

Well Name: ARENA ROJA 28-33 FED COM	Well Location: T26S / R35E / SEC 28 / NWNW /	County or Parish/State:
Well Number: 701H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM125400	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002550857	Well Status: Approved Application for Permit to Drill	Operator: DEVON ENERGY PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2705759

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 12/12/2022	Time Sundry Submitted: 07:34
Date proposed operation will begin: 12/03/2022	

**Procedure Description:** Devon Energy Production Co., L.P. (Devon) respectfully requests to move the SHL/BHL on the subject well. Please see attached C102, Drill plan, directional plan. Please note a NSL will be filed for this well. Permitted SHL: NWNW, 250 FNL, 288 FWL, 28-26S-35E Proposed SHL: NWNW, 250 FNL, 318 FWL, 28-26S-35E Permitted BHL: LOT 4, 20 FSL, 330 FWL, 33-26S-35E Proposed BHL: LOT 4, 20 FSL, 1030 FWL, 33-26S-35E

NOI Attachments

Procedure Description

- WA018456292\_ARENA\_ROJA\_28\_33\_FED\_COM\_701H\_WL\_SIGNED\_20230117122455.pdf
- Arena\_Roja\_28\_33\_Fed\_Com\_701H\_20230117121622.pdf
- Arena\_Roja\_28\_33\_Fed\_Com\_701H\_pad\_plat\_new\_location\_20221212073235.pdf
- Arena\_Roja\_28\_33\_Fed\_Com\_701H\_Directional\_Plan\_11\_22\_22\_20221203164015.pdf

<b>Well Name:</b> ARENA ROJA 28-33 FED COM	<b>Well Location:</b> T26S / R35E / SEC 28 / NWNW /	<b>County or Parish/State:</b>
<b>Well Number:</b> 701H	<b>Type of Well:</b> OIL WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM125400	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b> 3002550857	<b>Well Status:</b> Approved Application for Permit to Drill	<b>Operator:</b> DEVON ENERGY PRODUCTION COMPANY LP

Conditions of Approval

Additional

Arena\_Roja\_28\_33\_fed\_Com\_701H\_Sundry\_ID\_2705759\_20230118140056.pdf

28\_26\_35\_D\_Sundry\_ID\_2705759\_Arena\_Roja\_28\_33\_Fed\_Com\_701H\_Lea\_NM125400\_DEVON\_ENERGY\_PRODUCTION\_COMPANY\_LP\_13\_22d\_8\_29\_2022\_LV\_20230118140050.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

<b>Operator Electronic Signature:</b> CHELSEY GREEN	<b>Signed on:</b> JAN 17, 2023 12:16 PM
<b>Name:</b> DEVON ENERGY PRODUCTION COMPANY LP	
<b>Title:</b> Regulatory Compliance Professional	
<b>Street Address:</b> 333 West Sheridan Avenue	
<b>City:</b> Oklahoma City	<b>State:</b> OK
<b>Phone:</b> (405) 228-8595	
<b>Email address:</b> Chelsey.Green@dvn.com	

Field

<b>Representative Name:</b>		
<b>Street Address:</b>		
<b>City:</b>	<b>State:</b>	<b>Zip:</b>
<b>Phone:</b>		
<b>Email address:</b>		

BLM Point of Contact

<b>BLM POC Name:</b> CHRISTOPHER WALLS	<b>BLM POC Title:</b> Petroleum Engineer
<b>BLM POC Phone:</b> 5752342234	<b>BLM POC Email Address:</b> cwalls@blm.gov
<b>Disposition:</b> Approved	<b>Disposition Date:</b> 01/24/2023
<b>Signature:</b> Chris Walls	

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

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

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

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

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number	Pool Code	Pool Name
	96776	JABALINA; WOLFCAMP, SOUTHWEST
Property Code	Property Name	Well Number
	ARENA ROJA 28-33 FED COM	701H
OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3168.4'

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	28	26-S	35-E		250	NORTH	318	WEST	LEA

**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
4	33	26-S	35-E		20	SOUTH	1030	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
233.58			NSL

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

ARENA ROJA 28-33  
FED COM 701H

LAT:32.020816  
LON:103.379884  
N:372615.41  
E:836834.73

**FIRST TAKE POINT**

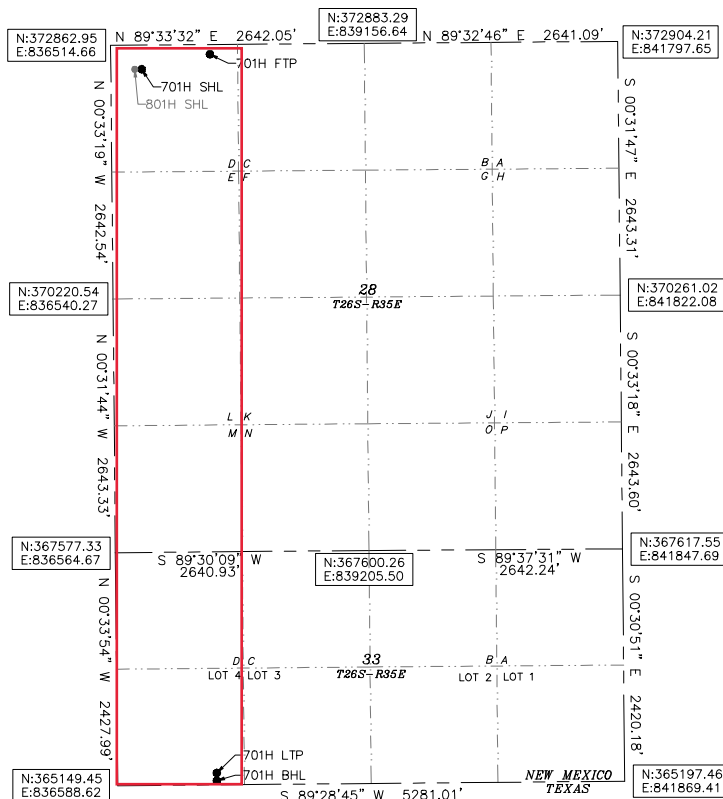
100' FNL 1030' FWL SEC. 28  
LAT:32.021226  
LON:103.377586  
N:372770.89  
E:837545.60

**LAST TAKE POINT**

100' FSL 1030' FWL SEC. 33  
LAT:32.000576  
LON:103.377568  
N:365258.81  
E:837617.59

**BOTTOM OF HOLE**

LAT:32.000356  
LON:103.377568  
N:365178.82  
E:837618.38



Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

**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.

*Chelsey Green* 12/3/22  
Signature Date

**CHELSEY GREEN**

Printed Name

chelsey.green@dvn.com

E-mail Address

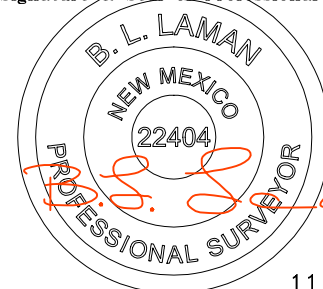
**SURVEYOR CERTIFICATION**

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.

11/12/2022

Date of Survey

Signature & Seal of Professional Surveyor



11/14/22

Certificate No. 22404

B.L. LAMAN

DRAWN BY: CM

Intent ☒ As Drilled ☐

API #		
Operator Name: DEVON ENERGY PRODUCTION COMPANY, LP.	Property Name: ARENA ROJA 28-33 FED COM	Well Number 701H

## Kick Off Point (KOP)

UL D	Section 28	Township 26S	Range 35E	Lot	Feet 65	From N/S NORTH	Feet 1029	From E/W WEST	County LEA
Latitude 32.0212					Longitude -103.3777			NAD 83	

## First Take Point (FTP)

UL D	Section 28	Township 26-S	Range 35-E	Lot	Feet 100	From N/S NORTH	Feet 1030	From E/W WEST	County LEA
Latitude 32.021226					Longitude 103.377586			NAD 83	

## Last Take Point (LTP)

UL	Section 33	Township 26-S	Range 35-E	Lot 4	Feet 100	From N/S SOUTH	Feet 1030	From E/W WEST	County LEA
Latitude 32.000576					Longitude 103.377568			NAD 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 #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Arena Roja 28-33 Fed Com 701H

**1. Geologic Formations**

TVD of target	12530	Pilot hole depth	N/A
MD at TD:	19973	Deepest expected fresh water	

**Basin**

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	1035		
Salt	1615		
Base of Salt	4950		
Delaware	5280		
Cherry Canyon	6325		
Brushy Canyon	7930		
1st Bone Spring Lime	9170		
Bone Spring 1st	10430		
Bone Spring 2nd	10960		
3rd Bone Spring Lime	11395		
Bone Spring 3rd	12060		
Wolfcamp	12380		

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

Arena Roja 28-33 Fed Com 701H

**2. Casing Program (Primary Design)**

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
13 1/2	10 3/4	40 1/2	H40	BTC	0	1060	0	1060
9 7/8	8 5/8	32	P110	Sprint FJ	0	11918	0	11918
7 7/8	5 1/2	17	P110	BTC	0	19973	0	12530

• 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	426	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	392	Surf	9	3.27	Lead: Class C Cement + additives
	464	7930	13.2	1.44	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	855	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
	392	Surf	9	3.27	Lead: Class C Cement + additives
	464	7930	13.2	1.44	Tail: Class H / C + additives
Production	117	10019	9	3.27	Lead: Class H / C + additives
	1053	12019	13.2	1.44	Tail: Class H / C + additives

Cementing Program (Primary Design) Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the 8-5/8" 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%

Arena Roja 28-33 Fed Com 701H

**4. Pressure Control Equipment (Three String Design)**

BOP installed and tested before drilling which hole?		Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-5/8"	5M	Annular		X	50% of rated working pressure
			Blind Ram		X	5M
			Pipe Ram			
			Double Ram		X	
			Other*			
Production	13-5/8"	10M	Annular (5M)		X	100% of rated working pressure
			Blind Ram		X	10M
			Pipe Ram			
			Double Ram		X	
			Other*			
			Annular (5M)			
			Blind Ram			
			Pipe Ram			
			Double Ram			
			Other*			
N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
Y	A variance is requested to run a 5 M annular on a 10M system					

**5. Mud Program (Three String Design)**

Section	Type	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	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and submitted 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	Specify what type and where?
BH pressure at deepest TVD	6841
Abnormal temperature	No

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

Hydrogen Sulfide (H<sub>2</sub>S) monitors will be installed prior to drilling out the surface shoe. If H<sub>2</sub>S 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	H <sub>2</sub> S is present
Y	H <sub>2</sub> S 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).
- 3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pad.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. At that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences on each well.
  - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

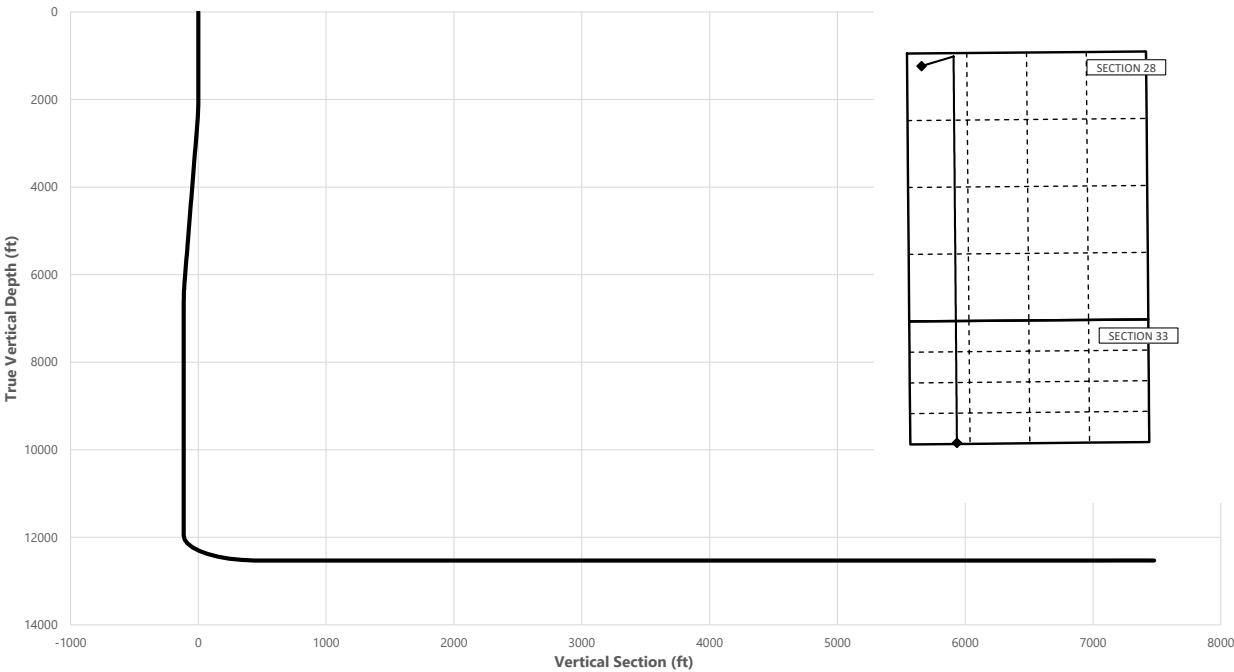
X Directional Plan  
           Other, describe



Well: Arena Roja 28-33 Fed Com 701H  
County: Lea  
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	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	75.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	10.00	75.00	2497.47	11.26	42.04	-6.80	2.00	Hold Tangent
6228.42	10.00	75.00	6169.24	178.83	667.41	-107.88	0.00	Drop to Vertical
6728.42	0.00	75.00	6666.71	190.10	709.45	-114.67	2.00	Hold Vertical
12018.75	0.00	179.44	11957.04	190.10	709.45	-114.67	0.00	KOP
12918.75	90.00	179.44	12530.00	-382.83	715.05	455.69	10.00	Landing Point
19973.26	90.00	179.44	12530.00	-7437.00	784.00	7478.21	0.00	BHL



Key Depths	MD	TVD
	(ft)	(ft)
Rustler	1035.00	1035.00
Salt	1615.00	1615.00
Base of Salt	4990.37	4950.00
Delaware	5325.46	5280.00
Cherry Canyon	6385.90	6325.00
Brushy Canyon	7991.71	7930.00
1st Bone Spring Lime	9231.71	9170.00
Bone Spring 1st	10491.71	10430.00
Bone Spring 2nd	11021.71	10960.00
3rd Bone Spring Lime	11456.71	11395.00
Bone Spring 3rd	12122.27	12060.00
Wolfcamp / Point of Penetration	12494.54	12380.00
exit	19893.26	12530.01

	MD	TVD	Lat	Long	Section Footages
	(ft)	(ft)	(°)	(°)	
SHL	0.00	0.00	32.0207	-103.3800	250' FNL, 318' FWL of Sec 28 in T26S, R35E
KOP	12018.75	11957.04	32.0212	-103.3777	65' FNL, 1029' FWL of Sec 28 in T26S, R35E
Point of Penetration	12494.54	12380.00	32.0212	-103.3776	100' FNL, 1030' FWL of Sec 28 in T26S, R35E
Exit	19893.26	12530.01	32.0006	-103.3776	100' FSL, 1030' FWL of Sec 33 in T26S, R35E
BHL	19973.26	12530.00	32.0003	-103.3777	20' FSL, 1030' FWL of Sec 33 in T26S, R35E

Arena Roja 28-33 Fed Com 701H



**Well:** Arena Roja 28-33 Fed Com 701H  
**County:** Lea  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

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

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	75.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	75.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	75.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	75.00	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	75.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	75.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	75.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	75.00	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	75.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	75.00	1000.00	0.00	0.00	0.00	0.00	
1035.00	0.00	75.00	1035.00	0.00	0.00	0.00	0.00	Rustler
1100.00	0.00	75.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	75.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	75.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	75.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	75.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	75.00	1600.00	0.00	0.00	0.00	0.00	
1615.00	0.00	75.00	1615.00	0.00	0.00	0.00	0.00	Salt
1700.00	0.00	75.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	75.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	75.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	75.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	75.00	2099.98	0.45	1.69	-0.27	2.00	
2200.00	4.00	75.00	2199.84	1.81	6.74	-1.09	2.00	
2300.00	6.00	75.00	2299.45	4.06	15.16	-2.45	2.00	
2400.00	8.00	75.00	2398.70	7.22	26.93	-4.35	2.00	
2500.00	10.00	75.00	2497.47	11.26	42.04	-6.80	2.00	Hold Tangent
2600.00	10.00	75.00	2595.95	15.76	58.81	-9.51	0.00	
2700.00	10.00	75.00	2694.43	20.25	75.59	-12.22	0.00	
2800.00	10.00	75.00	2792.91	24.75	92.36	-14.93	0.00	
2900.00	10.00	75.00	2891.39	29.24	109.13	-17.64	0.00	
3000.00	10.00	75.00	2989.87	33.74	125.91	-20.35	0.00	
3100.00	10.00	75.00	3088.35	38.23	142.68	-23.06	0.00	
3200.00	10.00	75.00	3186.83	42.72	159.45	-25.77	0.00	
3300.00	10.00	75.00	3285.31	47.22	176.22	-28.48	0.00	
3400.00	10.00	75.00	3383.79	51.71	193.00	-31.20	0.00	
3500.00	10.00	75.00	3482.27	56.21	209.77	-33.91	0.00	
3600.00	10.00	75.00	3580.75	60.70	226.54	-36.62	0.00	
3700.00	10.00	75.00	3679.23	65.20	243.32	-39.33	0.00	
3800.00	10.00	75.00	3777.72	69.69	260.09	-42.04	0.00	
3900.00	10.00	75.00	3876.20	74.19	276.86	-44.75	0.00	
4000.00	10.00	75.00	3974.68	78.68	293.64	-47.46	0.00	
4100.00	10.00	75.00	4073.16	83.17	310.41	-50.17	0.00	
4200.00	10.00	75.00	4171.64	87.67	327.18	-52.88	0.00	
4300.00	10.00	75.00	4270.12	92.16	343.96	-55.60	0.00	
4400.00	10.00	75.00	4368.60	96.66	360.73	-58.31	0.00	
4500.00	10.00	75.00	4467.08	101.15	377.50	-61.02	0.00	
4600.00	10.00	75.00	4565.56	105.65	394.27	-63.73	0.00	
4700.00	10.00	75.00	4664.04	110.14	411.05	-66.44	0.00	
4800.00	10.00	75.00	4762.52	114.63	427.82	-69.15	0.00	
4900.00	10.00	75.00	4861.00	119.13	444.59	-71.86	0.00	
4990.37	10.00	75.00	4950.00	123.19	459.75	-74.31	0.00	Base of Salt
5000.00	10.00	75.00	4959.48	123.62	461.37	-74.57	0.00	
5100.00	10.00	75.00	5057.97	128.12	478.14	-77.28	0.00	
5200.00	10.00	75.00	5156.45	132.61	494.91	-80.00	0.00	
5300.00	10.00	75.00	5254.93	137.11	511.69	-82.71	0.00	
5325.46	10.00	75.00	5280.00	138.25	515.96	-83.40	0.00	Delaware
5400.00	10.00	75.00	5353.41	141.60	528.46	-85.42	0.00	
5500.00	10.00	75.00	5451.89	146.10	545.23	-88.13	0.00	
5600.00	10.00	75.00	5550.37	150.59	562.01	-90.84	0.00	
5700.00	10.00	75.00	5648.85	155.08	578.78	-93.55	0.00	
5800.00	10.00	75.00	5747.33	159.58	595.55	-96.26	0.00	
5900.00	10.00	75.00	5845.81	164.07	612.33	-98.97	0.00	
6000.00	10.00	75.00	5944.29	168.57	629.10	-101.68	0.00	
6100.00	10.00	75.00	6042.77	173.06	645.87	-104.40	0.00	
6200.00	10.00	75.00	6141.25	177.56	662.64	-107.11	0.00	
6228.42	10.00	75.00	6169.24	178.83	667.41	-107.88	0.00	Drop to Vertical
6300.00	8.57	75.00	6239.88	181.82	678.57	-109.68	2.00	
6385.90	6.85	75.00	6325.00	184.80	689.70	-111.48	2.00	Cherry Canyon

Arena Roja 28-33 Fed Com 701H



**Well:** Arena Roja 28-33 Fed Com 701H  
**County:** Lea  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

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

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6400.00	6.57	75.00	6339.01	185.23	691.29	-111.74	2.00	
6500.00	4.57	75.00	6438.53	187.74	700.66	-113.25	2.00	
6600.00	2.57	75.00	6538.33	189.35	706.67	-114.22	2.00	
6700.00	0.57	75.00	6638.29	190.06	709.32	-114.65	2.00	
6728.42	0.00	75.00	6666.71	190.10	709.45	-114.67	2.00	Hold Vertical
6800.00	0.00	179.44	6738.29	190.10	709.45	-114.67	0.00	
6900.00	0.00	179.44	6838.29	190.10	709.45	-114.67	0.00	
7000.00	0.00	179.44	6938.29	190.10	709.45	-114.67	0.00	
7100.00	0.00	179.44	7038.29	190.10	709.45	-114.67	0.00	
7200.00	0.00	179.44	7138.29	190.10	709.45	-114.67	0.00	
7300.00	0.00	179.44	7238.29	190.10	709.45	-114.67	0.00	
7400.00	0.00	179.44	7338.29	190.10	709.45	-114.67	0.00	
7500.00	0.00	179.44	7438.29	190.10	709.45	-114.67	0.00	
7600.00	0.00	179.44	7538.29	190.10	709.45	-114.67	0.00	
7700.00	0.00	179.44	7638.29	190.10	709.45	-114.67	0.00	
7800.00	0.00	179.44	7738.29	190.10	709.45	-114.67	0.00	
7900.00	0.00	179.44	7838.29	190.10	709.45	-114.67	0.00	
7991.71	0.00	179.44	7930.00	190.10	709.45	-114.67	0.00	Brushy Canyon
8000.00	0.00	179.44	7938.29	190.10	709.45	-114.67	0.00	
8100.00	0.00	179.44	8038.29	190.10	709.45	-114.67	0.00	
8200.00	0.00	179.44	8138.29	190.10	709.45	-114.67	0.00	
8300.00	0.00	179.44	8238.29	190.10	709.45	-114.67	0.00	
8400.00	0.00	179.44	8338.29	190.10	709.45	-114.67	0.00	
8500.00	0.00	179.44	8438.29	190.10	709.45	-114.67	0.00	
8600.00	0.00	179.44	8538.29	190.10	709.45	-114.67	0.00	
8700.00	0.00	179.44	8638.29	190.10	709.45	-114.67	0.00	
8800.00	0.00	179.44	8738.29	190.10	709.45	-114.67	0.00	
8900.00	0.00	179.44	8838.29	190.10	709.45	-114.67	0.00	
9000.00	0.00	179.44	8938.29	190.10	709.45	-114.67	0.00	
9100.00	0.00	179.44	9038.29	190.10	709.45	-114.67	0.00	
9200.00	0.00	179.44	9138.29	190.10	709.45	-114.67	0.00	
9231.71	0.00	179.44	9170.00	190.10	709.45	-114.67	0.00	1st Bone Spring Lime
9300.00	0.00	179.44	9238.29	190.10	709.45	-114.67	0.00	
9400.00	0.00	179.44	9338.29	190.10	709.45	-114.67	0.00	
9500.00	0.00	179.44	9438.29	190.10	709.45	-114.67	0.00	
9600.00	0.00	179.44	9538.29	190.10	709.45	-114.67	0.00	
9700.00	0.00	179.44	9638.29	190.10	709.45	-114.67	0.00	
9800.00	0.00	179.44	9738.29	190.10	709.45	-114.67	0.00	
9900.00	0.00	179.44	9838.29	190.10	709.45	-114.67	0.00	
10000.00	0.00	179.44	9938.29	190.10	709.45	-114.67	0.00	
10100.00	0.00	179.44	10038.29	190.10	709.45	-114.67	0.00	
10200.00	0.00	179.44	10138.29	190.10	709.45	-114.67	0.00	
10300.00	0.00	179.44	10238.29	190.10	709.45	-114.67	0.00	
10400.00	0.00	179.44	10338.29	190.10	709.45	-114.67	0.00	
10491.71	0.00	179.44	10430.00	190.10	709.45	-114.67	0.00	Bone Spring 1st
10500.00	0.00	179.44	10438.29	190.10	709.45	-114.67	0.00	
10600.00	0.00	179.44	10538.29	190.10	709.45	-114.67	0.00	
10700.00	0.00	179.44	10638.29	190.10	709.45	-114.67	0.00	
10800.00	0.00	179.44	10738.29	190.10	709.45	-114.67	0.00	
10900.00	0.00	179.44	10838.29	190.10	709.45	-114.67	0.00	
11000.00	0.00	179.44	10938.29	190.10	709.45	-114.67	0.00	
11021.71	0.00	179.44	10960.00	190.10	709.45	-114.67	0.00	Bone Spring 2nd
11100.00	0.00	179.44	11038.29	190.10	709.45	-114.67	0.00	
11200.00	0.00	179.44	11138.29	190.10	709.45	-114.67	0.00	
11300.00	0.00	179.44	11238.29	190.10	709.45	-114.67	0.00	
11400.00	0.00	179.44	11338.29	190.10	709.45	-114.67	0.00	
11456.71	0.00	179.44	11395.00	190.10	709.45	-114.67	0.00	3rd Bone Spring Lime
11500.00	0.00	179.44	11438.29	190.10	709.45	-114.67	0.00	
11600.00	0.00	179.44	11538.29	190.10	709.45	-114.67	0.00	
11700.00	0.00	179.44	11638.29	190.10	709.45	-114.67	0.00	
11800.00	0.00	179.44	11738.29	190.10	709.45	-114.67	0.00	
11900.00	0.00	179.44	11838.29	190.10	709.45	-114.67	0.00	
12000.00	0.00	179.44	11938.29	190.10	709.45	-114.67	0.00	
12018.75	0.00	179.44	11957.04	190.10	709.45	-114.67	0.00	KOP
12100.00	8.12	179.44	12038.02	184.35	709.51	-108.95	10.00	
12122.27	10.35	179.44	12060.00	180.77	709.54	-105.39	10.00	Bone Spring 3rd
12200.00	18.12	179.44	12135.28	161.67	709.73	-86.37	10.00	
12300.00	28.12	179.44	12227.13	122.45	710.11	-47.33	10.00	
12400.00	38.12	179.44	12310.77	67.87	710.65	7.00	10.00	
12494.54	47.58	179.44	12380.00	3.66	711.27	70.93	10.00	Wolfcamp / Point of Penetration

Arena Roja 28-33 Fed Com 701H



Well: Arena Roja 28-33 Fed Com 701H

County: Lea

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	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
12500.00	48.12	179.44	12383.67	-0.39	711.31	74.97	10.00	
12600.00	58.12	179.44	12443.60	-80.28	712.10	154.50	10.00	
12700.00	68.12	179.44	12488.75	-169.36	712.97	243.18	10.00	
12800.00	78.12	179.44	12517.74	-264.93	713.90	338.32	10.00	
12900.00	88.12	179.44	12529.69	-364.08	714.87	437.02	10.00	
12918.75	90.00	179.44	12530.00	-382.83	715.05	455.69	10.00	Landing Point
13000.00	90.00	179.44	12530.00	-464.07	715.85	536.57	0.00	
13100.00	90.00	179.44	12530.00	-564.07	716.82	636.11	0.00	
13200.00	90.00	179.44	12530.00	-664.07	717.80	735.66	0.00	
13300.00	90.00	179.44	12530.00	-764.06	718.78	835.21	0.00	
13400.00	90.00	179.44	12530.00	-864.06	719.76	934.75	0.00	
13500.00	90.00	179.44	12530.00	-964.05	720.73	1034.30	0.00	
13600.00	90.00	179.44	12530.00	-1064.05	721.71	1133.85	0.00	
13700.00	90.00	179.44	12530.00	-1164.04	722.69	1233.39	0.00	
13800.00	90.00	179.44	12530.00	-1264.04	723.67	1332.94	0.00	
13900.00	90.00	179.44	12530.00	-1364.03	724.64	1432.49	0.00	
14000.00	90.00	179.44	12530.00	-1464.03	725.62	1532.03	0.00	
14100.00	90.00	179.44	12530.00	-1564.02	726.60	1631.58	0.00	
14200.00	90.00	179.44	12530.00	-1664.02	727.58	1731.13	0.00	
14300.00	90.00	179.44	12530.00	-1764.01	728.55	1830.67	0.00	
14400.00	90.00	179.44	12530.00	-1864.01	729.53	1930.22	0.00	
14500.00	90.00	179.44	12530.00	-1964.00	730.51	2029.77	0.00	
14600.00	90.00	179.44	12530.00	-2064.00	731.49	2129.31	0.00	
14700.00	90.00	179.44	12530.00	-2163.99	732.47	2228.86	0.00	
14800.00	90.00	179.44	12530.00	-2263.99	733.44	2328.41	0.00	
14900.00	90.00	179.44	12530.00	-2363.98	734.42	2427.95	0.00	
15000.00	90.00	179.44	12530.00	-2463.98	735.40	2527.50	0.00	
15100.00	90.00	179.44	12530.00	-2563.97	736.38	2627.05	0.00	
15200.00	90.00	179.44	12530.00	-2663.97	737.35	2726.59	0.00	
15300.00	90.00	179.44	12530.00	-2763.96	738.33	2826.14	0.00	
15400.00	90.00	179.44	12530.00	-2863.96	739.31	2925.69	0.00	
15500.00	90.00	179.44	12530.00	-2963.96	740.29	3025.23	0.00	
15600.00	90.00	179.44	12530.00	-3063.95	741.26	3124.78	0.00	
15700.00	90.00	179.44	12530.00	-3163.95	742.24	3224.33	0.00	
15800.00	90.00	179.44	12530.00	-3263.94	743.22	3323.87	0.00	
15900.00	90.00	179.44	12530.00	-3363.94	744.20	3423.42	0.00	
16000.00	90.00	179.44	12530.00	-3463.93	745.17	3522.97	0.00	
16100.00	90.00	179.44	12530.00	-3563.93	746.15	3622.51	0.00	
16200.00	90.00	179.44	12530.01	-3663.92	747.13	3722.06	0.00	
16300.00	90.00	179.44	12530.01	-3763.92	748.11	3821.61	0.00	
16400.00	90.00	179.44	12530.01	-3863.91	749.09	3921.15	0.00	
16500.00	90.00	179.44	12530.01	-3963.91	750.06	4020.70	0.00	
16600.00	90.00	179.44	12530.01	-4063.90	751.04	4120.25	0.00	
16700.00	90.00	179.44	12530.01	-4163.90	752.02	4219.79	0.00	
16800.00	90.00	179.44	12530.01	-4263.89	753.00	4319.34	0.00	
16900.00	90.00	179.44	12530.01	-4363.89	753.97	4418.89	0.00	
17000.00	90.00	179.44	12530.01	-4463.88	754.95	4518.43	0.00	
17100.00	90.00	179.44	12530.01	-4563.88	755.93	4617.98	0.00	
17200.00	90.00	179.44	12530.01	-4663.87	756.91	4717.53	0.00	
17300.00	90.00	179.44	12530.01	-4763.87	757.88	4817.07	0.00	
17400.00	90.00	179.44	12530.01	-4863.86	758.86	4916.62	0.00	
17500.00	90.00	179.44	12530.01	-4963.86	759.84	5016.17	0.00	
17600.00	90.00	179.44	12530.01	-5063.86	760.82	5115.71	0.00	
17700.00	90.00	179.44	12530.01	-5163.85	761.79	5215.26	0.00	
17800.00	90.00	179.44	12530.01	-5263.85	762.77	5314.81	0.00	
17900.00	90.00	179.44	12530.01	-5363.84	763.75	5414.35	0.00	
18000.00	90.00	179.44	12530.01	-5463.84	764.73	5513.90	0.00	
18100.00	90.00	179.44	12530.01	-5563.83	765.71	5613.45	0.00	
18200.00	90.00	179.44	12530.01	-5663.83	766.68	5712.99	0.00	
18300.00	90.00	179.44	12530.01	-5763.82	767.66	5812.54	0.00	
18400.00	90.00	179.44	12530.01	-5863.82	768.64	5912.09	0.00	
18500.00	90.00	179.44	12530.01	-5963.81	769.62	6011.63	0.00	
18600.00	90.00	179.44	12530.01	-6063.81	770.59	6111.18	0.00	
18700.00	90.00	179.44	12530.01	-6163.80	771.57	6210.73	0.00	
18800.00	90.00	179.44	12530.01	-6263.80	772.55	6310.27	0.00	
18900.00	90.00	179.44	12530.01	-6363.79	773.53	6409.82	0.00	
19000.00	90.00	179.44	12530.01	-6463.79	774.50	6509.37	0.00	
19100.00	90.00	179.44	12530.01	-6563.78	775.48	6608.91	0.00	
19200.00	90.00	179.44	12530.01	-6663.78	776.46	6708.46	0.00	
19300.00	90.00	179.44	12530.01	-6763.77	777.44	6808.01	0.00	

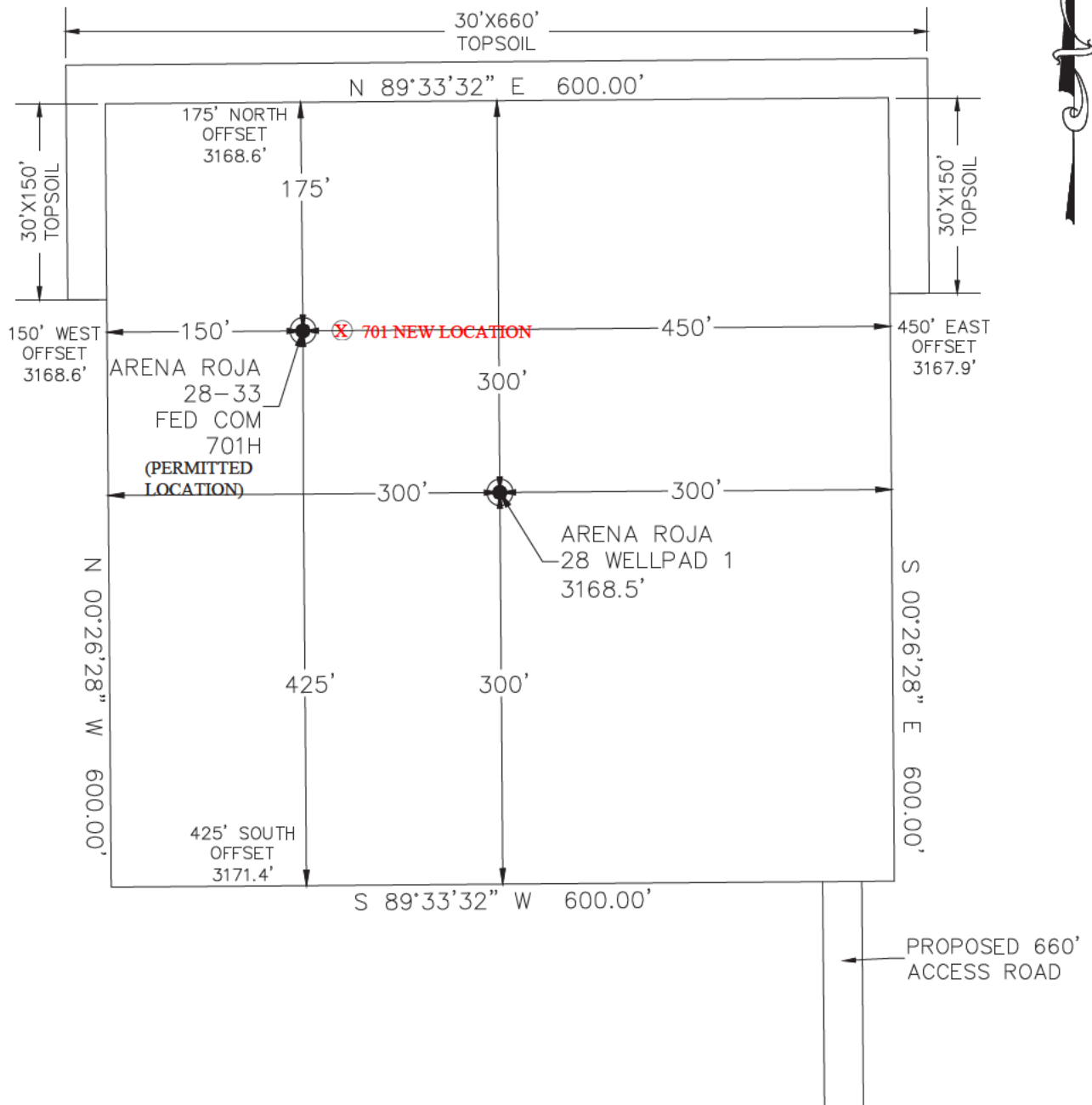


**Well:** Arena Roja 28-33 Fed Com 701H  
**County:** Lea  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

**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	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
19400.00	90.00	179.44	12530.01	-6863.77	778.41	6907.55	0.00	
19500.00	90.00	179.44	12530.01	-6963.76	779.39	7007.10	0.00	
19600.00	90.00	179.44	12530.01	-7063.76	780.37	7106.65	0.00	
19700.00	90.00	179.44	12530.01	-7163.75	781.35	7206.19	0.00	
19800.00	90.00	179.44	12530.01	-7263.75	782.32	7305.74	0.00	
19893.26	90.00	179.44	12530.01	-7357.00	783.24	7398.57	0.00	exit
19900.00	90.00	179.44	12530.01	-7363.75	783.30	7405.29	0.00	
19973.26	90.00	179.44	12530.00	-7437.00	784.00	7478.21	0.00	BHL

# SECTION 28, TOWNSHIP 26 SOUTH, RANGE 35 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO SITE MAP



Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.



## DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF J-3 AND BECKHAM RANCH ROAD, HEAD WEST ON BECKHAM RANCH ROAD FOR 2.3 MILES. AT THE Y-INTERSECTION CONTINUE LEFT ONTO AN EXISTING ACCESS ROAD FOR 4.2 MILES. TURN RIGHT ONTO AN EXISTING ACCESS ROAD AND FOLLOW FOR 0.4 OF A MILE TO THE POINT OF BEGINNING OF A PROPOSED ACCESS ROAD. TURN RIGHT ON THE PROPOSED ACCESS ROAD AND FOLLOW NORTH AND THE WEST FOR 0.8 OF A MILE TO THE POINT OF BEGINNING OF THE WELLPAD 1 ACCESS ROAD. TURN RIGHT AND HEAD NORTH ON THE ARENA ROJA 28 WELLPAD 1 ACCESS ROAD 660' TO THE SOUTHEAST CORNER OF THE ARENA ROJA 28 WELLPAD 1.

**HORIZON ROW LLC**

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:  
CHRIS MAAS

Date: 03/08/2022  
REV: 03/18/2022

Drawn for:

**devon**

28-26-35-D Sundry ID 2705759 Arena Roja 28-33 Fed Com 701H Lea NM125400 DEVON ENERGY PRODUCTION COMPANY LP 13-22d 8-29-2022 LV.xlsm

## Arena Roja 28-33 Fed Com 701H

10 3/4	surface csg in a		13 1/2	inch hole.		Design Factors			Surface			
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.50		h 40	btc	10.12	2.67	0.35	1,115	5	0.59	5.04	45,158
"B"				btc				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,109				Tail Cmt	does not	circ to sfc.	Totals:	1,115				45,158
Comparison of Proposed to Minimum Required Cement Volumes												
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE				Min Dist Hole-Cplg
13 1/2	0.3637	426	613	406	51	9.00	3879	5M				1.38
Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK.												
Site plot (pipe racks S or E) as per O.G. L.H.D.A. not found.												

8 5/8		casing inside the		10 3/4		Design Factors			Int 1			
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	32.00		p 110	vam sprint fj	1.95	0.62	1.05	11,918	1	1.75	1.03	381,376
"B"								0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: -196								Totals:		11,918		381,376
The cement volume(s) are intended to achieve a top of 0 ft from surface or a 1115 overlap.												
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE				Min Dist Hole-Cplg
9 7/8	0.1261	856	1950	1524	28	10.50	4078	5M				0.61
D V Tool(s):						sum of sx		Σ CuFt				Σ%excess
t by stage % :												109
Class 'H' tail cmt yld > 1.20												

Tail cmt		casing inside the		8 5/8		Design Factors				Prod 1			
5 1/2													
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	17.00		p 110	btc	2.56	1.09	1.56	19,973	2	2.61	1.83	339,541	
"B"								0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,757								Totals:		19,973		339,541	
The cement volume(s) are intended to achieve a top of								11718		ft from surface 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	1170	1899	1431	33	10.50						0.91	
Class 'C' tail cmt yld > 1.35													

#N/A											
0	5 1/2			Design Factors				<Choose Casing>			
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	B@	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 below includes this csg, TOC intended							#N/A	ft from surface or a	#N/A	overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg		
0		#N/A	#N/A	0	#N/A						
#N/A Capitan Reef est top XXXX.											

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	<b>Devon Energy Production Company LP</b>
<b>LEASE NO.:</b>	<b>NMNM125400</b>
<b>LOCATION:</b>	Section 28, T.26 S., R.35 E., NMPM
<b>COUNTY:</b>	Lea County, New Mexico

<b>WELL NAME &amp; NO.:</b>	<b>Arena Roja 28-33 Fed Com 701H</b>
<b>SURFACE HOLE FOOTAGE:</b>	250'N & 318'W
<b>BOTTOM HOLE FOOTAGE:</b>	20'S & 1030'W
<b>ATS/API ID:</b>	<b>ATS-22-1137</b>
<b>APD ID:</b>	<b>10400084746</b>
<b>Sundry ID:</b>	N/A

<b>WELL NAME &amp; NO.:</b>	<b>Arena Roja 28-33 Fed Com 801H</b>
<b>SURFACE HOLE FOOTAGE:</b>	250'N & 288'W
<b>BOTTOM HOLE FOOTAGE:</b>	20'S & 380'W
<b>ATS/API ID:</b>	<b>ATS-22-1136</b>
<b>APD ID:</b>	<b>10400084754</b>
<b>Sundry ID:</b>	N/A

COA

H2S	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Potash	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Secretary	<input type="checkbox"/> R-111-P
Cave/Karst Potential	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Cave/Karst Potential	<input type="checkbox"/> Critical		
Variance	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Other
Wellhead	<input type="checkbox"/> Conventional	<input type="checkbox"/> Multibowl	<input checked="" type="checkbox"/> Both
Wellhead Variance	<input type="checkbox"/> Diverter		
Other	<input type="checkbox"/> 4 String	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Open Annulus
Cementing	<input type="checkbox"/> Contingency Cement Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> Primary Cement Squeeze
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Special Requirements Variance	<input checked="" type="checkbox"/> Break Testing	<input type="checkbox"/> Offline Cementing	<input type="checkbox"/> Batch Sundry

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and

personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

## B. CASING

1. The **10-3/4 inch** surface casing shall be set at approximately **1115 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - 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.

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

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

### Option 1 (Single Stage):

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

### 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 7930' (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 855 sxs Class C)

**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.**

**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.**

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

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.

### **C. PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

#### **Option 1:**

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi. Annular which shall be tested to 5000 (5M) psi.**
- b. 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 **10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

#### **Option 2:**

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **10-3/4** 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 **10,000 (10M) psi**. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 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 OOGO2.III.A.2.i must be followed.

#### **D. SPECIAL REQUIREMENT (S)**

##### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in Onshore Order 1 and 2.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

##### **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 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 **(575-689-5981 Lea County)** 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at **14-day** intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

## GENERAL REQUIREMENTS

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

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

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)  
689-5981

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 Onshore Oil and Gas Order No. 2 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.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

## 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, 2) until cement has been in place at least 24 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 Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
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 OOGO2.III.A.2.i 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 Onshore Order 2 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 water basin (8 hours) or potash (24 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 Onshore Order No. 2.

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.

LVO 1/18/2023

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 180363

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 180363
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	2/3/2023