

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

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

Form C-101  
August 1, 2011

Permit 407970

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102		2. OGRID Number 6137
		3. API Number 30-015-57760
4. Property Code 40396	5. Property Name ARK 36 STATE	6. Well No. 822H

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
C	36	22S	31E		280	N	2449	W	Eddy

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
A	36	22S	31E	A	20	N	1265	E	Eddy

**9. Pool Information**

WC-015 G-08 S233102C;WOLFCAMP	98123
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3505
16. Multiple N	17. Proposed Depth 23017	18. Formation Wolfcamp	19. Contractor	20. Spud Date 5/1/2026
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	16	13.375	54.5	717	352	0
Int1	9.875	8.625	32	11585	2770	0
Prod	7.875	5.5	20	23017	1617	11685

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	
Double Ram	5000	5000	
Blind	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well. <b>I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.</b>  Signature:	<b>OIL CONSERVATION DIVISION</b>
Printed Name: Electronically filed by Jeff Walla	Approved By: Jeffrey Harrison
Title: Land Manager	Title: Petroleum Specialist III
Email Address: Jeff.Walla@dmv.com	Approved Date: 2/3/2026      Expiration Date: 2/3/2028
Date: 2/2/2026      Phone: 405-552-8154	Conditions of Approval Attached

C-102  Submit Electronically Via OCD Permitting	<b>State of New Mexico</b> <b>Energy, Minerals &amp; Natural Resources Department</b> <b>OIL CONSERVATION DIVISION</b>	Revised July, 2024	
		Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

## WELL LOCATION INFORMATION

API Number <b>30-015-57760</b>	Pool Code <b>98123</b> <del>[96336]</del>	Pool Name <b>LOS MEDANOS WOLECAMP SOUTH</b> <b>WC-015 G-08 S233102C WOLECAMP</b>
Property Code <b>40396</b>	Property Name <b>ARK 36 STATE</b>	Well Number <b>822H</b>
OGRID No. <b>6137</b>	Operator Name <b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b>	Ground Level Elevation <b>3505.0'</b>
Surface Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

## Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	36	22-S	31-E		280' N	2449' W	32.354441	103.732130	EDDY

## Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	36	22-S	31-E		20' N	1265' E	32.355137	103.727025	EDDY

Dedicated Acres 640	Infill or Defining Well Infill	Defining Well API Pending (711H)	Overlapping Spacing Unit (Y/N) N	Consolidation Code C & F
Order Numbers Pending			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	36	22-S	31-E		50' N	2585' E	32.355070	103.731300	EDDY


## First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	36	22-S	31-E		100' N	2585' E	32.354932	103.731300	EDDY

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	36	22-S	31-E		100' N	1265' E	32.354917	103.727026	EDDY

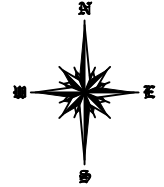
Spacing Unit Type		Horizontal	Vertical	Ground Floor Elevation:
			X	

<b>OPERATOR CERTIFICATIONS</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division. <i>Lauren Watson</i> 1/27/2026		<b>SURVEYOR CERTIFICATIONS</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under supervision, and that the same is true and correct to the best of my belief.   <i>B.L. Laman</i>	
Signature Lauren Watson		Signature and Seal of Professional Surveyor	
Printed Name Lauren.Watson@dvN.com		Certificate Number 23261	Date of Survey 01/14/26
Email Address			

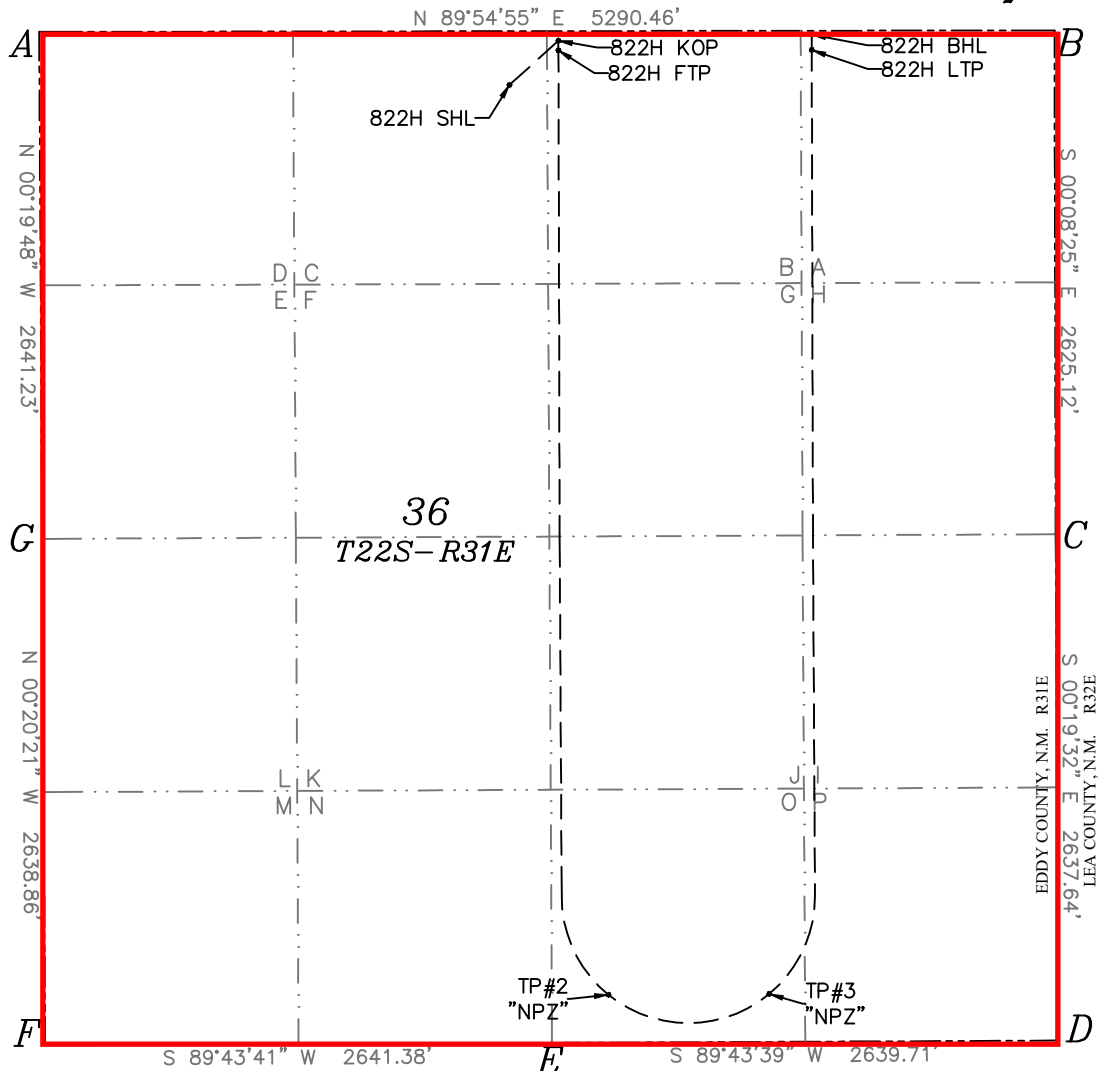
## ACREAGE DEDICATION PLATS

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

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



<b>SURFACE HOLE LOCATION</b>
GEODETIC COORDINATES NAD 83
NMSP EAST SURFACE LOCATION
280' FNL 2449' FWL SECTION 36
EL: 3505.0'
N: 493198.55/E: 726984.19
LAT: 32.354441/LON: 103.732130
<b>KICK OFF POINT</b>
50' FNL 2585' FEL SECTION 36
N: 493428.92/E: 727239.35
LAT: 32.355070/LON: 103.731300
<b>FIRST TAKE POINT</b>
100' FNL 2585' FEL SECTION 36
N: 493378.92/E: 727239.48
LAT: 32.354932/LON: 103.731300
<b>TAKE POINT #2</b>
250' FSL 2344' FEL SECTION 36
N: 488458.87/E: 727499.86
LAT: 32.341405/LON: 103.730547
<b>TAKE POINT #3</b>
250' FSL 1507' FEL SECTION 36
N: 488462.86/E: 728337.70
LAT: 32.341403/LON: 103.727834
<b>LAST TAKE POINT</b>
100' FNL 1265' FEL SECTION 36
N: 493380.87/E: 728559.48
LAT: 32.354917/LON: 103.727026
<b>BOTTOM HOLE LOCATION</b>
20' FNL 1265' FEL SECTION 36
N: 493460.87/E: 728559.28
LAT: 32.355137/LON: 103.727025



A=N:493474.93/E:724533.78
B=N:493482.74/E:729824.23
C=N:490857.63/E:729830.66
D=N:488220.03/E:729845.65
E=N:488207.47/E:727205.97
F=N:488194.93/E:724564.61
G=N:490833.74/E:724548.99

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Form APD Comments  
Permit 407970

PERMIT COMMENTS

Operator Name and Address: DEVON ENERGY PRODUCTION COMPANY, LP [6137] 333 West Sheridan Ave. Oklahoma City, OK 73102		API Number: 30-015-57760
		Well: ARK 36 STATE #822H
Created By	Comment	Comment Date
jeffrey.harrison	Infill to pending permit for Ark 36 State 711H.	2/3/2026

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Form APD Conditions

Permit 407970

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: DEVON ENERGY PRODUCTION COMPANY, LP [6137] 333 West Sheridan Ave. Oklahoma City, OK 73102	API Number: 30-015-57760
	Well: ARK 36 STATE #822H

OCD Reviewer	Condition
jeffrey.harrison	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.
jeffrey.harrison	NSP required if not included in an existing order or not an infill to an appropriate defining well in the same pool and spacing unit.
jeffrey.harrison	NSL required IF any portion of the well is completed within 330' of the spacing unit boundary perpendicular to the well's trajectory.
jeffrey.harrison	Cement is required to circulate on both surface and intermediate1 strings of casing.
jeffrey.harrison	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.
jeffrey.harrison	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.
jeffrey.harrison	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.
jeffrey.harrison	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
jeffrey.harrison	Any string of casing or liner that is not circulated to surface must have a minimum of 200' of cement tie-back into the previous string of casing.
jeffrey.harrison	Cement must be in place for at least 8 hours and achieve a minimum compressive strength of 500 psi before performing further operations on the well.

## Devon Energy Annular Preventer Summary

### 1. Component and Preventer Compatibility Table

The table below, which covers the drilling and casing of the 10M MASP portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

6-3/4" Production hole section, 10M requirement

Component	OD	Preventer	RWP
Drillpipe	4.5"	Fixed lower 4.5" Upper 4.5-7" VBR	10M
HWDP	4.5"	Fixed lower 4.5" Upper 4.5-7" VBR	10M
Drill collars and MWD tools	4.75"	Upper 4.5-7" VBR	10M
Mud Motor	4.75"	Upper 4.5-7" VBR	10M
Production casing	5.5"	Upper 4.5-7" VBR	10M
ALL	0-13-5/8"	Annular	5M
Open-hole	-	Blind Rams	10M

VBR = Variable Bore Ram. Compatible range listed in chart.

### 2. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. The pressure at which control is swapped from the annular to another compatible ram is variable, but the operator will document in the submission their operating pressure limit. The operator may chose an operating pressure less than or equal to RWP, but in no case will it exceed the RWP of the annular preventer.

#### General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram.

## Devon Energy Annular Preventer Summary

### General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram.

### General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

### General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams or BSR. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
6. Regroup and identify forward plan

## Devon Energy Annular Preventer Summary

### General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
  - a. Perform flowcheck, if flowing:
  - b. Sound alarm (alert crew)
  - c. Stab full opening safety valve and close
  - d. Space out drill string with tool joint just beneath the upper pipe ram.
  - e. Shut-in using upper pipe ram. (HCR and choke will already be in the closed position.)
  - f. Confirm shut-in
  - g. Notify toolpusher/company representative
  - h. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - i. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. Stab crossover and full opening safety valve and close
  - c. Space out drill string with upset just beneath the compatible pipe ram.
  - d. Shut-in using compatible pipe ram. (HCR and choke will already be in the closed position.)
  - e. Confirm shut-in
  - f. Notify toolpusher/company representative
  - g. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - h. Regroup and identify forward plan
3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario.
  - c. If impossible to pick up high enough to pull the string clear of the stack:
  - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
  - e. Space out drill string with tooljoint just beneath the upper pipe ram.
  - f. Shut-in using upper pipe ram. (HCR and choke will already be in the closed position.)
  - g. Confirm shut-in
  - h. Notify toolpusher/company representative
  - i. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - j. Regroup and identify forward plan



ARK 36 STATE 822H

1. Geologic Formations

TVD of target	12243	Pilot hole depth	N/A
MD at TD:	23017	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	647		
Salt	1133		
Base of Salt	4198		
Delaware	4453		
Cherry Canyon	5350		
Brushy Canyon	6625		
1st Bone Spring Lime	8300		
Bone Spring 1st	9420		
Bone Spring 2nd	9995		
Bone Spring 3rd	10450		
Wolfcamp	11610		

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

## ARK 36 STATE 822H

**2. Casing Program**

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
16	13 3/8	54 1/2	J-55	BTC	0	717	0	717
9 7/8	8 5/8	32	P110ICY	Wedge 441	0	11585	0	11585
7 7/8	5 1/2	20	P110ICY	Wedge 461	0	23017	0	12243

•All casing strings will be tested in accordance with 43 CFR 3172. Must have table for contingency casing.

•If cement does not circulate to surface, remediation will be done with an appropriately sized tubing to meet radial clearance requirement

**3. Cementing Program**

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	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	352	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	565	Surf	13.0	2.3	2nd State: Bradenhead Squeeze - Lead: Class C Cement + additives
	575	6625	13.2	1.44	Tail: Class H / C + additives
Production	117	9685	9	3.27	Lead: Class H / C + additives
	1500	11685	13.2	1.44	Tail: Class H / C + additives

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.

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Prod	10%

ARK 36 STATE 822H

**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					

## ARK 36 STATE 822H

**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
	Mud log	Intermediate shoe to TD
	PEX	

**7. Drilling Conditions**

Condition	Specify what type and where?
BH pressure at deepest TVD	6685
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 43 CFR 3176. 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.

## ARK 36 STATE 822H

**8. Other facets of operation**

Is this a walking operation? Potentially

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

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

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
  - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (43 CFR 3172, all COAs and NMOCD regulations).
- 3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well 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 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

GL:3505+25ft @ 3530.00ft  
Ground Level 3505.00

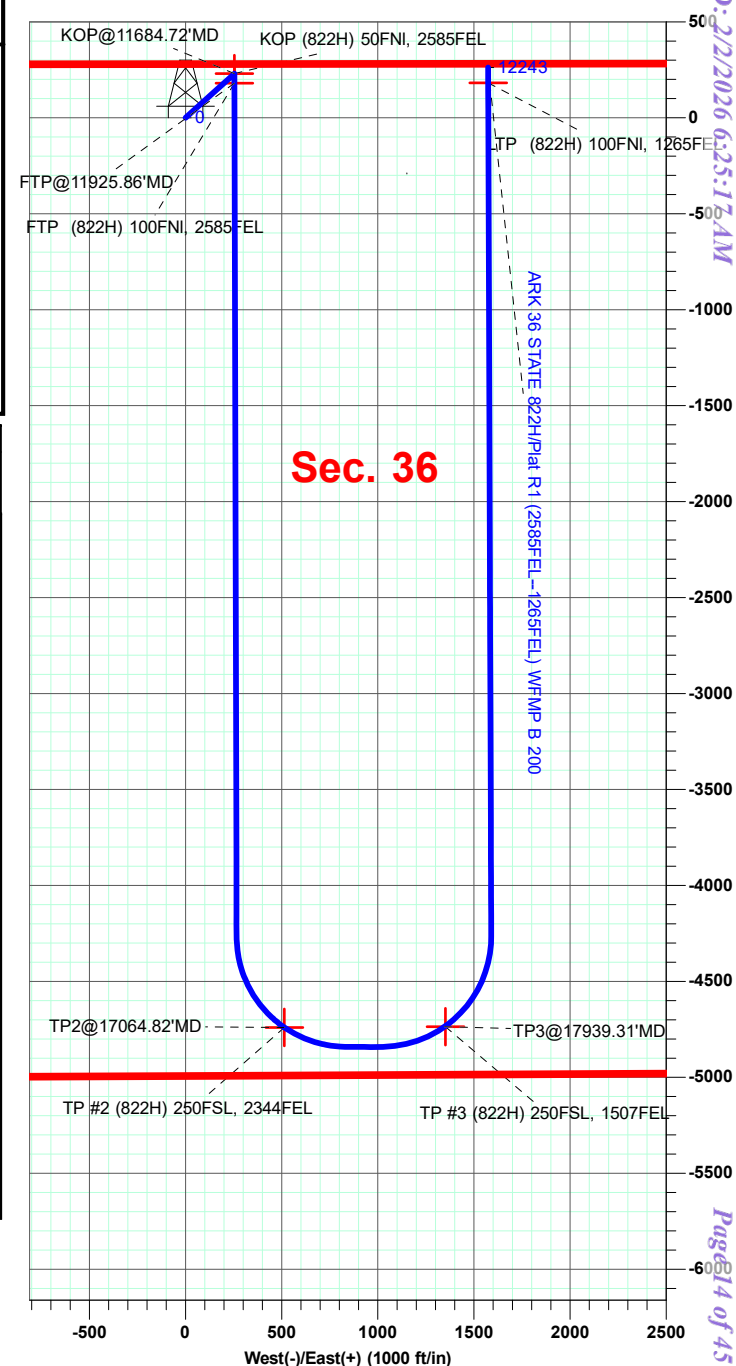
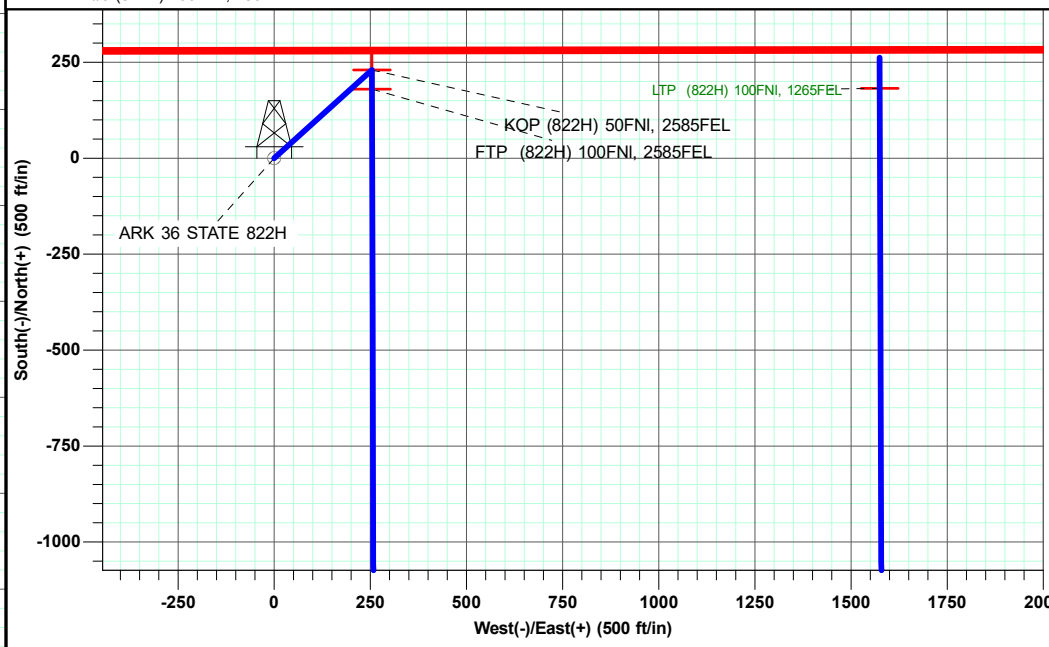
ARK 36 STATE 822H  
Eddy County (NAD 83 NM Eastern)  
Northing: 493198.55  
Easting: 726984.90  
Lat: 32.3544405  
Long: -103.7321282  
Plat R1 (2585FEL--1265FEL) WFMP B 200

SECTION DETAILS  
ARK 36 STATE 822H

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00
1750.23	5.00	47.84	1749.92	7.33	8.10	2.00	-7.31
5434.45	5.00	47.84	5420.08	223.04	246.35	0.00	-222.39
5684.68	0.00	0.00	5670.00	230.37	254.45	2.00	-229.70
11684.72	0.00	0.00	11670.04	230.37	254.45	0.00	-229.70
12584.72	90.00	179.85	12243.00	-342.59	255.95	10.00	343.26
16510.92	90.00	179.85	12243.00	-4268.77	266.23	0.00	4269.46
17409.43	90.00	90.00	12243.00	-4840.23	839.19	10.00	4842.41
17587.73	90.00	90.00	12243.00	-4840.23	1017.49	0.00	4842.88
18489.77	90.00	359.80	12243.00	-4265.23	1590.44	10.00	4269.38
22937.35	90.00	359.80	12243.00	182.32	1574.58	0.00	-178.20
23017.35	90.00	359.80	12243.00	262.32	1574.30	0.00	-258.20

DESIGN TARGET DETAILS									
1	2	3	4	5	6	7	8	9	10

Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP (822H) 100FNI, 2585FEL	1.70	180.37	254.58	493378.92	727239.48
KOP (822H) 50FNI, 2585FEL	1.70	230.37	254.45	493428.92	727239.35
LTP (822H) 100FNI, 1265FEL	12243.00	182.32	1574.58	493380.87	728559.48
TP #2 (822H) 250FSL, 2344FEL	12243.00	-4739.69	514.96	488458.87	727499.86
TP #3 (822H) 250FSL, 1507FEL	12243.00	-4735.70	1352.80	488462.86	728337.70



## Planning Report - Geographic

<b>Database:</b>	EDM_5000.17	<b>Local Co-ordinate Reference:</b>	Well ARK 36 STATE 822H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Project:</b>	Eddy County (NAD 83 NM Eastern)	<b>MD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Site:</b>	Sec 36-T22S-R31E	<b>North Reference:</b>	Grid
<b>Well:</b>	ARK 36 STATE 822H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200		

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

Site		Sec 36-T22S-R31E			
Site Position:		Northing:	493,475.63 usft	Latitude:	32.3552398
From:	Map	Easting:	724,533.44 usft	Longitude:	-103.7400617
Position Uncertainty:	5.00 ft	Slot Radius:	13.20 in		

Well	ARK 36 STATE 822H					
Well Position	+N/-S	0.00 ft	Northing:	493,198.55 usft	Latitude:	32.3544406
	+E/-W	0.00 ft	Easting:	726,984.90 usft	Longitude:	-103.7321281
Position Uncertainty		0.50 ft	Wellhead Elevation:	ft	Ground Level:	3,505.00 ft
Grid Convergence:		0.32 °				

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	12/31/2019	6.76	60.12	47,737.20733595

<b>Design</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	179.85

<b>Plan Survey Tool Program</b>	<b>Date</b>	1/24/2026		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	23,017.31 Plat R1 (2585FEL--1265FEL) WF	MWD+IFR1+FDIR OWSG MWD + IFR1 + FDIR C	

## Planning Report - Geographic

<b>Database:</b>	EDM_5000.17	<b>Local Co-ordinate Reference:</b>	Well ARK 36 STATE 822H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Project:</b>	Eddy County (NAD 83 NM Eastern)	<b>MD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Site:</b>	Sec 36-T22S-R31E	<b>North Reference:</b>	Grid
<b>Well:</b>	ARK 36 STATE 822H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,750.23	5.00	47.84	1,749.92	7.33	8.10	2.00	2.00	0.00	47.84	
5,434.45	5.00	47.84	5,420.08	223.04	246.35	0.00	0.00	0.00	0.00	
5,684.68	0.00	0.00	5,670.00	230.37	254.45	2.00	-2.00	0.00	180.00	
11,684.72	0.00	0.00	11,670.04	230.37	254.45	0.00	0.00	0.00	0.00	
12,584.72	90.00	179.85	12,243.00	-342.59	255.95	10.00	10.00	0.00	179.85	
16,510.92	90.00	179.85	12,243.00	-4,268.77	266.23	0.00	0.00	0.00	0.00	
17,409.43	90.00	90.00	12,243.00	-4,840.23	839.19	10.00	0.00	-10.00	-90.00	
17,587.73	90.00	90.00	12,243.00	-4,840.23	1,017.49	0.00	0.00	0.00	0.00	
18,489.77	90.00	359.80	12,243.00	-4,265.23	1,590.44	10.00	0.00	-10.00	-90.00	
22,937.35	90.00	359.80	12,243.00	182.32	1,574.58	0.00	0.00	0.00	0.00	LTP (822H) 100FNI,
23,017.35	90.00	359.80	12,243.00	262.32	1,574.30	0.00	0.00	0.00	0.00	



## Planning Report - Geographic

<b>Database:</b>	EDM_5000.17	<b>Local Co-ordinate Reference:</b>	Well ARK 36 STATE 822H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Project:</b>	Eddy County (NAD 83 NM Eastern)	<b>MD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Site:</b>	Sec 36-T22S-R31E	<b>North Reference:</b>	Grid
<b>Well:</b>	ARK 36 STATE 822H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
100.00	0.00	0.00	100.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
200.00	0.00	0.00	200.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
300.00	0.00	0.00	300.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
400.00	0.00	0.00	400.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
500.00	0.00	0.00	500.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
600.00	0.00	0.00	600.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
647.00	0.00	0.00	647.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
<b>Rustler</b>									
700.00	0.00	0.00	700.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
800.00	0.00	0.00	800.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
900.00	0.00	0.00	900.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
1,000.00	0.00	0.00	1,000.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
1,100.00	0.00	0.00	1,100.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
1,133.00	0.00	0.00	1,133.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
<b>Salt</b>									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
1,300.00	0.00	0.00	1,300.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
1,400.00	0.00	0.00	1,400.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
1,500.00	0.00	0.00	1,500.00	0.00	0.00	493,198.55	726,984.90	32.3544406	-103.7321281
1,600.00	2.00	47.84	1,599.98	1.17	1.29	493,199.72	726,986.19	32.3544438	-103.7321239
1,700.00	4.00	47.84	1,699.84	4.68	5.17	493,203.23	726,990.07	32.3544534	-103.7321113
1,750.23	5.00	47.84	1,749.92	7.33	8.10	493,205.88	726,992.99	32.3544606	-103.7321018
1,800.00	5.00	47.84	1,799.49	10.24	11.31	493,208.80	726,996.21	32.3544686	-103.7320913
1,900.00	5.00	47.84	1,899.11	16.10	17.78	493,214.65	727,002.68	32.3544845	-103.7320703
2,000.00	5.00	47.84	1,998.73	21.95	24.25	493,220.50	727,009.14	32.3545005	-103.7320492
2,100.00	5.00	47.84	2,098.35	27.81	30.72	493,226.36	727,015.61	32.3545165	-103.7320282
2,200.00	5.00	47.84	2,197.97	33.66	37.18	493,232.21	727,022.08	32.3545325	-103.7320071
2,300.00	5.00	47.84	2,297.59	39.52	43.65	493,238.07	727,028.55	32.3545485	-103.7319861
2,400.00	5.00	47.84	2,397.20	45.37	50.12	493,243.92	727,035.01	32.3545645	-103.7319650
2,500.00	5.00	47.84	2,496.82	51.23	56.58	493,249.78	727,041.48	32.3545805	-103.7319440
2,600.00	5.00	47.84	2,596.44	57.08	63.05	493,255.63	727,047.95	32.3545965	-103.7319229
2,700.00	5.00	47.84	2,696.06	62.94	69.52	493,261.49	727,054.41	32.3546125	-103.7319019
2,800.00	5.00	47.84	2,795.68	68.79	75.98	493,267.34	727,060.88	32.3546285	-103.7318808
2,900.00	5.00	47.84	2,895.30	74.65	82.45	493,273.20	727,067.35	32.3546445	-103.7318598
3,000.00	5.00	47.84	2,994.92	80.50	88.92	493,279.05	727,073.81	32.3546605	-103.7318387
3,100.00	5.00	47.84	3,094.54	86.36	95.39	493,284.91	727,080.28	32.3546765	-103.7318177
3,200.00	5.00	47.84	3,194.15	92.21	101.85	493,290.76	727,086.75	32.3546925	-103.7317966
3,300.00	5.00	47.84	3,293.77	98.07	108.32	493,296.62	727,093.22	32.3547085	-103.7317756
3,400.00	5.00	47.84	3,393.39	103.92	114.79	493,302.47	727,099.68	32.3547244	-103.7317545
3,500.00	5.00	47.84	3,493.01	109.78	121.25	493,308.33	727,106.15	32.3547404	-103.7317335
3,600.00	5.00	47.84	3,592.63	115.63	127.72	493,314.18	727,112.62	32.3547564	-103.7317125
3,700.00	5.00	47.84	3,692.25	121.49	134.19	493,320.04	727,119.08	32.3547724	-103.7316914
3,800.00	5.00	47.84	3,791.87	127.34	140.65	493,325.89	727,125.55	32.3547884	-103.7316704
3,900.00	5.00	47.84	3,891.49	133.20	147.12	493,331.75	727,132.02	32.3548044	-103.7316493
4,000.00	5.00	47.84	3,991.10	139.05	153.59	493,337.60	727,138.48	32.3548204	-103.7316283
4,100.00	5.00	47.84	4,090.72	144.91	160.06	493,343.46	727,144.95	32.3548364	-103.7316072
4,200.00	5.00	47.84	4,190.34	150.76	166.52	493,349.31	727,151.42	32.3548524	-103.7315862
4,207.69	5.00	47.84	4,198.00	151.21	167.02	493,349.76	727,151.92	32.3548536	-103.7315845
<b>Base of Salt</b>									
4,300.00	5.00	47.84	4,289.96	156.62	172.99	493,355.17	727,157.89	32.3548684	-103.7315651
4,400.00	5.00	47.84	4,389.58	162.47	179.46	493,361.02	727,164.35	32.3548844	-103.7315441
4,463.66	5.00	47.84	4,453.00	166.20	183.57	493,364.75	727,168.47	32.3548946	-103.7315307
<b>Delaware</b>									

## Planning Report - Geographic

<b>Database:</b>	EDM_5000.17	<b>Local Co-ordinate Reference:</b>	Well ARK 36 STATE 822H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Project:</b>	Eddy County (NAD 83 NM Eastern)	<b>MD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Site:</b>	Sec 36-T22S-R31E	<b>North Reference:</b>	Grid
<b>Well:</b>	ARK 36 STATE 822H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,500.00	5.00	47.84	4,489.20	168.33	185.92	493,366.88	727,170.82	32.3549004	-103.7315230
4,600.00	5.00	47.84	4,588.82	174.18	192.39	493,372.73	727,177.29	32.3549164	-103.7315020
4,700.00	5.00	47.84	4,688.44	180.04	198.86	493,378.59	727,183.75	32.3549324	-103.7314809
4,800.00	5.00	47.84	4,788.06	185.89	205.32	493,384.44	727,190.22	32.3549484	-103.7314599
4,900.00	5.00	47.84	4,887.67	191.75	211.79	493,390.30	727,196.69	32.3549644	-103.7314388
5,000.00	5.00	47.84	4,987.29	197.60	218.26	493,396.15	727,203.15	32.3549803	-103.7314178
5,100.00	5.00	47.84	5,086.91	203.46	224.73	493,402.01	727,209.62	32.3549963	-103.7313967
5,200.00	5.00	47.84	5,186.53	209.31	231.19	493,407.86	727,216.09	32.3550123	-103.7313757
5,300.00	5.00	47.84	5,286.15	215.17	237.66	493,413.72	727,222.56	32.3550283	-103.7313546
5,364.10	5.00	47.84	5,350.00	218.92	241.80	493,417.47	727,226.70	32.3550386	-103.7313411
<b>Cherry Canyon</b>									
5,400.00	5.00	47.84	5,385.77	221.02	244.13	493,419.57	727,229.02	32.3550443	-103.7313336
5,434.45	5.00	47.84	5,420.08	223.04	246.35	493,421.59	727,231.25	32.3550498	-103.7313263
5,500.00	3.69	47.84	5,485.45	226.38	250.04	493,424.93	727,234.93	32.3550589	-103.7313143
5,600.00	1.69	47.84	5,585.33	229.53	253.52	493,428.08	727,238.42	32.3550676	-103.7313030
5,684.68	0.00	0.00	5,670.00	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
5,700.00	0.00	0.00	5,685.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
5,800.00	0.00	0.00	5,785.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
5,900.00	0.00	0.00	5,885.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,000.00	0.00	0.00	5,985.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,100.00	0.00	0.00	6,085.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,200.00	0.00	0.00	6,185.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,300.00	0.00	0.00	6,285.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,400.00	0.00	0.00	6,385.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,500.00	0.00	0.00	6,485.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,600.00	0.00	0.00	6,585.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,639.68	0.00	0.00	6,625.00	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
<b>Brushy Canyon</b>									
6,700.00	0.00	0.00	6,685.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,800.00	0.00	0.00	6,785.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
6,900.00	0.00	0.00	6,885.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,000.00	0.00	0.00	6,985.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,100.00	0.00	0.00	7,085.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,200.00	0.00	0.00	7,185.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,300.00	0.00	0.00	7,285.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,400.00	0.00	0.00	7,385.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,500.00	0.00	0.00	7,485.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,600.00	0.00	0.00	7,585.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,700.00	0.00	0.00	7,685.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,800.00	0.00	0.00	7,785.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
7,900.00	0.00	0.00	7,885.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,000.00	0.00	0.00	7,985.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,100.00	0.00	0.00	8,085.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,200.00	0.00	0.00	8,185.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,300.00	0.00	0.00	8,285.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,314.68	0.00	0.00	8,300.00	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
<b>1st Bone Spring Lime</b>									
8,400.00	0.00	0.00	8,385.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,500.00	0.00	0.00	8,485.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,600.00	0.00	0.00	8,585.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,700.00	0.00	0.00	8,685.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,800.00	0.00	0.00	8,785.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
8,900.00	0.00	0.00	8,885.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
9,000.00	0.00	0.00	8,985.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000

## Planning Report - Geographic

<b>Database:</b>	EDM_5000.17	<b>Local Co-ordinate Reference:</b>	Well ARK 36 STATE 822H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Project:</b>	Eddy County (NAD 83 NM Eastern)	<b>MD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Site:</b>	Sec 36-T22S-R31E	<b>North Reference:</b>	Grid
<b>Well:</b>	ARK 36 STATE 822H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,100.00	0.00	0.00	9,085.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
9,200.00	0.00	0.00	9,185.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
9,300.00	0.00	0.00	9,285.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
9,400.00	0.00	0.00	9,385.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
9,434.68	0.00	0.00	9,420.00	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
<b>Bone Spring 1st</b>									
9,500.00	0.00	0.00	9,485.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
9,600.00	0.00	0.00	9,585.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
9,700.00	0.00	0.00	9,685.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
9,800.00	0.00	0.00	9,785.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
9,900.00	0.00	0.00	9,885.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,000.00	0.00	0.00	9,985.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,009.68	0.00	0.00	9,995.00	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
<b>Bone Spring 2nd</b>									
10,100.00	0.00	0.00	10,085.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,200.00	0.00	0.00	10,185.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,300.00	0.00	0.00	10,285.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,400.00	0.00	0.00	10,385.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,464.68	0.00	0.00	10,450.00	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
<b>Bone Spring 3rd</b>									
10,500.00	0.00	0.00	10,485.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,600.00	0.00	0.00	10,585.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,700.00	0.00	0.00	10,685.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,800.00	0.00	0.00	10,785.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
10,900.00	0.00	0.00	10,885.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
11,000.00	0.00	0.00	10,985.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
11,100.00	0.00	0.00	11,085.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
11,200.00	0.00	0.00	11,185.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
11,300.00	0.00	0.00	11,285.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
11,400.00	0.00	0.00	11,385.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
11,500.00	0.00	0.00	11,485.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
11,600.00	0.00	0.00	11,585.32	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
11,624.68	0.00	0.00	11,610.00	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
<b>Wolfcamp</b>									
11,684.72	0.00	0.00	11,670.04	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
<b>KOP@11684.72'MD</b>									
11,700.00	1.53	179.85	11,685.32	230.17	254.45	493,428.72	727,239.35	32.3550693	-103.7313000
11,750.00	6.53	179.85	11,735.18	226.66	254.46	493,425.21	727,239.36	32.3550596	-103.7313000
11,800.00	11.53	179.85	11,784.54	218.81	254.48	493,417.36	727,239.38	32.3550381	-103.7313001
11,850.00	16.53	179.85	11,833.04	206.70	254.51	493,405.25	727,239.41	32.3550048	-103.7313002
11,900.00	21.53	179.85	11,880.29	190.40	254.56	493,388.95	727,239.45	32.3549600	-103.7313004
11,925.86	24.11	179.85	11,904.12	180.37	254.58	493,378.92	727,239.48	32.3549324	-103.7313005
<b>FTP@11925.86'MD</b>									
11,950.00	26.53	179.85	11,925.94	170.05	254.61	493,368.60	727,239.50	32.3549040	-103.7313006
12,000.00	31.53	179.85	11,969.65	145.79	254.67	493,344.35	727,239.57	32.3548374	-103.7313008
12,050.00	36.53	179.85	12,011.07	117.82	254.75	493,316.37	727,239.64	32.3547605	-103.7313011
12,100.00	41.53	179.85	12,049.90	86.35	254.83	493,284.90	727,239.72	32.3546740	-103.7313014
12,150.00	46.53	179.85	12,085.84	51.61	254.92	493,250.16	727,239.81	32.3545785	-103.7313017
12,200.00	51.53	179.85	12,118.62	13.87	255.02	493,212.42	727,239.91	32.3544748	-103.7313021
12,250.00	56.53	179.85	12,147.98	-26.58	255.12	493,171.97	727,240.02	32.3543636	-103.7313025
12,300.00	61.53	179.85	12,173.70	-69.44	255.24	493,129.11	727,240.13	32.3542458	-103.7313029
12,350.00	66.53	179.85	12,195.59	-114.37	255.35	493,084.18	727,240.25	32.3541222	-103.7313033
12,400.00	71.53	179.85	12,213.48	-161.05	255.48	493,037.50	727,240.37	32.3539940	-103.7313038
12,450.00	76.53	179.85	12,227.23	-209.10	255.60	492,989.45	727,240.50	32.3538619	-103.7313043

## Planning Report - Geographic

<b>Database:</b>	EDM_5000.17	<b>Local Co-ordinate Reference:</b>	Well ARK 36 STATE 822H
<b>Company:</b>	WCDCS Permian NM	<b>TVD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Project:</b>	Eddy County (NAD 83 NM Eastern)	<b>MD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Site:</b>	Sec 36-T22S-R31E	<b>North Reference:</b>	Grid
<b>Well:</b>	ARK 36 STATE 822H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,500.00	81.53	179.85	12,236.75	-258.17	255.73	492,940.38	727,240.63	32.3537270	-103.7313047
12,550.00	86.53	179.85	12,241.95	-307.88	255.86	492,890.67	727,240.76	32.3535903	-103.7313052
12,584.72	90.00	179.85	12,243.00	-342.59	255.95	492,855.97	727,240.85	32.3534949	-103.7313056
12,600.00	90.00	179.85	12,243.00	-357.86	255.99	492,840.69	727,240.89	32.3534530	-103.7313057
12,700.00	90.00	179.85	12,243.00	-457.86	256.25	492,740.69	727,241.15	32.3531781	-103.7313067
12,800.00	90.00	179.85	12,243.00	-557.86	256.51	492,640.69	727,241.41	32.3529032	-103.7313076
12,900.00	90.00	179.85	12,243.00	-657.86	256.78	492,540.69	727,241.67	32.3526283	-103.7313086
13,000.00	90.00	179.85	12,243.00	-757.86	257.04	492,440.69	727,241.93	32.3523535	-103.7313096
13,100.00	90.00	179.85	12,243.00	-857.86	257.30	492,340.69	727,242.20	32.3520786	-103.7313106
13,200.00	90.00	179.85	12,243.00	-957.86	257.56	492,240.69	727,242.46	32.3518037	-103.7313115
13,300.00	90.00	179.85	12,243.00	-1,057.86	257.82	492,140.69	727,242.72	32.3515289	-103.7313125
13,400.00	90.00	179.85	12,243.00	-1,157.86	258.08	492,040.69	727,242.98	32.3512540	-103.7313135
13,500.00	90.00	179.85	12,243.00	-1,257.86	258.35	491,940.69	727,243.24	32.3509791	-103.7313145
13,600.00	90.00	179.85	12,243.00	-1,357.86	258.61	491,840.69	727,243.50	32.3507042	-103.7313154
13,700.00	90.00	179.85	12,243.00	-1,457.86	258.87	491,740.69	727,243.77	32.3504294	-103.7313164
13,800.00	90.00	179.85	12,243.00	-1,557.86	259.13	491,640.70	727,244.03	32.3501545	-103.7313174
13,900.00	90.00	179.85	12,243.00	-1,657.86	259.39	491,540.70	727,244.29	32.3498796	-103.7313183
14,000.00	90.00	179.85	12,243.00	-1,757.86	259.66	491,440.70	727,244.55	32.3496047	-103.7313193
14,100.00	90.00	179.85	12,243.00	-1,857.86	259.92	491,340.70	727,244.81	32.3493299	-103.7313203
14,200.00	90.00	179.85	12,243.00	-1,957.86	260.18	491,240.70	727,245.08	32.3490550	-103.7313213
14,300.00	90.00	179.85	12,243.00	-2,057.86	260.44	491,140.70	727,245.34	32.3487801	-103.7313222
14,400.00	90.00	179.85	12,243.00	-2,157.86	260.70	491,040.70	727,245.60	32.3485053	-103.7313232
14,500.00	90.00	179.85	12,243.00	-2,257.86	260.96	490,940.70	727,245.86	32.3482304	-103.7313242
14,600.00	90.00	179.85	12,243.00	-2,357.86	261.23	490,840.70	727,246.12	32.3479555	-103.7313252
14,700.00	90.00	179.85	12,243.00	-2,457.86	261.49	490,740.70	727,246.38	32.3476806	-103.7313261
14,800.00	90.00	179.85	12,243.00	-2,557.86	261.75	490,640.70	727,246.65	32.3474058	-103.7313271
14,900.00	90.00	179.85	12,243.00	-2,657.85	262.01	490,540.70	727,246.91	32.3471309	-103.7313281
15,000.00	90.00	179.85	12,243.00	-2,757.85	262.27	490,440.70	727,247.17	32.3468560	-103.7313290
15,100.00	90.00	179.85	12,243.00	-2,857.85	262.54	490,340.70	727,247.43	32.3465811	-103.7313300
15,200.00	90.00	179.85	12,243.00	-2,957.85	262.80	490,240.70	727,247.69	32.3463063	-103.7313310
15,300.00	90.00	179.85	12,243.00	-3,057.85	263.06	490,140.70	727,247.95	32.3460314	-103.7313320
15,400.00	90.00	179.85	12,243.00	-3,157.85	263.32	490,040.70	727,248.22	32.3457565	-103.7313329
15,500.00	90.00	179.85	12,243.00	-3,257.85	263.58	489,940.70	727,248.48	32.3454817	-103.7313339
15,600.00	90.00	179.85	12,243.00	-3,357.85	263.84	489,840.71	727,248.74	32.3452068	-103.7313349
15,700.00	90.00	179.85	12,243.00	-3,457.85	264.11	489,740.71	727,249.00	32.3449319	-103.7313359
15,800.00	90.00	179.85	12,243.00	-3,557.85	264.37	489,640.71	727,249.26	32.3446570	-103.7313368
15,900.00	90.00	179.85	12,243.00	-3,657.85	264.63	489,540.71	727,249.53	32.3443822	-103.7313378
16,000.00	90.00	179.85	12,243.00	-3,757.85	264.89	489,440.71	727,249.79	32.3441073	-103.7313388
16,100.00	90.00	179.85	12,243.00	-3,857.85	265.15	489,340.71	727,250.05	32.3438324	-103.7313397
16,200.00	90.00	179.85	12,243.00	-3,957.85	265.42	489,240.71	727,250.31	32.3435575	-103.7313407
16,300.00	90.00	179.85	12,243.00	-4,057.85	265.68	489,140.71	727,250.57	32.3432827	-103.7313417
16,400.00	90.00	179.85	12,243.00	-4,157.85	265.94	489,040.71	727,250.83	32.3430078	-103.7313427
16,500.00	90.00	179.85	12,243.00	-4,257.85	266.20	488,940.71	727,251.10	32.3427329	-103.7313436
16,510.92	90.00	179.85	12,243.00	-4,268.77	266.23	488,929.79	727,251.12	32.3427029	-103.7313437
16,550.00	90.00	175.94	12,243.00	-4,307.82	267.66	488,890.74	727,252.56	32.3425956	-103.7313398
16,600.00	90.00	170.94	12,243.00	-4,357.47	273.37	488,841.09	727,258.27	32.3424590	-103.7313222
16,650.00	90.00	165.94	12,243.00	-4,406.44	283.39	488,792.12	727,268.28	32.3423242	-103.7312907
16,700.00	90.00	160.94	12,243.00	-4,454.35	297.63	488,744.21	727,282.53	32.3421923	-103.7312454
16,750.00	90.00	155.94	12,243.00	-4,500.84	316.00	488,697.72	727,300.89	32.3420642	-103.7311868
16,800.00	90.00	150.94	12,243.00	-4,545.55	338.34	488,653.01	727,323.24	32.3419410	-103.7311153
16,850.00	90.00	145.94	12,243.00	-4,588.14	364.50	488,610.42	727,349.40	32.3418235	-103.7310314
16,900.00	90.00	140.94	12,243.00	-4,628.30	394.28	488,570.27	727,379.17	32.3417127	-103.7309357
16,950.00	90.00	135.94	12,243.00	-4,665.70	427.43	488,532.86	727,412.33	32.3416094	-103.7308290
17,000.00	90.00	130.94	12,243.00	-4,700.07	463.73	488,498.49	727,448.62	32.3415143	-103.7307121
17,050.00	90.00	125.94	12,243.00	-4,731.14	502.87	488,467.42	727,487.77	32.3414283	-103.7305859

## Planning Report - Geographic

<b>Database:</b>	EDM_5000.17	<b>Local Co-ordinate Reference:</b>	Well ARK 36 STATE 822H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Project:</b>	Eddy County (NAD 83 NM Eastern)	<b>MD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Site:</b>	Sec 36-T22S-R31E	<b>North Reference:</b>	Grid
<b>Well:</b>	ARK 36 STATE 822H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200		

Planned Survey										
Measured			Vertical			Map		Map		
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
17,064.82	90.00	124.46	12,243.00	-4,739.69	514.98	488,458.87	727,499.88	32.3414047	-103.7305469	
TP2@17064.82'MD										
17,100.00	90.00	120.94	12,243.00	-4,758.69	544.58	488,439.87	727,529.48	32.3413520	-103.7304514	
17,150.00	90.00	115.94	12,243.00	-4,782.50	588.53	488,416.06	727,573.43	32.3412858	-103.7303095	
17,200.00	90.00	110.94	12,243.00	-4,802.38	634.39	488,396.18	727,619.29	32.3412305	-103.7301614	
17,250.00	90.00	105.94	12,243.00	-4,818.19	681.81	488,380.37	727,666.70	32.3411863	-103.7300082	
17,300.00	90.00	100.94	12,243.00	-4,829.81	730.42	488,368.75	727,715.32	32.3411536	-103.7298510	
17,350.00	90.00	95.94	12,243.00	-4,837.15	779.87	488,361.41	727,764.76	32.3411326	-103.7296910	
17,400.00	90.00	90.94	12,243.00	-4,840.15	829.76	488,358.41	727,814.66	32.3411236	-103.7295295	
17,409.43	90.00	90.00	12,243.00	-4,840.23	839.19	488,358.33	727,824.08	32.3411233	-103.7294990	
17,500.00	90.00	90.00	12,243.00	-4,840.23	929.76	488,358.33	727,914.66	32.3411219	-103.7292058	
17,587.73	90.00	90.00	12,243.00	-4,840.23	1,017.49	488,358.33	728,002.38	32.3411205	-103.7289217	
17,600.00	90.00	88.77	12,243.00	-4,840.10	1,029.76	488,358.46	728,014.65	32.3411207	-103.7288820	
17,650.00	90.00	83.77	12,243.00	-4,836.85	1,079.64	488,361.71	728,064.53	32.3411288	-103.7287204	
17,700.00	90.00	78.77	12,243.00	-4,829.27	1,129.04	488,369.29	728,113.94	32.3411489	-103.7285603	
17,750.00	90.00	73.77	12,243.00	-4,817.41	1,177.60	488,381.16	728,162.49	32.3411808	-103.7284029	
17,800.00	90.00	68.77	12,243.00	-4,801.36	1,224.94	488,397.20	728,209.83	32.3412241	-103.7282493	
17,850.00	90.00	63.77	12,243.00	-4,781.24	1,270.70	488,417.32	728,255.59	32.3412787	-103.7281008	
17,900.00	90.00	58.77	12,243.00	-4,757.22	1,314.53	488,441.34	728,299.42	32.3413441	-103.7279585	
17,939.31	90.00	54.84	12,243.00	-4,735.70	1,347.42	488,462.86	728,332.31	32.3414027	-103.7278516	
TP3@17939.31'MD										
17,950.00	90.00	53.77	12,243.00	-4,729.47	1,356.10	488,469.09	728,340.99	32.3414197	-103.7278233	
18,000.00	90.00	48.77	12,243.00	-4,698.20	1,395.09	488,500.36	728,379.99	32.3415051	-103.7276965	
18,050.00	90.00	43.77	12,243.00	-4,663.65	1,431.21	488,534.92	728,416.11	32.3415995	-103.7275789	
18,100.00	90.00	38.77	12,243.00	-4,626.08	1,464.19	488,572.48	728,449.08	32.3417022	-103.7274715	
18,150.00	90.00	33.77	12,243.00	-4,585.78	1,493.76	488,612.78	728,478.65	32.3418125	-103.7273750	
18,200.00	90.00	28.77	12,243.00	-4,543.06	1,519.71	488,655.50	728,504.60	32.3419295	-103.7272902	
18,250.00	90.00	23.77	12,243.00	-4,498.24	1,541.83	488,700.32	728,526.72	32.3420524	-103.7272177	
18,300.00	90.00	18.77	12,243.00	-4,451.66	1,559.97	488,746.90	728,544.86	32.3421801	-103.7271582	
18,350.00	90.00	13.77	12,243.00	-4,403.68	1,573.97	488,794.88	728,558.86	32.3423118	-103.7271119	
18,400.00	90.00	8.77	12,243.00	-4,354.66	1,583.74	488,843.90	728,568.64	32.3424464	-103.7270794	
18,450.00	90.00	3.77	12,243.00	-4,304.97	1,589.20	488,893.59	728,574.10	32.3425829	-103.7270608	
18,489.77	90.00	359.80	12,243.00	-4,265.23	1,590.44	488,933.33	728,575.33	32.3426921	-103.7270561	
18,500.00	90.00	359.80	12,243.00	-4,255.00	1,590.41	488,943.56	728,575.30	32.3427202	-103.7270560	
18,600.00	90.00	359.80	12,243.00	-4,155.00	1,590.05	489,043.56	728,574.94	32.3429951	-103.7270553	
18,700.00	90.00	359.80	12,243.00	-4,055.00	1,589.69	489,143.56	728,574.59	32.3432700	-103.7270547	
18,800.00	90.00	359.80	12,243.00	-3,955.00	1,589.34	489,243.56	728,574.23	32.3435448	-103.7270540	
18,900.00	90.00	359.80	12,243.00	-3,855.00	1,588.98	489,343.56	728,573.87	32.3438197	-103.7270533	
19,000.00	90.00	359.80	12,243.00	-3,755.00	1,588.62	489,443.55	728,573.52	32.3440946	-103.7270526	
19,100.00	90.00	359.80	12,243.00	-3,655.00	1,588.27	489,543.55	728,573.16	32.3443695	-103.7270519	
19,200.00	90.00	359.80	12,243.00	-3,555.00	1,587.91	489,643.55	728,572.80	32.3446443	-103.7270513	
19,300.00	90.00	359.80	12,243.00	-3,455.01	1,587.55	489,743.55	728,572.45	32.3449192	-103.7270506	
19,400.00	90.00	359.80	12,243.00	-3,355.01	1,587.20	489,843.55	728,572.09	32.3451941	-103.7270499	
19,500.00	90.00	359.80	12,243.00	-3,255.01	1,586.84	489,943.55	728,571.73	32.3454690	-103.7270492	
19,600.00	90.00	359.80	12,243.00	-3,155.01	1,586.48	490,043.55	728,571.38	32.3457438	-103.7270485	
19,700.00	90.00	359.80	12,243.00	-3,055.01	1,586.13	490,143.55	728,571.02	32.3460187	-103.7270479	
19,800.00	90.00	359.80	12,243.00	-2,955.01	1,585.77	490,243.55	728,570.66	32.3462936	-103.7270472	
19,900.00	90.00	359.80	12,243.00	-2,855.01	1,585.41	490,343.55	728,570.31	32.3465684	-103.7270465	
20,000.00	90.00	359.80	12,243.00	-2,755.01	1,585.06	490,443.55	728,569.95	32.3468433	-103.7270458	
20,100.00	90.00	359.80	12,243.00	-2,655.01	1,584.70	490,543.55	728,569.59	32.3471182	-103.7270452	
20,200.00	90.00	359.80	12,243.00	-2,555.01	1,584.34	490,643.54	728,569.24	32.3473931	-103.7270445	
20,300.00	90.00	359.80	12,243.00	-2,455.01	1,583.99	490,743.54	728,568.88	32.3476679	-103.7270438	
20,400.00	90.00	359.80	12,243.00	-2,355.01	1,583.63	490,843.54	728,568.52	32.3479428	-103.7270431	
20,500.00	90.00	359.80	12,243.00	-2,255.01	1,583.27	490,943.54	728,568.17	32.3482177	-103.7270424	

## Planning Report - Geographic

<b>Database:</b>	EDM_5000.17	<b>Local Co-ordinate Reference:</b>	Well ARK 36 STATE 822H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Project:</b>	Eddy County (NAD 83 NM Eastern)	<b>MD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Site:</b>	Sec 36-T22S-R31E	<b>North Reference:</b>	Grid
<b>Well:</b>	ARK 36 STATE 822H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
20,600.00	90.00	359.80	12,243.00	-2,155.01	1,582.92	491,043.54	728,567.81	32.3484926	-103.7270418
20,700.00	90.00	359.80	12,243.00	-2,055.01	1,582.56	491,143.54	728,567.45	32.3487674	-103.7270411
20,800.00	90.00	359.80	12,243.00	-1,955.02	1,582.20	491,243.54	728,567.10	32.3490423	-103.7270404
20,900.00	90.00	359.80	12,243.00	-1,855.02	1,581.85	491,343.54	728,566.74	32.3493172	-103.7270397
21,000.00	90.00	359.80	12,243.00	-1,755.02	1,581.49	491,443.54	728,566.38	32.3495921	-103.7270390
21,100.00	90.00	359.80	12,243.00	-1,655.02	1,581.13	491,543.54	728,566.03	32.3498669	-103.7270384
21,200.00	90.00	359.80	12,243.00	-1,555.02	1,580.78	491,643.54	728,565.67	32.3501418	-103.7270377
21,300.00	90.00	359.80	12,243.00	-1,455.02	1,580.42	491,743.54	728,565.31	32.3504167	-103.7270370
21,400.00	90.00	359.80	12,243.00	-1,355.02	1,580.06	491,843.53	728,564.96	32.3506915	-103.7270363
21,500.00	90.00	359.80	12,243.00	-1,255.02	1,579.71	491,943.53	728,564.60	32.3509664	-103.7270357
21,600.00	90.00	359.80	12,243.00	-1,155.02	1,579.35	492,043.53	728,564.24	32.3512413	-103.7270350
21,700.00	90.00	359.80	12,243.00	-1,055.02	1,579.00	492,143.53	728,563.89	32.3515162	-103.7270343
21,800.00	90.00	359.80	12,243.00	-955.02	1,578.64	492,243.53	728,563.53	32.3517910	-103.7270336
21,900.00	90.00	359.80	12,243.00	-855.02	1,578.28	492,343.53	728,563.18	32.3520659	-103.7270329
22,000.00	90.00	359.80	12,243.00	-755.02	1,577.93	492,443.53	728,562.82	32.3523408	-103.7270323
22,100.00	90.00	359.80	12,243.00	-655.02	1,577.57	492,543.53	728,562.46	32.3526157	-103.7270316
22,200.00	90.00	359.80	12,243.00	-555.02	1,577.21	492,643.53	728,562.11	32.3528905	-103.7270309
22,300.00	90.00	359.80	12,243.00	-455.02	1,576.86	492,743.53	728,561.75	32.3531654	-103.7270302
22,400.00	90.00	359.80	12,243.00	-355.03	1,576.50	492,843.53	728,561.39	32.3534403	-103.7270295
22,500.00	90.00	359.80	12,243.00	-255.03	1,576.14	492,943.53	728,561.04	32.3537151	-103.7270289
22,600.00	90.00	359.80	12,243.00	-155.03	1,575.79	493,043.52	728,560.68	32.3539900	-103.7270282
22,700.00	90.00	359.80	12,243.00	-55.03	1,575.43	493,143.52	728,560.32	32.3542649	-103.7270275
22,800.00	90.00	359.80	12,243.00	44.97	1,575.07	493,243.52	728,559.97	32.3545398	-103.7270268
22,900.00	90.00	359.80	12,243.00	144.97	1,574.72	493,343.52	728,559.61	32.3548146	-103.7270261
22,937.35	90.00	359.80	12,243.00	182.32	1,574.58	493,380.87	728,559.48	32.3549173	-103.7270259
23,000.00	90.00	359.80	12,243.00	244.97	1,574.36	493,443.52	728,559.25	32.3550895	-103.7270255
23,017.35	90.00	359.80	12,243.00	262.32	1,574.30	493,460.87	728,559.19	32.3551372	-103.7270253

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP (822H) 50FNI, 258'	0.00	0.00	1.70	230.37	254.45	493,428.92	727,239.35	32.3550699	-103.7313000
- plan misses target center by 343.24ft at 1.70ft MD (1.70 TVD, 0.00 N, 0.00 E)									
- Point									
FTP (822H) 100FNI, 25'	0.00	0.00	1.70	180.37	254.58	493,378.92	727,239.48	32.3549324	-103.7313005
- plan misses target center by 312.00ft at 1.70ft MD (1.70 TVD, 0.00 N, 0.00 E)									
- Point									
TP #2 (822H) 250FSL, 2	0.00	0.00	12,243.00	-4,739.69	514.96	488,458.87	727,499.86	32.3414046	-103.7305470
- plan misses target center by 0.02ft at 17064.80ft MD (12243.00 TVD, -4739.68 N, 514.97 E)									
- Point									
LTP (822H) 100FNI, 12'	0.00	0.00	12,243.00	182.32	1,574.58	493,380.87	728,559.48	32.3549173	-103.7270259
- plan hits target center									
- Point									
TP #3 (822H) 250FSL, 1	0.00	0.01	12,243.00	-4,735.70	1,352.80	488,462.86	728,337.70	32.3414026	-103.7278341
- plan misses target center by 3.11ft at 17943.69ft MD (12243.00 TVD, -4733.17 N, 1350.99 E)									
- Point									



## Planning Report - Geographic

<b>Database:</b>	EDM_5000.17	<b>Local Co-ordinate Reference:</b>	Well ARK 36 STATE 822H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Project:</b>	Eddy County (NAD 83 NM Eastern)	<b>MD Reference:</b>	GL:3505+25ft @ 3530.00ft
<b>Site:</b>	Sec 36-T22S-R31E	<b>North Reference:</b>	Grid
<b>Well:</b>	ARK 36 STATE 822H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plat R1 (2585FEL--1265FEL) WFMP B 200		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
647.00	647.00	Rustler				
1,133.00	1,133.00	Salt				
4,207.69	4,198.00	Base of Salt				
4,463.66	4,453.00	Delaware				
5,364.10	5,350.00	Cherry Canyon				
6,639.68	6,625.00	Brushy Canyon				
8,314.68	8,300.00	1st Bone Spring Lime				
9,434.68	9,420.00	Bone Spring 1st				
10,009.68	9,995.00	Bone Spring 2nd				
10,464.68	10,450.00	Bone Spring 3rd				
11,624.68	11,610.00	Wolfcamp				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
11,684.72	11,670.04	230.37	254.45	KOP@11684.72'MD	
11,925.86	11,904.12	180.37	254.58	FTP@11925.86'MD	
17,064.82	12,243.00	-4,739.69	514.98	TP2@17064.82'MD	
17,939.31	12,243.00	-4,735.70	1,347.42	TP3@17939.31'MD	

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** DEVON ENERGY PRODUCTION COMPANY, LP **OGRID:** 6137 **Date:** 01 / 13 / 2026

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
See attachment						

**IV. Central Delivery Point Name:** See attachment [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
See attachment						

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.



**NATURAL GAS MANAGEMENT PLAN****Section 1 - Plan Description**

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	FOOTAGES	Anticipated Gas/Oil/Water	Central Delivery Point Name:
ARK 36 STATE 621H	n/a	36-225-31E	235 FNL & 893 FWL	(+/-) 5413mcf/(+/-)1981bopd/(+/-)5339bwpd	ARK 36 CTB 1
ARK 36 STATE 821H	n/a	36-225-31E	235 FNL & 803 FWL	(+/-)7600mcf/(+/-)695bopd/(+/-)4370bwpd	ARK 36 CTB 1
ARK 36 STATE 811H	n/a	36-225-31E	235 FNL & 863 FWL	(+/-) 4641mcf/(+/-)913bopd/(+/-)3197bwpd	ARK 36 CTB 1
ARK 36 STATE 711H	n/a	36-225-31E	235 FNL & 833 FWL	(+/-)5413mcf/(+/-)1981bopd/(+/-)5339bwpd	ARK 36 CTB 1
ARK 36 STATE 722H	n/a	36-225-31E	280 FNL & 2539 FWL	(+/-)5413mcf/(+/-)1981bopd/(+/-)5339bwpd	ARK 36 CTB 1
ARK 36 STATE 622H	n/a	36-225-31E	280 FNL & 2569 FWL	(+/-)5413mcf/(+/-)1981bopd/(+/-)5339bwpd	ARK 36 CTB 1
ARK 36 STATE 822H	n/a	36-225-31E	280 FNL & 2449 FWL	(+/-)4030mcf/(+/-)2180bopd/(+/-)14908bwpd	ARK 36 CTB 1
ARK 36 STATE 712H	n/a	36-225-31E	280 FNL & 2479 FWL	(+/-)4030mcf/(+/-)2180bopd/(+/-)14908bwpd	ARK 36 CTB 1
ARK 36 STATE 333H	n/a	36-225-31E	280 FNL & 2509 FWL	(+/-) 2839mcf/(+/-)1130bopd/(+/-)6074bwpd	ARK 36 CTB 1

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow back Date	First Production Date
ARK 36 STATE 621H	n/a	5/1/2026	5/31/2026	9/28/2026	9/28/2026	9/28/2026
ARK 36 STATE 821H	n/a	5/2/2026	6/1/2026	9/29/2026	9/29/2026	9/29/2026
ARK 36 STATE 811H	n/a	5/3/2026	6/2/2026	9/30/2026	9/30/2026	9/30/2026
ARK 36 STATE 711H	n/a	5/4/2026	6/3/2026	10/1/2026	10/1/2026	10/1/2026
ARK 36 STATE 722H	n/a	5/5/2026	6/4/2026	10/2/2026	10/2/2026	10/2/2026
ARK 36 STATE 622H	n/a	5/6/2026	6/5/2026	10/3/2026	10/3/2026	10/3/2026
ARK 36 STATE 822H	n/a	5/7/2026	6/6/2026	10/4/2026	10/4/2026	10/4/2026
ARK 36 STATE 712H	n/a	5/8/2026	6/7/2026	10/5/2026	10/5/2026	10/5/2026
ARK 36 STATE 333H	n/a	5/9/2026	6/8/2026	10/6/2026	10/6/2026	10/6/2026

\* Dates subject to change

## **Section 2 – Enhanced Plan**

### **EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### **IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

#### **X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

D Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### Section 4 - Notices


1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	
Printed Name:	Jeffrey Walla
Title:	Surface Land & Regulatory Manager
E-mail Address:	jeff.walla@dvn.com
Date:	1/18/2026
Phone:	(405) 552-8154
<b>OIL CONSERVATION DIVISION</b> (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	



## VI. Separation Equipment

Devon Energy Production Company, L.P. utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. Devon utilizes a series of Low-Pressure Compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end-stage storage tanks that is subsequently vented or flared.



## VII. Operational Practices

Devon Energy Production Company, L. P. will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- During drilling operations, Devon will utilize flares and/or combustors to capture and control natural gas, where technically feasible. If flaring is deemed technically in-feasible, Devon will employ best management practices to minimize or reduce venting to the extent possible.
- During completions operations, Devon will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically in-feasible, flares and/or combustors will be used to capture and control flow back fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, Devon will turn operations to onsite separation vessels and flow to the gathering pipeline.
- During production operations, Devon will take every practical effort to minimize waste of natural gas through venting and flaring by:
  - Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
  - Utilizing a closed-loop capture system to collect and route produced gas to sales line via low pressure compression, or to a flare/combustor
  - Flaring in lieu of venting, where technically feasible
  - Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
  - Employ the use of automatic tank gauging to minimize storage tank venting during loading events
  - Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
  - Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications
  - Conduct and document AVO inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as is feasible



#### VIII. Best Management Practices during Maintenance

Devon Energy Production Company, L.P. will utilize best management practices to minimize venting during active and planned maintenance activities. Devon is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high pressure flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. Devon will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.



Devon Energy Production Company, L.P.  
333 W. Sheridan Avenue  
Oklahoma City, Oklahoma  
73102  
Phone: (405) 228-4800

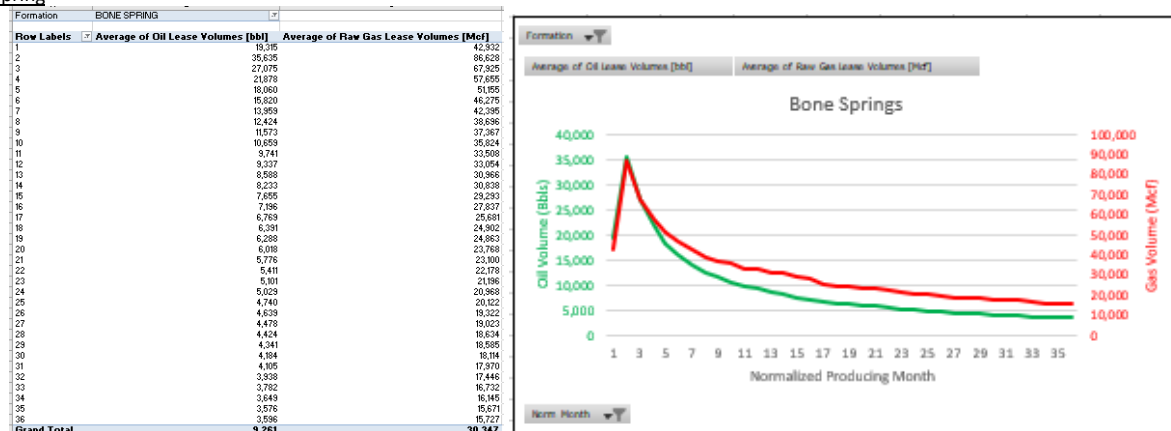
## WASTE MINIMIZATION PLAN

Per 89 FR 25378 - Waste Prevention, Production Subject to Royalties, and Resource Conservation, requirements:

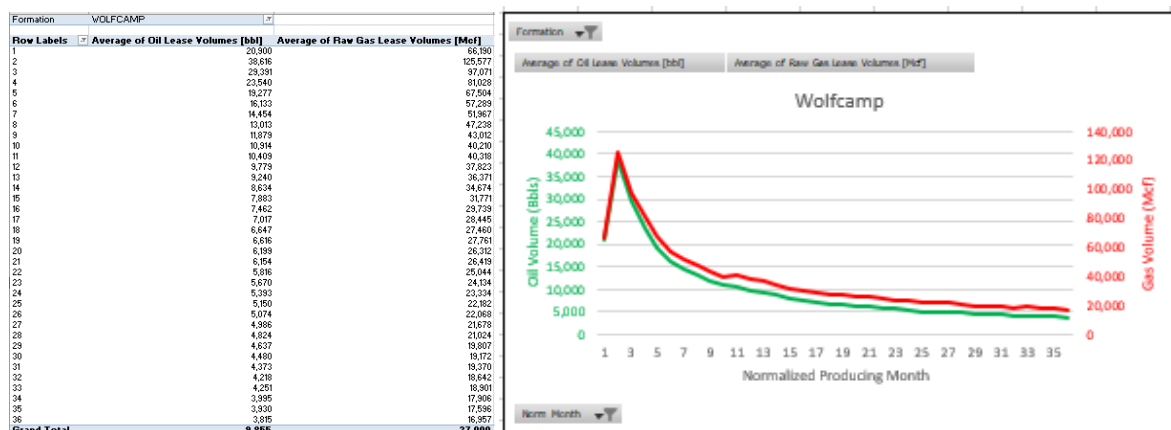
- (1) initial oil production estimates and decline,
- (2) initial gas production estimates and decline,
- (3) certification that the operator has an executed gas sales contract to sell 100 percent of the produced oil-well gas, and
- (4) any other information demonstrating the operator's plans to avoid the waste of gas.

(1), (2) 3 year Oil and Gas decline curves: Bone Spring and Wolfcamp formation decline curves below supply Year 1, 2, 3 cumulative values for oil and gas, in range format; based on peak IP rates for oil and gas based on Devon Energy Production Company, L.P. operated wells ID post 1/2019, 10K LL norm, P90-10 ranges, annualized rates. Please refer to NGMP for table of initial oil and gas volumes.

### Bone Spring



### Wolfcamp



(3) Certification (NGMP Section 3 – Certification): Operator (Devon Energy Production Company, L.P.) will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system;

(4) Addl waste avoidance information: Refer to NGMP Sec. VII. Operational Practices & VIII. Best Management Practices during Maintenance



# Devon Energy Offline Production Cementing

10/2025

REV5



NYSE: DVN  
devonenergy.com



# Offline Production Cementing Variance

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**Devon is respectfully pursuing a variance to the minimum standards to allow for the cementing of the Production Casing offline in the Wolfcamp and shallower producing horizons.**

**To ensure personnel safety and well integrity, strict eligibility requirements will be enforced, and a detailed procedure will be followed.**

**The following slides outline the eligibility requirements, offline procedure, schematics and pressure ratings.**

# Offline Production Eligibility

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## Offline Punch List:

**The well must meet all criteria to qualify for offline cementing.**

- A) Well is in the Wolfcamp or shallower bench.
- B) No unusual events were observed during drilling, tripping or casing operations.
- C) Casing successfully landed out on casing hanger (fluted or solid).
- D) Devon Company Men with Well Control certifications will monitor returns (bbl in / bbl out) to ensure well control is maintained.
- E) Rig Manager will oversee the walking of the rig to the next well.
- F) All barriers **MUST** test and at no point will there be less than 2 barriers in place.
- G) No offset frac operations occurring within 1.0 mile in the same bench.
- H) Once all criteria are met and BLM is notified, Devon may proceed with ND BOP and continue offline operations.

**Note: Devon will NOT drill out the next deep intermediate until cementing on the offline well is complete.**

# Offline Procedure

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## ■ **Devon's Proposed Production Offline Procedure:**

- Run casing and perform negative pressure test during casing run to verify integrity of float equipment's 10M backpressure valves.
- Review Devon's "Punch List" to determine if well is a viable candidate.
- Continue running casing and land casing out on Cactus mandrel hanger.
- Fill casing with KWM and perform flow check ensuring well is static.
  - If well is not static, build pressure or acting abnormal in any way - abort offline operations.
- Install 10M packoff and test same. After successful test, engage locking ring and L/D running tool.
- Install 10M backpressure valve in WH from rig floor.
  - Note: 3 Casing barriers and 2 Annular barriers currently in place.
- Once well is secured and BLM notified, ND BOP and walk rig to next well on pad.
  - If ANY barrier fails to test – the well will be cemented online.
  - Devon Company Man and Devon Cementer will oversee Cementing Operations
  - Rig Manager will walk the rig to the next well.
  - Drill out operations on next deep intermediate will not begin until cementing operations have concluded on the offline well.
- Install 10M Gate Valve and Cactus WH adapter.
- Test connection between WH adapter seals, hanger neck, and ring gasket to 10,000psi.
- Open Frac Valve and remove BPV.
- RU cement head, cement iron, return lines and test same.
- Once all equipment is rigged up, barriers tested and ready to cement, notify BLM of intent to Cement Offline.

# Offline Procedure

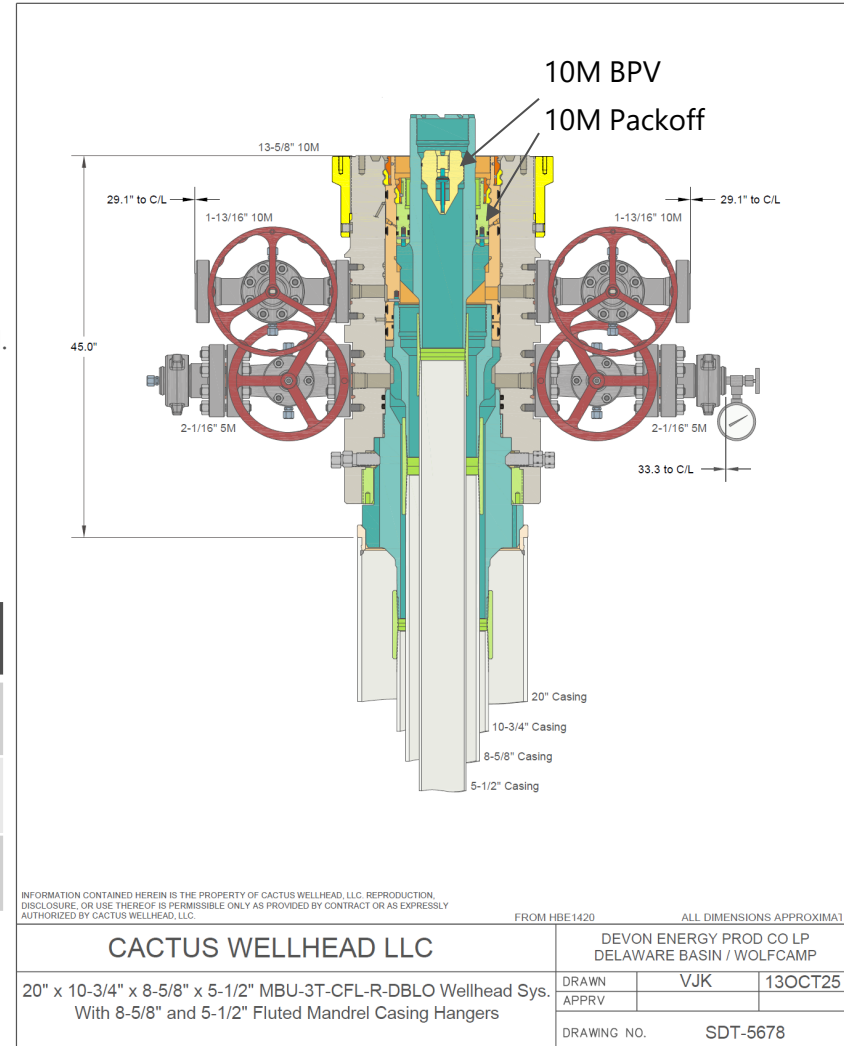
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- **Devon's Proposed Production Offline Procedure (continued):**
- Perform offline cement job.
- If an influx is observed during the cement job:
  - The Day and Night Company Men will redirect returns from Cementing Manifold to the Rig's choke manifold and hold appropriate backpressure to circulate out influx.
  - If annular surface pressure approaches 25% of the tested pressure of the surface return equipment, or if circulating the influx out with the cementing pumps is not feasible, the well can be secured by closing the 10M casing valves.\*
- Bump plug and ensure floats are holding.
  - If plug does not bump or floats do not hold, either the Gate Valve or Cement Head may be closed while we WOC.
- RD cement head and install BPV.
- Remove Gate Valve and WH adapter.
- Install TA Cap with pressure gauge and test same.
- **\*Note\*** - If the well is within the KPLA, and an uncemented annulus between the Production and Intermediate casing has been utilized; then cement shall be squeezed down both casing valves within 180 days of the well's completion and displaced with a treated fresh water to a TOC below the potash interval and marker bed number 126, with a minimum of 500' tie-back inside the Intermediate Casing as per R111Q.

\*Note – This hasn't been observed

# Offline Procedure – Detailed

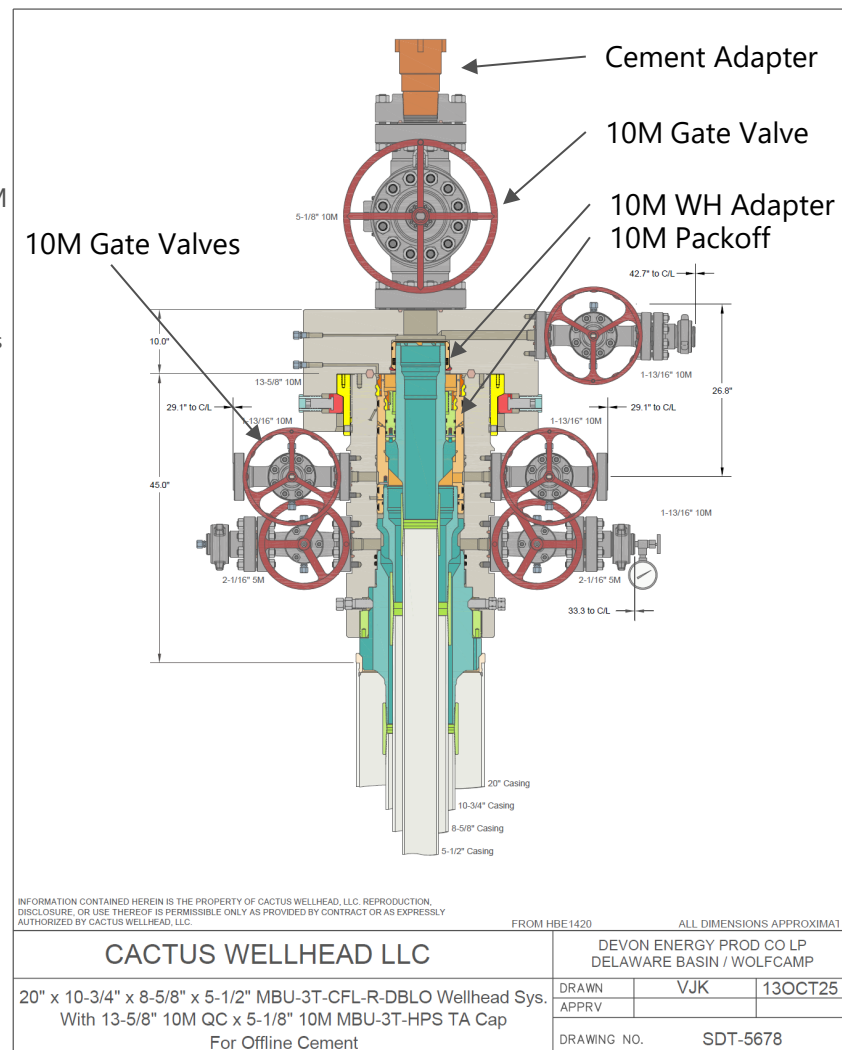
- Run casing and perform negative pressure test during casing run to verify integrity of float equipment's 10,000psi backpressure valves.
  - Review Devon's "Punch List" to determine if well is a viable candidate.
- Continue running casing and land casing out on Cactus mandrel hanger.
- Fill casing with KWM and perform flow check ensuring well is static.
- Install packoff rated to 10,000psi and test same. After successful test, engage locking ring and L/D running tool.
- Install backpressure valve in WH from rig floor.
  - Note: 3 Casing barriers and 2 Annular barriers currently in place.
- Once well is secured and BLM notified, ND BOP and walk rig to next well on pad.
  - If ANY barrier fails to test – the well will be cemented online.
  - Devon PIC and Devon Cementer will oversee Cementing Operations
  - Rig Manager will walk the rig to the next well.
  - Drill out operations on next deep intermediate will not begin until cementing operations have concluded on the offline well.



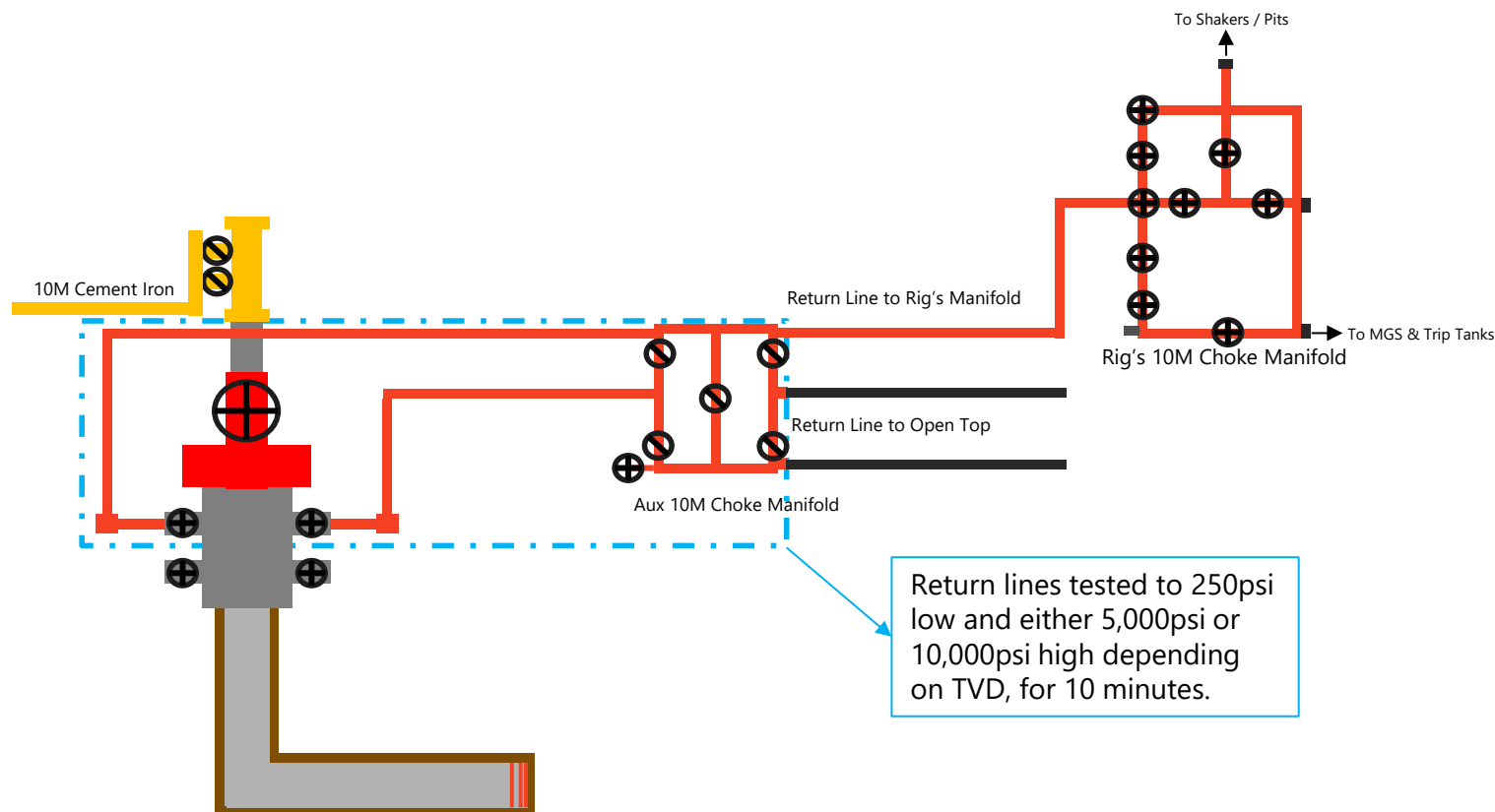
Casing Barrier	Rating	Backside Barrier	Rating
BPV	10,000psi	KWM	> BHP
KWM	> BHP	Packoff	10,000psi
Float Valves (x3)	10,000psi		

# Offline Procedure – Detailed

- Install 10M Frac Valve and Cactus WH adapter.
- Test connection between WH adapter seals, hanger neck, and ring gasket to 10,000psi.
- Open Frac Valve and remove BPV.
- RU cement head, cement iron, return lines and test same.
- Once all equipment is rigged up, barriers tested and ready to cement, notify BLM of intent to Cement Offline.
- Perform offline cement job.
- If an influx is observed during the cement job:
  - The Day and Night Company Men will redirect returns from Cementing Manifold to the Rig's choke manifold and hold appropriate backpressure to circulate out influx.
  - If annular surface pressure approaches 25% of the tested pressure of the surface return equipment, or if circulating the influx out with the cementing pumps is not feasible, the well can be secured by closing the 10M casing valves.
- Bump plug and ensure floats are holding.
  - If plug does not bump or floats do not hold, either the Gate Valve or Cement Head may be closed while we WOC.
- RD cement head and install BPV.
- Remove Gate Valve and WH adapter.
- Install TA Cap with pressure gauge and test same.



# Offline Flow Path



⊕ 10M Valve / Choke

⊖ 10M Low Torq

## Note:

- All lines are 10M rated and tested to **5,000psi for wells less than 12,000' TVD**
- All lines are 10M rated and tested to **10,000psi for wells greater than 12,000' TVD**
- Minimum of 2 barriers in place at ALL times
- Never had to circulate out an influx during an Offline job



Thank you.



# BOPE Break Test Variance

10/2025  
REV4



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# BOPE Break Test Variance (Less than 12,000' TVD)

**Devon is respectfully pursuing a variance to the minimum standards to allow a testing schedule of the blow out prevention equipment (BOPE) along with Stump Testing, Batch Drilling & Offline Cementing operations to include the following:**

- Conduct a full 10k BOPE and 5k Annular test upon initial installation on the pad.
- If the rig has the ability to do a Stump Test, this is permitted for initial installation.
- Perform full BOPE tests every 21 days thereafter.
- Intermediate & Production Break-testing is permitted to the base of the Wolfcamp or shallower (limited to 12,000' TVD).
- Once the well is secured and BLM has been notified, disconnect the BOP and walk the rig to the next well on the pad.
  - If any unusual events occur during drilling, tripping, or casing operations, break-testing will not be performed
  - If offset fracturing is observed within 1.0 mile in the same producing horizon, break-testing in the production section will not be performed.
- Each rig requesting a break-test variance must be capable of picking up the BOP without damaging components, using winches and following API Standard 53 (Fifth Edition, December 2018, Annex C, Table C.4), which recognizes break-testing as an acceptable practice.
- Function tests will be performed on the following BOP elements:
  - Annular: During each full BOPE test and at least weekly.
  - Pipe Rams: On every trip and on trip-ins where a FIT is required.
  - Blind Rams: On every trip.
- Break-testing the BOP allows for offline cementing and/or remediation (if needed) of any surface, intermediate, or production sections, in accordance with the attached offline cementing support documentation.
- After securing the well section, disconnect the BOP from the wellhead and walk it with the rig to another well on the pad.
- Install a TA cap per Cactus Wellhead procedures and monitor casing pressure via the valve on the TA cap.

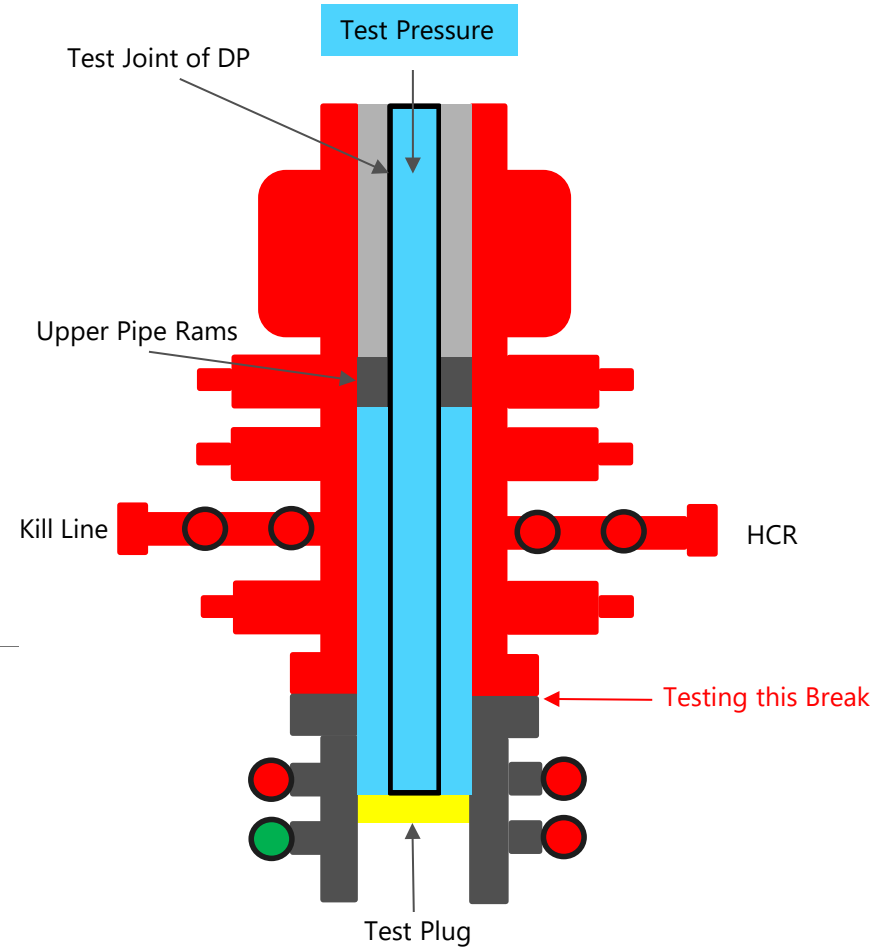
# BOPE Break Test Variance (Less than 12,000' TVD)

## Test Procedure:

1. Makeup test plug on DP and set in Wellhead.
2. Close Upper Pipe Rams around DP.
3. Close Kill Line & HCR.
4. Open wellhead valve to ensure if pressure leaks past plug, it won't pressure up wellbore.
5. Tie into top of DP at Rig Floor. Fill with water and test Break + Pipe Rams to 250psi low and 10,000psi high.
6. Bleed off pressure.
7. Open Upper Pipe Rams, close wellhead valve and lay down test plug and DP.

## Component Table:

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



Devon requests offline BOPE testing for the following components: Upper Rams, Blind Rams, Kill Valves, Choke Valves, and Annular

Remaining well control equipment components will either be tested offline or online, per BLM approval

Remaining BOPE will be tested online within 72 hours from completing the offline BOPE component testing

Notify the BLM if the online BOPE testing exceeds 72 hours

All Full Tests not completed "Offline" or "Offline, BOPE" are required to be completed Online

Thank you.

