

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			5. Lease Serial No. <b>NMNM62171</b> 6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No.  <b>UPSLOPE FED COM</b>  <b>204H</b>
2. Name of Operator <b>TAP ROCK OPERATING LLC</b>			9. API Well No.
3a. Address <b>602 PARK POINT DRIVE SUITE 200, GOLDEN, CO 8040</b>		3b. Phone No. (include area code) <b>(720) 460-3316</b>	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface <b>NESE / 1591 FSL / 561 FEL / LAT 32.1415952 / LONG -104.3769844</b> At proposed prod. zone <b>SWSW / 326 FSL / 6 FWL / LAT 32.137892 / LONG -104.4097327</b>			10. Field and Pool, or Exploratory <b>PURPLE SAGE/(WOLFCAMP) GAS</b> 11. Sec., T. R. M. or Blk. and Survey or Area <b>SEC 10/T25S/R25E/1PM</b>
14. Distance in miles and direction from nearest town or post office* <b>3 miles</b>		12. County or Parish <b>EDDY</b>	13. State <b>NM</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>561 feet</b>		16. No of acres in lease  17. Spacing Unit dedicated to this well <b>640.0</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>30 feet</b>		19. Proposed Depth <b>7922 feet / 18796 feet</b> 20. BLM/BIA Bond No. in file <b>FED: NMB105800930</b>	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>3497 feet</b>		22. Approximate date work will start* <b>01/15/2025</b>	23. Estimated duration <b>60 days</b>
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.<br>2. A Drilling Plan.<br>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).<br>5. Operator certification.<br>6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature (Electronic Submission)		Name (Printed/Typed) <b>BRIAN WOOD / Ph: (720) 460-3316</b>	Date <b>07/08/2024</b>
Title <b>Permitting Agent</b>			
Approved by (Signature) (Electronic Submission)		Name (Printed/Typed) <b>CHRISTOPHER WALLS / Ph: (575) 234-2234</b>	Date <b>01/07/2025</b>
Title <b>Petroleum Engineer</b>		Office <b>Carlsbad Field Office</b>	

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.

(Continued on page 2)

\*(Instructions on page 2)



C-102  Submit Electronically Via OCD Permitting	State of New Mexico  Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	<input type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name UPSLOPE FED COM	Well Number 204H
OGRID No. 372043	Operator Name TAP ROCK OPERATING, LLC.	Ground Level Elevation 3497'
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
I	10	25-S	25-E	-	1591' S	561' E	N 32.1415952	W 104.3769844	EDDY

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
M	9	25-S	25-E	-	326' S	6' W	N 32.1378920	W 104.4097327	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidated Code
	-	-	-	-
Order Numbers			Well Setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
P	10	25-S	25-E	-	331' S	50' E	N 32.1380160	W 104.3752879	EDDY

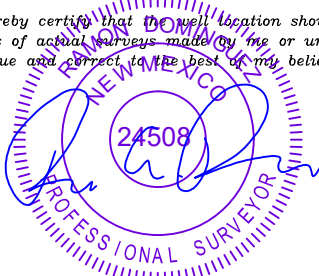
First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
P	10	25-S	25-E	-	331' S	330' E	N 32.1380722	W 104.3761933	EDDY

Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
M	9	25-S	25-E	-	331' S	330' W	N 32.1379257	W 104.4086829	EDDY

Unitized Area or Area of Uniform Intrest -	Spacing Unity Type <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation
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<b>OPERATOR CERTIFICATION</b>  <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief; and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>  <i>If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>		<b>SURVEYORS CERTIFICATION</b>  <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>   2/13/2025 10:09:03 AM	
Signature _____ Date _____		Signature and Seal of Professional Surveyor _____ Date _____	
Print Name _____		Certificate Number _____	Date of Survey 06/21/2024
E-mail Address _____			

C-102

Submit Electronically  
Via OCD PermittingState of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION

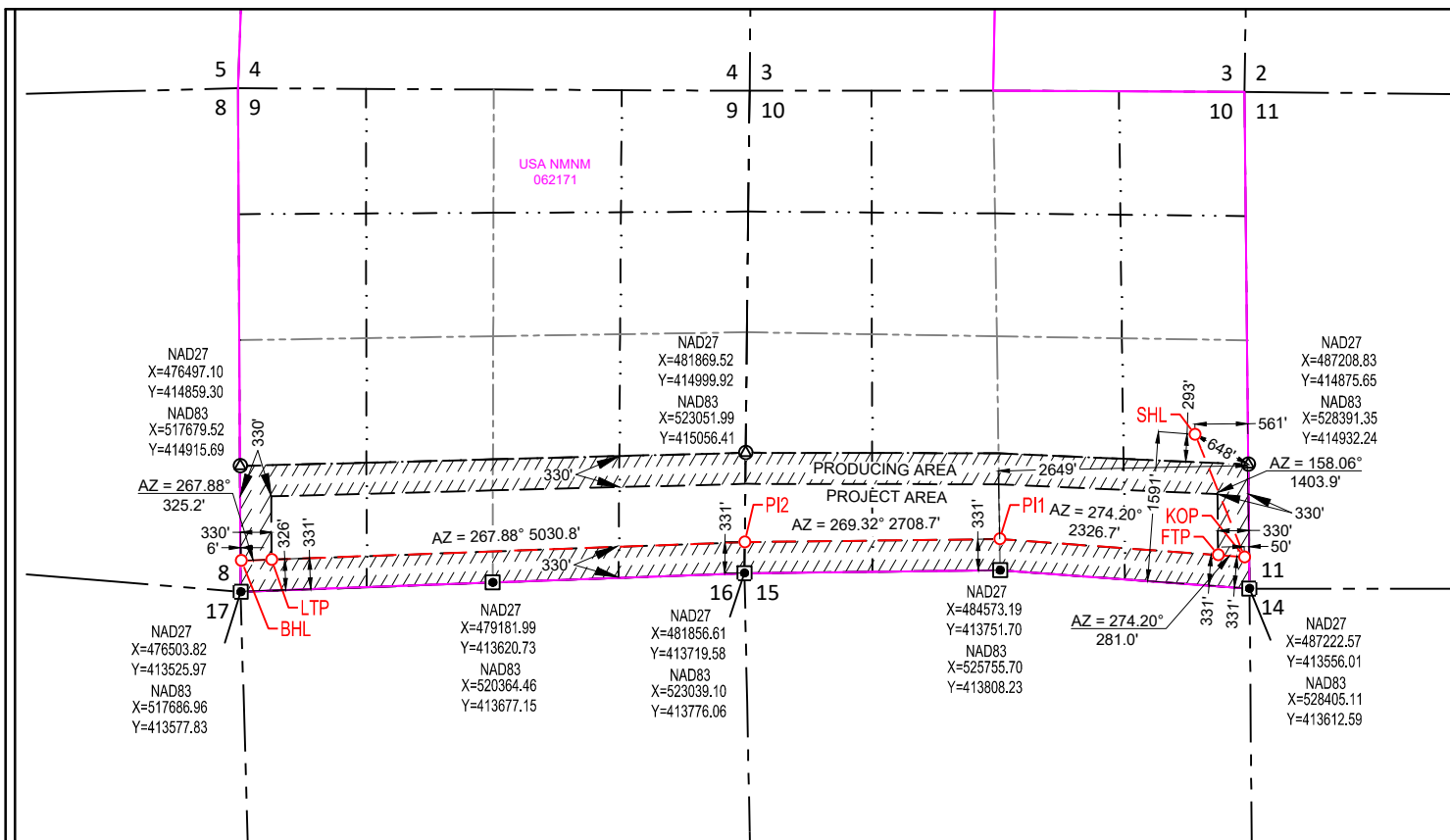
Revised July 9, 2024

Submittal  
Type:

- ☐ Initial Submittal
- ☐ Amended Report
- ☐ As Drilled

Property Name and Well Number

UPSLOPE FED COM 204H

**SURFACE LOCATION (SHL)**

NEW MEXICO EAST  
NAD 1983  
X=527827 Y=415251  
LAT.: N 32.1415952  
LONG.: W 104.3769844  
NAD 1927  
X=486644 Y=415194  
LAT.: N 32.1414782  
LONG.: W 104.3764827  
1591' FSL 561' FEL

**KICK OFF POINT (KOP)**

NEW MEXICO EAST  
NAD 1983  
X=528352 Y=413948  
LAT.: N 32.1380160  
LONG.: W 104.3752879  
NAD 1927  
X=487169 Y=413892  
LAT.: N 32.1378985  
LONG.: W 104.3747863  
331' FSL 50' FEL

**FIRST TAKE POINT (FTP)**

NEW MEXICO EAST  
NAD 1983  
X=528071 Y=413969  
LAT.: N 32.1380722  
LONG.: W 104.3761933  
NAD 1927  
X=486889 Y=413912  
LAT.: N 32.1379547  
LONG.: W 104.3756917  
331' FSL 330' FEL

**POINT OF INTERSECTION (PI1)**

NEW MEXICO EAST  
NAD 1983  
X=525751 Y=414139  
LAT.: N 32.1385374  
LONG.: W 104.3836905  
NAD 1927  
X=484568 Y=414083  
LAT.: N 32.1384201  
LONG.: W 104.3831886  
331' FSL 2649' FEL

**POINT OF INTERSECTION (PI2)**

NEW MEXICO EAST  
NAD 1983  
X=523042 Y=414107  
LAT.: N 32.1384454  
LONG.: W 104.3924409  
NAD 1927  
X=481860 Y=414051  
LAT.: N 32.1383283  
LONG.: W 104.3919388  
331' FSL 0' FEL

**LAST TAKE POINT (LTP)**

NEW MEXICO EAST  
NAD 1983  
X=518015 Y=413921  
LAT.: N 32.1379257  
LONG.: W 104.4086829  
NAD 1927  
X=476833 Y=413865  
LAT.: N 32.1378089  
LONG.: W 104.4081803  
331' FSL 330' FWL

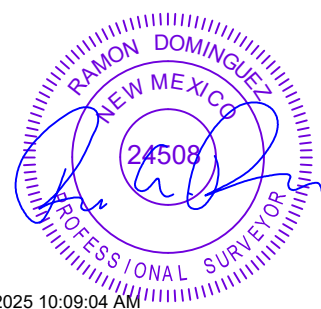
**BOTTOM HOLE LOCATION (BHL)**

NEW MEXICO EAST  
NAD 1983  
X=517690 Y=413909  
LAT.: N 32.1378920  
LONG.: W 104.4097327  
NAD 1927  
X=476508 Y=413853  
LAT.: N 32.1377752  
LONG.: W 104.4092300  
326' FSL 6' FWL

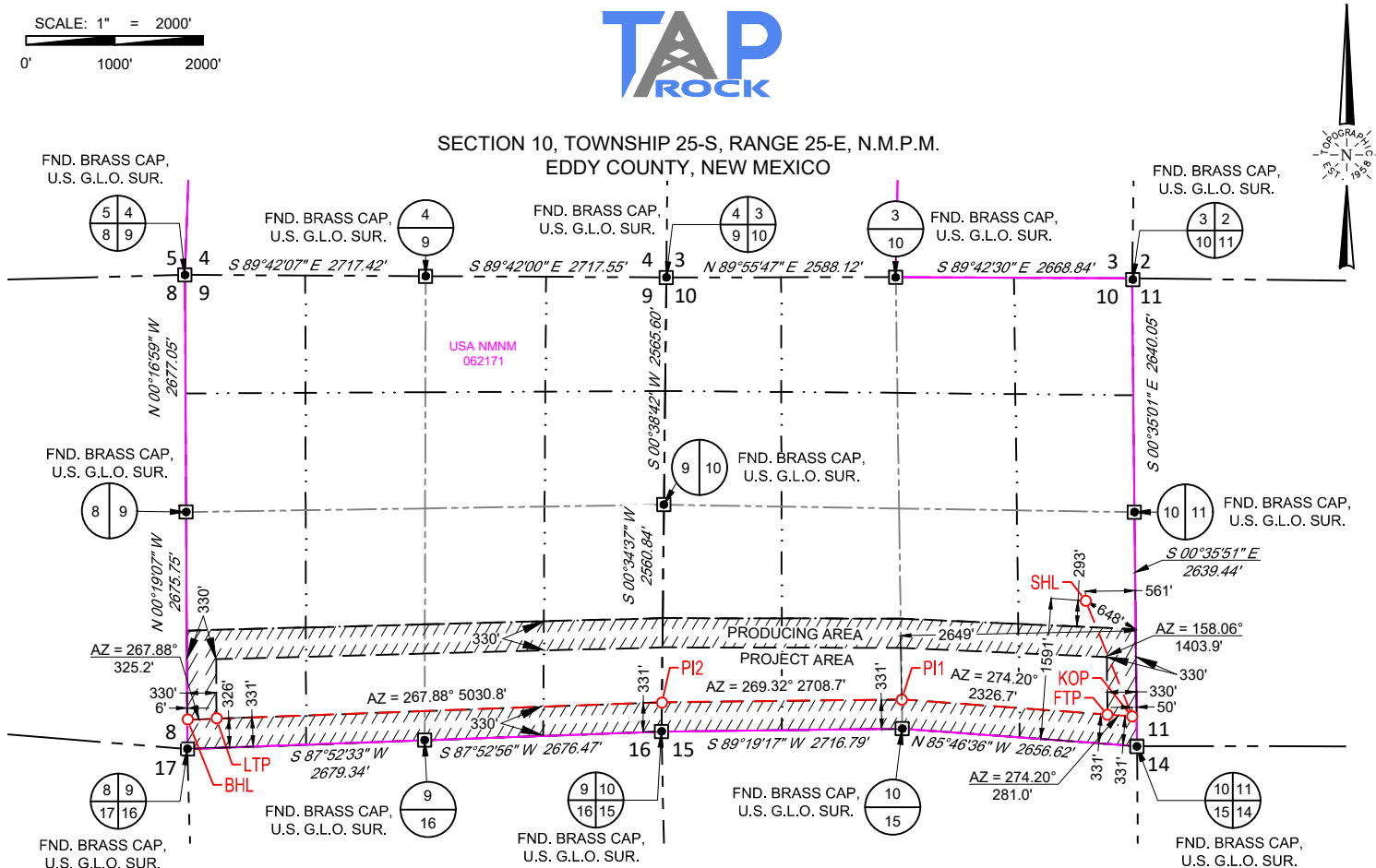
**SURVEYORS CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief, 06/21/2024

Date of Survey



2/13/2025 10:09:04 AM



NEW MEXICO EAST NAD 1983			
SURFACE LOCATION (SHL)	KICK OFF POINT (KOP)	FIRST TAKE POINT (FTP)	POINT OF INTERSECTION (PI1)
NEW MEXICO EAST NAD 1983 X=527827 Y=415251 LAT.: N 32.1415952 LONG.: W 104.3769844 1591' FSL 561' FEL	NEW MEXICO EAST NAD 1983 X=528352 Y=413948 LAT.: N 32.1380160 LONG.: W 104.3752879 331' FSL 50' FEL	NEW MEXICO EAST NAD 1983 X=528071 Y=413969 LAT.: N 32.1380722 LONG.: W 104.3761933 331' FSL 330' FEL	NEW MEXICO EAST NAD 1983 X=525751 Y=414139 LAT.: N 32.1385374 LONG.: W 104.3836905 331' FSL 2649' FEL
POINT OF INTERSECTION (PI2)	LAST TAKE POINT (LTP)	BOTTOM HOLE LOCATION (BHL)	
NEW MEXICO EAST NAD 1983 X=523042 Y=414107 LAT.: N 32.1384454 LONG.: W 104.3924409 331' FSL 0' FEL	NEW MEXICO EAST NAD 1983 X=518015 Y=413921 LAT.: N 32.1379257 LONG.: W 104.4086829 331' FSL 330' FWL	NEW MEXICO EAST NAD 1983 X=517690 Y=413909 LAT.: N 32.1378920 LONG.: W 104.4097327 331' FSL 5' FWL	

LEASE NAME & WELL NO.:		UPSLOPE FED COM 204H	
SECTION <u>10</u>	TWP <u>25-S</u>	RGE <u>25-E</u>	SURVEY <u>N.M.P.M.</u>
COUNTY _____	EDDY _____	STATE _____	NM _____
DESCRIPTION		1591' FSL & 561' FWL	

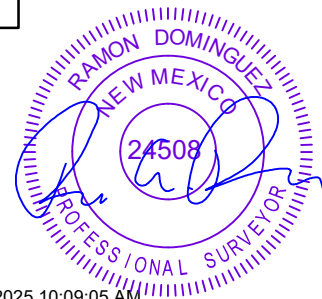
### DISTANCE & DIRECTION

FROM INT. OF US-180/62 & WHITES CITY RD/ C.R. 724  $\pm 1.6$  MILES EAST, THENCE RIGHT ON PROPOSED RD.  $\pm 124$  FEET TO A POINT, THENCE RIGHT ON PROPOSED RD  $\pm 445$  FEET, CROSS WELL PAD  $\pm 460$  FEET, THENCE WEST ON PROPOSED ROAD  $\pm 471$  FEET,  $\pm 280$  FEET SOUTHEAST OF THE LOCATION.

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 EASEMENT/SERVITUDE 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.

AS OF THE DATE OF SURVEY, ALL ABOVE GROUND APPURTENANCES WITHIN 300' OF THE STAKED LOCATION ARE SHOWN HEREON.



2/13/2025 10:09:05 AM

Ramon A. Dominguez , P.S. No. 24508

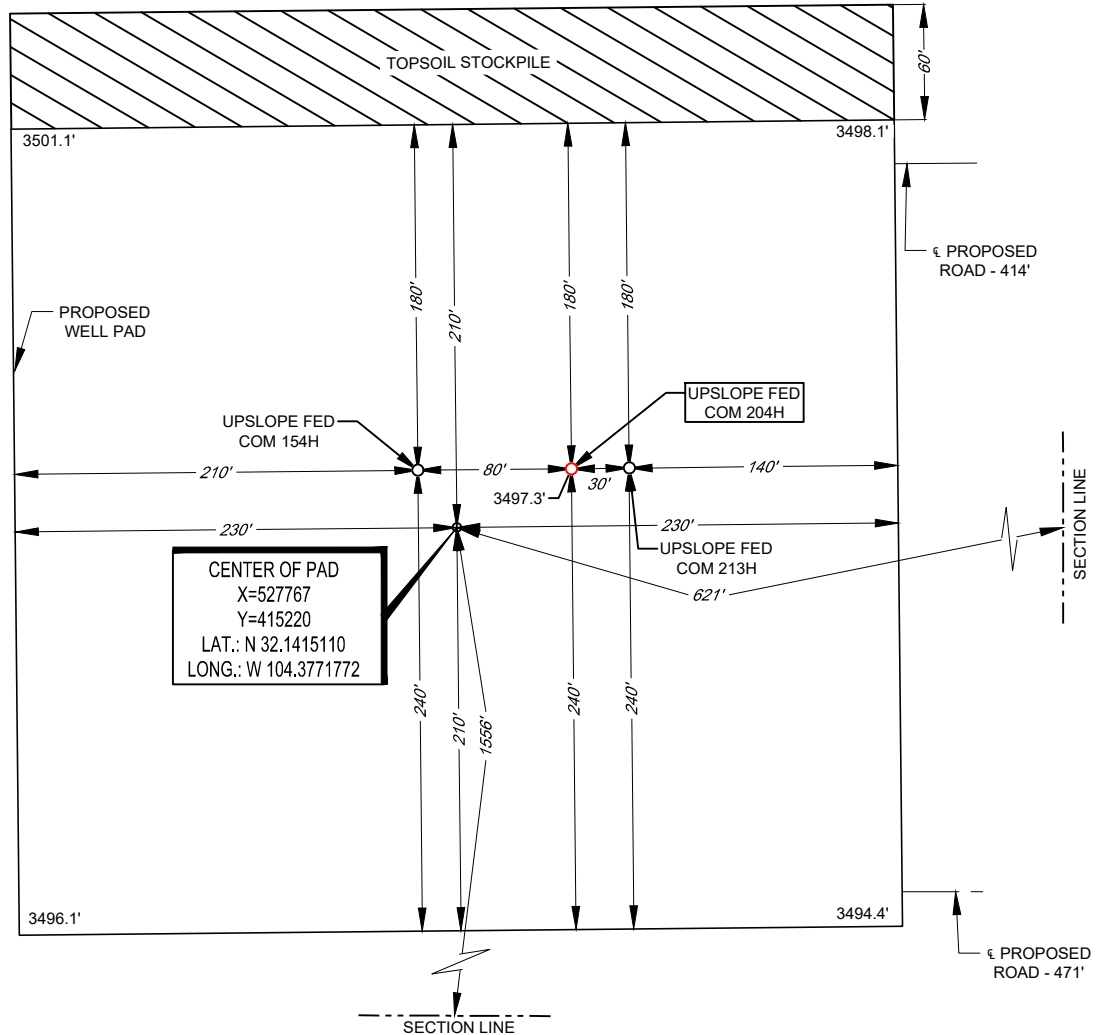




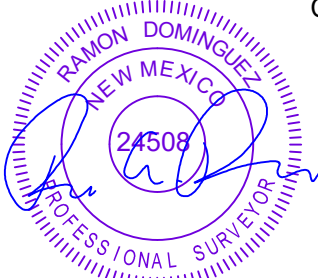
## LEGEND

----- SECTION LINE  
 --- PROPOSED ROAD

SECTION 10, TOWNSHIP 25-S, RANGE 25-E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: UPSLOPE FED COM 204H  
 204H LATITUDE N 32.1415952 204H LONGITUDE W 104.3769844  
 CENTER OF PAD IS 1556' FSL & 621' FEL



2/13/2025 10:09:05 AM

Ramon A. Dominguez, P.S. No. 24508

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. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

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. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO, ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. 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"

Released to Imaging: 2/15/2025 7:32:22 AM



SCALE: 1" = 100'  
 0' 50' 100'



481 WINSOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126  
 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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

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

## NATURAL GAS MANAGEMENT PLAN

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

### **Section 1 – Plan Description** **Effective May 25, 2021**

**I. Operator:** \_\_\_\_\_ Tap Rock Operating LLC \_\_\_\_\_ **OGRID:** \_\_\_\_\_ 372043 \_\_\_\_\_ **Date:** \_10/\_01/\_2024

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

If Other, please describe: \_\_\_\_\_

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Upslope Fed Com 202H		H, 10, 25S 25E	2357 FNL, 521 FEL	1053	3000	5500
Upslope Fed Com 204H		I, 10, 25S 25E	1591 FNL, 561 FEL	1053	3000	5500
Upslope Fed Com 211H		H, 10, 25S 25E	2357 FNL, 551 FEL	1053	3000	5500
Upslope Fed Com 213H		I, 10, 25S 25E	1589 FSL, 531 FEL	1053	3000	5500

**IV. Central Delivery Point Name:** \_\_\_\_\_ Highlife/Upslope Fed Com CDP \_\_\_\_\_ [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Upslope Fed Com 202H		8/1/2025	9/20/2025	11/1/2025	12/1/2025	12/1/2025
Upslope Fed Com 204H		8/1/2025	9/20/2025	11/1/2025	12/1/2025	12/1/2025
Upslope Fed Com 211H		8/1/2025	9/20/2025	11/1/2025	12/1/2025	12/1/2025
Upslope Fed Com 213H		8/1/2025	9/20/2025	11/1/2025	12/1/2025	12/1/2025

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

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

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



**Section 2 – Enhanced Plan**  
**EFFECTIVE APRIL 1, 2022**

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

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

**IX. Anticipated Natural Gas Production:**

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

**X. Natural Gas Gathering System (NGGS):**

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

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

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

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

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

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

### **Section 3 - Certifications**

**Effective May 25, 2021**

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

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

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

***If Operator checks this box, Operator will select one of the following:***

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

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

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

### **Section 4 - Notices**

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

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

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

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



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

Signature: 
Printed Name: Bill Ramsey
Title: Sr. Environmental and Regulatory Specialist
E-mail Address: <a href="mailto:brmasey@taprk.com">brmasey@taprk.com</a>
Date: 10/1/2024
Phone: 720-238-2787
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:



### Tap Rock Operating Natural Gas Management Plan

#### **VI. Separation Equipment:**

Each surface facility design includes the following process equipment: 3-phase separators (1 separator per well), a sales gas scrubber, one or two 3-phase heater treaters, a vapor recovery tower (VRT), a VRU compressor, multiple water and oil tanks, as well as flare knockouts (HP & LP), and flares (HP & LP). All process vessels will be sized to separate oil, water, gas based upon typical/historical & predicted well performance. Each process vessel will be fitted with an appropriately sized PSV as per ASME code requirements to mitigate vessel rupture and loss of containment. Additionally, the process vessels will be fitted with pressure transmitters tied to the facility control system which will allow operations to monitor pressures and when necessary, shut-in the facility to avoid vessel over-pressure and the potential vent of natural gas. Natural gas will preferentially be sold to pipeline, and only during upset/emergency conditions will gas be directed to the HP flare system. Flash gas from both the 3-phase heater treater and the VRT will be recompressed using a VRU compressor and this gas will also preferentially be directed to the gas sales pipeline. Oil tanks & water tanks will be fitted with 16 oz thief hatches as well as PVRVs to protect the tanks from rupture/collapse. Additionally, the tank vapor outlets and tank vapor capture system will be sized to keep tank pressures below 12 oz. The tank vapor capture system will include a tank vapor blower & knockout as well as a low-pressure flare and knockout. Tank vapors will preferentially be directed to the VRU and the sales gas pipeline. Only during process upsets/emergency conditions will tank vapors be directed to the LP flare system.

#### **VII. Operational Practices:**

- During drilling operations- Gas meters will be installed at the shakers and Volume Totalizers will be installed on the pits. In the event that elevated gas levels, or a pit gain are observed, returns will be diverted to a gas buster. Gas coming off the gas buster will be combusted at the flare stack. A 10' or taller flare will be located at least 100' from the SHL.
- During completions operations, including stimulation and frac plug drill out operations, hydrocarbon production to surface is minimized. When gas production does occur, gas will be combusted at a flare stack. A 10' or taller flare will be located at least 100' from the SHL.
- During production operations, all process vessels (separators, heater treaters, VRTs, Tanks) will recompress (where necessary) and route gas outlets into the natural gas gathering pipeline. Gas will preferentially be routed to natural gas gathering pipeline and the flare system will be used only during emergency, malfunction, or if the gas does not meet pipeline specifications. In the event of flaring off-specification gas, operations will pull gas samples twice a week and will also route gas back to pipeline as soon as the gas meets specification. Exceptions to this will include only those qualified emergencies as mentioned in the BLM Waste Prevention Rule.



- To comply with state performance standards, separation and storage equipment will be designed to handle the maximum anticipated throughput and pressure to minimize waste and reduce the likelihood of venting gas to atmosphere. Additionally, each storage atmospheric tank (Oil & Water) will be fitted with a level transmitter to facilitate gauging of the tank without opening of the thief hatch. Any gas collected through the tank vent system is expected to be recompressed and routed to sales. However, in the event of an emergency, the tank vapor capture system will be designed to combust the gas using a flare stack fitted with a continuous or automatic ignitor. The flare stack will be properly anchored and will be located a minimum of 100 feet from the well and storage tanks. Operators will conduct weekly AVO inspections. These AVO inspection records will be stored for the required 5-year period and will be made available upon Division request.

#### **VIII. Best Management Practices:**

- When performing routine or preventive maintenance on a vessel or tank, initially all inlet valves are closed, and the vessel or tank is allowed to depressurize through the normal outlet connections to gas sales and/or liquid tanks. Once the vessel or tank is depressurized to lowest acceptable sales outlet pressure, usually around 20 psig, a temporary low-pressure flowline is connected from the vessel or tank to the Vapor Recovery Unit (VRU) for further pressure reduction. Once depressurized to less than 1-2 psig, the remaining natural gas in the vessel or tank is vented to atmosphere through a controlled pressure relief valve. Once the vessel or tank is depressurized to atmospheric pressure, the vessel or tank can be safely opened, and maintenance performed.



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

# Drilling Plan Data Report

01/08/2025

APD ID: 10400099571

Submission Date: 07/08/2024

Highlighted data  
reflects the most  
recent changes

Operator Name: TAP ROCK OPERATING LLC

Well Name: UPSLOPE FED COM

Well Number: 204H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

[Show Final Text](#)

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14798265	QUATERNARY	3497	0	0	OTHER : None	NONE	N
14798266	RUSTLER ANHYDRITE	3467	30	30	ANHYDRITE	NONE	N
14798267	TOP SALT	3175	322	322	SALT	OTHER : Salt	N
14798250	BASE OF SALT	2276	1221	1223	SALT	NONE	N
14798251	DELAWARE	2080	1417	1421	SANDSTONE	NONE	N
14798252	LAMAR	2071	1426	1430	SANDSTONE	NATURAL GAS, OIL	N
14798253	BELL CANYON	2027	1470	1475	SANDSTONE	NATURAL GAS, OIL	N
14798254	RAMSEY SAND	1970	1527	1533	SANDSTONE	NATURAL GAS, OIL	N
14798255	CHERRY CANYON	1087	2410	2447	LIMESTONE	NATURAL GAS, OIL	N
14798256	BRUSHY CANYON	210	3287	3410	SANDSTONE	NATURAL GAS, OIL	N
14798257	BONE SPRING LIME	-1497	4994	5224	LIMESTONE, OTHER : Carbonate	NATURAL GAS, OIL	N
14798258	AVALON SAND	-1612	5109	5341	OTHER : Upper - Carbonate	NATURAL GAS, OIL	N
14798259	AVALON SAND	-1872	5369	5603	OTHER : Middle - Carbonate	NATURAL GAS, OIL	N
14798260	BONE SPRING 1ST	-2334	5831	6067	SANDSTONE	NATURAL GAS, OIL	N
14798261	BONE SPRING 2ND	-2503	6000	6236	OTHER : Carbonate	NATURAL GAS, OIL	N
14798262	BONE SPRING 2ND	-2892	6389	6625	SANDSTONE	NATURAL GAS, OIL	N
14798263	BONE SPRING 3RD	-4147	7644	7880	SANDSTONE	NATURAL GAS, OIL	N

Operator Name: TAP ROCK OPERATING LLC

Well Name: UPSLOPE FED COM

Well Number: 204H

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14798264	WOLFCAMP	-4513	8010	8315	OTHER, SHALE : A	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 18000

**Equipment:** At 18,796', a 5M pressure control system is required. The 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 43 CFR 3172 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 43 CFR 3172. 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 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. If this well is batch drilled, after cementing a casing string, a 5M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. Tap Rock Operating requests to only test BOP connection breaks after rig walks per the procedures and stipulations set forth in the "BOP Shell Test Procedure" document emailed to the BLM on 8/11/22.

**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 250 psi low, 2500 psi high.

**Choke Diagram Attachment:**

5M\_Choke\_Diagram\_20241029140301.pdf

**BOP Diagram Attachment:**

5M\_BOP\_Diagram\_20241029140314.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	14.75	11.75	NEW	API	N	0	310	0	310	3497	3187	310	J-55	42	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
2	INTERMEDIATE	11	8.625	NEW	API	N	0	1480	0	1476	3509	2021	1480	J-55	32	BUTT	1.13	1.15	DRY	1.6	DRY	1.6

Operator Name: TAP ROCK OPERATING LLC

Well Name: UPSLOPE FED COM

Well Number: 204H

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
3	PRODUCTION	7.875	5.5	NEW	NON API	N	0	18796	0	7922	3509	-4425	18796	P-110	20	OTHER - TXP	1.13	1.15	DRY	1.6	DRY	1.6

Casing Attachments

Casing ID: 1StringSURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing\_Design\_Assumptions\_20240706104444.pdf

Casing ID: 2StringINTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing\_Design\_Assumptions\_20240706104511.pdf



Operator Name: TAP ROCK OPERATING LLC

Well Name: UPSLOPE FED COM

Well Number: 204H

Casing Attachments

Casing ID: 3StringPRODUCTION

Inspection Document:

Spec Document:  
5.5in\_TXP\_Casing\_Spec\_20240706104537.PDF

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):  
Casing\_Design\_Assumptions\_20240706104546.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
SURFACE	Lead		0	0	0	0	0	0	0	None	None
SURFACE	Tail		0	310	324	1.33	14.8	431	100	Class C	5% NCI + LCM
INTERMEDIATE	Lead		0	980	141	2.7	11	380	75	Class C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
INTERMEDIATE	Tail		980	1480	124	1.33	14.8	165	30	Class C	5% NaCl + LCM
PRODUCTION	Lead		1280	7824	405	3.35	10.5	1356	20	Class C	Fluid Loss + Dispersant + Retarder + LCM
PRODUCTION	Tail		7824	18796	2212	1.63	13.2	3605	20	Class H	Fluid Loss + Dispersant + Retarder + LCM

Operator Name: TAP ROCK OPERATING LLC

Well Name: UPSLOPE FED COM

Well Number: 204H

## 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 (i.e., barite, pac) 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 43 CFR 3172 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
0	310	OTHER : Fresh Water Spud Mud	8.4	8.4							
310	1480	OTHER : Salt Saturated Brine Water	10	10							
1480	1879 6	OTHER : Fresh Water/Cut Brine	9	9							

## 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. GR will be collected while drilling through the MWD tools from KOP to TD. A 2-person mud logging program will be used from KOP 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:**

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

**Coring operation description for the well:**

No DSTs or cores are planned at this time.

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** UPSLOPE FED COM

**Well Number:** 204H

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 3707

**Anticipated Surface Pressure:** 1935

**Anticipated Bottom Hole Temperature(F):** 160

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

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards**

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

**Hydrogen sulfide drilling operations**

Upslope\_Slot2\_H2S\_Plan\_20240706105059.pdf

## Section 8 - Other Information

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

Upslope\_204H\_Directional\_Plan\_20240706105110.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

Upslope\_204H\_Anticollision\_Report\_20240706105129.pdf

Wellhead\_Diagram\_3T\_20240706105137.pdf

CoFlex\_Certs\_20240708110148.pdf

Upslope\_204H\_Drill\_Plan\_v2\_20241029140359.pdf

BOP\_Shell\_Test\_Procedure\_20241029140410.pdf

Upslope\_WMP\_Slot\_1\_2\_20241029140426.pdf

**Other Variance attachment:**

# Tap Rock

Eddy County, NM (NAD83 - NM E)

Upslope

Upslope Fed Com 204H

OH

Plan: Plan #1

## Standard Planning Report

24 May, 2024



Project: Eddy County, NM (NAD83 - NM E)

Site: Upslope

Well: Upslope Fed Com 204H

Wellbore: OH

Design: Plan #1

Lat: 32.141595


Long: -104.376984

GL: 3497.00

KB: KB @ 3523.00usft

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Upslope 204H - FTP	26.00	-1281.68	244.34	413968.98	528071.37	Point
Upslope 204H - KOP	26.00	-1302.24	524.58	413948.42	528351.60	Point
Upslope 204H - LTP	26.00	-1329.46	-9811.96	413921.20	518015.06	Point
Upslope 204H - BHL	7922.00	-1341.49	-10136.91	413909.17	517690.12	Point
Upslope 204H - PI2	8020.80	-1143.54	-4784.58	414107.12	523042.44	Point
Upslope 204H - PI1	8070.79	-1111.45	-2076.13	414139.21	525750.90	Point

WELL DETAILS: Upslope Fed Com 204H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	415250.66	527827.03	32.141595	-104.376984



Azimuths to Grid North

True North: 0.02°

Magnetic North: 6.95°

Magnetic Field

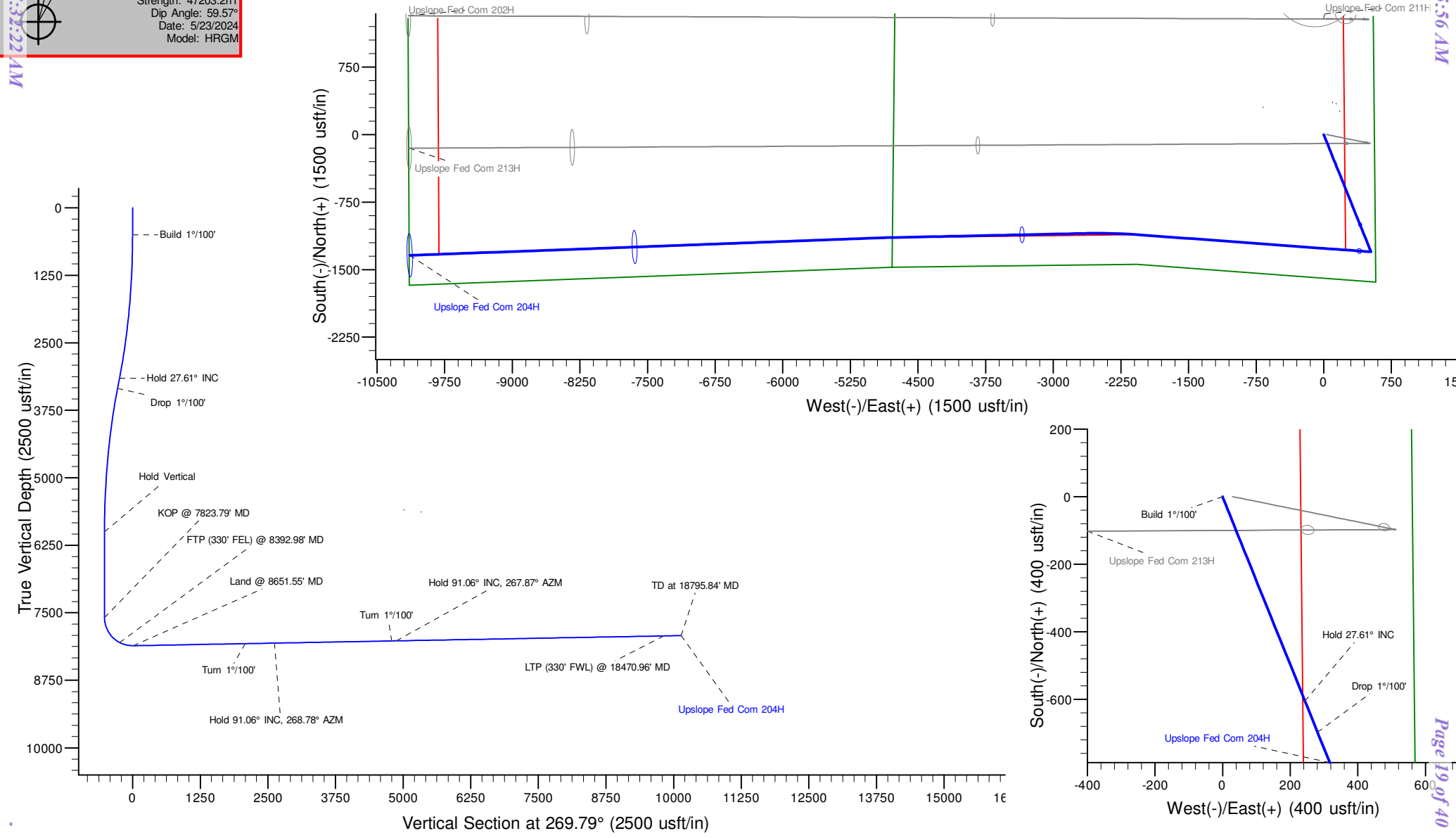
Strength: 47203.2nT

Dip Angle: 59.57°

Date: 5/23/2024

Model: HRGM

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	360.00	500.00	0.00	0.00	0.00	360.00	0.00	Build 1°/100'
3261.20	27.61	158.06	3155.55	-605.29	243.83	1.00	158.06	-241.61	Hold 27.61° INC
3474.37	27.61	158.06	3344.45	-696.94	280.75	0.00	0.00	-278.19	Drop 1°/100'
6235.57	0.00	360.00	6000.00	-1302.24	524.58	1.00	180.00	-519.80	Hold Vertical
7823.79	0.00	360.00	7588.22	-1302.24	524.58	0.00	360.00	-519.80	KOP @ 7823.79' MD
8651.55	91.05	274.20	8109.00	-1263.43	-4.45	11.00	274.20	9.08	Land @ 8651.55' MD
10729.15	91.05	274.20	8070.79	-1111.45	-2076.13	0.00	0.00	2080.19	Turn 1°/100'
11270.59	91.06	268.78	8060.81	-1097.40	-2617.09	1.00	-89.91	2621.09	Hold 91.06° INC, 268.78° AZM
13438.94	91.06	268.78	8020.80	-1143.54	-4784.58	0.00	0.00	4788.74	Turn 1°/100'
13529.53	91.06	267.87	8019.13	-1146.18	-4875.12	1.00	-90.02	4879.29	Hold 91.06° INC, 267.87° AZM
18795.84	91.06	267.87	7922.00	-1341.49	-10136.91	0.00	0.00	10141.76	TD at 18795.84' MD



Planning Report

Database:		Fhartmann		Local Co-ordinate Reference:		Well Upslope Fed Com 204H	
Company:		Tap Rock		TVD Reference:		KB @ 3523.00usft	
Project:		Eddy County, NM (NAD83 - NM E)		MD Reference:		KB @ 3523.00usft	
Site:		Upslope		North Reference:		Grid	
Well:		Upslope Fed Com 204H		Survey Calculation Method:		Minimum Curvature	
Wellbore:		OH					
Design:		Plan #1					

Project							
Eddy County, NM (NAD83 - NM E)							
Map System:		US State Plane 1983		System Datum:		Mean Sea Level	
Geo Datum:		North American Datum 1983					
Map Zone:		New Mexico Eastern Zone					

Site											
Upslope											
Site Position:		Northing:		415,250.97 usft		Latitude:		32.141596			
From:		Lat/Long		Easting:		527,857.02 usft		Longitude:		-104.376888	
Position Uncertainty:		0.00 usft		Slot Radius:		13-3/16 "					

Well													
Upslope Fed Com 204H													
Well Position		+N/-S		0.00 usft		Northing:		415,250.66 usft		Latitude:		32.141595	
		+E/-W		0.00 usft		Easting:		527,827.03 usft		Longitude:		-104.376985	
Position Uncertainty		0.00 usft		Wellhead Elevation:		usft		Ground Level:		3,497.00 usft			
Grid Convergence:		-0.02 °											

Wellbore											
OH											
Magnetics		Model Name		Sample Date		Declination		Dip Angle		Field Strength	
						(°)		(°)		(nT)	
		HRGM		5/23/2024		6.93		59.57		47,203.20834052	

Design									
Plan #1									
Audit Notes:									
Version:		Phase:		PLAN		Tie On Depth:		0.00	
Vertical Section:		Depth From (TVD)		+N/-S		+E/-W		Direction	
		(usft)		(usft)		(usft)		(°)	
		0.00		0.00		0.00		269.79	

Plan Survey Tool Program						Date		5/24/2024	
Depth From		Depth To		Survey (Wellbore)		Tool Name		Remarks	
(usft)		(usft)							
1		0.00		18,795.84		Plan #1 (OH)		MWD+HRGM	
								OWSG MWD + HRGM	



Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Upslope Fed Com 204H
Company:	Tap Rock	TVD Reference:	KB @ 3523.00usft
Project:	Eddy County, NM (NAD83 - NM E)	MD Reference:	KB @ 3523.00usft
Site:	Upslope	North Reference:	Grid
Well:	Upslope Fed Com 204H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	360.00	500.00	0.00	0.00	0.00	0.00	0.00	360.00	
3,261.20	27.61	158.06	3,155.55	-605.29	243.83	1.00	1.00	0.00	158.06	
3,474.37	27.61	158.06	3,344.45	-696.94	280.75	0.00	0.00	0.00	0.00	
6,235.57	0.00	360.00	6,000.00	-1,302.24	524.58	1.00	-1.00	0.00	180.00	
7,823.79	0.00	360.00	7,588.22	-1,302.24	524.58	0.00	0.00	0.00	360.00	
8,651.55	91.05	274.20	8,109.00	-1,263.43	-4.45	11.00	11.00	-10.37	274.20	
10,729.15	91.05	274.20	8,070.79	-1,111.45	-2,076.13	0.00	0.00	0.00	0.00	Upslope 204H - PI1
11,270.59	91.06	268.78	8,060.81	-1,097.40	-2,617.09	1.00	0.00	-1.00	-89.91	
13,438.94	91.06	268.78	8,020.80	-1,143.54	-4,784.58	0.00	0.00	0.00	0.00	Upslope 204H - PI2
13,529.53	91.06	267.87	8,019.13	-1,146.18	-4,875.12	1.00	0.00	-1.00	-90.02	
18,795.84	91.06	267.87	7,922.00	-1,341.49	-10,136.91	0.00	0.00	0.00	0.00	Upslope 204H - BHL

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Upslope Fed Com 204H
Company:	Tap Rock	TVD Reference:	KB @ 3523.00usft
Project:	Eddy County, NM (NAD83 - NM E)	MD Reference:	KB @ 3523.00usft
Site:	Upslope	North Reference:	Grid
Well:	Upslope Fed Com 204H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler Anhydrite									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
322.00	0.00	0.00	322.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 1°/100'									
600.00	1.00	158.06	599.99	-0.81	0.33	-0.32	1.00	1.00	0.00
700.00	2.00	158.06	699.96	-3.24	1.30	-1.29	1.00	1.00	0.00
800.00	3.00	158.06	799.86	-7.28	2.93	-2.91	1.00	1.00	0.00
900.00	4.00	158.06	899.68	-12.95	5.22	-5.17	1.00	1.00	0.00
1,000.00	5.00	158.06	999.37	-20.22	8.15	-8.07	1.00	1.00	0.00
1,100.00	6.00	158.06	1,098.90	-29.11	11.73	-11.62	1.00	1.00	0.00
1,200.00	7.00	158.06	1,198.26	-39.61	15.96	-15.81	1.00	1.00	0.00
1,222.92	7.23	158.06	1,221.00	-42.25	17.02	-16.86	1.00	1.00	0.00
Base Salt									
1,300.00	8.00	158.06	1,297.40	-51.72	20.83	-20.65	1.00	1.00	0.00
1,400.00	9.00	158.06	1,396.30	-65.43	26.36	-26.12	1.00	1.00	0.00
1,420.96	9.21	158.06	1,417.00	-68.51	27.60	-27.35	1.00	1.00	0.00
Delaware Mountain Gp									
1,430.08	9.30	158.06	1,426.00	-69.87	28.14	-27.89	1.00	1.00	0.00
Lamar									
1,474.69	9.75	158.06	1,470.00	-76.72	30.90	-30.62	1.00	1.00	0.00
Bell Canyon									
1,500.00	10.00	158.06	1,494.93	-80.74	32.52	-32.23	1.00	1.00	0.00
1,532.58	10.33	158.06	1,527.00	-86.07	34.67	-34.36	1.00	1.00	0.00
Ramsey Sand									
1,600.00	11.00	158.06	1,593.26	-97.64	39.33	-38.98	1.00	1.00	0.00
1,700.00	12.00	158.06	1,691.25	-116.14	46.78	-46.36	1.00	1.00	0.00
1,800.00	13.00	158.06	1,788.87	-136.21	54.87	-54.37	1.00	1.00	0.00
1,900.00	14.00	158.06	1,886.11	-157.87	63.59	-63.01	1.00	1.00	0.00
2,000.00	15.00	158.06	1,982.92	-181.09	72.95	-72.28	1.00	1.00	0.00
2,100.00	16.00	158.06	2,079.29	-205.88	82.93	-82.18	1.00	1.00	0.00
2,200.00	17.00	158.06	2,175.17	-232.22	93.55	-92.69	1.00	1.00	0.00
2,300.00	18.00	158.06	2,270.54	-260.11	104.78	-103.83	1.00	1.00	0.00
2,400.00	19.00	158.06	2,365.37	-289.55	116.64	-115.58	1.00	1.00	0.00
2,447.27	19.47	158.06	2,410.00	-303.99	122.46	-121.34	1.00	1.00	0.00
Cherry Canyon									
2,500.00	20.00	158.06	2,459.63	-320.51	129.11	-127.93	1.00	1.00	0.00
2,600.00	21.00	158.06	2,553.30	-352.99	142.20	-140.90	1.00	1.00	0.00
2,700.00	22.00	158.06	2,646.34	-386.99	155.89	-154.47	1.00	1.00	0.00
2,800.00	23.00	158.06	2,738.72	-422.48	170.19	-168.64	1.00	1.00	0.00
2,900.00	24.00	158.06	2,830.43	-459.47	185.09	-183.40	1.00	1.00	0.00
3,000.00	25.00	158.06	2,921.42	-497.93	200.58	-198.76	1.00	1.00	0.00
3,100.00	26.00	158.06	3,011.68	-537.87	216.67	-214.70	1.00	1.00	0.00
3,200.00	27.00	158.06	3,101.17	-579.25	233.34	-231.22	1.00	1.00	0.00
3,261.20	27.61	158.06	3,155.55	-605.30	243.83	-241.61	1.00	1.00	0.00
Hold 27.61° INC									
3,300.00	27.61	158.06	3,189.94	-621.98	250.55	-248.27	0.00	0.00	0.00
3,400.00	27.61	158.06	3,278.55	-664.97	267.87	-265.43	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	Fhartmann	<b>Local Co-ordinate Reference:</b>	Well Upslope Fed Com 204H
<b>Company:</b>	Tap Rock	<b>TVD Reference:</b>	KB @ 3523.00usft
<b>Project:</b>	Eddy County, NM (NAD83 - NM E)	<b>MD Reference:</b>	KB @ 3523.00usft
<b>Site:</b>	Upslope	<b>North Reference:</b>	Grid
<b>Well:</b>	Upslope Fed Com 204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,409.54	27.61	158.06	3,287.00	-669.07	269.52	-267.07	0.00	0.00	0.00
<b>Brushy Canyon</b>									
3,474.37	27.61	158.06	3,344.45	-696.94	280.75	-278.19	0.00	0.00	0.00
<b>Drop 1°/100'</b>									
3,500.00	27.36	158.06	3,367.18	-707.91	285.17	-282.57	1.00	-1.00	0.00
3,600.00	26.36	158.06	3,456.40	-749.81	302.05	-299.30	1.00	-1.00	0.00
3,700.00	25.36	158.06	3,546.38	-790.26	318.34	-315.44	1.00	-1.00	0.00
3,800.00	24.36	158.06	3,637.12	-829.25	334.05	-331.01	1.00	-1.00	0.00
3,900.00	23.36	158.06	3,728.58	-866.77	349.16	-345.98	1.00	-1.00	0.00
4,000.00	22.36	158.06	3,820.72	-902.79	363.67	-360.36	1.00	-1.00	0.00
4,100.00	21.36	158.06	3,913.53	-937.32	377.58	-374.14	1.00	-1.00	0.00
4,200.00	20.36	158.06	4,006.98	-970.35	390.88	-387.32	1.00	-1.00	0.00
4,300.00	19.36	158.06	4,101.04	-1,001.85	403.57	-399.90	1.00	-1.00	0.00
4,400.00	18.36	158.06	4,195.67	-1,031.83	415.65	-411.87	1.00	-1.00	0.00
4,500.00	17.36	158.06	4,290.85	-1,060.27	427.11	-423.22	1.00	-1.00	0.00
4,600.00	16.36	158.06	4,386.55	-1,087.17	437.94	-433.95	1.00	-1.00	0.00
4,700.00	15.36	158.06	4,482.75	-1,112.51	448.15	-444.07	1.00	-1.00	0.00
4,800.00	14.36	158.06	4,579.40	-1,136.29	457.73	-453.56	1.00	-1.00	0.00
4,900.00	13.36	158.06	4,676.49	-1,158.50	466.68	-462.43	1.00	-1.00	0.00
5,000.00	12.36	158.06	4,773.98	-1,179.14	474.99	-470.67	1.00	-1.00	0.00
5,100.00	11.36	158.06	4,871.85	-1,198.20	482.67	-478.27	1.00	-1.00	0.00
5,200.00	10.36	158.06	4,970.06	-1,215.67	489.70	-485.25	1.00	-1.00	0.00
5,224.33	10.11	158.06	4,994.00	-1,219.68	491.32	-486.85	1.00	-1.00	0.00
<b>Bone Spring Lime</b>									
5,300.00	9.36	158.06	5,068.58	-1,231.54	496.10	-491.58	1.00	-1.00	0.00
5,340.94	8.95	158.06	5,109.00	-1,237.58	498.53	-493.99	1.00	-1.00	0.00
<b>Bone Spring Lime Base</b>									
5,400.00	8.36	158.06	5,167.39	-1,245.82	501.85	-497.28	1.00	-1.00	0.00
5,500.00	7.36	158.06	5,266.45	-1,258.50	506.96	-502.34	1.00	-1.00	0.00
5,600.00	6.36	158.06	5,365.73	-1,269.57	511.42	-506.76	1.00	-1.00	0.00
5,603.29	6.32	158.06	5,369.00	-1,269.91	511.56	-506.90	1.00	-1.00	0.00
<b>Avalon Middle</b>									
5,700.00	5.36	158.06	5,465.21	-1,279.04	515.23	-510.54	1.00	-1.00	0.00
5,800.00	4.36	158.06	5,564.85	-1,286.89	518.39	-513.67	1.00	-1.00	0.00
5,900.00	3.36	158.06	5,664.62	-1,293.12	520.91	-516.16	1.00	-1.00	0.00
6,000.00	2.36	158.06	5,764.50	-1,297.74	522.77	-518.01	1.00	-1.00	0.00
6,066.55	1.69	158.06	5,831.00	-1,299.92	523.65	-518.88	1.00	-1.00	0.00
<b>1st Bone Spring Sand</b>									
6,100.00	1.36	158.06	5,864.44	-1,300.75	523.98	-519.21	1.00	-1.00	0.00
6,200.00	0.36	158.06	5,964.43	-1,302.13	524.54	-519.76	1.00	-1.00	0.00
6,235.57	0.00	360.00	6,000.00	-1,302.24	524.58	-519.80	1.00	-1.00	0.00
<b>Hold Vertical - 2nd Bone Spring Carb FS</b>									
6,300.00	0.00	0.00	6,064.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
6,400.00	0.00	0.00	6,164.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
6,500.00	0.00	0.00	6,264.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
6,600.00	0.00	0.00	6,364.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
6,624.57	0.00	0.00	6,389.00	-1,302.24	524.58	-519.80	0.00	0.00	0.00
<b>2nd Bone Spring Sand</b>									
6,700.00	0.00	0.00	6,464.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
6,800.00	0.00	0.00	6,564.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
6,900.00	0.00	0.00	6,664.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
6,975.57	0.00	0.00	6,740.00	-1,302.24	524.58	-519.80	0.00	0.00	0.00
<b>3rd Bone Spring Carbonate</b>									

## Planning Report

<b>Database:</b>	Fhartmann	<b>Local Co-ordinate Reference:</b>	Well Upslope Fed Com 204H
<b>Company:</b>	Tap Rock	<b>TVD Reference:</b>	KB @ 3523.00usft
<b>Project:</b>	Eddy County, NM (NAD83 - NM E)	<b>MD Reference:</b>	KB @ 3523.00usft
<b>Site:</b>	Upslope	<b>North Reference:</b>	Grid
<b>Well:</b>	Upslope Fed Com 204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,000.00	0.00	0.00	6,764.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
7,100.00	0.00	0.00	6,864.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
7,200.00	0.00	0.00	6,964.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
7,300.00	0.00	0.00	7,064.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
7,400.00	0.00	0.00	7,164.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
7,500.00	0.00	0.00	7,264.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
7,600.00	0.00	0.00	7,364.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
7,700.00	0.00	0.00	7,464.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
7,800.00	0.00	0.00	7,564.43	-1,302.24	524.58	-519.80	0.00	0.00	0.00
7,823.79	0.00	0.00	7,588.22	-1,302.24	524.58	-519.80	0.00	0.00	0.00
<b>KOP @ 7823.79' MD</b>									
7,850.00	2.88	274.20	7,614.42	-1,302.19	523.92	-519.14	11.00	11.00	0.00
7,879.68	6.15	274.20	7,644.00	-1,302.02	521.59	-516.81	11.00	11.00	0.00
<b>3rd Bone Spring Sand</b>									
7,900.00	8.38	274.20	7,664.16	-1,301.83	519.03	-514.25	11.00	11.00	0.00
7,950.00	13.88	274.20	7,713.20	-1,301.12	509.40	-504.63	11.00	11.00	0.00
8,000.00	19.38	274.20	7,761.09	-1,300.08	495.13	-490.37	11.00	11.00	0.00
8,050.00	24.88	274.20	7,807.39	-1,298.70	476.35	-471.59	11.00	11.00	0.00
8,100.00	30.38	274.20	7,851.67	-1,297.00	453.23	-448.48	11.00	11.00	0.00
8,128.69	33.54	274.20	7,876.00	-1,295.89	438.09	-433.34	11.00	11.00	0.00
<b>3rd BS W Sand</b>									
8,150.00	35.88	274.20	7,893.52	-1,295.00	425.99	-421.24	11.00	11.00	0.00
8,200.00	41.38	274.20	7,932.56	-1,292.72	394.87	-390.13	11.00	11.00	0.00
8,250.00	46.88	274.20	7,968.44	-1,290.17	360.16	-355.43	11.00	11.00	0.00
8,300.00	52.38	274.20	8,000.81	-1,287.39	322.18	-317.46	11.00	11.00	0.00
8,315.36	54.07	274.20	8,010.00	-1,286.49	309.91	-305.19	11.00	11.00	0.00
<b>Wolfcamp A X Sand</b>									
8,350.00	57.88	274.20	8,029.38	-1,284.39	281.28	-276.57	11.00	11.00	0.00
8,392.98	62.61	274.20	8,050.70	-1,281.66	244.08	-239.38	11.00	11.00	0.00
<b>FTP (330' FEL) @ 8392.98' MD</b>									
8,400.00	63.38	274.20	8,053.89	-1,281.20	237.84	-233.14	11.00	11.00	0.00
8,441.54	67.95	274.20	8,071.00	-1,278.43	200.10	-195.42	11.00	11.00	0.00
<b>Wolfcamp A Y Sand</b>									
8,450.00	68.88	274.20	8,074.11	-1,277.86	192.26	-187.57	11.00	11.00	0.00
8,500.00	74.38	274.20	8,089.86	-1,274.39	144.95	-140.28	11.00	11.00	0.00
8,550.00	79.88	274.20	8,100.99	-1,270.82	96.35	-91.69	11.00	11.00	0.00
8,600.00	85.38	274.20	8,107.40	-1,267.20	46.92	-42.27	11.00	11.00	0.00
8,651.55	91.05	274.20	8,109.00	-1,263.43	-4.45	9.08	11.00	11.00	0.00
<b>Land @ 8651.55' MD</b>									
8,700.00	91.05	274.20	8,108.11	-1,259.88	-52.76	57.38	0.00	0.00	0.00
8,800.00	91.05	274.20	8,106.27	-1,252.57	-152.48	157.07	0.00	0.00	0.00
8,900.00	91.05	274.20	8,104.43	-1,245.25	-252.19	256.75	0.00	0.00	0.00
9,000.00	91.05	274.20	8,102.59	-1,237.94	-351.91	356.44	0.00	0.00	0.00
9,100.00	91.05	274.20	8,100.75	-1,230.62	-451.62	456.13	0.00	0.00	0.00
9,200.00	91.05	274.20	8,098.92	-1,223.31	-551.34	555.82	0.00	0.00	0.00
9,300.00	91.05	274.20	8,097.08	-1,215.99	-651.05	655.50	0.00	0.00	0.00
9,400.00	91.05	274.20	8,095.24	-1,208.68	-750.77	755.19	0.00	0.00	0.00
9,500.00	91.05	274.20	8,093.40	-1,201.36	-850.48	854.88	0.00	0.00	0.00
9,600.00	91.05	274.20	8,091.56	-1,194.05	-950.20	954.57	0.00	0.00	0.00
9,700.00	91.05	274.20	8,089.72	-1,186.73	-1,049.91	1,054.25	0.00	0.00	0.00
9,800.00	91.05	274.20	8,087.88	-1,179.42	-1,149.63	1,153.94	0.00	0.00	0.00
9,900.00	91.05	274.20	8,086.04	-1,172.10	-1,249.34	1,253.63	0.00	0.00	0.00
10,000.00	91.05	274.20	8,084.20	-1,164.79	-1,349.06	1,353.32	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	Fhartmann	<b>Local Co-ordinate Reference:</b>	Well Upslope Fed Com 204H
<b>Company:</b>	Tap Rock	<b>TVD Reference:</b>	KB @ 3523.00usft
<b>Project:</b>	Eddy County, NM (NAD83 - NM E)	<b>MD Reference:</b>	KB @ 3523.00usft
<b>Site:</b>	Upslope	<b>North Reference:</b>	Grid
<b>Well:</b>	Upslope Fed Com 204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,100.00	91.05	274.20	8,082.36	-1,157.47	-1,448.77	1,453.00	0.00	0.00	0.00	
10,200.00	91.05	274.20	8,080.52	-1,150.16	-1,548.49	1,552.69	0.00	0.00	0.00	
10,300.00	91.05	274.20	8,078.68	-1,142.84	-1,648.20	1,652.38	0.00	0.00	0.00	
10,400.00	91.05	274.20	8,076.84	-1,135.53	-1,747.92	1,752.07	0.00	0.00	0.00	
10,500.00	91.05	274.20	8,075.00	-1,128.21	-1,847.63	1,851.76	0.00	0.00	0.00	
10,600.00	91.05	274.20	8,073.17	-1,120.90	-1,947.35	1,951.44	0.00	0.00	0.00	
10,700.00	91.05	274.20	8,071.33	-1,113.58	-2,047.06	2,051.13	0.00	0.00	0.00	
10,729.15	91.05	274.20	8,070.79	-1,111.45	-2,076.13	2,080.19	0.00	0.00	0.00	
Turn 1°/100'										
10,800.00	91.05	273.49	8,069.49	-1,106.70	-2,146.81	2,150.85	1.00	0.00	-1.00	
10,900.00	91.06	272.49	8,067.64	-1,101.49	-2,246.65	2,250.68	1.00	0.00	-1.00	
11,000.00	91.06	271.49	8,065.80	-1,098.03	-2,346.58	2,350.58	1.00	0.00	-1.00	
11,100.00	91.06	270.49	8,063.96	-1,096.31	-2,446.54	2,450.54	1.00	0.00	-1.00	
11,200.00	91.06	269.49	8,062.11	-1,096.33	-2,546.52	2,550.53	1.00	0.00	-1.00	
11,270.59	91.06	268.78	8,060.81	-1,097.40	-2,617.09	2,621.10	1.00	0.00	-1.00	
Hold 91.06° INC, 268.78° AZM										
11,300.00	91.06	268.78	8,060.27	-1,098.02	-2,646.49	2,650.50	0.00	0.00	0.00	
11,400.00	91.06	268.78	8,058.42	-1,100.15	-2,746.45	2,750.47	0.00	0.00	0.00	
11,500.00	91.06	268.78	8,056.58	-1,102.28	-2,846.41	2,850.43	0.00	0.00	0.00	
11,600.00	91.06	268.78	8,054.73	-1,104.41	-2,946.37	2,950.40	0.00	0.00	0.00	
11,700.00	91.06	268.78	8,052.89	-1,106.53	-3,046.33	3,050.37	0.00	0.00	0.00	
11,800.00	91.06	268.78	8,051.04	-1,108.66	-3,146.29	3,150.34	0.00	0.00	0.00	
11,900.00	91.06	268.78	8,049.20	-1,110.79	-3,246.25	3,250.30	0.00	0.00	0.00	
12,000.00	91.06	268.78	8,047.35	-1,112.92	-3,346.21	3,350.27	0.00	0.00	0.00	
12,100.00	91.06	268.78	8,045.50	-1,115.05	-3,446.17	3,450.24	0.00	0.00	0.00	
12,200.00	91.06	268.78	8,043.66	-1,117.17	-3,546.14	3,550.21	0.00	0.00	0.00	
12,300.00	91.06	268.78	8,041.81	-1,119.30	-3,646.10	3,650.17	0.00	0.00	0.00	
12,400.00	91.06	268.78	8,039.97	-1,121.43	-3,746.06	3,750.14	0.00	0.00	0.00	
12,500.00	91.06	268.78	8,038.12	-1,123.56	-3,846.02	3,850.11	0.00	0.00	0.00	
12,600.00	91.06	268.78	8,036.28	-1,125.69	-3,945.98	3,950.08	0.00	0.00	0.00	
12,700.00	91.06	268.78	8,034.43	-1,127.81	-4,045.94	4,050.04	0.00	0.00	0.00	
12,800.00	91.06	268.78	8,032.59	-1,129.94	-4,145.90	4,150.01	0.00	0.00	0.00	
12,900.00	91.06	268.78	8,030.74	-1,132.07	-4,245.86	4,249.98	0.00	0.00	0.00	
13,000.00	91.06	268.78	8,028.90	-1,134.20	-4,345.82	4,349.95	0.00	0.00	0.00	
13,100.00	91.06	268.78	8,027.05	-1,136.33	-4,445.78	4,449.91	0.00	0.00	0.00	
13,200.00	91.06	268.78	8,025.21	-1,138.46	-4,545.74	4,549.88	0.00	0.00	0.00	
13,300.00	91.06	268.78	8,023.36	-1,140.58	-4,645.70	4,649.85	0.00	0.00	0.00	
13,400.00	91.06	268.78	8,021.52	-1,142.71	-4,745.66	4,749.82	0.00	0.00	0.00	
13,438.94	91.06	268.78	8,020.80	-1,143.54	-4,784.58	4,788.74	0.00	0.00	0.00	
Turn 1°/100'										
13,500.00	91.06	268.17	8,019.67	-1,145.16	-4,845.61	4,849.78	1.00	0.00	-1.00	
13,529.53	91.06	267.87	8,019.13	-1,146.18	-4,875.12	4,879.29	1.00	0.00	-1.00	
Hold 91.06° INC, 267.87° AZM										
13,600.00	91.06	267.87	8,017.83	-1,148.80	-4,945.53	4,949.71	0.00	0.00	0.00	
13,700.00	91.06	267.87	8,015.98	-1,152.51	-5,045.44	5,049.63	0.00	0.00	0.00	
13,800.00	91.06	267.87	8,014.14	-1,156.21	-5,145.36	5,149.56	0.00	0.00	0.00	
13,900.00	91.06	267.87	8,012.30	-1,159.92	-5,245.27	5,249.49	0.00	0.00	0.00	
14,000.00	91.06	267.87	8,010.45	-1,163.63	-5,345.19	5,349.41	0.00	0.00	0.00	
14,100.00	91.06	267.87	8,008.61	-1,167.34	-5,445.10	5,449.34	0.00	0.00	0.00	
14,200.00	91.06	267.87	8,006.76	-1,171.05	-5,545.01	5,549.27	0.00	0.00	0.00	
14,300.00	91.06	267.87	8,004.92	-1,174.76	-5,644.93	5,649.20	0.00	0.00	0.00	
14,400.00	91.06	267.87	8,003.07	-1,178.47	-5,744.84	5,749.12	0.00	0.00	0.00	
14,500.00	91.06	267.87	8,001.23	-1,182.17	-5,844.76	5,849.05	0.00	0.00	0.00	

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Upslope Fed Com 204H
Company:	Tap Rock	TVD Reference:	KB @ 3523.00usft
Project:	Eddy County, NM (NAD83 - NM E)	MD Reference:	KB @ 3523.00usft
Site:	Upslope	North Reference:	Grid
Well:	Upslope Fed Com 204H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,600.00	91.06	267.87	7,999.39	-1,185.88	-5,944.67	5,948.98	0.00	0.00	0.00	
14,700.00	91.06	267.87	7,997.54	-1,189.59	-6,044.58	6,048.90	0.00	0.00	0.00	
14,800.00	91.06	267.87	7,995.70	-1,193.30	-6,144.50	6,148.83	0.00	0.00	0.00	
14,900.00	91.06	267.87	7,993.85	-1,197.01	-6,244.41	6,248.76	0.00	0.00	0.00	
15,000.00	91.06	267.87	7,992.01	-1,200.72	-6,344.33	6,348.69	0.00	0.00	0.00	
15,100.00	91.06	267.87	7,990.16	-1,204.43	-6,444.24	6,448.61	0.00	0.00	0.00	
15,200.00	91.06	267.87	7,988.32	-1,208.13	-6,544.16	6,548.54	0.00	0.00	0.00	
15,300.00	91.06	267.87	7,986.48	-1,211.84	-6,644.07	6,648.47	0.00	0.00	0.00	
15,400.00	91.06	267.87	7,984.63	-1,215.55	-6,743.98	6,748.39	0.00	0.00	0.00	
15,500.00	91.06	267.87	7,982.79	-1,219.26	-6,843.90	6,848.32	0.00	0.00	0.00	
15,600.00	91.06	267.87	7,980.94	-1,222.97	-6,943.81	6,948.25	0.00	0.00	0.00	
15,700.00	91.06	267.87	7,979.10	-1,226.68	-7,043.73	7,048.18	0.00	0.00	0.00	
15,800.00	91.06	267.87	7,977.25	-1,230.39	-7,143.64	7,148.10	0.00	0.00	0.00	
15,900.00	91.06	267.87	7,975.41	-1,234.09	-7,243.55	7,248.03	0.00	0.00	0.00	
16,000.00	91.06	267.87	7,973.57	-1,237.80	-7,343.47	7,347.96	0.00	0.00	0.00	
16,100.00	91.06	267.87	7,971.72	-1,241.51	-7,443.38	7,447.88	0.00	0.00	0.00	
16,200.00	91.06	267.87	7,969.88	-1,245.22	-7,543.30	7,547.81	0.00	0.00	0.00	
16,300.00	91.06	267.87	7,968.03	-1,248.93	-7,643.21	7,647.74	0.00	0.00	0.00	
16,400.00	91.06	267.87	7,966.19	-1,252.64	-7,743.13	7,747.66	0.00	0.00	0.00	
16,500.00	91.06	267.87	7,964.34	-1,256.34	-7,843.04	7,847.59	0.00	0.00	0.00	
16,600.00	91.06	267.87	7,962.50	-1,260.05	-7,942.95	7,947.52	0.00	0.00	0.00	
16,700.00	91.06	267.87	7,960.65	-1,263.76	-8,042.87	8,047.45	0.00	0.00	0.00	
16,800.00	91.06	267.87	7,958.81	-1,267.47	-8,142.78	8,147.37	0.00	0.00	0.00	
16,900.00	91.06	267.87	7,956.97	-1,271.18	-8,242.70	8,247.30	0.00	0.00	0.00	
17,000.00	91.06	267.87	7,955.12	-1,274.89	-8,342.61	8,347.23	0.00	0.00	0.00	
17,100.00	91.06	267.87	7,953.28	-1,278.60	-8,442.53	8,447.15	0.00	0.00	0.00	
17,200.00	91.06	267.87	7,951.43	-1,282.30	-8,542.44	8,547.08	0.00	0.00	0.00	
17,300.00	91.06	267.87	7,949.59	-1,286.01	-8,642.35	8,647.01	0.00	0.00	0.00	
17,400.00	91.06	267.87	7,947.74	-1,289.72	-8,742.27	8,746.94	0.00	0.00	0.00	
17,500.00	91.06	267.87	7,945.90	-1,293.43	-8,842.18	8,846.86	0.00	0.00	0.00	
17,600.00	91.06	267.87	7,944.06	-1,297.14	-8,942.10	8,946.79	0.00	0.00	0.00	
17,700.00	91.06	267.87	7,942.21	-1,300.85	-9,042.01	9,046.72	0.00	0.00	0.00	
17,800.00	91.06	267.87	7,940.37	-1,304.56	-9,141.92	9,146.64	0.00	0.00	0.00	
17,900.00	91.06	267.87	7,938.52	-1,308.26	-9,241.84	9,246.57	0.00	0.00	0.00	
18,000.00	91.06	267.87	7,936.68	-1,311.97	-9,341.75	9,346.50	0.00	0.00	0.00	
18,100.00	91.06	267.87	7,934.83	-1,315.68	-9,441.67	9,446.43	0.00	0.00	0.00	
18,200.00	91.06	267.87	7,932.99	-1,319.39	-9,541.58	9,546.35	0.00	0.00	0.00	
18,300.00	91.06	267.87	7,931.15	-1,323.10	-9,641.50	9,646.28	0.00	0.00	0.00	
18,400.00	91.06	267.87	7,929.30	-1,326.81	-9,741.41	9,746.21	0.00	0.00	0.00	
18,470.96	91.06	267.87	7,927.99	-1,329.44	-9,812.31	9,817.12	0.00	0.00	0.00	
LTP (330' FWL) @ 18470.96' MD										
18,500.00	91.06	267.87	7,927.46	-1,330.52	-9,841.32	9,846.13	0.00	0.00	0.00	
18,600.00	91.06	267.87	7,925.61	-1,334.22	-9,941.24	9,946.06	0.00	0.00	0.00	
18,700.00	91.06	267.87	7,923.77	-1,337.93	-10,041.15	10,045.99	0.00	0.00	0.00	
18,795.84	91.06	267.87	7,922.00	-1,341.49	-10,136.91	10,141.76	0.00	0.00	0.00	
TD at 18795.84' MD										



Planning Report

<b>Database:</b>	Fhartmann	<b>Local Co-ordinate Reference:</b>	Well Upslope Fed Com 204H
<b>Company:</b>	Tap Rock	<b>TVD Reference:</b>	KB @ 3523.00usft
<b>Project:</b>	Eddy County, NM (NAD83 - NM E)	<b>MD Reference:</b>	KB @ 3523.00usft
<b>Site:</b>	Upslope	<b>North Reference:</b>	Grid
<b>Well:</b>	Upslope Fed Com 204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Upslope 204H - FTP	0.00	360.00	26.00	-1,281.68	244.34	413,968.98	528,071.37	32.138072	-104.376194
- plan misses target center by 1304.77usft at 26.00usft MD (26.00 TVD, 0.00 N, 0.00 E)									
- Point									
Upslope 204H - KOP	0.00	360.00	26.00	-1,302.24	524.58	413,948.42	528,351.61	32.138016	-104.375288
- plan misses target center by 1403.92usft at 26.00usft MD (26.00 TVD, 0.00 N, 0.00 E)									
- Point									
Upslope 204H - LTP	0.00	0.00	26.00	-1,329.46	-9,811.96	413,921.20	518,015.07	32.137926	-104.408683
- plan misses target center by 7900.65usft at 18616.35usft MD (7925.31 TVD, -1334.83 N, -9957.58 E)									
- Point									
Upslope 204H - BHL	0.00	360.00	7,922.00	-1,341.49	-10,136.91	413,909.17	517,690.12	32.137892	-104.409733
- plan hits target center									
- Point									
Upslope 204H - PI2	0.00	360.00	8,020.80	-1,143.54	-4,784.58	414,107.12	523,042.45	32.138445	-104.392441
- plan hits target center									
- Point									
Upslope 204H - PI1	0.00	360.00	8,070.79	-1,111.45	-2,076.13	414,139.21	525,750.90	32.138537	-104.383691
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
0.00	0.00	Rustler Anhydrite				
322.00	322.00	Top Salt				
1,222.92	1,221.00	Base Salt				
1,420.96	1,417.00	Delaware Mountain Gp				
1,430.08	1,426.00	Lamar				
1,474.69	1,470.00	Bell Canyon				
1,532.58	1,527.00	Ramsey Sand				
2,447.27	2,410.00	Cherry Canyon				
3,409.54	3,287.00	Brushy Canyon				
5,224.33	4,994.00	Bone Spring Lime				
5,340.94	5,109.00	Bone Spring Lime Base				
5,603.29	5,369.00	Avalon Middle				
6,066.55	5,831.00	1st Bone Spring Sand				
6,235.57	6,000.00	2nd Bone Spring Carb FS				
6,624.57	6,389.00	2nd Bone Spring Sand				
6,975.57	6,740.00	3rd Bone Spring Carbonate				
7,879.68	7,644.00	3rd Bone Spring Sand				
8,128.69	7,876.00	3rd BS W Sand				
8,315.36	8,010.00	Wolfcamp A X Sand				
8,441.54	8,071.00	Wolfcamp A Y Sand				

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Upslope Fed Com 204H
Company:	Tap Rock	TVD Reference:	KB @ 3523.00usft
Project:	Eddy County, NM (NAD83 - NM E)	MD Reference:	KB @ 3523.00usft
Site:	Upslope	North Reference:	Grid
Well:	Upslope Fed Com 204H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500.00	500.00	0.00	0.00	Build 1°/100'
3,261.20	3,155.55	-605.30	243.83	Hold 27.61° INC
3,474.37	3,344.45	-696.94	280.75	Drop 1°/100'
6,235.57	6,000.00	-1,302.24	524.58	Hold Vertical
7,823.79	7,588.22	-1,302.24	524.58	KOP @ 7823.79' MD
8,392.98	8,050.70	-1,281.66	244.08	FTP (330' FEL) @ 8392.98' MD
8,651.55	8,109.00	-1,263.43	-4.45	Land @ 8651.55' MD
10,729.15	8,070.79	-1,111.45	-2,076.13	Turn 1°/100'
11,270.59	8,060.81	-1,097.40	-2,617.09	Hold 91.06° INC, 268.78° AZM
13,438.94	8,020.80	-1,143.54	-4,784.58	Turn 1°/100'
13,529.53	8,019.13	-1,146.18	-4,875.12	Hold 91.06° INC, 267.87° AZM
18,470.96	7,927.99	-1,329.44	-9,812.31	LTP (330' FWL) @ 18470.96' MD
18,795.84	7,922.00	-1,341.49	-10,136.91	TD at 18795.84' MD

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	Tap Rock Operating LLC
<b>WELL NAME &amp; NO.:</b>	Upslope Fed Com 204H
<b>LOCATION:</b>	Sec 10-25S-25E-NMP
<b>COUNTY:</b>	Eddy County, New Mexico <span style="border: 1px solid black; padding: 2px;">▼</span>

COA

<b>H<sub>2</sub>S</b>	<input checked="" type="radio"/> No <span style="margin-left: 100px;"><input type="radio"/> Yes</span>			
<b>Potash / WIPP</b>	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-Q	<input type="checkbox"/> Open Annulus <input type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input checked="" type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
<b>Waste Prev.</b>	<input type="radio"/> Self-Certification	<input checked="" type="radio"/> Waste Min. Plan	<input type="radio"/> APD Submitted prior to 06/10/2024	
<b>Additional Language</b>	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input type="checkbox"/> Four-String	<input type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 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 **11-3/4** inch surface casing shall be set at approximately **350** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. *Set depth adjusted per BLM geologist.*
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing (*set at 1450' per BLM geologist*) 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, Capitan Reef, or potash.**
- ❖ In Critical Cave/Karst Areas cement must come to surface on the first three casing strings.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
  - Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

### 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. 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 43 CFR 3172 must be followed.

### D. SPECIAL REQUIREMENT (S)

#### Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, 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.

- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- 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.

### **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. (**Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.**)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (**575-706-2779**) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

## 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)

### Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220;

**BLM NM CFO DrillingNotifications@BLM.GOV**; (575) 361-2822

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
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. 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.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> 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. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

### 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 of both lead and tail cement, 2) until cement has been in place at least 8 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-Q 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 **43 CFR 3172**.
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:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. 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.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. 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.
  - i. 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 cement), 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).
  - ii. 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
  - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- iv. 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.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. 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.
- vii. 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.
- viii. 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 **43 CFR 3172**.

### **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.



## 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

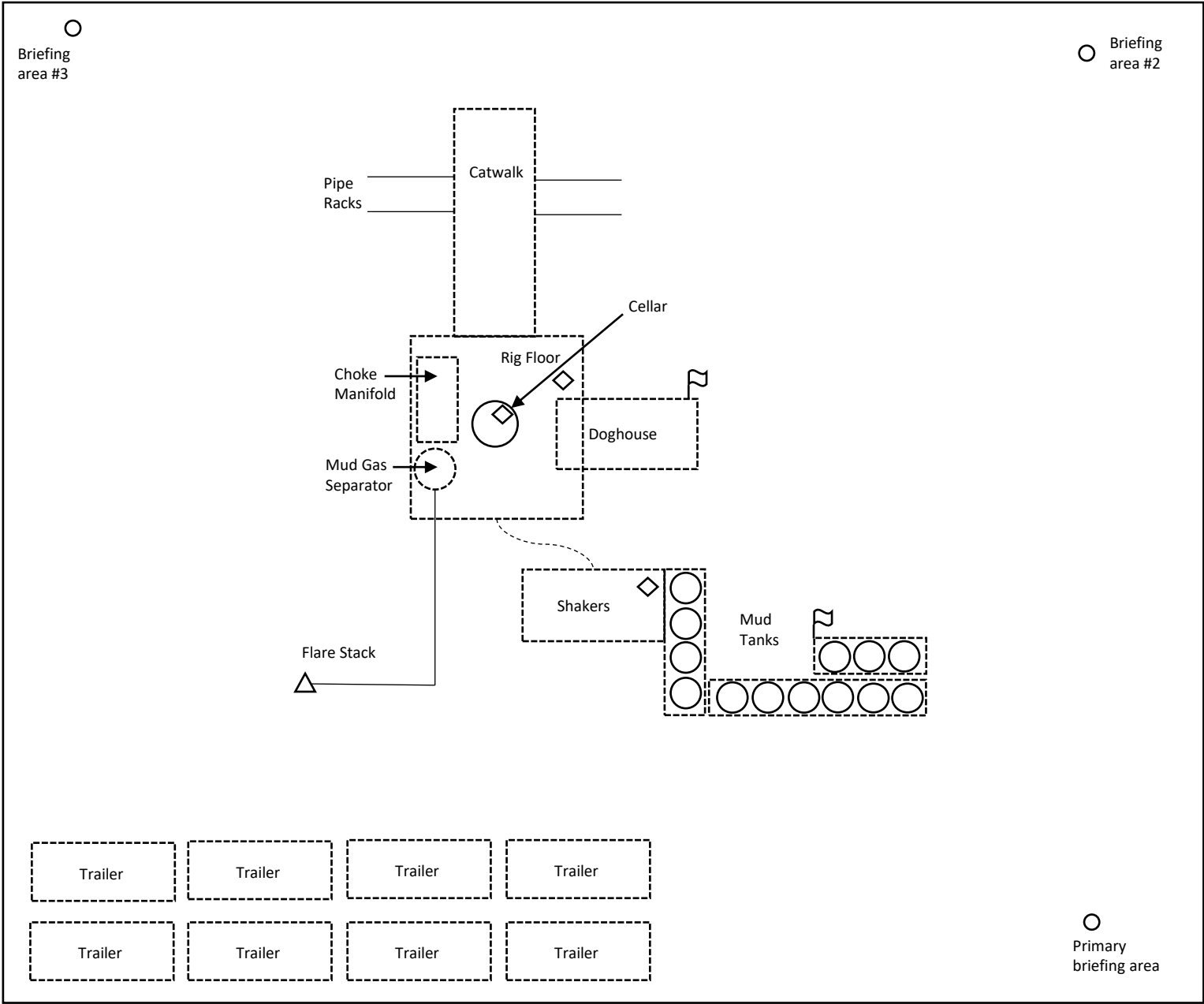
#### 11 Emergency Contacts

<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	720.772.5090	

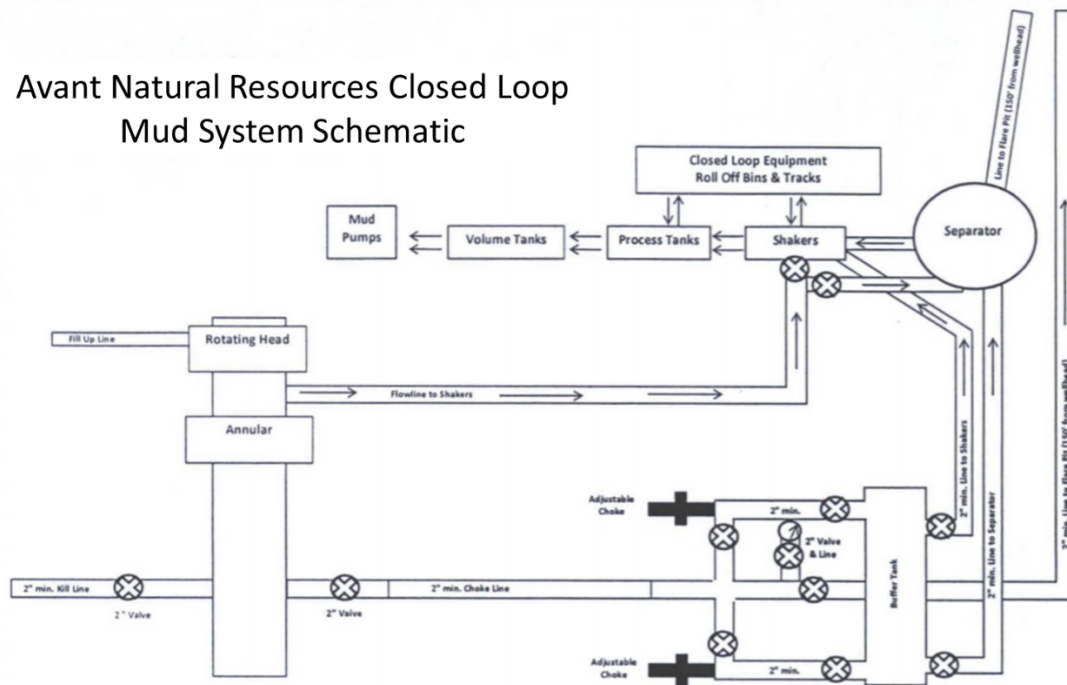
Rig Diagram  
Upslope  
Slot 2 Pad  
Tap Rock Operating, LLC  
10-25S-25E  
Eddy County, NM

- N  
↑
- Briefing Area
  - Current Well
  - △ Flare Stack
  - ◇ H2S Monitor
  - ⤵ Wind Indicator
  - Mud Gas Separator

420'



## Avant Natural Resources Closed Loop Mud System Schematic



Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/oed/contact-us>

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

CONDITIONS

Action 432105

**CONDITIONS**

Operator: TAP ROCK OPERATING, LLC 523 Park Point Drive Golden, CO 80401	OGRID: 372043
	Action Number: 432105
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
bwood	Cement is required to circulate on both surface and intermediate1 strings of casing.	2/14/2025
bwood	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	2/14/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	2/15/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	2/15/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	2/15/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	2/15/2025