.00	0.00	0.00
16,700.0	93.31	359.57	12,223.2	2,926.7	903.0	2,919.8	0.00	0.00	0.00
16,800.0	93.31	359.57	12,217.4	3,026.5	902.3	3,019.6	0.00	0.00	0.00
16,900.0	93.31	359.57	12,211.7	3,126.3	901.5	3,119.5	0.00	0.00	0.00
17,000.0	93.31	359.57	12,205.9	3,226.2	900.8	3,219.3	0.00	0.00	0.00
17,100.0	93.31	359.57	12,200.1	3,326.0	900.0	3,319.1	0.00	0.00	0.00
17,200.0	93.31	359.57	12,194.4	3,425.8	899.3	3,419.0	0.00	0.00	0.00
17,300.0	93.31	359.57	12,188.6	3,525.7	898.5	3,518.8	0.00	0.00	0.00
17,400.0	93.31	359.57	12,182.8	3,625.5	897.8	3,618.6	0.00	0.00	0.00
17,500.0	93.31	359.57	12,177.1	3,725.3	897.0	3,718.5	0.00	0.00	0.00
17,600.0	93.31	359.57	12,171.3	3,825.1	896.3	3,818.3	0.00	0.00	0.00
17,639.9	93.31	359.57	12,169.0	3,865.0	896.0	3,858.2	0.00	0.00	0.00
TD at 17639.9									

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
LTP (The Contest Fec - plan misses target center by 4.1usft at 17570.0usft MD (12173.0 TVD, 3795.2 N, 896.5 E) - Point	0.00	0.00	12,169.0	3,795.0	897.0	451,759.00	806,412.00	32° 14' 20.591 N	103° 28' 33.612 W
PBHL (The Contest F - plan hits target center - Rectangle (sides W100.0 H5,160.0 D30.0)	-3.31	359.57	12,169.0	3,865.0	896.0	451,829.00	806,411.00	32° 14' 21.283 N	103° 28' 33.617 W
FTP (The Contest Fec - plan misses target center by 211.0usft at 12574.8usft MD (12288.3 TVD, -1152.2 N, 993.6 E) - Point	0.00	0.00	12,435.0	-1,292.0	935.0	446,672.00	806,450.00	32° 13' 30.252 N	103° 28' 33.643 W

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well The Contest Fed Com #212H
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Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3588.0usft (H&P 388)
Site:	(Contest Fed) Sec-9_T-24-S_R-34-E	**North Reference:**	Grid
Well:	The Contest Fed Com #212H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,209.2	1,209.0	Rustler Anhydrite			
1,743.3	1,735.0	Top Salt			
5,252.8	5,100.0	Base Salt			
5,524.0	5,360.0	Delaware Mountain Gp			
5,533.4	5,369.0	Lamar			
5,552.2	5,387.0	Bell Canyon			
5,568.9	5,403.0	Ramsey Sand			
6,484.7	6,281.0	Cherry Canyon			
7,905.5	7,673.0	Brushy Canyon			
9,297.5	9,065.0	Bone Spring Lime			
9,371.5	9,139.0	Upper Avalon			
9,626.5	9,394.0	Middle Avalon			
9,999.5	9,767.0	Lower Avalon			
10,355.5	10,123.0	1st Bone Spring Sand			
10,599.5	10,367.0	2nd Bone Spring Carb			
10,876.5	10,644.0	2nd Bone Spring Sand			
11,389.5	11,157.0	3rd Bone Spring Carb			
11,957.5	11,725.0	3rd Bone Spring Sand			
12,196.0	11,963.0	3rd BS W Sand			
12,254.5	12,020.0	Wolfcamp A X Sand			
12,430.2	12,179.0	Wolfcamp A Y Sand			
12,524.4	12,253.0	Wolfcamp A Lower			
12,780.2	12,396.0	Wolfcamp B			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,000.0	1,000.0	0.0	0.0	NUDGE - Build 2.00
1,825.9	1,814.5	-94.2	71.4	HOLD - 5080.6 at 1825.9 MD
6,906.6	6,685.5	-1,245.8	943.6	DROP - -2.00
7,732.5	7,500.0	-1,340.0	1,015.0	HOLD - 4363.0 at 7732.5 MD
12,095.5	11,863.0	-1,340.0	1,015.0	KOP - Build 10.00
13,028.6	12,435.0	-737.9	946.4	EOC/TRN - DLS 2.00 TFO 89.86
13,331.7	12,417.5	-436.0	928.1	Start 4308.2 hold at 13331.7 MD
17,639.9	12,169.0	3,865.0	896.0	TD at 17639.9

Drilling Operations Plan
The Contest Fed Com #212H
Tap Rock Operating, LLC
SHL 1400' FSL & 1377' FWL, Sec. 9
BHL 30' FNL & 2306' FWL, Sec. 9
T. 24S., R. 34E Lea County, NM

Elevation above Sea Level: 3562'

DRILLING PROGRAM

1. **Estimated Tops**

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0		Water/Salt
Rustler Anhydrite	1209	1209		Salt
Salado	1735	1743	Salt	Salt
Base Salt	5100	5252		Salt
Lamar	5369	5533	Limestone	None
Bell Canyon	5403	5552	Sandstone	Hydrocarbons
Cherry Canyon	6281	6484	Sandstone	Hydrocarbons
Brushy Canyon	7673	7905	Sandstone	Hydrocarbons
Bone Spring	9065	9297	Limestone	Hydrocarbons
1st Bone Spring	10123	10355	Sandstone	Hydrocarbons
2nd Bone Spring	10367	10599	Sandstone	Hydrocarbons
3rd Bone Spring	11157	11389	Sandstone	Hydrocarbons
KOP	**11863**	**12096**	-	-
Wolfcamp	11963	12196	Shale	Hydrocarbons
TD	**12169**	**17640**	-	-

2. **Notable Zones**

Upper Wolfcamp is the target formation.

3. **Pressure Control**

Pressure Control Equipment (See Schematics):
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.

BOP Test procedure will be as follows:
After surface casing is set and the BOP is nippled 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.

Variance Requests:
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.

4. Casing & Cement

All Casing will be new.

Name	Hole Size	Casing Size	Standard	Tapered	Top MD	Bottom MD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	13 3/8	API	No	0	1260	J-55	54.5	BUTT	1.13	1.15	1.6
1st Intermediate	12 1/4	9 5/8	API	No	0	5600	J-55	40	BUTT	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	API	No	0	5300	P-110	29.7	BUTT	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	NON API	Yes	5300	12090	P-110	29.7	W-513	1.13	1.15	1.6
Production	6 3/4	5 1/2	NON API	No	0	11890	P-110	20	TXP	1.13	1.15	1.6
Production	6 3/4	5	NON API	Yes	11890	17640	P-110	18	W-521	1.13	1.15	1.6

Name	Type	Top MD	Sacks	Yield	Weight	Excess	Cement	Additives
Surface	Lead	0	741	1.8	13.5	100%	C	None
	Tail	960	309	1.35	14.8	100%	C	5% NCl + LCM
1st Intermediate	Lead	0	1090	2.18	12.7	65%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	4600	389	1.33	14.8	65%	C	5% NaCl + LCM
2nd Intermediate	Lead	5300	274	2.87	11.5	35%	TXI	Fluid Loss + Dispersant + Retarder + LCM
	Tail	11090	107	1.27	15	35%	H	Fluid Loss + Dispersant + Retarder + LCM
Production	Tail	11390	512	1.71	14.2	25%	H	Fluid Loss + Dispersant + Retarder + LCM

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5. Mud Program

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. 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. A closed loop system will be used.

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	1260	FW Spud Mud	8.30	28	NC
Intermediate	1260	5600	Brine Water	10.00	30-32	NC
Intermediate 2	5600	12090	FW/Cut Brine	9.00	30-32	NC
Production	12090	17640	Oil Base Mud	11.50	15-20	<10

6. Cores, Tests, & Logs

- 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.
- No DSTs or cores are planned at this time.
- CBL w/ CCL from as far as gravity will let it fall to TOC.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈7,430 psi. Expected bottom hole temperature is ≈170° F.

Tap Rock does not anticipate that there will be enough H2S from the surface to the Wolfcamp formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Tap Rock has an H2S safety package on all wells and an "H2S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. Other Information

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 30 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.

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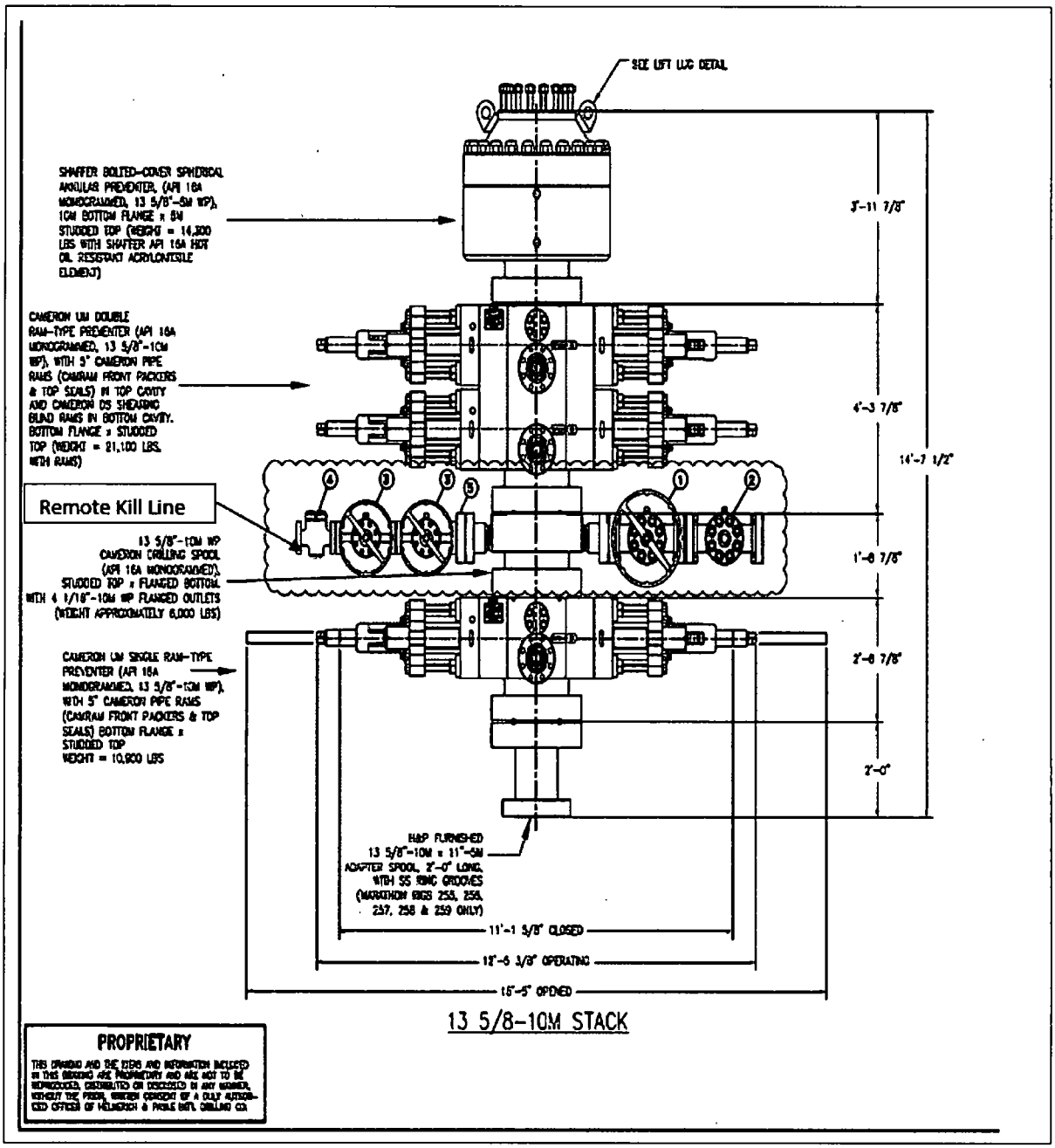
10M BOP Stack with 5M Annular Preventer



13 5/8-10M STACK

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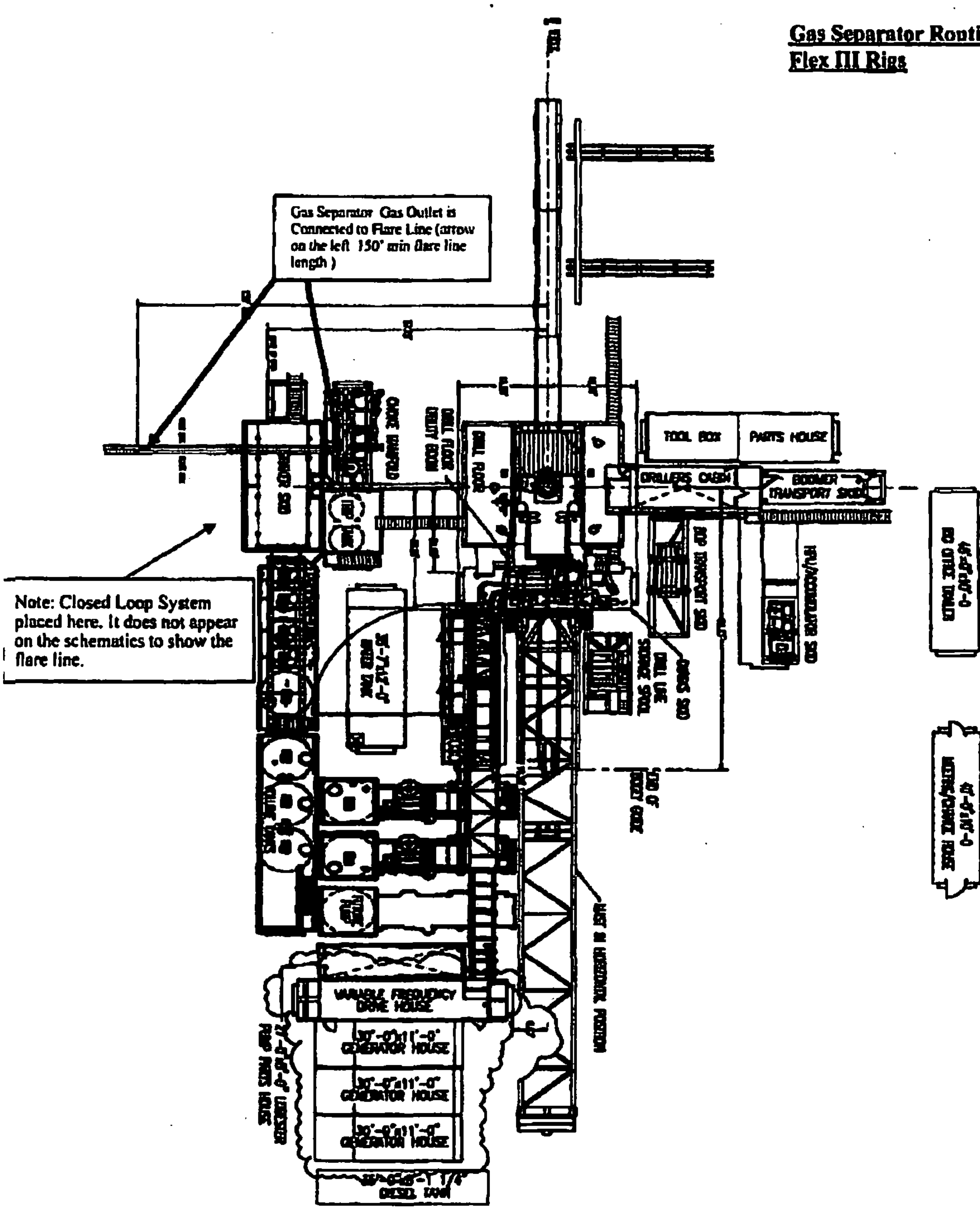
T. 24S., R. 34E Lea County, NM

Gas Separator Routing
Flex III Rigs



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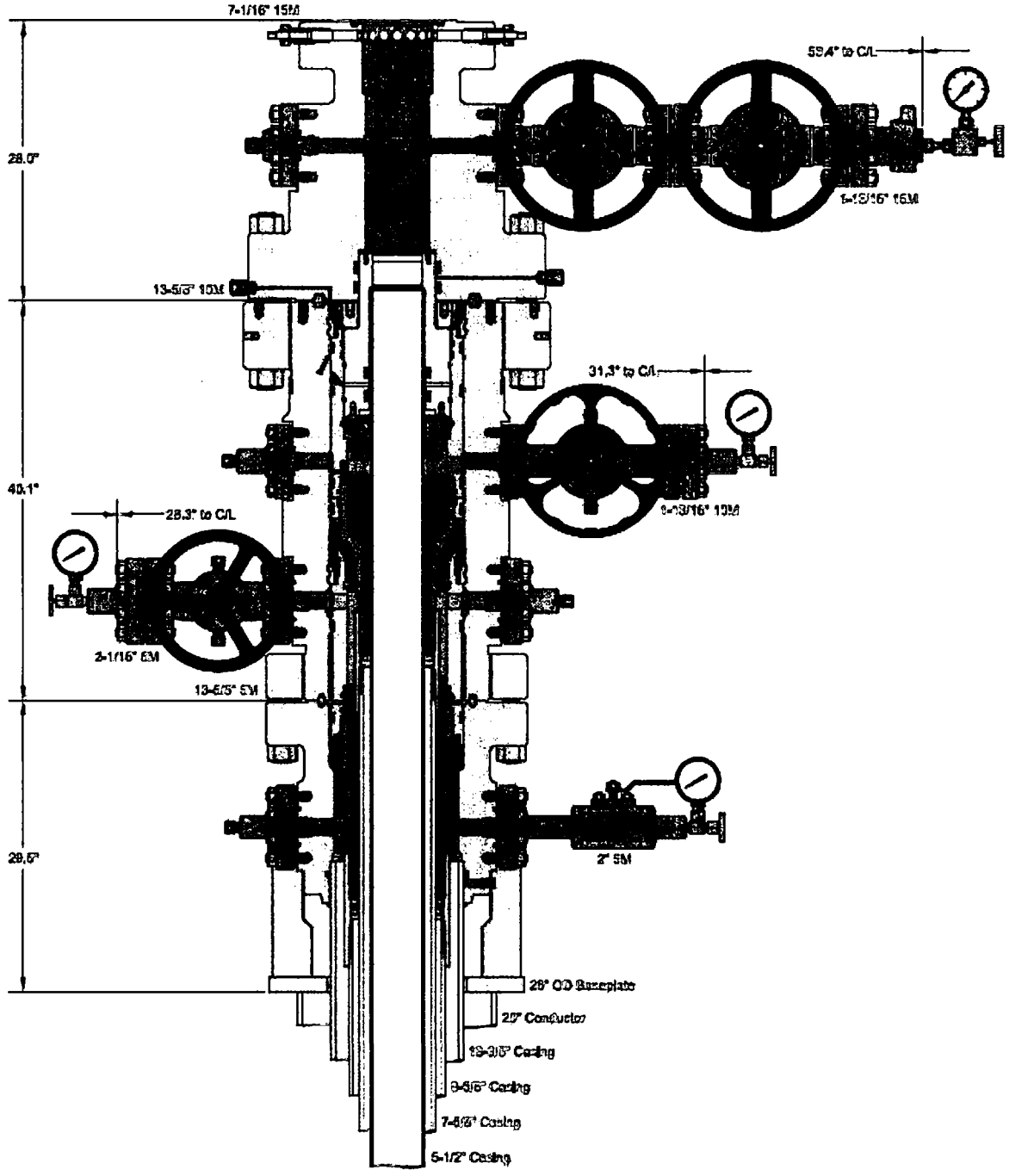
Multi-bowl Wellhead



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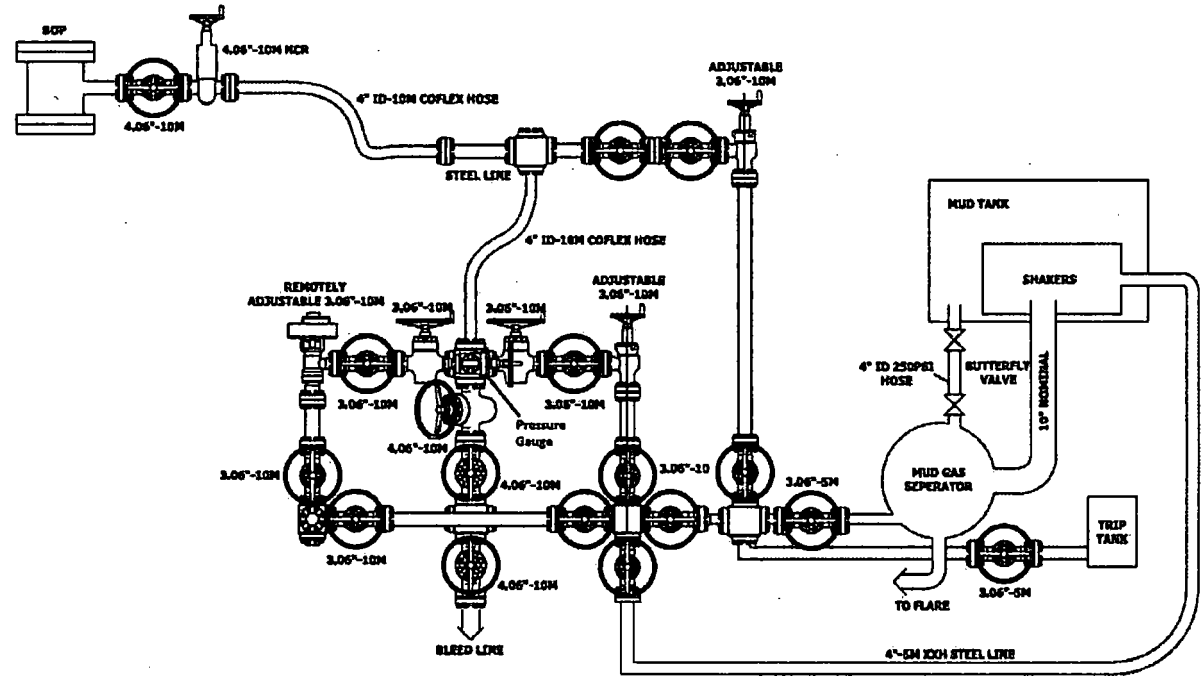
10M Choke Layout



AFMSS

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

PWD Data Report

12/30/2019

APD ID: 10400043809 **Submission Date:** 07/17/2019

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

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

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM **Well Number:** 212H

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:** 212H

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

12/30/2019

APD ID: 10400043809

Submission Date: 07/17/2019

Operator Name: TAP ROCK OPERATING LLC

Well Name: THE CONTEST FED COM

Well Number: 212H

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: 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: