

<b>Well Name:</b> TALCO 16-21 STATE FED COM	<b>Well Location:</b> T26S / R35E / SEC 16 / NWNW / 32.04972 / -103.37709	<b>County or Parish/State:</b> LEA / NM
<b>Well Number:</b> 1H	<b>Type of Well:</b> OIL WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM0448921A	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b> 3002546811	<b>Well Status:</b> Approved Application for Permit to Drill	<b>Operator:</b> TAP ROCK OPERATING LLC

Notice of Intent

<b>Type of Submission:</b> Notice of Intent	<b>Type of Action</b> Other
<b>Date Sundry Submitted:</b> 04/28/2021	<b>Time Sundry Submitted:</b> 02:23
<b>Date proposed operation will begin:</b> 04/28/2021	

**Procedure Description:** Tap Rock would like to change the name of this well from the Talco 16-21 State Fed Com 1H to the Talco State Fed Com 212H. Tap Rock would also like to alter the casing plan for the newly named Talco State Fed Com 212H. Tap Rock is requesting permission to: • run one of the two options listed in the attached drill plan - A three or four string design. • alter the second intermediate string from 7.625 inch 29.7 lb P-110 W-513 to 7.625 inch 29.7 P-110 W-441 casing. This casing will be run to 12011 ft MD. Casing spec has been attached. • alter the production casing string from 5.5 inch 20 lb P-110 TXP by 5.5 inch 18 lb P-110 W-521 to 5.5 inch 20 lb P-110 TXP by 5.5 inch 20 lb P-110 W-441 casing. This casing will be run from approximately 11811 ft to 22990 ft MD. Casing spec has been attached. • have the option of running a DV tool during cementing operations. If no DV tool is ran, we would like to cement the intermediate section in a single stage.

Surface Disturbance

**Is any additional surface disturbance proposed?:** No

NOI Attachments

Procedure Description

- 7.625\_29.7\_P110ICY\_W441\_20210311154211\_20210428142157.pdf
- 5.5\_20\_P110\_IC\_W441\_20210428142157.pdf
- Drilling\_APD\_\_Talco\_State\_Fed\_Com\_212H\_DBE\_3.4.21\_20210428142140.pdf

Received by OCD: 5/10/2021 12:08:14 PM

Well Name: TALCO 16-21 STATE FED COM

Well Location: T26S / R35E / SEC 16 / NWNW / 32.04972 / -103.37709

County or Parish/State: LEA / NM

Well Number: 1H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM0448921A

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546811

Well Status: Approved Application for Permit to Drill

Operator: TAP ROCK OPERATING LLC

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Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: BILL RAMSEY

Signed on: APR 28, 2021 02:21 PM

Name: TAP ROCK OPERATING LLC

Title: Regulatory Analyst

Street Address: 523 PARK POINT DRIVE SUITE 200

City: GOLDEN

State: CO

Phone: (720) 360-4028

Email address: BRAMSEY@TAPRK.COM

Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 05/10/2021

Signature: Chris Walls



Drilling Operations Plan  
Talco State Fed Com 212H  
Tap Rock Operating, LLC  
SHL 307' FNL & 1440' FWL, Sec. 16  
BHL 5' FSL & 1914' FWL, Sec. 21  
T. 26S, R. 35E Lea County, NM

Elevation above Sea Level: 3198'

## **DRILLING PROGRAM**

### **1. Estimated Tops**

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler Anhydrite	1025	1025		Salt
Salado	1595	1595	Salt	Salt
Base Salt	4940	4945		Salt
Lamar	5340	5346	Limestone	None
Bell Canyon	5360	5366	Sandstone	Hydrocarbons
Cherry Canyon	6560	6571	Sandstone	Hydrocarbons
Brushy Canyon	7795	7811	Sandstone	Hydrocarbons
Bone Spring	9240	9259	Limestone	Hydrocarbons
1st Bone Spring	10505	10524	Sandstone	Hydrocarbons
2nd Bone Spring	10670	10689	Sandstone	Hydrocarbons
3rd Bone Spring	11505	11524	Sandstone	Hydrocarbons
KOP	12092	12111	Sandstone	Hydrocarbons
Wolfcamp A	12460	12511	Shale	Hydrocarbons
TD	12656	22990	Shale	Hydrocarbons

### **2. Notable Zones**

Wolfcamp is the formation target.

### **3. Pressure Control**

Pressure Control Equipment (See Schematics):

A 15,000', 10,000 psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.

BOP Test procedure will be as follows:

After surface casing is set and the BOP is 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



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

#### Variance Requests:

Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate 1, Intermediate 2, and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, after drilling surface and 1<sup>st</sup> intermediate, 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 use a 5000 psi annular BOP on a 10M BOP stack. The annular will be tested to 250 psi low and 5000 psi high.

#### 4. Casing & Cement

All Casing will be new.

##### Primary Casing Design:

Section	Drilled Interval			Casing Size	Standard	Tapered	Casing Set Depths				Casing Details					
	Hole Size	Top	Btm				Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17.5	0	1110	13.375	API	No	0	1100	0	1100	J-55	54.5	BUTT	1.13	1.15	1.6
Intermediate	9.875	1110	9500	7.625	API	No	0	9200	0	9184	P-110	29.7	BUTT	1.13	1.15	1.6
	8.75	9500	12021	7.625	NON API	Yes	9200	12011	9184	11992	P-110	29.7	W441	1.13	1.15	1.6
Production	6.75	12021	22990	5.5	NON API	No	0	11811	0	11792	P-110	20	TXP	1.13	1.15	1.6
Production	6.75			5.5	NON API	No	11811	22990	11792	12655	P-110	20	W441	1.13	1.15	1.6

##### Alternative Casing Design:

Section	Hole Size	Casing Size	Standard	Tapered	Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17.5	13.375	API	No	0	1100	0	1100	J-55	54.5	BUTT	1.13	1.15	1.6
1st Intermediate	12.25	9.625	API	No	0	5396	0	5390	J-55	40	BUTT	1.13	1.15	1.6
2nd Intermediate	8.75	7.625	API	No	0	5096	0	5090	P-110	29.7	BUTT	1.13	1.15	1.6
2nd Intermediate	8.75	7.625	NON API	Yes	5096	12011	5090	11992	P-110	29.7	W441	1.13	1.15	1.6
Production	6.75	5.5	NON API	No	0	11811	0	11792	P-110	20	TXP	1.13	1.15	1.6
Production	6.75	5.5	NON API	No	11811	22990	11792	12655	P-110	20	W441	1.13	1.15	1.6

##### Primary Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives	
Surface	Lead	0	543	1.65	896	13.5	100%	C	5% NCI + LCM	
	Tail	641	361	1.35	487	14.8	100%	C	5% NCI + LCM	
Intermediate	Stage 1	Lead	0	1507	2.4	3617	11.5	65%	C	Fluid Loss + Dispersant + Retarder + LCM
		Tail	11011	106	1.56	166	13.2	65%	C	Fluid Loss + Dispersant + Retarder + LCM
	Stage 2	Primary	0	785	2.4	1884	11.5	65%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	DVT	5331								
Production	Primary	11511	701	1.71	1198	14.2	25%	H	Fluid Loss + Dispersant + Retarder + LCM	



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Alternative Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	543	1.65	896	13.5	100%	C	5% NCI + LCM
	Tail	641	361	1.35	487	14.8	100%	C	5% NCI + LCM
1st Intermediate	Lead	0	1023	2.18	2231	12.7	65%	C	Bentonite + 1% CaCL <sub>2</sub> + 8% NaCl + LCM
	Tail	4317	419	1.33	558	14.8	65%	C	5% NaCl + LCM
2nd Intermediate	Lead	5096	280	2.87	802	11.5	35%	TXI	Fluid Loss + Dispersant + Retarder + LCM
	Tail	11011	87	1.56	136	13.2	35%	H	Fluid Loss + Dispersant + Retarder + LCM
Production	Tail	11511	701	1.71	1198	14.2	25%	H	Fluid Loss + Dispersant + Retarder + LCM

If a DV tool is ran, the depth will be adjusted depending on current hole conditions. Cement volumes will be adjusted proportionally. The DV tool will be set a minimum of 50' below the previous casing shoe and a maximum of 200' above the current casing shoe. If cement is not circulated to surface on the 1st cement job, the 2nd stage will be pumped as planned. If cement does not return to surface on the 2nd stage the BLM will be notified immediately.

## 5. Mud Program

Primary Mud Design:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	1100	FW Gel	8.30	28	NC
Intermediate	1100	12021	DBE/Cut Brine	9.00	30-32	NC
Production	12021	22990	Oil Base Mud	11.50	55-75	<10

Alternative Mud Design:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	1100	FW Spud Mud	8.30	28	NC
Intermediate	1100	5396	Brine Water	10.00	30-32	NC
Intermediate 2	5396	12011	FW/Cut Brine	9.00	30-32	NC
Production	12011	22990	Oil Base Mud	11.50	50-70	<10

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.

## 6. Cores, Tests, & Logs



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

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

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is  $\approx 7,574$  psi. Expected bottom hole temperature is  $\approx 170^{\circ}$  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.

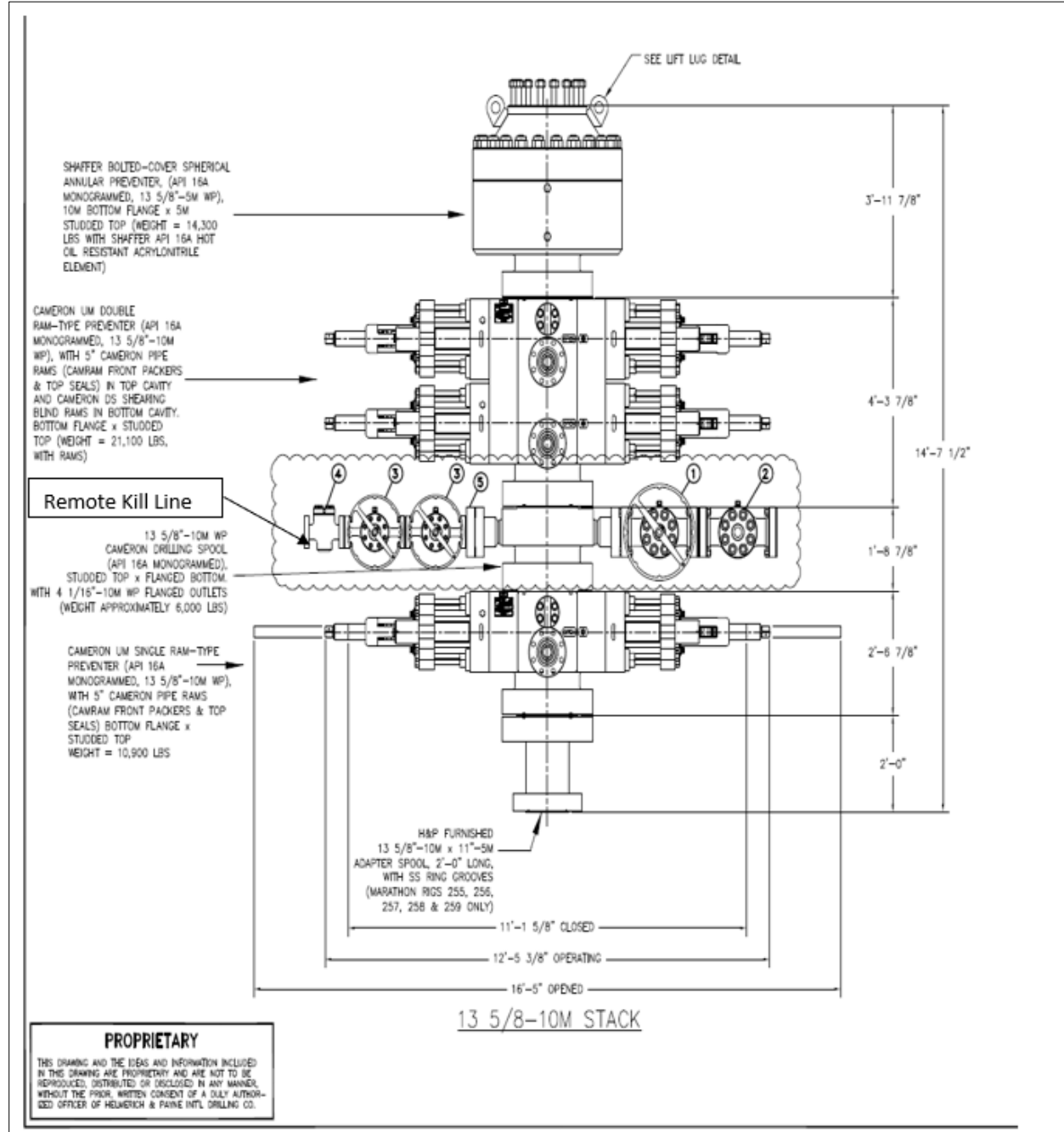
#### **8. Other Information**

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.

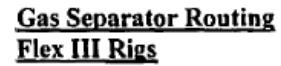
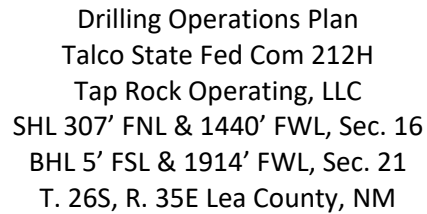


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10,000 psi BOP Stack





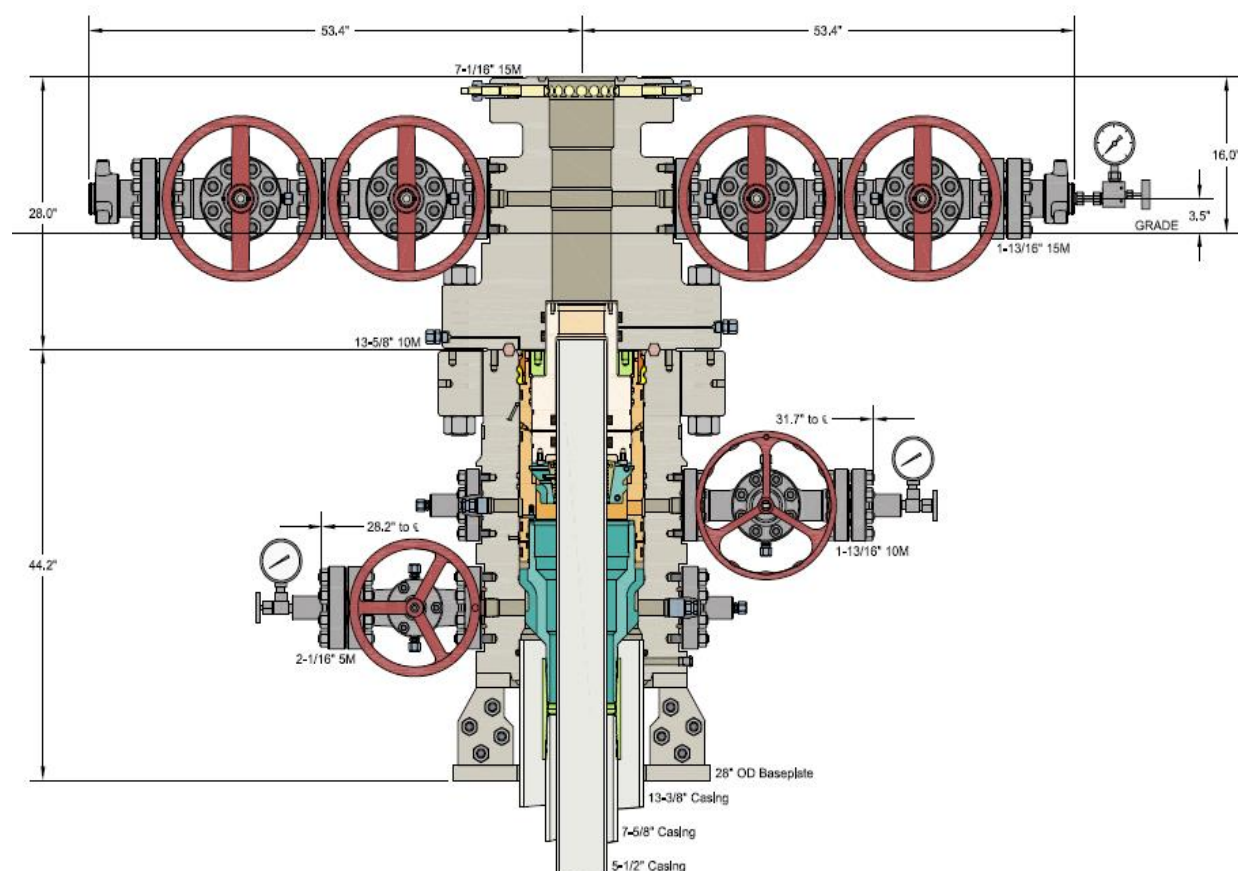






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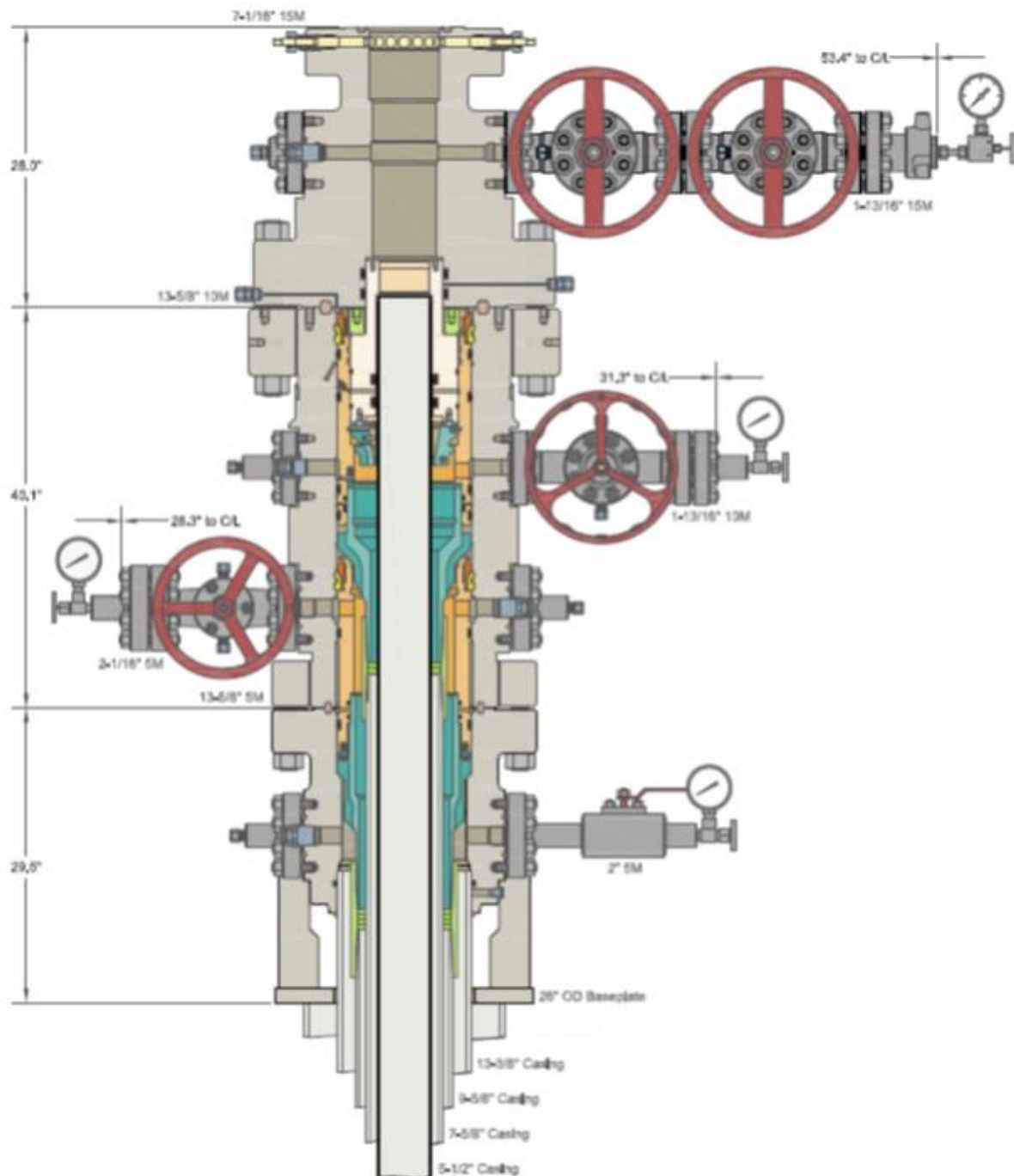
Multi-bowl Wellhead- Primary Design





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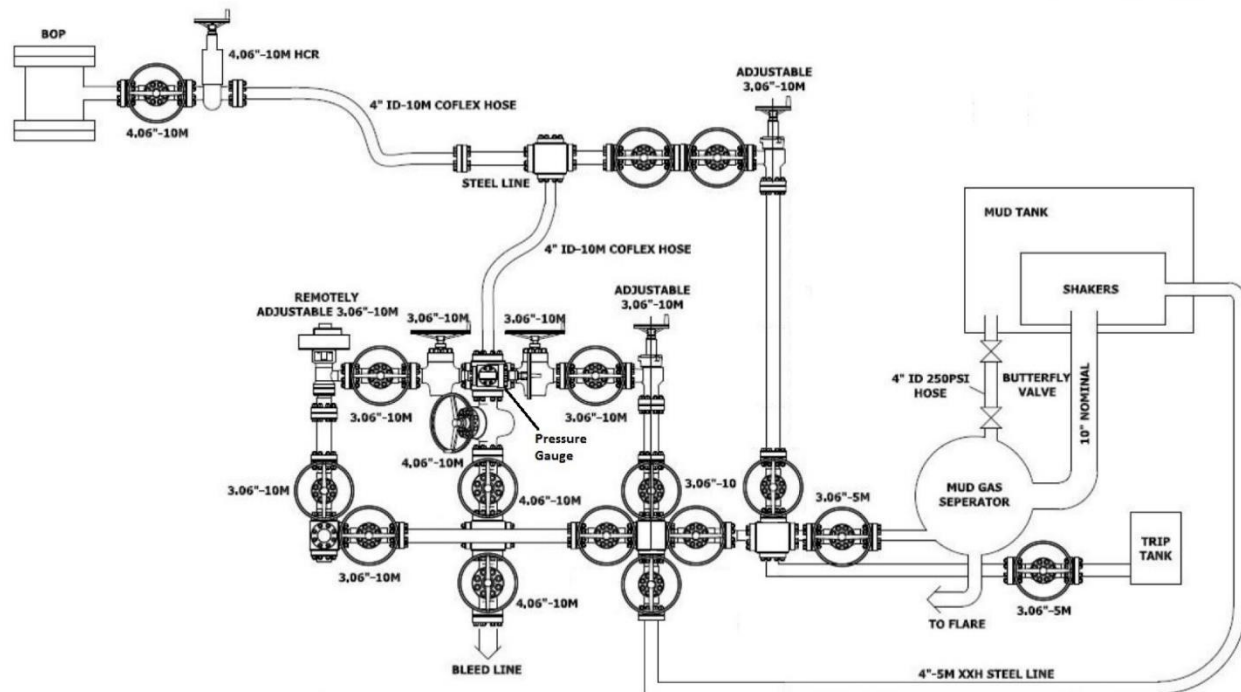
Multi-bowl Wellhead- Alternative





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10M Choke Layout





## Data Sheet

TH DS-20.0313 28 July 2020

Rev 01

## 7.625" 29.70 lb/ft P110-ICY TenarisHydril Wedge 441™



PIPE BODY DATA					
GEOMETRY					
Nominal OD	7.625 in.	Nominal Weight	29.70 lbs/ft	Standard Drift Diameter	6.750 in.
Nominal ID	6.875 in.	Wall Thickness	0.375 in.	Special Drift Diameter	N/A
Plain End Weight	29.06 lbs/ft				
PERFORMANCE					
Body Yield Strength	1068 x 1000 lbs	Internal Yield <sup>1</sup>	11070 psi	Collapse	7360 psi

CONNECTION DATA					
GEOMETRY					
Connection OD	7.900 in.	Connection ID	6.875 in.	Make-up Loss	3.750 in.
Coupling Length	8.666 in.	Threads per in.	3.43		
PERFORMANCE					
Tension Efficiency	75%	Joint Yield Strength	801 x 1000 lbs	Internal Yield <sup>1</sup>	11070 psi
Compression Efficiency	75%	Compression Strength	801 x 1000 lbs	Collapse	7360 psi
Bending	56 °/100 ft				
MAKE-UP TORQUES					
Minimum	22000 ft-lbs	Optimum	23000 ft-lbs	Maximum	26000 ft-lbs
BUCK-ON TORQUES					
Minimum	26000 ft-lbs			Maximum	28000 ft-lbs
OPERATIONAL LIMIT TORQUES					
Operating Torque	41600 ft-lbs			Yield Torque	49000 ft-lbs

\*If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative

1. Internal Yield Rating is based on 90% RBW

Important Note: In October 2019, TenarisHydril Wedge XP® 2.0 SL™ was renamed TenarisHydril Wedge 441™. Product dimensions and properties remain identical and both connections are fully interchangeable.



## Data Sheet

TH DS-19.0478 23 October 2019  
Rev 01

## 5.500" 20.00 lb/ft P110-IC TenarisHydril Wedge 441™



PIPE BODY DATA					
GEOMETRY					
Nominal OD	5.500 in.	Nominal Weight	20.00 lbs/ft	Standard Drift Diameter	4.653 in.
Nominal ID	4.778 in.	Wall Thickness	0.361 in.	Special Drift Diameter	N/A
Plain End Weight	19.83 lbs/ft				
PERFORMANCE					
Body Yield Strength	641 x 1000 lbs	Internal Yield	12640 psi	Collapse	12100 psi

CONNECTION DATA					
GEOMETRY					
Connection OD	5.852 in.	Connection ID	4.778 in.	Make-up Loss	3.780 in.
Coupling Length	8.214 in.	Threads per in.	3.40		
PERFORMANCE					
Tension Efficiency	81.5%	Joint Yield Strength	522 x 1000 lbs	Internal Yield	12640 psi
Compression Efficiency	81.5%	Compression Strength	522 x 1000 lbs	Collapse	12100 psi
Bending	75 °/100 ft				
MAKE-UP TORQUES					
Minimum	14000 ft-lbs	Optimum	15000 ft-lbs	Maximum	18000 ft-lbs
BUCK-ON TORQUES					
Minimum	21600 ft-lbs			Maximum	23100 ft-lbs
OPERATIONAL LIMIT TORQUES					
Operating Torque	25000 ft-lbs			Yield Torque	29000 ft-lbs

\*If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 27558

**CONDITIONS OF APPROVAL**

Operator:	OGRID:	Action Number:	Action Type:
TAP ROCK OPERATING, LLC Suite 200 Golden, CO80401	372043	27558	C-103A
523 Park Point Drive			
OCD Reviewer	Condition		
pkautz	None		