Sundry Print Report

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

Well Name: ATLATL 11 10 FED COM Well Location: T22S / R27E / SEC 11 / County or Parish/State: EDDY /

NENE / 32.411519 / -104.151822

Well Number: 331H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM64583 Unit or CA Name: Unit or CA Number:

US Well Number: Operator: DEVON ENERGY

PRODUCTION COMPANY LP

#### **Notice of Intent**

**Sundry ID: 2795553** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 06/17/2024 Time Sundry Submitted: 05:52

Date proposed operation will begin: 06/16/2024

**Procedure Description:** PERMIT ID 10400092144 Devon Energy Production Co., L.P. (Devon) respectfully requests offline cementing for the subject well. See Variance attached. Devon Energy Production Co., L.P. (Devon) respectfully requests to move surface and intermediate casing and change the weight, grade, connection and add alternative casing design. Please see attached spec sheet, and drill plan. Devon Energy Production Co., L.P. (Devon) respectfully requests to change the BHL and Formation on the subject well. Please see attached revised C102, Drill plan, directional plan. Permitted BHL: NENE, 400 FNL 23 FEL, 10-22S-27E Proposed BHL: SWNW, 1410 FNL, 20 FWL, 10-22S-27E Permitted TVD/MD: 8686/19210-Esperanza/Bonespring Proposed TVD/MD: 9382/19870- Purple Sage/Wolfcamp (Gas)

# **NOI Attachments**

# **Procedure Description**

WA022066480\_ATLATL\_11\_10\_FED\_COM\_331H\_WL\_R2\_UPDATED\_20240624052836.pdf

5.500\_0.361\_P110\_ICY\_TXP\_\_BTC\_01242024\_20240617055146.pdf

8.625\_0.352\_P110\_ICY\_Wedge\_441\_\_02162024\_20240617055126.pdf

5.500\_0.361\_P110\_ICY\_TXP\_\_BTC\_01242024\_20240617054933.pdf

10.750\_45.50\_HCL80\_SCC\_20240617054757.PDF

13.375\_54.50\_J55\_20240617054716.pdf

 $ATLATL\_11\_10\_FED\_COM\_331H\_r2\_20240616205041.pdf$ 

eived by OCD: 6/25/2024 7:26:02 AM Well Name: ATLATL 11 10 FED COM

Well Location: T22S / R27E / SEC 11 /

County or Parish/State: Page 2 of NM

NENE / 32.411519 / -104.151822

Well Number: 331H

Type of Well: OIL WELL

**Allottee or Tribe Name:** 

Lease Number: NMNM64583

**Unit or CA Name:** 

**Unit or CA Number:** 

**US Well Number:** 

**Operator: DEVON ENERGY** PRODUCTION COMPANY LP

ATLATL\_11\_10\_FED\_COM\_331H\_Directional\_Plan\_06\_13\_24\_20240616205014.pdf

Offline\_Cementing\_\_\_\_Variance\_Request\_20240616204644.pdf

# **Conditions of Approval**

# **Specialist Review**

Atlat\_11\_10\_Fed\_Com\_331H\_Sundry\_ID\_2795553\_20240624102151.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: ARIANNA EVANS** Signed on: JUN 24, 2024 05:29 AM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory

Street Address: 333 W SHERIDAN AVE

City: OKLAHOMA CITY State: OK

Phone: (405) 552-4514

Email address: ARIANNA.EVANS@DVN.COM

## **Field**

**Representative Name:** 

**Street Address:** 

City:

State:

Zip:

Phone:

**Email address:** 

# **BLM Point of Contact**

**BLM POC Name: LONG VO** 

**BLM POC Phone:** 5759885402

**Disposition:** Approved

Signature: Long Vo

**BLM POC Title:** Petroleum Engineer

BLM POC Email Address: LVO@BLM.GOV

Disposition Date: 06/24/2024

Page 2 of 2

Form 3160-5 (June 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED	
OMB No. 1004-0137	
Expires: October 31, 202	21

BUREA	5. Lease Serial No.	5. Lease Serial No.			
Do not use this for	TICES AND REPORTS ON W m for proposals to drill or to e Form 3160-3 (APD) for suc	o re-enter an	6. If Indian, Allottee	or Tribe Name	
SUBMIT IN TRI	PLICATE - Other instructions on pag	e 2	7. If Unit of CA/Agre	eement, 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	ı, State	
12. CHECK	THE APPROPRIATE BOX(ES) TO INI	DICATE NATURE OF N	OTICE, REPORT OR OT	HER DATA	
TYPE OF SUBMISSION		TYPE OF	ACTION		
Notice of Intent	Acidize Deep Alter Casing Hydr		Production (Start/Resume) Reclamation	Water Shut-Off Well Integrity	
Subsequent Report			Recomplete Temporarily Abandon	Other	
Final Abandonment Notice	Convert to Injection Plug	Back	Water Disposal		
14. I hereby certify that the foregoing is true	e 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 ertify 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 an	ny person knowingly and	willfully to make to any d	lepartment 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 of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

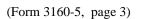
#### **Additional Information**

#### **Additional Remarks**

Permitted TVD/MD: 8686/19210-Esperanza/Bonespring
Proposed TVD/MD: 9382/19870- Purple Sage/Wolfcamp (Gas)

#### **Location of Well**

0. SHL: NENE / 1123 FNL / 23 FEL / TWSP: 22S / RANGE: 27E / SECTION: 11 / LAT: 32.411519 / LONG: -104.151822 ( TVD: 0 feet, MD: 0 feet ) PPP: NENE / 376 FNL / 141 FEL / TWSP: 22S / RANGE: 27E / SECTION: 11 / LAT: 32.4135802 / LONG: -104.1693206 ( TVD: 8799 feet, MD: 14100 feet ) PPP: NENW / 387 FNL / 2559 FWL / TWSP: 22S / RANGE: 27E / SECTION: 11 / LAT: 32.4135427 / LONG: -104.1605735 ( TVD: 8860 feet, MD: 11400 feet ) BHL: NWNW / 400 FNL / 20 FWL / TWSP: 22S / RANGE: 27E / SECTION: 10 / LAT: 32.41365 / LONG: -104.185872 ( TVD: 9082 feet, MD: 19359 feet )



DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720

Energy, Minerals & Natural Resources Department DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

State of New Mexico

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

□ AMENDED REPORT

3082.5

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Name Pool Code PURPLE SAGE; WOLFCAMP (GAS) 98220 Property Name Well Number Property Code ATLATL 11-10 FED COM 331H Elevation

OGRID No. Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P. 6137

Surface Location

UL	or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	А	11	22-S	27-E		1123	NORTH	23	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Е	10	22-S	27-E		1410	NORTH	20	WEST	EDDY
Dedicated Acres   Joint or Infill   Consolidation Code			Code Or	ler No.	,				
320									

#### NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

ATLATL 11-10 FED COM 331H FI: 3082.5' EL: 3082.5'
GEODETIC COORDINATES
NAD 83 NMSP EAST
SURFACE LOCATION
N:513489.36
E:597351.00
LAT:32.411519 LON:104.151822 KICK OFF POINT
CALLS:\_ 1411 FNL 52 FEL N: 513201.8 E: <u>597336</u> LAT: <u>32.41063451</u> LON: <u>-104.15195425</u> FIRST TAKE POINT (PPP 1)
1410' FNL 100' FEL SEC. 11
N:513202.56
E:597273.62
LAT:32.410731
LON:104.152075 LAST TAKE POINT

1410' FNL 100' FWL SEC. 10
N:513237.71 E:586925.48 LAT:32.410871 LON:104.185607 BOTTOM OF HOLE N:513238.37 E:586845.48 LAT:32.410873 LON:104.185866 <u>PPP 2</u> 1397' FNL 2629' FEL SEC. 11 N:513211.15 F:594745 01 LAT:32.410766 LON:104.160269 PPP 3 1385' FNL 0' FEL SEC. 10 N:513220.13 E:592101.15 LAT:32.410802 LON:104.168836 PPP 4 1398' FNL 2641' FEL SEC. 10 N:513229.10 E:589460.42 LAT:32.410838 LON:104.177393

BC N 89\*54'13" E 2639.28' N 89\*56'20" E 2648.28' 331H SHI -331H BHL 331H FTP (PPP 1) 00.12 10 11 F00.02 NM 109712 NM 065958 NM 066773 .99 8 N 89\*57'44" W 2640.21 N 89\*56'29" W 26.38.77 HI N 89°57'01" W 2651.97 N 89°57'14" W

#### OPERATOR CERTIFICATION

OPERATOR CERTIFICATION

I hereby certify that the information
herein is true and complete to the best of
my knowledge and belief, and 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 such mineral or working interest,
or to a voluntary pooling agreement or a
compulsory pooling order heretofore entered
by the division.

Arianna Evans Signature

6/13/24 Date

Arianna Evans Printed Name

arianna.evans@dvn.com

E-mail Address

A = N:514648.62 E:586820.31 B = N:514605.47 E:592087.50 C = N:514605.29 E:594735.78 D = N:514612.73 E:597375.06 E = N:511996.70 E:592113.21

F = N:511973.30 E:597372.37 G = N:509342.66 E:586839.76 H = N:509339.97 E:589478.53

= N:509338.22 E:592118.75 J = N:509335.93 E:594770.72 ( = N:509333.79 E:597422.82

#### SURVEYOR CERTIFICATION

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

DATE OF SURVEY
Signature & Seal of Professional Surveyor 0 Certificate No. 23261 ALBERT R. DEHOYOS DRAWN BY: C.MAAS DATE: 06/12/24

Released to Imaging: 10/4/2024 2:59:42 PM

DEVON ENERGY PRODUCTION   ATLATL 11-10 FED COM   331H	Inten <sup>.</sup>	t x	As Dril	led											
ATLATL 11-10 FED COM  ATLATL 11-10 KETAL  ATLATL 11-10 FED COM  ATLATL 11-10 FED COM  AND  AND  ATLATL 11-10 FED COM  AND  AND  AND  ATLATL 11-10 FED COM  AND  AND  AND  AND  AND  AND  AND  AN	API#														
UL   Section   Township   Range   Lot   Feet   Indicated   Indicat	DEVON ENERGY PRODUCTION					١	-	-			ED CC	ЭM			Well Number 331H
H   11   22   27E	Kick (	Off Point	(KOP)												
Latitude 32.41063451  Longitude 1.04.15395425  Longitude 1.04.15395425  NAD 83  From E/W 11 22-S 27-E				_	Lot			From N,	/S			Fron	n E/W	County	
First Take Point (FTP)  UL Section Township Range H 11 22-S 27-E Longitude 104.152075  Last Take Point (LTP)  UL Section Township Range H 104.152075  Last Take Point (LTP)  UL Section Township Range H 104.152075  Last Take Point (LTP)  UL Section Township Range H 104.152075  UL Section			225	27E		1	ıda	NORTH		52	2	EAS	Т	NAD	EDDY
UL Section Township Range 1410 NORTH 100 EAST EDDY  Latitude 32.410731 Longitude 104.152075 83  Last Take Point (LTP)  UL Section Township Range 104.152075 83  Last Take Point (LTP)  UL Section Township Range 1410 NORTH 100 WEST EDDY  Latitude 32.410871 Longitude 104.185607 NAD RAD 83  Last Take Point (LTP)  UL Section Township Range 1410 NORTH 100 WEST EDDY  Latitude 32.410871 Longitude 104.185607 83  Is this well the defining well for the Horizontal Spacing Unit? Yes  If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.  API #	Latite		063451			Longitu	iue	-104.15195	425						33
H   11   22-S   27-E   1410   NORTH   100   EAST   EDDY	1	1		Da : -	1-4	Fa-t		Fa **	lc.	F- :		F	- F /\^/	I ca	
32.410731   104.152075   83  Last Take Point (LTP)  UL Section Township Range E 10   Feet 1410   NORTH 100   WEST EDDY  Latitude 32.410871   Longitude 104.185607   NAD 83  Is this well the defining well for the Horizontal Spacing Unit?	H				Lot							EA	ST	EDDY	
Section   Township   Range   Lot   Feet   1410   NORTH   100   WEST   EDDY			31	ı				2075	5						
E 10 22-S 27-E 1410 NORTH 100 WEST EDDY  Latitude 32.410871 104.185607 83  Is this well the defining well for the Horizontal Spacing Unit?   Is this well an infill well?   If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.  API #	Last T	āke Poin	t (LTP)												
32.410871 104.185607 83  Is this well the defining well for the Horizontal Spacing Unit? yes  Is this well an infill well? no  If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.  API #	UL <b>E</b>				Lot										
Is this well the defining well for the Horizontal Spacing Unit?  Is this well an infill well?  If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.  API #			71	•		_		5607	7						
If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.  API #				vell for th	e Horiz					yes					
Spacing Unit.  API #	Is this	s well an	infill well?		no	]									
			lease prov	ide API if a	availab	ole, Oper	ator	Name a	ınd w	vell n	umber	for I	Definii	ng well fo	r Horizontal
Operator Name: Property Name: Well Number	API#														
	Ope	rator Nai	me:				Prop	perty Na	ame:						Well Number

KZ 06/29/2018

**■**Tenaris

TXP® BTC



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	Туре	Casing
Connection OD Option	REGULAR				

#### Pipe Body Data

Geometry			
Nominal OD	5.500 in.	Wall Thickness	0.361 in.
Nominal Weight	20.00 lb/ft	Plain End Weight	19.83 lb/ft
Drift	4.653 in.	OD Tolerance	API
Nominal ID	4.778 in.		

Performance	
Body Yield Strength	729 x1000 lb
Min. Internal Yield Pressure	14,360 psi
SMYS	125,000 psi
Collapse Pressure	12,300 psi

#### **Connection Data**

Geometry	
Connection OD	6.100 in.
Coupling Length	9.450 in.
Connection ID	4.766 in.
Make-up Loss	4.204 in.
Threads per inch	5
Connection OD Option	Regular

Performance	
Tension Efficiency	100 %
Joint Yield Strength	729 x1000 lb
Internal Pressure Capacity	14,360 psi
Compression Efficiency	100 %
Compression Strength	729 x1000 lb
Max. Allowable Bending	104 °/100 ft
External Pressure Capacity	12,300 psi

Make-Up Torques	
Minimum	11,540 ft-lb
Optimum	12,820 ft-lb
Maximum	14,100 ft-lb
Operation Limit Torques	
Operating Torque	22,700 ft-lb
Yield Torque	25,250 ft-lb

## Notes

This connection is fully interchangeable with: TXP® BTC - 5.5 in. - 0.275 (15.50) / 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
Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative. Standard coupling design comes with optimized 20° bevel.

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

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# TenarisHydril Wedge 441<sup>®</sup> - 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: - 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	Туре	Casing
Connection OD Option	REGULAR				

#### Pipe Body Data

Geometry			
Nominal OD	8.625 in.	Wall Thickness	0.352 in.
Nominal Weight	32.00 lb/ft	Plain End Weight	31.13 lb/ft
Drift	7.875 in.	OD Tolerance	API
Nominal ID	7.921 in.		

Performance	
Body Yield Strength	1144 x1000 lb
Min. Internal Yield Pressure	9180 psi
SMYS	125,000 psi
Collapse Pressure	4000 psi

#### **Connection Data**

Geometry	
Connection OD	8.889 in.
Coupling Length	8.862 in.
Connection ID	7.921 in.
Make-up Loss	3.744 in.
Threads per inch	3.43
Connection OD Option	Regular

Performance	
Tension Efficiency	81.20 %
Joint Yield Strength	929 x1000 lb
Internal Pressure Capacity	9180 psi
Compression Efficiency	81.20 %
Compression Strength	929 x1000 lb
Max. Allowable Bending	53.59 °/100 ft
External Pressure Capacity	4000 psi

Make-Up Torques	
Minimum	23,000 ft-lb
Optimum	24,000 ft-lb
Maximum	27,000 ft-lb
Operation Limit Torques	
Operating Torque	59,000 ft-lb
Operating Torque  Yield Torque	59,000 ft-lb 70,000 ft-lb
	<u> </u>
Yield Torque	<u> </u>

## 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

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TXP® BTC



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	Туре	Casing
Connection OD Option	REGULAR				

#### Pipe Body Data

Geometry			
Nominal OD	5.500 in.	Wall Thickness	0.361 in.
Nominal Weight	20.00 lb/ft	Plain End Weight	19.83 lb/ft
Drift	4.653 in.	OD Tolerance	API
Nominal ID	4.778 in.		

Performance	
Body Yield Strength	729 x1000 lb
Min. Internal Yield Pressure	14,360 psi
SMYS	125,000 psi
Collapse Pressure	12,300 psi

#### **Connection Data**

Geometry	
Connection OD	6.100 in.
Coupling Length	9.450 in.
Connection ID	4.766 in.
Make-up Loss	4.204 in.
Threads per inch	5
Connection OD Option	Regular

Performance	
Tension Efficiency	100 %
Joint Yield Strength	729 x1000 lb
Internal Pressure Capacity	14,360 psi
Compression Efficiency	100 %
Compression Strength	729 x1000 lb
Max. Allowable Bending	104 °/100 ft
External Pressure Capacity	12,300 psi

11,540 ft-lb
12,820 ft-lb
14,100 ft-lb
22,700 ft-lb
25,250 ft-lb

## Notes

This connection is fully interchangeable with: TXP® BTC - 5.5 in. - 0.275 (15.50) / 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
Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative. Standard coupling design comes with optimized 20° bevel.

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

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# API 5CT 10.750" 45.50lb/ft HCL80 Casing Performance Data Sheet

Manufactured to specifications of API 5CT 9th edition and bears the API monogram.

Grade	HCL80
	Pipe Body Mechanical Properties
Minimum Yield Strength	80,000 psi
Maximum Yield Strength	95,000 psi
Minimum Tensile Strength	95,000 psi
Maximum Hardness	23.0 HRC
	Ci
OD	<u>Sizes</u>
OD Nominal Wall Thickness	10 3/4 .400 in
Nominal Weight, T&C	45.50 lb/ft
	45.50 lb/ft 44.26 lb/ft
Nominal Weight, PE  Nominal ID	9.950 in
Standard Drift	9.794 in
Alternate Drift	9.875 in
Alternate Drift	9.875 III
Coupling Special Clearance	Size
OD	11.25 in
Min. Length	10.625 in
Diameter of Counter Bore	10.890 in
Width of bearing face	.375 in
Width of bearing face	.575 111
	Minimum Performance
Collapse Pressure	2,940 psi
Internal Pressure Yield	5,210 psi
Pipe body Tension Yield	1,040,000 lbs
Joint Strength STC	692,000 lbs
Joint Strength LTC	N/A
Joint Strength BTC	1,063,000 lbs
	·
	Inspection and Testing
Visual	OD Longitidunal and independent 3rd party SEA
	Ladan and and 2nd marks fall banks 5001 and 5nd Anna languation of the banks durated
NDT	Independent 3rd party full body EMI and End Area Inspection after hydrotest
	Calibration notch sensitivity: 10% of specified wall thickness
	•
	<u>Color code</u>
Pipe ends	One red, one brown and one blue band
Couplings	Red with one brown band
	<del></del>



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

# **Dimensions (Nominal)**

<b>Outside Diameter</b>	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
ВТС	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.

#### 1. Geologic Formations

TVD of target	9382	Pilot hole depth	N/A
MD at TD:	19870	Deepest expected fresh water	

#### Basin

T (1	Depth	Water/Mineral	**
Formation	(TVD)	Bearing/Target Zone?	Hazards*
D 4	from KB	Zone?	
Rustler	172		
Salt	419		
Base of Salt	857		
Capitan Reef Top	971		
Delaware	2207		
Cherry Canyon	3547		
Brushy Canyon	4261		
1st Bone Spring Lime	5464		
Bone Spring 1st	6586		
Bone Spring 2nd	7282		
3rd Bone Spring Lime	7582		
Bone Spring 3rd	8556		
Wolfcamp	8951		
		·	

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program (Primary Design)

		Wt			Casing	Interval	Casing	Interval
Hole Size	Csg. Size	(PPF)	Grade	Conn	From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	54 1/2	J-55	BTC	0	200	0	200
12 1/4	10 3/4	45 1/2	HCL80	BTC SCC	0	2300	0	2300
9.875x8.75	5 1/2	20	P-110ICY	TXP	0	19870	0	9382

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	183	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	135	Surf	9	3.27	Lead: Class C Cement + additives
IIIL I	101	1800	13.2	1.44	Tail: Class H / C + additives
Production	959	1300	9	3.27	Lead: Class H /C + additives
Production	3032	9050	13.2	1.44	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 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

<sup>\*9.875&</sup>quot; hole down to KOP, and then 8.75" hole

2. Casing Program (Alternative Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
17 1/2	13 3/8	54 1/2	J-55	BTC	0.0	200 MD	0	200 TVD
12 1/4	10 3/4	45 1/2	HCL80	BTC SCC	0.0	2300 MD	0	2300 TVD
9 7/8	8 5/8	8 5/8	P-110ICY	Wedge 441	0	9050 MD	0	9027 TVD
7 7/8	5 1/2	20	P-110ICY	TXP	0	19870 MD	0	9382 TVD

3. Cementing Program (Alternative Design)

3. Cementing Program (Alternative Design)									
Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description				
Surface	183	Surf	13.2	1.44	Lead: Class C Cement + additives				
Total	135 Surf 9		9	3.27	Lead: Class C Cement + additives				
Int	101	1800	13.2	1.44	Tail: Class H / C + additives				
	172	Surf	9	3.27	Lead: Class C Cement + additives				
Int 1	555	4261	13.2	1.44	Tail: Class H / C + additives				
P 1 (	117	7050	9	3.27	Lead: Class H /C + additives				
Production	1432	9050	13.2	1.44	Tail: Class H / C + additives				

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		✓	Tested to:																							
				Anı	Annular		50% of rated working pressure																						
Int 1	13-5/8"	5M	Bline	l Ram	X																								
mit i	13-3/6	J1V1	Pipe	Ram		5M																							
			Doub	le Ram	X	JIVI																							
			Other*																										
	13-5/8"		Annular (5M) Blind Ram		X	50% of rated working pressure																							
Production		514			X																								
Production		13-3/6	13-3/6	13-3/6 3IVI	13-3/6 3141	13-3/6 3WI	13-3/6	13-3/6	13-3/6	13-3/0	13-3/6	13-3/6 3WI	5M	SIM	13-3/6 31/1	13-3/6 3141	5-5/6 JIVI	13-3/6 31/1	JIVI	3101	SIVI	3101	3101	3101	3101	J-3/6 JWI	Pipe	Ram	
			Doub	Double Ram X		JIVI																							
			Other*																										
			Annular (5M)																										
			Blind Ram																										
			Pipe Ram																										
			Double Ram																										
			Other*																										
N A variance is requested for	the use of	a diverter or	n the surface	casing. See	attached for s	schematic.																							
Y A variance is requested to a	run a 5 M a	nnular on a	10M system	1		·																							

5. Mud Program (Three String Design)

Section	Туре	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Production	OBM	10-10.5

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, C	Logging, Coring and Testing										
	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the										
X	Completion Rpeort 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	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	5122
Abnormal temperature	No

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

Hydrogren S	Hydrogren Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations						
greater than	greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is						
encountered	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

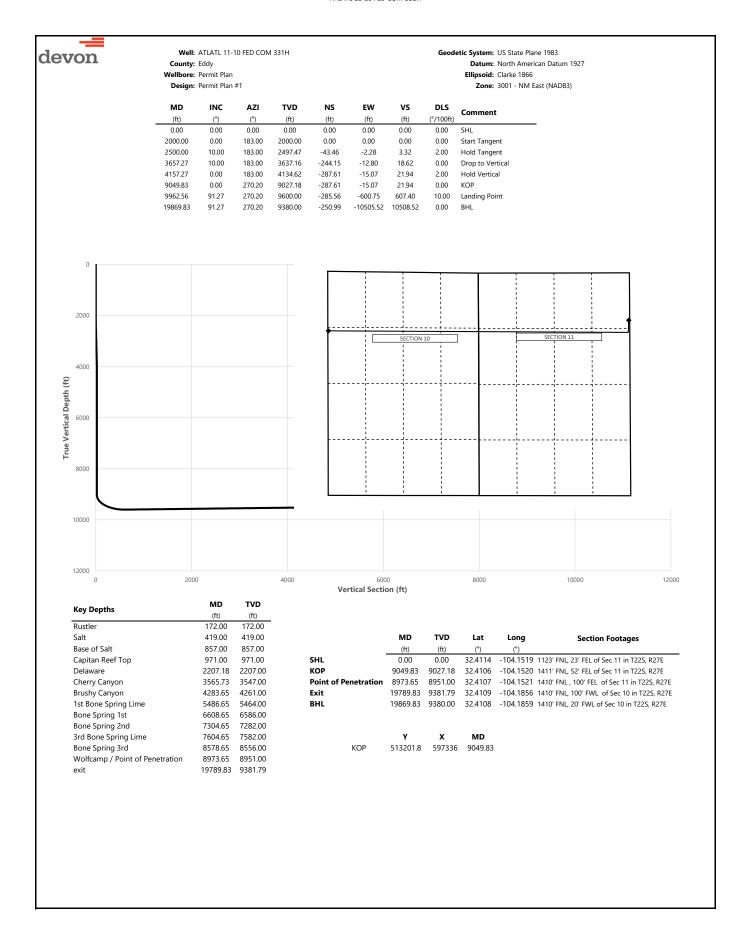
- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and 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 (OnShore Order 2, all COAs and NMOCD regulations).
- <sup>3</sup> 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 pa.
- 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. A 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	3
X	Directional Plan
	Other, describe





Well: ATLATL 11-10 FED COM 331H

County: Eddy Wellbore: Permit Plan

Design: Permit Plan #1 Geodetic System: US State Plane 1983

Datum: North American Datum 1927

Ellipsoid: Clarke 1866

	Design:	Permit Plan	#1				<b>Zone:</b> 3001 - NM East (NAD83)				
MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment			
(ft) 0.00	(°) 0.00	(°) 0.00	(ft) 0.00	(ft) 0.00	(ft) 0.00	(ft) 0.00	(°/100ft) 0.00	SHL			
100.00	0.00	183.00	100.00	0.00	0.00	0.00	0.00	SHE			
172.00	0.00	183.00	172.00	0.00	0.00	0.00	0.00	Rustler			
200.00	0.00	183.00	200.00	0.00	0.00	0.00	0.00				
300.00	0.00	183.00	300.00	0.00	0.00	0.00	0.00				
400.00	0.00	183.00	400.00	0.00	0.00	0.00	0.00				
419.00	0.00	183.00	419.00	0.00	0.00	0.00	0.00	Salt			
500.00	0.00	183.00	500.00	0.00	0.00	0.00	0.00				
600.00 700.00	0.00	183.00 183.00	600.00 700.00	0.00	0.00	0.00	0.00				
800.00	0.00	183.00	800.00	0.00	0.00	0.00	0.00				
857.00	0.00	183.00	857.00	0.00	0.00	0.00	0.00	Base of Salt			
900.00	0.00	183.00	900.00	0.00	0.00	0.00	0.00				
971.00	0.00	183.00	971.00	0.00	0.00	0.00	0.00	Capitan Reef Top			
1000.00	0.00	183.00	1000.00	0.00	0.00	0.00	0.00				
1100.00	0.00	183.00	1100.00	0.00	0.00	0.00	0.00				
1200.00	0.00	183.00	1200.00	0.00	0.00	0.00	0.00				
1300.00	0.00	183.00	1300.00	0.00	0.00	0.00	0.00				
1400.00 1500.00	0.00	183.00 183.00	1400.00 1500.00	0.00	0.00	0.00	0.00				
1600.00	0.00	183.00	1600.00	0.00	0.00	0.00	0.00				
1700.00	0.00	183.00	1700.00	0.00	0.00	0.00	0.00				
1800.00	0.00	183.00	1800.00	0.00	0.00	0.00	0.00				
1900.00	0.00	183.00	1900.00	0.00	0.00	0.00	0.00				
2000.00	0.00	183.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent			
2100.00	2.00	183.00	2099.98	-1.74	-0.09	0.13	2.00				
2200.00	4.00	183.00	2199.84	-6.97	-0.37	0.53	2.00				
2207.18	4.14	183.00	2207.00	-7.48 15.67	-0.39	0.57	2.00	Delaware			
2300.00 2400.00	6.00 8.00	183.00 183.00	2299.45 2398.70	-15.67 -27.84	-0.82 -1.46	1.20 2.12	2.00 2.00				
2500.00	10.00	183.00	2497.47	-43.46	-2.28	3.32	2.00	Hold Tangent			
2600.00	10.00	183.00	2595.95	-60.80	-3.19	4.64	0.00	Tiola rangent			
2700.00	10.00	183.00	2694.43	-78.14	-4.10	5.96	0.00				
2800.00	10.00	183.00	2792.91	-95.49	-5.00	7.28	0.00				
2900.00	10.00	183.00	2891.39	-112.83	-5.91	8.61	0.00				
3000.00	10.00	183.00	2989.87	-130.17	-6.82	9.93	0.00				
3100.00	10.00	183.00	3088.35	-147.51	-7.73	11.25	0.00				
3200.00	10.00	183.00	3186.83	-164.85	-8.64	12.57	0.00				
3300.00 3400.00	10.00 10.00	183.00 183.00	3285.31 3383.79	-182.19 -199.53	-9.55 -10.46	13.90 15.22	0.00				
3500.00	10.00	183.00	3482.27	-133.33	-11.37	16.54	0.00				
3565.73	10.00	183.00	3547.00	-228.27	-11.96	17.41	0.00	Cherry Canyon			
3600.00	10.00	183.00	3580.75	-234.21	-12.27	17.86	0.00	, , .			
3657.27	10.00	183.00	3637.16	-244.15	-12.80	18.62	0.00	Drop to Vertical			
3700.00	9.15	183.00	3679.29	-251.24	-13.17	19.16	2.00				
3800.00	7.15	183.00	3778.27	-265.39	-13.91	20.24	2.00				
3900.00	5.15	183.00	3877.69	-276.08	-14.47	21.06	2.00				
4000.00	3.15	183.00	3977.43	-283.30	-14.85	21.61	2.00				
4100.00 4157.27	1.15 0.00	183.00 183.00	4077.35 4134.62	-287.04 -287.61	-15.04 -15.07	21.89 21.94	2.00 2.00	Hold Vertical			
4200.00	0.00	270.20	4177.35	-287.61	-15.07	21.94	0.00	Tiona Totalan			
4283.65	0.00	270.20	4261.00	-287.61	-15.07	21.94	0.00	Brushy Canyon			
4300.00	0.00	270.20	4277.35	-287.61	-15.07	21.94	0.00				
4400.00	0.00	270.20	4377.35	-287.61	-15.07	21.94	0.00				
4500.00	0.00	270.20	4477.35	-287.61	-15.07	21.94	0.00				
4600.00	0.00	270.20	4577.35	-287.61	-15.07	21.94	0.00				
4700.00	0.00	270.20	4677.35	-287.61	-15.07	21.94	0.00				
4800.00 4900.00	0.00	270.20 270.20	4777.35 4877.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00				
5000.00	0.00	270.20	4977.35	-287.61	-15.07 -15.07	21.94	0.00				
5100.00	0.00	270.20	5077.35	-287.61	-15.07	21.94	0.00				
5200.00	0.00	270.20	5177.35	-287.61	-15.07	21.94	0.00				
5300.00	0.00	270.20	5277.35	-287.61	-15.07	21.94	0.00				
5400.00	0.00	270.20	5377.35	-287.61	-15.07	21.94	0.00				
5486.65	0.00	270.20	5464.00	-287.61	-15.07	21.94	0.00	1st Bone Spring Lime			
5500.00	0.00	270.20	5477.35	-287.61	-15.07	21.94	0.00				
5600.00	0.00	270.20	5577.35	-287.61	-15.07	21.94	0.00				
5700.00 5800.00	0.00	270.20 270.20	5677.35 5777.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00				
5900.00	0.00	270.20	5877.35	-287.61	-15.07 -15.07	21.94	0.00				



Well: ATLATL 11-10 FED COM 331H County: Eddy

Wellbore: Permit Plan

Design: Permit Plan #1

Geodetic System: US State Plane 1983 Datum: North American Datum 1927

Ellipsoid: Clarke 1866

	Design: Permit Plan #1							<b>Zone</b> : 3001 - NM East (NAD83)
MD (ft)	INC (°)	<b>AZI</b> (°)	TVD (ft)	NS (ft)	<b>EW</b> (ft)	VS (ft)	<b>DLS</b> (°/100ft)	Comment
6000.00	0.00	270.20	5977.35	-287.61	-15.07	21.94	0.00	
6100.00	0.00	270.20	6077.35	-287.61	-15.07	21.94	0.00	
6200.00	0.00	270.20	6177.35	-287.61	-15.07	21.94	0.00	
6300.00	0.00	270.20	6277.35	-287.61	-15.07	21.94	0.00	
6400.00	0.00	270.20	6377.35	-287.61	-15.07	21.94	0.00	
6500.00 6600.00	0.00	270.20 270.20	6477.35 6577.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00	
6608.65	0.00	270.20	6586.00	-287.61	-15.07	21.94	0.00	Bone Spring 1st
6700.00	0.00	270.20	6677.35	-287.61	-15.07	21.94	0.00	bone spring 1st
6800.00	0.00	270.20	6777.35	-287.61	-15.07	21.94	0.00	
6900.00	0.00	270.20	6877.35	-287.61	-15.07	21.94	0.00	
7000.00	0.00	270.20	6977.35	-287.61	-15.07	21.94	0.00	
7100.00	0.00	270.20	7077.35	-287.61	-15.07	21.94	0.00	
7200.00	0.00	270.20	7177.35	-287.61	-15.07	21.94	0.00	
7300.00	0.00	270.20	7277.35	-287.61	-15.07	21.94	0.00	Dana Carina 2ad
7304.65 7400.00	0.00	270.20 270.20	7282.00 7377.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00	Bone Spring 2nd
7500.00	0.00	270.20	7477.35	-287.61	-15.07	21.94	0.00	
7600.00	0.00	270.20	7577.35	-287.61	-15.07	21.94	0.00	
7604.65	0.00	270.20	7582.00	-287.61	-15.07	21.94	0.00	3rd Bone Spring Lime
7700.00	0.00	270.20	7677.35	-287.61	-15.07	21.94	0.00	
7800.00	0.00	270.20	7777.35	-287.61	-15.07	21.94	0.00	
7900.00	0.00	270.20	7877.35	-287.61	-15.07	21.94	0.00	
8000.00	0.00	270.20	7977.35	-287.61	-15.07	21.94	0.00	
8100.00	0.00	270.20	8077.35	-287.61	-15.07	21.94	0.00	
8200.00 8300.00	0.00	270.20 270.20	8177.35 8277.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00	
8400.00	0.00	270.20	8377.35	-287.61	-15.07	21.94	0.00	
8500.00	0.00	270.20	8477.35	-287.61	-15.07	21.94	0.00	
8578.65	0.00	270.20	8556.00	-287.61	-15.07	21.94	0.00	Bone Spring 3rd
8600.00	0.00	270.20	8577.35	-287.61	-15.07	21.94	0.00	
8700.00	0.00	270.20	8677.35	-287.61	-15.07	21.94	0.00	
8800.00	0.00	270.20	8777.35	-287.61	-15.07	21.94	0.00	
8900.00	0.00	270.20	8877.35	-287.61	-15.07	21.94	0.00	Walfarra / Daint of Baratustian
8973.65 9000.00	0.00	270.20 270.20	8951.00 8977.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00	Wolfcamp / Point of Penetration
9049.83	0.00	270.20	9027.18	-287.61	-15.07	21.94	0.00	KOP
9100.00	5.02	270.20	9077.29	-287.60	-17.27	24.13	10.00	NO.
9200.00	15.02	270.20	9175.64	-287.54	-34.64	41.50	10.00	
9300.00	25.02	270.20	9269.48	-287.42	-68.82	75.67	10.00	
9400.00	35.02	270.20	9355.95	-287.25	-118.79	125.61	10.00	
9500.00	45.02	270.20	9432.44	-287.02	-183.00	189.81	10.00	
9600.00	55.02	270.20	9496.62	-286.76	-259.53	266.30	10.00	
9700.00 9800.00	65.02	270.20	9546.53 9580.66	-286.45	-346.04	352.78 446.60	10.00 10.00	
9900.00	75.02 85.02	270.20 270.20	9597.98	-286.13 -285.78	-439.90 -538.26	544.93	10.00	
9962.56	91.27	270.20	9600.00	-285.56	-600.75	607.40	10.00	Landing Point
10000.00	91.27	270.20	9599.17	-285.43	-638.18	644.82	0.00	
10100.00	91.27	270.20	9596.95	-285.09	-738.16	744.76	0.00	
10200.00	91.27	270.20	9594.73	-284.74	-838.13	844.69	0.00	
10300.00	91.27	270.20	9592.51	-284.39	-938.11	944.63	0.00	
10400.00	91.27	270.20	9590.29	-284.04	-1038.08	1044.57	0.00	
10500.00	91.27	270.20	9588.07	-283.69	-1138.06	1144.51	0.00	
10600.00 10700.00	91.27 91.27	270.20 270.20	9585.85 9583.63	-283.34 -282.99	-1238.03 -1338.01	1244.45 1344.38	0.00	
10800.00	91.27	270.20	9581.40	-282.65	-1437.98	1444.32	0.00	
10900.00	91.27	270.20	9579.18	-282.30	-1537.96	1544.26	0.00	
11000.00	91.27	270.20	9576.96	-281.95	-1637.93	1644.20	0.00	
11100.00	91.27	270.20	9574.74	-281.60	-1737.90	1744.14	0.00	
11200.00	91.27	270.20	9572.52	-281.25	-1837.88	1844.07	0.00	
11300.00	91.27	270.20	9570.30	-280.90	-1937.85	1944.01	0.00	
11400.00	91.27	270.20	9568.08	-280.55	-2037.83	2043.95	0.00	
11500.00 11600.00	91.27 91.27	270.20 270.20	9565.86 9563.64	-280.21 -279.86	-2137.80 -2237.78	2143.89 2243.82	0.00	
11700.00	91.27	270.20	9563.64	-279.86 -279.51	-2237.76	2343.76	0.00	
11800.00	91.27	270.20	9559.20	-279.16	-2437.73	2443.70	0.00	
11900.00	91.27	270.20	9556.98	-278.81	-2537.70	2543.64	0.00	
12000.00	91.27	270.20	9554.76	-278.46	-2637.68	2643.58	0.00	
12100.00	91.27	270.20	9552.54	-278.11	-2737.65	2743.51	0.00	
12200.00	91.27	270.20	9550.32	-277.76	-2837.63	2843.45	0.00	



Well: ATLATL 11-10 FED COM 331H

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)

Design: Permit Plan #1				Zone: 3001 - NM East (NAD83)				
MD	INC	AZI	TVD	NS	EW	vs	DLS	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
12300.00	91.27	270.20	9548.10	-277.42	-2937.60	2943.39	0.00	
12400.00	91.27	270.20	9545.88	-277.07	-3037.58	3043.33	0.00	
12500.00	91.27	270.20	9543.66	-276.72	-3137.55	3143.27	0.00	
12600.00	91.27	270.20	9541.44	-276.37	-3237.53	3243.20	0.00	
12700.00	91.27	270.20	9539.22	-276.02	-3337.50	3343.14	0.00	
12800.00	91.27	270.20	9537.00	-275.67	-3437.48	3443.08	0.00	
12900.00	91.27	270.20	9534.78	-275.32	-3537.45	3543.02	0.00	
13000.00	91.27	270.20	9532.55	-274.98	-3637.42	3642.95	0.00	
13100.00	91.27	270.20	9530.33	-274.63	-3737.40	3742.89	0.00	
13200.00	91.27	270.20	9528.11	-274.28	-3837.37	3842.83	0.00	
13300.00	91.27	270.20	9525.89	-273.93	-3937.35	3942.77	0.00	
13400.00 13500.00	91.27	270.20	9523.67 9521.45	-273.58	-4037.32 4127.30	4042.71 4142.64	0.00	
13600.00	91.27 91.27	270.20 270.20	9519.23	-273.23 -272.88	-4137.30 -4237.27	4242.58	0.00	
13700.00	91.27	270.20	9517.01	-272.54	-4337.25	4342.52	0.00	
13800.00	91.27	270.20	9514.79	-272.19	-4437.22	4442.46	0.00	
13900.00	91.27	270.20	9512.57	-271.84	-4537.20	4542.40	0.00	
14000.00	91.27	270.20	9510.35	-271.49	-4637.17	4642.33	0.00	
14100.00	91.27	270.20	9508.13	-271.14	-4737.15	4742.27	0.00	
14200.00	91.27	270.20	9505.91	-270.79	-4837.12	4842.21	0.00	
14300.00	91.27	270.20	9503.69	-270.44	-4937.10	4942.15	0.00	
14400.00	91.27	270.20	9501.47	-270.10	-5037.07	5042.09	0.00	
14500.00	91.27	270.20	9499.25	-269.75	-5137.05	5142.02	0.00	
14600.00	91.27	270.20	9497.03	-269.40	-5237.02	5241.96	0.00	
14700.00	91.27	270.20	9494.81	-269.05	-5337.00	5341.90	0.00	
14800.00	91.27	270.20	9492.59	-268.70	-5436.97	5441.84	0.00	
14900.00	91.27	270.20	9490.37	-268.35	-5536.94	5541.77	0.00	
15000.00	91.27	270.20	9488.15	-268.00	-5636.92	5641.71	0.00	
15100.00	91.27	270.20	9485.93	-267.66	-5736.89	5741.65	0.00	
15200.00	91.27	270.20	9483.70	-267.31	-5836.87	5841.59	0.00	
15300.00	91.27	270.20	9481.48	-266.96	-5936.84	5941.53	0.00	
15400.00	91.27	270.20	9479.26	-266.61	-6036.82	6041.46	0.00	
15500.00	91.27	270.20	9477.04	-266.26	-6136.79	6141.40	0.00	
15600.00	91.27	270.20	9474.82	-265.91	-6236.77	6241.34	0.00	
15700.00	91.27	270.20	9472.60	-265.56	-6336.74	6341.28	0.00	
15800.00	91.27	270.20	9470.38	-265.22	-6436.72	6441.22	0.00	
15900.00	91.27	270.20	9468.16	-264.87	-6536.69	6541.15	0.00	
16000.00	91.27	270.20	9465.94	-264.52	-6636.67	6641.09	0.00	
16100.00	91.27	270.20	9463.72	-264.17	-6736.64	6741.03	0.00	
16200.00 16300.00	91.27 91.27	270.20 270.20	9461.50 9459.28	-263.82 -263.47	-6836.62 -6936.59	6840.97 6940.91	0.00	
16400.00	91.27	270.20	9459.26	-263.47	-7036.57	7040.84	0.00	
16500.00	91.27	270.20	9454.84	-262.78	-7136.54	7140.78	0.00	
16600.00	91.27	270.20	9452.62	-262.43	-7236.52	7240.72	0.00	
16700.00	91.27	270.20	9450.40	-262.08	-7336.49	7340.66	0.00	
16800.00	91.27	270.20	9448.18	-261.73	-7436.46	7440.59	0.00	
16900.00	91.27	270.20	9445.96	-261.38	-7536.44	7540.53	0.00	
17000.00	91.27	270.20	9443.74	-261.03	-7636.41	7640.47	0.00	
17100.00	91.27	270.20	9441.52	-260.68	-7736.39	7740.41	0.00	
17200.00	91.27	270.20	9439.30	-260.34	-7836.36	7840.35	0.00	
17300.00	91.27	270.20	9437.08	-259.99	-7936.34	7940.28	0.00	
17400.00	91.27	270.20	9434.85	-259.64	-8036.31	8040.22	0.00	
17500.00	91.27	270.20	9432.63	-259.29	-8136.29	8140.16	0.00	
17600.00	91.27	270.20	9430.41	-258.94	-8236.26	8240.10	0.00	
17700.00	91.27	270.20	9428.19	-258.59	-8336.24	8340.04	0.00	
17800.00	91.27	270.20	9425.97	-258.24	-8436.21	8439.97	0.00	
17900.00	91.27	270.20	9423.75	-257.90	-8536.19	8539.91	0.00	
18000.00	91.27	270.20	9421.53	-257.55	-8636.16	8639.85	0.00	
18100.00	91.27	270.20	9419.31	-257.20	-8736.14	8739.79	0.00	
18200.00	91.27	270.20	9417.09	-256.85	-8836.11	8839.73	0.00	
18300.00	91.27	270.20	9414.87	-256.50	-8936.09	8939.66	0.00	
18400.00	91.27	270.20	9412.65	-256.15	-9036.06	9039.60	0.00	
18500.00	91.27	270.20	9410.43	-255.80	-9136.04	9139.54	0.00	
18600.00	91.27	270.20	9408.21	-255.46	-9236.01	9239.48	0.00	
18700.00	91.27	270.20	9405.99	-255.11	-9335.98	9339.41	0.00	
18800.00	91.27	270.20	9403.77	-254.76	-9435.96	9439.35	0.00	
18900.00	91.27	270.20	9401.55	-254.41	-9535.93	9539.29	0.00	
19000.00	91.27	270.20	9399.33	-254.06	-9635.91	9639.23	0.00	
19100.00	91.27	270.20	9397.11	-253.71	-9735.88	9739.17	0.00	
19200.00	91.27	270.20	9394.89	-253.36	-9835.86	9839.10	0.00	



Well: ATLATL 11-10 FED COM 331H

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	INC	AZI	TVD	NS	EW	vs	DLS	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
19300.00	91.27	270.20	9392.67	-253.02	-9935.83	9939.04	0.00	
19400.00	91.27	270.20	9390.45	-252.67	-10035.81	10038.98	0.00	
19500.00	91.27	270.20	9388.23	-252.32	-10135.78	10138.92	0.00	
19600.00	91.27	270.20	9386.00	-251.97	-10235.76	10238.86	0.00	
19700.00	91.27	270.20	9383.78	-251.62	-10335.73	10338.79	0.00	
19789.83	91.27	270.20	9381.79	-251.31	-10425.54	10428.57	0.00	exit
19800.00	91.27	270.20	9381.56	-251.27	-10435.71	10438.73	0.00	
19869.83	91.27	270.20	9380.00	-250.99	-10505.52	10508.52	0.00	BHL

## **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.



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

Sundry Print Reports
06/20/2024

Well Name: ATLATL 11 10 FED COM Well Location: T22S / R27E / SEC 11 / County or Parish/State: EDDY /

NENE / 32.411519 / -104.151822

Well Number: 331H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM64583 Unit or CA Name: Unit or CA Number:

US Well Number: Operator: DEVON ENERGY

PRODUCTION COMPANY LP

#### **Notice of Intent**

**Sundry ID: 2795553** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 06/17/2024 Time Sundry Submitted: 05:52

Date proposed operation will begin: 06/16/2024

**Procedure Description:** PERMIT ID 10400092144 Devon Energy Production Co., L.P. (Devon) respectfully requests offline cementing for the subject well. See Variance attached. Devon Energy Production Co., L.P. (Devon) respectfully requests to move surface and intermediate casing and change the weight, grade, connection and add alternative casing design. Please see attached spec sheet, and drill plan. Devon Energy Production Co., L.P. (Devon) respectfully requests to change the BHL and Formation on the subject well. Please see attached revised C102, Drill plan, directional plan. Permitted BHL: NENE, 400 FNL 23 FEL, 10-22S-27E Proposed BHL: SWNW, 1410 FNL, 20 FWL, 10-22S-27E Permitted TVD/MD: 8686/19210-Esperanza/Bonespring Proposed TVD/MD: 9382/19870- Purple Sage/Wolfcamp (Gas)

# **NOI Attachments**

# **Procedure Description**

5.500\_0.361\_P110\_ICY\_TXP\_\_BTC\_01242024\_20240617055146.pdf

8.625\_0.352\_P110\_ICY\_Wedge\_441\_\_02162024\_20240617055126.pdf

5.500\_0.361\_P110\_ICY\_TXP\_\_BTC\_01242024\_20240617054933.pdf

10.750\_45.50\_HCL80\_SCC\_20240617054757.PDF

13.375\_54.50\_J55\_20240617054716.pdf

ATLATL\_11\_10\_FED\_COM\_331H\_r2\_20240616205041.pdf

ATLATL\_11\_10\_FED\_COM\_331H\_Directional\_Plan\_06\_13\_24\_20240616205014.pdf

eceived by OCD: 6/25/2024 7:26:02 AM Well Name: ATLATE 11 10 FED COM

Well Location: T22S / R27E / SEC 11 /

NENE / 32.411519 / -104.151822

County or Parish/State: Page 26 of

NM

Well Number: 331H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM64583

Unit or CA Name:

**Unit or CA Number:** 

**US Well Number:** 

**Operator:** DEVON ENERGY PRODUCTION COMPANY LP

Offline\_Cementing\_\_\_Variance\_Request\_20240616204644.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: ARIANNA EVANS Signed on: JUN 16, 2024 08:44 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory

Street Address: 333 W SHERIDAN AVE

City: OKLAHOMA CITY State: OK

Phone: (405) 552-4514

Email address: ARIANNA.EVANS@DVN.COM

# **Field**

**Representative Name:** 

Street Address:

City:

State:

Zip:

Phone:

**Email address:** 

Page 2 of 2

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:
LEASE NO.:
LOCATION:
COUNTY:
Devon Energy Production Company LP
NMNM64583
Section 11, T.22 S., R.27 E., NMPM
Eddy County, New Mexico

WELL NAME & NO.: Atlatl 11 10 Fed Com 331H

BOTTOM HOLE FOOTAGE | 1410'/N & 20'/W | ATS/API ID: | ATS-23-1423 | 10400092144

**Sundry ID:** | 2795553

**Date APD Submitted:** 

COA

**Primary Design:** H2S Yes Potash None • Cave/Karst Medium Potential Critical Cave/Karst Potential Variance None None Flex Hose Other Wellhead Conventional and Multibowl □WIPP Other □ 4 String Capitan Reef • None ☐ Open Annulus Other Pilot Hole None -Cementing Contingency Squeeze **Echo-Meter Primary Cement** Squeeze -None None None Ŧ Special □ Water **▼** COM □ Unit Requirements Disposal/Injection Special ☐ Batch Sundry Waste Prevention Requirements None -✓ Offline ▼ Break Testing ☐ Casing Special Requirements Cementing Clearance Variance

**Alternate Design:** 

Potash	None <b>T</b>		
Cave/Karst Potential	Medium 🔽		
Cave/Karst Potential	☐ Critical		
Other	✓ 4 String	Capitan Reef None	□WIPP
Other	Pilot Hole  None	☐ Open Annulus	
Cementing	Contingency Squeeze  None	Echo-Meter Int 2	Primary Cement Squeeze None

#### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

#### **Primary Casing Design:**

#### **B. CASING**

- 1. The 13-3/8 inch surface casing shall be set at approximately 350 feet (a minimum of 70 feet (Eddy County) 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.

Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

- 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.
  - ❖ 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.

- 3. 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.
     Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

#### **Alternate Casing Design:**

#### C. CASING

- 4. The 13-3/8 inch surface casing shall be set at approximately 350 feet (a minimum of 70 feet (Eddy County) 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.
  - e. 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.
  - f. 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)
  - g. 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.
  - h. If cement falls back, remedial cementing will be done prior to drilling out that string.

Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

- 5. 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.

6. The minimum required fill of cement behind the **8-5/8** inch intermediate casing shall be set at approximately **8951 feet** is:

#### **Option 1 (Single Stage):**

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

#### 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 4261' (727 sxs Class H/C+ additives).
- 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 240 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.
- 7. 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.

#### D. 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:**

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.

#### E. 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.

#### **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 2<sup>nd</sup> 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) 6/24/2024

Form 3160-5 (June 2019)

## UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPRO	VED
OMB No. 1004	-0137
Expires: October 3	31, 202

5.	Lease	Serial	No

BURI	EAU OF LAND MANAGEMENT	J. Lease Serial IVO.	3. Lease Serial IVO.			
Do not use this f	OTICES AND REPORTS ON Worm for proposals to drill or to Use Form 3160-3 (APD) for suc	6. If Indian, Allottee or	r Tribe Name			
abandonea wen. c	ose romi oroc-o (Ar b) for suc	лі ріорозаіз.	7 IFIL:: + -F.C.A /A	None and None and I and No		
	<b>TRIPLICATE</b> - Other instructions on page	9 2	/. If Unit of CA/Agree	ement, Name and/or No.		
1. Type of Well			8. Well Name and No.			
Oil Well Gas W	Vell Other					
2. Name of Operator			9. API Well No.			
3a. Address	3b. Phone No.	(include area code)	10. Field and Pool or I	Exploratory Area		
4. Location of Well (Footage, Sec., T.,R	.,M., or Survey Description)		11. Country or Parish,	State		
12. CHE	CK THE APPROPRIATE BOX(ES) TO INI	DICATE NATURE OF NOT	 ΓΙCE, REPORT OR OTH	IER DATA		
TYPE OF SUBMISSION		TYPE OF A	CTION			
Notice of Intent	Acidize Deep	=	oduction (Start/Resume)	Water Shut-Off		
		~ <u>=</u>	clamation	Well Integrity		
Subsequent Report		=	complete nporarily Abandon	Other		
Final Abandonment Notice	Convert to Injection Plug		ter Disposal			
13. Describe Proposed or Completed O	peration: Clearly state all pertinent details, in		date of any proposed wo	rk and approximate duration thereof. If		
completed. Final Abandonment Not is ready for final inspection.)	ns. If the operation results in a multiple comices must be filed only after all requirements					
14. I hereby certify that the foregoing is	true and correct. Name (Printed/Typed)	Title				
		Title				
Signature		Date				
	THE SPACE FOR FEDI	ERAL OR STATE O	FICE USE			
Approved by						
•		Title		Date		
Conditions of approval, if any, are attacherify that the applicant holds legal or ewhich would entitle the applicant to con-	ned. Approval of this notice does not warrant quitable title to those rights in the subject led duct operations thereon.	tor				
	3 U.S.C Section 1212, make it a crime for an		illfully to make to any de	partment or agency of the United States		

(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 of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

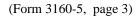
## **Additional Information**

## **Additional Remarks**

Permitted TVD/MD: 8686/19210-Esperanza/Bonespring
Proposed TVD/MD: 9382/19870- Purple Sage/Wolfcamp (Gas)

## **Location of Well**

0. SHL: NENE / 1123 FNL / 23 FEL / TWSP: 22S / RANGE: 27E / SECTION: 11 / LAT: 32.411519 / LONG: -104.151822 ( TVD: 0 feet, MD: 0 feet ) PPP: NENE / 376 FNL / 141 FEL / TWSP: 22S / RANGE: 27E / SECTION: 11 / LAT: 32.4135802 / LONG: -104.1693206 ( TVD: 8799 feet, MD: 14100 feet ) PPP: NENW / 387 FNL / 2559 FWL / TWSP: 22S / RANGE: 27E / SECTION: 11 / LAT: 32.4135427 / LONG: -104.1605735 ( TVD: 8860 feet, MD: 11400 feet ) BHL: NWNW / 400 FNL / 20 FWL / TWSP: 22S / RANGE: 27E / SECTION: 10 / LAT: 32.41365 / LONG: -104.185872 ( TVD: 9082 feet, MD: 19359 feet )



DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720

State of New Mexico Energy, Minerals & Natural Resources Department CONSERVATION DIVISION

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

□ AMENDED REPORT

WELL.	LOCATION	AND	ACREAGE	DEDICATION	PLAT
11 11 11 11 11	LOCALION	$\Delta I I I I$	AUMMAUL	DUDIOALION	1 11/11

API Number	Pool Code	Pool Code Pool Name				
	98220	PURPLE SAGE; WOLFCAMP	(GAS)			
Property Code	Prop	Well Number				
	ATLATL 11	ATLATL 11-10 FED COM				
OGRID No.	Oper-	Operator Name				
6137	DEVON ENERGY PRO	DUCTION COMPANY, L.P.	3082.5'			

#### Surface Location

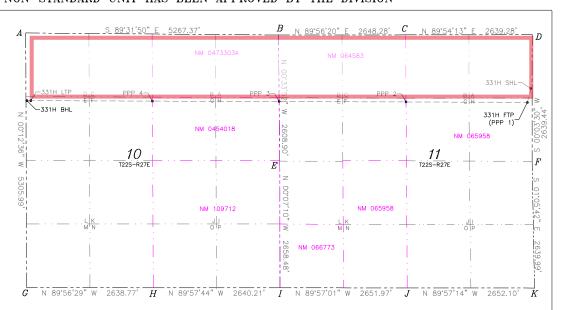
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
А	11	22-S	27-E		1123	NORTH	23	EAST	EDDY

## Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	10	22-S	27-E		1410	NORTH	20	WEST	EDDY
Dedicated Acres   Joint or Infill   Consolidation Code   Order No.   NSL									
320					110	_			

## NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

ATLATL 11-10 FED COM 331H FI: 3082.5' EL: 3082.5'
GEODETIC COORDINATES
NAD 83 NMSP EAST
SURFACE LOCATION
N:513489.36
E:597351.00
LAT:32.411519 LON:104.151822 KICK OFF POINT CALLS: 1411 FNL 52 FEL N: 5132018 E: 597336 LAT: 32.41063451 LON: 104.15195425 FIRST TAKE POINT (PPP 1)
1410' FNL 100' FEL SEC. 11
N:513202.56
E:597273.62
LAT:32.410731
LON:104.152075 LON: 104.1320/5 LAST TAKE POINT 1410' FNL 100' FWL SEC. 10 N:513237.71 E:586925.48 LAT:32.410871 LON:104.185607 BOTTOM OF HOLE N:513238.37 E:586845.48 LAT:32.410873 LON:104.185866 <u>PPP 2</u> 1397' FNL 2629' FEL SEC. 11 N:513211.15 F:594745 01 LAT:32.410766 LON:104.160269 PPP 3 1385' FNL 0' FEL SEC. 10 N:513220.13 E:592101.15 LAT:32.410802 LON:104.168836 PPP 4 1398' FNL 2641' FEL SEC. 10 N:513229.10 E:589460.42 LAT:32.410838 LON:104.177393



## OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land 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 such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Arianna Evans Signature

6/13/24 Date

Arianna Evans

E-mail Address

A = N:514648.62 E:586820.31 B = N:514605.47 E:592087.50 C = N:514605.49 E:594735.78 D = N:514612.73 E:597375.06 E = N:511996.70 E:592113.21

F = N:511973.30 E:597372.37 G = N:509342.66 E:586839.76 H = N:509339.97 E:589478.53

= N:509338.22 E:592118.75 J = N:509335.93 E:594770.72 ( = N:509333.79 E:597422.82

arianna.evans@dvn.com

Printed Name

## SURVEYOR CERTIFICATION

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

DATE OF SURVEY
Signature & Seal of Professional Surveyor 0 Certificate No. 23261 ALBERT R. DEHOYOS DRAWN BY: C.MAAS

DATE: 06/12/24

Intent	t x	As Dril	led											
API#														
Operator Name: DEVON ENERGY PRODUCTION COMPANY, LP.							erty Na ATL 1			D CC	ΡΜ			Well Number 331H
		(4.02)												
	Off Point	1	Τ_					_				= 0.00	l	
UL H	Section 11	Township 22S	Range 27E	Lot	Feet 1411		From N/	S	Feet 52		From EAS	ı E/W r	County	EDDY
Latitu	ıde	123			Longitu	ıde	NONTH				LAS	•	NAD	
	32.41	063451					104.15195	125					;	83
First T	ake Poir	nt (FTP)	Range	Lot	Feet		From N/	S	Feet		From	n E/W	County	
Н	11	22-S	27-E		1410		NOR		100	)	EAS	ST	EDDY	/
Latitu	4107	31			Longitu 104	04.152075 RAD 83					NAD 83			
UL <b>E</b>	Section 10	Township 22-S	Range 27-E	Lot	Feet <b>1410</b>		n N/S RTH	Feet 100		From I		Count		
32.	4108	71			_	ngitude NAD <b>94.185607</b> 83								
		defining v	vell for th	e Horiz	zontal Sp	oacing	Unit?		yes	]				
	ng Unit.	lease prov	ide API if a	availab	ole, Oper	rator N	lame a	nd w	ell n	umber	for [	Definir	ng well fo	or Horizontal
Ope	rator Nai	me:	•			Prop	erty Na	me:						Well Number
														K7.06/20/201

KZ 06/29/2018







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	Туре	Casing
Connection OD Option	REGULAR				

## Pipe Body Data

Geometry			
Nominal OD	5.500 in.	Wall Thickness	0.361 in.
Nominal Weight	20.00 lb/ft	Plain End Weight	19.83 lb/ft
Drift	4.653 in.	OD Tolerance	API
Nominal ID	4.778 in.		

Performance	
Body Yield Strength	729 x1000 lb
Min. Internal Yield Pressure	14,360 psi
SMYS	125,000 psi
Collapse Pressure	12,300 psi

#### **Connection Data**

Geometry	
Connection OD	6.100 in.
Coupling Length	9.450 in.
Connection ID	4.766 in.
Make-up Loss	4.204 in.
Threads per inch	5
Connection OD Option	Regular

Performance	
Tension Efficiency	100 %
Joint Yield Strength	729 x1000 lb
Internal Pressure Capacity	14,360 psi
Compression Efficiency	100 %
Compression Strength	729 x1000 lb
Max. Allowable Bending	104 °/100 ft
External Pressure Capacity	12,300 psi

Make-Up Torques	
Minimum	11,540 ft-lb
Optimum	12,820 ft-lb
Maximum	14,100 ft-lb
Operation Limit Torques	
Operating Torque	22,700 ft-lb
Yield Torque	25,250 ft-lb

## Notes

This connection is fully interchangeable with: TXP® BTC - 5.5 in. - 0.275 (15.50) / 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
Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative. Standard coupling design comes with optimized 20° bevel.

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

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# 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	Туре	Casing
Connection OD Option	REGULAR				

#### Pipe Body Data

Geometry			
Nominal OD	8.625 in.	Wall Thickness	0.352 in.
Nominal Weight	32.00 lb/ft	Plain End Weight	31.13 lb/ft
Drift	7.875 in.	OD Tolerance	API
Nominal ID	7.921 in.		

Performance	
Body Yield Strength	1144 x1000 lb
Min. Internal Yield Pressure	9180 psi
SMYS	125,000 psi
Collapse Pressure	4000 psi

## **Connection Data**

Geometry	
Connection OD	8.889 in.
Coupling Length	8.862 in.
Connection ID	7.921 in.
Make-up Loss	3.744 in.
Threads per inch	3.43
Connection OD Option	Regular

Performance	
Tension Efficiency	81.20 %
Joint Yield Strength	929 x1000 lb
Internal Pressure Capacity	9180 psi
Compression Efficiency	81.20 %
Compression Strength	929 x1000 lb
Max. Allowable Bending	53.59 °/100 ft
External Pressure Capacity	4000 psi

Make-Up Torques	
Minimum	23,000 ft-lb
Optimum	24,000 ft-lb
Maximum	27,000 ft-lb
Operation Limit Torques	
Operating Torque	59,000 ft-lb
	00,000 10 15
Yield Torque	70,000 ft-lb
Yield Torque	

## Notes

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# TXP® BTC



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	Туре	Casing
Connection OD Option	REGULAR				

## Pipe Body Data

Geometry			
Nominal OD	5.500 in.	Wall Thickness	0.361 in.
Nominal Weight	20.00 lb/ft	Plain End Weight	19.83 lb/ft
Drift	4.653 in.	OD Tolerance	API
Nominal ID	4.778 in.		

Performance	
Body Yield Strength	729 x1000 lb
Min. Internal Yield Pressure	14,360 psi
SMYS	125,000 psi
Collapse Pressure	12,300 psi

#### **Connection Data**

Geometry	
Connection OD	6.100 in.
Coupling Length	9.450 in.
Connection ID	4.766 in.
Make-up Loss	4.204 in.
Threads per inch	5
Connection OD Option	Regular

Performance	
Tension Efficiency	100 %
Joint Yield Strength	729 x1000 lb
Internal Pressure Capacity	14,360 psi
Compression Efficiency	100 %
Compression Strength	729 x1000 lb
Max. Allowable Bending	104 °/100 ft
External Pressure Capacity	12,300 psi

11,540 ft-lb
12,820 ft-lb
14,100 ft-lb
22,700 ft-lb
25,250 ft-lb

## Notes

This connection is fully interchangeable with: TXP® BTC - 5.5 in. - 0.275 (15.50) / 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
Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative. Standard coupling design comes with optimized 20° bevel.

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# API 5CT 10.750" 45.50lb/ft HCL80 Casing Performance Data Sheet

Manufactured to specifications of API 5CT 9th edition and bears the API monogram.

[a]					
Grade	HCL80				
	Director Deadle March antical December				
Minimum Yield Strength	Pipe Body Mechanical Properties 80,000 psi				
Maximum Yield Strength	95,000 psi				
Minimum Tensile Strength	95,000 psi				
Maximum Hardness	23.0 HRC				
Waxiiiiuiii Harufiess	23.0 TINC				
	<u>Sizes</u>				
OD	10 3/4				
Nominal Wall Thickness	.400 in				
Nominal Weight, T&C	45.50 lb/ft				
Nominal Weight, PE	44.26 lb/ft				
Nominal ID	9.950 in				
Standard Drift	9.794 in				
Alternate Drift	9.875 in				
	·				
Coupling Special Clearance	<u>Size</u>				
OD	11.25 in				
Min. Length	10.625 in				
Diameter of Counter Bore	10.890 in				
Width of bearing face	.375 in				
[	Minimum Performance				
Collapse Pressure	2,940 psi				
Internal Pressure Yield	5,210 psi				
Pipe body Tension Yield	1,040,000 lbs				
Joint Strength STC	692,000 lbs				
Joint Strength LTC	N/A				
Joint Strength BTC	1,063,000 lbs				
	Inspection and Testing				
Visual	OD Longitidunal and independent 3rd party SEA				
Visual	OD Longitidunal and independent Std party SEA				
NDT	Independent 3rd party full body EMI and End Area Inspection after hydrotest				
INDI	Calibration notch sensitivity: 10% of specified wall thickness				
	Color code				
Pipe ends	One red, one brown and one blue band				
Couplings	Red with one brown band				
coapings	The a with one prown pand				



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

# **Dimensions (Nominal)**

<b>Outside Diameter</b>	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
ВТС	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.

## 1. Geologic Formations

TVD of target	9382	Pilot hole depth	N/A
MD at TD:	19870	Deepest expected fresh water	

## Basin

	Depth	Water/Mineral	
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	172		
Salt	419		
Base of Salt	857		
Capitan Reef Top	971		
Delaware	2207		
Cherry Canyon	3547		
Brushy Canyon	4261		
1st Bone Spring Lime	5464		
Bone Spring 1st	6586		
Bone Spring 2nd	7282		
3rd Bone Spring Lime	7582		
Bone Spring 3rd	8556		
Wolfcamp	8951		
-			

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program (Primary Design)

		Wt			Casing	Interval	Casing	Interval
Hole Size	Csg. Size	(PPF)	Grade	Conn	From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	54 1/2	J-55	BTC	0	200	0	200
12 1/4	10 3/4	45 1/2	HCL80	BTC SCC	0	2300	0	2300
9.875x8.75	5 1/2	20	P-110ICY	TXP	0	19870	0	9382

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	183	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	135	Surf	9	3.27	Lead: Class C Cement + additives
IIIL I	101	1800	13.2	1.44	Tail: Class H / C + additives
Production	959	1300	9	3.27	Lead: Class H /C + additives
Production	3032	9050	13.2	1.44	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 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

<sup>\*9.875&</sup>quot; hole down to KOP, and then 8.75" hole

2. Casing Program (Alternative Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
17 1/2	13 3/8	54 1/2	J-55	BTC	0.0	200 MD	0	200 TVD
12 1/4	10 3/4	45 1/2	HCL80	BTC SCC	0.0	2300 MD	0	2300 TVD
9 7/8	8 5/8	<del>8-5/8</del> -32	P-110ICY	Wedge 441	0	8951' -9050 MD	0	8951' 9 <del>027-TVD</del> -
7 7/8	5 1/2	20	P-110ICY	TXP	0	19870 MD	0	9382 TVD

3. Cementing Program (Alternative Design)									
Casing	# Sks	тос	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description				
Surface	183	Surf	13.2	1.44	Lead: Class C Cement + additives				
TA	135	Surf	9	3.27	Lead: Class C Cement + additives				
Int	101	1800	13.2	1.44	Tail: Class H / C + additives				
	172	Surf	9	3.27	Lead: Class C Cement + additives				
Int 1	555	4261	13.2	1.44	Tail: Class H / C + additives				
	117	7050	9	3.27	Lead: Class H /C + additives				
Production	1432	9050	13.2	1.44	Tail: Class H / C + additives				

Squeeze 240 sxs Class C from Brushy Canyon to surface.

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		<b>✓</b>	Tested to:
			Anı	nular	X	50% of rated working pressure
Int 1	13-5/8"	5M	Blind	l Ram	X	
mit i	13-3/6	J1V1	Pipe	Ram		5M
		Double Ra		le Ram	X	JIVI
			Other*			
			Annular (5M)		X	50% of rated working pressure
Production	13-5/8"	5M	Blind Ram		X	
Production			Pipe Ram			5M
			Double Ram		X	3101
			Other*			
			Annul	ar (5M)		
			Blind	d Ram		
			Pipe	Ram		1
			Doub	le Ram		]
			Other*			<u> </u>
N A variance is requested for	the use of	a diverter or	n the surface	casing. See	attached for	schematic.
Y A variance is requested to	run a 5 M a	nnular on a	10M system	1		·

5. Mud Program (Three String Design)

Section	Туре	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Production	OBM	10-10.5

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							
	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the						
X	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.						

Additiona	ıl logs planned	Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	5122
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 Onshore Oil and Gas Order #6. 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

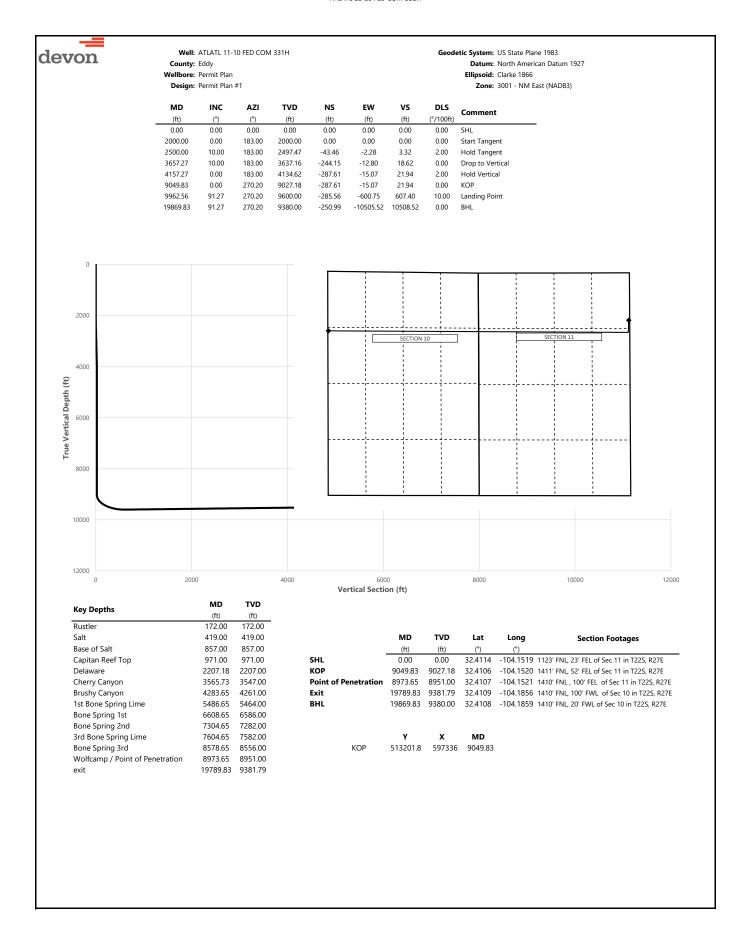
- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and 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 (OnShore Order 2, all COAs and NMOCD regulations).
- <sup>3</sup> 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 pa.
- 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. A 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	3
X	Directional Plan
	Other, describe





County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983

**Datum:** North American Datum 1927 **Ellipsoid:** Clarke 1866

	Design:	Permit Plan	#1					<b>Zone:</b> 3001 - NM East (NAD83)
MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	183.00	100.00	0.00	0.00	0.00	0.00	
172.00	0.00	183.00	172.00	0.00	0.00	0.00	0.00	Rustler
200.00 300.00	0.00	183.00 183.00	200.00 300.00	0.00	0.00	0.00	0.00	
400.00	0.00	183.00	400.00	0.00	0.00	0.00	0.00	
419.00	0.00	183.00	419.00	0.00	0.00	0.00	0.00	Salt
500.00	0.00	183.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	183.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	183.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	183.00	800.00	0.00	0.00	0.00	0.00	
857.00	0.00	183.00	857.00	0.00	0.00	0.00	0.00	Base of Salt
900.00	0.00	183.00	900.00	0.00	0.00	0.00	0.00	Coding Book To
971.00 1000.00	0.00	183.00 183.00	971.00 1000.00	0.00	0.00	0.00	0.00	Capitan Reef Top
1100.00	0.00	183.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	183.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	183.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	183.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	183.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	183.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	183.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	183.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	183.00	1900.00	0.00	0.00	0.00	0.00	Clarif Toward
2000.00 2100.00	0.00 2.00	183.00 183.00	2000.00 2099.98	0.00 -1.74	0.00 -0.09	0.00 0.13	0.00 2.00	Start Tangent
2200.00	4.00	183.00	2199.84	-1.7 <del>4</del> -6.97	-0.09	0.13	2.00	
2207.18	4.14	183.00	2207.00	-7.48	-0.39	0.57	2.00	Delaware
2300.00	6.00	183.00	2299.45	-15.67	-0.82	1.20	2.00	
2400.00	8.00	183.00	2398.70	-27.84	-1.46	2.12	2.00	
2500.00	10.00	183.00	2497.47	-43.46	-2.28	3.32	2.00	Hold Tangent
2600.00	10.00	183.00	2595.95	-60.80	-3.19	4.64	0.00	
2700.00	10.00	183.00	2694.43	-78.14	-4.10	5.96	0.00	
2800.00	10.00	183.00	2792.91	-95.49	-5.00	7.28	0.00	
2900.00 3000.00	10.00 10.00	183.00 183.00	2891.39 2989.87	-112.83 -130.17	-5.91 -6.82	8.61 9.93	0.00	
3100.00	10.00	183.00	3088.35	-147.51	-7.73	11.25	0.00	
3200.00	10.00	183.00	3186.83	-164.85	-8.64	12.57	0.00	
3300.00	10.00	183.00	3285.31	-182.19	-9.55	13.90	0.00	
3400.00	10.00	183.00	3383.79	-199.53	-10.46	15.22	0.00	
3500.00	10.00	183.00	3482.27	-216.87	-11.37	16.54	0.00	
3565.73	10.00	183.00	3547.00	-228.27	-11.96	17.41	0.00	Cherry Canyon
3600.00	10.00	183.00	3580.75	-234.21	-12.27	17.86	0.00	5
3657.27 3700.00	10.00	183.00	3637.16	-244.15	-12.80	18.62	0.00	Drop to Vertical
3800.00	9.15 7.15	183.00 183.00	3679.29 3778.27	-251.24 -265.39	-13.17 -13.91	19.16 20.24	2.00 2.00	
3900.00	5.15	183.00	3877.69	-203.39	-13.91	21.06	2.00	
4000.00	3.15	183.00	3977.43	-283.30	-14.85	21.61	2.00	
4100.00	1.15	183.00	4077.35	-287.04	-15.04	21.89	2.00	
4157.27	0.00	183.00	4134.62	-287.61	-15.07	21.94	2.00	Hold Vertical
4200.00	0.00	270.20	4177.35	-287.61	-15.07	21.94	0.00	
4283.65	0.00	270.20	4261.00	-287.61	-15.07	21.94	0.00	Brushy Canyon
4300.00	0.00	270.20	4277.35	-287.61	-15.07	21.94	0.00	
4400.00	0.00	270.20	4377.35	-287.61	-15.07 15.07	21.94	0.00	
4500.00 4600.00	0.00	270.20 270.20	4477.35 4577.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00	
4700.00	0.00	270.20	4677.35	-287.61	-15.07	21.94	0.00	
4800.00	0.00	270.20	4777.35	-287.61	-15.07	21.94	0.00	
4900.00	0.00	270.20	4877.35	-287.61	-15.07	21.94	0.00	
5000.00	0.00	270.20	4977.35	-287.61	-15.07	21.94	0.00	
5100.00	0.00	270.20	5077.35	-287.61	-15.07	21.94	0.00	
5200.00	0.00	270.20	5177.35	-287.61	-15.07	21.94	0.00	
5300.00	0.00	270.20	5277.35	-287.61	-15.07	21.94	0.00	
5400.00	0.00	270.20	5377.35	-287.61	-15.07	21.94	0.00	1et Pone Spring Lime
5486.65 5500.00	0.00	270.20 270.20	5464.00 5477.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00	1st Bone Spring Lime
5600.00	0.00	270.20	5577.35	-287.61	-15.07	21.94	0.00	
5700.00	0.00	270.20	5677.35	-287.61	-15.07	21.94	0.00	
5800.00	0.00	270.20	5777.35	-287.61	-15.07	21.94	0.00	
5900.00	0.00	270.20	5877.35	-287.61	-15.07	21.94	0.00	



County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983

**Datum:** North American Datum 1927 **Ellipsoid:** Clarke 1866

	Design: Permit Plan #1							<b>Zone:</b> 3001 - NM East (NAD83)				
MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	<b>EW</b> (ft)	VS (ft)	<b>DLS</b> (°/100ft)	Comment				
6000.00	0.00	270.20	5977.35	-287.61	-15.07	21.94	0.00					
6100.00	0.00	270.20	6077.35	-287.61	-15.07	21.94	0.00					
6200.00	0.00	270.20	6177.35	-287.61	-15.07	21.94	0.00					
6300.00	0.00	270.20	6277.35	-287.61	-15.07	21.94	0.00					
6400.00	0.00	270.20	6377.35	-287.61	-15.07	21.94	0.00					
6500.00 6600.00	0.00	270.20 270.20	6477.35 6577.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00					
6608.65	0.00	270.20	6586.00	-287.61	-15.07	21.94	0.00	Bone Spring 1st				
6700.00	0.00	270.20	6677.35	-287.61	-15.07	21.94	0.00	some spring 1st				
6800.00	0.00	270.20	6777.35	-287.61	-15.07	21.94	0.00					
6900.00	0.00	270.20	6877.35	-287.61	-15.07	21.94	0.00					
7000.00	0.00	270.20	6977.35	-287.61	-15.07	21.94	0.00					
7100.00	0.00	270.20	7077.35	-287.61	-15.07	21.94	0.00					
7200.00	0.00	270.20	7177.35	-287.61	-15.07	21.94	0.00					
7300.00	0.00	270.20	7277.35	-287.61	-15.07	21.94	0.00					
7304.65	0.00	270.20	7282.00	-287.61	-15.07	21.94	0.00	Bone Spring 2nd				
7400.00 7500.00	0.00	270.20 270.20	7377.35 7477.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00					
7600.00	0.00	270.20	7577.35	-287.61	-15.07	21.94	0.00					
7604.65	0.00	270.20	7582.00	-287.61	-15.07	21.94	0.00	3rd Bone Spring Lime				
7700.00	0.00	270.20	7677.35	-287.61	-15.07	21.94	0.00					
7800.00	0.00	270.20	7777.35	-287.61	-15.07	21.94	0.00					
7900.00	0.00	270.20	7877.35	-287.61	-15.07	21.94	0.00					
8000.00	0.00	270.20	7977.35	-287.61	-15.07	21.94	0.00					
8100.00	0.00	270.20	8077.35	-287.61	-15.07	21.94	0.00					
8200.00	0.00	270.20	8177.35	-287.61	-15.07	21.94	0.00					
8300.00	0.00	270.20 270.20	8277.35	-287.61	-15.07	21.94	0.00					
8400.00 8500.00	0.00	270.20	8377.35 8477.35	-287.61 -287.61	-15.07 -15.07	21.94 21.94	0.00					
8578.65	0.00	270.20	8556.00	-287.61	-15.07	21.94	0.00	Bone Spring 3rd				
8600.00	0.00	270.20	8577.35	-287.61	-15.07	21.94	0.00	some spring sid				
8700.00	0.00	270.20	8677.35	-287.61	-15.07	21.94	0.00					
8800.00	0.00	270.20	8777.35	-287.61	-15.07	21.94	0.00					
8900.00	0.00	270.20	8877.35	-287.61	-15.07	21.94	0.00					
8973.65	0.00	270.20	8951.00	-287.61	-15.07	21.94	0.00	Wolfcamp / Point of Penetration				
9000.00	0.00	270.20	8977.35	-287.61	-15.07	21.94	0.00					
9049.83	0.00	270.20	9027.18	-287.61	-15.07	21.94	0.00	KOP				
9100.00 9200.00	5.02 15.02	270.20 270.20	9077.29 9175.64	-287.60 -287.54	-17.27 -34.64	24.13 41.50	10.00 10.00					
9300.00	25.02	270.20	9269.48	-287.42	-68.82	75.67	10.00					
9400.00	35.02	270.20	9355.95	-287.25	-118.79	125.61	10.00					
9500.00	45.02	270.20	9432.44	-287.02	-183.00	189.81	10.00					
9600.00	55.02	270.20	9496.62	-286.76	-259.53	266.30	10.00					
9700.00	65.02	270.20	9546.53	-286.45	-346.04	352.78	10.00					
9800.00	75.02	270.20	9580.66	-286.13	-439.90	446.60	10.00					
9900.00	85.02	270.20	9597.98	-285.78	-538.26	544.93	10.00					
9962.56	91.27	270.20	9600.00	-285.56	-600.75	607.40	10.00	Landing Point				
10000.00	91.27	270.20	9599.17	-285.43	-638.18	644.82	0.00					
10100.00 10200.00	91.27 91.27	270.20 270.20	9596.95 9594.73	-285.09 -284.74	-738.16 -838.13	744.76 844.69	0.00					
10300.00	91.27	270.20	9594.73	-284.39	-938.11	944.63	0.00					
10400.00	91.27	270.20	9590.29	-284.04	-1038.08	1044.57	0.00					
10500.00	91.27	270.20	9588.07	-283.69	-1138.06	1144.51	0.00					
10600.00	91.27	270.20	9585.85	-283.34	-1238.03	1244.45	0.00					
10700.00	91.27	270.20	9583.63	-282.99	-1338.01	1344.38	0.00					
10800.00	91.27	270.20	9581.40	-282.65	-1437.98	1444.32	0.00					
10900.00	91.27	270.20	9579.18	-282.30	-1537.96	1544.26	0.00					
11000.00	91.27	270.20	9576.96	-281.95	-1637.93	1644.20	0.00					
11100.00	91.27	270.20	9574.74	-281.60	-1737.90	1744.14	0.00					
11200.00 11300.00	91.27 91.27	270.20 270.20	9572.52 9570.30	-281.25 -280.90	-1837.88 -1937.85	1844.07 1944.01	0.00					
11400.00	91.27	270.20	9568.08	-280.55	-1937.83	2043.95	0.00					
11500.00	91.27	270.20	9565.86	-280.21	-2137.80	2143.89	0.00					
11600.00	91.27	270.20	9563.64	-279.86	-2237.78	2243.82	0.00					
11700.00	91.27	270.20	9561.42	-279.51	-2337.75	2343.76	0.00					
11800.00	91.27	270.20	9559.20	-279.16	-2437.73	2443.70	0.00					
11900.00	91.27	270.20	9556.98	-278.81	-2537.70	2543.64	0.00					
12000.00	91.27	270.20	9554.76	-278.46	-2637.68	2643.58	0.00					
12100.00	91.27	270.20	9552.54	-278.11	-2737.65	2743.51	0.00					
12200.00	91.27	270.20	9550.32	-277.76	-2837.63	2843.45	0.00					



County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

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	Design.	Permit Plan						<b>Zone:</b> 3001 - NM East (NAD83)
MD	INC	AZI	TVD	NS	EW	vs	DLS	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
12300.00	91.27	270.20	9548.10	-277.42	-2937.60	2943.39	0.00	
12400.00	91.27	270.20	9545.88	-277.07	-3037.58	3043.33	0.00	
12500.00	91.27	270.20	9543.66	-276.72	-3137.55	3143.27	0.00	
12600.00	91.27	270.20	9541.44	-276.37	-3237.53	3243.20	0.00	
12700.00	91.27	270.20	9539.22	-276.02	-3337.50	3343.14	0.00	
12800.00	91.27	270.20	9537.00	-275.67	-3437.48	3443.08	0.00	
12900.00	91.27	270.20	9534.78	-275.32	-3537.45	3543.02	0.00	
13000.00	91.27	270.20	9532.55	-274.98	-3637.42	3642.95	0.00	
13100.00	91.27	270.20	9530.33	-274.63	-3737.40	3742.89	0.00	
13200.00	91.27	270.20	9528.11	-274.28	-3837.37	3842.83	0.00	
13300.00	91.27	270.20	9525.89	-273.93	-3937.35	3942.77	0.00	
13400.00 13500.00	91.27	270.20	9523.67 9521.45	-273.58	-4037.32 4127.30	4042.71 4142.64	0.00	
13600.00	91.27 91.27	270.20 270.20	9519.23	-273.23 -272.88	-4137.30 -4237.27	4242.58	0.00	
13700.00	91.27	270.20	9517.01	-272.54	-4337.25	4342.52	0.00	
13800.00	91.27	270.20	9514.79	-272.19	-4437.22	4442.46	0.00	
13900.00	91.27	270.20	9512.57	-271.84	-4537.20	4542.40	0.00	
14000.00	91.27	270.20	9510.35	-271.49	-4637.17	4642.33	0.00	
14100.00	91.27	270.20	9508.13	-271.14	-4737.15	4742.27	0.00	
14200.00	91.27	270.20	9505.91	-270.79	-4837.12	4842.21	0.00	
14300.00	91.27	270.20	9503.69	-270.44	-4937.10	4942.15	0.00	
14400.00	91.27	270.20	9501.47	-270.10	-5037.07	5042.09	0.00	
14500.00	91.27	270.20	9499.25	-269.75	-5137.05	5142.02	0.00	
14600.00	91.27	270.20	9497.03	-269.40	-5237.02	5241.96	0.00	
14700.00	91.27	270.20	9494.81	-269.05	-5337.00	5341.90	0.00	
14800.00	91.27	270.20	9492.59	-268.70	-5436.97	5441.84	0.00	
14900.00	91.27	270.20	9490.37	-268.35	-5536.94	5541.77	0.00	
15000.00	91.27	270.20	9488.15	-268.00	-5636.92	5641.71	0.00	
15100.00	91.27	270.20	9485.93	-267.66	-5736.89	5741.65	0.00	
15200.00	91.27	270.20	9483.70	-267.31	-5836.87	5841.59	0.00	
15300.00	91.27	270.20	9481.48	-266.96	-5936.84	5941.53	0.00	
15400.00	91.27	270.20	9479.26	-266.61	-6036.82	6041.46	0.00	
15500.00	91.27	270.20	9477.04	-266.26	-6136.79	6141.40	0.00	
15600.00	91.27	270.20	9474.82	-265.91	-6236.77	6241.34	0.00	
15700.00	91.27	270.20	9472.60	-265.56	-6336.74	6341.28	0.00	
15800.00	91.27	270.20	9470.38	-265.22	-6436.72	6441.22	0.00	
15900.00	91.27	270.20	9468.16	-264.87	-6536.69	6541.15	0.00	
16000.00	91.27	270.20	9465.94	-264.52	-6636.67	6641.09	0.00	
16100.00	91.27	270.20	9463.72	-264.17	-6736.64	6741.03	0.00	
16200.00 16300.00	91.27 91.27	270.20 270.20	9461.50 9459.28	-263.82 -263.47	-6836.62 -6936.59	6840.97 6940.91	0.00	
16400.00	91.27	270.20	9459.26	-263.47	-7036.57	7040.84	0.00	
16500.00	91.27	270.20	9454.84	-262.78	-7136.54	7140.78	0.00	
16600.00	91.27	270.20	9452.62	-262.43	-7236.52	7240.72	0.00	
16700.00	91.27	270.20	9450.40	-262.08	-7336.49	7340.66	0.00	
16800.00	91.27	270.20	9448.18	-261.73	-7436.46	7440.59	0.00	
16900.00	91.27	270.20	9445.96	-261.38	-7536.44	7540.53	0.00	
17000.00	91.27	270.20	9443.74	-261.03	-7636.41	7640.47	0.00	
17100.00	91.27	270.20	9441.52	-260.68	-7736.39	7740.41	0.00	
17200.00	91.27	270.20	9439.30	-260.34	-7836.36	7840.35	0.00	
17300.00	91.27	270.20	9437.08	-259.99	-7936.34	7940.28	0.00	
17400.00	91.27	270.20	9434.85	-259.64	-8036.31	8040.22	0.00	
17500.00	91.27	270.20	9432.63	-259.29	-8136.29	8140.16	0.00	
17600.00	91.27	270.20	9430.41	-258.94	-8236.26	8240.10	0.00	
17700.00	91.27	270.20	9428.19	-258.59	-8336.24	8340.04	0.00	
17800.00	91.27	270.20	9425.97	-258.24	-8436.21	8439.97	0.00	
17900.00	91.27	270.20	9423.75	-257.90	-8536.19	8539.91	0.00	
18000.00	91.27	270.20	9421.53	-257.55	-8636.16	8639.85	0.00	
18100.00	91.27	270.20	9419.31	-257.20	-8736.14	8739.79	0.00	
18200.00	91.27	270.20	9417.09	-256.85	-8836.11	8839.73	0.00	
18300.00	91.27	270.20	9414.87	-256.50	-8936.09	8939.66	0.00	
18400.00	91.27	270.20	9412.65	-256.15	-9036.06	9039.60	0.00	
18500.00	91.27	270.20	9410.43	-255.80	-9136.04	9139.54	0.00	
18600.00	91.27	270.20	9408.21	-255.46	-9236.01	9239.48	0.00	
18700.00	91.27	270.20	9405.99	-255.11	-9335.98	9339.41	0.00	
18800.00	91.27	270.20	9403.77	-254.76	-9435.96	9439.35	0.00	
18900.00	91.27	270.20	9401.55	-254.41	-9535.93	9539.29	0.00	
19000.00	91.27	270.20	9399.33	-254.06	-9635.91	9639.23	0.00	
19100.00	91.27	270.20	9397.11	-253.71	-9735.88	9739.17	0.00	
19200.00	91.27	270.20	9394.89	-253.36	-9835.86	9839.10	0.00	



County: Eddy
Wellbore: Permit Plan
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Geodetic System: US State Plane 1983

Datum: North American Datum 1927

Ellipsoid: Clarke 1866

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
19300.00	91.27	270.20	9392.67	-253.02	-9935.83	9939.04	0.00	
19400.00	91.27	270.20	9390.45	-252.67	-10035.81	10038.98	0.00	
19500.00	91.27	270.20	9388.23	-252.32	-10135.78	10138.92	0.00	
19600.00	91.27	270.20	9386.00	-251.97	-10235.76	10238.86	0.00	
19700.00	91.27	270.20	9383.78	-251.62	-10335.73	10338.79	0.00	
19789.83	91.27	270.20	9381.79	-251.31	-10425.54	10428.57	0.00	exit
19800.00	91.27	270.20	9381.56	-251.27	-10435.71	10438.73	0.00	
19869.83	91.27	270.20	9380.00	-250.99	-10505.52	10508.52	0.00	BHL

## **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.

## ATLATL 11 10 Fed Com 331H

13 3/8	su	ırface csg in a	17 1/2	inch hole.	<u>Design Factors</u> Surface				Surface			
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50		j 55	btc	44.73	6.91	2.18	350	18	3.65	13.04	19,075
"B"				btc				0				0
1	w/8.4	4#/g mud, 30min Sfc Csg Test psig	: 1,500	Tail Cmt	does not	circ to sfc.	Totals:	350				19,075
Comparison of Proposed to Minimum Required Cement Volumes												
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
17 1/2	0.6946	183	264	243	8	9.00	749	2M				1.56
L												لـــــــــــــــــــــــــــــــــــــ

10 3/4	ca	sing inside the	13 3/8			<u>Design</u>	Factors -			Int 1	'	
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	45.50	r	ncl 80	btc scc	9.94	2.34	1.02	2,300	4	1.71	3.93	104,650
"B"								0				0
	w/8.	4#/g mud, 30min Sfc Csg Test ps	sig: 1,500				Totals:	2,300				104,650
		The cement vo	lume(s) are intende	ed to achieve a top of	0	ft from su	rface or a	350				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
12 1/4	0.1882	236	587	450	30	10.50	3053	5M				0.50
D V Tool(s):							sum of sx	Σ CuFt				Σ%excess
by stage % :		#VALUE!	#VALUE!				236	587				30
Class 'C' tail cm	t yld > 1.35											

5 1/2	casi	ing inside the	10 3/4			Design Fac	ctors			Prod 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00		p 110	txp	3.89	2.45	2.81	9,049	3	4.70	4.11	180,980
"B"	20.00		p 110	txp	109.46	2.36	2.81	10,821	3	4.70	3.96	216,420
"C"								0				0
"D"				0				0				0
	w/8.4#	#/g mud, 30min Sfc Csg Test	psig: 1,991				Totals:	19,870				397,400
		The cement v	volume(s) are intende	ed to achieve a top of	2100	ft from su	rface or a	200				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
9 7/8	0.3669	3991	7502	6521	15	10.50						1.89
Class 'C' tail cm	nt yld > 1.35											

#N/A												
0			5 1/2			Design I	Factors	<c< td=""><td>hoose Ca</td><td>sing&gt;</td><td></td></c<>	hoose Ca	sing>		
Segment	#/ft	Grade		Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"				0.00				0				0
"B"				0.00				0				0
	w/8.4	#/g mud, 30min Sfc Csg Test psig	:				Totals:	0				0
		Cmt vol calc b	elow includes th	nis csg, TOC intended	#N/A	ft from su	rface or a	#N/A				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
0		#N/A	#N/A	0	#N/A							
#N/A			Capitan Reef est	t top XXXX.								

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## ATLATL 11 10 Fed Com 331H

13 3/8	surf	ace csg in a	17 1/2	inch hole.		Design I	Factors			Surface		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50		j 55	btc	44.73	6.91	2.18	350	18	3.65	13.04	19,075
"B"				btc				0				0
	w/8.4#/	g mud, 30min Sfc Csg Test	t psig: 1,500	Tail Cmt	does not	circ to sfc.	Totals:	350				19,075
Comparison of	Proposed to Min	nimum Required Cem	ent Volumes									
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cpl
17 1/2	0.6946	183	264	243	8	9.00	749	2M				1.56
10 3/4	casin	g inside the	13 3/8			Design I	Factors			Int 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	45.50		hcl 80	btc scc	9.94	2.34	1.07	2,300	4	1.79	3.93	104,65
"B"								0				0
	w/8.4#/	g mud, 30min Sfc Csg Test	t psig: 1,500				Totals:	2,300				104,65
		The cement	volume(s) are inten	ded to achieve a top of	0	ft from su	rface or a	350				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cpl
12 1/4	0.1882	236	587	450	30	10.50	2913	3M				0.50
D V Tool(s):							sum of sx	<u>Σ CuFt</u>				Σ%exces
by stage % :		#VALUE!	#VALUE!				236	587				30
Class 'C' tail cmt	yld > 1.35											
						Design Fac						
							ctors			Int 2		
85/8		g inside the	10 3/4								•	147
Segment	#/ft	g inside the Grade	·	Coupling	Joint	Collapse	Burst	Length	B@s	а-В	a-C	•
Segment "A"			<b>10 3/4</b> p 110	Coupling wedge 441	Joint 3.24			8,951	<b>B@s</b> 2		<b>a-C</b> 1.37	Weight 286,432
Segment	#/ft		·			Collapse	Burst	•		а-В		•

8 5/8	cas	ing inside the	10 3/4	_		Design Fa	<u>ctors</u>			Int 2		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	32.00	р	110	wedge 441	3.24	0.82	1.79	8,951	2	3.01	1.37	286,432
"B"								0				0
"C"								0				0
"D"								0				0
	w/8.4	#/g mud, 30min Sfc Csg Test psig:	1,969				Totals:	8,951				286,432
		The cement volun	ne(s) are intend	ded to achieve a top of	2100	ft from su	ırface or a	200				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
9 7/8	0.1261	727	1362	866	57	10.50	3053	5M				0.49
	Se	etting Depths for D V Tool(s):	4261				sum of sx	Σ CuFt				<u>Σ%excess</u>
% exce	ess cmt by stage:	130	26				967	1707				97
Class 'C' tail cr	mt yld > 1.35											

5 1/2	casi	ing inside the	8 5/8	_		Design F	actors			Prod 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00		p 110	txp	3.89	2.36	2.81	19,870	3	4.70	3.96	397,400
"B"								0				0
	w/8.4	#/g mud, 30min Sfc Csg Test p				Totals:	19,870				397,400	
		The cement vo	lume(s) are intende	ed to achieve a top of	8751	ft from su	rface or a	200				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
7 7/8	0.1733	1549	2445	1927	27	10.50						0.89
Class 'H' tail cm	t yld > 1.20		Capitan Reef est	top XXXX.								

Carlsbad Field Office 6/21/2024

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

CONDITIONS

Action 357134

## **CONDITIONS**

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	357134
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Prior to the submission of this C-104, there was a C-103 NOI submitted for approval. The C-103 NOI was not approved or rejected; however, the work requested in the C-103 NOI was performed and completed without NMOCD approval. This action is currently under review from our legal department.	10/4/2024