<u>District I</u> 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 324046

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZON	ΙE
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7. 1. 2. 5. 1. 5. 1. 5. 1. 2. 1. 2. 1. 2. 1. 2. 1. 3. 3. 2. 2. 1. 3. 1. 3. 2. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.								
1. Operator Name and Address	2. OGRID Number							
ADVANCE ENERGY PARTNERS HA	372417							
11490 Westheimer Rd., Ste 950	3. API Number							
Houston, TX 77077	30-025-50588							
4. Property Code	5. Property Name	6. Well No.						
333274	BOONE 21 33 16 STATE COM	822H						

7. Surface Location

UL - Lo	ot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	N	16	21S	33E	N	592	S	2188	W	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
С	9	21S	33E	С	50	N	2090	W	Lea

#### 9. Pool Information

WC-025 G-08	S213304D;BONE SPRING	97895

#### Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3768
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date
N	20862	2nd Bone Spring Carbonate		5/17/2023
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	1921	1470	0				
Int1	12.25	10.75	40.5	3810	429	0				
Int2	9.875	7.625	29.7	5510	814	0				
Prod	6.75	5.5	20	20862	668	0				

#### **Casing/Cement Program: Additional Comments**

22. Proposed Blowout Prevention Program

==::::;::::::::::::::::::::::::::::::::									
Туре	Working Pressure	Test Pressure	Manufacturer						
Double Ram	5000	5000	TBD						

knowledge and be	elief.	true and complete to the best of my NMAC ⊠ and/or 19.15.14.9 (B) NMAC		OIL CONSERVATIO	ON DIVISION
Signature:					
Printed Name:	Electronically filed by Eileen M K	osakowski	Approved By:	Paul F Kautz	
Title:			Title:	Geologist	
Email Address:	ekosakowski@advanceenergypa	artners.com	Approved Date:	9/16/2022	Expiration Date: 9/16/2024
Date:	8/25/2022 Phone: 832-672-4604			oval Attached	

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 <u>District III</u>

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 <u>District IV</u>

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, NM 87505

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

☐ AMENDED REPORT

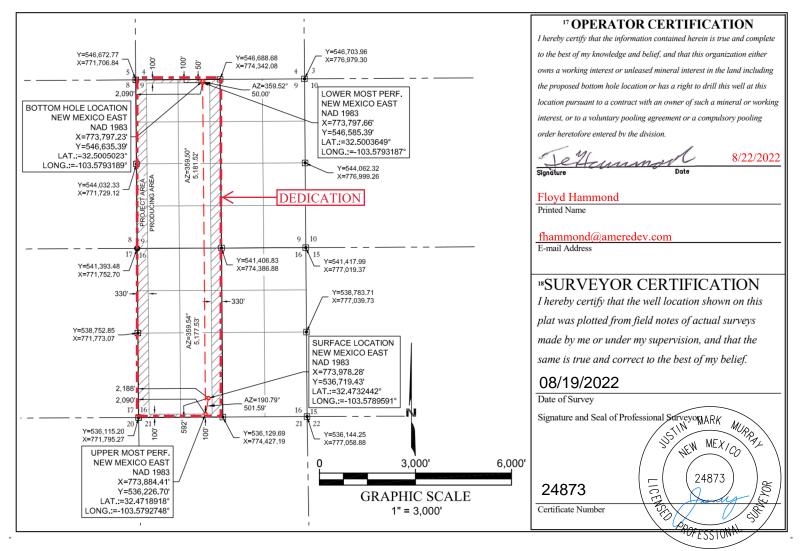
#### WELL LOCATION AND ACREAGE DEDICATION PLAT

	<sup>1</sup> API Number		<sup>2</sup> Pool Code <sup>3</sup> Pool Name			
30-025- <b>50588</b>		97895	WC-025 G-08 S213304D;B0	ONE SPRING		
<sup>4</sup> Property Code 333274			roperty Name -33-16 State Com	<sup>6</sup> Well Number #822H		
<sup>7</sup> OGRID No. 372417		- 1	perator Name PARTNERS HAT MESA LLC	<sup>9</sup> Elevation 3,767.51'		

<sup>10</sup> Surface Location

	Surface Location								
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	16	21-S	33-E		592'	SOUTH	2,188'	WEST	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
С	9	21-S	33-E		50'	NORTH	2,090'	WEST	LEA
12 Dedicated Acres	13 Joint or	r Infill 14	Consolidation	Code 15 Or	der No.				
640			C						

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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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 APD Conditions

Permit 324046

#### PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417]	30-025-50588
11490 Westheimer Rd., Ste 950	Well:
Houston, TX 77077	BOONE 21 33 16 STATE COM #822H

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	CEMENT MUST COME TO THE SURFACE ON ALL STRINGS
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

### State of New Mexico Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham Governor

Sarah Cottrell Propst Cabinet Secretary Designate Adrienne Sandoval, Division Director Oil Conservation Division



Todd E. Leahy, JD, PhD **Deputy Secretary** 

September 14, 2022,

BUREAU OF LAND MANAGEMENT ATT: James S. Rutley 620 E Greene Street

Carlsbad, NM 88220

STATE LAND OFFICE ATT: Paige Czoski PO BOX 1148 Santa Fe, NM 87505

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: Advance Energy Partners Hat Mesa, LLC

LEASE NAME: Boone 21 33 16 State Com # 822H

PROPOSED LOCATION: U/L N Sec 16 T21S R33E 592 FSL 2188 FWL

32.4732442 Lat.

Long. -103.5789591 NAD83

PROPOSED DEPTH: 20862' MD

10650' TVD

#### Gentleman:

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuant to the provisions of Oil Conservation Division Order R - 111 - P, please advise this office whether the location is within an established Life-of-Mine-Reserve that are filed with and approved by your office. If not, please advise whether it is within the buffer zone established by the order.

Thank you for your assistance. Please Return as soon as possible.

Very truly yours,

OIL CONSERVATION DIVISION

Hobbs Office Geologist, District I

RESONSE:

The above referenced location is in LMR 201

The above referenced location is within the Buffer Zone

Signed

Printed Signature

Representing

Oil Conservation Division • 1625 N. French Drive • Hobbs, New Mexico 88240 Phone (575) 393-6161 • Fax (575) 393-0720 • www.emnrd.state.nm.us/ocd

### State of New Mexico Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham

Governor

Sarah Cottrell Propst
Cabinet Secretary Designate

Adrienne Sandoval, Division Director Oil Conservation Division



Todd E. Leahy, JD, PhD Deputy Secretary

September 14, 2022,

BUREAU OF LAND MANAGEMENT ATT: James S. Rutley 620 E Greene Street Carlsbad, NM 88220 STATE LAND OFFICE ATT: Paige Czoski PO BOX 1148 Santa Fe, NM 87505

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Long. -103.5789591 NAD83

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Thank you for your assistance. Please Return as soon as possible.

Very truly yours,

OIL CONSERVATION DIVISION

Paul Kautz

Hobbs Office Geologist, District I

**RESONSE:** 

The above referenced location is in LMR (\_\_2022\_\_year) --------Yes\_\_\_\_\_\_\_\_No\_\_\_X

The above referenced location is within the Buffer Zone-------Yes\_\_\_\_\_\_\_No\_\_X

Signed \_\_\_\_\_\_Paige Czoski

Printed Signature \_\_\_\_\_Paige Czoski

Representing \_\_\_\_\_NM SLO

## **Advance Energy Partners**

Hat Mesa Boone 21-33-16 State Com Pad C Boone 21-33-16 State Com 822H

Boone 21-33-16 State Com 822H

Plan: Boone 21-33-16 State Com 822H

## **Standard Planning Report - Geographic**

23 August, 2022

#### Planning Report - Geographic

EDM 5000.16 Single User Db Well Boone 21-33-16 State Com 822H Database: **Local Co-ordinate Reference:** Company: Advance Energy Partners TVD Reference: WELL @ 3800.5usft (Original Well Elev) Project: Hat Mesa MD Reference: WELL @ 3800.5usft (Original Well Elev) Boone 21-33-16 State Com Pad C Site: North Reference: Well: Boone 21-33-16 State Com 822H **Survey Calculation Method:** Minimum Curvature Wellbore: Boone 21-33-16 State Com 822H Boone 21-33-16 State Com 822H Design:

Project Hat Mesa, Lea County, NM

Map System: US State Plane 1983 System Datum: Mean Sea Level

Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

Boone 21-33-16 State Com Pad C Site 536,226.06 usft Northing: Site Position: Latitude: 32.471892°N 103.579655°W 773,767.22 usft Lat/Long Easting: From: Longitude: Position Uncertainty: Slot Radius: 13-3/16 " 0.0 usft

Well Boone 21-33-16 State Com 822H **Well Position** +N/-S 0.0 usft Northing: 536,719.41 usft Latitude: 32.473244°N +E/-W 0.0 usft Easting: 773,978.29 usft Longitude: 103.578959°W Wellhead Elevation: **Position Uncertainty** 0.0 usft usft **Ground Level:** 3,768.0 usft **Grid Convergence:** 0.41 °

Boone 21-33-16 State Com 822H Wellbore Declination Magnetics **Model Name** Sample Date **Dip Angle** Field Strength (°) (°) (nT) IGRF2015 8/23/2022 6.41 60.22 47.547.89331416

Design Boone 21-33-16 State Com 822H Audit Notes: Version: Phase: **PROTOTYPE** Tie On Depth: 0.0 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.0 0.0 0.0 358.95

Plan Survey Tool Program Date 8/23/2022

Depth From (usft) Cusft) Survey (Wellbore) Tool Name Remarks

1 0.0 20,861.9 Boone 21-33-16 State Com 822H

#### Planning Report - Geographic

Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

 Site:
 Boone 21-33-16 State Com Pad C

 Well:
 Boone 21-33-16 State Com 822H

 Wellbore:
 Boone 21-33-16 State Com 822H

 Design:
 Boone 21-33-16 State Com 822H

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Well Boone 21-33-16 State Com 822H WELL @ 3800.5usft (Original Well Elev) WELL @ 3800.5usft (Original Well Elev) Grid

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	
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,633.1	6.33	191.31	5,631.8	-34.3	-6.9	1.00	1.00	0.00	191.31	
9,392.4	6.33	191.31	9,368.2	-440.7	-88.1	0.00	0.00	0.00	0.00	
10,025.5	0.00	0.00	10,000.0	-475.0	-95.0	1.00	-1.00	0.00	180.00	
10,198.0	0.00	0.00	10,172.5	-475.0	-95.0	0.00	0.00	0.00	0.00	
10,948.0	90.00	359.53	10,650.0	2.4	-99.0	12.00	12.00	0.00	359.53	
20,811.9	90.00	359.53	10,650.0	9,866.0	-180.6	0.00	0.00	0.00	0.00	Boone 21-33-16 State
20,861.9	90.00	359.53	10,650.0	9,916.0	-181.1	0.00	0.00	0.00	0.00	Boone 21-33-16 State

#### Planning Report - Geographic

Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

 Site:
 Boone 21-33-16 State Com Pad C

 Well:
 Boone 21-33-16 State Com 822H

 Wellbore:
 Boone 21-33-16 State Com 822H

 Design:
 Boone 21-33-16 State Com 822H

Local Co-ordinate Reference: TVD Reference: MD Reference:

Survey Calculation Method:

North Reference:

Well Boone 21-33-16 State Com 822H WELL @ 3800.5usft (Original Well Elev) WELL @ 3800.5usft (Original Well Elev)

Grid

nned 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	536,719.41	773,978.29	32.473244°N	103.578959
100.0	0.00	0.00	100.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
200.0	0.00	0.00	200.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
300.0	0.00	0.00	300.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
400.0	0.00	0.00	400.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
500.0	0.00	0.00	500.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
600.0	0.00	0.00	600.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
700.0	0.00	0.00	700.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
0.008	0.00	0.00	0.008	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
900.0	0.00	0.00	900.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
1,000.0	0.00	0.00	1,000.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
1,100.0	0.00	0.00	1,100.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
1,200.0	0.00	0.00	1,200.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
1,300.0	0.00	0.00	1,300.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
1,400.0	0.00	0.00	1,400.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
1,500.0	0.00	0.00	1,500.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
1,600.0	0.00	0.00	1,600.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
1,700.0	0.00	0.00	1,700.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
1,796.4	0.00	0.00	1,796.4	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959
RSLR_G	RID								
1,800.0	0.00	0.00	1,800.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
1,900.0	0.00	0.00	1,900.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,000.0	0.00	0.00	2,000.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,100.0	0.00	0.00	2,100.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,170.9	0.00	0.00	2,170.9	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
SLDO_G	RID								
2,200.0	0.00	0.00	2,200.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,300.0	0.00	0.00	2,300.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,400.0	0.00	0.00	2,400.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,500.0	0.00	0.00	2,500.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,600.0	0.00	0.00	2,600.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,700.0	0.00	0.00	2,700.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,800.0	0.00	0.00	2,800.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
2,900.0	0.00	0.00	2,900.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,000.0	0.00	0.00	3,000.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,100.0	0.00	0.00	3,100.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,200.0	0.00	0.00	3,200.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,300.0	0.00	0.00	3,300.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,400.0	0.00	0.00	3,400.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,500.0	0.00	0.00	3,500.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,600.0	0.00	0.00	3,600.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,684.6	0.00	0.00	3,684.6	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
TNSL_GI						,	, , , , ,		
3,700.0	0.00	0.00	3,700.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,800.0	0.00	0.00	3,800.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
3,900.0	0.00	0.00	3,900.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
4,000.0	0.00	0.00	4,000.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
4,100.0	0.00	0.00	4,100.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
4,200.0	0.00	0.00	4,200.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
4,202.5	0.00	0.00	4,202.5	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
CPTN G		0.00	.,202.0	0.0	0.0	555,7 10.11	5,57 5.25	52 02 11 14	. 33.37 330
4,300.0	0.00	0.00	4,300.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.57895
4,300.0		0.00	4,300.0	0.0	0.0	536,719.41	773,978.29		
4,500.0	0.00	0.00	4,400.0	0.0	0.0	536,719.41	773,978.29	32.473244°N 32.473244°N	103.578959 103.578959

#### Planning Report - Geographic

Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

 Site:
 Boone 21-33-16 State Com Pad C

 Well:
 Boone 21-33-16 State Com 822H

 Wellbore:
 Boone 21-33-16 State Com 822H

 Design:
 Boone 21-33-16 State Com 822H

Local Co-ordinate Reference: TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Well Boone 21-33-16 State Com 822H WELL @ 3800.5usft (Original Well Elev) WELL @ 3800.5usft (Original Well Elev)

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	536,719.41	773,978.29	32.473244°N	103.578959°W
4,700.0	0.00	0.00	4,700.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959°W
4,800.0	0.00	0.00	4,800.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959°W
4,900.0	0.00	0.00	4,900.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959°W
5,000.0	0.00	0.00	5,000.0	0.0	0.0	536,719.41	773,978.29	32.473244°N	103.578959°W
5,100.0	tart Build 1.00 1.00	191.31	5,100.0	-0.9	-0.2	536.718.56	773,978.12	32.473242°N	103.578960°W
5,200.0	2.00	191.31	5,200.0	-3.4	-0.2	536,715.99	773,977.61	32.473235°N	103.578962°W
5,300.0	3.00	191.31	5,299.9	-7.7	-1.5	536,711.71	773,976.75	32.473223°N	103.578965°W
5,400.0	4.00	191.31	5,399.7	-13.7	-2.7	536,705.73	773,975.56	32.473207°N	103.578969°W
5,434.9	4.35	191.31	5,434.5	-16.2	-3.2	536,703.23	773,975.06	32.473200°N	103.578970°W
BLCN_G	RID								
5,500.0	5.00	191.31	5,499.4	-21.4	-4.3	536,698.03	773,974.02	32.473186°N	103.578974°W
5,600.0	6.00	191.31	5,598.9	-30.8	-6.2	536,688.64	773,972.14	32.473160°N	103.578980°W
5,633.1	6.33	191.31	5,631.8	-34.3	-6.9	536,685.15	773,971.44	32.473150°N	103.578982°W
Start 375	59.4 hold at 56	33.1 MD							
5,700.0	6.33	191.31	5,698.3	-41.5	-8.3	536,677.92	773,969.99	32.473130°N	103.578987°W
5,800.0	6.33	191.31	5,797.7	-52.3	-10.5	536,667.10	773,967.83	32.473101°N	103.578994°W
5,900.0	6.33	191.31	5,897.1	-63.1	-12.6	536,656.29	773,965.67	32.473071°N	103.579002°W
6,000.0	6.33	191.31	5,996.5	-73.9	-14.8	536,645.48	773,963.51	32.473041°N	103.579009°W
6,100.0	6.33 6.33	191.31 191.31	6,095.9 6,195.3	-84.7 -95.6	-16.9 -19.1	536,634.67 536,623.85	773,961.34 773,959.18	32.473012°N 32.472982°N	103.579016°W
6,200.0 6,300.0	6.33	191.31	6,195.3	-95.6 -106.4	-19.1 -21.3	536,613.04	773,957.02	32.472952 N 32.472952°N	103.579024°W 103.579031°W
6,400.0	6.33	191.31	6,394.0	-117.2	-21.3	536,602.23	773,954.86	32.472923°N	103.579031 W
6,500.0	6.33	191.31	6,493.4	-128.0	-25.6	536,591.42	773,952.69	32.472893°N	103.579045°W
6,600.0	6.33	191.31	6,592.8	-138.8	-27.8	536,580.60	773,950.53	32.472863°N	103.579053°W
6,700.0	6.33	191.31	6,692.2	-149.6	-29.9	536,569.79	773,948.37	32.472834°N	103.579060°W
6,800.0	6.33	191.31	6,791.6	-160.4	-32.1	536,558.98	773,946.21	32.472804°N	103.579067°W
6,900.0	6.33	191.31	6,891.0	-171.2	-34.2	536,548.17	773,944.04	32.472774°N	103.579074°W
7,000.0	6.33	191.31	6,990.4	-182.1	-36.4	536,537.35	773,941.88	32.472745°N	103.579082°W
7,100.0	6.33	191.31	7,089.8	-192.9	-38.6	536,526.54	773,939.72	32.472715°N	103.579089°W
7,200.0	6.33	191.31	7,189.2	-203.7	-40.7	536,515.73	773,937.56	32.472685°N	103.579096°W
7,265.0	6.33	191.31	7,253.8	-210.7	-42.1	536,508.70	773,936.15	32.472666°N	103.579101°W
BYCN_G									
7,300.0	6.33	191.31	7,288.5	-214.5	-42.9	536,504.92	773,935.39	32.472656°N	103.579103°W
7,400.0	6.33	191.31	7,387.9	-225.3	-45.1	536,494.10	773,933.23	32.472626°N	103.579111°W
7,500.0	6.33	191.31	7,487.3	-236.1	-47.2	536,483.29	773,931.07	32.472596°N	103.579118°W
7,600.0 7,700.0	6.33 6.33	191.31 191.31	7,586.7 7,686.1	-246.9 -257.7	-49.4 -51.5	536,472.48 536,461.67	773,928.91 773,926.74	32.472567°N 32.472537°N	103.579125°W 103.579132°W
7,800.0	6.33	191.31	7,785.5	-268.6	-51.5 -53.7	536,450.85	773,924.58	32.472507°N	103.579140°W
7,900.0		191.31	7,884.9	-279.4	-55.9	536,440.04	773,922.42	32.472477°N	103.579147°W
8,000.0		191.31	7,984.3	-290.2	-58.0	536,429.23	773,920.26	32.472448°N	103.579154°W
8,100.0	6.33	191.31	8,083.7	-301.0	-60.2	536,418.42	773,918.09	32.472418°N	103.579161°W
8,200.0	6.33	191.31	8,183.1	-311.8	-62.4	536,407.60	773,915.93	32.472388°N	103.579169°W
8,300.0	6.33	191.31	8,282.4	-322.6	-64.5	536,396.79	773,913.77	32.472359°N	103.579176°W
8,400.0		191.31	8,381.8	-333.4	-66.7	536,385.98	773,911.61	32.472329°N	103.579183°W
8,500.0	6.33	191.31	8,481.2	-344.2	-68.8	536,375.17	773,909.44	32.472299°N	103.579190°W
8,600.0		191.31	8,580.6	-355.1	-71.0	536,364.36	773,907.28	32.472270°N	103.579198°W
8,700.0	6.33	191.31	8,680.0	-365.9	-73.2	536,353.54	773,905.12	32.472240°N	103.579205°W
8,800.0		191.31	8,779.4	-376.7	-75.3	536,342.73	773,902.96	32.472210°N	103.579212°W
8,837.2		191.31	8,816.4	-380.7	-76.1	536,338.71	773,902.15	32.472199°N	103.579215°W
BSPG_G		104.24	0 070 0	207 5	77 5	E26 224 02	772 000 70	22 470404°N	102 F70220°\A
8,900.0 9,000.0	6.33 6.33	191.31 191.31	8,878.8 8,978.2	-387.5 -398.3	-77.5 -79.7	536,331.92 536,321.11	773,900.79 773,898.63	32.472181°N 32.472151°N	103.579220°W 103.579227°W
9,000.0	0.33	181.31	0,910.2	-390.3	-19.1	000,321.11	113,090.03	32.412131 IV	103.3/922/ W

#### Planning Report - Geographic

Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

 Site:
 Boone 21-33-16 State Com Pad C

 Well:
 Boone 21-33-16 State Com 822H

 Wellbore:
 Boone 21-33-16 State Com 822H

 Design:
 Boone 21-33-16 State Com 822H

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Boone 21-33-16 State Com 822H WELL @ 3800.5usft (Original Well Elev) WELL @ 3800.5usft (Original Well Elev)

Grid

Design.			ale Com 62211										
Planned Survey	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	6.33	191.31	9,077.6	-409.1	-81.8	536,310.29	773,896.47	32.472121°N	103.579234°W				
9,200.0	6.33	191.31	9,177.0	-419.9	-84.0	536,299.48	773,894.31	32.472092°N	103.579241°W				
9,300.0	6.33	191.31	9,276.4	-430.7	-86.1	536,288.67	773,892.14	32.472062°N	103.579249°W				
9,392.4	6.33	191.31	9,368.2	-440.7	-88.1	536,278.67	773,890.15	32.472035°N	103.579255°W				
Start Dro						•	•						
9,400.0	6.25	191.31	9,375.7	-441.6	-88.3	536,277.86	773,889.98	32.472032°N	103.579256°W				
9,500.0	5.25	191.31	9,475.2	-451.4	-90.3	536,268.03	773,888.02	32.472005°N	103.579262°W				
9,600.0	4.25	191.31	9,574.9	-459.5	-91.9	536,259.90	773,886.39	32.471983°N	103.579268°W				
9,700.0	3.25	191.31	9,674.7	-465.9	-93.2	536,253.48	773,885.11	32.471965°N	103.579272°W				
9,800.0	2.25	191.31	9,774.6	-470.6	-94.1	536,248.76	773,884.16	32.471953°N	103.579275°W				
9,900.0	1.25	191.31	9,874.5	-473.7	-94.7	536,245.76	773,883.56	32.471944°N	103.579277°W				
9,960.4	0.65	191.31	9,934.9	-474.6	-94.9	536,244.78	773,883.37	32.471942°N	103.579278°W				
FBSG_G	RID												
10,000.0	0.25	191.31	9,974.5	-474.9	-95.0	536,244.47	773,883.30	32.471941°N	103.579278°W				
10,006.6	0.19	191.31	9,981.1	-475.0	-95.0	536,244.44	773,883.30	32.471941°N	103.579278°W				
AEP_TA	RGET_1BS_G	RID											
10,025.5	0.00	0.00	10,000.0	-475.0	-95.0	536,244.41	773,883.29	32.471941°N	103.579278°W				
Start 172	2.5 hold at 100	25.5 MD											
10,100.0	0.00	0.00	10,074.5	-475.0	-95.0	536,244.41	773,883.29	32.471941°N	103.579278°W				
10,198.0	0.00	0.00	10,172.5	-475.0	-95.0	536,244.41	773,883.29	32.471941°N	103.579278°W				
KOP #2	- Start Build 1	2.00											
10,200.0	0.24	359.53	10,174.5	-475.0	-95.0	536,244.42	773,883.29	32.471941°N	103.579278°W				
10,300.0	12.24	359.53	10,273.7	-464.2	-95.1	536,255.26	773,883.20	32.471970°N	103.579278°W				
10,357.0	19.08	359.53	10,328.6	-448.8	-95.2	536,270.65	773,883.08	32.472013°N	103.579278°W				
AEP_TA	RGET_2CARE	3_GRID											
10,400.0	24.24	359.53	10,368.5	-432.9	-95.3	536,286.49	773,882.94	32.472056°N	103.579278°W				
10,500.0	36.24	359.53	10,454.8	-382.7	-95.8	536,336.76	773,882.53	32.472194°N	103.579279°W				
10,542.4	41.32	359.53	10,487.8	-356.1	-96.0	536,363.28	773,882.31	32.472267°N	103.579279°W				
SBSG_G													
10,561.3	43.59	359.53	10,501.8	-343.3	-96.1	536,376.07	773,882.20	32.472302°N	103.579279°W				
	1-33-16 State												
10,600.0	48.24	359.53	10,528.7	-315.6	-96.3	536,403.85	773,881.97	32.472379°N	103.579279°W				
10,616.8	50.25	359.53	10,539.6	-302.8	-96.4	536,416.58	773,881.87	32.472414°N	103.579279°W				
AEP_TA	RGET_2BS_E	K_UPR_GRID	)										
10,700.0	60.24	359.53	10,587.0	-234.6	-97.0	536,484.84	773,881.30	32.472601°N	103.579279°W				
10,800.0	72.24	359.53	10,627.2	-143.2	-97.7	536,576.19	773,880.55	32.472853°N	103.579280°W				
10,900.0	84.24	359.53	10,647.6	-45.5	-98.6	536,673.91	773,879.74	32.473121°N	103.579280°W				
10,948.0	90.00	359.53	10,650.0	2.4	-99.0	536,721.86	773,879.34	32.473253°N	103.579280°W				
	t 9863.9 hold												
11,000.0	90.00	359.53	10,650.0	54.4	-99.4	536,773.83	773,878.91	32.473396°N	103.579280°W				
11,100.0	90.00	359.53	10,650.0	154.4	-100.2	536,873.82	773,878.08	32.473671°N	103.579281°W				
11,200.0	90.00	359.53	10,650.0	254.4	-101.0	536,973.82	773,877.25	32.473945°N	103.579281°W				
11,300.0	90.00	359.53	10,650.0	354.4	-101.9	537,073.82	773,876.42	32.474220°N	103.579282°W				
11,400.0	90.00	359.53	10,650.0	454.4	-102.7	537,173.81	773,875.60	32.474495°N	103.579282°W				
11,500.0	90.00	359.53 350.53	10,650.0	554.4	-103.5	537,273.81	773,874.77	32.474770°N	103.579282°W 103.579283°W				
11,600.0	90.00	359.53 350.53	10,650.0	654.4 754.4	-104.4 105.2	537,373.81	773,873.94	32.475045°N					
11,700.0 11,800.0	90.00 90.00	359.53 359.53	10,650.0 10,650.0	754.4 854.4	-105.2 -106.0	537,473.80 537,573.80	773,873.11 773,872.28	32.475320°N 32.475595°N	103.579283°W 103.579284°W				
11,900.0	90.00	359.53 359.53	10,650.0	954.4	-106.0	537,673.80	773,871.46	32.475870°N	103.579284°W				
12,000.0	90.00	359.53 359.53	10,650.0	954.4 1,054.4	-106.6 -107.7	537,773.79	773,870.63	32.476144°N	103.579284°W				
12,100.0	90.00	359.53 359.53	10,650.0	1,054.4	-107.7 -108.5	537,873.79	773,869.80	32.476144 N 32.476419°N	103.579284 W				
12,100.0	90.00	359.53	10,650.0	1,154.4	-109.3	537,973.79	773,868.97	32.476419 N 32.476694°N	103.579285°W				
12,300.0	90.00	359.53	10,650.0	1,354.4	-110.2	538,073.78	773,868.14	32.476969°N	103.579285°W				
12,000.0	50.00	555.55	10,000.0	1,004.4	110.2	555,010.10	770,000.17	32.170000 14	100.010200 11				

#### Planning Report - Geographic

Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

 Site:
 Boone 21-33-16 State Com Pad C

 Well:
 Boone 21-33-16 State Com 822H

 Wellbore:
 Boone 21-33-16 State Com 822H

 Design:
 Boone 21-33-16 State Com 822H

Local Co-ordinate Reference: TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well Boone 21-33-16 State Com 822H WELL @ 3800.5usft (Original Well Elev) WELL @ 3800.5usft (Original Well Elev)

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,400.0	90.00	359.53	10,650.0	1,454.4	-111.0	538,173.78	773,867.31	32.477244°N	103.579286°W
12,500.0	90.00	359.53	10,650.0	1,554.4	-111.8	538,273.78	773,866.49	32.477519°N	103.579286°W
12,600.0	90.00	359.53	10,650.0	1,654.4	-112.6	538,373.77	773,865.66	32.477794°N	103.579287°W
12,700.0	90.00	359.53	10,650.0	1,754.4	-113.5	538,473.77	773,864.83	32.478068°N	103.579287°W
12,800.0	90.00	359.53	10,650.0	1,854.4	-114.3	538,573.76	773,864.00	32.478343°N	103.579287°W
12,900.0	90.00	359.53	10,650.0	1,954.3	-115.1	538,673.76	773,863.17	32.478618°N	103.579288°W
13,000.0	90.00	359.53	10,650.0	2,054.3	-115.9	538,773.76	773,862.35	32.478893°N	103.579288°W
13,100.0	90.00	359.53	10,650.0	2,154.3	-116.8	538,873.75	773,861.52	32.479168°N	103.579289°W
13,200.0	90.00	359.53	10,650.0	2,254.3	-117.6	538,973.75	773,860.69	32.479443°N	103.579289°W
13,300.0	90.00	359.53	10,650.0	2,354.3	-118.4	539,073.75	773,859.86	32.479718°N	103.579289°W
13,400.0	90.00	359.53	10,650.0	2,454.3	-119.3	539,173.74	773,859.03	32.479992°N	103.579290°W
13,500.0	90.00	359.53	10,650.0	2,554.3	-120.1	539,273.74	773,858.20	32.480267°N	103.579290°W
13,600.0	90.00	359.53	10,650.0	2,654.3	-120.9	539,373.74	773,857.38	32.480542°N	103.579291°W
13,700.0	90.00	359.53	10,650.0	2,754.3	-121.7	539,473.73	773,856.55	32.480817°N	103.579291°W
13,800.0	90.00	359.53	10,650.0	2,854.3	-122.6	539,573.73	773,855.72	32.481092°N	103.579291°W
13,900.0	90.00	359.53	10,650.0	2,954.3	-123.4	539,673.73	773,854.89	32.481367°N	103.579292°W
14,000.0	90.00	359.53	10,650.0	3,054.3	-124.2	539,773.72	773,854.06	32.481642°N	103.579292°W
14,100.0	90.00	359.53	10,650.0	3,154.3	-125.1	539,873.72	773,853.24	32.481917°N	103.579293°W
14,200.0	90.00	359.53	10,650.0	3,254.3	-125.9	539,973.72	773,852.41	32.482191°N	103.579293°W
14,300.0	90.00	359.53	10,650.0	3,354.3	-126.7	540,073.71	773,851.58	32.482466°N	103.579293°W
14,400.0	90.00	359.53	10,650.0	3,454.3	-127.5	540,173.71	773,850.75	32.482741°N	103.579294°W
14,500.0	90.00	359.53	10,650.0	3,554.3	-128.4	540,273.71	773,849.92	32.483016°N	103.579294°W
14,600.0	90.00	359.53	10,650.0	3,654.3	-129.2	540,373.70	773,849.09	32.483291°N	103.579295°W
14,700.0	90.00	359.53	10,650.0	3,754.3	-130.0	540,473.70	773,848.27	32.483566°N	103.579295°W
14,800.0	90.00	359.53	10,650.0	3,854.3	-130.9	540,573.70	773,847.44	32.483841°N	103.579295°W
14,900.0	90.00	359.53	10,650.0	3,954.3	-131.7	540,673.69	773,846.61	32.484115°N	103.579296°W
15,000.0	90.00	359.53	10,650.0	4,054.3	-132.5	540,773.69	773,845.78	32.484390°N	103.579296°W
15,100.0	90.00	359.53	10,650.0	4,154.3	-133.3	540,873.69	773,844.95	32.484665°N	103.579297°W
15,200.0	90.00	359.53	10,650.0	4,254.3	-134.2	540,973.68	773,844.13	32.484940°N	103.579297°W
15,300.0	90.00	359.53	10,650.0	4,354.3	-135.0	541,073.68	773,843.30	32.485215°N	103.579297°W
15,400.0	90.00	359.53	10,650.0	4,454.3	-135.8	541,173.68	773,842.47	32.485490°N	103.579298°W
15,500.0	90.00	359.53	10,650.0	4,554.3	-136.7	541,273.67	773,841.64	32.485765°N	103.579298°W
15,600.0	90.00	359.53	10,650.0	4,654.3	-137.5	541,373.67	773,840.81	32.486039°N	103.579298°W
15,700.0	90.00	359.53	10,650.0	4,754.3	-138.3	541,473.67	773,839.98	32.486314°N	103.579299°W
15,800.0	90.00	359.53	10,650.0	4,854.2	-139.1	541,573.66	773,839.16	32.486589°N	103.579299°W
15,900.0	90.00	359.53	10,650.0	4,954.2	-140.0	541,673.66	773,838.33	32.486864°N	103.579300°W
16,000.0	90.00	359.53	10,650.0	5,054.2	-140.8	541,773.66	773,837.50	32.487139°N	103.579300°W
16,100.0	90.00	359.53	10,650.0	5,154.2	-141.6	541,873.65	773,836.67	32.487414°N	103.579300°W
16,200.0	90.00	359.53	10,650.0	5,254.2	-142.5	541,973.65	773,835.84	32.487689°N	103.579301°W
16,300.0	90.00	359.53	10,650.0	5,354.2	-143.3	542,073.64	773,835.02	32.487963°N	103.579301°W
16,400.0	90.00	359.53	10,650.0	5,454.2	-144.1	542,173.64	773,834.19	32.488238°N	103.579302°W
16,500.0	90.00	359.53	10,650.0	5,554.2	-144.9	542,273.64	773,833.36	32.488513°N	103.579302°W
16,600.0	90.00	359.53	10,650.0	5,654.2	-145.8	542,373.63	773,832.53	32.488788°N	103.579302°W
16,700.0	90.00	359.53	10,650.0	5,754.2	-146.6	542,473.63	773,831.70	32.489063°N	103.579303°W
16,800.0	90.00	359.53	10,650.0	5,854.2	-147.4	542,573.63	773,830.87	32.489338°N	103.579303°W
16,900.0	90.00	359.53	10,650.0	5,954.2	-148.2	542,673.62	773,830.05	32.489613°N	103.579304°W
17,000.0	90.00	359.53	10,650.0	6,054.2	-149.1	542,773.62	773,829.22	32.489888°N	103.579304°W
17,100.0	90.00	359.53	10,650.0	6,154.2	-149.9	542,873.62	773,828.39	32.490162°N	103.579304°W
17,200.0	90.00	359.53	10,650.0	6,254.2	-150.7	542,973.61	773,827.56	32.490437°N	103.579305°W
17,300.0	90.00	359.53	10,650.0	6,354.2	-151.6	543,073.61	773,826.73	32.490712°N	103.579305°W
17,400.0	90.00	359.53	10,650.0	6,454.2	-152.4	543,173.61	773,825.91	32.490987°N	103.579306°W
17,500.0	90.00	359.53	10,650.0	6,554.2	-153.2	543,273.60	773,825.08	32.491262°N	103.579306°W
17,600.0	90.00	359.53	10,650.0	6,654.2	-154.0	543,373.60	773,824.25	32.491537°N	103.579306°W
17,700.0	90.00	359.53	10,650.0	6,754.2	-154.9	543,473.60	773,823.42	32.491812°N	103.579307°W
17,800.0	90.00	359.53	10,650.0	6,854.2	-155.7	543,573.59	773,822.59	32.492086°N	103.579307°W

#### Planning Report - Geographic

Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

 Site:
 Boone 21-33-16 State Com Pad C

 Well:
 Boone 21-33-16 State Com 822H

 Wellbore:
 Boone 21-33-16 State Com 822H

 Design:
 Boone 21-33-16 State Com 822H

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well Boone 21-33-16 State Com 822H WELL @ 3800.5usft (Original Well Elev) WELL @ 3800.5usft (Original Well Elev) Grid

ned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
17,900.0	90.00	359.53	10,650.0	6,954.2	-156.5	543,673.59	773,821.76	32.492361°N	103.579308°W
18,000.0	90.00	359.53	10,650.0	7,054.2	-157.4	543,773.59	773,820.94	32.492636°N	103.579308°V
18,100.0	90.00	359.53	10,650.0	7,154.2	-158.2	543,873.58	773,820.11	32.492911°N	103.579308°V
18,200.0	90.00	359.53	10,650.0	7,254.2	-159.0	543,973.58	773,819.28	32.493186°N	103.579309°\
18,300.0	90.00	359.53	10,650.0	7,354.2	-159.8	544,073.58	773,818.45	32.493461°N	103.579309°\
18,400.0	90.00	359.53	10,650.0	7,454.2	-160.7	544,173.57	773,817.62	32.493736°N	103.579309°V
18,500.0	90.00	359.53	10,650.0	7,554.2	-161.5	544,273.57	773,816.80	32.494010°N	103.579310°V
18,600.0	90.00	359.53	10,650.0	7,654.2	-162.3	544,373.57	773,815.97	32.494285°N	103.579310°\
18,700.0	90.00	359.53	10,650.0	7,754.1	-163.2	544,473.56	773,815.14	32.494560°N	103.579311°\
18,800.0	90.00	359.53	10,650.0	7,854.1	-164.0	544,573.56	773,814.31	32.494835°N	103.579311°\
18,900.0	90.00	359.53	10,650.0	7,954.1	-164.8	544,673.56	773,813.48	32.495110°N	103.579311°\
19,000.0	90.00	359.53	10,650.0	8,054.1	-165.6	544,773.55	773,812.65	32.495385°N	103.579312°\
19,100.0	90.00	359.53	10,650.0	8,154.1	-166.5	544,873.55	773,811.83	32.495660°N	103.579312°
19,200.0	90.00	359.53	10,650.0	8,254.1	-167.3	544,973.55	773,811.00	32.495934°N	103.579313°
19,300.0	90.00	359.53	10,650.0	8,354.1	-168.1	545,073.54	773,810.17	32.496209°N	103.579313°\
19,400.0	90.00	359.53	10,650.0	8,454.1	-169.0	545,173.54	773,809.34	32.496484°N	103.579313°
19,500.0	90.00	359.53	10,650.0	8,554.1	-169.8	545,273.54	773,808.51	32.496759°N	103.579314°
19,600.0	90.00	359.53	10,650.0	8,654.1	-170.6	545,373.53	773,807.69	32.497034°N	103.579314°
19,700.0	90.00	359.53	10,650.0	8,754.1	-171.4	545,473.53	773,806.86	32.497309°N	103.579315°
19,800.0	90.00	359.53	10,650.0	8,854.1	-172.3	545,573.52	773,806.03	32.497584°N	103.579315°\
19,900.0	90.00	359.53	10,650.0	8,954.1	-173.1	545,673.52	773,805.20	32.497858°N	103.579315°
20,000.0	90.00	359.53	10,650.0	9,054.1	-173.9	545,773.52	773,804.37	32.498133°N	103.579316°
20,100.0	90.00	359.53	10,650.0	9,154.1	-174.7	545,873.51	773,803.54	32.498408°N	103.579316°
20,200.0	90.00	359.53	10,650.0	9,254.1	-175.6	545,973.51	773,802.72	32.498683°N	103.579317°\
20,300.0	90.00	359.53	10,650.0	9,354.1	-176.4	546,073.51	773,801.89	32.498958°N	103.579317°
20,400.0	90.00	359.53	10,650.0	9,454.1	-177.2	546,173.50	773,801.06	32.499233°N	103.579317°
20,500.0	90.00	359.53	10,650.0	9,554.1	-178.1	546,273.50	773,800.23	32.499508°N	103.579318°\
20,600.0	90.00	359.53	10,650.0	9,654.1	-178.9	546,373.50	773,799.40	32.499783°N	103.579318°
20,700.0	90.00	359.53	10,650.0	9,754.1	-179.7	546,473.49	773,798.58	32.500057°N	103.579319°
20,800.0	90.00	359.53	10,650.0	9,854.1	-180.5	546,573.49	773,797.75	32.500332°N	103.579319°\
20,811.9	90.00	359.53	10,650.0	9,866.0	-180.6	546,585.40	773,797.65	32.500365°N	103.579319°'
			ne 21-33-16 St			0 10,000. 10	770,707.00	02.000000 14	100.07.0010
20,861.9	90.00	359.53	10,650.0	9,916.0	-181.1	546,635.39	773,797.23	32.500502°N	103.579319°
			te Com 822H E		-101.1	340,033.39	113,131.23	32.300302 N	103.37 33 18

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
Boone 21-33-16 State C - plan hits target cen - Point	0.00 ter	0.00	10,650.0	9,916.0	-181.1	546,635.39	773,797.23	32.500502°N	103.579319°W
Boone 21-33-16 State C - plan misses target - Point	0.00 center by 210	0.00 .4usft at 105	10,650.0 61.3usft MD	-492.7 (10501.8 TVD	-93.9 0, -343.3 N, -9	536,226.71 6.1 E)	773,884.41	32.471892°N	103.579275°W
Boone 21-33-16 State C - plan hits target cen - Point	0.00 ter	0.00	10,650.0	9,866.0	-180.6	546,585.40	773,797.65	32.500365°N	103.579319°W

#### Planning Report - Geographic

Database: EDM 5000.16 Single User Db Company: Advance Energy Partners

Project: Hat Mesa

 Site:
 Boone 21-33-16 State Com Pad C

 Well:
 Boone 21-33-16 State Com 822H

 Wellbore:
 Boone 21-33-16 State Com 822H

 Design:
 Boone 21-33-16 State Com 822H

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Boone 21-33-16 State Com 822H WELL @ 3800.5usft (Original Well Elev) WELL @ 3800.5usft (Original Well Elev)

Formations							
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,796.4	1,796.4	RSLR_GRID				
	2,170.9	2,170.9	SLDO_GRID				
	3,684.6	3,684.6	TNSL_GRID				
	4,202.5	4,202.5	CPTN_GRID				
	5,434.9	5,434.5	BLCN_GRID				
	7,265.0	7,253.8	BYCN_GRID				
	8,837.2	8,816.4	BSPG_GRID				
	9,960.4	9,934.9	FBSG_GRID				
	10,006.6	9,981.1	AEP_TARGET_1BS_GRID				
	10,357.0	10,328.6	AEP_TARGET_2CARB_GRID				
	10,542.4	10,487.8	SBSG_GRID				
	10,616.8	10,539.6	AEP_TARGET_2BS_EK_UPR_GRID				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coor	rdinates +E/-W		
(usft)	(usft)	(usft)	(usft)	Comment	
5,000.0	5,000.0	0.0	0.0	KOP - Start Build 1.00	
5,633.1	5,631.8	-34.3	-6.9	Start 3759.4 hold at 5633.1 MD	
9,392.4	9,368.2	-440.7	-88.1	Start Drop -1.00	
10,025.5	10,000.0	-475.0	-95.0	Start 172.5 hold at 10025.5 MD	
10,198.0	10,172.5	-475.0	-95.0	KOP #2 - Start Build 12.00	
10,948.0	10,650.0	2.4	-99.0	LP - Start 9863.9 hold at 10948.0 MD	
20,811.9	10,650.0	9,866.0	-180.6	Start 50.0 hold at 20811.9 MD	
20,861.9	10,650.0	9,916.0	-181.1	TD at 20861.9	



2901 Via Fortuna, Suite 600, Austin, Texas 78746 • Phone 832-672-4700 • Fax 832-672-4609

September 9, 2022

Mr. Paul Kautz, Hobbs District Geologist Energy Minerals Natural Resources Dept. Oil Conservation Division 1625 N. French Dr. Hobbs, New Mexico 88240

Re: Advance Energy Partners Hat Mesa, LLC (OGRID No. 372417)
Proposed Well APDs- Boone Wells
State Land in Section 16, T21S-R33E
Lea County, New Mexico

Dear Mr. Kautz,

This letter is to confirm that there are no active potash leases within a 1-mile radius of the SHLs of the Boone 21-33-16 State Com wells in Section 16, Township 21 South, Range 33 East, Lea County, New Mexico.

### Boone 21-33-16 State Com Wells:

#### Boone 21-33-16 State Com #71H

- The surface location is located 594 feet from the south line and 701 feet from the west line (Unit M) of Section 16
- The bottom hole location is located 50 feet from the south line and 330 feet from the west line (Unit D) of Section 9.

#### Boone 21-33-16 State Com #72H

- The surface location is located 592 feet from the south line and 2,168 feet from the west line (Unit N) of Section 16
- The bottom hole location is located 50 feet from the north line and 1,973 feet from the west line (Unit C) of Section 9.

#### Boone 21-33-16 State Com #73H

- The surface location is located 568 feet from the south line and 1,540 feet from the east line (Unit O) of Section 16
- The bottom hole location is located 50 feet from the north line and 1,430 feet from the east line (Unit B) of Section 9.

#### Boone 21-33-16 State Com #91H

The surface location is located 594 feet from the south line and 741 feet from the west line (Unit M) of Section 16

The bottom hole location is located 50 feet from the north line and 330 feet from the west line (Unit D) of Section 9.

#### Boone 21-33-16 State Com #92H

- The surface location is located 592 feet from the south line and 2,208 feet from the west line (Unit N) of Section 16
- The bottom hole location is located 50 feet from the north line and 2,090 feet from the west line (Unit C) of Section 9.

#### Boone 21-33-16 State Com #93H

- The surface location is located 575 feet from the south line and 705 feet from the east line (Unit P) of Section 16
- The bottom hole location is located 50 feet from the north line and 1,430 feet from the east line (Unit B) of Section 9.

#### Boone 21-33-16 State Com #111H

- The surface location is located 592 feet from the south line and 2,128 feet from the west line (Unit N) of Section 16
- The bottom hole location is located 50 feet from the north line and 1,210 feet from the west line (Unit D) of Section 9.

#### Boone 21-33-16 State Com #113H

- The surface location is located 568 feet from the south line and 1,600 feet from the east line (Unit O) of Section 16
- The bottom hole location is located 50 feet from the north line and 2,307 feet from the east line (Unit B) of Section 9.

#### Boone 21-33-16 State Com #114H

- The surface location is located 575 feet from the south line and 625 feet from the east line (Unit P) of Section 16
- The bottom hole location is located 50 feet from the north line and 550 feet from the east line (Unit A) of Section 9.

#### Boone 21-33-16 State Com #811H

- The surface location is located 593 feet from the south line and 801 feet from the west line (Unit M) of Section 16
- The bottom hole location is located 50 feet from the north line and 1,210 feet from the west line (Unit D) of Section 9.

#### Boone 21-33-16 State Com #813H

- The surface location is located 568 feet from the south line and 1,640 feet from the east line (Unit O) of Section 16
- The bottom hole location is located 50 feet from the north line and 2,307 feet from the east line (Unit B) of Section 9.

#### Boone 21-33-16 State Com #814H

- The surface location is located 575 feet from the south line and 665 feet from the east line (Unit P) of Section 16
- The bottom hole location is located 50 feet from the north line and 550 feet from the east line (Unit A) of Section 9.

#### Boone 21-33-16 State Com #821H

- The surface location is located 593 feet from the south line and 721 feet from the west line (Unit M) of Section 16
- The bottom hole location is located 50 feet from the north line and 330 feet from the west line (Unit D) of Section 9.

#### Boone 21-33-16 State Com #822H

- The surface location is located 592 feet from the south line and 2,188 feet from the west line (Unit N) of Section 16
- The bottom hole location is located 50 feet from the north line and 2,090 feet from the west line (Unit C) of Section 9.

#### Boone 21-33-16 State Com #823H

- The surface location is located 567 feet from the south line and 1,560 feet from the east line (Unit O) of Section 16
- The bottom hole location is located 50 feet from the north line and 1,430 feet from the east line (Unit B) of Section 9.

#### Boone 21-33-16 State Com #831H

- The surface location is located 594 feet from the south line and 781 feet from the west line (Unit M) of Section 16
- The bottom hole location is located 50 feet from the north line and 1,210 feet from the west line (Unit D) of Section 9.

#### Boone 21-33-16 State Com #833H

- The surface location is located 568 feet from the south line and 1,620 feet from the east line (Unit O) of Section 16
- The bottom hole location is located 50 feet from the north line and 2,307 feet from the east line (Unit B) of Section 9.

#### Boone 21-33-16 State Com #834H

- The surface location is located 575 feet from the south line and 645 feet from the east line (Unit P) of Section 16
- The bottom hole location is located 50 feet from the north line and 550 feet from the east line (Unit A) of Section 9.

#### Boone 21-33-16 State Com #911H

The surface location is located 594 feet from the south line and 761 feet from the west line (Unit M) of Section 16

The bottom hole location is located 50 feet from the north line and 430 feet from the west line (Unit D) of Section 9.

#### Boone 21-33-16 State Com #912H

- The surface location is located 592 feet from the south line and 2,228 feet from the west line (Unit N) of Section 16
- The bottom hole location is located 50 feet from the north line and 2,190 feet from the west line (Unit C) of Section 9.

#### Boone 21-33-16 State Com #913H

- The surface location is located 575 feet from the south line and 685 feet from the east line (Unit P) of Section 16
- The bottom hole location is located 50 feet from the north line and 1,330 feet from the east line (Unit B) of Section 9.

#### Boone 21-33-16 State Com #921H

- The surface location is located 592 feet from the south line and 2,148 feet from the west line (Unit N) of Section 16
- The bottom hole location is located 50 feet from the north line and 1,310 feet from the west line (Unit D) of Section 9.

#### Boone 21-33-16 State Com #923H

- The surface location is located 568 feet from the south line and 1,580 feet from the east line (Unit O) of Section 16
- The bottom hole location is located 50 feet from the north line and 2,207 feet from the east line (Unit B) of Section 9.

#### Boone 21-33-16 State Com #924H

- The surface location is located 575 feet from the south line and 605 feet from the east line (Unit P) of Section 16
- The bottom hole location is located 50 feet from the north line and 450 feet from the east line (Unit A) of Section 9.

If you have any questions about this letter, please contact me by phone at 737-444-2997 or email at LLaufer@ameredev.com.

Sincerely,

Lizzy Laufer Landman

Advance Energy Partners Hat Mesa, LLC

Email: LLaufer@ameredev.com

#### State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Date:

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: Advance Energy Partners Hat Mesa, LLC OGRID: 372417

II. Type: ⊠ Origina	ıl 🗆 Amendment dı	ne to □ 19.15.27.9.	D(6)(a) NMAC	□ 19.15.27.9.D(	(6)(b) NMAC □	Other.
If Other, please descr	ribe:					
III. Well(s): Provide pe recompleted from					vells proposed to	be drilled or proposed
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
BOONE 21-33-16 State Com 072H	30-025-	N-16-21S-33E	592' FSL & 2168' FWL	1000	1600	3300
BOONE 21-33-16 State Com 092H	30-025-	N-16-21S-33E	592' FSL & 2208' FWL	1000	1600	3300
BOONE 21-33-16 State Com 111H	30-025-	N-16-21S-33E	592' FSL & 2128' FWL	1000	1600	3300
BOONE 21-33-16 State Com 822H	30-025-	N-16-21S-33E	592' FSL & 2188' FWL	1000	1600	3300
BOONE 21-33-16 State Com 912H	30-025-	N-16-21S-33E	592' FSL & 2228' FWL	1000	1600	3300
BOONE 21-33-16	30-025-	N-16-21S-33E	592' FSL &	1000	1600	3300

IV. Central Delivery Point Name:	[See	e 19.	15.27	.9(I	<b>)</b> )(1	.) NN	MΑ	C]
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**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	Completion	Initial Flow	First Production
			Date	Commencement Date	Back Date	Date
BOONE 21-33-16	30-025-	4/5/2023	4/25/2023	8/21/2022	10/11/2022	10/14/2022
State Com 072H						
BOONE 21-33-16	30-025-	6/10/2023	6/30/2023	8/21/2022	10/11/2022	10/14/2022
State Com 092H						
BOONE 21-33-16	30-025-	7/2/2023	7/22/2023	8/21/2022	10/11/2022	10/14/2022
State Com 111H						
BOONE 21-33-16	30-025-	4/27/2023	5/17/2023	8/21/2022	10/11/2022	10/14/2022
State Com 822H						
BOONE 21-33-16	30-025-	5/19/2023	6/8/2023	8/21/2022	10/11/2022	10/14/2022
State Com 912H						
BOONE 21-33-16	30-025-	7/24/2023	8/13/2023	8/21/2022	10/11/2022	10/14/2022
State Com H 921H						

VI. Separation Equipment: 

Attach a complete description of how Operator will size separation equipment to optimize gas capture.

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. $\square$ 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 [	$\square$ will $\square$ will not have ca	apacity to gather 100% of t	the anticipated natural gas
production volume from the well prior to the date of first	t production.		

XIII. Line Pressure. Operator $\square$ does $\square$ does not anticipate that its existing well(s) connected to the same segme	nt, or portion	, of the
natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused	by the new w	/ell(s).

		duction in response to	

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

(i)

# 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: power generation on lease; (a) **(b)** power generation for grid; compression on lease; (c) (d) liquids removal on lease; reinjection for underground storage; (e) **(f)** reinjection for temporary storage; **(g)** reinjection for enhanced oil recovery; fuel cell production; and (h)

### **Section 4 - Notices**

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

other alternative beneficial uses approved by the division.

- (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: Dayerd Khan
Printed Name: Dayeed Khan
Title: Engineer
E-mail Address: dkhan@ameredev.com
Date: 08/23/2022
Phone: 737-300-4735
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
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/H2S 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