

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

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

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Advance Energy Partners Hat Mesa, LLC 11490 Westheimer RD, Suite 950 Houston, TX		² OGRID Number 372417	
		³ Reason for Filing Code/ Effective Date NW	
⁴ API Number 30-025-49938	⁵ Pool Name WC-025 G-08 S213304D;BONE SPRING		⁶ Pool Code 97895
⁷ Property Code 325948	⁸ Property Name WOOL HEAD 20 STATE COM		⁹ Well Number 303H

II. ¹⁰ Surface Location

UL or lot no. P	Section 20	Township 21S	Range 33E	Lot Idn	Feet from the 154	North/South Line SOUTH	Feet from the 825	East/West line EAST	County Lea
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¹¹ Bottom Hole Location

UL or lot no. I	Section 17	Township 21S	Range 33E	Lot Idn	Feet from the 2566	North/South line SOUTH	Feet from the 331	East/West line EAST	County Lea
¹² Lse Code	¹³ Producing Method Code		¹⁴ Gas Connection Date		¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date	

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
214984	Plains Marketing, LP 10 Desta Drive, Suite 200E Midland, TX 79705	O
330291	3 Bear Energy-Cottonwood, LLC 1512 Larimer Street, Suite 540 Denver, CO 80202	G

IV. Well Completion Data

²¹ Spud Date 5/7/2022	²² Ready Date 7/16/2022	²³ TD 17,618'	²⁴ PBDT 17,437'	²⁵ Perforations 10,166'-17,535'	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement
17.5"		13.375"	1,727'		990
12.25"		10.75"	3,780'		485
9.88"		7.625"	5,345'		560
6.75"		5.5"	17,603'		1190

V. Well Test Data

³¹ Date New Oil 7/31/2022	³² Gas Delivery Date 7/31/2022	³³ Test Date 9/12/2022	³⁴ Test Length 24 HRS	³⁵ Tbg. Pressure N/A	³⁶ Csg. Pressure 160
³⁷ Choke Size 64	³⁸ Oil 332	³⁹ Water 2965	⁴⁰ Gas 383		⁴¹ Test Method F
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Eileen M Kosakowski</i>			OIL CONSERVATION DIVISION		
Printed name: Eileen M Kosakowski			Approved by: <i>PATRICIA MARTINEZ</i>		
Title: Sr. Eng. Tech			Title: <i>PETROLEUM SPECIALIST</i>		
E-mail Address: ekosakowski@advanceenergypartners.com			Approval Date: <i>2/28/2025</i>		
Date: 1/31/2023		Phone: 832-672-4604			

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

AS Drilled

¹ API Number 30-025-49938	² Pool Code 97895	³ Pool Name WC-025 G-08 S213304D;BONE SPRING
⁴ Property Code 325948	⁵ Property Name WOOL HEAD 20 STATE COM	⁶ Well Number 303H
⁷ OGRID No. 372417	⁸ Operator Name ADVANCE ENERGY PARTNERS, LLC	⁹ Elevation 3724'

¹⁰Surface Location

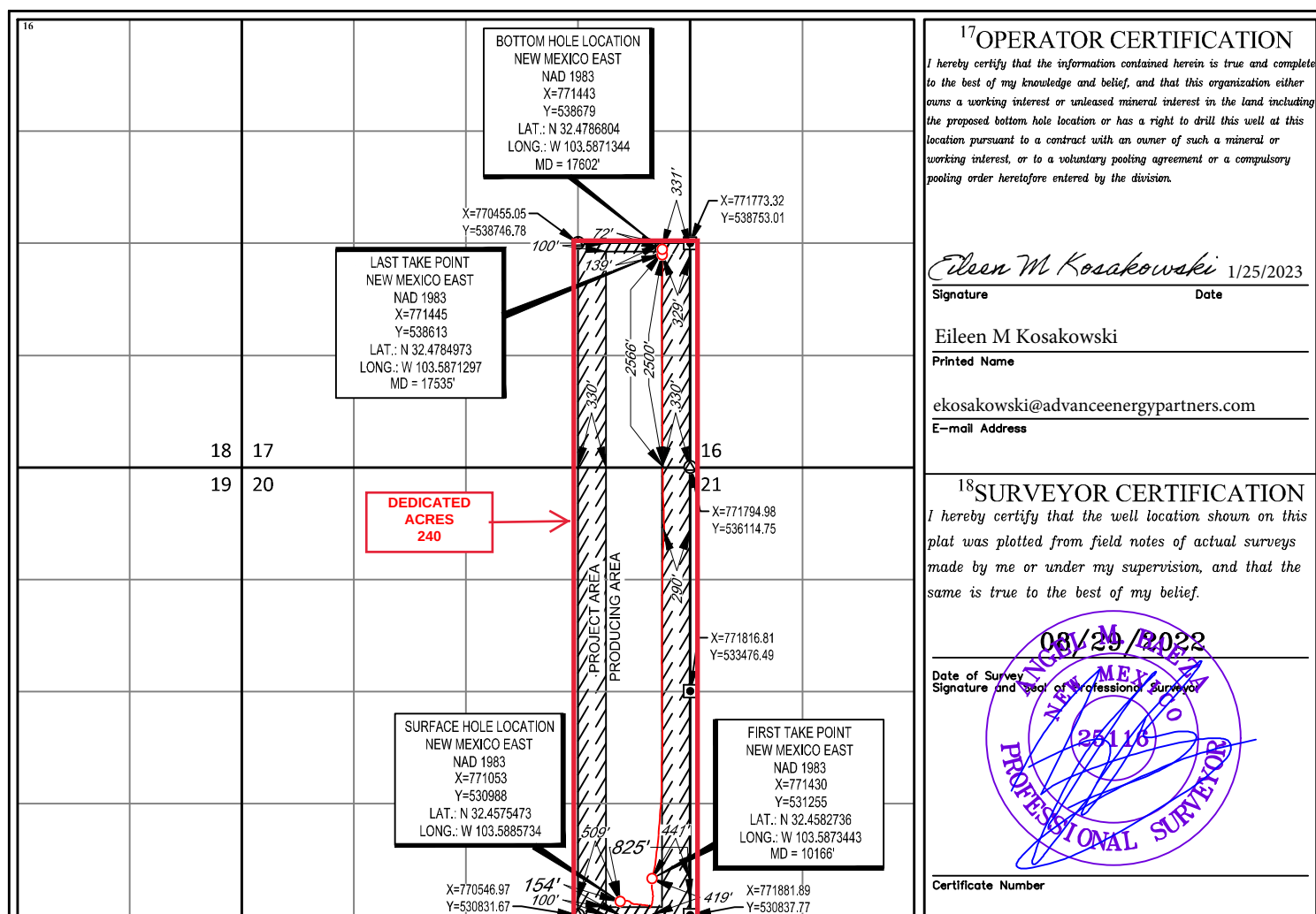
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	20	21-S	33-E	-	154'	SOUTH	825'	EAST	LEA

¹¹Bottom 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
I	17	21-S	33-E	-	2566'	SOUTH	331'	EAST	LEA

¹² Dedicated Acres 240	¹³ Joint or Infill	¹⁴ Consolidation Code C	¹⁵ 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.

¹⁷OPERATOR 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.

Eileen M Kosakowski 1/25/2023
Signature Date

Eileen M Kosakowski
Printed Name

ekosakowski@advanceenergypartners.com
E-mail Address

¹⁸SURVEYOR 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 to the best of my belief.

08/29/2022
Date of Survey
Signature and Seal of Professional Surveyor

25116
PROFESSIONAL SURVEYOR
Certificate Number

Advance Energy Partners

Hat Mesa

Wool Head 20 State Com Pad A

Wool Head 20 State Com 303H

Wool Head 20 State Com 303H

Survey: AD

Survey Report - Geographic

30 January, 2023

Survey Report - Geographic

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	WH303H	Database:	AUS-COMPASS - EDM_15 - 32bit

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		

Site						Wool Head 20 State Com Pad A											
Site Position:						Northing:			531,182.66 usft			Latitude:			32.4580839		
From:			Lat/Long			Easting:			770,982.21 usft			Longitude:			-103.5887989		
Position Uncertainty:			0.0 usft			Slot Radius:			13-3/16 "			Grid Convergence:			0.40 °		

Well	Wool Head 20 State Com 303H,					
Well Position	+N/-S	0.0 usft	Northing:	530,983.09 usft	Latitude:	32.4575340
	+E/-W	0.0 usft	Easting:	771,053.28 usft	Longitude:	-103.5885730
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,725.0 usft

Wellbore	Wool Head 20 State Com 303H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/30/2021	6.57	60.22	47,682.36863598

Design	WH303H				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	359.21	

Survey Program	Date	1/30/2023			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
205.0	17,602.0	AD (Wool Head 20 State Com 303H)	MWD	OWSG MWD - Standard	

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	530,983.09	771,053.28	32.4575340	-103.5885730
205.0	0.22	179.97	205.0	-0.4	0.0	530,982.70	771,053.28	32.4575329	-103.5885730
686.0	0.35	255.03	686.0	-1.7	-1.4	530,981.39	771,051.86	32.4575294	-103.5885776
747.0	0.40	246.16	747.0	-1.8	-1.8	530,981.26	771,051.49	32.4575290	-103.5885788
839.0	0.31	253.98	839.0	-2.0	-2.3	530,981.06	771,050.96	32.4575285	-103.5885806
927.0	0.62	246.07	927.0	-2.3	-3.0	530,980.80	771,050.29	32.4575278	-103.5885827
1,022.0	0.57	238.86	1,022.0	-2.7	-3.9	530,980.35	771,049.42	32.4575266	-103.5885856
1,118.0	0.66	270.06	1,118.0	-3.0	-4.8	530,980.10	771,048.46	32.4575259	-103.5885887
1,213.0	0.53	261.89	1,213.0	-3.0	-5.8	530,980.04	771,047.47	32.4575258	-103.5885919
1,309.0	0.84	145.87	1,309.0	-3.7	-5.9	530,979.40	771,047.43	32.4575240	-103.5885920
1,404.0	1.10	276.57	1,404.0	-4.2	-6.4	530,978.92	771,046.91	32.4575227	-103.5885937
1,500.0	0.40	282.45	1,500.0	-4.0	-7.6	530,979.10	771,045.67	32.4575232	-103.5885978

Survey Report - Geographic

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	WH303H	Database:	AUS-COMPASS - EDM_15 - 32bit

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,596.0	0.00	0.00	1,596.0	-3.9	-7.9	530,979.17	771,045.34	32.4575234	-103.5885988
1,692.0	0.66	60.09	1,692.0	-3.6	-7.5	530,979.45	771,045.82	32.4575242	-103.5885973
1,786.0	1.23	67.83	1,785.9	-3.0	-6.1	530,980.10	771,047.23	32.4575259	-103.5885927
1,882.0	1.32	63.61	1,881.9	-2.1	-4.1	530,980.98	771,049.17	32.4575283	-103.5885864
1,977.0	1.49	67.03	1,976.9	-1.1	-2.0	530,981.95	771,051.29	32.4575309	-103.5885795
2,073.0	1.45	61.50	2,072.9	-0.1	0.2	530,983.02	771,053.50	32.4575338	-103.5885723
2,169.0	2.15	66.51	2,168.8	1.2	2.9	530,984.31	771,056.22	32.4575373	-103.5885634
2,264.0	2.33	69.32	2,263.7	2.6	6.4	530,985.71	771,059.66	32.4575411	-103.5885522
2,360.0	3.21	67.91	2,359.6	4.3	10.7	530,987.41	771,063.98	32.4575457	-103.5885382
2,456.0	3.34	67.83	2,455.5	6.4	15.8	530,989.47	771,069.06	32.4575513	-103.5885217
2,551.0	3.65	69.32	2,550.3	8.5	21.2	530,991.58	771,074.45	32.4575570	-103.5885042
2,647.0	4.40	72.92	2,646.0	10.7	27.6	530,993.74	771,080.83	32.4575628	-103.5884834
2,742.0	4.40	76.88	2,740.8	12.6	34.6	530,995.64	771,087.86	32.4575679	-103.5884606
2,837.0	4.88	76.88	2,835.5	14.3	42.1	530,997.39	771,095.35	32.4575725	-103.5884363
2,933.0	5.05	78.90	2,931.1	16.0	50.2	530,999.13	771,103.47	32.4575771	-103.5884099
3,028.0	6.15	85.67	3,025.6	17.2	59.4	531,000.32	771,112.65	32.4575802	-103.5883801
3,123.0	6.55	92.17	3,120.1	17.4	69.9	531,000.49	771,123.14	32.4575805	-103.5883461
3,219.0	6.77	96.74	3,215.4	16.5	80.9	530,999.62	771,134.23	32.4575779	-103.5883102
3,314.0	6.15	104.48	3,309.8	14.6	91.4	530,997.69	771,144.72	32.4575724	-103.5882762
3,409.0	5.80	107.73	3,404.3	11.9	100.9	530,994.96	771,154.22	32.4575647	-103.5882455
3,504.0	5.05	115.55	3,498.9	8.6	109.3	530,991.69	771,162.56	32.4575556	-103.5882185
3,600.0	4.53	129.17	3,594.5	4.4	116.0	530,987.48	771,169.31	32.4575439	-103.5881967
3,696.0	3.43	132.16	3,690.3	0.1	121.1	530,983.16	771,174.38	32.4575319	-103.5881804
3,792.0	3.16	133.92	3,786.1	-3.7	125.1	530,979.39	771,178.42	32.4575215	-103.5881674
3,888.0	3.08	130.23	3,882.0	-7.2	129.0	530,975.89	771,182.29	32.4575118	-103.5881549
3,983.0	3.38	130.67	3,976.9	-10.7	133.1	530,972.42	771,186.36	32.4575021	-103.5881418
4,079.0	3.56	128.03	4,072.7	-14.4	137.6	530,968.74	771,190.86	32.4574919	-103.5881273
4,174.0	3.25	113.44	4,167.5	-17.2	142.4	530,965.85	771,195.65	32.4574839	-103.5881118
4,270.0	2.99	104.65	4,263.4	-19.0	147.3	530,964.13	771,200.57	32.4574791	-103.5880959
4,366.0	2.68	103.16	4,359.3	-20.1	151.9	530,962.99	771,205.18	32.4574759	-103.5880810
4,462.0	3.12	99.55	4,455.1	-21.0	156.7	530,962.04	771,209.94	32.4574732	-103.5880656
4,557.0	3.12	98.85	4,550.0	-21.9	161.8	530,961.22	771,215.04	32.4574708	-103.5880491
4,653.0	3.21	98.41	4,645.8	-22.7	167.0	530,960.42	771,220.28	32.4574685	-103.5880321
4,748.0	3.43	100.87	4,740.7	-23.6	172.4	530,959.50	771,225.71	32.4574659	-103.5880145
4,843.0	3.34	100.70	4,835.5	-24.6	177.9	530,958.45	771,231.22	32.4574629	-103.5879967
4,939.0	3.30	95.25	4,931.4	-25.4	183.4	530,957.68	771,236.72	32.4574606	-103.5879789
5,034.0	3.30	85.05	5,026.2	-25.4	188.9	530,957.66	771,242.16	32.4574605	-103.5879612
5,130.0	3.25	93.93	5,122.0	-25.4	194.3	530,957.71	771,247.63	32.4574605	-103.5879435
5,225.0	3.30	89.97	5,216.9	-25.6	199.8	530,957.53	771,253.05	32.4574599	-103.5879259
5,299.0	3.34	89.97	5,290.8	-25.6	204.1	530,957.53	771,257.34	32.4574599	-103.5879120
5,497.0	3.82	93.58	5,488.4	-26.0	216.4	530,957.12	771,269.69	32.4574585	-103.5878720
5,589.0	3.69	95.16	5,580.2	-26.4	222.4	530,956.67	771,275.70	32.4574571	-103.5878526
5,684.0	3.65	96.13	5,675.0	-27.0	228.5	530,956.07	771,281.75	32.4574554	-103.5878330
5,779.0	3.56	97.80	5,769.8	-27.7	234.4	530,955.35	771,287.68	32.4574533	-103.5878137
5,874.0	3.34	95.07	5,864.6	-28.4	240.1	530,954.70	771,293.35	32.4574514	-103.5877954
5,968.0	3.25	97.36	5,958.5	-29.0	245.4	530,954.12	771,298.72	32.4574497	-103.5877780
6,063.0	2.99	94.10	6,053.3	-29.5	250.6	530,953.59	771,303.87	32.4574481	-103.5877613
6,158.0	2.95	97.97	6,148.2	-30.0	255.5	530,953.08	771,308.76	32.4574466	-103.5877454
6,253.0	2.64	98.24	6,243.1	-30.7	260.1	530,952.43	771,313.34	32.4574447	-103.5877306
6,347.0	2.64	94.90	6,337.0	-31.2	264.4	530,951.93	771,317.64	32.4574433	-103.5877167
6,441.0	2.33	86.63	6,430.9	-31.2	268.4	530,951.86	771,321.71	32.4574430	-103.5877035
6,536.0	2.02	90.94	6,525.8	-31.1	272.0	530,951.94	771,325.31	32.4574432	-103.5876918
6,631.0	1.93	93.93	6,620.8	-31.3	275.3	530,951.81	771,328.58	32.4574428	-103.5876812
6,726.0	3.03	96.65	6,715.7	-31.7	279.4	530,951.41	771,332.67	32.4574416	-103.5876680
6,820.0	3.34	96.57	6,809.5	-32.3	284.6	530,950.81	771,337.86	32.4574398	-103.5876512

Survey Report - Geographic

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	WH303H	Database:	AUS-COMPASS - EDM_15 - 32bit

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,915.0	3.21	96.48	6,904.4	-32.9	290.0	530,950.19	771,343.25	32.4574380	-103.5876337
7,009.0	2.73	99.82	6,998.3	-33.6	294.8	530,949.51	771,348.07	32.4574361	-103.5876181
7,103.0	2.77	103.16	7,092.2	-34.5	299.2	530,948.61	771,352.49	32.4574335	-103.5876038
7,198.0	2.42	108.25	7,187.1	-35.6	303.3	530,947.46	771,356.63	32.4574303	-103.5875904
7,292.0	2.11	104.21	7,281.0	-36.7	306.9	530,946.41	771,360.19	32.4574273	-103.5875789
7,386.0	1.98	102.54	7,374.9	-37.5	310.2	530,945.64	771,363.45	32.4574251	-103.5875683
7,481.0	2.55	96.39	7,469.8	-38.0	313.9	530,945.05	771,367.16	32.4574234	-103.5875563
7,575.0	2.24	89.53	7,563.8	-38.3	317.8	530,944.83	771,371.07	32.4574228	-103.5875436
7,669.0	1.93	85.05	7,657.7	-38.1	321.2	530,944.98	771,374.48	32.4574231	-103.5875326
7,763.0	2.68	101.14	7,751.6	-38.4	324.9	530,944.69	771,378.22	32.4574222	-103.5875205
7,858.0	3.12	111.33	7,846.5	-39.8	329.5	530,943.32	771,382.81	32.4574184	-103.5875056
7,952.0	3.03	116.52	7,940.4	-41.8	334.1	530,941.28	771,387.41	32.4574127	-103.5874907
8,047.0	2.90	119.86	8,035.2	-44.1	338.5	530,938.96	771,391.74	32.4574062	-103.5874767
8,142.0	2.81	127.85	8,130.1	-46.8	342.4	530,936.34	771,395.67	32.4573990	-103.5874641
8,198.0	1.76	115.93	8,186.1	-48.0	344.2	530,935.12	771,397.52	32.4573956	-103.5874581
WOOL HEAD 303H 100'SLINE Entry at 8198.0 MD									
8,205.0	1.63	113.38	8,193.1	-48.1	344.4	530,935.04	771,397.71	32.4573953	-103.5874575
WOOL HEAD 303H 100'SLINE Exit at 8205.0 MD									
8,237.0	1.14	95.16	8,225.1	-48.3	345.2	530,934.83	771,398.45	32.4573947	-103.5874551
8,332.0	0.70	88.22	8,320.1	-48.3	346.7	530,934.76	771,399.97	32.4573945	-103.5874502
8,425.0	0.70	99.91	8,413.0	-48.4	347.8	530,934.68	771,401.09	32.4573943	-103.5874465
8,519.0	0.57	88.66	8,507.0	-48.5	348.8	530,934.59	771,402.13	32.4573940	-103.5874432
8,614.0	0.31	101.14	8,602.0	-48.5	349.6	530,934.55	771,402.85	32.4573939	-103.5874408
8,708.0	0.40	151.50	8,696.0	-48.9	350.0	530,934.21	771,403.26	32.4573930	-103.5874395
8,802.0	0.31	153.43	8,790.0	-49.4	350.2	530,933.70	771,403.53	32.4573915	-103.5874387
8,897.0	0.66	165.03	8,885.0	-50.2	350.5	530,932.94	771,403.78	32.4573895	-103.5874378
8,992.0	0.97	157.03	8,980.0	-51.4	351.0	530,931.67	771,404.24	32.4573860	-103.5874364
9,088.0	0.79	147.54	9,076.0	-52.7	351.6	530,930.36	771,404.91	32.4573824	-103.5874342
9,182.0	0.97	159.85	9,170.0	-54.0	352.3	530,929.07	771,405.53	32.4573788	-103.5874323
9,276.0	0.97	204.49	9,264.0	-55.5	352.2	530,927.60	771,405.48	32.4573747	-103.5874325
9,370.0	1.32	215.57	9,358.0	-57.1	351.2	530,926.00	771,404.52	32.4573704	-103.5874356
9,434.0	1.27	222.51	9,422.0	-58.2	350.3	530,924.87	771,403.61	32.4573673	-103.5874386
9,499.0	1.19	225.24	9,486.9	-59.2	349.4	530,923.87	771,402.64	32.4573645	-103.5874417
KOP @ 9499'MD									
9,546.0	4.57	62.64	9,533.9	-58.7	350.7	530,924.38	771,403.96	32.4573659	-103.5874375
9,593.0	10.77	60.18	9,580.5	-55.7	356.2	530,927.43	771,409.44	32.4573742	-103.5874196
9,640.0	12.44	37.68	9,626.5	-49.5	363.1	530,933.62	771,416.35	32.4573911	-103.5873971
9,687.0	16.66	24.14	9,672.0	-39.3	368.9	530,943.79	771,422.20	32.4574189	-103.5873779
9,781.0	25.41	11.75	9,759.7	-7.2	378.6	530,975.91	771,431.84	32.4575070	-103.5873459
9,828.0	28.66	7.62	9,801.6	13.9	382.1	530,996.96	771,435.39	32.4575648	-103.5873339
9,877.0	33.63	7.00	9,843.5	39.0	385.3	531,022.09	771,438.61	32.4576338	-103.5873229
9,924.0	40.53	0.94	9,881.0	67.2	387.2	531,050.32	771,440.45	32.4577114	-103.5873163
9,971.0	48.97	351.36	9,914.4	100.1	384.7	531,083.21	771,438.03	32.4578018	-103.5873234
10,019.0	55.82	348.46	9,943.6	137.5	378.0	531,120.61	771,431.33	32.4579048	-103.5873443
10,065.0	57.32	357.34	9,969.0	175.6	373.3	531,158.65	771,426.61	32.4580094	-103.5873587
10,118.0	65.14	3.14	9,994.5	222.0	373.6	531,205.04	771,426.90	32.4581369	-103.5873568
10,161.0	73.36	5.69	10,009.7	262.0	376.7	531,245.09	771,430.01	32.4582469	-103.5873457
10,255.0	86.15	11.93	10,026.4	353.2	391.0	531,336.25	771,444.24	32.4584972	-103.5872975
10,350.0	87.96	7.09	10,031.3	446.7	406.6	531,429.79	771,459.91	32.4587540	-103.5872446
LP @ 10350'MD									
10,441.0	91.96	6.13	10,031.4	537.1	417.1	531,520.16	771,470.38	32.4590022	-103.5872086
10,550.0	93.76	6.13	10,026.0	645.3	428.7	531,628.40	771,482.01	32.4592995	-103.5871685
10,646.0	92.35	5.33	10,020.8	740.7	438.3	531,723.78	771,491.58	32.4595615	-103.5871353
10,741.0	89.41	3.75	10,019.4	835.4	445.8	531,818.46	771,499.10	32.4598215	-103.5871088

Survey Report - Geographic

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	WH303H	Database:	AUS-COMPASS - EDM_15 - 32bit

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,836.0	88.57	3.14	10,021.1	930.2	451.5	531,913.27	771,504.80	32.4600820	-103.5870881
10,930.0	88.62	3.66	10,023.4	1,024.0	457.1	532,007.08	771,510.38	32.4603398	-103.5870679
11,024.0	89.54	3.66	10,024.9	1,117.8	463.1	532,100.87	771,516.38	32.4605974	-103.5870464
11,119.0	89.89	2.35	10,025.3	1,212.6	468.1	532,195.74	771,521.36	32.4608581	-103.5870281
11,213.0	89.63	1.73	10,025.7	1,306.6	471.4	532,289.68	771,524.70	32.4611162	-103.5870151
11,308.0	89.80	359.09	10,026.2	1,401.6	472.1	532,384.67	771,525.38	32.4613773	-103.5870107
11,403.0	87.52	356.99	10,028.4	1,496.5	468.9	532,479.57	771,522.13	32.4616382	-103.5870191
11,498.0	91.03	1.03	10,029.6	1,591.4	467.2	532,574.52	771,520.50	32.4618992	-103.5870223
11,592.0	91.56	1.99	10,027.5	1,685.4	469.7	532,668.46	771,522.97	32.4621574	-103.5870121
11,688.0	90.46	1.64	10,025.8	1,781.3	472.7	532,764.39	771,526.01	32.4624210	-103.5870001
11,782.0	89.23	359.71	10,026.1	1,875.3	473.8	532,858.38	771,527.12	32.4626793	-103.5869944
11,876.0	88.57	358.83	10,027.9	1,969.3	472.6	532,952.35	771,525.92	32.4629376	-103.5869961
11,971.0	90.55	358.48	10,028.6	2,064.2	470.4	533,047.32	771,523.69	32.4631987	-103.5870012
12,066.0	89.54	358.13	10,028.5	2,159.2	467.6	533,142.28	771,520.88	32.4634597	-103.5870082
12,161.0	92.35	359.09	10,027.0	2,254.1	465.3	533,237.23	771,518.58	32.4637207	-103.5870135
12,256.0	93.14	0.15	10,022.4	2,349.0	464.7	533,332.11	771,517.95	32.4639816	-103.5870134
12,351.0	86.99	357.07	10,022.3	2,443.9	462.4	533,427.03	771,515.64	32.4642425	-103.5870187
12,446.0	91.96	359.80	10,023.2	2,538.9	459.8	533,521.95	771,513.05	32.4645034	-103.5870249
12,541.0	93.27	359.71	10,018.8	2,633.8	459.4	533,616.85	771,512.65	32.4647643	-103.5870241
12,635.0	88.88	357.51	10,017.1	2,727.7	457.1	533,710.78	771,510.37	32.4650225	-103.5870294
12,729.0	88.97	358.39	10,018.8	2,821.6	453.7	533,804.70	771,507.00	32.4652807	-103.5870381
12,824.0	91.91	0.94	10,018.1	2,916.6	453.2	533,899.67	771,506.45	32.4655418	-103.5870378
12,919.0	91.08	359.62	10,015.6	3,011.5	453.6	533,994.64	771,506.91	32.4658028	-103.5870341
13,014.0	92.18	0.15	10,012.9	3,106.5	453.4	534,089.60	771,506.72	32.4660638	-103.5870326
13,109.0	91.96	359.27	10,009.5	3,201.4	453.0	534,184.53	771,506.24	32.4663247	-103.5870320
13,204.0	88.04	359.18	10,009.5	3,296.4	451.7	534,279.51	771,504.96	32.4665858	-103.5870340
13,298.0	87.38	358.74	10,013.3	3,390.3	450.0	534,373.42	771,503.25	32.4668439	-103.5870374
13,393.0	87.78	359.18	10,017.3	3,485.2	448.2	534,468.31	771,501.53	32.4671048	-103.5870408
13,488.0	88.57	359.53	10,020.3	3,580.2	447.2	534,563.26	771,500.46	32.4673658	-103.5870422
13,582.0	92.40	1.38	10,019.5	3,674.1	447.9	534,657.23	771,501.21	32.4676241	-103.5870376
13,677.0	90.20	0.06	10,017.3	3,769.1	449.1	534,752.19	771,502.40	32.4678850	-103.5870316
13,772.0	88.92	358.62	10,018.1	3,864.1	448.0	534,847.18	771,501.30	32.4681461	-103.5870330
13,867.0	89.80	359.80	10,019.1	3,959.1	446.7	534,942.16	771,500.00	32.4684072	-103.5870351
13,962.0	90.46	0.85	10,018.9	4,054.1	447.3	535,037.16	771,500.53	32.4686683	-103.5870312
14,057.0	90.81	1.56	10,017.9	4,149.0	449.3	535,132.13	771,502.53	32.4689293	-103.5870225
14,152.0	91.60	2.61	10,015.9	4,244.0	452.7	535,227.04	771,505.99	32.4691901	-103.5870092
14,246.0	92.48	2.61	10,012.5	4,337.8	457.0	535,320.89	771,510.26	32.4694480	-103.5869932
14,341.0	92.88	357.86	10,008.1	4,432.7	457.4	535,415.75	771,510.65	32.4697087	-103.5869898
14,435.0	92.09	357.42	10,004.0	4,526.5	453.5	535,509.58	771,506.79	32.4699667	-103.5870002
14,530.0	92.35	357.69	10,000.3	4,621.3	449.5	535,604.43	771,502.74	32.4702275	-103.5870112
14,625.0	90.24	357.34	9,998.2	4,716.2	445.3	535,699.31	771,498.62	32.4704883	-103.5870224
14,718.0	88.75	356.46	9,999.0	4,809.1	440.3	535,792.16	771,493.59	32.4707436	-103.5870366
14,813.0	89.89	358.66	10,000.1	4,904.0	436.3	535,887.06	771,489.55	32.4710046	-103.5870475
14,908.0	91.52	358.74	9,999.0	4,998.9	434.1	535,982.03	771,487.39	32.4712656	-103.5870524
15,002.0	91.60	358.66	9,996.4	5,092.9	432.0	536,075.97	771,485.26	32.4715239	-103.5870571
15,096.0	92.00	358.30	9,993.4	5,186.8	429.5	536,169.89	771,482.77	32.4717820	-103.5870631
15,190.0	92.40	358.30	9,989.8	5,280.7	426.7	536,263.78	771,479.98	32.4720402	-103.5870700
15,285.0	90.86	359.27	9,987.1	5,375.6	424.7	536,358.72	771,477.97	32.4723011	-103.5870744
15,380.0	90.77	358.92	9,985.8	5,470.6	423.2	536,453.69	771,476.47	32.4725622	-103.5870771
15,474.0	90.90	359.36	9,984.4	5,564.6	421.8	536,547.67	771,475.06	32.4728206	-103.5870795
15,568.0	91.34	359.18	9,982.6	5,658.6	420.6	536,641.65	771,473.86	32.4730789	-103.5870813
15,661.0	91.96	359.09	9,979.9	5,751.5	419.2	536,734.60	771,472.46	32.4733344	-103.5870837
15,755.0	93.45	359.36	9,975.5	5,845.4	417.9	536,828.48	771,471.19	32.4735925	-103.5870857
15,850.0	90.20	359.71	9,972.4	5,940.3	417.1	536,923.42	771,470.42	32.4738534	-103.5870860
15,944.0	91.03	359.36	9,971.4	6,034.3	416.4	537,017.41	771,469.65	32.4741118	-103.5870864

Survey Report - Geographic

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	WH303H	Database:	AUS-COMPASS - EDM_15 - 32bit

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,039.0	91.16	359.01	9,969.6	6,129.3	415.0	537,112.38	771,468.30	32.4743728	-103.5870886
16,133.0	91.60	358.83	9,967.3	6,223.2	413.2	537,206.34	771,466.53	32.4746311	-103.5870922
16,228.0	91.91	358.66	9,964.4	6,318.2	411.2	537,301.27	771,464.45	32.4748921	-103.5870968
16,322.0	89.85	358.83	9,963.0	6,412.1	409.1	537,395.23	771,462.39	32.4751504	-103.5871014
16,417.0	90.11	358.57	9,963.0	6,507.1	407.0	537,490.21	771,460.24	32.4754115	-103.5871062
16,512.0	90.64	358.22	9,962.4	6,602.1	404.3	537,585.17	771,457.58	32.4756725	-103.5871127
16,606.0	91.43	358.22	9,960.7	6,696.0	401.4	537,679.10	771,454.66	32.4759308	-103.5871200
16,701.0	89.49	356.81	9,959.9	6,790.9	397.3	537,774.01	771,450.54	32.4761917	-103.5871312
16,796.0	89.89	359.80	9,960.5	6,885.9	394.4	537,868.95	771,447.73	32.4764527	-103.5871382
16,891.0	90.99	0.24	9,959.7	6,980.9	394.5	537,963.95	771,447.76	32.4767138	-103.5871359
16,985.0	90.15	359.71	9,958.8	7,074.9	394.4	538,057.94	771,447.72	32.4769722	-103.5871339
17,079.0	92.40	0.85	9,956.7	7,168.8	394.9	538,151.91	771,448.18	32.4772304	-103.5871303
17,174.0	93.10	0.59	9,952.1	7,263.7	396.1	538,246.79	771,449.37	32.4774912	-103.5871243
17,268.0	92.35	359.71	9,947.7	7,357.6	396.3	538,340.68	771,449.62	32.4777492	-103.5871213
17,364.0	90.33	359.01	9,945.4	7,453.6	395.3	538,436.65	771,448.55	32.4780130	-103.5871226
17,459.0	90.68	359.09	9,944.6	7,548.5	393.7	538,531.63	771,446.97	32.4782741	-103.5871256
17,553.0	89.67	358.30	9,944.3	7,642.5	391.5	538,625.60	771,444.83	32.4785325	-103.5871304
LAST MWD @ 17553'MD									
17,579.0	89.67	358.30	9,944.5	7,668.5	390.8	538,651.59	771,444.06	32.4786039	-103.5871323
WOOL HEAD 303H 100'NLINE Exit at 17579.0 MD									
17,602.0	89.67	358.30	9,944.6	7,691.5	390.1	538,674.58	771,443.38	32.4786671	-103.5871340
PTD @ 17602'MD									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,198.0	8,186.1	-48.0	344.2	WOOL HEAD 303H 100'SLINE Entry at 8198.0 MD
8,205.0	8,193.1	-48.1	344.4	WOOL HEAD 303H 100'SLINE Exit at 8205.0 MD
9,499.0	9,486.9	-59.2	349.4	KOP @ 9499'MD
10,350.0	10,031.3	446.7	406.6	LP @ 10350'MD
17,553.0	9,944.3	7,642.5	391.5	LAST MWD @ 17553'MD
17,579.0	9,944.5	7,668.5	390.8	WOOL HEAD 303H 100'NLINE Exit at 17579.0 MD
17,602.0	9,944.6	7,691.5	390.1	PTD @ 17602'MD

Checked By: _____ Approved By: _____ Date: _____



American Resource Development LLC.

Ameredev Operating

Hat Mesa

Wool Head 20 State Com Pad A

Wool Head 20 State Com 303H

Wool Head 20 State Com 303H

Plan: FINAL PVA

Completion Hardline Crossings

07 June, 2022



American Resource Development LLC

Completion Hardline Crossings

Company:	Ameredev Operating			Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa			TVD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A			MD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H			North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H			Survey Calculation Method:	Minimum Curvature
Design:	FINAL PVA			Database:	AUS-COMPASS - EDM_15 - 32bit

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				

Site	Wool Head 20 State Com Pad A				
Site Position:		Northing:	531,182.66 usft	Latitude:	32.45808389
From:	Lat/Long	Easting:	770,982.21 usft	Longitude:	-103.58879889
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.40 °

Well	Wool Head 20 State Com 303H,					
Well Position	+N/-S	0.0 usft	Northing:	530,983.09 usft	Latitude:	32.45753400
	+E/-W	0.0 usft	Easting:	771,053.28 usft	Longitude:	-103.58857300
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,725.0 usft

Wellbore	Wool Head 20 State Com 303H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/30/2021	6.57	60.22	47,682.36863599

Design	FINAL PVA				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	359.21	

Survey Tool Program	Date	5/31/2022			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	17,602.0	FINAL PVA (Wool Head 20 State Com 303	MWD+HRGM	OWSG MWD + HRGM	



Completion Hardline Crossings

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	FINAL PVA	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	Northing (usft)	Easting (usft)	Turn (°/100usft)	DLeg (°/100usft)	Latitude (°)	Longitude (°)
0.0	0.00	0.00	0.0	530,983.09	771,053.28	0.00	0.00	32.45753400	-103.58857300
205.0	0.22	179.97	205.0	530,982.69	771,053.28	0.00	0.11	32.45753292	-103.58857301
686.0	0.35	255.03	686.0	530,981.39	771,051.87	15.60	0.08	32.45752936	-103.58857764
747.0	0.40	246.16	747.0	530,981.26	771,051.49	-14.54	0.13	32.45752900	-103.58857886
839.0	0.31	253.98	839.0	530,981.06	771,050.96	8.50	0.11	32.45752847	-103.58858059
927.0	0.62	246.07	927.0	530,980.80	771,050.29	-8.99	0.36	32.45752777	-103.58858275
1,022.0	0.57	238.86	1,022.0	530,980.35	771,049.42	-7.59	0.09	32.45752654	-103.58858559
1,118.0	0.66	270.06	1,118.0	530,980.10	771,048.46	32.50	0.36	32.45752588	-103.58858871
1,213.0	0.53	261.89	1,213.0	530,980.04	771,047.48	-8.60	0.16	32.45752573	-103.58859190
1,309.0	0.84	145.87	1,309.0	530,979.39	771,047.43	-120.85	1.22	32.45752396	-103.58859206
1,404.0	1.10	276.57	1,404.0	530,978.92	771,046.92	137.58	1.86	32.45752267	-103.58859374
1,500.0	0.40	282.45	1,500.0	530,979.10	771,045.67	6.12	0.73	32.45752318	-103.58859776
1,596.0	0.00	0.00	1,596.0	530,979.17	771,045.35	0.00	0.42	32.45752339	-103.58859882
1,692.0	0.66	60.09	1,692.0	530,979.45	771,045.83	0.00	0.69	32.45752414	-103.58859726
1,786.0	1.23	67.83	1,785.9	530,980.10	771,047.23	8.23	0.62	32.45752590	-103.58859270
1,882.0	1.32	63.61	1,881.9	530,980.98	771,049.17	-4.40	0.14	32.45752828	-103.58858637
1,977.0	1.49	67.03	1,976.9	530,981.95	771,051.29	3.60	0.20	32.45753090	-103.58857949
2,073.0	1.45	61.50	2,072.9	530,983.01	771,053.51	-5.76	0.15	32.45753379	-103.58857228
2,169.0	2.15	66.51	2,168.8	530,984.31	771,056.23	5.22	0.75	32.45753731	-103.58856343
2,264.0	2.33	69.32	2,263.7	530,985.70	771,059.67	2.96	0.22	32.45754107	-103.58855225
2,360.0	3.21	67.91	2,359.6	530,987.40	771,063.98	-1.47	0.92	32.45754566	-103.58853822
2,456.0	3.34	67.83	2,455.5	530,989.47	771,069.06	-0.08	0.14	32.45755124	-103.58852170
2,551.0	3.65	69.32	2,550.3	530,991.58	771,074.46	1.57	0.34	32.45755694	-103.58850417
2,647.0	4.40	72.92	2,646.0	530,993.74	771,080.84	3.75	0.82	32.45756276	-103.58848344
2,742.0	4.40	76.88	2,740.8	530,995.64	771,087.87	4.17	0.32	32.45756784	-103.58846060
2,837.0	4.88	76.88	2,835.5	530,997.38	771,095.35	0.00	0.51	32.45757249	-103.58843630
2,933.0	5.05	78.90	2,931.1	530,999.12	771,103.48	2.10	0.25	32.45757711	-103.58840993



Completion Hardline Crossings

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	FINAL PVA	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	Northing (usft)	Easting (usft)	Turn (°/100usft)	DLeg (°/100usft)	Latitude (°)	Longitude (°)
3,028.0	6.15	85.67	3,025.6	531,000.31	771,112.65	7.13	1.35	32.45758021	-103.58838015
3,123.0	6.55	92.17	3,120.1	531,000.49	771,123.14	6.84	0.87	32.45758050	-103.58834614
3,219.0	6.77	96.74	3,215.4	530,999.62	771,134.23	4.76	0.60	32.45757789	-103.58831020
3,314.0	6.15	104.48	3,309.8	530,997.69	771,144.72	8.15	1.12	32.45757239	-103.58827625
3,409.0	5.80	107.73	3,404.3	530,994.96	771,154.22	3.42	0.51	32.45756469	-103.58824551
3,504.0	5.05	115.55	3,498.9	530,991.69	771,162.56	8.23	1.11	32.45755555	-103.58821853
3,600.0	4.53	129.17	3,594.5	530,987.48	771,169.32	14.19	1.30	32.45754383	-103.58819674
3,696.0	3.43	132.16	3,690.3	530,983.15	771,174.38	3.11	1.17	32.45753186	-103.58818041
3,792.0	3.16	133.92	3,786.1	530,979.39	771,178.42	1.83	0.30	32.45752144	-103.58816742
3,888.0	3.08	130.23	3,882.0	530,975.89	771,182.29	-3.84	0.23	32.45751174	-103.58815493
3,983.0	3.38	130.67	3,976.9	530,972.42	771,186.37	0.46	0.32	32.45750211	-103.58814181
4,079.0	3.56	128.03	4,072.7	530,968.74	771,190.86	-2.75	0.25	32.45749191	-103.58812732
4,174.0	3.25	113.44	4,167.5	530,965.85	771,195.65	-15.36	0.97	32.45748388	-103.58811185
4,270.0	2.99	104.65	4,263.4	530,964.13	771,200.57	-9.16	0.57	32.45747907	-103.58809594
4,366.0	2.68	103.16	4,359.3	530,962.99	771,205.18	-1.55	0.33	32.45747584	-103.58808103
4,462.0	3.12	99.55	4,455.1	530,962.04	771,209.94	-3.76	0.50	32.45747315	-103.58806561
4,557.0	3.12	98.85	4,550.0	530,961.22	771,215.05	-0.74	0.04	32.45747078	-103.58804908
4,653.0	3.21	98.41	4,645.8	530,960.42	771,220.29	-0.46	0.10	32.45746849	-103.58803211
4,748.0	3.43	100.87	4,740.7	530,959.50	771,225.71	2.59	0.28	32.45746585	-103.58801456
4,843.0	3.34	100.70	4,835.5	530,958.45	771,231.22	-0.18	0.10	32.45746286	-103.58799672
4,939.0	3.30	95.25	4,931.4	530,957.67	771,236.72	-5.68	0.33	32.45746063	-103.58797891
5,034.0	3.30	85.05	5,026.2	530,957.66	771,242.17	-10.74	0.62	32.45746048	-103.58796125
5,130.0	3.25	93.93	5,122.0	530,957.71	771,247.63	9.25	0.53	32.45746052	-103.58794352
5,225.0	3.30	89.97	5,216.9	530,957.53	771,253.05	-4.17	0.24	32.45745992	-103.58792595
5,299.0	3.34	89.97	5,290.8	530,957.53	771,257.34	0.00	0.05	32.45745984	-103.58791206
5,497.0	3.82	93.58	5,488.4	530,957.12	771,269.69	1.82	0.27	32.45745848	-103.58787203
5,589.0	3.69	95.16	5,580.2	530,956.66	771,275.70	1.72	0.18	32.45745711	-103.58785256



Completion Hardline Crossings

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	FINAL PVA	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	Northing (usft)	Easting (usft)	Turn (°/100usft)	DLeg (°/100usft)	Latitude (°)	Longitude (°)
5,684.0	3.65	96.13	5,675.0	530,956.07	771,281.75	1.02	0.08	32.45745535	-103.58783296
5,779.0	3.56	97.80	5,769.8	530,955.34	771,287.68	1.76	0.15	32.45745324	-103.58781376
5,874.0	3.34	95.07	5,864.6	530,954.70	771,293.36	-2.87	0.29	32.45745136	-103.58779536
5,968.0	3.25	97.36	5,958.5	530,954.12	771,298.73	2.44	0.17	32.45744966	-103.58777797
6,063.0	2.99	94.10	6,053.3	530,953.59	771,303.87	-3.43	0.33	32.45744812	-103.58776131
6,158.0	2.95	97.97	6,148.2	530,953.08	771,308.76	4.07	0.22	32.45744661	-103.58774546
6,253.0	2.64	98.24	6,243.1	530,952.42	771,313.35	0.28	0.33	32.45744473	-103.58773061
6,347.0	2.64	94.90	6,337.0	530,951.93	771,317.65	-3.55	0.16	32.45744329	-103.58771668
6,441.0	2.33	86.63	6,430.9	530,951.86	771,321.71	-8.80	0.50	32.45744301	-103.58770350
6,536.0	2.02	90.94	6,525.8	530,951.94	771,325.31	4.54	0.37	32.45744317	-103.58769183
6,631.0	1.93	93.93	6,620.8	530,951.81	771,328.58	3.15	0.14	32.45744274	-103.58768123
6,726.0	3.03	96.65	6,715.7	530,951.41	771,332.67	2.86	1.16	32.45744156	-103.58766798
6,820.0	3.34	96.57	6,809.5	530,950.80	771,337.86	-0.09	0.33	32.45743980	-103.58765117
6,915.0	3.21	96.48	6,904.4	530,950.19	771,343.25	-0.09	0.14	32.45743801	-103.58763371
7,009.0	2.73	99.82	6,998.3	530,949.51	771,348.07	3.55	0.54	32.45743605	-103.58761809
7,103.0	2.77	103.16	7,092.2	530,948.61	771,352.49	3.55	0.18	32.45743349	-103.58760379
7,198.0	2.42	108.25	7,187.1	530,947.46	771,356.63	5.36	0.44	32.45743025	-103.58759040
7,292.0	2.11	104.21	7,281.0	530,946.41	771,360.19	-4.30	0.37	32.45742731	-103.58757887
7,386.0	1.98	102.54	7,374.9	530,945.64	771,363.46	-1.78	0.15	32.45742511	-103.58756831
7,481.0	2.55	96.39	7,469.8	530,945.04	771,367.16	-6.47	0.65	32.45742341	-103.58755633
7,575.0	2.24	89.53	7,563.8	530,944.83	771,371.07	-7.30	0.45	32.45742274	-103.58754364
7,669.0	1.93	85.05	7,657.7	530,944.98	771,374.49	-4.77	0.37	32.45742309	-103.58753257
7,763.0	2.68	101.14	7,751.6	530,944.69	771,378.22	17.12	1.05	32.45742222	-103.58752047
7,858.0	3.12	111.33	7,846.5	530,943.32	771,382.81	10.73	0.71	32.45741837	-103.58750563
7,952.0	3.03	116.52	7,940.4	530,941.28	771,387.41	5.52	0.31	32.45741268	-103.58749075
8,047.0	2.90	119.86	8,035.2	530,938.96	771,391.75	3.52	0.23	32.45740622	-103.58747676
8,142.0	2.81	127.85	8,130.1	530,936.34	771,395.67	8.41	0.43	32.45739893	-103.58746410



Completion Hardline Crossings

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Project:	Hat Mesa	TVD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	FINAL PVA	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	Northing (usft)	Easting (usft)	Turn (°/100usft)	DLeg (°/100usft)	Latitude (°)	Longitude (°)
8,198.0	1.76	115.93	8,186.1	530,935.12	771,397.52	-21.29	2.05	32.45739555	-103.58745811
WOOL HEAD 303H 100'SLINE Entry at 8198.0 MD									
8,205.0	1.63	113.39	8,193.1	530,935.03	771,397.71	-36.33	2.05	32.45739531	-103.58745750
WOOL HEAD 303H 100'SLINE Exit at 8205.0 MD									
8,237.0	1.14	95.16	8,225.1	530,934.82	771,398.45	-56.94	2.05	32.45739472	-103.58745512
8,332.0	0.70	88.22	8,320.1	530,934.76	771,399.97	-7.31	0.48	32.45739450	-103.58745019
8,425.0	0.70	99.91	8,413.0	530,934.68	771,401.10	12.57	0.15	32.45739426	-103.58744654
8,519.0	0.57	88.66	8,507.0	530,934.59	771,402.13	-11.97	0.19	32.45739400	-103.58744319
8,614.0	0.31	101.14	8,602.0	530,934.55	771,402.85	13.14	0.29	32.45739388	-103.58744084
8,708.0	0.40	151.50	8,696.0	530,934.21	771,403.26	53.57	0.33	32.45739295	-103.58743953
8,802.0	0.31	153.43	8,790.0	530,933.70	771,403.53	2.05	0.10	32.45739152	-103.58743867
8,897.0	0.66	165.03	8,885.0	530,932.94	771,403.79	12.21	0.38	32.45738943	-103.58743786
8,992.0	0.97	157.03	8,980.0	530,931.67	771,404.24	-8.42	0.35	32.45738594	-103.58743641
9,088.0	0.79	147.54	9,076.0	530,930.36	771,404.91	-9.89	0.24	32.45738233	-103.58743426
9,182.0	0.97	159.85	9,170.0	530,929.07	771,405.54	13.10	0.28	32.45737876	-103.58743227
9,276.0	0.97	204.49	9,264.0	530,927.60	771,405.48	47.49	0.78	32.45737472	-103.58743249
9,370.0	1.32	215.57	9,358.0	530,925.99	771,404.52	11.79	0.44	32.45737033	-103.58743563
9,434.0	1.27	222.51	9,422.0	530,924.87	771,403.61	10.84	0.26	32.45736726	-103.58743860
9,499.0	1.19	225.24	9,486.9	530,923.86	771,402.65	4.20	0.15	32.45736451	-103.58744176
9,546.0	4.57	62.64	9,533.9	530,924.38	771,403.96	-345.96	12.16	32.45736591	-103.58743747
9,593.0	10.77	60.18	9,580.5	530,927.43	771,409.44	-5.23	13.21	32.45737418	-103.58741965
9,640.0	12.44	37.68	9,626.5	530,933.62	771,416.35	-47.87	10.19	32.45739107	-103.58739711
9,687.0	16.66	24.14	9,672.0	530,943.78	771,422.21	-28.81	11.48	32.45741889	-103.58737790
9,781.0	25.41	11.75	9,759.7	530,975.90	771,431.85	-13.18	10.39	32.45750699	-103.58734592
9,828.0	28.66	7.62	9,801.6	530,996.95	771,435.40	-8.79	7.98	32.45756478	-103.58733394
9,877.0	33.63	7.00	9,843.5	531,022.09	771,438.61	-1.27	10.16	32.45763379	-103.58732295
9,924.0	40.53	0.94	9,881.0	531,050.32	771,440.45	-12.89	16.60	32.45771135	-103.58731635



Completion Hardline Crossings

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Project:	Hat Mesa	TVD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	FINAL PVA	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	Northing (usft)	Easting (usft)	Turn (°/100usft)	DLeg (°/100usft)	Latitude (°)	Longitude (°)
9,971.0	48.97	351.36	9,914.4	531,083.21	771,438.03	-20.38	22.95	32.45780180	-103.58732345
10,019.0	55.82	348.46	9,943.6	531,120.61	771,431.33	-6.04	15.05	32.45790474	-103.58734432
10,065.0	57.32	357.34	9,969.0	531,158.65	771,426.62	19.30	16.43	32.45800937	-103.58735873
10,118.0	65.14	3.14	9,994.5	531,205.04	771,426.90	10.94	17.59	32.45813688	-103.58735677
10,161.0	73.36	5.69	10,009.7	531,245.09	771,430.02	5.93	19.90	32.45824690	-103.58734576
10,255.0	86.15	11.93	10,026.4	531,336.25	771,444.25	6.64	15.09	32.45849718	-103.58729755
10,350.0	87.96	7.09	10,031.3	531,429.79	771,459.91	-5.09	5.43	32.45875398	-103.58724465
10,441.0	91.96	6.13	10,031.4	531,520.16	771,470.39	-1.05	4.52	32.45900218	-103.58720865
10,550.0	93.76	6.13	10,026.0	531,628.40	771,482.01	0.00	1.65	32.45929945	-103.58716851
10,646.0	92.35	5.33	10,020.8	531,723.78	771,491.58	-0.83	1.69	32.45956143	-103.58713532
10,741.0	89.41	3.75	10,019.4	531,818.46	771,499.10	-1.66	3.51	32.45982152	-103.58710880
10,836.0	88.57	3.14	10,021.1	531,913.27	771,504.81	-0.64	1.09	32.46008200	-103.58708815
10,930.0	88.62	3.66	10,023.4	532,007.08	771,510.38	0.55	0.56	32.46033973	-103.58706796
11,024.0	89.54	3.66	10,024.9	532,100.87	771,516.38	0.00	0.98	32.46059742	-103.58704638
11,119.0	89.89	2.35	10,025.3	532,195.74	771,521.36	-1.38	1.43	32.46085807	-103.58702809
11,213.0	89.63	1.73	10,025.7	532,289.68	771,524.70	-0.66	0.72	32.46111620	-103.58701511
11,308.0	89.80	359.09	10,026.2	532,384.66	771,525.38	-2.78	2.78	32.46137727	-103.58701075
11,403.0	87.52	356.99	10,028.4	532,479.57	771,522.14	-2.21	3.26	32.46163819	-103.58701913
11,498.0	91.03	1.03	10,029.6	532,574.52	771,520.50	4.25	5.63	32.46189918	-103.58702229
11,592.0	91.56	1.99	10,027.5	532,668.46	771,522.97	1.02	1.17	32.46215734	-103.58701213
11,688.0	90.46	1.64	10,025.8	532,764.39	771,526.01	-0.36	1.20	32.46242097	-103.58700010
11,782.0	89.23	359.71	10,026.1	532,858.38	771,527.12	-2.05	2.43	32.46267927	-103.58699438
11,876.0	88.57	358.83	10,027.9	532,952.35	771,525.92	-0.94	1.17	32.46293759	-103.58699613
11,971.0	90.55	358.48	10,028.6	533,047.32	771,523.69	-0.37	2.12	32.46319865	-103.58700121
12,066.0	89.54	358.13	10,028.5	533,142.28	771,520.88	-0.37	1.13	32.46345970	-103.58700817
12,161.0	92.35	359.09	10,027.0	533,237.22	771,518.58	1.01	3.13	32.46372072	-103.58701348
12,256.0	93.14	0.15	10,022.4	533,332.11	771,517.95	1.12	1.39	32.46398153	-103.58701337



Completion Hardline Crossings

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	FINAL PVA	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	Northing (usft)	Easting (usft)	Turn (°/100usft)	DLeg (°/100usft)	Latitude (°)	Longitude (°)
12,351.0	86.99	357.07	10,022.3	533,427.03	771,515.65	-3.24	7.24	32.46424246	-103.58701869
12,446.0	91.96	359.80	10,023.2	533,521.95	771,513.06	2.87	5.97	32.46450341	-103.58702494
12,541.0	93.27	359.71	10,018.8	533,616.85	771,512.65	-0.09	1.38	32.46476425	-103.58702411
12,635.0	88.88	357.51	10,017.1	533,710.77	771,510.37	-2.34	5.22	32.46502246	-103.58702937
12,729.0	88.97	358.39	10,018.8	533,804.70	771,507.01	0.94	0.94	32.46528068	-103.58703814
12,824.0	91.91	0.94	10,018.1	533,899.67	771,506.45	2.68	4.10	32.46554174	-103.58703779
12,919.0	91.08	359.62	10,015.6	533,994.64	771,506.92	-1.39	1.64	32.46580274	-103.58703413
13,014.0	92.18	0.15	10,012.9	534,089.60	771,506.72	0.56	1.29	32.46606375	-103.58703260
13,109.0	91.96	359.27	10,009.5	534,184.53	771,506.24	-0.93	0.95	32.46632470	-103.58703201
13,204.0	88.04	359.18	10,009.5	534,279.50	771,504.96	-0.09	4.13	32.46658576	-103.58703402
13,298.0	87.38	358.74	10,013.3	534,373.41	771,503.25	-0.47	0.84	32.46684391	-103.58703742
13,393.0	87.78	359.18	10,017.3	534,468.31	771,501.53	0.46	0.63	32.46710478	-103.58704085
13,488.0	88.57	359.53	10,020.3	534,563.26	771,500.46	0.37	0.91	32.46736576	-103.58704216
13,582.0	92.40	1.38	10,019.5	534,657.23	771,501.21	1.97	4.52	32.46762403	-103.58703761
13,677.0	90.20	0.06	10,017.3	534,752.19	771,502.40	-1.39	2.70	32.46788501	-103.58703159
13,772.0	88.92	358.62	10,018.1	534,847.18	771,501.31	-1.52	2.03	32.46814611	-103.58703299
13,867.0	89.80	359.80	10,019.1	534,942.16	771,500.00	1.24	1.55	32.46840720	-103.58703508
13,962.0	90.46	0.85	10,018.9	535,037.15	771,500.54	1.11	1.31	32.46866830	-103.58703118
14,057.0	90.81	1.56	10,017.9	535,132.13	771,502.53	0.75	0.83	32.46892930	-103.58702255
14,152.0	91.60	2.61	10,015.9	535,227.04	771,505.99	1.11	1.38	32.46919011	-103.58700919
14,246.0	92.48	2.61	10,012.5	535,320.88	771,510.27	0.00	0.94	32.46944796	-103.58699320
14,341.0	92.88	357.86	10,008.1	535,415.75	771,510.66	-5.00	5.01	32.46970870	-103.58698978
14,435.0	92.09	357.42	10,004.0	535,509.58	771,506.79	-0.47	0.96	32.46996667	-103.58700019
14,530.0	92.35	357.69	10,000.3	535,604.42	771,502.74	0.28	0.39	32.47022743	-103.58701117
14,625.0	90.24	357.34	9,998.2	535,699.31	771,498.62	-0.37	2.25	32.47048830	-103.58702237
14,718.0	88.75	356.46	9,999.0	535,792.16	771,493.59	-0.95	1.86	32.47074362	-103.58703657
14,813.0	89.89	358.66	10,000.1	535,887.06	771,489.55	2.32	2.61	32.47100453	-103.58704753



Completion Hardline Crossings

Company:	Ameredev Operating	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	FINAL PVA	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	Northing (usft)	Easting (usft)	Turn (°/100usft)	DLeg (°/100usft)	Latitude (°)	Longitude (°)
14,908.0	91.52	358.74	9,999.0	535,982.03	771,487.40	0.08	1.72	32.47126559	-103.58705236
15,002.0	91.60	358.66	9,996.4	536,075.97	771,485.26	-0.09	0.12	32.47152384	-103.58705715
15,096.0	92.00	358.30	9,993.4	536,169.89	771,482.77	-0.38	0.57	32.47178203	-103.58706310
15,190.0	92.40	358.30	9,989.8	536,263.78	771,479.98	0.00	0.43	32.47204014	-103.58707000
15,285.0	90.86	359.27	9,987.1	536,358.71	771,477.97	1.02	1.92	32.47230112	-103.58707438
15,380.0	90.77	358.92	9,985.8	536,453.69	771,476.47	-0.37	0.38	32.47256220	-103.58707709
15,474.0	90.90	359.36	9,984.4	536,547.67	771,475.06	0.47	0.49	32.47282054	-103.58707953
15,568.0	91.34	359.18	9,982.6	536,641.65	771,473.86	-0.19	0.51	32.47307886	-103.58708128
15,661.0	91.96	359.09	9,979.9	536,734.60	771,472.46	-0.10	0.67	32.47333436	-103.58708373
15,755.0	93.45	359.36	9,975.5	536,828.48	771,471.19	0.29	1.61	32.47359243	-103.58708572
15,850.0	90.20	359.71	9,972.4	536,923.42	771,470.42	0.37	3.44	32.47385338	-103.58708606
15,944.0	91.03	359.36	9,971.4	537,017.41	771,469.66	-0.37	0.96	32.47411174	-103.58708640
16,039.0	91.16	359.01	9,969.6	537,112.38	771,468.31	-0.37	0.39	32.47437280	-103.58708863
16,133.0	91.60	358.83	9,967.3	537,206.33	771,466.53	-0.19	0.51	32.47463108	-103.58709224
16,228.0	91.91	358.66	9,964.4	537,301.27	771,464.45	-0.18	0.37	32.47489205	-103.58709683
16,322.0	89.85	358.83	9,963.0	537,395.23	771,462.40	0.18	2.20	32.47515035	-103.58710138
16,417.0	90.11	358.57	9,963.0	537,490.20	771,460.24	-0.27	0.39	32.47541143	-103.58710621
16,512.0	90.64	358.22	9,962.4	537,585.16	771,457.58	-0.37	0.67	32.47567249	-103.58711269
16,606.0	91.43	358.22	9,960.7	537,679.10	771,454.66	0.00	0.84	32.47593074	-103.58712002
16,701.0	89.49	356.81	9,959.9	537,774.00	771,450.54	-1.48	2.52	32.47619166	-103.58713122
16,796.0	89.89	359.80	9,960.5	537,868.95	771,447.73	3.15	3.18	32.47645268	-103.58713818
16,891.0	90.99	0.24	9,959.7	537,963.94	771,447.77	0.46	1.25	32.47671378	-103.58713592
16,985.0	90.15	359.71	9,958.8	538,057.94	771,447.72	-0.56	1.06	32.47697213	-103.58713392
17,079.0	92.40	0.85	9,956.7	538,151.91	771,448.18	1.21	2.68	32.47723040	-103.58713030
17,174.0	93.10	0.59	9,952.1	538,246.79	771,449.38	-0.27	0.79	32.47749117	-103.58712428
17,268.0	92.35	359.71	9,947.7	538,340.68	771,449.62	-0.94	1.23	32.47774923	-103.58712136
17,364.0	90.33	359.01	9,945.4	538,436.64	771,448.55	-0.73	2.23	32.47801301	-103.58712266



American Resource Development LLC

Completion Hardline Crossings

Company:	Ameredeve Operating	Local Co-ordinate Reference:	Well Wool Head 20 State Com 303H
Project:	Hat Mesa	TVD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad A	MD Reference:	WELL (copy) @ 3757.5usft (Original Well Elev)
Well:	Wool Head 20 State Com 303H	North Reference:	Grid
Wellbore:	Wool Head 20 State Com 303H	Survey Calculation Method:	Minimum Curvature
Design:	FINAL PVA	Database:	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	Northing (usft)	Easting (usft)	Turn (°/100usft)	DLeg (°/100usft)	Latitude (°)	Longitude (°)
17,459.0	90.68	359.09	9,944.6	538,531.63	771,446.97	0.08	0.38	32.47827411	-103.58712561
17,553.0	89.67	358.30	9,944.3	538,625.60	771,444.83	-0.84	1.36	32.47853244	-103.58713042
17,579.0	89.67	358.30	9,944.5	538,651.55	771,444.06	0.00	0.00	32.47860379	-103.58713233
WOOL HEAD 303H 100'NLINE Exit at 17579.0 MD									
17,602.0	89.67	358.30	9,944.6	538,674.58	771,443.38	0.00	0.00	32.47866708	-103.58713403

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
10,312.1	10,029.7	LP	5-1/2	5-1/2

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,198.0	8,186.1	-48.0	344.2	WOOL HEAD 303H 100'SLINE Entry at 8198.0 MD
8,205.0	8,193.1	-48.1	344.4	WOOL HEAD 303H 100'SLINE Exit at 8205.0 MD
17,579.0	9,944.5	7,668.5	390.8	WOOL HEAD 303H 100'NLINE Exit at 17579.0 MD

Checked By: _____ Approved By: _____ Date: _____

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude			NAD	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude			NAD	

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude			NAD	

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Submit a Copy To Appropriate District
Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-025-49938
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. 325948
7. Lease Name or Unit Agreement Name WOOL HEAD 20 STATE COM
8. Well Number 303H
9. OGRID Number 372417
10. Pool name or Wildcat WC-025 G-08 S213304D;BONE SPRING

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator Advance Energy Partners Hat Mesa	
3. Address of Operator 11490 Westheimer Rd, Houston, TX 77077	
4. Well Location Unit Letter <u>P</u> : <u>154</u> feet from the <u>SOUTH</u> line and <u>825</u> feet from the <u>EAST</u> line Section <u>20</u> Township <u>21S</u> Range <u>33E</u> NMPM County LEA	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3,724'	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐ TEMPORARILY ABANDON ☐ CHANGE PLANS ☐ PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐ DOWNHOLE COMMINGLE ☐ CLOSED-LOOP SYSTEM ☐ OTHER: ☐		SUBSEQUENT REPORT OF: REMEDIAL WORK ☐ ALTERING CASING ☐ COMMENCE DRILLING OPNS. ☐ P AND A ☐ CASING/CEMENT JOB ☐ OTHER: ☒	
--	--	--	--

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

6/25/22: Pressure test casing to 9800 psi for 30 minutes.
7/1-7/10/22: Perforate from 10,166' – 17,535' (2300). Frac with 18,304,297 lbs sand and 504,907 gal fluid.
7/23/22: Drill all plugs out and clean out to a PBTD of 17,437'.
7/16/22: Begin flowback operations
10/31/22: Ran 2-7/8" production tubing and install ESP. EOT @ 9,337'. ESP @ 9,520'

Spud Date: 5/7/2022

Rig Release Date: 5/27/2022

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE: Eileen M Kosakowski

TITLE: Sr. Eng. Tech

DATE: 1/31/2023

PRINT NAME: Eileen M Kosakowski

E-mail address: ekosakowski@advanceenergypartners.com

PHONE: 832-672-4604

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

Submit To Appropriate District Office Two Copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505				Form C-105 Revised April 3, 2017											
		1. WELL API NO. 30-025-49938															
		2. Type of Lease ☒ STATE ☐ FEE ☐ FED/INDIAN															
		3. State Oil & Gas Lease No. 325948															
WELL COMPLETION OR RECOMPLETION REPORT AND LOG																	
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)						5. Lease Name or Unit Agreement Name WOOL HEAD 20 STATE COM											
						6. Well Number: 303H											
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER																	
8. Name of Operator Advance Energy Partners Hat Mesa, LLC						9. OGRID 372417											
10. Address of Operator 11490 Westheimer RD, Suite 950 Houston, TX 77077						11. Pool name or Wildcat WC-025 G-08 S213304D;BONE SPRING											
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County							
Surface:	P	20	21S	33E		154	SOUTH	825	EAST	LEA							
BH:	I	17	21S	33E		2566	SOUTH	331	EAST	LEA							
13. Date Spudded 5/7/2022	14. Date T.D. Reached 5/25/2022	15. Date Rig Released 5/27/2022		16. Date Completed (Ready to Produce) 7/16/2022		17. Elevations (DF and RKB, RT, GR, etc.) 3724'											
18. Total Measured Depth of Well 17,618'		19. Plug Back Measured Depth 17,437'		20. Was Directional Survey Made? YES		21. Type Electric and Other Logs Run Gamma											
22. Producing Interval(s), of this completion - Top, Bottom, Name 10,166' - 17,535'; Bone Spring																	
23. CASING RECORD (Report all strings set in well)																	
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED							
13.375"		54.5#		1,727'		17.5"		990									
10.75"		40.5#		3,780'		12.25"		485									
7.625"		29.7#		5,345'		9.88"		560									
5.5"		20#		17,603'		6.75"		1190									
24. LINER RECORD						25. TUBING RECORD											
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN		SIZE	DEPTH SET	PACKER SET									
						2-7/8"	9,337'										
26. Perforation record (interval, size, and number) 10,166' - 17,535' 2300 holes						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>DEPTH INTERVAL</th> <th>AMOUNT AND KIND MATERIAL USED</th> </tr> <tr> <td>10,166'-17,535'</td> <td>18,304,297 lbs sand, 504,907 bbls water</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>				DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED	10,166'-17,535'	18,304,297 lbs sand, 504,907 bbls water				
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED																
10,166'-17,535'	18,304,297 lbs sand, 504,907 bbls water																
28. PRODUCTION																	
Date First Production 7/31/2022		Production Method (<i>Flowing, gas lift, pumping - Size and type pump</i>) Flowing				Well Status (<i>Prod. or Shut-in</i>) Prod											
Date of Test 9/12/2022	Hours Tested 24	Choke Size 64	Prod'n For Test Period	Oil - Bbl 332	Gas - MCF 383	Water - Bbl. 2965	Gas - Oil Ratio 1153										
Flow Tubing Press. N/A	Casing Pressure 160	Calculated 24-Hour Rate	Oil - Bbl. 332	Gas - MCF 383	Water - Bbl. 2965	Oil Gravity - API - (<i>Corr.</i>) 41.3											
29. Disposition of Gas (<i>Sold, used for fuel, vented, etc.</i>) Sold						30. Test Witnessed By Amit Kumar											
31. List Attachments																	
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.																	
33. Rig Release Date: 5/27/22																	
34. If an on-site burial was used at the well, report the exact location of the on-site burial:																	
Latitude _____ Longitude _____ NAD83																	
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief																	
Signature <i>Eileen M Kosakowski</i>				Date: 1/31/2023		E-mail Address: ekosakowski@advanceenergypartners.com											
Printed Name: Eileen M Kosakowski				Title: Sr. Eng. Tech													

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg 6974'MD/6964'TVD	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta 8479'MD/8467'TVD	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock 8987'MD/8975'TVD	T. Ellenburger	Base Greenhorn	T.Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T.Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs 9975'MD/9917'TVD	T.Todilto	
T. Abo	T.	T. Entrada	
T. Wolfcamp	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

No. 1, from.....to.....

No. 2, from.....to.....

No. 3, from.....to.....

No. 4, from.....to.....

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

From	To	Thickness In Feet	Lithology

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

General Information
Phone: (505) 629-6116

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

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

ACKNOWLEDGMENTS

Action 186445

ACKNOWLEDGMENTS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	OGRID: 372417
	Action Number: 186445
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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CONDITIONS

Action 186445

CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
plmartinez	None	2/28/2025