

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.****SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM138850
2. Name of Operator TAP ROCK OPERATING LLC		6. If Indian, Allottee or Tribe Name
Contact: CHRISTIAN COMBS E-Mail: ccombs@taprk.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 602 PARK POINT DRIVE SUITE 200 GOLDEN, CO 80401	3b. Phone No. (include area code) Ph: 720-360-4028	8. Well Name and No. NAILED IT FED COM 204H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  Sec 36 T26S R30E 766FSL 588FEL 32.002266 N Lat, 103.828018 W Lon		9. API Well No. 30-015-46859-00-X1
		10. Field and Pool or Exploratory Area PURPLE SAGE-WOLFCAMP (GAS)
		11. County or Parish, State EDDY COUNTY, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Request to change BHL, Depth, & Casing Plan. SHL is unchanged therefore remains within existing approved pad boundaries resulting in no new additional disturbance needed for this request. Target formation is unchanged.

New BHL is 2466 feet FSL and 1100 feet FEL of Sec 25, T26S, R30E

New Depths are 10991 feet TVD and 15375 feet MD

Request to casing plan is to run production casing with 5.5 inch 23 lb P110IC W563 casing from 0 feet to 10,336 feet, and 5 inch 18 lb P110ICY W521 from 10,336 feet to 11,328 feet, and 5 inch 18 lb P110ICY W513 from 11,328 feet to 15,375 feet instead of the 5.5 inch 20lb P-110IC TXP and 5 inch 18lb P110ICY W521 casing as originally permitted.

14. I hereby certify that the foregoing is true and correct.	
<b>Electronic Submission #514588 verified by the BLM Well Information System</b> <b>For TAP ROCK OPERATING LLC, sent to the Carlsbad</b> <b>Committed to AFMSS for processing by PRISCILLA PEREZ on 05/11/2020 (20PP2746SE)</b>	
Name (Printed/Typed) CHRISTIAN COMBS	Title REGULATORY MANAGER
Signature (Electronic Submission)	Date 05/07/2020

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By <u>ALLISON MORENCY</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>05/18/2020</u>
Conditions of approval, if any, are attached. Approval of this notice 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.		Office <u>Carlsbad</u>

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.

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

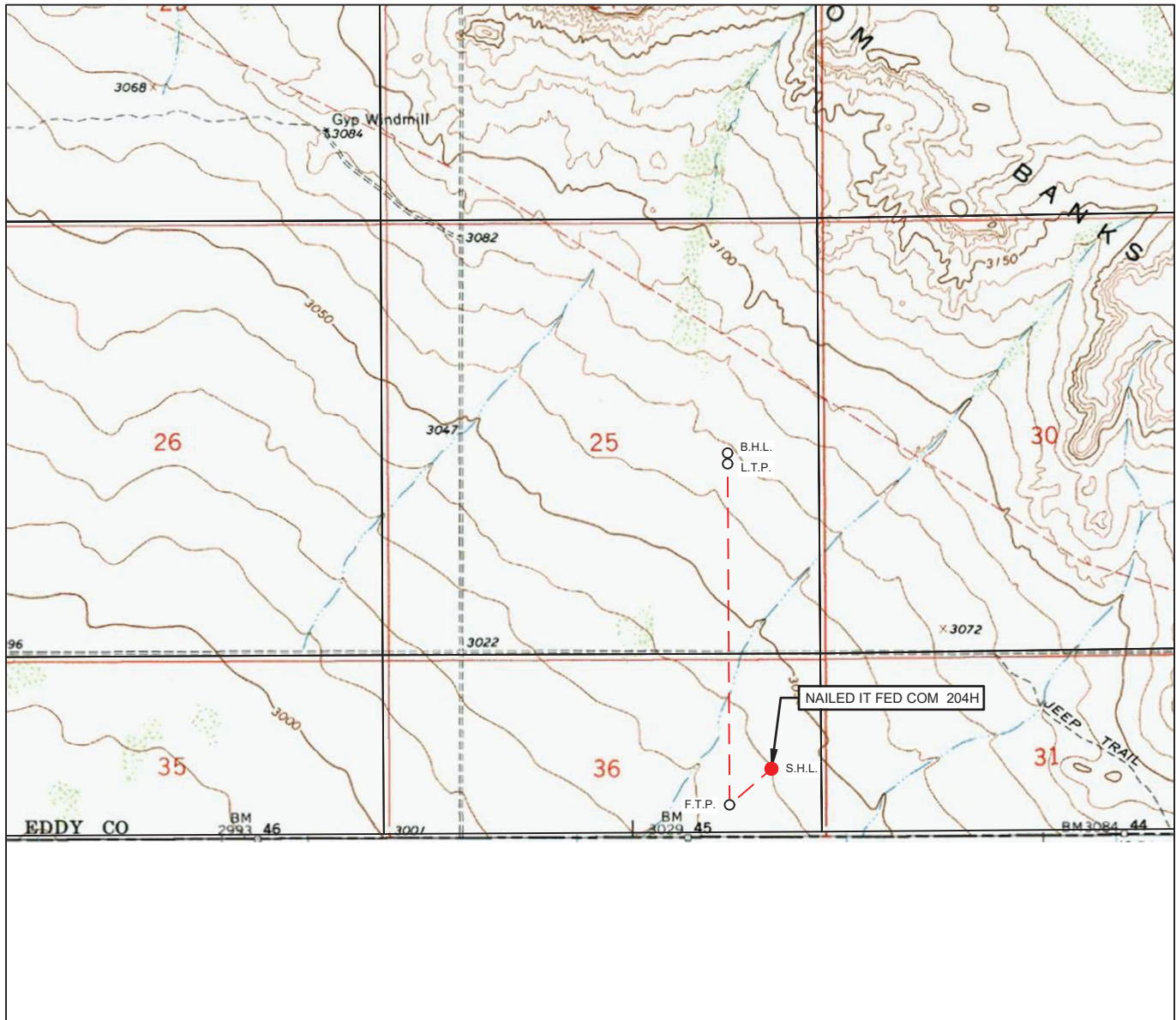
**Additional data for EC transaction #514588 that would not fit on the form**

**32. Additional remarks, continued**

Updated Plats, Drill Plan, Directional Plan, and Casing Spec sheet are attached.



# LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: NAILED IT FED COM 204H

SECTION 36 TWP 26-S RGE 30-E SURVEY N.M.P.M.  
COUNTY EDDY STATE NM ELEVATION 3046'  
DESCRIPTION 766' FSL & 588' FEL

LATITUDE N 32.0022660 LONGITUDE W 103.8280170



SCALE: 1" = 2000'  
0' 1000' 2000'

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.

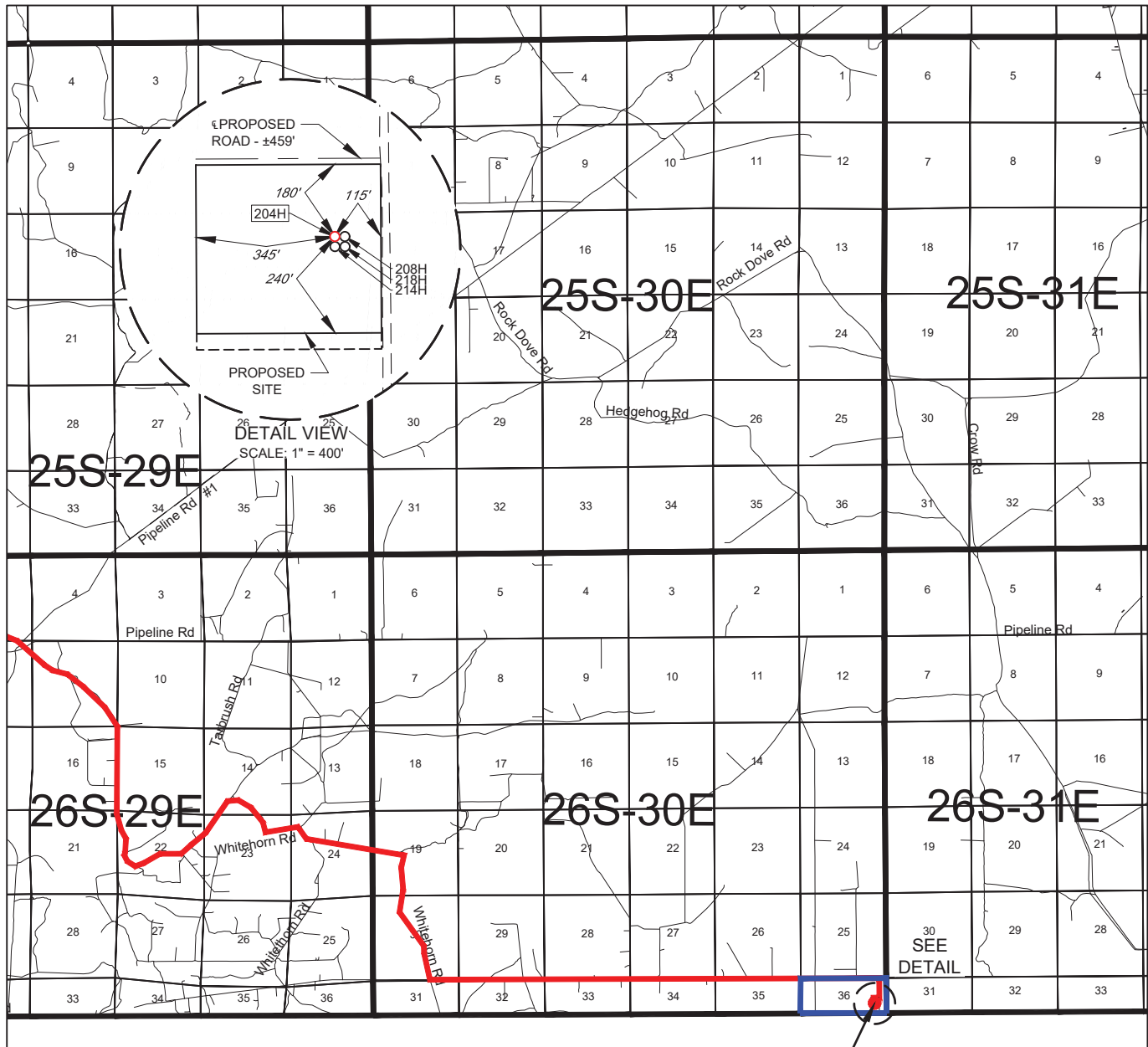
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.



**TOPOGRAPHIC**  
LOYALTY INNOVATION LEGACY

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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  
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# EXHIBIT 2 VICINITY MAP



LEASE NAME & WELL NO.: NAILED IT FED COM 204H

SECTION 36 TWP 26-S RGE 30-E SURVEY N.M.P.M.  
 COUNTY EDDY STATE NM  
 DESCRIPTION 766' FSL & 588' FEL

## DISTANCE & DIRECTION

FROM INT. OF US-285 & COUNTY RD 396, GO SOUTH ON US-285  $\pm 12.6$  MILES,  
 THENCE EAST (LEFT) ON WHITEHORN RD.  $\pm 2.4$  MILES, THENCE NORTH (LEFT) ON  
 LONGHORN RD.  $\pm 1.9$  MILES, THENCE SOUTH (RIGHT) ON WHITEHORN RD.  $\pm 3.3$   
 MILES, THENCE WEST (RIGHT) ON PROPOSED RD.  $\pm 3.0$  MILES, THENCE EAST  
 (LEFT) ON STATE LINE RD.  $\pm 7.0$  MILES, THENCE SOUTH (RIGHT) ON A LEASE RD.  
 $\pm 0.2$  MILES. THENCE WEST (RIGHT) ON PROPOSED RD.  $\pm 1242$  FEET TO A POINT  
 $\pm 226$  FEET NORTHEAST OF THE LOCATION.

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 PLAN AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS  
 TRANSACTION ONLY.

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.

NAILED IT FED COM 204H



SCALE: 1" = 10000'  
 0' 5000' 10000'



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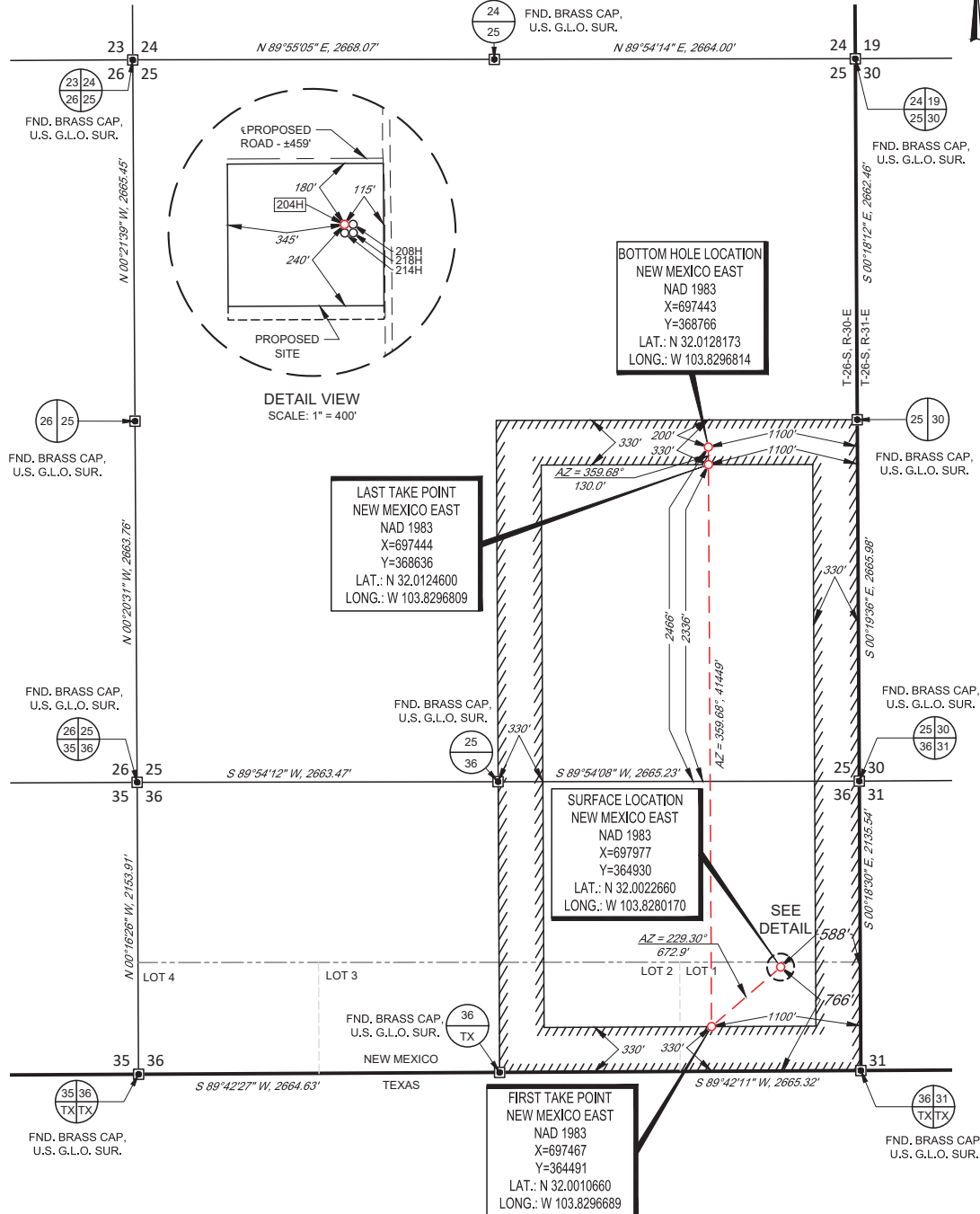


SCALE: 1" = 1000'  
0' 500' 1000'

# TAP ROCK

## EXHIBIT 2A

SECTION 36, TOWNSHIP 26-S, RANGE 30-E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: \_\_\_\_\_ NAILED IT FED COM 204H

SECTION 36 TWP 26-S RGE 30-E SURVEY N.M.P.M.  
COUNTY EDDY STATE NM  
DESCRIPTION 766' FSL & 588' FEL

### DISTANCE & DIRECTION

FROM INT. OF US-285 & COUNTY RD 396, GO SOUTH ON US-285 ±12.6 MILES,  
THENCE EAST (LEFT) ON WHITEHORN RD. ±2.4 MILES, THENCE NORTH (LEFT) ON  
LONGHORN RD. ±1.9 MILES, THENCE SOUTH (RIGHT) ON WHITEHORN RD. ±3.3  
MILES, THENCE WEST (RIGHT) ON PROPOSED RD. ±3.0 MILES, THENCE EAST  
(LEFT) ON STATE LINE RD. ±7.0 MILES, THENCE SOUTH (RIGHT) ON A LEASE RD.  
±0.2 MILES, THENCE WEST (RIGHT) ON PROPOSED RD. ±1242 FEET TO A POINT  
±226 FEET NORTHEAST 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.



Angel M. Baeza, P.S. No. 25116

**TOPOGRAPHIC**  
LOYALTY INNOVATION LEGACY

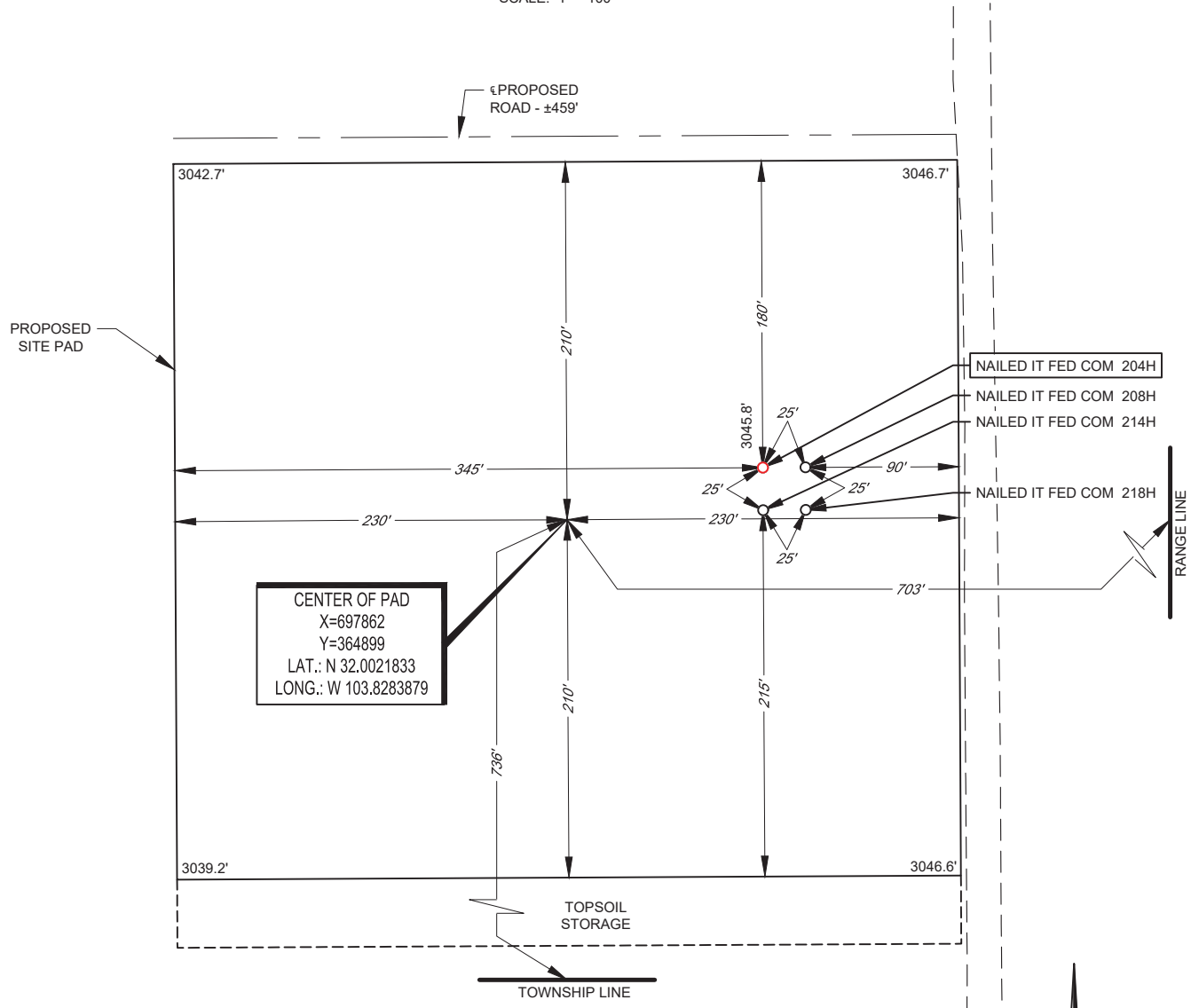
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# EXHIBIT 2B



SECTION 36, TOWNSHIP 26-S, RANGE 30-E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

DETAIL VIEW  
SCALE: 1" = 100'



LEASE NAME & WELL NO.: NAILED IT FED COM 204H  
204H LATITUDE N 32.0022660 204H LONGITUDE W 103.8280170  
CENTER OF PAD IS 736' FSL & 703' FEL



Angel M. Baeza, P.S. No. 25116

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. 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"



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



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Drilling Operations Plan  
Nailed It Fed Com #204H  
Tap Rock Operating, LLC  
SHL 766' FSL & 588' FEL, Sec. 36  
BHL 2466' FSL & 1100' FEL, Sec. 25  
T. 26S., R. 30E Eddy County, NM

Elevation above Sea Level: 3046'

## **DRILLING PROGRAM**

### **1. Estimated Tops**

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler Anhydrite	861	861		Salt
Salado	1413	1413	Salt	Salt
Base Salt	3452	3466		Salt
Lamar	3665	3681	Limestone	None
Bell Canyon	3685	3700	Sandstone	Hydrocarbons
Cherry Canyon	4875	4909	Sandstone	Hydrocarbons
Brushy Canyon	5830	5876	Sandstone	Hydrocarbons
Bone Spring	7575	7646	Limestone	Hydrocarbons
1st Bone Spring	8520	8591	Sandstone	Hydrocarbons
2nd Bone Spring	8870	8941	Sandstone	Hydrocarbons
3rd Bone Spring	9755	9825	Sandstone	Hydrocarbons
KOP	10565	10636	Sandstone	Hydrocarbons
Wolfcamp	10813	10902	Shale	Hydrocarbons
TD	10991	15375	Shale	Hydrocarbons

### **2. Notable Zones**

Wolfcamp is the target formation.

### **3. Pressure Control**

Pressure Control Equipment (See Schematics):

A 15,000', 5,000 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:





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After surface casing is set and the BOP is nipped up, the BOP pressure tests will be made with a third party tester to 250 psi low, 5000 psi high, and the annular preventer will be tested to 2,500 psi. The BOP will be tested in this manner after nipple-up if any break of the stack occurs.

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, 1<sup>st</sup> intermediate, and 2<sup>nd</sup> intermediate hole sections and cementing 2<sup>nd</sup> 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 approval to possibly utilize a spudder rig to drill and set casing for the surface interval on this well. The spudder rig will be possibly utilized in order to reduce cost and save time. The wellhead will be installed and tested as soon as the surface casing is cut off per the existing COAs. A blind flange with the same pressure rating as the wellhead will be installed on the well. Once the spudder rig is removed, Tap Rock will secure the wellhead area by placing a guard rail around the cellar. Pressure will be monitored and a means for intervention will be maintained while the drilling rig is not over the well. Spudder rig operations are expected to take 2-3 days per well. Three wells on the pad will have surface casing set by the spudder rig as a part of this operation. The BLM will be notified 24 hours prior to commencing spudder rig operations. Within 90 days of the departure of the spudder rig, drilling operations will recommence on these wells. This rig will have a BOP stack equal or greater to the pressure rating required in the COAs. The BLM will be notified 24 hours before the larger rig moves on the pre-set wells. Tap Rock will have supervision on the spudder rig to ensure compliance with all BLM and NMOCD regulations.



Drilling Operations Plan  
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SHL 766' FSL & 588' FEL, Sec. 36  
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T. 26S., R. 30E Eddy County, NM

#### 4. Casing & Cement

All Casing will be new.

Name	Hole Size	Casing Size	Standard	Tapered	Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	13 3/8	API	No	0	936	0	936	J-55	54.5	STC	1.13	1.15	1.6
1st Intermediate	12 1/4	9 5/8	API	No	0	3701	0	3685	J-55	40	BTC	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	API	No	0	3401	0	3385	P-110	29.7	BTC	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	NON API	Yes	3401	10536	3385	10465	P-110	29.7	W-513	1.13	1.15	1.6
Production	6 3/4	5 1/2	NON API	No	0	10336	0	10265	P-110	23	W-563	1.13	1.15	1.6
Production	6 3/4	5	NON API	Yes	10336	11328	10265	10991	P-110	18	W-521	1.13	1.15	1.6
Production	6 3/4	5	NON API	Yes	11328	15375	10991	10991	P-110	18	W-513	1.13	1.15	1.6

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Tail	0	963	1.35	1300	14.8	100%	C	5% NCI + LCM
1st Intermediate	Lead	0	879	1.74	1530	13.5	65%	C	Bentonite + 1% CaCl <sub>2</sub> + 8% NaCl + LCM
	Tail	2961	277	1.38	382	14.8	65%	C	5% NaCl + LCM
2nd Intermediate	Lead	3401	373	2.23	832	11.5	35%	TXI	Fluid Loss + Dispersant + Retarder + LCM
	Tail	9536	100	1.35	136	13.2	35%	H	Fluid Loss + Dispersant + Retarder + LCM
Production	Tail	9836	176	1.19	209	15.8	25%	H	Fluid Loss + Dispersant + Retarder + LCM

#### 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	936	FW Spud Mud	8.30	28	NC
Intermediate	936	3701	Brine Water	10.00	30-32	NC
Intermediate 2	3701	10536	FW/Cut Brine	9.00	30-32	NC
Production	10536	15375	Oil Base Mud	11.50	50-60	<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.



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T. 26S., R. 30E Eddy County, NM

#### **7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is  $\approx 6,573$  psi. Expected bottom hole temperature is  $\approx 160^{\circ}$  F.

Tap Rock does not anticipate that there will be enough H<sub>2</sub>S from the surface to the Wolfcamp formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H<sub>2</sub>S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Tap Rock has an H<sub>2</sub>S safety package on all wells and an "H<sub>2</sub>S 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.

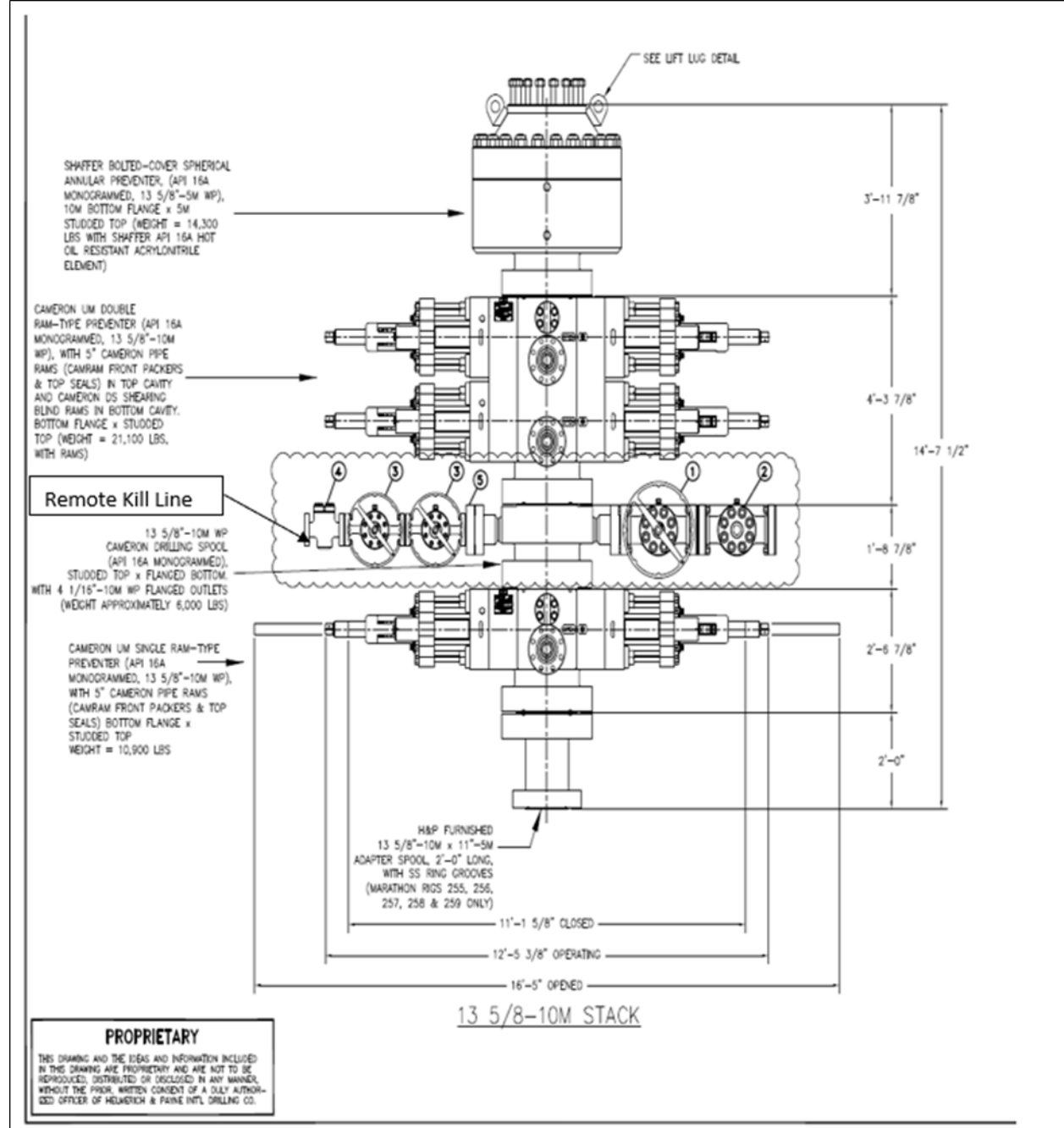
#### **8. Other Information**

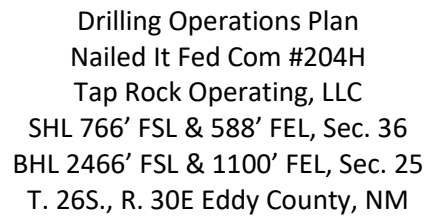
Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 30 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.



Drilling Operations Plan  
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5,000 psi BOP Stack





**Gas Separator Route  
Flex III Rigs**

Gas Separator Gas Outlet is Connected to Flare Line (arrow on the left 150' min flare line length)

Note: Closed Loop System placed here. It does not appear on the schematics to show the flare line.

TOOL BOX PARTS HOUSE DRILLERS CABIN BOOMER TRANSPORT SKID HPU/Accumulator skid

DRILL FLOOR DRILL RIG DRILL LINE STORAGE SPOOL DRUMS SKID END OF ROCKET CLARE LAST IN HORIZONTAL POSITION

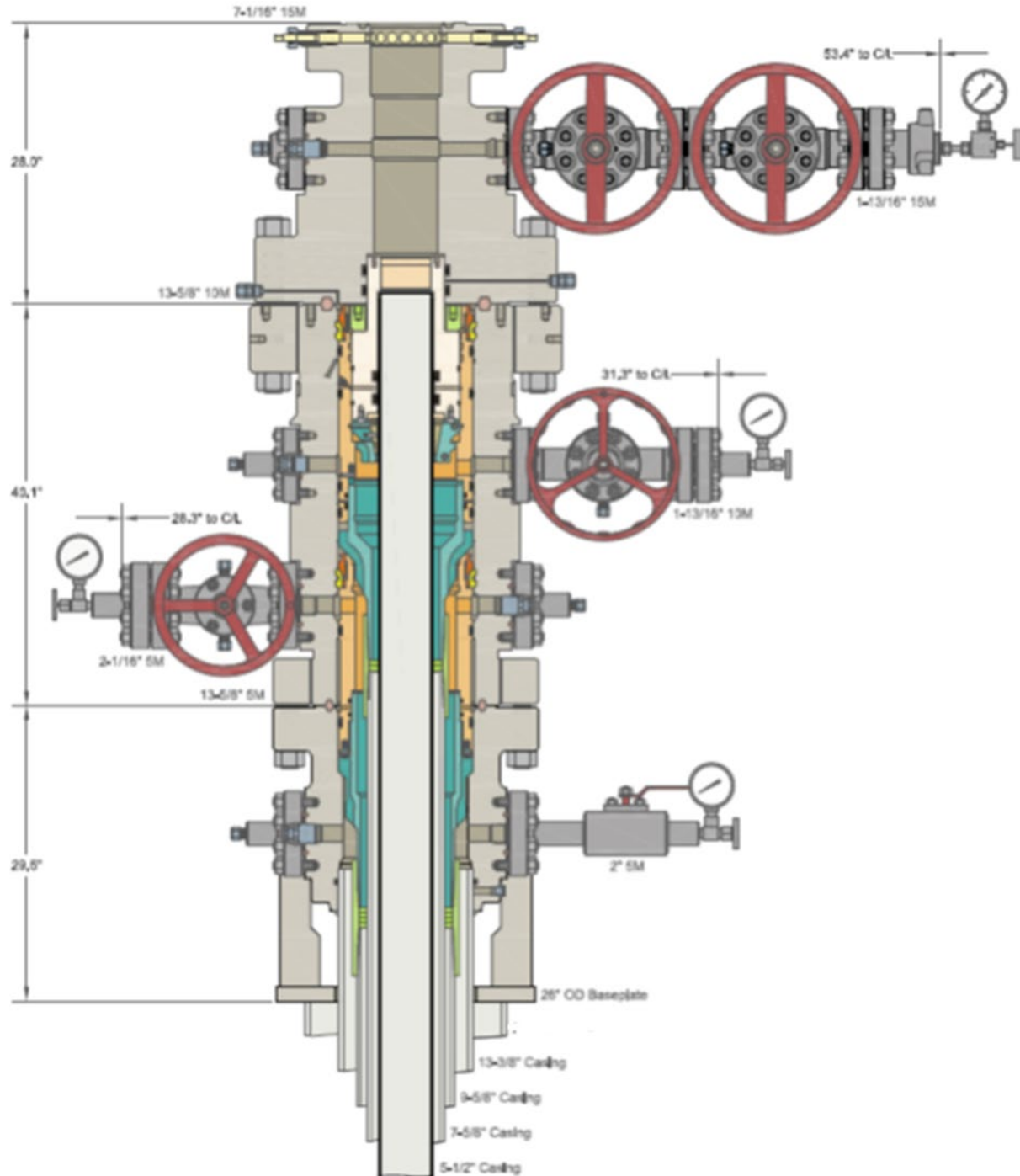
VARIABLE FREQUENCY DRIVE HOUSE 30'-0"x11'-0" GENERATOR HOUSE 30'-0"x11'-0" GENERATOR HOUSE 30'-0"x11'-0" GENERATOR HOUSE DIESEL TANK PUMP PAINT HOUSE 27'-0"x6'-0" LUBRICATOR

48'-0"x10'-0" OFFICE TRAILER 48'-0"x10'-0" MEETING/DANCE HOUSE

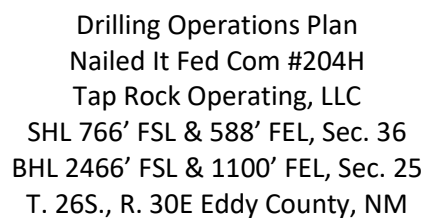


Drilling Operations Plan  
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### Multi-bowl Wellhead









# **Tap Rock Resources, LLC**

**Eddy County, NM (NAD 83 NME)  
(Nailed It) Sec-36\_T-26-S\_R-30-E  
Nailed It Fed Com #204H**

**OWB**

**Plan: Plan #2**

## **Standard Planning Report**

**06 May, 2020**



<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Nailed It Fed Com #204H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3072.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3072.0usft
<b>Site:</b>	(Nailed It) Sec-36_T-26-S_R-30-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Nailed It Fed Com #204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan #2		

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

<b>Site</b>	(Nailed It) Sec-36_T-26-S_R-30-E		
<b>Site Position:</b>		<b>Northing:</b>	364,471.00 usft
<b>From:</b>	Map	<b>Easting:</b>	693,516.00 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 0' 3.820 N
		<b>Longitude:</b>	103° 50' 32.687 W
		<b>Grid Convergence:</b>	0.26 °

<b>Well</b>	Nailed It Fed Com #204H		
<b>Well Position</b>	<b>+N/-S</b>	459.0 usft	<b>Northing:</b> 364,930.00 usft
	<b>+E/-W</b>	4,461.0 usft	<b>Easting:</b> 697,977.00 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 32° 0' 8.159 N
			<b>Longitude:</b> 103° 49' 40.856 W
			<b>Ground Level:</b> 3,046.0 usft

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	07/22/19	6.83	59.79	47,567.36113282

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	359.68

<b>Plan Survey Tool Program</b>	<b>Date</b>	05/06/20		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.0	15,375.4 Plan #2 (OWB)	MWD	
			OWSG MWD - Standard	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,700.1	10.00	217.25	2,697.5	-34.7	-26.4	2.00	2.00	0.00	217.25	
7,037.9	10.00	217.25	6,969.5	-634.3	-482.3	0.00	0.00	0.00	0.00	
7,538.0	0.00	0.00	7,467.0	-669.0	-508.7	2.00	-2.00	0.00	180.00	
10,636.7	0.00	0.00	10,565.7	-669.0	-508.7	0.00	0.00	0.00	0.00	
11,277.9	89.78	359.68	10,975.0	-261.4	-511.0	14.00	14.00	-0.05	359.68	
15,375.4	89.78	359.68	10,991.0	3,836.0	-534.0	0.00	0.00	0.00	0.00	PBHL (Nailed It Fec

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Nailed It Fed Com #204H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3072.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3072.0usft
<b>Site:</b>	(Nailed It) Sec-36_T-26-S_R-30-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Nailed It Fed Com #204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	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
861.0	0.00	0.00	861.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Rustler Anhydrite</b>									
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,413.0	0.00	0.00	1,413.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Top Salt</b>									
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>NUDGE - Build 2.00</b>									
2,300.0	2.00	217.25	2,300.0	-1.4	-1.1	-1.4	2.00	2.00	0.00
2,400.0	4.00	217.25	2,399.8	-5.6	-4.2	-5.5	2.00	2.00	0.00
2,500.0	6.00	217.25	2,499.5	-12.5	-9.5	-12.4	2.00	2.00	0.00
2,600.0	8.00	217.25	2,598.7	-22.2	-16.9	-22.1	2.00	2.00	0.00
2,700.1	10.00	217.25	2,697.5	-34.7	-26.4	-34.5	2.00	2.00	0.00
<b>HOLD - 4337.8 at 2700.1 MD</b>									
2,800.0	10.00	217.25	2,795.9	-48.5	-36.9	-48.3	0.00	0.00	0.00
2,900.0	10.00	217.25	2,894.4	-62.3	-47.4	-62.0	0.00	0.00	0.00
3,000.0	10.00	217.25	2,992.9	-76.1	-57.9	-75.8	0.00	0.00	0.00
3,100.0	10.00	217.25	3,091.4	-89.9	-68.4	-89.6	0.00	0.00	0.00
3,200.0	10.00	217.25	3,189.9	-103.8	-78.9	-103.3	0.00	0.00	0.00
3,300.0	10.00	217.25	3,288.3	-117.6	-89.4	-117.1	0.00	0.00	0.00
3,400.0	10.00	217.25	3,386.8	-131.4	-99.9	-130.9	0.00	0.00	0.00
3,466.2	10.00	217.25	3,452.0	-140.6	-106.9	-140.0	0.00	0.00	0.00
<b>Base Salt</b>									
3,500.0	10.00	217.25	3,485.3	-145.2	-110.4	-144.6	0.00	0.00	0.00
3,600.0	10.00	217.25	3,583.8	-159.1	-121.0	-158.4	0.00	0.00	0.00
3,674.3	10.00	217.25	3,657.0	-169.3	-128.8	-168.6	0.00	0.00	0.00
<b>Delaware Mountain Gp</b>									
3,681.4	10.00	217.25	3,664.0	-170.3	-129.5	-169.6	0.00	0.00	0.00
<b>Lamar</b>									
3,700.0	10.00	217.25	3,682.3	-172.9	-131.5	-172.2	0.00	0.00	0.00
3,700.7	10.00	217.25	3,683.0	-173.0	-131.5	-172.3	0.00	0.00	0.00
<b>Bell Canyon</b>									
3,712.9	10.00	217.25	3,695.0	-174.7	-132.8	-173.9	0.00	0.00	0.00

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<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3072.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3072.0usft
<b>Site:</b>	(Nailed It) Sec-36_T-26-S_R-30-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Nailed It Fed Com #204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	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)
<b>Ramsey Sand</b>									
3,800.0	10.00	217.25	3,780.7	-186.7	-142.0	-185.9	0.00	0.00	0.00
3,900.0	10.00	217.25	3,879.2	-200.5	-152.5	-199.7	0.00	0.00	0.00
4,000.0	10.00	217.25	3,977.7	-214.4	-163.0	-213.5	0.00	0.00	0.00
4,100.0	10.00	217.25	4,076.2	-228.2	-173.5	-227.2	0.00	0.00	0.00
4,200.0	10.00	217.25	4,174.7	-242.0	-184.0	-241.0	0.00	0.00	0.00
4,300.0	10.00	217.25	4,273.2	-255.8	-194.5	-254.7	0.00	0.00	0.00
4,400.0	10.00	217.25	4,371.6	-269.7	-205.0	-268.5	0.00	0.00	0.00
4,500.0	10.00	217.25	4,470.1	-283.5	-215.6	-282.3	0.00	0.00	0.00
4,600.0	10.00	217.25	4,568.6	-297.3	-226.1	-296.0	0.00	0.00	0.00
4,700.0	10.00	217.25	4,667.1	-311.1	-236.6	-309.8	0.00	0.00	0.00
4,800.0	10.00	217.25	4,765.6	-325.0	-247.1	-323.6	0.00	0.00	0.00
4,900.0	10.00	217.25	4,864.0	-338.8	-257.6	-337.3	0.00	0.00	0.00
4,909.1	10.00	217.25	4,873.0	-340.0	-258.6	-338.6	0.00	0.00	0.00
<b>Cherry Canyon</b>									
5,000.0	10.00	217.25	4,962.5	-352.6	-268.1	-351.1	0.00	0.00	0.00
5,100.0	10.00	217.25	5,061.0	-366.4	-278.6	-364.9	0.00	0.00	0.00
5,200.0	10.00	217.25	5,159.5	-380.3	-289.1	-378.6	0.00	0.00	0.00
5,300.0	10.00	217.25	5,258.0	-394.1	-299.7	-392.4	0.00	0.00	0.00
5,400.0	10.00	217.25	5,356.4	-407.9	-310.2	-406.2	0.00	0.00	0.00
5,500.0	10.00	217.25	5,454.9	-421.7	-320.7	-419.9	0.00	0.00	0.00
5,600.0	10.00	217.25	5,553.4	-435.6	-331.2	-433.7	0.00	0.00	0.00
5,700.0	10.00	217.25	5,651.9	-449.4	-341.7	-447.5	0.00	0.00	0.00
5,800.0	10.00	217.25	5,750.4	-463.2	-352.2	-461.2	0.00	0.00	0.00
5,876.8	10.00	217.25	5,826.0	-473.8	-360.3	-471.8	0.00	0.00	0.00
<b>Brushy Canyon</b>									
5,900.0	10.00	217.25	5,848.8	-477.0	-362.7	-475.0	0.00	0.00	0.00
6,000.0	10.00	217.25	5,947.3	-490.9	-373.2	-488.8	0.00	0.00	0.00
6,100.0	10.00	217.25	6,045.8	-504.7	-383.8	-502.5	0.00	0.00	0.00
6,200.0	10.00	217.25	6,144.3	-518.5	-394.3	-516.3	0.00	0.00	0.00
6,300.0	10.00	217.25	6,242.8	-532.3	-404.8	-530.1	0.00	0.00	0.00
6,400.0	10.00	217.25	6,341.2	-546.2	-415.3	-543.8	0.00	0.00	0.00
6,500.0	10.00	217.25	6,439.7	-560.0	-425.8	-557.6	0.00	0.00	0.00
6,600.0	10.00	217.25	6,538.2	-573.8	-436.3	-571.4	0.00	0.00	0.00
6,700.0	10.00	217.25	6,636.7	-587.6	-446.8	-585.1	0.00	0.00	0.00
6,800.0	10.00	217.25	6,735.2	-601.5	-457.3	-598.9	0.00	0.00	0.00
6,900.0	10.00	217.25	6,833.6	-615.3	-467.9	-612.7	0.00	0.00	0.00
7,000.0	10.00	217.25	6,932.1	-629.1	-478.4	-626.4	0.00	0.00	0.00
7,037.9	10.00	217.25	6,969.5	-634.3	-482.3	-631.6	0.00	0.00	0.00
<b>DROP - -2.00</b>									
7,100.0	8.76	217.25	7,030.7	-642.4	-488.5	-639.7	2.00	-2.00	0.00
7,200.0	6.76	217.25	7,129.8	-653.1	-496.6	-650.4	2.00	-2.00	0.00
7,300.0	4.76	217.25	7,229.3	-661.1	-502.7	-658.3	2.00	-2.00	0.00
7,400.0	2.76	217.25	7,329.1	-666.4	-506.7	-663.5	2.00	-2.00	0.00
7,500.0	0.76	217.25	7,429.0	-668.8	-508.5	-665.9	2.00	-2.00	0.00
7,538.0	0.00	0.00	7,467.0	-669.0	-508.7	-666.1	2.00	-2.00	0.00
<b>HOLD - 3098.7 at 7538.0 MD</b>									
7,600.0	0.00	0.00	7,529.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
7,646.0	0.00	0.00	7,575.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>Bone Spring Lime</b>									
7,700.0	0.00	0.00	7,629.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
7,764.0	0.00	0.00	7,693.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>Upper Avalon</b>									

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<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3072.0usft
<b>Site:</b>	(Nailed It) Sec-36_T-26-S_R-30-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Nailed It Fed Com #204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	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)
7,800.0	0.00	0.00	7,729.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
7,900.0	0.00	0.00	7,829.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,000.0	0.00	0.00	7,929.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,100.0	0.00	0.00	8,029.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,151.0	0.00	0.00	8,080.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>Middle Avalon</b>									
8,200.0	0.00	0.00	8,129.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,300.0	0.00	0.00	8,229.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,375.0	0.00	0.00	8,304.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>Lower Avalon</b>									
8,400.0	0.00	0.00	8,329.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,500.0	0.00	0.00	8,429.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,591.0	0.00	0.00	8,520.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>1st Bone Spring Sand</b>									
8,600.0	0.00	0.00	8,529.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,700.0	0.00	0.00	8,629.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,800.0	0.00	0.00	8,729.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,900.0	0.00	0.00	8,829.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
8,941.0	0.00	0.00	8,870.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>2nd Bone Spring Carb</b>									
9,000.0	0.00	0.00	8,929.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
9,100.0	0.00	0.00	9,029.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
9,200.0	0.00	0.00	9,129.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
9,226.0	0.00	0.00	9,155.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>2nd Bone Spring Sand</b>									
9,300.0	0.00	0.00	9,229.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
9,400.0	0.00	0.00	9,329.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
9,500.0	0.00	0.00	9,429.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
9,600.0	0.00	0.00	9,529.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
9,700.0	0.00	0.00	9,629.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
9,800.0	0.00	0.00	9,729.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
9,825.0	0.00	0.00	9,754.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>3rd Bone Spring Carb</b>									
9,900.0	0.00	0.00	9,829.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
10,000.0	0.00	0.00	9,929.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
10,100.0	0.00	0.00	10,029.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
10,200.0	0.00	0.00	10,129.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
10,300.0	0.00	0.00	10,229.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
10,400.0	0.00	0.00	10,329.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
10,493.0	0.00	0.00	10,422.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>3rd Bone Spring Sand</b>									
10,500.0	0.00	0.00	10,429.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
10,600.0	0.00	0.00	10,529.0	-669.0	-508.7	-666.1	0.00	0.00	0.00
10,636.7	0.00	0.00	10,565.7	-669.0	-508.7	-666.1	0.00	0.00	0.00
<b>KOP - DLS 14.00 TFO 359.68</b>									
10,650.0	1.86	359.68	10,579.0	-668.8	-508.7	-665.9	14.00	14.00	0.00
10,675.0	5.36	359.68	10,604.0	-667.2	-508.7	-664.4	14.00	14.00	0.00
10,700.0	8.86	359.68	10,628.8	-664.1	-508.7	-661.3	14.00	14.00	0.00
10,725.0	12.36	359.68	10,653.3	-659.5	-508.8	-656.7	14.00	14.00	0.00
10,750.0	15.86	359.68	10,677.6	-653.4	-508.8	-650.6	14.00	14.00	0.00
10,775.0	19.36	359.68	10,701.4	-645.9	-508.8	-643.0	14.00	14.00	0.00
10,797.1	22.45	359.68	10,722.0	-638.0	-508.9	-635.1	14.00	14.00	0.00
<b>3rd BS W Sand</b>									



<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Nailed It Fed Com #204H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3072.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3072.0usft
<b>Site:</b>	(Nailed It) Sec-36_T-26-S_R-30-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Nailed It Fed Com #204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	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)
10,800.0	22.86	359.68	10,724.7	-636.8	-508.9	-634.0	14.00	14.00	0.00
10,825.0	26.36	359.68	10,747.4	-626.4	-508.9	-623.6	14.00	14.00	0.00
10,850.0	29.86	359.68	10,769.5	-614.7	-509.0	-611.8	14.00	14.00	0.00
10,875.0	33.36	359.68	10,790.8	-601.6	-509.1	-598.7	14.00	14.00	0.00
10,900.0	36.86	359.68	10,811.2	-587.2	-509.2	-584.3	14.00	14.00	0.00
10,902.2	37.18	359.68	10,813.0	-585.8	-509.2	-583.0	14.00	14.00	0.00
<b>Wolfcamp A X Sand</b>									
10,925.0	40.36	359.68	10,830.7	-571.6	-509.2	-568.7	14.00	14.00	0.00
10,950.0	43.86	359.68	10,849.3	-554.8	-509.3	-552.0	14.00	14.00	0.00
10,975.0	47.36	359.68	10,866.8	-537.0	-509.4	-534.1	14.00	14.00	0.00
11,000.0	50.86	359.68	10,883.1	-518.1	-509.5	-515.2	14.00	14.00	0.00
11,025.0	54.36	359.68	10,898.3	-498.2	-509.7	-495.3	14.00	14.00	0.00
11,050.0	57.86	359.68	10,912.2	-477.4	-509.8	-474.6	14.00	14.00	0.00
11,075.0	61.36	359.68	10,924.9	-455.9	-509.9	-453.0	14.00	14.00	0.00
11,100.0	64.86	359.68	10,936.2	-433.6	-510.0	-430.7	14.00	14.00	0.00
11,114.2	66.85	359.68	10,942.0	-420.6	-510.1	-417.8	14.00	14.00	0.00
<b>Wolfcamp A Y Sand</b>									
11,125.0	68.36	359.68	10,946.1	-410.7	-510.2	-407.8	14.00	14.00	0.00
11,150.0	71.86	359.68	10,954.6	-387.1	-510.3	-384.3	14.00	14.00	0.00
11,175.0	75.36	359.68	10,961.7	-363.2	-510.4	-360.3	14.00	14.00	0.00
11,200.0	78.86	359.68	10,967.2	-338.8	-510.6	-335.9	14.00	14.00	0.00
11,225.0	82.36	359.68	10,971.3	-314.1	-510.7	-311.3	14.00	14.00	0.00
11,250.0	85.86	359.68	10,973.9	-289.3	-510.8	-286.4	14.00	14.00	0.00
11,275.0	89.36	359.68	10,974.9	-264.3	-511.0	-261.4	14.00	14.00	0.00
11,277.9	89.78	359.68	10,975.0	-261.4	-511.0	-258.5	14.00	14.00	0.00
<b>EOC - 4097.4 hold at 11277.9 MD</b>									
11,300.0	89.78	359.68	10,975.0	-239.3	-511.1	-236.4	0.00	0.00	0.00
11,400.0	89.78	359.68	10,975.4	-139.3	-511.7	-136.4	0.00	0.00	0.00
11,500.0	89.78	359.68	10,975.8	-39.3	-512.2	-36.4	0.00	0.00	0.00
11,600.0	89.78	359.68	10,976.2	60.7	-512.8	63.6	0.00	0.00	0.00
11,700.0	89.78	359.68	10,976.6	160.7	-513.4	163.6	0.00	0.00	0.00
11,800.0	89.78	359.68	10,977.0	260.7	-513.9	263.6	0.00	0.00	0.00
11,900.0	89.78	359.68	10,977.4	360.7	-514.5	363.6	0.00	0.00	0.00
12,000.0	89.78	359.68	10,977.8	460.7	-515.0	463.6	0.00	0.00	0.00
12,100.0	89.78	359.68	10,978.2	560.7	-515.6	563.6	0.00	0.00	0.00
12,200.0	89.78	359.68	10,978.6	660.7	-516.2	663.6	0.00	0.00	0.00
12,300.0	89.78	359.68	10,979.0	760.7	-516.7	763.5	0.00	0.00	0.00
12,400.0	89.78	359.68	10,979.3	860.7	-517.3	863.5	0.00	0.00	0.00
12,500.0	89.78	359.68	10,979.7	960.7	-517.9	963.5	0.00	0.00	0.00
12,600.0	89.78	359.68	10,980.1	1,060.7	-518.4	1,063.5	0.00	0.00	0.00
12,700.0	89.78	359.68	10,980.5	1,160.7	-519.0	1,163.5	0.00	0.00	0.00
12,800.0	89.78	359.68	10,980.9	1,260.7	-519.5	1,263.5	0.00	0.00	0.00
12,900.0	89.78	359.68	10,981.3	1,360.7	-520.1	1,363.5	0.00	0.00	0.00
13,000.0	89.78	359.68	10,981.7	1,460.7	-520.7	1,463.5	0.00	0.00	0.00
13,100.0	89.78	359.68	10,982.1	1,560.7	-521.2	1,563.5	0.00	0.00	0.00
13,200.0	89.78	359.68	10,982.5	1,660.7	-521.8	1,663.5	0.00	0.00	0.00
13,300.0	89.78	359.68	10,982.9	1,760.7	-522.3	1,763.5	0.00	0.00	0.00
13,400.0	89.78	359.68	10,983.3	1,860.6	-522.9	1,863.5	0.00	0.00	0.00
13,500.0	89.78	359.68	10,983.7	1,960.6	-523.5	1,963.5	0.00	0.00	0.00
13,600.0	89.78	359.68	10,984.0	2,060.6	-524.0	2,063.5	0.00	0.00	0.00
13,700.0	89.78	359.68	10,984.4	2,160.6	-524.6	2,163.5	0.00	0.00	0.00
13,800.0	89.78	359.68	10,984.8	2,260.6	-525.2	2,263.5	0.00	0.00	0.00
13,900.0	89.78	359.68	10,985.2	2,360.6	-525.7	2,363.5	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Nailed It Fed Com #204H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3072.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3072.0usft
<b>Site:</b>	(Nailed It) Sec-36_T-26-S_R-30-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Nailed It Fed Com #204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	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)	
14,000.0	89.78	359.68	10,985.6	2,460.6	-526.3	2,463.5	0.00	0.00	0.00	
14,100.0	89.78	359.68	10,986.0	2,560.6	-526.8	2,563.5	0.00	0.00	0.00	
14,200.0	89.78	359.68	10,986.4	2,660.6	-527.4	2,663.5	0.00	0.00	0.00	
14,300.0	89.78	359.68	10,986.8	2,760.6	-528.0	2,763.5	0.00	0.00	0.00	
14,400.0	89.78	359.68	10,987.2	2,860.6	-528.5	2,863.5	0.00	0.00	0.00	
14,500.0	89.78	359.68	10,987.6	2,960.6	-529.1	2,963.5	0.00	0.00	0.00	
14,600.0	89.78	359.68	10,988.0	3,060.6	-529.6	3,063.5	0.00	0.00	0.00	
14,700.0	89.78	359.68	10,988.4	3,160.6	-530.2	3,163.5	0.00	0.00	0.00	
14,800.0	89.78	359.68	10,988.7	3,260.6	-530.8	3,263.5	0.00	0.00	0.00	
14,900.0	89.78	359.68	10,989.1	3,360.6	-531.3	3,363.5	0.00	0.00	0.00	
15,000.0	89.78	359.68	10,989.5	3,460.6	-531.9	3,463.5	0.00	0.00	0.00	
15,100.0	89.78	359.68	10,989.9	3,560.6	-532.5	3,563.5	0.00	0.00	0.00	
15,200.0	89.78	359.68	10,990.3	3,660.6	-533.0	3,663.5	0.00	0.00	0.00	
15,300.0	89.78	359.68	10,990.7	3,760.6	-533.6	3,763.5	0.00	0.00	0.00	
15,375.4	89.78	359.68	10,991.0	3,836.0	-534.0	3,838.9	0.00	0.00	0.00	
TD at 15375.4										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
FTP (Nailed It Fed Co - hit/miss target - Shape - Point	0.00	0.00	10,975.0	-439.0	-510.0	364,491.00	697,467.00	32° 0' 3.838 N	103° 49' 46.803 W	- plan misses target center by 37.6usft at 11110.9usft MD (10940.7 TVD, -423.6 N, -510.1 E)
LTP (Nailed It Fed Co - plan misses target center by 0.6usft at 15245.4usft MD (10990.5 TVD, 3706.0 N, -533.3 E) - Point	0.00	0.00	10,991.0	3,706.0	-533.0	368,636.00	697,444.00	32° 0' 44.858 N	103° 49' 46.846 W	
PBHL (Nailed It Fed C - plan hits target center - Rectangle (sides W100.0 H4,275.0 D40.0)	0.23	359.68	10,991.0	3,836.0	-534.0	368,766.00	697,443.00	32° 0' 46.144 N	103° 49' 46.850 W	

<b>Database:</b>	EDM 5000.15 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Nailed It Fed Com #204H
<b>Company:</b>	Tap Rock Resources, LLC	<b>TVD Reference:</b>	KB @ 3072.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3072.0usft
<b>Site:</b>	(Nailed It) Sec-36_T-26-S_R-30-E	<b>North Reference:</b>	Grid
<b>Well:</b>	Nailed It Fed Com #204H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan #2		

#### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
861.0	861.0	Rustler Anhydrite			
1,413.0	1,413.0	Top Salt			
3,466.2	3,452.0	Base Salt			
3,674.3	3,657.0	Delaware Mountain Gp			
3,681.4	3,664.0	Lamar			
3,700.7	3,683.0	Bell Canyon			
3,712.9	3,695.0	Ramsey Sand			
4,909.1	4,873.0	Cherry Canyon			
5,876.8	5,826.0	Brushy Canyon			
7,646.0	7,575.0	Bone Spring Lime			
7,764.0	7,693.0	Upper Avalon			
8,151.0	8,080.0	Middle Avalon			
8,375.0	8,304.0	Lower Avalon			
8,591.0	8,520.0	1st Bone Spring Sand			
8,941.0	8,870.0	2nd Bone Spring Carb			
9,226.0	9,155.0	2nd Bone Spring Sand			
9,825.0	9,754.0	3rd Bone Spring Carb			
10,493.0	10,422.0	3rd Bone Spring Sand			
10,797.1	10,722.0	3rd BS W Sand			
10,902.2	10,813.0	Wolfcamp A X Sand			
11,114.2	10,942.0	Wolfcamp A Y Sand			

#### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,200.0	2,200.0	0.0	0.0	NUDGE - Build 2.00
2,700.1	2,697.5	-34.7	-26.4	HOLD - 4337.8 at 2700.1 MD
7,037.9	6,969.5	-634.3	-482.3	DROP - -2.00
7,538.0	7,467.0	-669.0	-508.7	HOLD - 3098.7 at 7538.0 MD
10,636.7	10,565.7	-669.0	-508.7	KOP - DLS 14.00 TFO 359.68
11,277.9	10,975.0	-261.4	-511.0	EOC - 4097.4 hold at 11277.9 MD
15,375.4	10,991.0	3,836.0	-534.0	TD at 15375.4

Wedge 563®  
Dopeless®

Printed on: 28/04/2020

		Min. Wall Thickness	87.5%	(*)GradeP110-IC	
Outside Diameter	5.500 in.	Connection OD REGULAR Option	Coupling	Pipe Body	
Wall Thickness	0.415 in.	Drift	API Standard	Body: White	1st Band: White
Grade	P110-IC*	Type	Casing	1st Band: -	2nd Band: Pale Green
				2nd Band: -	3rd Band: -
				3rd Band: -	4th Band: -

PIPE BODY DATA					
Geometry					
Nominal OD	5.500 in.	Nominal Weight	23.00 lbs/ft	Drift	4.545 in.
Nominal ID	4.670 in.	Wall Thickness	0.415 in.	Plain End Weight	22.56 lbs/ft
OD Tolerance	API				
Performance					
Body Yield Strength	729 x1000 lbs	Internal Yield	14530 psi	SMYS	110000 psi
Collapse	16220 psi				
CONNECTION DATA					
Geometry					
Connection OD	6.050 in.	Coupling Length	9.25 in.	Connection ID	4.670 in.
Make-up Loss	3.990 in.	Threads per in	3.36	Connection OD Option	REGULAR
Performance					
Tension Efficiency	100.0 %	Joint Yield Strength	729.000 x1000 lbs	Internal Pressure Capacity	14530.000 psi
Compression Efficiency	100.0 %	Compression Strength	729.000 x1000 lbs	Max. Allowable Bending	92 °/100 ft
External Pressure Capacity	16220.000 psi	Coupling Face Load	205000 lbs		
Make-Up Torques					
Minimum	9200 ft-lbs	Optimum	11000 ft-lbs	Maximum	16100 ft-lbs
Operation Limit Torques					
Operating Torque	20000 ft-lbs	Yield Torque	24000 ft-lbs		
Buck-On					
Minimum	15600 ft-lbs	Maximum	17700 ft-lbs		

This connection is fully interchangeable with:

Wedge 533® Dopeless® - 5.5 in. - 23 lbs/ft

Wedge 553® Dopeless® - 5.5 in. - 23 lbs/ft

Wedge 563® Dopeless® - 5.5 in. - 14 / 15.5 / 17 / 20 lbs/ft

Wedge 563® Tubing Dopeless® - 5.5 in. - 23 lbs/ft

Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

For further information on concepts indicated in this datasheet, download the Datasheet Manual from [www.tenaris.com](http://www.tenaris.com)

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Wedge 513®

Printed on: 28/04/2020

		Min. Wall Thickness	87.5%	(*)GradeP110-ICY	
Outside Diameter	5.000 in.	Connection OD Option	REGULAR	Coupling	Pipe Body
Wall Thickness	0.362 in.	Drift	API Standard	Body: White	1st Band: White
Grade	P110-ICY*	Type	Casing	1st Band: Pale Green	2nd Band: Pale Green
				2nd Band: -	3rd Band: Pale Green
				3rd Band: -	4th Band: -

PIPE BODY DATA

Geometry

Nominal OD	5.000 in.	Nominal Weight	18.00 lbs/ft	Drift	4.151 in.
Nominal ID	4.276 in.	Wall Thickness	0.362 in.	Plain End Weight	17.95 lbs/ft
OD Tolerance	API				

Performance

Body Yield Strength	659 x1000 lbs	Internal Yield	15840 psi	SMYS	125000 psi
Collapse	14840 psi				

CONNECTION DATA

Geometry

Connection OD	5.000 in.	Connection ID	4.194 in.	Make-up Loss	4.320 in.
Threads per in	3.36	Connection OD Option	REGULAR		

Performance

Tension Efficiency	63.7 %	Joint Yield Strength	419.783 x1000 lbs	Internal Pressure Capacity	15840.000 psi
Compression Efficiency	73.7 %	Compression Strength	485.683 x1000 lbs	Max. Allowable Bending	73.3 °/100 ft
External Pressure Capacity	14840.000 psi				

Make-Up Torques

Minimum	6500 ft-lbs	Optimum	7800 ft-lbs	Maximum	11400 ft-lbs
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Operation Limit Torques

Operating Torque	22000 ft-lbs	Yield Torque	33000 ft-lbs
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Notes



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Wedge 521®  
Dopeless®

Printed on: 28/04/2020

		Min. Wall Thickness	87.5%	(*)GradeP110-ICY	
Outside Diameter	5.000 in.	Connection OD Option	REGULAR	Coupling	Pipe Body
Wall Thickness	0.362 in.	Drift	API Standard	Body: White	1st Band: White
Grade	P110-ICY*	Type	Casing	1st Band: Pale Green	2nd Band: Pale Green
				2nd Band: -	3rd Band: Pale Green
				3rd Band: -	4th Band: -

PIPE BODY DATA					
Geometry					
Nominal OD	5.000 in.	Nominal Weight	18.00 lbs/ft	Drift	4.151 in.
Nominal ID	4.276 in.	Wall Thickness	0.362 in.	Plain End Weight	17.95 lbs/ft
OD Tolerance	API				
Performance					
Body Yield Strength	659 x1000 lbs	Internal Yield	15840 psi	SMYS	125000 psi
Collapse	14840 psi				
CONNECTION DATA					
Geometry					
Connection OD	5.359 in.	Connection ID	4.226 in.	Make-up Loss	3.620 in.
Threads per in	3.36	Connection OD Option	REGULAR		
Performance					
Tension Efficiency	73.8 %	Joint Yield Strength	486.342 x1000 lbs	Internal Pressure Capacity	15840.000 psi
Compression Efficiency	88.7 %	Compression Strength	584.533 x1000 lbs	Max. Allowable Bending	84.9 °/100 ft
External Pressure Capacity	14840.000 psi				
Make-Up Torques					
Minimum	7300 ft-lbs	Optimum	8800 ft-lbs	Maximum	12800 ft-lbs
Operation Limit Torques					
Operating Torque	Ask	Yield Torque	Ask		

Notes

This connection is fully interchangeable with:

Wedge 521® Dopeless® - 5 in. - 13 / 15 lbs/ft

Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

For further information on concepts indicated in this datasheet, download the Datasheet Manual from [www.tenaris.com](http://www.tenaris.com)

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