

**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 325785

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

1. Operator Name and Address ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077		2. OGRID Number 372417
		3. API Number 30-025-50698
4. Property Code 319599	5. Property Name DAGGER LAKE 5 STATE COM	6. Well No. 913H

**7. Surface Location**

UL - Lot A	Section 32	Township 21S	Range 33E	Lot Idn A	Feet From 342	N/S Line N	Feet From 1250	E/W Line E	County Lea
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**8. Proposed Bottom Hole Location**

UL - Lot G	Section 5	Township 22S	Range 33E	Lot Idn G	Feet From 2690	N/S Line S	Feet From 1330	E/W Line E	County Lea
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**9. Pool Information**

LEGG;BONE SPRING	37870
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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 3714
16. Multiple N	17. Proposed Depth 18882	18. Formation 3rd Bone Spring Carbonate	19. Contractor	20. Spud Date 3/8/2023
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	17.5	13.375	54.5	1674	1289	0
Int1	12.25	10.75	40.5	5274	744	0
Int2	9.875	7.625	29.7	10674	1257	0
Prod	6.75	5.5	20	18882	604	0

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	TBD

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 Eileen M Kosakowski	Approved By: Paul F Kautz	
Title:	Title: Geologist	
Email Address: ekosakowski@advanceenergypartners.com	Approved Date: 10/5/2022	Expiration Date: 10/5/2024
Date: 9/22/2022	Phone: 832-672-4604	Conditions of Approval Attached

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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, NM 87505

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

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-	<sup>2</sup> Pool Code 97895	<sup>3</sup> Pool Name WC-025 G-08 S213304D; BONE SPRING
<sup>4</sup> Property Code 319599	<sup>5</sup> Property Name Dagger Lake 5 State Com	<sup>6</sup> Well Number #913H
<sup>7</sup> OGRID No. 372417	<sup>8</sup> Operator Name ADVANCE ENERGY PARTNERS HAT MESA LLC	<sup>9</sup> Elevation 3,714.85'

<sup>10</sup> Surface Location

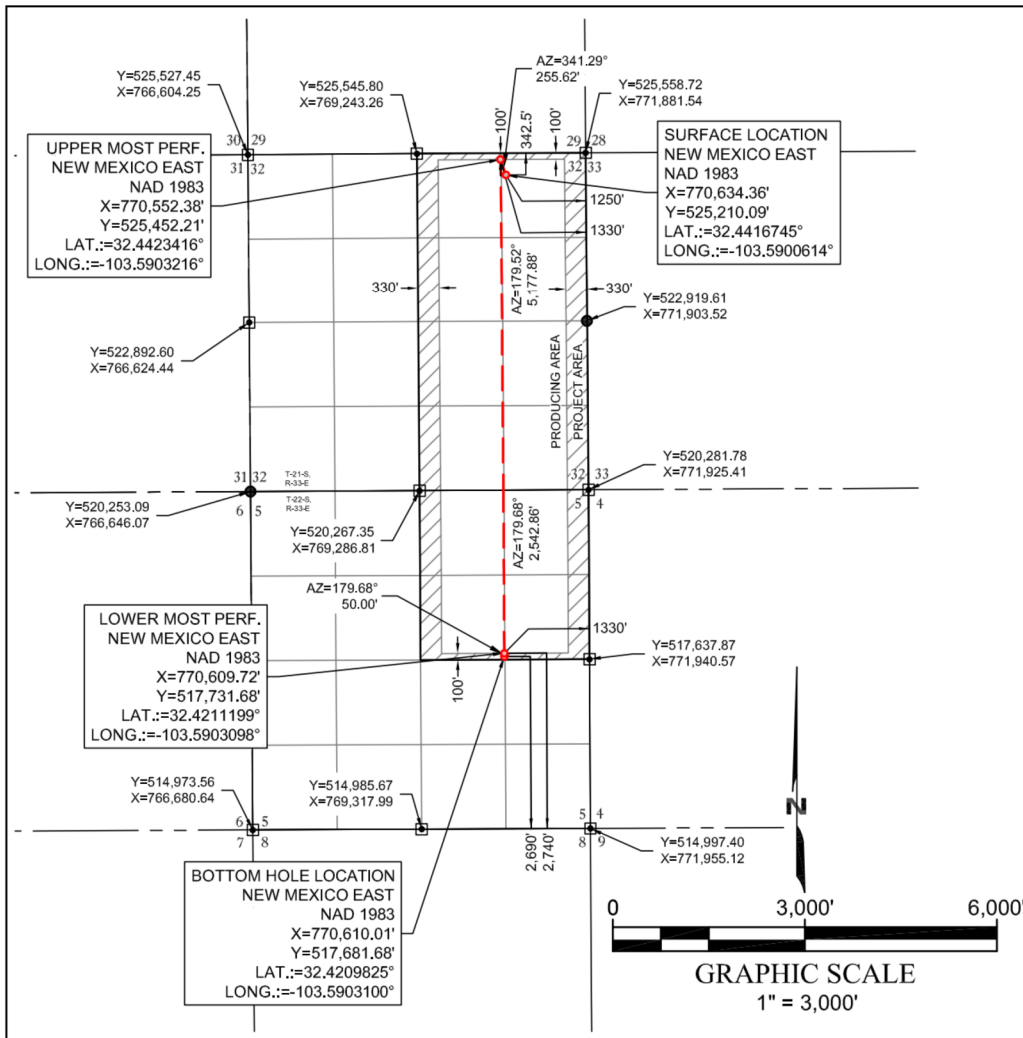
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	32	21-S	33-E	--	342.5'	NORTH	1,250'	EAST	LEA

<sup>11</sup> 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
G	5	22-S	33-E	--	2,690'	SOUTH	1,330'	EAST	LEA

<sup>12</sup> Dedicated Acres 480	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code C	<sup>15</sup> Order No.
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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.

<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Floyd Hammond* Date: 9/21/2022

Floyd Hammond

Printed Name

fhammond@ameredev.com

E-mail Address

<sup>18</sup> SURVEYOR CERTIFICATION

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

09/08/2022

Date of Survey

Signature and Seal of Professional Surveyor:

Signature: *Bradley Ames Dempster*  
Certificate Number: 25779  
Seal: BRADLEY AMES DEMPSTER, NEW MEXICO, 25779, PROFESSIONAL SURVEYOR

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

Form APD Conditions

Permit 325785

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077	API Number: 30-025-50698
	Well: DAGGER LAKE 5 STATE COM #913H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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
pkautz	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
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
pkautz	CEMENT MUST COME TO THE SURFACE ON ALL STRINGS

# **Advance Energy Partners**

**Hat Mesa**

**Dagger Lake North 5 State Com - Pad B**

**Dagger Lake 5 State Com 913H**

**Dagger Lake 5 State Com 913H**

**Plan: Dagger Lake 5 State Com 913H**

## **Standard Planning Report - Geographic**

**15 September, 2022**

**Ameredev**  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dagger Lake 5 State Com 913H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Site:</b>	Dagger Lake North 5 State Com - Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Dagger Lake 5 State Com 913H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dagger Lake 5 State Com 913H		
<b>Design:</b>	Dagger Lake 5 State Com 913H		

<b>Project</b>	Hat Mesa, Lea County, NM		
<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						Dagger Lake North 5 State Com - Pad B											
Site Position:			Northing:			524,967.14 usft			Latitude:			32.441020°N					
From:			Lat/Long			Easting:			769,939.83 usft			Longitude:			103.592318°W		
Position Uncertainty:			0.0 usft			Slot Radius:			13-3/16 "								

Well	Dagger Lake 5 State Com 913H					
Well Position	+N/-S	0.0 usft	Northing:	525,210.09 usft	Latitude:	32.441675°N
	+E/-W	0.0 usft	Easting:	770,634.35 usft	Longitude:	103.590062°W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,715.0 usft
Grid Convergence:		0.40 °				

<b>Wellbore</b>	Dagger Lake 5 State Com 913H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	8/4/2020	6.64	60.22	47,740.09425083

<b>Design</b>	Dagger Lake 5 State Com 913H			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<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	180.19

<b>Plan Survey Tool Program</b>	<b>Date</b>	9/15/2022			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	18,917.0 Dagger Lake 5 State Com 913H	MWD+HRGM OWSG MWD + HRGM		

Planning Report - Geographic

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Company:	Advance Energy Partners	TVD Reference:	WELL @ 3747.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3747.5usft (Original Well Elev)
Site:	Dagger Lake North 5 State Com - Pad B	North Reference:	Grid
Well:	Dagger Lake 5 State Com 913H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger Lake 5 State Com 913H		
Design:	Dagger Lake 5 State Com 913H		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,481.2	2.81	339.44	5,481.1	6.5	-2.4	1.00	1.00	0.00	339.44	
10,425.0	2.81	339.44	10,418.9	233.5	-87.6	0.00	0.00	0.00	0.00	
10,706.2	0.00	0.00	10,700.0	240.0	-90.0	1.00	-1.00	0.00	180.00	
10,875.8	0.00	0.00	10,869.6	240.0	-90.0	0.00	0.00	0.00	0.00	
11,625.7	90.00	179.54	11,347.0	-237.4	-86.2	12.00	12.00	0.00	179.54	
11,660.7	90.00	179.54	11,347.0	-272.4	-85.9	0.00	0.00	0.00	0.00	DLN 5 State Com 913
18,867.0	90.00	179.48	11,347.0	-7,478.4	-24.6	0.00	0.00	0.00	-90.00	DLN 5 State Com 913
18,917.0	90.00	179.86	11,347.0	-7,528.4	-24.3	0.75	0.00	0.75	90.00	DLN 5 State Com 913

# Ameredev

## Planning Report - Geographic

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<b>Well:</b>	Dagger Lake 5 State Com 913H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dagger Lake 5 State Com 913H		
<b>Design:</b>	Dagger Lake 5 State Com 913H		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
100.0	0.00	0.00	100.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
200.0	0.00	0.00	200.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
300.0	0.00	0.00	300.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
400.0	0.00	0.00	400.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
500.0	0.00	0.00	500.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
600.0	0.00	0.00	600.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
700.0	0.00	0.00	700.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
800.0	0.00	0.00	800.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
900.0	0.00	0.00	900.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,549.0	0.00	0.00	1,549.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
<b>Rustler</b>									
1,600.0	0.00	0.00	1,600.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
1,975.0	0.00	0.00	1,975.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
<b>Salado</b>									
2,000.0	0.00	0.00	2,000.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
2,100.0	0.00	0.00	2,100.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
2,200.0	0.00	0.00	2,200.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
2,300.0	0.00	0.00	2,300.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
2,400.0	0.00	0.00	2,400.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
2,500.0	0.00	0.00	2,500.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
2,600.0	0.00	0.00	2,600.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
2,700.0	0.00	0.00	2,700.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
2,800.0	0.00	0.00	2,800.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
2,900.0	0.00	0.00	2,900.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,000.0	0.00	0.00	3,000.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,100.0	0.00	0.00	3,100.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,178.0	0.00	0.00	3,178.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
<b>Tansill</b>									
3,200.0	0.00	0.00	3,200.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,300.0	0.00	0.00	3,300.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,400.0	0.00	0.00	3,400.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,463.0	0.00	0.00	3,463.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
<b>Capitan</b>									
3,500.0	0.00	0.00	3,500.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,600.0	0.00	0.00	3,600.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,700.0	0.00	0.00	3,700.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,800.0	0.00	0.00	3,800.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
3,900.0	0.00	0.00	3,900.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
4,000.0	0.00	0.00	4,000.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
4,100.0	0.00	0.00	4,100.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
4,200.0	0.00	0.00	4,200.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
4,300.0	0.00	0.00	4,300.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
4,400.0	0.00	0.00	4,400.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
4,500.0	0.00	0.00	4,500.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W

**Ameredev**  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dagger Lake 5 State Com 913H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Site:</b>	Dagger Lake North 5 State Com - Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Dagger Lake 5 State Com 913H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dagger Lake 5 State Com 913H		
<b>Design:</b>	Dagger Lake 5 State Com 913H		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,600.0	0.00	0.00	4,600.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
4,700.0	0.00	0.00	4,700.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
4,800.0	0.00	0.00	4,800.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
4,900.0	0.00	0.00	4,900.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
5,000.0	0.00	0.00	5,000.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
5,100.0	0.00	0.00	5,100.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
5,200.0	0.00	0.00	5,200.0	0.0	0.0	525,210.09	770,634.35	32.441675°N	103.590062°W
<b>KOP - Start Build 1.00</b>									
5,224.0	0.24	339.44	5,224.0	0.0	0.0	525,210.14	770,634.33	32.441675°N	103.590062°W
<b>Bell Canyon</b>									
5,300.0	1.00	339.44	5,300.0	0.8	-0.3	525,210.91	770,634.04	32.441677°N	103.590063°W
5,400.0	2.00	339.44	5,400.0	3.3	-1.2	525,213.36	770,633.12	32.441684°N	103.590066°W
5,481.2	2.81	339.44	5,481.1	6.5	-2.4	525,216.55	770,631.93	32.441692°N	103.590069°W
<b>Start 4943.8 hold at 5481.2 MD</b>									
5,500.0	2.81	339.44	5,499.9	7.3	-2.7	525,217.42	770,631.60	32.441695°N	103.590070°W
5,600.0	2.81	339.44	5,599.7	11.9	-4.5	525,222.01	770,629.88	32.441707°N	103.590076°W
5,700.0	2.81	339.44	5,699.6	16.5	-6.2	525,226.60	770,628.16	32.441720°N	103.590081°W
5,800.0	2.81	339.44	5,799.5	21.1	-7.9	525,231.20	770,626.43	32.441733°N	103.590087°W
5,900.0	2.81	339.44	5,899.4	25.7	-9.6	525,235.79	770,624.71	32.441745°N	103.590092°W
6,000.0	2.81	339.44	5,999.3	30.3	-11.4	525,240.38	770,622.99	32.441758°N	103.590098°W
6,100.0	2.81	339.44	6,099.1	34.9	-13.1	525,244.98	770,621.27	32.441771°N	103.590103°W
6,200.0	2.81	339.44	6,199.0	39.5	-14.8	525,249.57	770,619.54	32.441783°N	103.590109°W
6,300.0	2.81	339.44	6,298.9	44.1	-16.5	525,254.16	770,617.82	32.441796°N	103.590114°W
6,400.0	2.81	339.44	6,398.8	48.7	-18.2	525,258.75	770,616.10	32.441809°N	103.590120°W
6,500.0	2.81	339.44	6,498.7	53.3	-20.0	525,263.35	770,614.38	32.441821°N	103.590125°W
6,600.0	2.81	339.44	6,598.5	57.8	-21.7	525,267.94	770,612.65	32.441834°N	103.590131°W
6,700.0	2.81	339.44	6,698.4	62.4	-23.4	525,272.53	770,610.93	32.441847°N	103.590136°W
6,800.0	2.81	339.44	6,798.3	67.0	-25.1	525,277.13	770,609.21	32.441859°N	103.590142°W
6,900.0	2.81	339.44	6,898.2	71.6	-26.9	525,281.72	770,607.49	32.441872°N	103.590147°W
7,000.0	2.81	339.44	6,998.1	76.2	-28.6	525,286.31	770,605.76	32.441885°N	103.590153°W
7,100.0	2.81	339.44	7,097.9	80.8	-30.3	525,290.91	770,604.04	32.441897°N	103.590158°W
7,200.0	2.81	339.44	7,197.8	85.4	-32.0	525,295.50	770,602.32	32.441910°N	103.590164°W
7,300.0	2.81	339.44	7,297.7	90.0	-33.8	525,300.09	770,600.60	32.441923°N	103.590169°W
7,300.3	2.81	339.44	7,298.0	90.0	-33.8	525,300.11	770,600.59	32.441923°N	103.590169°W
<b>Brushy Canyon</b>									
7,400.0	2.81	339.44	7,397.6	94.6	-35.5	525,304.69	770,598.87	32.441935°N	103.590175°W
7,500.0	2.81	339.44	7,497.5	99.2	-37.2	525,309.28	770,597.15	32.441948°N	103.590180°W
7,600.0	2.81	339.44	7,597.3	103.8	-38.9	525,313.87	770,595.43	32.441961°N	103.590185°W
7,700.0	2.81	339.44	7,697.2	108.4	-40.6	525,318.47	770,593.71	32.441973°N	103.590191°W
7,800.0	2.81	339.44	7,797.1	113.0	-42.4	525,323.06	770,591.98	32.441986°N	103.590196°W
7,900.0	2.81	339.44	7,897.0	117.6	-44.1	525,327.65	770,590.26	32.441999°N	103.590202°W
8,000.0	2.81	339.44	7,996.9	122.2	-45.8	525,332.25	770,588.54	32.442011°N	103.590207°W
8,100.0	2.81	339.44	8,096.7	126.7	-47.5	525,336.84	770,586.82	32.442024°N	103.590213°W
8,200.0	2.81	339.44	8,196.6	131.3	-49.3	525,341.43	770,585.09	32.442037°N	103.590218°W
8,300.0	2.81	339.44	8,296.5	135.9	-51.0	525,346.03	770,583.37	32.442049°N	103.590224°W
8,400.0	2.81	339.44	8,396.4	140.5	-52.7	525,350.62	770,581.65	32.442062°N	103.590229°W
8,500.0	2.81	339.44	8,496.3	145.1	-54.4	525,355.21	770,579.93	32.442074°N	103.590235°W
8,600.0	2.81	339.44	8,596.1	149.7	-56.1	525,359.81	770,578.20	32.442087°N	103.590240°W
8,700.0	2.81	339.44	8,696.0	154.3	-57.9	525,364.40	770,576.48	32.442100°N	103.590246°W
8,784.1	2.81	339.44	8,780.0	158.2	-59.3	525,368.26	770,575.03	32.442110°N	103.590250°W
<b>Bone Spring Lime</b>									
8,800.0	2.81	339.44	8,795.9	158.9	-59.6	525,368.99	770,574.76	32.442112°N	103.590251°W
8,900.0	2.81	339.44	8,895.8	163.5	-61.3	525,373.59	770,573.04	32.442125°N	103.590257°W
9,000.0	2.81	339.44	8,995.7	168.1	-63.0	525,378.18	770,571.31	32.442138°N	103.590262°W



**Ameredev**  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dagger Lake 5 State Com 913H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Site:</b>	Dagger Lake North 5 State Com - Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Dagger Lake 5 State Com 913H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dagger Lake 5 State Com 913H		
<b>Design:</b>	Dagger Lake 5 State Com 913H		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,100.0	2.81	339.44	9,095.5	172.7	-64.8	525,382.77	770,569.59	32.442150°N	103.590268°W	
9,200.0	2.81	339.44	9,195.4	177.3	-66.5	525,387.37	770,567.87	32.442163°N	103.590273°W	
9,300.0	2.81	339.44	9,295.3	181.9	-68.2	525,391.96	770,566.15	32.442176°N	103.590279°W	
9,400.0	2.81	339.44	9,395.2	186.5	-69.9	525,396.55	770,564.43	32.442188°N	103.590284°W	
9,500.0	2.81	339.44	9,495.0	191.1	-71.6	525,401.15	770,562.70	32.442201°N	103.590290°W	
9,600.0	2.81	339.44	9,594.9	195.6	-73.4	525,405.74	770,560.98	32.442214°N	103.590295°W	
9,700.0	2.81	339.44	9,694.8	200.2	-75.1	525,410.33	770,559.26	32.442226°N	103.590301°W	
9,800.0	2.81	339.44	9,794.7	204.8	-76.8	525,414.93	770,557.54	32.442239°N	103.590306°W	
9,900.0	2.81	339.44	9,894.6	209.4	-78.5	525,419.52	770,555.81	32.442252°N	103.590311°W	
10,000.0	2.81	339.44	9,994.4	214.0	-80.3	525,424.11	770,554.09	32.442264°N	103.590317°W	
10,024.6	2.81	339.44	10,019.0	215.1	-80.7	525,425.24	770,553.67	32.442267°N	103.590318°W	
First Bone Spring										
10,100.0	2.81	339.44	10,094.3	218.6	-82.0	525,428.71	770,552.37	32.442277°N	103.590322°W	
10,200.0	2.81	339.44	10,194.2	223.2	-83.7	525,433.30	770,550.65	32.442290°N	103.590328°W	
10,300.0	2.81	339.44	10,294.1	227.8	-85.4	525,437.89	770,548.92	32.442302°N	103.590333°W	
10,400.0	2.81	339.44	10,394.0	232.4	-87.1	525,442.49	770,547.20	32.442315°N	103.590339°W	
10,425.0	2.81	339.44	10,418.9	233.5	-87.6	525,443.63	770,546.77	32.442318°N	103.590340°W	
Start Drop -1.00										
10,500.0	2.06	339.44	10,493.9	236.5	-88.7	525,446.62	770,545.65	32.442326°N	103.590344°W	
10,600.0	1.06	339.44	10,593.8	239.1	-89.7	525,449.17	770,544.69	32.442333°N	103.590347°W	
10,630.2	0.76	339.44	10,624.0	239.5	-89.8	525,449.62	770,544.52	32.442335°N	103.590347°W	
Second Bone Spring										
10,700.0	0.06	339.44	10,693.8	240.0	-90.0	525,450.09	770,544.35	32.442336°N	103.590348°W	
10,706.2	0.00	0.00	10,700.0	240.0	-90.0	525,450.09	770,544.35	32.442336°N	103.590348°W	
Start 169.6 hold at 10706.2 MD										
10,800.0	0.00	0.00	10,793.8	240.0	-90.0	525,450.09	770,544.35	32.442336°N	103.590348°W	
10,875.8	0.00	0.00	10,869.6	240.0	-90.0	525,450.09	770,544.35	32.442336°N	103.590348°W	
KOP #2 - Start Build 12.00										
10,900.0	2.91	179.54	10,893.8	239.4	-90.0	525,449.48	770,544.35	32.442334°N	103.590348°W	
11,000.0	14.91	179.54	10,992.4	223.9	-89.9	525,434.02	770,544.48	32.442292°N	103.590348°W	
11,100.0	26.91	179.54	11,085.7	188.3	-89.6	525,398.39	770,544.76	32.442194°N	103.590348°W	
11,200.0	38.91	179.54	11,169.5	134.1	-89.2	525,344.16	770,545.20	32.442045°N	103.590348°W	
11,235.2	43.13	179.54	11,196.0	111.0	-89.0	525,321.07	770,545.38	32.441981°N	103.590348°W	
Third Carb										
11,300.0	50.91	179.54	11,240.2	63.6	-88.6	525,273.69	770,545.76	32.441851°N	103.590347°W	
11,400.0	62.91	179.54	11,294.6	-20.0	-87.9	525,190.06	770,546.43	32.441621°N	103.590347°W	
11,500.0	74.92	179.54	11,330.6	-113.2	-87.2	525,096.93	770,547.17	32.441365°N	103.590347°W	
11,600.0	86.92	179.54	11,346.3	-211.7	-86.4	524,998.36	770,547.96	32.441094°N	103.590346°W	
11,625.7	90.00	179.54	11,347.0	-237.4	-86.2	524,972.69	770,548.17	32.441024°N	103.590346°W	
FTP - Start 35.0 hold at 11625.7 MD										
11,660.7	90.00	179.54	11,347.0	-272.4	-85.9	524,937.69	770,548.45	32.440928°N	103.590346°W	
Start DLS 0.00 TFO -90.00 - DLN 5 State Com 913H FTP										
11,700.0	90.00	179.54	11,347.0	-311.7	-85.6	524,898.38	770,548.76	32.440819°N	103.590346°W	
11,800.0	90.00	179.54	11,347.0	-411.7	-84.8	524,798.38	770,549.56	32.440545°N	103.590346°W	
11,900.0	90.00	179.54	11,347.0	-511.7	-84.0	524,698.38	770,550.37	32.440270°N	103.590345°W	
12,000.0	90.00	179.54	11,347.0	-611.7	-83.2	524,598.39	770,551.17	32.439995°N	103.590345°W	
12,100.0	90.00	179.54	11,347.0	-711.7	-82.4	524,498.39	770,551.98	32.439720°N	103.590345°W	
12,200.0	90.00	179.54	11,347.0	-811.7	-81.6	524,398.39	770,552.78	32.439445°N	103.590344°W	
12,300.0	90.00	179.54	11,347.0	-911.7	-80.8	524,298.40	770,553.59	32.439170°N	103.590344°W	
12,400.0	90.00	179.54	11,347.0	-1,011.7	-79.9	524,198.40	770,554.40	32.438895°N	103.590344°W	
12,500.0	90.00	179.53	11,347.0	-1,111.7	-79.1	524,098.40	770,555.21	32.438621°N	103.590343°W	
12,600.0	90.00	179.53	11,347.0	-1,211.7	-78.3	523,998.41	770,556.02	32.438346°N	103.590343°W	
12,700.0	90.00	179.53	11,347.0	-1,311.7	-77.5	523,898.41	770,556.84	32.438071°N	103.590342°W	
12,800.0	90.00	179.53	11,347.0	-1,411.7	-76.7	523,798.41	770,557.65	32.437796°N	103.590342°W	

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## Planning Report - Geographic

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dagger Lake 5 State Com 913H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Site:</b>	Dagger Lake North 5 State Com - Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Dagger Lake 5 State Com 913H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dagger Lake 5 State Com 913H		
<b>Design:</b>	Dagger Lake 5 State Com 913H		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
12,900.0	90.00	179.53	11,347.0	-1,511.7	-75.9	523,698.42	770,558.47	32.437521°N	103.590342°W	
13,000.0	90.00	179.53	11,347.0	-1,611.7	-75.1	523,598.42	770,559.29	32.437246°N	103.590341°W	
13,100.0	90.00	179.53	11,347.0	-1,711.7	-74.2	523,498.42	770,560.11	32.436971°N	103.590341°W	
13,200.0	90.00	179.53	11,347.0	-1,811.7	-73.4	523,398.43	770,560.93	32.436696°N	103.590340°W	
13,300.0	90.00	179.53	11,347.0	-1,911.7	-72.6	523,298.43	770,561.75	32.436422°N	103.590340°W	
13,400.0	90.00	179.53	11,347.0	-2,011.7	-71.8	523,198.43	770,562.58	32.436147°N	103.590340°W	
13,500.0	90.00	179.53	11,347.0	-2,111.7	-70.9	523,098.44	770,563.40	32.435872°N	103.590339°W	
13,600.0	90.00	179.53	11,347.0	-2,211.7	-70.1	522,998.44	770,564.23	32.435597°N	103.590339°W	
13,700.0	90.00	179.53	11,347.0	-2,311.6	-69.3	522,898.44	770,565.05	32.435322°N	103.590338°W	
13,800.0	90.00	179.52	11,347.0	-2,411.6	-68.5	522,798.45	770,565.88	32.435047°N	103.590338°W	
13,900.0	90.00	179.52	11,347.0	-2,511.6	-67.6	522,698.45	770,566.71	32.434772°N	103.590338°W	
14,000.0	90.00	179.52	11,347.0	-2,611.6	-66.8	522,598.46	770,567.55	32.434498°N	103.590337°W	
14,100.0	90.00	179.52	11,347.0	-2,711.6	-66.0	522,498.46	770,568.38	32.434223°N	103.590337°W	
14,200.0	90.00	179.52	11,347.0	-2,811.6	-65.1	522,398.46	770,569.21	32.433948°N	103.590336°W	
14,300.0	90.00	179.52	11,347.0	-2,911.6	-64.3	522,298.47	770,570.05	32.433673°N	103.590336°W	
14,400.0	90.00	179.52	11,347.0	-3,011.6	-63.5	522,198.47	770,570.89	32.433398°N	103.590335°W	
14,500.0	90.00	179.52	11,347.0	-3,111.6	-62.6	522,098.47	770,571.73	32.433123°N	103.590335°W	
14,600.0	90.00	179.52	11,347.0	-3,211.6	-61.8	521,998.48	770,572.57	32.432848°N	103.590334°W	
14,700.0	90.00	179.52	11,347.0	-3,311.6	-60.9	521,898.48	770,573.41	32.432574°N	103.590334°W	
14,800.0	90.00	179.52	11,347.0	-3,411.6	-60.1	521,798.48	770,574.25	32.432299°N	103.590333°W	
14,900.0	90.00	179.52	11,347.0	-3,511.6	-59.3	521,698.49	770,575.10	32.432024°N	103.590333°W	
15,000.0	90.00	179.51	11,347.0	-3,611.6	-58.4	521,598.49	770,575.94	32.431749°N	103.590332°W	
15,100.0	90.00	179.51	11,347.0	-3,711.6	-57.6	521,498.49	770,576.79	32.431474°N	103.590332°W	
15,200.0	90.00	179.51	11,347.0	-3,811.6	-56.7	521,398.50	770,577.64	32.431199°N	103.590331°W	
15,300.0	90.00	179.51	11,347.0	-3,911.6	-55.9	521,298.50	770,578.49	32.430924°N	103.590331°W	
15,400.0	90.00	179.51	11,347.0	-4,011.6	-55.0	521,198.50	770,579.34	32.430649°N	103.590330°W	
15,500.0	90.00	179.51	11,347.0	-4,111.6	-54.2	521,098.51	770,580.19	32.430375°N	103.590330°W	
15,600.0	90.00	179.51	11,347.0	-4,211.6	-53.3	520,998.51	770,581.05	32.430100°N	103.590329°W	
15,700.0	90.00	179.51	11,347.0	-4,311.6	-52.4	520,898.52	770,581.90	32.429825°N	103.590329°W	
15,800.0	90.00	179.51	11,347.0	-4,411.6	-51.6	520,798.52	770,582.76	32.429550°N	103.590328°W	
15,900.0	90.00	179.51	11,347.0	-4,511.6	-50.7	520,698.52	770,583.62	32.429275°N	103.590328°W	
16,000.0	90.00	179.51	11,347.0	-4,611.6	-49.9	520,598.53	770,584.48	32.429000°N	103.590327°W	
16,100.0	90.00	179.51	11,347.0	-4,711.6	-49.0	520,498.53	770,585.34	32.428725°N	103.590327°W	
16,200.0	90.00	179.51	11,347.0	-4,811.6	-48.1	520,398.53	770,586.20	32.428451°N	103.590326°W	
16,300.0	90.00	179.50	11,347.0	-4,911.6	-47.3	520,298.54	770,587.07	32.428176°N	103.590326°W	
16,400.0	90.00	179.50	11,347.0	-5,011.6	-46.4	520,198.54	770,587.93	32.427901°N	103.590325°W	
16,500.0	90.00	179.50	11,347.0	-5,111.5	-45.5	520,098.55	770,588.80	32.427626°N	103.590325°W	
16,600.0	90.00	179.50	11,347.0	-5,211.5	-44.7	519,998.55	770,589.67	32.427351°N	103.590324°W	
16,700.0	90.00	179.50	11,347.0	-5,311.5	-43.8	519,898.55	770,590.54	32.427076°N	103.590323°W	
16,800.0	90.00	179.50	11,347.0	-5,411.5	-42.9	519,798.56	770,591.41	32.426801°N	103.590323°W	
16,900.0	90.00	179.50	11,347.0	-5,511.5	-42.1	519,698.56	770,592.28	32.426526°N	103.590322°W	
17,000.0	90.00	179.50	11,347.0	-5,611.5	-41.2	519,598.56	770,593.16	32.426252°N	103.590322°W	
17,100.0	90.00	179.50	11,347.0	-5,711.5	-40.3	519,498.57	770,594.03	32.425977°N	103.590321°W	
17,200.0	90.00	179.50	11,347.0	-5,811.5	-39.4	519,398.57	770,594.91	32.425702°N	103.590321°W	
17,300.0	90.00	179.50	11,347.0	-5,911.5	-38.6	519,298.58	770,595.78	32.425427°N	103.590320°W	
17,400.0	90.00	179.50	11,347.0	-6,011.5	-37.7	519,198.58	770,596.66	32.425152°N	103.590319°W	
17,500.0	90.00	179.49	11,347.0	-6,111.5	-36.8	519,098.58	770,597.55	32.424877°N	103.590319°W	
17,600.0	90.00	179.49	11,347.0	-6,211.5	-35.9	518,998.59	770,598.43	32.424602°N	103.590318°W	
17,700.0	90.00	179.49	11,347.0	-6,311.5	-35.0	518,898.59	770,599.31	32.424328°N	103.590318°W	
17,800.0	90.00	179.49	11,347.0	-6,411.5	-34.2	518,798.60	770,600.20	32.424053°N	103.590317°W	
17,900.0	90.00	179.49	11,347.0	-6,511.5	-33.3	518,698.60	770,601.08	32.423778°N	103.590316°W	
18,000.0	90.00	179.49	11,347.0	-6,611.5	-32.4	518,598.60	770,601.97	32.423503°N	103.590316°W	
18,100.0	90.00	179.49	11,347.0	-6,711.5	-31.5	518,498.61	770,602.86	32.423228°N	103.590315°W	
18,200.0	90.00	179.49	11,347.0	-6,811.5	-30.6	518,398.61	770,603.75	32.422953°N	103.590314°W	
18,300.0	90.00	179.49	11,347.0	-6,911.5	-29.7	518,298.62	770,604.64	32.422678°N	103.590314°W	

**Ameredev**  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dagger Lake 5 State Com 913H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Site:</b>	Dagger Lake North 5 State Com - Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Dagger Lake 5 State Com 913H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dagger Lake 5 State Com 913H		
<b>Design:</b>	Dagger Lake 5 State Com 913H		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
18,400.0	90.00	179.49	11,347.0	-7,011.5	-28.8	518,198.62	770,605.53	32.422404°N	103.590313°W	
18,500.0	90.00	179.49	11,347.0	-7,111.5	-27.9	518,098.62	770,606.43	32.422129°N	103.590312°W	
18,600.0	90.00	179.49	11,347.0	-7,211.5	-27.0	517,998.63	770,607.33	32.421854°N	103.590312°W	
18,700.0	90.00	179.49	11,347.0	-7,311.5	-26.1	517,898.63	770,608.22	32.421579°N	103.590311°W	
18,800.0	90.00	179.48	11,347.0	-7,411.5	-25.2	517,798.64	770,609.12	32.421304°N	103.590311°W	
18,867.0	90.00	179.48	11,347.0	-7,478.4	-24.6	517,731.67	770,609.72	32.421120°N	103.590310°W	
LTP - Start DLS 0.75 TFO 90.00 - DLN 5 State Com 913H LTP										
18,900.0	90.00	179.73	11,347.0	-7,511.5	-24.4	517,698.64	770,609.95	32.421029°N	103.590310°W	
18,917.0	90.00	179.86	11,347.0	-7,528.4	-24.3	517,681.68	770,610.01	32.420983°N	103.590310°W	
TD at 18917.0 - DLN 5 State Com 913H BHL										

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	
DLN 5 State Com 913H - plan hits target center - Point	0.00	0.00	11,347.0	-7,478.4	-24.6	517,731.67	770,609.72	32.421120°N	103.590310°W	
DLN 5 State Com 913H - plan hits target center - Point	0.00	0.00	11,347.0	-7,528.4	-24.3	517,681.68	770,610.01	32.420983°N	103.590310°W	
DLN 5 State Com 913H - plan hits target center - Point	0.00	0.00	11,347.0	-272.4	-85.9	524,937.69	770,548.45	32.440928°N	103.590346°W	

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
10,656.2	10,650.0	LP		5-1/2	5-1/2

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,549.0	1,549.0	Rustler				
1,975.0	1,975.0	Salado				
3,178.0	3,178.0	Tansill				
3,463.0	3,463.0	Capitan				
5,224.0	5,224.0	Bell Canyon				
7,300.3	7,298.0	Brushy Canyon				
8,784.1	8,780.0	Bone Spring Lime				
10,024.6	10,019.0	First Bone Spring				
10,630.2	10,624.0	Second Bone Spring				
11,235.2	11,196.0	Third Carb				

**Ameredev**  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Dagger Lake 5 State Com 913H
<b>Company:</b>	Advance Energy Partners	<b>TVD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Project:</b>	Hat Mesa	<b>MD Reference:</b>	WELL @ 3747.5usft (Original Well Elev)
<b>Site:</b>	Dagger Lake North 5 State Com - Pad B	<b>North Reference:</b>	Grid
<b>Well:</b>	Dagger Lake 5 State Com 913H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dagger Lake 5 State Com 913H		
<b>Design:</b>	Dagger Lake 5 State Com 913H		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,200.0	5,200.0	0.0	0.0	KOP - Start Build 1.00
5,481.2	5,481.1	6.5	-2.4	Start 4943.8 hold at 5481.2 MD
10,425.0	10,418.9	233.5	-87.6	Start Drop -1.00
10,706.2	10,700.0	240.0	-90.0	Start 169.6 hold at 10706.2 MD
10,875.8	10,869.6	240.0	-90.0	KOP #2 - Start Build 12.00
11,625.7	11,347.0	-237.4	-86.2	FTP - Start 35.0 hold at 11625.7 MD
11,660.7	11,347.0	-272.4	-85.9	Start DLS 0.00 TFO -90.00
18,867.0	11,347.0	-7,478.4	-24.6	LTP - Start DLS 0.75 TFO 90.00
18,917.0	11,347.0	-7,528.4	-24.3	TD at 18917.0

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

Submit Electronically  
Via E-permitting

## 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:** Advance Energy Partners Hat Mesa, LLC **OGRID:** 372417 **Date:** 08/30/2022

**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
Dagger Lake 5 State Com 073H	30-025-	A-32-21S-33E	402.5' FNL & 1250' FEL	778	1474	4848
Dagger Lake 5 State Com 093H	30-025-	A-32-21S-33E	312.5' FNL & 1250' FEL	902	1353	4730
Dagger Lake 5 State Com 823H	30-025-	A-32-21S-33E	372.5' FNL & 1250' FEL	993	1052	3643
Dagger Lake 5 State Com 913H	30-025-	A-32-21S-33E	342.5' FNL & 1250' FEL	1092	1342	2541

**IV. Central Delivery Point Name:** \_\_\_\_\_ [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
Dagger Lake 5 State Com 073H	30-025-	10/07/2024	10/27/2024	04/03/2024	05/12/2024	05/15/2024
Dagger Lake 5 State Com 093H	30-025-	12/12/2024	01/01/2025	04/03/2024	05/12/2024	05/15/2024
Dagger Lake 5 State Com 823H	30-025-	10/29/2024	11/18/2024	04/03/2024	05/12/2024	05/15/2024
Dagger Lake 5 State Com 913H	30-025-	01/25/2025	02/14/2025	04/03/2024	05/12/2024	05/15/2024

**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: <i>Cesca Yu</i>
Printed Name: Cesca Yu
Title: Engineer
E-mail Address: cyu@ameredev.com
Date: 08/30/2022
Phone: 512-775-1417
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

## **Natural Gas Management Plan**

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

- Separation equipment is sized to allow for retention time and velocity to adequately separate oil, gas, and water at anticipated peak rates.
- All central tank battery equipment is designed to efficiently capture the remaining gas from the liquid phase.
- Valves and meters are designed to service without flow interruption or venting of gas.

### **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.**

#### **19.15.27.8 (A)**

Advanced Energy Partners field operations are designed with the goal of minimizing flaring and preventing venting of natural gas. If capturing the gas is not possible then the gas is combusted/flared using properly sized flares or combustors in accordance with state air permit rules.

#### **19.15.27.8 (B) Venting and Flaring during drilling operations**

- A properly-sized flare stack 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. Venting will only occur if there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment.

#### **19.15.27.8 (C) Venting and Flaring during completions or recompletions operations.**

- During all phases of flowback, wells will flow through a sand separator, or other appropriate flowback separation equipment, and the well stream will be directed to a central tank battery (CTB) through properly sized flowlines
- The CTB will have properly sized separation equipment for maximum anticipated flowrates
- Multiple stages of separation will be used to separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks equipped with a closed loop system that will recover any residual gas from the tanks and route such gas to a sales outlet.

#### **19.15.27.8 (D) Venting and Flaring during production operations.**

- During production, the well stream will be routed to the CTB where multiple stages of separation will separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks with a closed

loop system that will recover any residual gas from the tanks and route such gas to a sales outlet, minimizing tank emissions.

- Flares are equipped with auto-ignition systems and continuous pilot operations.
- Automatic gauging equipment is installed on all tanks.

#### **19.15.27.8 (E) Performance Standards**

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- Automatic gauging equipment is installed on all tanks to minimize venting
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Flares are equipped with continuous pilots and auto-ignitors along with remote monitoring of the pilot status
- Weekly AVOs and monthly LDAR inspections will be performed on all wells and facilities that produce more than 60 Mcfd.
- Gas/H<sub>2</sub>S detectors will be installed throughout the facilities and wellheads to detect leaks and enable timely repairs.

#### **19.15.27.8 (F) Measurement or estimation of vented and flared natural gas**

- All high pressure flared gas is measured by equipment conforming to API 14.10.
- No meter bypasses are installed.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated through flare flow curves with the assistance of air emissions consultants, as necessary.

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

- Advanced Energy Partners will use best management practices to vent as minimally as possible during well intervention operations and downhole well maintenance
- All natural gas is routed into the gas gathering system and directed to one of Advanced Energy Partners multiple gas sales outlets.
- All venting events will be recorded and all start-up, shutdown, maintenance logs will be kept for control equipment
- All control equipment will be maintained to provide highest run-time possible
- All procedures are drafted to keep venting and flaring to the absolute minimum