Well Name: CLAWHAMMER 33-28-21 FEDERAL COM

Well Location: T26S / R30E / SEC 33 / LOT 3 / 32.001444 / -103.887194

County or Parish/State: EDDY / NM

Well Number: 322H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM35607

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: WPX ENERGY PERMIAN LLC

Notice of Intent

Sundry ID: 2851525

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/07/2025

Time Sundry Submitted: 10:51

Date proposed operation will begin: 05/08/2025

Procedure Description: WPX Energy Permian, LLC respectfully requests a BHL move and drill plan change for the subject well (API ID 10400098843). WPX also requests break test and offline cementing variances. Please see revised C102, drill plan, directional plan, and variance attachments. Permitted BHL: UL: K, 2620 FSL, 1395 FWL, 21-26S-30E Proposed BHL: UL: L, 2620 FSL, 825 FWL, 21-26S-30E

NOI Attachments

Procedure Description

Offline_Cementing___Variance_Request_20250507104830.pdf

Break_Test_Variance_Offline_BOP_2_3_2025_20250507104805.pdf

5.5_20lb_P110_ICY_20250507103524.pdf

8.625_32lb_P110_ICY_20250507103502.pdf

10.75_45.5lb_J55_BTC_20250507074456.pdf

13.375_54.5lb_J55_20250507074434.pdf

CLAWHAMMER_33_28_21_FEDERAL_COM_322H_Directional_Plan_04_23_25_20250507074309.pdf

CLAWHAMMER_33_28_21_FEDERAL_COM_322H_4_23_20250507074302.pdf

WA018358969_CLAWHAMMER_33_28_21_FEDERAL_COM_322H_WL_R2_SIGNED_20250507074227.pdf

Well Name: CLAWHAMMER 33-28-21 FEDERAL COM

Well Location: T26S / R30E / SEC 33 / LOT 3 / 32.001444 / -103.887194

County or Parish/State: EDDY / NM

Well Number: 322H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM35607

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: WPX ENERGY PERMIAN LLC

Conditions of Approval

Specialist Review

Clawhammer_33_28_21_Federal_Com_322H_Sundry_ID_2851525_20250521103758.pdf

Operator

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

Operator Electronic Signature: AMY BROWN

Signed on: MAY 07, 2025 10:48 AM

Name: WPX ENERGY PERMIAN LLC

Title: Regulatory Professional

Street Address: 333 WEST SHERIDAN AVENUE

City: OKLAHOMA CITY **State:** OK

Phone: (405) 552-6137

Email address: AMY.BROWN@DVN.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: LONG VO

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5759885402

BLM POC Email Address: LVO@BLM.GOV

Disposition: Approved

Disposition Date: 05/21/2025

Signature: Long Vo

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

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
☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

3a. Address

3b. Phone No. *(include area code)*

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

9. API Well No.

10. Field and Pool or Exploratory Area

11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 recomplete 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 perfonned 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 recompletion 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 detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

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)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect ofthis form to U.S. Department ofthe Interior, Bureau ofLand Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: LOT 3 / 477 FSL / 2354 FWL / TWSP: 26S / RANGE: 30E / SECTION: 33 / LAT: 32.001444 / LONG: -103.887194 (TVD: 0 feet, MD: 0 feet)

PPP: LOT 3 / 100 FSL / 1395 FWL / TWSP: 26S / RANGE: 30E / SECTION: 33 / LAT: 32.000406 / LONG: -103.890288 (TVD: 8929 feet, MD: 9023 feet)

PPP: SESW / 146 FSL / 1387 FWL / TWSP: 26S / RANGE: 30E / SECTION: 21 / LAT: 32.0210557 / LONG: -103.8903511 (TVD: 9300 feet, MD: 16700 feet)

PPP: SESW / 161 FSL / 1390 FWL / TWSP: 26S / RANGE: 30E / SECTION: 28 / LAT: 32.0064864 / LONG: -103.8903077 (TVD: 9300 feet, MD: 11400 feet)

PPP: SENW / 2554 FNL / 1388 FWL / TWSP: 26S / RANGE: 30E / SECTION: 28 / LAT: 32.0136336 / LONG: -103.8903289 (TVD: 9300 feet, MD: 14000 feet)

BHL: NESW / 2620 FSL / 1395 FWL / TWSP: 26S / RANGE: 30E / SECTION: 21 / LAT: 32.027859 / LONG: -103.890371 (TVD: 9300 feet, MD: 19175 feet)

Offline Cementing

Variance Request

Devon Energy requests to offline cement on intermediate strings that are set in formations shallower than the Wolfcamp. Prior to commencing offline cementing operations, the well will be monitored for any abnormal pressures and confirmed to be static. A dual manifold system (equipped with chokes) for the returns will also be utilized as a redundancy. All equipment used for offline cementing will have a minimum 5M rating to match intermediate sections' 5M BOPE requirements.

Section 2 - Blowout Preventer Testing Procedure

Variance Request

Devon Energy requests to only test BOP connection breaks after drilling out of surface casing and while skidding between wells which conforms to API Standard 53 and industry standards. The initial BOP test will follow 43 CFR 3172, and subsequent tests following a skid will only test connections that are broken. This test will at minimum include the Top Pipe Ram, HCR, Kill Line Check Valve, QDC (quick disconnect to wellhead) and BOP shell of the 10M BOPE to 5M for 10 minutes. Additional pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. If a break to the flex hose that runs to the choke manifold is required due to repositioning from a skid, the HCR will remain open during the shell test to include that additional break. The variance only pertains to intermediate hole-sections. This variance will meet or exceed 43 CFR 3172 per the following: Devon Energy will perform a full BOP test per 43 CFR 3172 before drilling out of the intermediate casing string(s) and starting the production hole, testing the Annular during initial BOP testing to a minimum of 70% RWP and higher than MASP, and pressure testing at a 21-day interval frequency. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. In the event break testing is not utilized, then a full BOPE test would be conducted.

Devon Energy requests to perform offline BOP stump testing and offline BOPE testing. All pressure-containing and pressure-controlling seals will be tested either online or offline as denoted in the table below and per BLM approval during initial BOP test following test pressure requirements set forth in 43 CFR 3172. Remaining components not tested offline or on the stump will be tested within 72-hours when the BOP is connected to the wellhead. If stump testing exceeds 72-hour window prior to connecting to the wellhead, the BLM will be notified and either stump testing restarted, or the BOP being tested online. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. In the event stump testing is not utilized, then a full BOPE test would be conducted.

Components	Offline	Offline, BOPE	Break	Online
Upper Rams		X	X	X
Blind Rams		X		X
Lower Rams				X
Outside Kill Valve		X	X	X
Inside Kill Valve		X	X	X
Kill Line Check Valve		X	X	X
Inside Choke Valve		X	X	X
HCR		X	X	X
Kill Line	X			X
Annular		X		X
Choke Manifold Valves and Hose	X			X
Mudline (Mud Pumps, Rig Floor Valves, Kelly Hose, Mud Line)	X			X
Standpipe Valve	X			X
IBOP (Upper and Lower)	X			X

Devon requests offline BOPE testing for the following components: Upper Rams, Blind Rams, Kill Valves, Choke Valves, and Annular
- Remaining well control equipment components will either be tested offline or online, per BLM approval
- Remaining BOPE will be tested online within 72-hours form completing the offline BOPE component testing
- Notify the BLM if the online BOPE testing exceeds 72-hours
- All Full Tests not completed "Offline" or "Offline, BOPE" are required to be complete Online

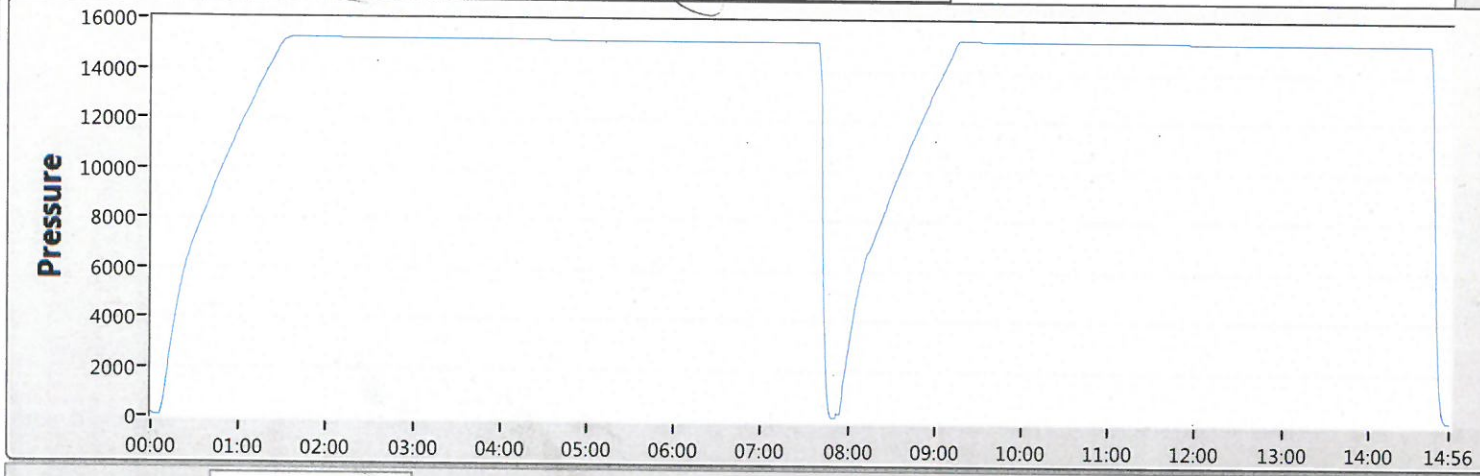
Devon requests Break testing as stated above for 5K tests, not including production hole
- Annular Preventer will be tested to minimum of 70% RWP and higher than MASP during initial BOP test
- Pressure testing is required for pressure-containing connections if the integrity of a pressure seal is broken during a break test
- Full Tests required when entering production hole

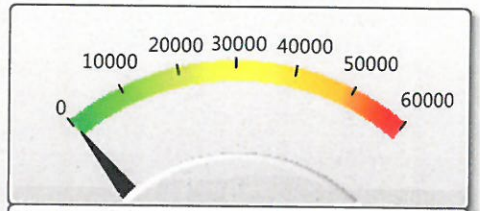
Cactus Wellhead

2-9-17 EBell

80.7 °F

15:49





50

Date 02-09-17

Tested By E.BELL

Transducer bay2

Transducer Serial 181504

Calibration Date 9/6/15

	Job#	Part#	Serial#	Description	Test Pressure
1	TRJ0006341-0007	116966	TRJ6341-7-1	ADPT,DRLG,CW,MBU-3T,13-5/8 10M	15000
2					
3					
4					
5				TRANSDUCER CALIBRATION DUE 03/13/2017	
6					
7					
8					

Start | Stop | Zero | Config | Save | Print | EXIT

Tenaris

TenarisHydril Wedge 461®

Coupling	Pipe Body
Grade: **P110-ICY**	Grade: **P110-ICY**
Body: **White**	1st Band: **White**
1st Band: **Pale Green**	2nd Band: **Pale Green**
2nd Band: **-**	3rd Band: **Pale Green**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	5.500 in.	**Wall Thickness**	0.361 in.	**Grade**	P110-ICY
Min. Wall Thickness	87.50 %	**Pipe Body Drift**	API Standard	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	**Wall Thickness**	0.361 in.	**Body Yield Strength**	729 x1000 lb
Nominal Weight	20.00 lb/ft	**Plain End Weight**	19.83 lb/ft	**Min. Internal Yield Pressure**	14,360 psi
Drift	4.653 in.	**OD Tolerance**	API	**SMYS**	125,000 psi
Nominal ID	4.778 in.			**Collapse Pressure**	12,300 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	6.300 in.	**Tension Efficiency**	100 %	**Minimum**	17,000 ft-lb
Coupling Length	7.714 in.	**Joint Yield Strength**	729 x1000 lb	**Optimum**	18,000 ft-lb
Connection ID	4.778 in.	**Internal Pressure Capacity**	14,360 psi	**Maximum**	21,600 ft-lb
Make-up Loss	3.775 in.	**Compression Efficiency**	100 %		
Threads per inch	3.40	**Compression Strength**	729 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	104 °/100 ft	**Operating Torque**	43,000 ft-lb
		External Pressure Capacity	12,300 psi	**Yield Torque**	51,000 ft-lb
		Coupling Face Load	329,000 lb	**Buck-On**	
				Minimum	21,600 ft-lb
				Maximum	23,100 ft-lb

Notes

This connection is fully interchangeable with:
Wedge 441® - 5.5 in. - 0.304 (17.00) / 0.361 (20.00) in. (lb/ft)
Wedge 461® - 5.5 in. - 0.304 (17.00) / 0.415 (23.00) / 0.476 (26.00) in. (lb/ft)
Connections with Dopeless® Technology are fully compatible with the same connection in its doped version
In October 2019, TenarisHydril Wedge XP® 2.0 was renamed TenarisHydril Wedge 461™. Product dimensions and properties remain identical and both connections are fully interchangeable

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Tenaris

TenarisHydril Wedge 441® - AD

Coupling	Pipe Body
Grade: **P110-ICY**	Grade: **P110-ICY**
Body: **White**	1st Band: **White**
1st Band: **Pale Green**	2nd Band: **Pale Green**
2nd Band: **-**	3rd Band: **Pale Green**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	8.625 in.	**Wall Thickness**	0.352 in.	**Grade**	P110-ICY
Min. Wall Thickness	90.00 %	**Pipe Body Drift**	Alternative Drift	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	8.625 in.	**Wall Thickness**	0.352 in.	**Body Yield Strength**	1144 x1000 lb
Nominal Weight	32.00 lb/ft	**Plain End Weight**	31.13 lb/ft	**Min. Internal Yield Pressure**	9180 psi
Drift	7.875 in.	**OD Tolerance**	API	**SMYS**	125,000 psi
Nominal ID	7.921 in.			**Collapse Pressure**	4000 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	8.889 in.	**Tension Efficiency**	81.20 %	**Minimum**	23,000 ft-lb
Coupling Length	8.862 in.	**Joint Yield Strength**	929 x1000 lb	**Optimum**	24,000 ft-lb
Connection ID	7.921 in.	**Internal Pressure Capacity**	9180 psi	**Maximum**	27,000 ft-lb
Make-up Loss	3.744 in.	**Compression Efficiency**	81.20 %		
Threads per inch	3.43	**Compression Strength**	929 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	53.59 °/100 ft	**Operating Torque**	59,000 ft-lb
		External Pressure Capacity	4000 psi	**Yield Torque**	70,000 ft-lb
				Buck-On	
				Minimum	27,000 ft-lb
				Maximum	29,000 ft-lb

Notes

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

SeAH

10-3/4" 45.50# 0.400" J-55

Dimensions (Nominal)

Outside Diameter	**10.750**	**in.**
Wall	**0.400**	**in.**
Inside Diameter	**9.950**	**in.**
Drift	**9.875**	**in.**
Weight, T&C	**45.500**	**lbs/ft**
Weight, PE	**44.260**	**lbs/ft**

Performance Properties

Collapse		**2090**	**psi**
Internal Yield Pressure at Minimum Yield			
	PE	**3580**	**psi**
	STC	**3580**	**psi**
	BTC	**3580**	**psi**
Yield Strength, Pipe Body		**715**	**1000 lbs**
Joint Strength			
	STC	**493**	**1000 lbs**
	BTC	**796**	**1000 lbs**
	BTC Special Clearance (11.25" OD Cplg)	**506**	**1000 lbs**

SeAH

13-3/8" 54.50# .380 J-55

Dimensions (Nominal)

Outside Diameter	13.375	**in.**
Wall	0.380	**in.**
Inside Diameter	12.615	**in.**
Drift	12.459	**in.**
Weight, T&C	54.500	**lbs/ft**
Weight, PE	52.790	**lbs/ft**

Performance Ratings, Minimum

Collapse, PE	**1130**	**psi**
Internal Yields Pressure		
PE	**2730**	**psi**
STC	**2730**	**PSI**
BTC	**2730**	**psi**
Yield Strength, Pipe Body	**853**	**1000 lbs**
Joint Strength, STC	**514**	**1000 lbs**
Joint Strength, BTC	**909**	**1000 lbs**

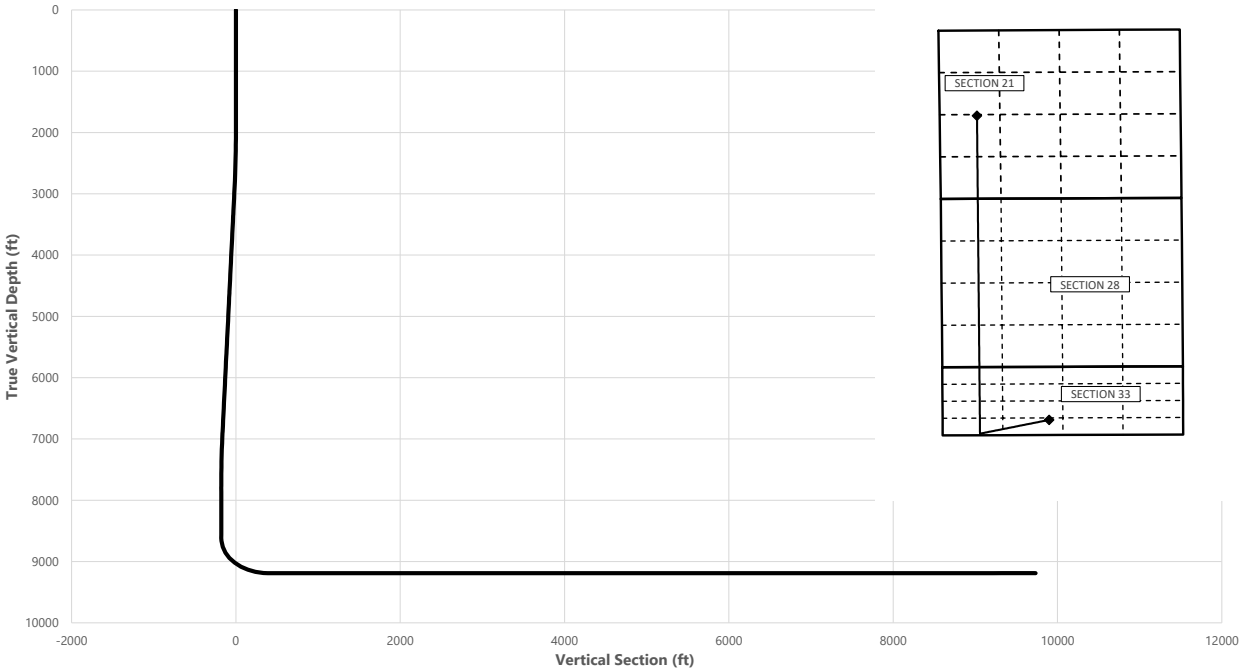
Note: SeAH Steel has produced this specification sheet for general information only. SeAH does not assume liability or responsibility for any loss or injury resulting from the use of information or data contained herein. All applications for the material described are at the customer's own risk and responsibility.

devon

Well: CLAWHAMMER 33-28-21 FEDERAL COM 322H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	254.12	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2900.00	18.00	254.12	2885.27	-38.37	-134.86	-15.76	2.00	Hold Tangent
7132.14	18.00	254.12	6910.27	-396.21	-1392.75	-162.74	0.00	Drop to Vertical
8032.14	0.00	254.12	7795.54	-434.58	-1527.62	-178.50	2.00	Hold Vertical
8852.64	0.00	359.62	8616.04	-434.58	-1527.62	-178.50	0.00	KOP
9752.64	90.00	359.62	9189.00	138.37	-1531.42	387.33	10.00	Landing Point
19216.05	90.00	359.62	9189.00	9601.57	-1594.18	9733.01	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	675.00	675.00
Salt	1506.00	1506.00
Base of Salt	3374.98	3337.00
Delaware	3374.98	3337.00
Cherry Canyon	4725.06	4621.00
Brushy Canyon	5766.00	5611.00
Bone Spring 1st	8537.60	8301.00
Bone Spring 2nd / Point of Penetrati	9183.72	8929.00
exit	19136.05	9189.01

	MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
SHL	0.00	0.00	32.0014	-103.8873	477' FSL, 2354' FWL of Sec 33 in T26S, R30E
KOP	8852.64	8616.04	32.0002	-103.8921	50' FSL, 825' FWL of Sec 33 in T26S, R30E
Point of Penetration	9183.72	8929.00	32.0004	-103.8921	100' FSL, 825' FWL of Sec 33 in T26S, R30E
Exit	19136.05	9189.01	32.0276	-103.8922	2540' FSL, 825' FWL of Sec 21 in T26S, R30E
BHL	19216.05	9189.00	32.0278	-103.8923	2620' FSL, 825' FWL of Sec 21 in T26S, R30E

	Y	X	MD
KOP	364116	678106	8852.64

devon

Well: CLAWHAMMER 33-28-21 FEDERAL COM 322H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	254.12	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	254.12	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	254.12	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	254.12	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	254.12	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	254.12	600.00	0.00	0.00	0.00	0.00	
675.00	0.00	254.12	675.00	0.00	0.00	0.00	0.00	Rustler
700.00	0.00	254.12	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	254.12	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	254.12	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	254.12	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	254.12	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	254.12	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	254.12	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	254.12	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	254.12	1500.00	0.00	0.00	0.00	0.00	
1506.00	0.00	254.12	1506.00	0.00	0.00	0.00	0.00	Salt
1600.00	0.00	254.12	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	254.12	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	254.12	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	254.12	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	254.12	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	254.12	2099.98	-0.48	-1.68	-0.20	2.00	
2200.00	4.00	254.12	2199.84	-1.91	-6.71	-0.78	2.00	
2300.00	6.00	254.12	2299.45	-4.29	-15.09	-1.76	2.00	
2400.00	8.00	254.12	2398.70	-7.63	-26.82	-3.13	2.00	
2500.00	10.00	254.12	2497.47	-11.91	-41.86	-4.89	2.00	
2600.00	12.00	254.12	2595.62	-17.13	-60.21	-7.04	2.00	
2700.00	14.00	254.12	2693.06	-23.28	-81.85	-9.56	2.00	
2800.00	16.00	254.12	2789.64	-30.37	-106.74	-12.47	2.00	
2900.00	18.00	254.12	2885.27	-38.37	-134.86	-15.76	2.00	Hold Tangent
3000.00	18.00	254.12	2980.37	-46.82	-164.58	-19.23	0.00	
3100.00	18.00	254.12	3075.48	-55.28	-194.31	-22.70	0.00	
3200.00	18.00	254.12	3170.59	-63.73	-224.03	-26.18	0.00	
3300.00	18.00	254.12	3265.69	-72.19	-253.75	-29.65	0.00	
3374.98	18.00	254.12	3337.00	-78.53	-276.04	-32.25	0.00	Base of Salt, Delaware
3400.00	18.00	254.12	3360.80	-80.64	-283.47	-33.12	0.00	
3500.00	18.00	254.12	3455.90	-89.10	-313.20	-36.60	0.00	
3600.00	18.00	254.12	3551.01	-97.55	-342.92	-40.07	0.00	
3700.00	18.00	254.12	3646.11	-106.01	-372.64	-43.54	0.00	
3800.00	18.00	254.12	3741.22	-114.47	-402.36	-47.02	0.00	
3900.00	18.00	254.12	3836.33	-122.92	-432.09	-50.49	0.00	
4000.00	18.00	254.12	3931.43	-131.38	-461.81	-53.96	0.00	
4100.00	18.00	254.12	4026.54	-139.83	-491.53	-57.43	0.00	
4200.00	18.00	254.12	4121.64	-148.29	-521.25	-60.91	0.00	
4300.00	18.00	254.12	4216.75	-156.74	-550.97	-64.38	0.00	
4400.00	18.00	254.12	4311.85	-165.20	-580.70	-67.85	0.00	
4500.00	18.00	254.12	4406.96	-173.65	-610.42	-71.33	0.00	
4600.00	18.00	254.12	4502.06	-182.11	-640.14	-74.80	0.00	
4700.00	18.00	254.12	4597.17	-190.57	-669.86	-78.27	0.00	
4725.06	18.00	254.12	4621.00	-192.68	-677.31	-79.14	0.00	Cherry Canyon
4800.00	18.00	254.12	4692.28	-199.02	-699.59	-81.75	0.00	
4900.00	18.00	254.12	4787.38	-207.48	-729.31	-85.22	0.00	
5000.00	18.00	254.12	4882.49	-215.93	-759.03	-88.69	0.00	
5100.00	18.00	254.12	4977.59	-224.39	-788.75	-92.17	0.00	
5200.00	18.00	254.12	5072.70	-232.84	-818.48	-95.64	0.00	
5300.00	18.00	254.12	5167.80	-241.30	-848.20	-99.11	0.00	
5400.00	18.00	254.12	5262.91	-249.75	-877.92	-102.58	0.00	
5500.00	18.00	254.12	5358.02	-258.21	-907.64	-106.06	0.00	
5600.00	18.00	254.12	5453.12	-266.66	-937.36	-109.53	0.00	
5700.00	18.00	254.12	5548.23	-275.12	-967.09	-113.00	0.00	
5766.00	18.00	254.12	5611.00	-280.70	-986.71	-115.30	0.00	Brushy Canyon
5800.00	18.00	254.12	5643.33	-283.58	-996.81	-116.48	0.00	
5900.00	18.00	254.12	5738.44	-292.03	-1026.53	-119.95	0.00	
6000.00	18.00	254.12	5833.54	-300.49	-1056.25	-123.42	0.00	
6100.00	18.00	254.12	5928.65	-308.94	-1085.98	-126.90	0.00	
6200.00	18.00	254.12	6023.76	-317.40	-1115.70	-130.37	0.00	
6300.00	18.00	254.12	6118.86	-325.85	-1145.42	-133.84	0.00	
6400.00	18.00	254.12	6213.97	-334.31	-1175.14	-137.32	0.00	

devon

Well: CLAWHAMMER 33-28-21 FEDERAL COM 322H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6500.00	18.00	254.12	6309.07	-342.76	-1204.87	-140.79	0.00	
6600.00	18.00	254.12	6404.18	-351.22	-1234.59	-144.26	0.00	
6700.00	18.00	254.12	6499.28	-359.68	-1264.31	-147.73	0.00	
6800.00	18.00	254.12	6594.39	-368.13	-1294.03	-151.21	0.00	
6900.00	18.00	254.12	6689.49	-376.59	-1323.76	-154.68	0.00	
7000.00	18.00	254.12	6784.60	-385.04	-1353.48	-158.15	0.00	
7100.00	18.00	254.12	6879.71	-393.50	-1383.20	-161.63	0.00	
7132.14	18.00	254.12	6910.27	-396.21	-1392.75	-162.74	0.00	Drop to Vertical
7200.00	16.64	254.12	6975.05	-401.74	-1412.19	-165.01	2.00	
7300.00	14.64	254.12	7071.35	-409.12	-1438.12	-168.04	2.00	
7400.00	12.64	254.12	7168.52	-415.57	-1460.81	-170.69	2.00	
7500.00	10.64	254.12	7266.46	-421.09	-1480.22	-172.96	2.00	
7600.00	8.64	254.12	7365.04	-425.68	-1496.33	-174.84	2.00	
7700.00	6.64	254.12	7464.14	-429.31	-1509.12	-176.33	2.00	
7800.00	4.64	254.12	7563.66	-432.00	-1518.58	-177.44	2.00	
7900.00	2.64	254.12	7663.45	-433.74	-1524.69	-178.15	2.00	
8000.00	0.64	254.12	7763.40	-434.53	-1527.44	-178.48	2.00	
8032.14	0.00	254.12	7795.54	-434.58	-1527.62	-178.50	2.00	Hold Vertical
8100.00	0.00	359.62	7863.40	-434.58	-1527.62	-178.50	0.00	
8200.00	0.00	359.62	7963.40	-434.58	-1527.62	-178.50	0.00	
8300.00	0.00	359.62	8063.40	-434.58	-1527.62	-178.50	0.00	
8400.00	0.00	359.62	8163.40	-434.58	-1527.62	-178.50	0.00	
8500.00	0.00	359.62	8263.40	-434.58	-1527.62	-178.50	0.00	
8537.60	0.00	359.62	8301.00	-434.58	-1527.62	-178.50	0.00	Bone Spring 1st
8600.00	0.00	359.62	8363.40	-434.58	-1527.62	-178.50	0.00	
8700.00	0.00	359.62	8463.40	-434.58	-1527.62	-178.50	0.00	
8800.00	0.00	359.62	8563.40	-434.58	-1527.62	-178.50	0.00	
8852.64	0.00	359.62	8616.04	-434.58	-1527.62	-178.50	0.00	KOP
8900.00	4.74	359.62	8663.35	-432.62	-1527.63	-176.56	10.00	
9000.00	14.74	359.62	8761.78	-415.73	-1527.74	-159.88	10.00	
9100.00	24.74	359.62	8855.79	-382.01	-1527.97	-126.58	10.00	
9183.72	33.11	359.62	8929.00	-341.56	-1528.23	-86.63	10.00	Bone Spring 2nd / Point of Penetration
9200.00	34.74	359.62	8942.51	-332.47	-1528.29	-77.66	10.00	
9300.00	44.74	359.62	9019.31	-268.63	-1528.72	-14.61	10.00	
9400.00	54.74	359.62	9083.86	-192.42	-1529.22	60.65	10.00	
9500.00	64.74	359.62	9134.20	-106.16	-1529.80	145.84	10.00	
9600.00	74.74	359.62	9168.79	-12.47	-1530.42	238.37	10.00	
9700.00	84.74	359.62	9186.58	85.80	-1531.07	335.42	10.00	
9752.64	90.00	359.62	9189.00	138.37	-1531.42	387.33	10.00	Landing Point
9800.00	90.00	359.62	9189.00	185.73	-1531.73	434.10	0.00	
9900.00	90.00	359.62	9189.00	285.73	-1532.39	532.86	0.00	
10000.00	90.00	359.62	9189.00	385.72	-1533.06	631.62	0.00	
10100.00	90.00	359.62	9189.00	485.72	-1533.72	730.37	0.00	
10200.00	90.00	359.62	9189.00	585.72	-1534.39	829.13	0.00	
10300.00	90.00	359.62	9189.00	685.72	-1535.05	927.88	0.00	
10400.00	90.00	359.62	9189.00	785.71	-1535.71	1026.64	0.00	
10500.00	90.00	359.62	9189.00	885.71	-1536.38	1125.40	0.00	
10600.00	90.00	359.62	9189.00	985.71	-1537.04	1224.15	0.00	
10700.00	90.00	359.62	9189.00	1085.71	-1537.70	1322.91	0.00	
10800.00	90.00	359.62	9189.00	1185.71	-1538.37	1421.67	0.00	
10900.00	90.00	359.62	9189.00	1285.70	-1539.03	1520.42	0.00	
11000.00	90.00	359.62	9189.00	1385.70	-1539.70	1619.18	0.00	
11100.00	90.00	359.62	9189.00	1485.70	-1540.36	1717.93	0.00	
11200.00	90.00	359.62	9189.00	1585.70	-1541.02	1816.69	0.00	
11300.00	90.00	359.62	9189.00	1685.69	-1541.69	1915.45	0.00	
11400.00	90.00	359.62	9189.00	1785.69	-1542.35	2014.20	0.00	
11500.00	90.00	359.62	9189.00	1885.69	-1543.01	2112.96	0.00	
11600.00	90.00	359.62	9189.00	1985.69	-1543.68	2211.71	0.00	
11700.00	90.00	359.62	9189.00	2085.69	-1544.34	2310.47	0.00	
11800.00	90.00	359.62	9189.00	2185.68	-1545.01	2409.23	0.00	
11900.00	90.00	359.62	9189.00	2285.68	-1545.67	2507.98	0.00	
12000.00	90.00	359.62	9189.00	2385.68	-1546.33	2606.74	0.00	
12100.00	90.00	359.62	9189.00	2485.68	-1547.00	2705.49	0.00	
12200.00	90.00	359.62	9189.00	2585.67	-1547.66	2804.25	0.00	
12300.00	90.00	359.62	9189.00	2685.67	-1548.32	2903.01	0.00	
12400.00	90.00	359.62	9189.00	2785.67	-1548.99	3001.76	0.00	
12500.00	90.00	359.62	9189.00	2885.67	-1549.65	3100.52	0.00	
12600.00	90.00	359.62	9189.00	2985.67	-1550.32	3199.27	0.00	
12700.00	90.00	359.62	9189.00	3085.66	-1550.98	3298.03	0.00	
12800.00	90.00	359.62	9189.00	3185.66	-1551.64	3396.79	0.00	

devon

Well: CLAWHAMMER 33-28-21 FEDERAL COM 322H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
12900.00	90.00	359.62	9189.00	3285.66	-1552.31	3495.54	0.00	
13000.00	90.00	359.62	9189.00	3385.66	-1552.97	3594.30	0.00	
13100.00	90.00	359.62	9189.00	3485.65	-1553.63	3693.05	0.00	
13200.00	90.00	359.62	9189.00	3585.65	-1554.30	3791.81	0.00	
13300.00	90.00	359.62	9189.00	3685.65	-1554.96	3890.57	0.00	
13400.00	90.00	359.62	9189.00	3785.65	-1555.63	3989.32	0.00	
13500.00	90.00	359.62	9189.00	3885.65	-1556.29	4088.08	0.00	
13600.00	90.00	359.62	9189.00	3985.64	-1556.95	4186.83	0.00	
13700.00	90.00	359.62	9189.00	4085.64	-1557.62	4285.59	0.00	
13800.00	90.00	359.62	9189.01	4185.64	-1558.28	4384.35	0.00	
13900.00	90.00	359.62	9189.01	4285.64	-1558.94	4483.10	0.00	
14000.00	90.00	359.62	9189.01	4385.63	-1559.61	4581.86	0.00	
14100.00	90.00	359.62	9189.01	4485.63	-1560.27	4680.61	0.00	
14200.00	90.00	359.62	9189.01	4585.63	-1560.94	4779.37	0.00	
14300.00	90.00	359.62	9189.01	4685.63	-1561.60	4878.13	0.00	
14400.00	90.00	359.62	9189.01	4785.63	-1562.26	4976.88	0.00	
14500.00	90.00	359.62	9189.01	4885.62	-1562.93	5075.64	0.00	
14600.00	90.00	359.62	9189.01	4985.62	-1563.59	5174.39	0.00	
14700.00	90.00	359.62	9189.01	5085.62	-1564.25	5273.15	0.00	
14800.00	90.00	359.62	9189.01	5185.62	-1564.92	5371.91	0.00	
14900.00	90.00	359.62	9189.01	5285.62	-1565.58	5470.66	0.00	
15000.00	90.00	359.62	9189.01	5385.61	-1566.25	5569.42	0.00	
15100.00	90.00	359.62	9189.01	5485.61	-1566.91	5668.17	0.00	
15200.00	90.00	359.62	9189.01	5585.61	-1567.57	5766.93	0.00	
15300.00	90.00	359.62	9189.01	5685.61	-1568.24	5865.69	0.00	
15400.00	90.00	359.62	9189.01	5785.60	-1568.90	5964.44	0.00	
15500.00	90.00	359.62	9189.01	5885.60	-1569.56	6063.20	0.00	
15600.00	90.00	359.62	9189.01	5985.60	-1570.23	6161.95	0.00	
15700.00	90.00	359.62	9189.01	6085.60	-1570.89	6260.71	0.00	
15800.00	90.00	359.62	9189.01	6185.60	-1571.56	6359.47	0.00	
15900.00	90.00	359.62	9189.01	6285.59	-1572.22	6458.22	0.00	
16000.00	90.00	359.62	9189.01	6385.59	-1572.88	6556.98	0.00	
16100.00	90.00	359.62	9189.01	6485.59	-1573.55	6655.73	0.00	
16200.00	90.00	359.62	9189.01	6585.59	-1574.21	6754.49	0.00	
16300.00	90.00	359.62	9189.01	6685.58	-1574.87	6853.25	0.00	
16400.00	90.00	359.62	9189.01	6785.58	-1575.54	6952.00	0.00	
16500.00	90.00	359.62	9189.01	6885.58	-1576.20	7050.76	0.00	
16600.00	90.00	359.62	9189.01	6985.58	-1576.87	7149.51	0.00	
16700.00	90.00	359.62	9189.01	7085.58	-1577.53	7248.27	0.00	
16800.00	90.00	359.62	9189.01	7185.57	-1578.19	7347.03	0.00	
16900.00	90.00	359.62	9189.01	7285.57	-1578.86	7445.78	0.00	
17000.00	90.00	359.62	9189.01	7385.57	-1579.52	7544.54	0.00	
17100.00	90.00	359.62	9189.01	7485.57	-1580.18	7643.29	0.00	
17200.00	90.00	359.62	9189.01	7585.56	-1580.85	7742.05	0.00	
17300.00	90.00	359.62	9189.01	7685.56	-1581.51	7840.81	0.00	
17400.00	90.00	359.62	9189.01	7785.56	-1582.18	7939.56	0.00	
17500.00	90.00	359.62	9189.01	7885.56	-1582.84	8038.32	0.00	
17600.00	90.00	359.62	9189.01	7985.56	-1583.50	8137.08	0.00	
17700.00	90.00	359.62	9189.01	8085.55	-1584.17	8235.83	0.00	
17800.00	90.00	359.62	9189.01	8185.55	-1584.83	8334.59	0.00	
17900.00	90.00	359.62	9189.01	8285.55	-1585.49	8433.34	0.00	
18000.00	90.00	359.62	9189.01	8385.55	-1586.16	8532.10	0.00	
18100.00	90.00	359.62	9189.01	8485.54	-1586.82	8630.86	0.00	
18200.00	90.00	359.62	9189.01	8585.54	-1587.49	8729.61	0.00	
18300.00	90.00	359.62	9189.01	8685.54	-1588.15	8828.37	0.00	
18400.00	90.00	359.62	9189.01	8785.54	-1588.81	8927.12	0.00	
18500.00	90.00	359.62	9189.01	8885.54	-1589.48	9025.88	0.00	
18600.00	90.00	359.62	9189.01	8985.53	-1590.14	9124.64	0.00	
18700.00	90.00	359.62	9189.01	9085.53	-1590.80	9223.39	0.00	
18800.00	90.00	359.62	9189.01	9185.53	-1591.47	9322.15	0.00	
18900.00	90.00	359.62	9189.01	9285.53	-1592.13	9420.90	0.00	
19000.00	90.00	359.62	9189.01	9385.52	-1592.80	9519.66	0.00	
19100.00	90.00	359.62	9189.01	9485.52	-1593.46	9618.42	0.00	
19136.05	90.00	359.62	9189.01	9521.57	-1593.70	9654.02	0.00	exit
19200.00	90.00	359.62	9189.01	9585.52	-1594.12	9717.17	0.00	
19216.05	90.00	359.62	9189.00	9601.57	-1594.18	9733.01	0.00	BHL

CLAWHAMMER 33-28-21 FEDERAL COM 322H

1. Geologic Formations

TVD of target	9189	Pilot hole depth	N/A
MD at TD:	19216	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	675		
Salt	1506		
Base of Salt	3337		
Delaware	3337		
Cherry Canyon	4621		
Brushy Canyon	5611		
Bone Spring 1st	8301		
Bone Spring 2nd	8929		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
17 1/2	13 3/8	54.5	J-55	BTC	0	700 MD	0	700 TVD
12 1/4	10 3/4	45.5	J-55	BTC SCC	0	3390 MD	0	3390 TVD
9 7/8	8 5/8	32.0	P110-ICY	441	0	8753	0	8753
7 7/8	5 1/2	20.0	P110-ICY	461	0	19216 MD	0	9189 TVD

•All casing strings will be tested in accordance with 43 CFR 3172. Must have table for contingency casing.
• The Rustler top will be validated via drilling parameters (i.e. reduction in ROP), and the surface casing setting depth will be revised accordingly. In addition, surface casing will be set a minimum of 25' above the top of the salt.

3. Cementing Program (3-String Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	544	Surf	13.2	1.4	Lead: Class C Cement + additives
Int	215	Surf	9.0	3.3	Lead: Class C Cement + additives
	101	2890	13.2	1.4	Tail: Class H / C + additives
Int 1	230	Surf	9.0	3.3	Lead: Class C Cement + additives
	368	5611	13.2	1.4	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	230	Surf	0.0	3.3	Squeeze Lead: Class C Cement + additives
	230	Surf	9.0	3.3	Lead: Class C Cement + additives
	368	5611	13.2	1.4	Tail: Class H / C + additives
Production	119	6853	9.0	3.3	Lead: Class H /C + additives
	1372	8853	13.2	1.4	Tail: Class H / C + additives

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. The final cement top will be verified by Echo-meter. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures.

Casing String	% Excess
Surface	50%
Intermediate and Intermediate 1	30%
Production	10%

4. Pressure Control Equipment (Four String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Int	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Int 1	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	5M	Annular (5M)	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		

5. Mud Program (Four String Design)

Section	Type	Weight (ppg)
Surface	WBM	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Intermediate 1	WBM	8.5-9
Production	WBM	8.5-9

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and sbumitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Additional logs planned		Interval
	Resistivity	
	Density	
X	CBL	Production casing
	Mud log	KOP to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	4300
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogren Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR 3176. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

1 Spudder rig will move in and batch drill surface hole.
    a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.
2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (43 CFR 3172, all COAs and NMOCD regulations).
3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pad.
6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
7 Drilling operations will be performed with drilling rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
    a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan
_____ Other, describe

C-102	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July, 2024
Submit Electronically Via OCD Permitting		Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
	97863	WILDCAT G-03 S263016K;BONE SPRING	
Property Code	Property Name		Well Number
	CLAWHAMMER 33-28-21 FED COM		322H
OGRID No.	Operator Name		Ground Level Elevation
6137	WPX ENERGY PERMIAN, LLC.		2957.9'
Surface Owner: ☐State ☐Fee ☐Tribal ☒Federal		Mineral Owner: ☐State ☐Fee ☐Tribal ☒Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	33	26-S	30-E	3	477' S	2354' W	32.001444	103.887194	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	21	26-S	30-E		2620' S	825' W	32.027856	103.892211	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
609.5	DEFINING	SUBJECT	N	U
Order Numbers	PENDING NSP		Well setbacks are under Common Ownership: ☒Yes ☐No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	33	26-S	30-E	4	50' S	825' W	32.000268	103.892127	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	33	26-S	30-E	4	100' S	825' W	32.000405	103.892127	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	21	26-S	30-E		2540' S	825' W	32.027636	103.892209	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type Horizontal Vertical	Ground Floor Elevation:
Y	X	N/A

OPERATOR CERTIFICATIONS

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.

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.

Amy A. Brown 05/06/2025

Signature Date

Amy Brown

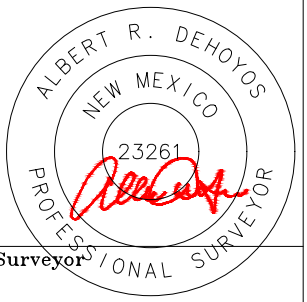
Printed Name

amy.brown@dvn.com

Email Address

SURVEYOR CERTIFICATIONS

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



Signature and Seal of Professional Surveyor

Certificate Number	Date of Survey
23261	02/2025

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

SURFACE HOLE LOCATION
GEODETIC COORDINATES NAD 83
NMSP EAST SURFACE LOCATION
477' FSL 2354' FWL SECTION 33
EL: 2957.9'
N: 364550.16/E: 679633.73
LAT: 32.001444/LON: 103.887194

KICK OFF POINT
50' FSL 825' FWL SECTION 33
N: 364116.00/E: 678106.54
LAT: 32.000268/LON: 103.892127

FIRST TAKE POINT
100' FSL 825' FWL SECTION 33
N: 364166.00/E: 678106.33
LAT: 32.000405/LON: 103.892127

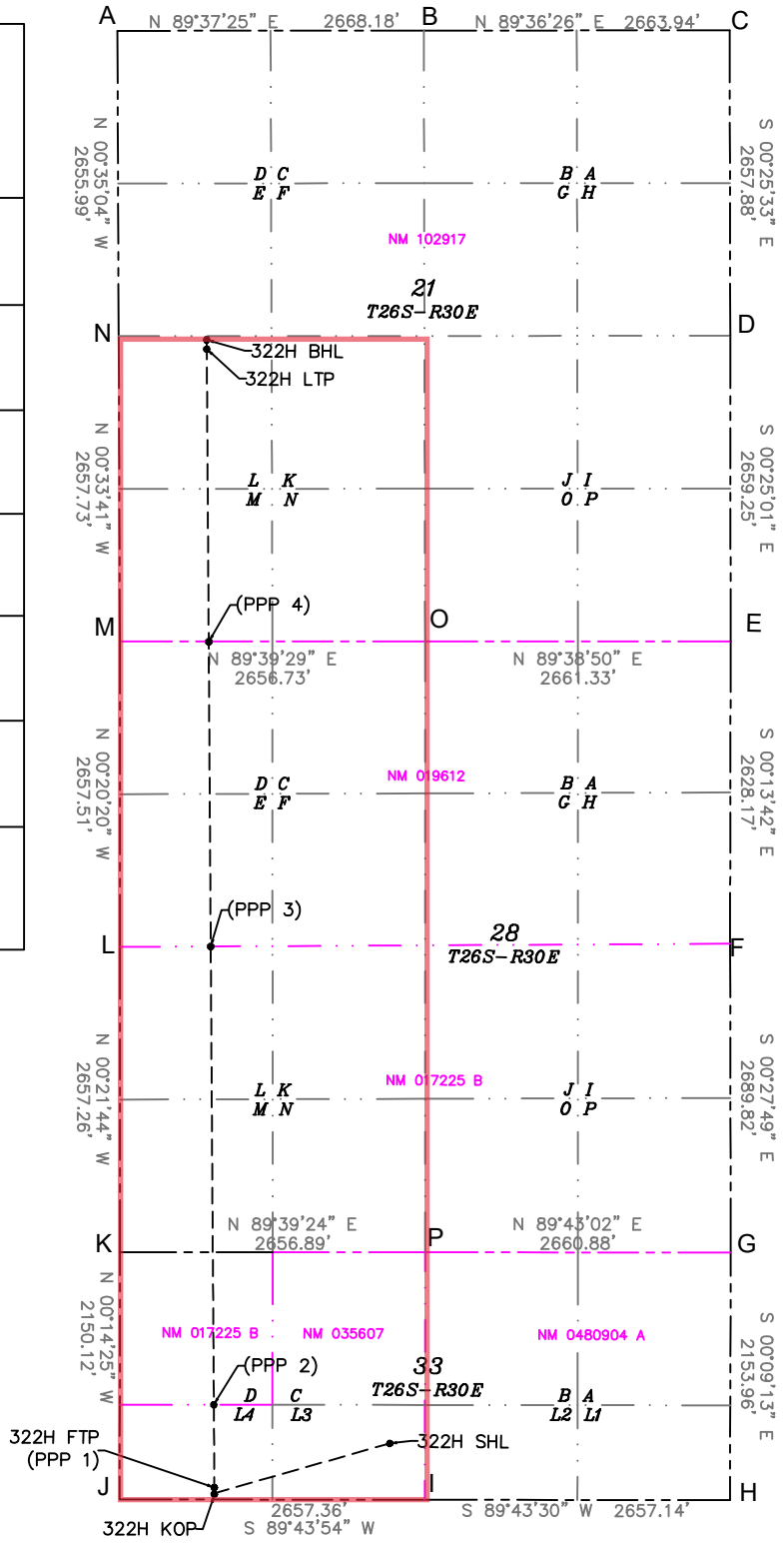
LAST TAKE POINT
2540' FSL 825' FWL SECTION 21
N: 374071.74/E: 678040.33
LAT: 32.027636/LON: 103.892209

BOTTOM HOLE LOCATION
2620' FSL 825' FWL SECTION 21
N: 374151.73/E: 678039.55
LAT: 32.027856/LON: 103.892211

PPP 2
825' FSL 823' FWL SECTION 33
N: 364890.75/E: 678101.50
LAT: 32.002398/LON: 103.892133

PPP 3
2661' FSL 819' FWL SECTION 28
N: 368878.48/E: 678074.93
LAT: 32.013360/LON: 103.892166

PPP 4
0' FSL 817' FWL SECTION 21
N: 371531.79/E: 678057.25
LAT: 32.020654/LON: 103.892188



A=N: 376840.37 E: 677187.09
B=N: 376857.90 E: 679855.21
C=N: 376876.15 E: 682519.09
D=N: 374218.35 E: 682538.83
E=N: 371559.16 E: 682558.19
F=N: 368928.02 E: 682568.68
G=N: 366241.29 E: 682590.42
H=N: 364087.34 E: 682596.19
I= N: 364074.58 E: 679939.09
J=N: 364062.14 E: 677281.75
K=N: 366212.24 E: 677272.74
L=N: 368869.45 E: 677255.94
M=N: 371526.92 E: 677240.22
N=N: 374184.52 E: 677214.19
O=N: 371542.78 E: 679896.90
P=N: 366228.16 E: 679929.58

Well Name: CLAWHAMMER 33-28-21 FEDERAL COM

Well Location: T26S / R30E / SEC 33 / LOT 3 / 32.001444 / -103.887194

County or Parish/State: EDDY / NM

Well Number: 322H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM35607

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: WPX ENERGY PERMIAN LLC

Notice of Intent

Sundry ID: 2851525

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/07/2025

Time Sundry Submitted: 10:51

Date proposed operation will begin: 05/08/2025

Procedure Description: WPX Energy Permian, LLC respectfully requests a BHL move and drill plan change for the subject well (API ID 10400098843). WPX also requests break test and offline cementing variances. Please see revised C102, drill plan, directional plan, and variance attachments. Permitted BHL: UL: K, 2620 FSL, 1395 FWL, 21-26S-30E Proposed BHL: UL: L, 2620 FSL, 825 FWL, 21-26S-30E

NOI Attachments

Procedure Description

Offline_Cementing___Variance_Request_20250507104830.pdf

Break_Test_Variance_Offline_BOP_2_3_2025_20250507104805.pdf

5.5_20lb_P110_ICY_20250507103524.pdf

8.625_32lb_P110_ICY_20250507103502.pdf

10.75_45.5lb_J55_BTC_20250507074456.pdf

13.375_54.5lb_J55_20250507074434.pdf

CLAWHAMMER_33_28_21_FEDERAL_COM_322H_Directional_Plan_04_23_25_20250507074309.pdf

CLAWHAMMER_33_28_21_FEDERAL_COM_322H_4_23_20250507074302.pdf

WA018358969_CLAWHAMMER_33_28_21_FEDERAL_COM_322H_WL_R2_SIGNED_20250507074227.pdf

Well Name: CLAWHAMMER 33-28-21 FEDERAL COM

Well Location: T26S / R30E / SEC 33 / LOT 3 / 32.001444 / -103.887194

County or Parish/State: EDDY / NM

Well Number: 322H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM35607

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: WPX ENERGY PERMIAN LLC

Operator

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

Operator Electronic Signature: AMY BROWN

Signed on: MAY 07, 2025 10:48 AM

Name: WPX ENERGY PERMIAN LLC

Title: Regulatory Professional

Street Address: 333 WEST SHERIDAN AVENUE

City: OKLAHOMA CITY **State:** OK

Phone: (405) 552-6137

Email address: AMY.BROWN@DVN.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

APPROVED by Long Vo
Petroleum Engineer
Carlsbad Field Office
575-988-50402
LVO@BLM.GOV

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**WPX Energy Permian LLC**
LOCATION:	Section 33, T.26 S., R.30 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	**Clawhammer 33-28-21 Federal Com 322H**
ATS/API ID:	**ATS-24-1753**
APD ID:	**10400098843**
Sundry ID:	**2851525**

COA

H2S	No		
Potash	None	None	
Cave/Karst Potential	Medium		
Cave/Karst Potential	☐ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	Conventional and Multibowl		
Other	☑ 4 String ☐ 5 String	Capitan Reef: None	☐ WIPP
Other	Pilot Hole: None	☐ Open Annulus	
Cementing	Contingency Squeeze: None	Echo-Meter: Int 2	Primary Cement Squeeze: None
Special Requirements	☐ Water Disposal/Injection	☑ COM	☐ Unit
Special Requirements	☐ Batch Sundry	Waste Prevention: None	
Special Requirements Variance	☑ BOPE Break Testing ☑ Offline BOPE Testing	☑ Offline Cementing	☐ Casing Clearance

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet **43 CFR part 3170 Subpart 3176**, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **700 feet** (a minimum of 70 feet into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.

    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 **10-3/4** inch intermediate casing is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

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

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

    Option 1 (Single Stage):

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon at 5611'.**

b. Second stage:

- Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. **(Squeeze 230 sxs Class C)**
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Operator has proposed to pump down **10-3/4**" X **8-5/8**" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the **8-5/8**" casing to surface after the second stage BH to verify TOC.
Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad. Operator may conduct a negative and positive pressure test during completion to remediate sustained casing pressure.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst 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.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi. **Annular which shall be tested to 2100 (70% Working Pressure) psi.**

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **10-3/4** intermediate casing shoe shall be **5000 (5M)** psi. **Annular which shall be tested to 3500 (70% Working Pressure) psi.**

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

Option 2:

a. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

   a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
   b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
   c. Manufacturer representative shall install the test plug for the initial BOP test.
   d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
   e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) 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 part 3170 Subpart 3171**
- 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 (Approved)

- BOPE Break Testing is ONLY permitted for 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 part 3170 Subpart 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.
- The BOPE testing shall be conducted while the rig is stationary.

Offline BOPE Testing

Operator has been **(Approved)** to test the BOPE offline.

The BOPE offline testing shall be stationary during pressure testing.

Online BOPE testing should commence within 72 hours of offline BOPE testing completion. Notify the BLM if interval exceeds 72 hours.

Notify the BLM 4hrs prior to offline BOPE testing at **Eddy County: 575-361-2822**.

Offline Cementing

Operator has been **(Approved)** to pump the proposed cement program offline in the **Intermediate(s) interval**.

Offline cementing should commence within 24 hours of landing the casing for the interval.

Notify the BLM 4hrs prior to cementing offline at **Eddy County: 575-361-2822**.

GENERAL REQUIREMENTS

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

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

☑ Eddy County
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
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

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

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-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

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

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

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

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

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

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

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been

done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the 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.)

c. 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 part 3170 Subpart 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).

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

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

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

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

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 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.

Long Vo (LVO) 5/21/2025

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

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*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 recomplete 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 perfonned 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 recompletion 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 detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

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)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect ofthis form to U.S. Department ofthe Interior, Bureau ofLand Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: LOT 3 / 477 FSL / 2354 FWL / TWSP: 26S / RANGE: 30E / SECTION: 33 / LAT: 32.001444 / LONG: -103.887194 (TVD: 0 feet, MD: 0 feet)

PPP: LOT 3 / 100 FSL / 1395 FWL / TWSP: 26S / RANGE: 30E / SECTION: 33 / LAT: 32.000406 / LONG: -103.890288 (TVD: 8929 feet, MD: 9023 feet)

PPP: SESW / 146 FSL / 1387 FWL / TWSP: 26S / RANGE: 30E / SECTION: 21 / LAT: 32.0210557 / LONG: -103.8903511 (TVD: 9300 feet, MD: 16700 feet)

PPP: SESW / 161 FSL / 1390 FWL / TWSP: 26S / RANGE: 30E / SECTION: 28 / LAT: 32.0064864 / LONG: -103.8903077 (TVD: 9300 feet, MD: 11400 feet)

PPP: SENW / 2554 FNL / 1388 FWL / TWSP: 26S / RANGE: 30E / SECTION: 28 / LAT: 32.0136336 / LONG: -103.8903289 (TVD: 9300 feet, MD: 14000 feet)

BHL: NESW / 2620 FSL / 1395 FWL / TWSP: 26S / RANGE: 30E / SECTION: 21 / LAT: 32.027859 / LONG: -103.890371 (TVD: 9300 feet, MD: 19175 feet)

Offline Cementing

Variance Request

Devon Energy requests to offline cement on intermediate strings that are set in formations shallower than the Wolfcamp. Prior to commencing offline cementing operations, the well will be monitored for any abnormal pressures and confirmed to be static. A dual manifold system (equipped with chokes) for the returns will also be utilized as a redundancy. All equipment used for offline cementing will have a minimum 5M rating to match intermediate sections' 5M BOPE requirements.

Section 2 - Blowout Preventer Testing Procedure

Variance Request

Devon Energy requests to only test BOP connection breaks after drilling out of surface casing and while skidding between wells which conforms to API Standard 53 and industry standards. The initial BOP test will follow 43 CFR 3172, and subsequent tests following a skid will only test connections that are broken. This test will at minimum include the Top Pipe Ram, HCR, Kill Line Check Valve, QDC (quick disconnect to wellhead) and BOP shell of the 10M BOPE to 5M for 10 minutes. Additional pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. If a break to the flex hose that runs to the choke manifold is required due to repositioning from a skid, the HCR will remain open during the shell test to include that additional break. The variance only pertains to intermediate hole-sections. This variance will meet or exceed 43 CFR 3172 per the following: Devon Energy will perform a full BOP test per 43 CFR 3172 before drilling out of the intermediate casing string(s) and starting the production hole, testing the Annular during initial BOP testing to a minimum of 70% RWP and higher than MASP, and pressure testing at a 21-day interval frequency. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. In the event break testing is not utilized, then a full BOPE test would be conducted.

Devon Energy requests to perform offline BOP stump testing and offline BOPE testing. All pressure-containing and pressure-controlling seals will be tested either online or offline as denoted in the table below and per BLM approval during initial BOP test following test pressure requirements set forth in 43 CFR 3172. Remaining components not tested offline or on the stump will be tested within 72-hours when the BOP is connected to the wellhead. If stump testing exceeds 72-hour window prior to connecting to the wellhead, the BLM will be notified and either stump testing restarted, or the BOP being tested online. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. In the event stump testing is not utilized, then a full BOPE test would be conducted.

Components	Offline	Offline, BOPE	Break	Online
Upper Rams		X	X	X
Blind Rams		X		X
Lower Rams				X
Outside Kill Valve		X	X	X
Inside Kill Valve		X	X	X
Kill Line Check Valve		X	X	X
Inside Choke Valve		X	X	X
HCR		X	X	X
Kill Line	X			X
Annular		X		X
Choke Manifold Valves and Hose	X			X
Mudline (Mud Pumps, Rig Floor Valves, Kelly Hose, Mud Line)	X			X
Standpipe Valve	X			X
IBOP (Upper and Lower)	X			X

Devon requests offline BOPE testing for the following components: Upper Rams, Blind Rams, Kill Valves, Choke Valves, and Annular
- Remaining well control equipment components will either be tested offline or online, per BLM approval
- Remaining BOPE will be tested online within 72-hours form completing the offline BOPE component testing
- Notify the BLM if the online BOPE testing exceeds 72-hours
- All Full Tests not completed "Offline" or "Offline, BOPE" are required to be complete Online

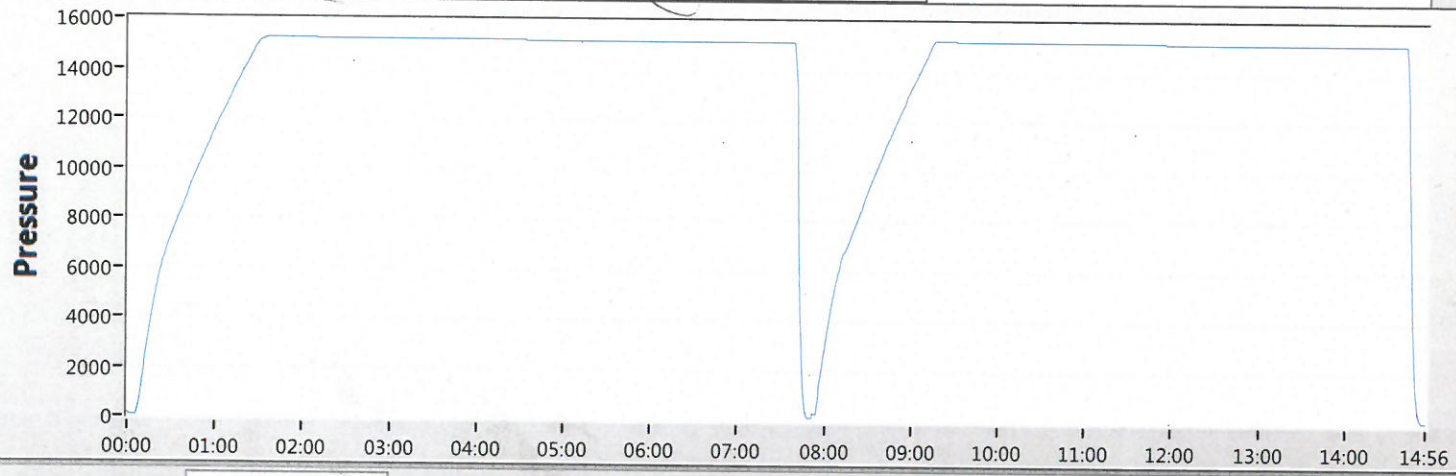
Devon requests Break testing as stated above for 5K tests, not including production hole
- Annular Preventer will be tested to minimum of 70% RWP and higher than MASP during initial BOP test
- Pressure testing is required for pressure-containing connections if the integrity of a pressure seal is broken during a break test
- Full Tests required when entering production hole

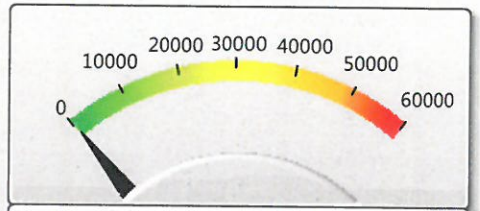
Cactus Wellhead

2-9-17 EBell

80.7 °F

15:49





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Date 02-09-17

Tested By E.BELL

Transducer bay2

Transducer Serial 181504

Calibration Date 9/6/15

	Job#	Part#	Serial#	Description	Test Pressure
1	TRJ0006341-0007	116966	TRJ6341-7-1	ADPT,DRLG,CW,MBU-3T,13-5/8 10M	15000
2					
3					
4					
5				TRANSDUCER CALIBRATION DUE 03/13/2017	
6					
7					
8					

Start | Stop | Zero | Config | Save | Print | EXIT

Tenaris

TenarisHydril Wedge 461®

Coupling	Pipe Body
Grade: **P110-ICY**	Grade: **P110-ICY**
Body: **White**	1st Band: **White**
1st Band: **Pale Green**	2nd Band: **Pale Green**
2nd Band: **-**	3rd Band: **Pale Green**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	5.500 in.	**Wall Thickness**	0.361 in.	**Grade**	P110-ICY
Min. Wall Thickness	87.50 %	**Pipe Body Drift**	API Standard	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	**Wall Thickness**	0.361 in.	**Body Yield Strength**	729 x1000 lb
Nominal Weight	20.00 lb/ft	**Plain End Weight**	19.83 lb/ft	**Min. Internal Yield Pressure**	14,360 psi
Drift	4.653 in.	**OD Tolerance**	API	**SMYS**	125,000 psi
Nominal ID	4.778 in.			**Collapse Pressure**	12,300 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	6.300 in.	**Tension Efficiency**	100 %	**Minimum**	17,000 ft-lb
Coupling Length	7.714 in.	**Joint Yield Strength**	729 x1000 lb	**Optimum**	18,000 ft-lb
Connection ID	4.778 in.	**Internal Pressure Capacity**	14,360 psi	**Maximum**	21,600 ft-lb
Make-up Loss	3.775 in.	**Compression Efficiency**	100 %		
Threads per inch	3.40	**Compression Strength**	729 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	104 °/100 ft	**Operating Torque**	43,000 ft-lb
		External Pressure Capacity	12,300 psi	**Yield Torque**	51,000 ft-lb
		Coupling Face Load	329,000 lb	**Buck-On**	
				Minimum	21,600 ft-lb
				Maximum	23,100 ft-lb

Notes

This connection is fully interchangeable with:
Wedge 441® - 5.5 in. - 0.304 (17.00) / 0.361 (20.00) in. (lb/ft)
Wedge 461® - 5.5 in. - 0.304 (17.00) / 0.415 (23.00) / 0.476 (26.00) in. (lb/ft)
Connections with Dopeless® Technology are fully compatible with the same connection in its doped version
In October 2019, TenarisHydril Wedge XP® 2.0 was renamed TenarisHydril Wedge 461™. Product dimensions and properties remain identical and both connections are fully interchangeable

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Tenaris

TenarisHydril Wedge 441® - AD

Coupling	Pipe Body
Grade: **P110-ICY**	Grade: **P110-ICY**
Body: **White**	1st Band: **White**
1st Band: **Pale Green**	2nd Band: **Pale Green**
2nd Band: **-**	3rd Band: **Pale Green**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	8.625 in.	**Wall Thickness**	0.352 in.	**Grade**	P110-ICY
Min. Wall Thickness	90.00 %	**Pipe Body Drift**	Alternative Drift	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	8.625 in.	**Wall Thickness**	0.352 in.	**Body Yield Strength**	1144 x1000 lb
Nominal Weight	32.00 lb/ft	**Plain End Weight**	31.13 lb/ft	**Min. Internal Yield Pressure**	9180 psi
Drift	7.875 in.	**OD Tolerance**	API	**SMYS**	125,000 psi
Nominal ID	7.921 in.			**Collapse Pressure**	4000 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	8.889 in.	**Tension Efficiency**	81.20 %	**Minimum**	23,000 ft-lb
Coupling Length	8.862 in.	**Joint Yield Strength**	929 x1000 lb	**Optimum**	24,000 ft-lb
Connection ID	7.921 in.	**Internal Pressure Capacity**	9180 psi	**Maximum**	27,000 ft-lb
Make-up Loss	3.744 in.	**Compression Efficiency**	81.20 %		
Threads per inch	3.43	**Compression Strength**	929 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	53.59 °/100 ft	**Operating Torque**	59,000 ft-lb
		External Pressure Capacity	4000 psi	**Yield Torque**	70,000 ft-lb
				Buck-On	
				Minimum	27,000 ft-lb
				Maximum	29,000 ft-lb

Notes

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

SeAH

10-3/4" 45.50# 0.400" J-55

Dimensions (Nominal)

Outside Diameter	**10.750**	**in.**
Wall	**0.400**	**in.**
Inside Diameter	**9.950**	**in.**
Drift	**9.875**	**in.**
Weight, T&C	**45.500**	**lbs/ft**
Weight, PE	**44.260**	**lbs/ft**

Performance Properties

Collapse		**2090**	**psi**
Internal Yield Pressure at Minimum Yield			
	PE	**3580**	**psi**
	STC	**3580**	**psi**
	BTC	**3580**	**psi**
Yield Strength, Pipe Body		**715**	**1000 lbs**
Joint Strength			
	STC	**493**	**1000 lbs**
	BTC	**796**	**1000 lbs**
	BTC Special Clearance (11.25" OD Cplg)	**506**	**1000 lbs**

SeAH

13-3/8" 54.50# .380 J-55

Dimensions (Nominal)

Outside Diameter	13.375	**in.**
Wall	0.380	**in.**
Inside Diameter	12.615	**in.**
Drift	12.459	**in.**
Weight, T&C	54.500	**lbs/ft**
Weight, PE	52.790	**lbs/ft**

Performance Ratings, Minimum

Collapse, PE	**1130**	**psi**
Internal Yields Pressure		
PE	**2730**	**psi**
STC	**2730**	**PSI**
BTC	**2730**	**psi**
Yield Strength, Pipe Body	**853**	**1000 lbs**
Joint Strength, STC	**514**	**1000 lbs**
Joint Strength, BTC	**909**	**1000 lbs**

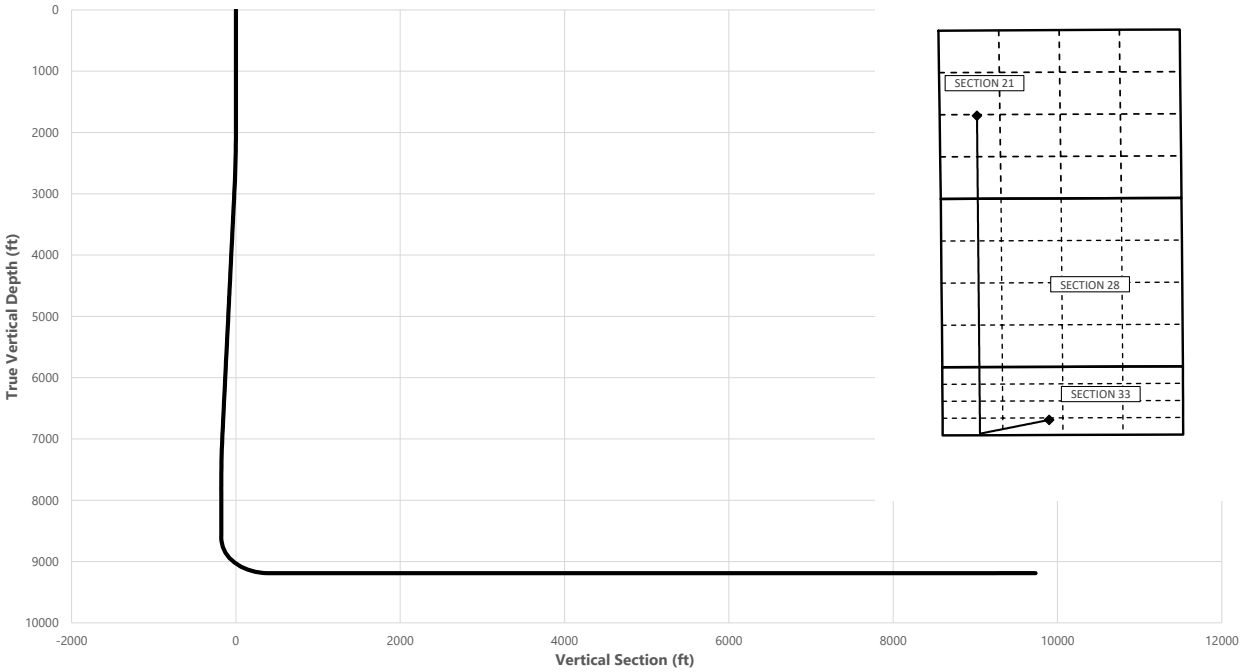
Note: SeAH Steel has produced this specification sheet for general information only. SeAH does not assume liability or responsibility for any loss or injury resulting from the use of information or data contained herein. All applications for the material described are at the customer's own risk and responsibility.

devon

Well: CLAWHAMMER 33-28-21 FEDERAL COM 322H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	254.12	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2900.00	18.00	254.12	2885.27	-38.37	-134.86	-15.76	2.00	Hold Tangent
7132.14	18.00	254.12	6910.27	-396.21	-1392.75	-162.74	0.00	Drop to Vertical
8032.14	0.00	254.12	7795.54	-434.58	-1527.62	-178.50	2.00	Hold Vertical
8852.64	0.00	359.62	8616.04	-434.58	-1527.62	-178.50	0.00	KOP
9752.64	90.00	359.62	9189.00	138.37	-1531.42	387.33	10.00	Landing Point
19216.05	90.00	359.62	9189.00	9601.57	-1594.18	9733.01	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	675.00	675.00
Salt	1506.00	1506.00
Base of Salt	3374.98	3337.00
Delaware	3374.98	3337.00
Cherry Canyon	4725.06	4621.00
Brushy Canyon	5766.00	5611.00
Bone Spring 1st	8537.60	8301.00
Bone Spring 2nd / Point of Penetrati	9183.72	8929.00
exit	19136.05	9189.01

	MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
SHL	0.00	0.00	32.0014	-103.8873	477' FSL, 2354' FWL of Sec 33 in T26S, R30E
KOP	8852.64	8616.04	32.0002	-103.8921	50' FSL, 825' FWL of Sec 33 in T26S, R30E
Point of Penetration	9183.72	8929.00	32.0004	-103.8921	100' FSL, 825' FWL of Sec 33 in T26S, R30E
Exit	19136.05	9189.01	32.0276	-103.8922	2540' FSL, 825' FWL of Sec 21 in T26S, R30E
BHL	19216.05	9189.00	32.0278	-103.8923	2620' FSL, 825' FWL of Sec 21 in T26S, R30E

	Y	X	MD
KOP	364116	678106	8852.64

devon

Well: CLAWHAMMER 33-28-21 FEDERAL COM 322H
County: Eddy
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Geodetic System: US State Plane 1983
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Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	254.12	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	254.12	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	254.12	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	254.12	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	254.12	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	254.12	600.00	0.00	0.00	0.00	0.00	
675.00	0.00	254.12	675.00	0.00	0.00	0.00	0.00	Rustler
700.00	0.00	254.12	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	254.12	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	254.12	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	254.12	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	254.12	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	254.12	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	254.12	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	254.12	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	254.12	1500.00	0.00	0.00	0.00	0.00	
1506.00	0.00	254.12	1506.00	0.00	0.00	0.00	0.00	Salt
1600.00	0.00	254.12	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	254.12	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	254.12	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	254.12	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	254.12	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	254.12	2099.98	-0.48	-1.68	-0.20	2.00	
2200.00	4.00	254.12	2199.84	-1.91	-6.71	-0.78	2.00	
2300.00	6.00	254.12	2299.45	-4.29	-15.09	-1.76	2.00	
2400.00	8.00	254.12	2398.70	-7.63	-26.82	-3.13	2.00	
2500.00	10.00	254.12	2497.47	-11.91	-41.86	-4.89	2.00	
2600.00	12.00	254.12	2595.62	-17.13	-60.21	-7.04	2.00	
2700.00	14.00	254.12	2693.06	-23.28	-81.85	-9.56	2.00	
2800.00	16.00	254.12	2789.64	-30.37	-106.74	-12.47	2.00	
2900.00	18.00	254.12	2885.27	-38.37	-134.86	-15.76	2.00	Hold Tangent
3000.00	18.00	254.12	2980.37	-46.82	-164.58	-19.23	0.00	
3100.00	18.00	254.12	3075.48	-55.28	-194.31	-22.70	0.00	
3200.00	18.00	254.12	3170.59	-63.73	-224.03	-26.18	0.00	
3300.00	18.00	254.12	3265.69	-72.19	-253.75	-29.65	0.00	
3374.98	18.00	254.12	3337.00	-78.53	-276.04	-32.25	0.00	Base of Salt, Delaware
3400.00	18.00	254.12	3360.80	-80.64	-283.47	-33.12	0.00	
3500.00	18.00	254.12	3455.90	-89.10	-313.20	-36.60	0.00	
3600.00	18.00	254.12	3551.01	-97.55	-342.92	-40.07	0.00	
3700.00	18.00	254.12	3646.11	-106.01	-372.64	-43.54	0.00	
3800.00	18.00	254.12	3741.22	-114.47	-402.36	-47.02	0.00	
3900.00	18.00	254.12	3836.33	-122.92	-432.09	-50.49	0.00	
4000.00	18.00	254.12	3931.43	-131.38	-461.81	-53.96	0.00	
4100.00	18.00	254.12	4026.54	-139.83	-491.53	-57.43	0.00	
4200.00	18.00	254.12	4121.64	-148.29	-521.25	-60.91	0.00	
4300.00	18.00	254.12	4216.75	-156.74	-550.97	-64.38	0.00	
4400.00	18.00	254.12	4311.85	-165.20	-580.70	-67.85	0.00	
4500.00	18.00	254.12	4406.96	-173.65	-610.42	-71.33	0.00	
4600.00	18.00	254.12	4502.06	-182.11	-640.14	-74.80	0.00	
4700.00	18.00	254.12	4597.17	-190.57	-669.86	-78.27	0.00	
4725.06	18.00	254.12	4621.00	-192.68	-677.31	-79.14	0.00	Cherry Canyon
4800.00	18.00	254.12	4692.28	-199.02	-699.59	-81.75	0.00	
4900.00	18.00	254.12	4787.38	-207.48	-729.31	-85.22	0.00	
5000.00	18.00	254.12	4882.49	-215.93	-759.03	-88.69	0.00	
5100.00	18.00	254.12	4977.59	-224.39	-788.75	-92.17	0.00	
5200.00	18.00	254.12	5072.70	-232.84	-818.48	-95.64	0.00	
5300.00	18.00	254.12	5167.80	-241.30	-848.20	-99.11	0.00	
5400.00	18.00	254.12	5262.91	-249.75	-877.92	-102.58	0.00	
5500.00	18.00	254.12	5358.02	-258.21	-907.64	-106.06	0.00	
5600.00	18.00	254.12	5453.12	-266.66	-937.36	-109.53	0.00	
5700.00	18.00	254.12	5548.23	-275.12	-967.09	-113.00	0.00	
5766.00	18.00	254.12	5611.00	-280.70	-986.71	-115.30	0.00	Brushy Canyon
5800.00	18.00	254.12	5643.33	-283.58	-996.81	-116.48	0.00	
5900.00	18.00	254.12	5738.44	-292.03	-1026.53	-119.95	0.00	
6000.00	18.00	254.12	5833.54	-300.49	-1056.25	-123.42	0.00	
6100.00	18.00	254.12	5928.65	-308.94	-1085.98	-126.90	0.00	
6200.00	18.00	254.12	6023.76	-317.40	-1115.70	-130.37	0.00	
6300.00	18.00	254.12	6118.86	-325.85	-1145.42	-133.84	0.00	
6400.00	18.00	254.12	6213.97	-334.31	-1175.14	-137.32	0.00	

devon

Well: CLAWHAMMER 33-28-21 FEDERAL COM 322H
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Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6500.00	18.00	254.12	6309.07	-342.76	-1204.87	-140.79	0.00	
6600.00	18.00	254.12	6404.18	-351.22	-1234.59	-144.26	0.00	
6700.00	18.00	254.12	6499.28	-359.68	-1264.31	-147.73	0.00	
6800.00	18.00	254.12	6594.39	-368.13	-1294.03	-151.21	0.00	
6900.00	18.00	254.12	6689.49	-376.59	-1323.76	-154.68	0.00	
7000.00	18.00	254.12	6784.60	-385.04	-1353.48	-158.15	0.00	
7100.00	18.00	254.12	6879.71	-393.50	-1383.20	-161.63	0.00	
7132.14	18.00	254.12	6910.27	-396.21	-1392.75	-162.74	0.00	Drop to Vertical
7200.00	16.64	254.12	6975.05	-401.74	-1412.19	-165.01	2.00	
7300.00	14.64	254.12	7071.35	-409.12	-1438.12	-168.04	2.00	
7400.00	12.64	254.12	7168.52	-415.57	-1460.81	-170.69	2.00	
7500.00	10.64	254.12	7266.46	-421.09	-1480.22	-172.96	2.00	
7600.00	8.64	254.12	7365.04	-425.68	-1496.33	-174.84	2.00	
7700.00	6.64	254.12	7464.14	-429.31	-1509.12	-176.33	2.00	
7800.00	4.64	254.12	7563.66	-432.00	-1518.58	-177.44	2.00	
7900.00	2.64	254.12	7663.45	-433.74	-1524.69	-178.15	2.00	
8000.00	0.64	254.12	7763.40	-434.53	-1527.44	-178.48	2.00	
8032.14	0.00	254.12	7795.54	-434.58	-1527.62	-178.50	2.00	Hold Vertical
8100.00	0.00	359.62	7863.40	-434.58	-1527.62	-178.50	0.00	
8200.00	0.00	359.62	7963.40	-434.58	-1527.62	-178.50	0.00	
8300.00	0.00	359.62	8063.40	-434.58	-1527.62	-178.50	0.00	
8400.00	0.00	359.62	8163.40	-434.58	-1527.62	-178.50	0.00	
8500.00	0.00	359.62	8263.40	-434.58	-1527.62	-178.50	0.00	
8537.60	0.00	359.62	8301.00	-434.58	-1527.62	-178.50	0.00	Bone Spring 1st
8600.00	0.00	359.62	8363.40	-434.58	-1527.62	-178.50	0.00	
8700.00	0.00	359.62	8463.40	-434.58	-1527.62	-178.50	0.00	
8800.00	0.00	359.62	8563.40	-434.58	-1527.62	-178.50	0.00	
8852.64	0.00	359.62	8616.04	-434.58	-1527.62	-178.50	0.00	KOP
8900.00	4.74	359.62	8663.35	-432.62	-1527.63	-176.56	10.00	
9000.00	14.74	359.62	8761.78	-415.73	-1527.74	-159.88	10.00	
9100.00	24.74	359.62	8855.79	-382.01	-1527.97	-126.58	10.00	
9183.72	33.11	359.62	8929.00	-341.56	-1528.23	-86.63	10.00	Bone Spring 2nd / Point of Penetration
9200.00	34.74	359.62	8942.51	-332.47	-1528.29	-77.66	10.00	
9300.00	44.74	359.62	9019.31	-268.63	-1528.72	-14.61	10.00	
9400.00	54.74	359.62	9083.86	-192.42	-1529.22	60.65	10.00	
9500.00	64.74	359.62	9134.20	-106.16	-1529.80	145.84	10.00	
9600.00	74.74	359.62	9168.79	-12.47	-1530.42	238.37	10.00	
9700.00	84.74	359.62	9186.58	85.80	-1531.07	335.42	10.00	
9752.64	90.00	359.62	9189.00	138.37	-1531.42	387.33	10.00	Landing Point
9800.00	90.00	359.62	9189.00	185.73	-1531.73	434.10	0.00	
9900.00	90.00	359.62	9189.00	285.73	-1532.39	532.86	0.00	
10000.00	90.00	359.62	9189.00	385.72	-1533.06	631.62	0.00	
10100.00	90.00	359.62	9189.00	485.72	-1533.72	730.37	0.00	
10200.00	90.00	359.62	9189.00	585.72	-1534.39	829.13	0.00	
10300.00	90.00	359.62	9189.00	685.72	-1535.05	927.88	0.00	
10400.00	90.00	359.62	9189.00	785.71	-1535.71	1026.64	0.00	
10500.00	90.00	359.62	9189.00	885.71	-1536.38	1125.40	0.00	
10600.00	90.00	359.62	9189.00	985.71	-1537.04	1224.15	0.00	
10700.00	90.00	359.62	9189.00	1085.71	-1537.70	1322.91	0.00	
10800.00	90.00	359.62	9189.00	1185.71	-1538.37	1421.67	0.00	
10900.00	90.00	359.62	9189.00	1285.70	-1539.03	1520.42	0.00	
11000.00	90.00	359.62	9189.00	1385.70	-1539.70	1619.18	0.00	
11100.00	90.00	359.62	9189.00	1485.70	-1540.36	1717.93	0.00	
11200.00	90.00	359.62	9189.00	1585.70	-1541.02	1816.69	0.00	
11300.00	90.00	359.62	9189.00	1685.69	-1541.69	1915.45	0.00	
11400.00	90.00	359.62	9189.00	1785.69	-1542.35	2014.20	0.00	
11500.00	90.00	359.62	9189.00	1885.69	-1543.01	2112.96	0.00	
11600.00	90.00	359.62	9189.00	1985.69	-1543.68	2211.71	0.00	
11700.00	90.00	359.62	9189.00	2085.69	-1544.34	2310.47	0.00	
11800.00	90.00	359.62	9189.00	2185.68	-1545.01	2409.23	0.00	
11900.00	90.00	359.62	9189.00	2285.68	-1545.67	2507.98	0.00	
12000.00	90.00	359.62	9189.00	2385.68	-1546.33	2606.74	0.00	
12100.00	90.00	359.62	9189.00	2485.68	-1547.00	2705.49	0.00	
12200.00	90.00	359.62	9189.00	2585.67	-1547.66	2804.25	0.00	
12300.00	90.00	359.62	9189.00	2685.67	-1548.32	2903.01	0.00	
12400.00	90.00	359.62	9189.00	2785.67	-1548.99	3001.76	0.00	
12500.00	90.00	359.62	9189.00	2885.67	-1549.65	3100.52	0.00	
12600.00	90.00	359.62	9189.00	2985.67	-1550.32	3199.27	0.00	
12700.00	90.00	359.62	9189.00	3085.66	-1550.98	3298.03	0.00	
12800.00	90.00	359.62	9189.00	3185.66	-1551.64	3396.79	0.00	

devon

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12900.00	90.00	359.62	9189.00	3285.66	-1552.31	3495.54	0.00	
13000.00	90.00	359.62	9189.00	3385.66	-1552.97	3594.30	0.00	
13100.00	90.00	359.62	9189.00	3485.65	-1553.63	3693.05	0.00	
13200.00	90.00	359.62	9189.00	3585.65	-1554.30	3791.81	0.00	
13300.00	90.00	359.62	9189.00	3685.65	-1554.96	3890.57	0.00	
13400.00	90.00	359.62	9189.00	3785.65	-1555.63	3989.32	0.00	
13500.00	90.00	359.62	9189.00	3885.65	-1556.29	4088.08	0.00	
13600.00	90.00	359.62	9189.00	3985.64	-1556.95	4186.83	0.00	
13700.00	90.00	359.62	9189.00	4085.64	-1557.62	4285.59	0.00	
13800.00	90.00	359.62	9189.01	4185.64	-1558.28	4384.35	0.00	
13900.00	90.00	359.62	9189.01	4285.64	-1558.94	4483.10	0.00	
14000.00	90.00	359.62	9189.01	4385.63	-1559.61	4581.86	0.00	
14100.00	90.00	359.62	9189.01	4485.63	-1560.27	4680.61	0.00	
14200.00	90.00	359.62	9189.01	4585.63	-1560.94	4779.37	0.00	
14300.00	90.00	359.62	9189.01	4685.63	-1561.60	4878.13	0.00	
14400.00	90.00	359.62	9189.01	4785.63	-1562.26	4976.88	0.00	
14500.00	90.00	359.62	9189.01	4885.62	-1562.93	5075.64	0.00	
14600.00	90.00	359.62	9189.01	4985.62	-1563.59	5174.39	0.00	
14700.00	90.00	359.62	9189.01	5085.62	-1564.25	5273.15	0.00	
14800.00	90.00	359.62	9189.01	5185.62	-1564.92	5371.91	0.00	
14900.00	90.00	359.62	9189.01	5285.62	-1565.58	5470.66	0.00	
15000.00	90.00	359.62	9189.01	5385.61	-1566.25	5569.42	0.00	
15100.00	90.00	359.62	9189.01	5485.61	-1566.91	5668.17	0.00	
15200.00	90.00	359.62	9189.01	5585.61	-1567.57	5766.93	0.00	
15300.00	90.00	359.62	9189.01	5685.61	-1568.24	5865.69	0.00	
15400.00	90.00	359.62	9189.01	5785.60	-1568.90	5964.44	0.00	
15500.00	90.00	359.62	9189.01	5885.60	-1569.56	6063.20	0.00	
15600.00	90.00	359.62	9189.01	5985.60	-1570.23	6161.95	0.00	
15700.00	90.00	359.62	9189.01	6085.60	-1570.89	6260.71	0.00	
15800.00	90.00	359.62	9189.01	6185.60	-1571.56	6359.47	0.00	
15900.00	90.00	359.62	9189.01	6285.59	-1572.22	6458.22	0.00	
16000.00	90.00	359.62	9189.01	6385.59	-1572.88	6556.98	0.00	
16100.00	90.00	359.62	9189.01	6485.59	-1573.55	6655.73	0.00	
16200.00	90.00	359.62	9189.01	6585.59	-1574.21	6754.49	0.00	
16300.00	90.00	359.62	9189.01	6685.58	-1574.87	6853.25	0.00	
16400.00	90.00	359.62	9189.01	6785.58	-1575.54	6952.00	0.00	
16500.00	90.00	359.62	9189.01	6885.58	-1576.20	7050.76	0.00	
16600.00	90.00	359.62	9189.01	6985.58	-1576.87	7149.51	0.00	
16700.00	90.00	359.62	9189.01	7085.58	-1577.53	7248.27	0.00	
16800.00	90.00	359.62	9189.01	7185.57	-1578.19	7347.03	0.00	
16900.00	90.00	359.62	9189.01	7285.57	-1578.86	7445.78	0.00	
17000.00	90.00	359.62	9189.01	7385.57	-1579.52	7544.54	0.00	
17100.00	90.00	359.62	9189.01	7485.57	-1580.18	7643.29	0.00	
17200.00	90.00	359.62	9189.01	7585.56	-1580.85	7742.05	0.00	
17300.00	90.00	359.62	9189.01	7685.56	-1581.51	7840.81	0.00	
17400.00	90.00	359.62	9189.01	7785.56	-1582.18	7939.56	0.00	
17500.00	90.00	359.62	9189.01	7885.56	-1582.84	8038.32	0.00	
17600.00	90.00	359.62	9189.01	7985.56	-1583.50	8137.08	0.00	
17700.00	90.00	359.62	9189.01	8085.55	-1584.17	8235.83	0.00	
17800.00	90.00	359.62	9189.01	8185.55	-1584.83	8334.59	0.00	
17900.00	90.00	359.62	9189.01	8285.55	-1585.49	8433.34	0.00	
18000.00	90.00	359.62	9189.01	8385.55	-1586.16	8532.10	0.00	
18100.00	90.00	359.62	9189.01	8485.54	-1586.82	8630.86	0.00	
18200.00	90.00	359.62	9189.01	8585.54	-1587.49	8729.61	0.00	
18300.00	90.00	359.62	9189.01	8685.54	-1588.15	8828.37	0.00	
18400.00	90.00	359.62	9189.01	8785.54	-1588.81	8927.12	0.00	
18500.00	90.00	359.62	9189.01	8885.54	-1589.48	9025.88	0.00	
18600.00	90.00	359.62	9189.01	8985.53	-1590.14	9124.64	0.00	
18700.00	90.00	359.62	9189.01	9085.53	-1590.80	9223.39	0.00	
18800.00	90.00	359.62	9189.01	9185.53	-1591.47	9322.15	0.00	
18900.00	90.00	359.62	9189.01	9285.53	-1592.13	9420.90	0.00	
19000.00	90.00	359.62	9189.01	9385.52	-1592.80	9519.66	0.00	
19100.00	90.00	359.62	9189.01	9485.52	-1593.46	9618.42	0.00	
19136.05	90.00	359.62	9189.01	9521.57	-1593.70	9654.02	0.00	exit
19200.00	90.00	359.62	9189.01	9585.52	-1594.12	9717.17	0.00	
19216.05	90.00	359.62	9189.00	9601.57	-1594.18	9733.01	0.00	BHL

CLAWHAMMER 33-28-21 FEDERAL COM 322H

1. Geologic Formations

TVD of target	9189	Pilot hole depth	N/A
MD at TD:	19216	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	675		
Salt	1506		
Base of Salt	3337		
Delaware	3337		
Cherry Canyon	4621		
Brushy Canyon	5611		
Bone Spring 1st	8301		
Bone Spring 2nd	8929		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
17 1/2	13 3/8	54.5	J-55	BTC	0	700 MD	0	700 TVD
12 1/4	10 3/4	45.5	J-55	BTC SCC	0	3390 MD	0	3390 TVD
9 7/8	8 5/8	32.0	P110-ICY	441	0	8753	0	8753
7 7/8	5 1/2	20.0	P110-ICY	461	0	19216 MD	0	9189 TVD

•All casing strings will be tested in accordance with 43 CFR 3172. Must have table for contingency casing.
• The Rustler top will be validated via drilling parameters (i.e. reduction in ROP), and the surface casing setting depth will be revised accordingly. In addition, surface casing will be set a minimum of 25' above the top of the salt.

3. Cementing Program (3-String Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	544	Surf	13.2	1.4	Lead: Class C Cement + additives
Int	215	Surf	9.0	3.3	Lead: Class C Cement + additives
	101	2890	13.2	1.4	Tail: Class H / C + additives
Int 1	230	Surf	9.0	3.3	Lead: Class C Cement + additives
	368	5611	13.2	1.4	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	230	Surf	0.0	3.3	Squeeze Lead: Class C Cement + additives
	230	Surf	9.0	3.3	Lead: Class C Cement + additives
	368	5611	13.2	1.4	Tail: Class H / C + additives
Production	119	6853	9.0	3.3	Lead: Class H /C + additives
	1372	8853	13.2	1.4	Tail: Class H / C + additives

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. The final cement top will be verified by Echo-meter. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures.

Casing String	% Excess
Surface	50%
Intermediate and Intermediate 1	30%
Production	10%

4. Pressure Control Equipment (Four String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Int	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Int 1	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	5M	Annular (5M)	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		

5. Mud Program (Four String Design)

Section	Type	Weight (ppg)
Surface	WBM	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Intermediate 1	WBM	8.5-9
Production	WBM	8.5-9

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and sbumitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Additional logs planned		Interval
	Resistivity	
	Density	
X	CBL	Production casing
	Mud log	KOP to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	4300
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogren Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR 3176. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

1 Spudder rig will move in and batch drill surface hole.
    a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.
2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (43 CFR 3172, all COAs and NMOCD regulations).
3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pad.
6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
7 Drilling operations will be performed with drilling rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
    a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan
_____ Other, describe

C-102	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July, 2024
Submit Electronically Via OCD Permitting		Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
	97863	WILDCAT G-03 S263016K;BONE SPRING	
Property Code	Property Name		Well Number
	CLAWHAMMER 33-28-21 FED COM		322H
OGRID No.	Operator Name		Ground Level Elevation
6137	WPX ENERGY PERMIAN, LLC.		2957.9'
Surface Owner: ☐State ☐Fee ☐Tribal ☒Federal		Mineral Owner: ☐State ☐Fee ☐Tribal ☒Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	33	26-S	30-E	3	477' S	2354' W	32.001444	103.887194	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	21	26-S	30-E		2620' S	825' W	32.027856	103.892211	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
609.5	DEFINING	SUBJECT	N	U
Order Numbers	PENDING NSP		Well setbacks are under Common Ownership: ☒Yes ☐No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	33	26-S	30-E	4	50' S	825' W	32.000268	103.892127	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	33	26-S	30-E	4	100' S	825' W	32.000405	103.892127	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	21	26-S	30-E		2540' S	825' W	32.027636	103.892209	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type Horizontal Vertical	Ground Floor Elevation:
Y	X	N/A

OPERATOR CERTIFICATIONS

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.

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.

Amy A. Brown 05/06/2025

Signature Date

Amy Brown

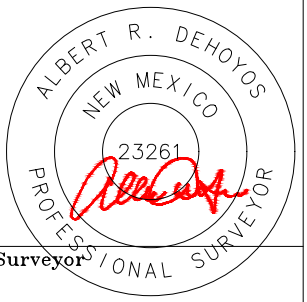
Printed Name

amy.brown@dvn.com

Email Address

SURVEYOR CERTIFICATIONS

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



Signature and Seal of Professional Surveyor

Certificate Number	Date of Survey
23261	02/2025

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

SURFACE HOLE LOCATION
GEODETIC COORDINATES NAD 83
NMSP EAST SURFACE LOCATION
477' FSL 2354' FWL SECTION 33
EL: 2957.9'
N: 364550.16/E: 679633.73
LAT: 32.001444/LON: 103.887194

KICK OFF POINT
50' FSL 825' FWL SECTION 33
N: 364116.00/E: 678106.54
LAT: 32.000268/LON: 103.892127

FIRST TAKE POINT
100' FSL 825' FWL SECTION 33
N: 364166.00/E: 678106.33
LAT: 32.000405/LON: 103.892127

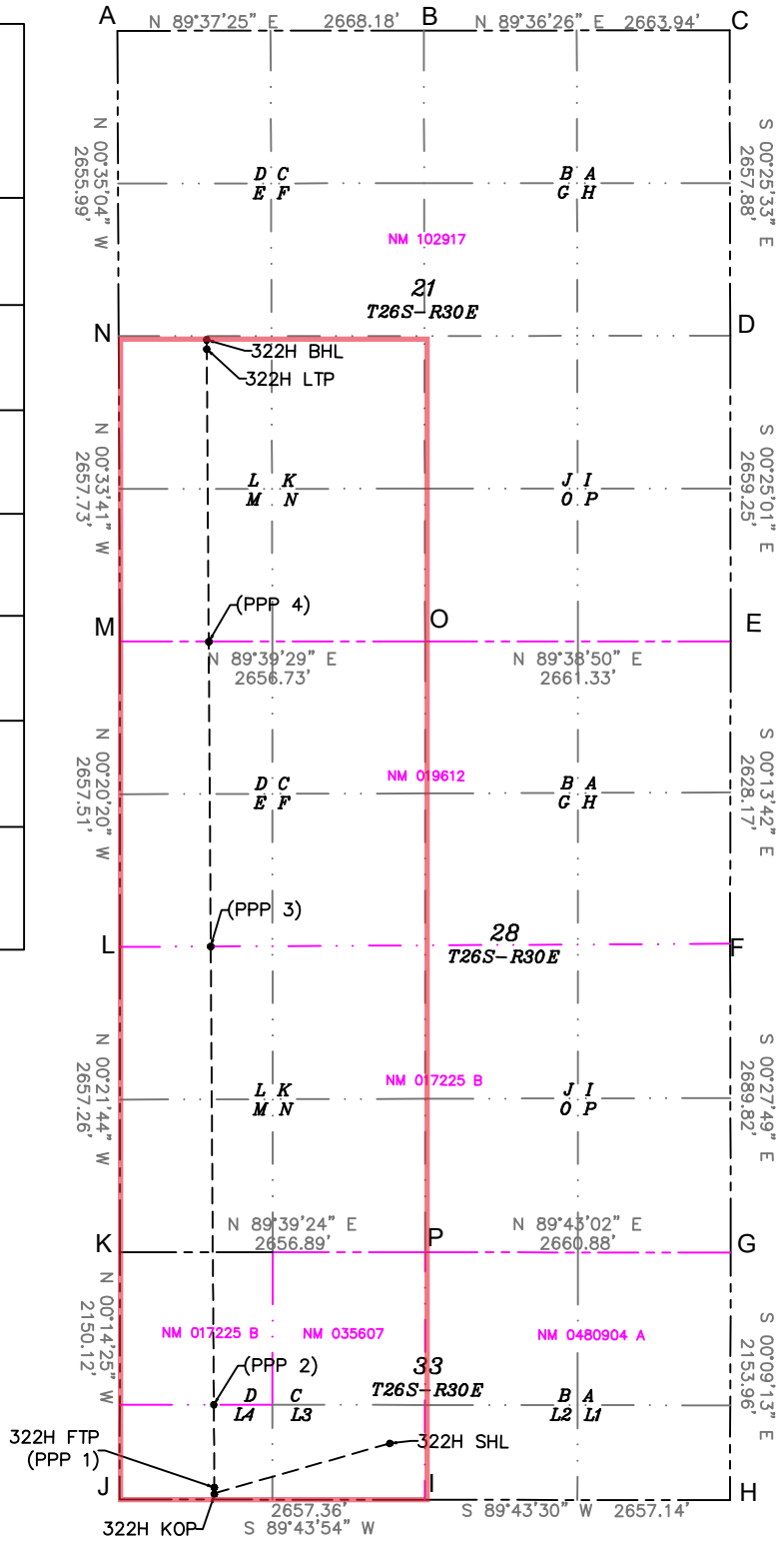
LAST TAKE POINT
2540' FSL 825' FWL SECTION 21
N: 374071.74/E: 678040.33
LAT: 32.027636/LON: 103.892209

BOTTOM HOLE LOCATION
2620' FSL 825' FWL SECTION 21
N: 374151.73/E: 678039.55
LAT: 32.027856/LON: 103.892211

PPP 2
825' FSL 823' FWL SECTION 33
N: 364890.75/E: 678101.50
LAT: 32.002398/LON: 103.892133

PPP 3
2661' FSL 819' FWL SECTION 28
N: 368878.48/E: 678074.93
LAT: 32.013360/LON: 103.892166

PPP 4
0' FSL 817' FWL SECTION 21
N: 371531.79/E: 678057.25
LAT: 32.020654/LON: 103.892188



A=N: 376840.37 E: 677187.09
B=N: 376857.90 E: 679855.21
C=N: 376876.15 E: 682519.09
D=N: 374218.35 E: 682538.83
E=N: 371559.16 E: 682558.19
F=N: 368928.02 E: 682568.68
G=N: 366241.29 E: 682590.42
H=N: 364087.34 E: 682596.19
I= N: 364074.58 E: 679939.09
J=N: 364062.14 E: 677281.75
K=N: 366212.24 E: 677272.74
L=N: 368869.45 E: 677255.94
M=N: 371526.92 E: 677240.22
N=N: 374184.52 E: 677214.19
O=N: 371542.78 E: 679896.90
P=N: 366228.16 E: 679929.58

33-26-30-3 Sundry ID 2851525 Clawhammer 33-28-21 Federal Com 322H Eddy NM35607 WPX ENERGY PERMIAN LLC 13-22g 2-27-2024 LV.xlsm

Clawhammer 33-28-21 Federal Com 322H

13 3/8	surface csg in a	17 1/2	inch hole.		Design Factors						Surface	
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	54.50	j 55	btc	22.37	3.45	1.48	700	9	2.47	6.52	38,150	
"B"			btc				0				0	
	w/8.4#/g mud, 30min Sfc Csg Test psig:	1,500	Tail Cmt	does not	circ to sfc.	Totals:	700				38,150	

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	544	762	486	57	9.00	1103	2M	1.56

Site plat (pipe racks S or E) as per O.O.1.III.D.4.i. not found.

10 3/4	casing inside the	13 3/8			Design Factors						Int 1	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	45.50	j 55	btc scc	3.28	1.13	0.87	3,390	2	1.65	1.89	154,245	
"B"							0				0	
	w/8.4#/g mud, 30min Sfc Csg Test psig:	1,027				Totals:	3,390				154,245	
	The cement volume(s) are intended to achieve a top of			0	ft from surface or a		700				overlap.	

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.1882	316	851	673	27	10.50	2167	3M	0.50
D V Tool(s):							sum of sx	Σ CuFt	Σ%excess
t by stage % :		#VALUE!	#VALUE!				316	851	27

Class 'C' tail cmt yld > 1.35

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 1.06, b, c, d All > 0.70, OK.

8 5/8	casing inside the	10 3/4			Design Factors						Int 2	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	32.00	p 110	wedge 441	3.32	0.98	2.14	8,753	2	4.04	1.85	280,096	
"B"							0				0	
"C"							0				0	
"D"							0				0	
	w/8.4#/g mud, 30min Sfc Csg Test psig:	1,926				Totals:	8,753				280,096	
	The cement volume(s) are intended to achieve a top of			0	ft from surface or a		3390				overlap.	

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
9 7/8	0.1261	598	1274	1131	13	9.00	2275	3M	0.49
	Setting Depths for D V Tool(s):		5611				sum of sx	Σ CuFt	Σ%excess
	% excess cmt by stage:	222	3				828	2033	80

Class 'C' tail cmt yld > 1.35

Tail cmt

5 1/2	casing inside the	8 5/8			Design Factors						Prod 1	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	20.00	p 110	wedge 461	3.49	2.59	2.94	19,216	3	5.56	4.88	384,320	
"B"							0				0	
	w/8.4#/g mud, 30min Sfc Csg Test psig:	2,022				Totals:	19,216				384,320	
	The cement volume(s) are intended to achieve a top of			8553	ft from surface or a		200				overlap.	

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
7 7/8	0.1733	1491	2314	1848	25	9.00			0.91

Class 'H' tail cmt yld > 1.20 Capitan Reef est top XXXX.

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

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/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 465849

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 465849
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	5/28/2025