

**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**

Form C-101  
August 1, 2011

Permit 324015

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

1. Operator Name and Address EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702		2. OGRID Number 7377
		3. API Number 30-015-49917
4. Property Code 331158	5. Property Name SHERPA 12 STATE COM	6. Well No. 727H

**7. Surface Location**

UL - Lot A	Section 12	Township 25S	Range 27E	Lot Idn	Feet From 631	N/S Line N	Feet From 1313	E/W Line E	County Eddy
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**8. Proposed Bottom Hole Location**

UL - Lot O	Section 13	Township 25S	Range 27E	Lot Idn O	Feet From 230	N/S Line S	Feet From 1650	E/W Line E	County Eddy
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**9. Pool Information**

PURPLE SAGE;WOLFCAMP (GAS)	98220
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**Additional Well Information**

11. Work Type New Well	12. Well Type GAS	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3076
16. Multiple N	17. Proposed Depth 19685	18. Formation Wolfcamp	19. Contractor	20. Spud Date 10/1/2022
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	12.25	9.625	36	1030	370	0
Int1	8.75	7.625	29.7	8118	1460	0
Prod	6.75	5.5	17	19685	1030	7560

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	3000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. 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>OIL CONSERVATION DIVISION</b>	
Signature:		
Printed Name: Electronically filed by Kay Maddox	Approved By: Katherine Pickford	
Title: Regulatory Agent	Title: Geoscientist	
Email Address: kay_maddox@eogresources.com	Approved Date: 8/29/2022	Expiration Date: 8/29/2024
Date: 8/24/2022	Phone: 432-686-3658	Conditions of Approval Attached

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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 <b>30-015- 49917</b>	Pool Code <b>98220</b>	Pool Name <b>Purple Sage; Wolfcamp (Gas)</b>
Property Code <b>331158</b>	Property Name <b>SHERPA 12 STATE COM</b>	Well Number <b>727H</b>
OGRID No. <b>7377</b>	Operator Name <b>EOG RESOURCES, INC.</b>	Elevation <b>3076'</b>

## Surface Location

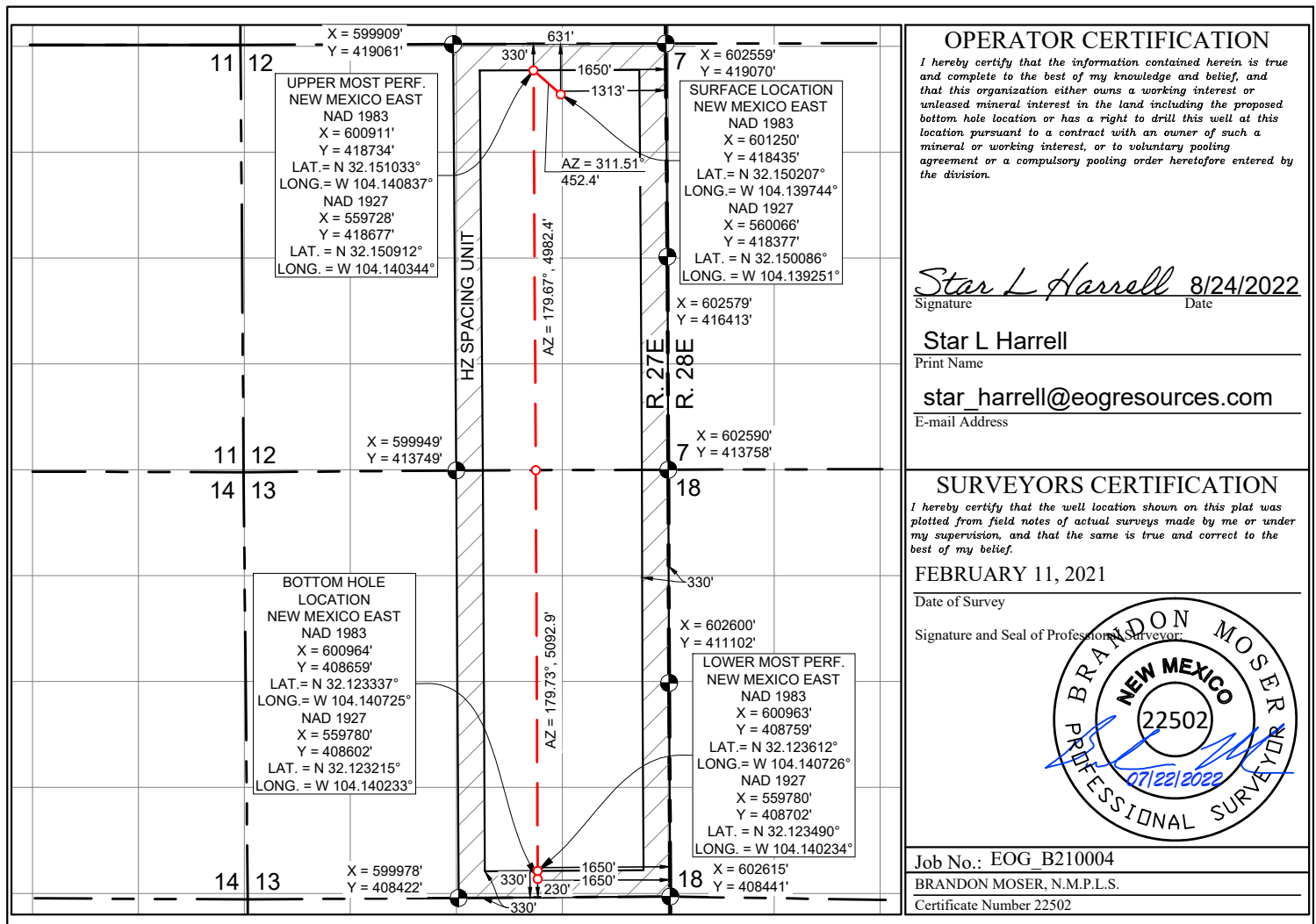
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>A</b>	<b>12</b>	<b>25 S</b>	<b>27 E</b>		<b>631</b>	<b>NORTH</b>	<b>1313</b>	<b>EAST</b>	<b>EDDY</b>

## 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
<b>O</b>	<b>13</b>	<b>25 S</b>	<b>27 E</b>		<b>230</b>	<b>SOUTH</b>	<b>1650</b>	<b>EAST</b>	<b>EDDY</b>

Dedicated Acres	Joint or Infill	Consolidated Code	Order No.
<b>640.00</b>			

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.



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

Form APD Comments

Permit 324015

PERMIT COMMENTS

Operator Name and Address: EOG RESOURCES INC [7377] P.O. Box 2267 Midland, TX 79702		API Number: 30-015-49917
		Well: SHERPA 12 STATE COM #727H
Created By	Comment	Comment Date
kpickford	Holding for NGMP	8/26/2022

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

Form APD Conditions

Permit 324015

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: EOG RESOURCES INC [7377] P.O. Box 2267 Midland, TX 79702	API Number: 30-015-49917
	Well: SHERPA 12 STATE COM #727H

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	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
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	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

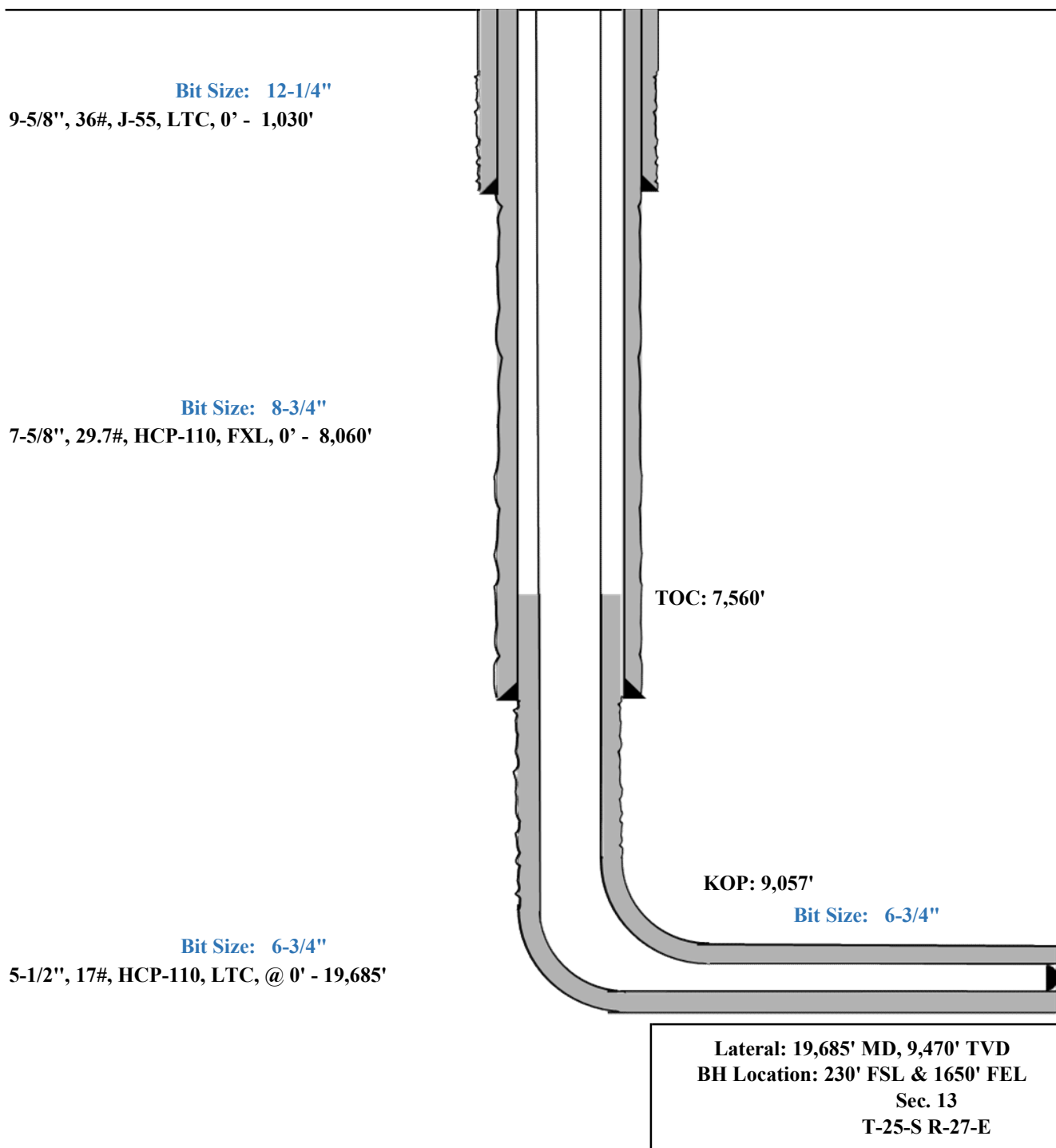


Sherpa 12 State #727H  
Eddy County, New Mexico  
Proposed Wellbore

631' FNL  
1313' FEL  
Section 12  
T-25-S, R-27-E

KB: 3101'  
GL: 3076'

API: 30-025-\*\*\*\*\*





## Sherpa 12 State #727H

### Permit Informatic

Well Name: Sherpa 12 State #727H

### Location:

SHL: 631' FNL & 1313' FEL, Section 12, T-25-S, R-27-E, Eddy Co., N.M.

BHL: 230' FSL & 1650' FEL, Section 13, T-25-S, R-27-E, Eddy Co., N.M.

### Casing Program:

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
12-1/4"	0	1,030	0	1,030	9-5/8"	36#	J-55	LTC
8-3/4"	0	8,118	0	8,060	7-5/8"	29.7#	HCP-110	FXL
6-3/4"	0	19,685	0	9,470	5-1/2"	17#	HCP-110	LTC

### Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,030'	290	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
8,060'	460	14.2	1.11	1st Stage (Tail): Class C + 5% Salt (TOC @ 4,144')
	1000	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
19,685'	1030	14.2	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 7,560')

### Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,030'	Fresh - Gel	8.6-8.8	28-34	N/c
1,030' – 8,060'	Brine	10.0-10.2	28-34	N/c
8,060' – 9,057'	Oil Base	8.7-9.4	58-68	N/c - 6
9,057' – 19,685' Lateral	Oil Base	10.0-14.0	58-68	4 - 6

**Sherpa 12 State #727H****Hydrogen Sulfide Plan Summary**

A. All personnel shall receive proper H<sub>2</sub>S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

■ Well control equipment

- a. Flare line 150' from wellhead to be ignited by flare gun.
- b. Choke manifold with a remotely operated choke.
- c. Mud/gas separator

■ Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escape packs — 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher

■ H<sub>2</sub>S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

■ Visual warning systems.

- a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
- b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
- c. Two wind socks will be placed in strategic locations, visible from all angles.



## **Sherpa 12 State #727H**

### ■ Mud program:

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H<sub>2</sub>S bearing zones.

### ■ Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H<sub>2</sub>S service.

### ■ Communication:

Communication will be via cell phones and land lines where available.





**Sherpa 12 State #727H**  
**Emergency Assistance Telephone List**

**PUBLIC SAFETY:** **911 or**

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Lea County Sheriff's Department		(575) 396-3611
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Rod Coffman

Fire Department:

Carlsbad		(575) 885-3125
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Artesia		(575) 746-5050
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Hospitals:

Carlsbad		(575) 887-4121
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Artesia		(575) 748-3333
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Hobbs		(575) 392-1979
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Dept. of Public Safety/Carlsbad		(575) 748-9718
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Highway Department		(575) 885-3281
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New Mexico Oil Conservation		(575) 476-3440
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NMOCD Inspection Group - South		(575) 626-0830
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U.S. Dept. of Labor		(575) 887-1174
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**EOG Resources, Inc.**

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EOG / Midland	Office	(432) 686-3600
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**Company Drilling Consultants:**

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David Dominique	Cell	(985) 518-5839
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Mike Vann	Cell	(817) 980-5507
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**Drilling Engineer**

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Esteban Del Valle	Cell	(432) 269-7063
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Daniel Moose	Cell	(432) 312-2803
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**Drilling Manager**

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Aj Dach	Office	(432) 686-3751
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	Cell	(817) 480-1167
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**Drilling Superintendent**

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Jason Townsend	Office	(432) 848-9209
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	Cell	(210) 776-5131
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**H&P Drilling**

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H&P Drilling	Office	(432) 563-5757
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H&P 651 Drilling Rig	Rig	(903) 509-7131
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**Tool Pusher:**

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Johnathan Craig	Cell	(817) 760-6374
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Brad Garrett

**Safety:**

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Brian Chandler (HSE Manager)	Office	(432) 686-3695
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	Cell	(817) 239-0251
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## **Midland**

**Eddy County, NM (NAD 83 NME)  
Sherpa 12 State Com  
#727H**

**OH**

**Plan: Plan #0.1**

## **Standard Planning Report**

**17 August, 2022**



## Planning Report

<b>Database:</b>	PEDM	<b>Local Co-ordinate Reference:</b>	Well #727H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	KB @ 3101.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3101.0usft
<b>Site:</b>	Sherpa 12 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#727H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

<b>Project</b>	Eddy County, NM (NAD 83 NME)		
<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		Sherpa 12 State Com			
Site Position:		Northing:	418,435.00 usft	Latitude:	32° 9' 0.749 N
From:	Map	Easting:	601,280.00 usft	Longitude:	104° 8' 22.728 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well		#727H				
Well Position	+N/-S	0.0 usft	Northing:	418,435.00 usft	Latitude:	32° 9' 0.750 N
	+E/-W	0.0 usft	Easting:	601,250.00 usft	Longitude:	104° 8' 23.077 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,076.0 usft
Grid Convergence:		0.10 °				

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	8/17/2022	6.66	59.71	47,272.43386842

<b>Design</b>	Plan #0.1				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	181.68	

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/17/2022			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	19,684.5 Plan #0.1 (OH)	EOG MWD+IFR1		
			MWD + IFR1		

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,081.4	11.63	329.65	1,077.4	50.7	-29.7	2.00	2.00	0.00	329.65	
3,826.9	11.63	329.65	3,766.6	528.3	-309.3	0.00	0.00	0.00	0.00	
4,408.3	0.00	0.00	4,344.0	579.0	-339.0	2.00	-2.00	0.00	180.00	
9,056.8	0.00	0.00	8,992.5	579.0	-339.0	0.00	0.00	0.00	0.00	KOP(sherpa 12 SC #;
9,806.8	90.00	179.71	9,470.0	101.5	-336.6	12.00	12.00	23.96	179.71	
19,684.5	90.00	179.71	9,470.0	-9,776.0	-286.0	0.00	0.00	0.00	0.00	PBHL(sherpa 12 SC #



## Planning Report

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<b>Company:</b>	Midland	<b>TVD Reference:</b>	KB @ 3101.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3101.0usft
<b>Site:</b>	Sherpa 12 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#727H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	2.00	329.65	600.0	1.5	-0.9	-1.5	2.00	2.00	0.00
700.0	4.00	329.65	699.8	6.0	-3.5	-5.9	2.00	2.00	0.00
800.0	6.00	329.65	799.5	13.5	-7.9	-13.3	2.00	2.00	0.00
900.0	8.00	329.65	898.7	24.1	-14.1	-23.6	2.00	2.00	0.00
1,000.0	10.00	329.65	997.5	37.6	-22.0	-36.9	2.00	2.00	0.00
1,081.4	11.63	329.65	1,077.4	50.7	-29.7	-49.8	2.00	2.00	0.00
1,100.0	11.63	329.65	1,095.6	54.0	-31.6	-53.0	0.00	0.00	0.00
1,200.0	11.63	329.65	1,193.6	71.4	-41.8	-70.1	0.00	0.00	0.00
1,300.0	11.63	329.65	1,291.5	88.8	-52.0	-87.2	0.00	0.00	0.00
1,400.0	11.63	329.65	1,389.5	106.2	-62.2	-104.3	0.00	0.00	0.00
1,500.0	11.63	329.65	1,487.4	123.5	-72.3	-121.4	0.00	0.00	0.00
1,600.0	11.63	329.65	1,585.4	140.9	-82.5	-138.5	0.00	0.00	0.00
1,700.0	11.63	329.65	1,683.3	158.3	-92.7	-155.6	0.00	0.00	0.00
1,800.0	11.63	329.65	1,781.3	175.7	-102.9	-172.6	0.00	0.00	0.00
1,900.0	11.63	329.65	1,879.2	193.1	-113.1	-189.7	0.00	0.00	0.00
2,000.0	11.63	329.65	1,977.2	210.5	-123.3	-206.8	0.00	0.00	0.00
2,100.0	11.63	329.65	2,075.1	227.9	-133.4	-223.9	0.00	0.00	0.00
2,200.0	11.63	329.65	2,173.1	245.3	-143.6	-241.0	0.00	0.00	0.00
2,300.0	11.63	329.65	2,271.0	262.7	-153.8	-258.1	0.00	0.00	0.00
2,400.0	11.63	329.65	2,369.0	280.1	-164.0	-275.2	0.00	0.00	0.00
2,500.0	11.63	329.65	2,466.9	297.5	-174.2	-292.3	0.00	0.00	0.00
2,600.0	11.63	329.65	2,564.9	314.9	-184.4	-309.3	0.00	0.00	0.00
2,700.0	11.63	329.65	2,662.8	332.3	-194.5	-326.4	0.00	0.00	0.00
2,800.0	11.63	329.65	2,760.7	349.7	-204.7	-343.5	0.00	0.00	0.00
2,900.0	11.63	329.65	2,858.7	367.0	-214.9	-360.6	0.00	0.00	0.00
3,000.0	11.63	329.65	2,956.6	384.4	-225.1	-377.7	0.00	0.00	0.00
3,100.0	11.63	329.65	3,054.6	401.8	-235.3	-394.8	0.00	0.00	0.00
3,200.0	11.63	329.65	3,152.5	419.2	-245.5	-411.9	0.00	0.00	0.00
3,300.0	11.63	329.65	3,250.5	436.6	-255.6	-429.0	0.00	0.00	0.00
3,400.0	11.63	329.65	3,348.4	454.0	-265.8	-446.0	0.00	0.00	0.00
3,500.0	11.63	329.65	3,446.4	471.4	-276.0	-463.1	0.00	0.00	0.00
3,600.0	11.63	329.65	3,544.3	488.8	-286.2	-480.2	0.00	0.00	0.00
3,700.0	11.63	329.65	3,642.3	506.2	-296.4	-497.3	0.00	0.00	0.00
3,800.0	11.63	329.65	3,740.2	523.6	-306.6	-514.4	0.00	0.00	0.00
3,826.9	11.63	329.65	3,766.6	528.3	-309.3	-519.0	0.00	0.00	0.00
3,900.0	10.17	329.65	3,838.4	540.2	-316.3	-530.7	2.00	-2.00	0.00
4,000.0	8.17	329.65	3,937.1	553.9	-324.3	-544.2	2.00	-2.00	0.00
4,100.0	6.17	329.65	4,036.3	564.7	-330.6	-554.8	2.00	-2.00	0.00
4,200.0	4.17	329.65	4,135.9	572.5	-335.2	-562.4	2.00	-2.00	0.00
4,300.0	2.17	329.65	4,235.7	577.2	-338.0	-567.1	2.00	-2.00	0.00
4,408.3	0.00	0.00	4,344.0	579.0	-339.0	-568.8	2.00	-2.00	0.00
4,500.0	0.00	0.00	4,435.7	579.0	-339.0	-568.8	0.00	0.00	0.00
4,600.0	0.00	0.00	4,535.7	579.0	-339.0	-568.8	0.00	0.00	0.00
4,700.0	0.00	0.00	4,635.7	579.0	-339.0	-568.8	0.00	0.00	0.00
4,800.0	0.00	0.00	4,735.7	579.0	-339.0	-568.8	0.00	0.00	0.00
4,900.0	0.00	0.00	4,835.7	579.0	-339.0	-568.8	0.00	0.00	0.00
5,000.0	0.00	0.00	4,935.7	579.0	-339.0	-568.8	0.00	0.00	0.00
5,100.0	0.00	0.00	5,035.7	579.0	-339.0	-568.8	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	PEDM	<b>Local Co-ordinate Reference:</b>	Well #727H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	KB @ 3101.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3101.0usft
<b>Site:</b>	Sherpa 12 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#727H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.0	0.00	0.00	5,135.7	579.0	-339.0	-568.8	0.00	0.00	0.00
5,300.0	0.00	0.00	5,235.7	579.0	-339.0	-568.8	0.00	0.00	0.00
5,400.0	0.00	0.00	5,335.7	579.0	-339.0	-568.8	0.00	0.00	0.00
5,500.0	0.00	0.00	5,435.7	579.0	-339.0	-568.8	0.00	0.00	0.00
5,600.0	0.00	0.00	5,535.7	579.0	-339.0	-568.8	0.00	0.00	0.00
5,700.0	0.00	0.00	5,635.7	579.0	-339.0	-568.8	0.00	0.00	0.00
5,800.0	0.00	0.00	5,735.7	579.0	-339.0	-568.8	0.00	0.00	0.00
5,900.0	0.00	0.00	5,835.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,000.0	0.00	0.00	5,935.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,100.0	0.00	0.00	6,035.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,200.0	0.00	0.00	6,135.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,300.0	0.00	0.00	6,235.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,335.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,500.0	0.00	0.00	6,435.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,600.0	0.00	0.00	6,535.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,635.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,735.7	579.0	-339.0	-568.8	0.00	0.00	0.00
6,900.0	0.00	0.00	6,835.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,935.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,100.0	0.00	0.00	7,035.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,200.0	0.00	0.00	7,135.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,235.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,335.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,435.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,535.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,700.0	0.00	0.00	7,635.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,735.7	579.0	-339.0	-568.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,835.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,935.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,100.0	0.00	0.00	8,035.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,200.0	0.00	0.00	8,135.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,300.0	0.00	0.00	8,235.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,400.0	0.00	0.00	8,335.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,500.0	0.00	0.00	8,435.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,600.0	0.00	0.00	8,535.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,700.0	0.00	0.00	8,635.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,800.0	0.00	0.00	8,735.7	579.0	-339.0	-568.8	0.00	0.00	0.00
8,900.0	0.00	0.00	8,835.7	579.0	-339.0	-568.8	0.00	0.00	0.00
9,000.0	0.00	0.00	8,935.7	579.0	-339.0	-568.8	0.00	0.00	0.00
9,056.8	0.00	0.00	8,992.5	579.0	-339.0	-568.8	0.00	0.00	0.00
9,075.0	2.18	179.71	9,010.7	578.7	-339.0	-568.5	12.00	12.00	0.00
9,100.0	5.18	179.71	9,035.6	577.0	-339.0	-566.9	12.00	12.00	0.00
9,125.0	8.18	179.71	9,060.5	574.1	-339.0	-564.0	12.00	12.00	0.00
9,150.0	11.18	179.71	9,085.1	569.9	-339.0	-559.9	12.00	12.00	0.00
9,175.0	14.18	179.71	9,109.5	564.4	-338.9	-554.3	12.00	12.00	0.00
9,200.0	17.18	179.71	9,133.6	557.7	-338.9	-547.5	12.00	12.00	0.00
9,225.0	20.18	179.71	9,157.2	549.7	-338.8	-539.5	12.00	12.00	0.00
9,250.0	23.18	179.71	9,180.5	540.4	-338.8	-530.3	12.00	12.00	0.00
9,275.0	26.18	179.71	9,203.2	530.0	-338.7	-519.9	12.00	12.00	0.00
9,300.0	29.18	179.71	9,225.3	518.4	-338.7	-508.3	12.00	12.00	0.00
9,325.0	32.18	179.71	9,246.8	505.6	-338.6	-495.5	12.00	12.00	0.00
9,350.0	35.18	179.71	9,267.6	491.8	-338.6	-481.7	12.00	12.00	0.00
9,375.0	38.18	179.71	9,287.7	476.8	-338.5	-466.7	12.00	12.00	0.00
9,400.0	41.18	179.71	9,306.9	460.9	-338.4	-450.8	12.00	12.00	0.00



## Planning Report

<b>Database:</b>	PEDM	<b>Local Co-ordinate Reference:</b>	Well #727H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	KB @ 3101.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3101.0usft
<b>Site:</b>	Sherpa 12 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#727H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,425.0	44.18	179.71	9,325.3	443.9	-338.3	-433.9	12.00	12.00	0.00	
9,450.0	47.18	179.71	9,342.7	426.0	-338.2	-416.0	12.00	12.00	0.00	
9,475.0	50.18	179.71	9,359.2	407.3	-338.1	-397.2	12.00	12.00	0.00	
9,500.0	53.18	179.71	9,374.7	387.7	-338.0	-377.6	12.00	12.00	0.00	
9,525.0	56.18	179.71	9,389.2	367.3	-337.9	-357.2	12.00	12.00	0.00	
9,550.0	59.18	179.71	9,402.6	346.1	-337.8	-336.1	12.00	12.00	0.00	
9,575.0	62.18	179.71	9,414.8	324.3	-337.7	-314.3	12.00	12.00	0.00	
9,600.0	65.18	179.71	9,425.9	301.9	-337.6	-291.9	12.00	12.00	0.00	
9,625.0	68.18	179.71	9,435.8	279.0	-337.5	-269.0	12.00	12.00	0.00	
9,650.0	71.18	179.71	9,444.4	255.5	-337.3	-245.6	12.00	12.00	0.00	
9,675.0	74.18	179.71	9,451.9	231.7	-337.2	-221.7	12.00	12.00	0.00	
9,700.0	77.18	179.71	9,458.1	207.5	-337.1	-197.5	12.00	12.00	0.00	
9,725.0	80.18	179.71	9,463.0	182.9	-337.0	-173.0	12.00	12.00	0.00	
9,750.0	83.18	179.71	9,466.6	158.2	-336.8	-148.3	12.00	12.00	0.00	
9,775.0	86.18	179.71	9,468.9	133.3	-336.7	-123.4	12.00	12.00	0.00	
9,800.0	89.18	179.71	9,469.9	108.3	-336.6	-98.5	12.00	12.00	0.00	
9,806.8	90.00	179.71	9,470.0	101.5	-336.6	-91.7	12.00	12.00	0.00	
9,900.0	90.00	179.71	9,470.0	8.4	-336.1	1.5	0.00	0.00	0.00	
10,000.0	90.00	179.71	9,470.0	-91.6	-335.6	101.4	0.00	0.00	0.00	
10,100.0	90.00	179.71	9,470.0	-191.6	-335.1	201.4	0.00	0.00	0.00	
10,200.0	90.00	179.71	9,470.0	-291.6	-334.5	301.3	0.00	0.00	0.00	
10,300.0	90.00	179.71	9,470.0	-391.6	-334.0	401.2	0.00	0.00	0.00	
10,400.0	90.00	179.71	9,470.0	-491.6	-333.5	501.2	0.00	0.00	0.00	
10,500.0	90.00	179.71	9,470.0	-591.6	-333.0	601.1	0.00	0.00	0.00	
10,600.0	90.00	179.71	9,470.0	-691.6	-332.5	701.1	0.00	0.00	0.00	
10,700.0	90.00	179.71	9,470.0	-791.6	-332.0	801.0	0.00	0.00	0.00	
10,800.0	90.00	179.71	9,470.0	-891.6	-331.5	900.9	0.00	0.00	0.00	
10,900.0	90.00	179.71	9,470.0	-991.6	-331.0	1,000.9	0.00	0.00	0.00	
11,000.0	90.00	179.71	9,470.0	-1,091.6	-330.4	1,100.8	0.00	0.00	0.00	
11,100.0	90.00	179.71	9,470.0	-1,191.6	-329.9	1,200.8	0.00	0.00	0.00	
11,200.0	90.00	179.71	9,470.0	-1,291.6	-329.4	1,300.7	0.00	0.00	0.00	
11,300.0	90.00	179.71	9,470.0	-1,391.6	-328.9	1,400.7	0.00	0.00	0.00	
11,400.0	90.00	179.71	9,470.0	-1,491.6	-328.4	1,500.6	0.00	0.00	0.00	
11,500.0	90.00	179.71	9,470.0	-1,591.6	-327.9	1,600.5	0.00	0.00	0.00	
11,600.0	90.00	179.71	9,470.0	-1,691.6	-327.4	1,700.5	0.00	0.00	0.00	
11,700.0	90.00	179.71	9,470.0	-1,791.6	-326.9	1,800.4	0.00	0.00	0.00	
11,800.0	90.00	179.71	9,470.0	-1,891.6	-326.4	1,900.4	0.00	0.00	0.00	
11,900.0	90.00	179.71	9,470.0	-1,991.6	-325.8	2,000.3	0.00	0.00	0.00	
12,000.0	90.00	179.71	9,470.0	-2,091.6	-325.3	2,100.2	0.00	0.00	0.00	
12,100.0	90.00	179.71	9,470.0	-2,191.6	-324.8	2,200.2	0.00	0.00	0.00	
12,200.0	90.00	179.71	9,470.0	-2,291.6	-324.3	2,300.1	0.00	0.00	0.00	
12,300.0	90.00	179.71	9,470.0	-2,391.6	-323.8	2,400.1	0.00	0.00	0.00	
12,400.0	90.00	179.71	9,470.0	-2,491.6	-323.3	2,500.0	0.00	0.00	0.00	
12,500.0	90.00	179.71	9,470.0	-2,591.6	-322.8	2,599.9	0.00	0.00	0.00	
12,600.0	90.00	179.71	9,470.0	-2,691.6	-322.3	2,699.9	0.00	0.00	0.00	
12,700.0	90.00	179.71	9,470.0	-2,791.6	-321.7	2,799.8	0.00	0.00	0.00	
12,800.0	90.00	179.71	9,470.0	-2,891.6	-321.2	2,899.8	0.00	0.00	0.00	
12,900.0	90.00	179.71	9,470.0	-2,991.6	-320.7	2,999.7	0.00	0.00	0.00	
13,000.0	90.00	179.71	9,470.0	-3,091.6	-320.2	3,099.7	0.00	0.00	0.00	
13,100.0	90.00	179.71	9,470.0	-3,191.6	-319.7	3,199.6	0.00	0.00	0.00	
13,200.0	90.00	179.71	9,470.0	-3,291.6	-319.2	3,299.5	0.00	0.00	0.00	
13,300.0	90.00	179.71	9,470.0	-3,391.6	-318.7	3,399.5	0.00	0.00	0.00	
13,400.0	90.00	179.71	9,470.0	-3,491.6	-318.2	3,499.4	0.00	0.00	0.00	
13,500.0	90.00	179.71	9,470.0	-3,591.6	-317.7	3,599.4	0.00	0.00	0.00	



## Planning Report

<b>Database:</b>	PEDM	<b>Local Co-ordinate Reference:</b>	Well #727H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	KB @ 3101.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3101.0usft
<b>Site:</b>	Sherpa 12 State Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#727H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,600.0	90.00	179.71	9,470.0	-3,691.6	-317.1	3,699.3	0.00	0.00	0.00
13,700.0	90.00	179.71	9,470.0	-3,791.6	-316.6	3,799.2	0.00	0.00	0.00
13,800.0	90.00	179.71	9,470.0	-3,891.6	-316.1	3,899.2	0.00	0.00	0.00
13,900.0	90.00	179.71	9,470.0	-3,991.6	-315.6	3,999.1	0.00	0.00	0.00
14,000.0	90.00	179.71	9,470.0	-4,091.6	-315.1	4,099.1	0.00	0.00	0.00
14,100.0	90.00	179.71	9,470.0	-4,191.6	-314.6	4,199.0	0.00	0.00	0.00
14,200.0	90.00	179.71	9,470.0	-4,291.6	-314.1	4,298.9	0.00	0.00	0.00
14,300.0	90.00	179.71	9,470.0	-4,391.6	-313.6	4,398.9	0.00	0.00	0.00
14,400.0	90.00	179.71	9,470.0	-4,491.6	-313.0	4,498.8	0.00	0.00	0.00
14,500.0	90.00	179.71	9,470.0	-4,591.6	-312.5	4,598.8	0.00	0.00	0.00
14,600.0	90.00	179.71	9,470.0	-4,691.6	-312.0	4,698.7	0.00	0.00	0.00
14,700.0	90.00	179.71	9,470.0	-4,791.6	-311.5	4,798.6	0.00	0.00	0.00
14,800.0	90.00	179.71	9,470.0	-4,891.6	-311.0	4,898.6	0.00	0.00	0.00
14,900.0	90.00	179.71	9,470.0	-4,991.6	-310.5	4,998.5	0.00	0.00	0.00
15,000.0	90.00	179.71	9,470.0	-5,091.6	-310.0	5,098.5	0.00	0.00	0.00
15,100.0	90.00	179.71	9,470.0	-5,191.6	-309.5	5,198.4	0.00	0.00	0.00
15,200.0	90.00	179.71	9,470.0	-5,291.6	-309.0	5,298.4	0.00	0.00	0.00
15,300.0	90.00	179.71	9,470.0	-5,391.6	-308.4	5,398.3	0.00	0.00	0.00
15,400.0	90.00	179.71	9,470.0	-5,491.6	-307.9	5,498.2	0.00	0.00	0.00
15,500.0	90.00	179.71	9,470.0	-5,591.6	-307.4	5,598.2	0.00	0.00	0.00
15,600.0	90.00	179.71	9,470.0	-5,691.6	-306.9	5,698.1	0.00	0.00	0.00
15,700.0	90.00	179.71	9,470.0	-5,791.6	-306.4	5,798.1	0.00	0.00	0.00
15,800.0	90.00	179.71	9,470.0	-5,891.6	-305.9	5,898.0	0.00	0.00	0.00
15,900.0	90.00	179.71	9,470.0	-5,991.6	-305.4	5,997.9	0.00	0.00	0.00
16,000.0	90.00	179.71	9,470.0	-6,091.6	-304.9	6,097.9	0.00	0.00	0.00
16,100.0	90.00	179.71	9,470.0	-6,191.6	-304.3	6,197.8	0.00	0.00	0.00
16,200.0	90.00	179.71	9,470.0	-6,291.6	-303.8	6,297.8	0.00	0.00	0.00
16,300.0	90.00	179.71	9,470.0	-6,391.6	-303.3	6,397.7	0.00	0.00	0.00
16,400.0	90.00	179.71	9,470.0	-6,491.6	-302.8	6,497.6	0.00	0.00	0.00
16,500.0	90.00	179.71	9,470.0	-6,591.6	-302.3	6,597.6	0.00	0.00	0.00
16,600.0	90.00	179.71	9,470.0	-6,691.6	-301.8	6,697.5	0.00	0.00	0.00
16,700.0	90.00	179.71	9,470.0	-6,791.6	-301.3	6,797.5	0.00	0.00	0.00
16,800.0	90.00	179.71	9,470.0	-6,891.6	-300.8	6,897.4	0.00	0.00	0.00
16,900.0	90.00	179.71	9,470.0	-6,991.6	-300.3	6,997.3	0.00	0.00	0.00
17,000.0	90.00	179.71	9,470.0	-7,091.6	-299.7	7,097.3	0.00	0.00	0.00
17,100.0	90.00	179.71	9,470.0	-7,191.6	-299.2	7,197.2	0.00	0.00	0.00
17,200.0	90.00	179.71	9,470.0	-7,291.6	-298.7	7,297.2	0.00	0.00	0.00
17,300.0	90.00	179.71	9,470.0	-7,391.6	-298.2	7,397.1	0.00	0.00	0.00
17,400.0	90.00	179.71	9,470.0	-7,491.6	-297.7	7,497.1	0.00	0.00	0.00
17,500.0	90.00	179.71	9,470.0	-7,591.6	-297.2	7,597.0	0.00	0.00	0.00
17,600.0	90.00	179.71	9,470.0	-7,691.5	-296.7	7,696.9	0.00	0.00	0.00
17,700.0	90.00	179.71	9,470.0	-7,791.5	-296.2	7,796.9	0.00	0.00	0.00
17,800.0	90.00	179.71	9,470.0	-7,891.5	-295.6	7,896.8	0.00	0.00	0.00
17,900.0	90.00	179.71	9,470.0	-7,991.5	-295.1	7,996.8	0.00	0.00	0.00
18,000.0	90.00	179.71	9,470.0	-8,091.5	-294.6	8,096.7	0.00	0.00	0.00
18,100.0	90.00	179.71	9,470.0	-8,191.5	-294.1	8,196.6	0.00	0.00	0.00
18,200.0	90.00	179.71	9,470.0	-8,291.5	-293.6	8,296.6	0.00	0.00	0.00
18,300.0	90.00	179.71	9,470.0	-8,391.5	-293.1	8,396.5	0.00	0.00	0.00
18,400.0	90.00	179.71	9,470.0	-8,491.5	-292.6	8,496.5	0.00	0.00	0.00
18,500.0	90.00	179.71	9,470.0	-8,591.5	-292.1	8,596.4	0.00	0.00	0.00
18,600.0	90.00	179.71	9,470.0	-8,691.5	-291.6	8,696.3	0.00	0.00	0.00
18,700.0	90.00	179.71	9,470.0	-8,791.5	-291.0	8,796.3	0.00	0.00	0.00
18,800.0	90.00	179.71	9,470.0	-8,891.5	-290.5	8,896.2	0.00	0.00	0.00
18,900.0	90.00	179.71	9,470.0	-8,991.5	-290.0	8,996.2	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	PEDM	<b>Local Co-ordinate Reference:</b>	Well #727H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	KB @ 3101.0usft
<b>Project:</b>	Eddy County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3101.0usft
<b>Site:</b>	Sherpa 12 State Corn	<b>North Reference:</b>	Grid
<b>Well:</b>	#727H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
19,000.0	90.00	179.71	9,470.0	-9,091.5	-289.5	9,096.1	0.00	0.00	0.00	
19,100.0	90.00	179.71	9,470.0	-9,191.5	-289.0	9,196.0	0.00	0.00	0.00	
19,200.0	90.00	179.71	9,470.0	-9,291.5	-288.5	9,296.0	0.00	0.00	0.00	
19,300.0	90.00	179.71	9,470.0	-9,391.5	-288.0	9,395.9	0.00	0.00	0.00	
19,400.0	90.00	179.71	9,470.0	-9,491.5	-287.5	9,495.9	0.00	0.00	0.00	
19,500.0	90.00	179.71	9,470.0	-9,591.5	-286.9	9,595.8	0.00	0.00	0.00	
19,600.0	90.00	179.71	9,470.0	-9,691.5	-286.4	9,695.8	0.00	0.00	0.00	
19,684.5	90.00	179.71	9,470.0	-9,776.0	-286.0	9,780.2	0.00	0.00	0.00	

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
KOP(sherpa 12 SC #727 - plan hits target center - Point	0.00	0.00	8,992.5	579.0	-339.0	419,014.00	600,911.00	32° 9' 6.486 N	104° 8' 27.008 W	
PBHL(sherpa 12 SC #727 - plan hits target center - Point	0.00	0.00	9,470.0	-9,776.0	-286.0	408,659.00	600,964.00	32° 7' 24.010 N	104° 8' 26.607 W	
FTP(sherpa 12 SC #727 - plan misses target center by 39.3usft at 9620.2usft MD (9433.9 TVD, 283.5 N, -337.5 E) - Point	0.00	0.00	9,470.0	299.0	-339.0	418,734.00	600,911.00	32° 9' 3.715 N	104° 8' 27.014 W	



Eddy County, NM (NAD 83 NME)

Sherpa 12 State Com #727H

Plan #0.1



To convert a Magnetic Direction to a Grid Direction, Add 6.56°  
To convert a Magnetic Direction to a True Direction, Add 6.66° East  
To convert a True Direction to a Grid Direction, Subtract 0.10°

PROJECT DETAILS: Eddy County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level

WELL DETAILS: #727H

KB @ 3101.0usft 3076.0

Northing	Easting	Latitude	Longitude
418435.00	601250.00	32° 9' 0.750 N	104° 8' 23.077 W

SECTION DETAILS

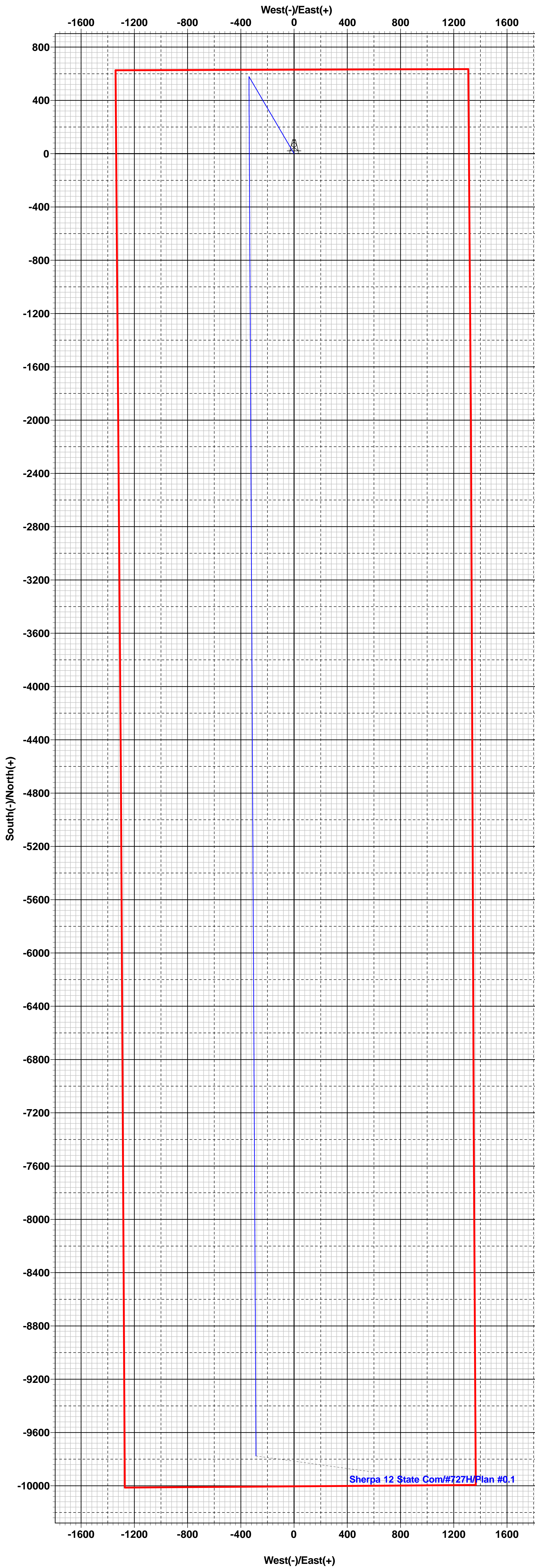
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	
3	1081.4	11.63	329.65	1077.4	50.7	-29.7	2.00	329.65	-49.8	
4	3826.9	11.63	329.65	3766.6	528.3	-309.3	0.00	0.00	-519.0	
5	4408.3	0.00	0.00	4344.0	579.0	-339.0	2.00	180.00	-568.8	
6	9056.8	0.00	0.00	8992.5	579.0	-339.0	0.00	0.00	-568.8	KOP(sherpa 12 SC #727H)
7	9806.8	90.00	179.71	9470.0	101.5	-336.6	12.00	179.71	-91.7	
8	19684.5	90.00	179.71	9470.0	-9776.0	-286.0	0.00	0.00	9780.2	PBHL(sherpa 12 SC #727H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(sherpa 12 SC #727H)	8992.5	579.0	-339.0	419014.00	600911.00
PBHL(sherpa 12 SC #727H)	9470.0	-9776.0	-286.0	408659.00	600964.00
FTP(sherpa 12 SC #727H)	9470.0	299.0	-339.0	418734.00	600911.00



Sherpa 12 State Com/#727H/Plan #0.1

Vertical Section at 181.68°

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:** EOG Resources, Inc. **OGRID:** 7377 **Date:** 8/24/2022

**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
Sherpa 12State Com 727H		A-12-25S-27E	631' FNL & 1313' FEL	+/- 1000	+/- 3500	+/- 3000

**IV. Central Delivery Point Name:** Dragon 36 State CTB [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
Sherpa 12State Com 727H		10/1/22	10/15/22	12/01/22	01/01/23	02/01/23

**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.



## **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

☐ 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: *Star L Harrell*

Printed Name: Star L Harrell

Title: Sr Regulatory Specialist

E-mail Address: Star\_Harrell@eogresources.com

Date: 8/24/2022

Phone: (432) 848-9161

**OIL CONSERVATION DIVISION**  
**(Only applicable when submitted as a standalone form)**

Approved By:

Title:

Approval Date:

Conditions of Approval:

**Natural Gas Management Plan****Items VI-VIII****VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.**

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Adequate separation relates to retention time for Liquid – Liquid separation and velocity for Gas-Liquid separation.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release gas from the well.

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

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

**Completions/Recompletions Operations**

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

**Production Operations**

- Weekly AVOs will be performed on all facilities.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All plunger lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.
- Leaking thief hatches found during AVOs will be cleaned and properly re-sealed.

**Performance Standards**

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 Mcfd.

**Measurement & Estimation**

- All volume that is flared and vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- No meter bypasses will be installed.

- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

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

- During downhole well maintenance, EOG will use best management practices to vent as minimally as possible.
- Prior to the commencement of any maintenance, the tank or vessel will be isolated from the rest of the facilities.
- All valves upstream of the equipment will be closed and isolated.
- After equipment has been isolated, the equipment will be blown down to as low a pressure as possible into the collection system.
- If the equipment being maintained cannot be relieved into the collection system, it shall be released to a tank where the vapor can either be captured or combusted if possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.