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

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

Form C-104
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
Advance Energy Partners Hat Mesa, LLC 11490 Westheimer RD, Suite 950 Houston, TX	372417
	[3] Reason for Filing Code/ Effective Date NW

[4] API Number	[5] Pool Name	[6] Pool Code
30-025-48007	RED TANK; BONE SPRING	51683
[7] Property Code	**[8] Property Name**	**[9] Well Number**
326484	ANDERSON FED COM	558H

II. [10] Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
1	2	22 S	32 E		630	NORTH	925	EAST	Lea

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	26	21 S	32 E		1311	SOUTH	324	EAST	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	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
12/6/20	3/24/21	18,218’	18,117’	11,615’-18,108’	

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
17.5”	13.375”	1,298’	715
12.25”	9.625”	3,699’/4,933’	1675
8.5”	5.5”	18,198’	2530

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
3/26/21	3/25/21	4/29/21	24 hrs	N/A	642
[37] Choke Size	**[38] Oil**	**[39] Water**	**[40] Gas**		**[41] Test Method**
58	1665	2057	2041		Flowing

[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: Eileen Kosakowski

Printed name:
Eileen M Kosakowski

Title:
Sr. Eng. Tech

E-mail Address:
ekosakowski@advanceenergypartners.com

Date: 8/3/22

Phone: 832-672-4604

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 4, 2011

Submit one copy to appropriate District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT
AS Drilled

API Number	Pool Code	Pool Name
30-025-48007	51683	RED TANK;BONE SPRING

Property Code	Property Name	Well Number
326484	ANDERSON FED COM	558H

OGRID No.	Operator Name	Elevation
372417	ADVANCE ENERGY PARTNERS HAT MESA, LLC	3657'

Surface Location

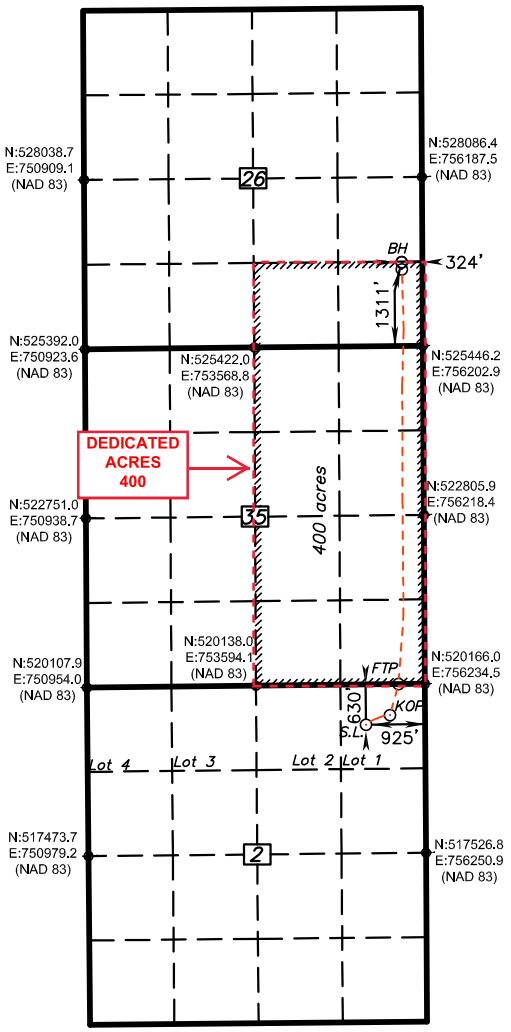
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 1	2	22 S	32 E		630	NORTH	925	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
P	26	21 S	32 E		1311	SOUTH	324	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
400		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



BOTTOM HOLE LOCATION
Lat – N 32.446193°
Long – W 103.637881°
NMSPCE– N 526754.6
E 755871.2
(NAD-83)

LAST TAKE POINT
1200' FSL & 321' FEL
Lat – N 32.445888°
Long – W 103.637871°
NMSPCE– N 526643.7
E 755875.0
(NAD-83)

FIRST TAKE POINT
2' FSL & 413' FEL
Lat – N 32.428078°
Long – W 103.638179°
NMSPCE– N 520163.7
E 755822.0
(NAD-83)

KICK OFF POINT
483' FNL & 549' FEL
Lat – N 32.426743°
Long – W 103.638622°
NMSPCE– N 519676.9
E 755688.6
(NAD-83)

SURFACE LOCATION
Lat – N 32.426335°
Long – W 103.639840°
NMSPCE– N 529526.1
E 755313.7
(NAD-83)

OPERATOR CERTIFICATION

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

Eileen Kosakowski 8/2/22
Signature Date

Eileen M Kosakowski
Printed Name

ekosakowski@advanceenergypartners.com
Email Address

SURVEYOR CERTIFICATION

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

MAY 25, 2021
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977
BASIN SURVEYS

0' 1500' 3000' 4500' 6000' N
SCALE: 1" = 3000'
WO Num.: 35281

Aim Directional Services

End of Well Report

Advance Energy Partners, LLC
Anderson Fed Com, Well No. 558H
Lea County, New Mexico
Rig: Pioneer #80
Job No.: WT-20-072

Start Date: 11/26/2020
End Date: 01/10/2021

Directional Drillers:
Advance Directional

Office Support:
Javier Alvarez
Directional Coordinator
E-mail: Javier.Alvarez@aimdir.com
Ivonne Gonzalez
Well Planner
E-mail: Ivonne.Gonzalez@aimdir.com
Allison Reinert
Executive VP
E-mail: Allison.Reinert@aimdir.com
Thomas Rinald
President
E-mail: Thomas.Rinald@aimdir.com

P.O. Box 181015 • Corpus Christi, Texas 78480
Phone: 361-653-6500 • Fax: 361-653-6599
www.aimdir.com

RTOC
Aim Directional Services

Contender
DOWNHOLE MOTORS

Performance Overview

Anderson Fed Com 558H (WT-20-072)

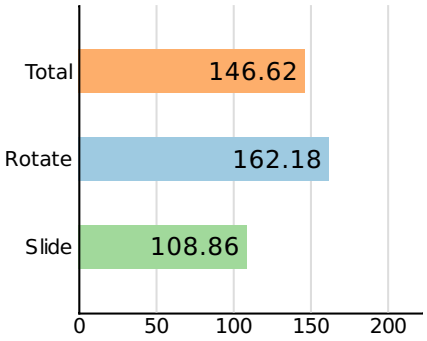
2020-11-26 to 2021-01-10
Lea, New Mexico, US (32.43, -103.64)

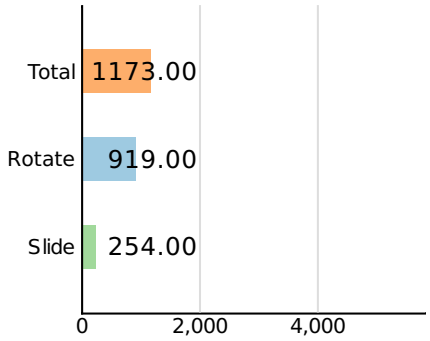
BHA Performance

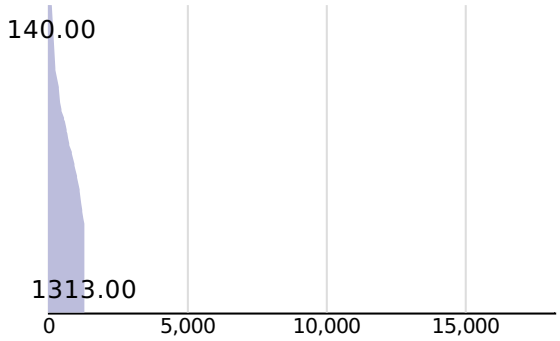
BHA 1

BHA #1 (17.5" Surface)

In: **12/06/2020 10:45**
Out: **12/07/2020 01:45**



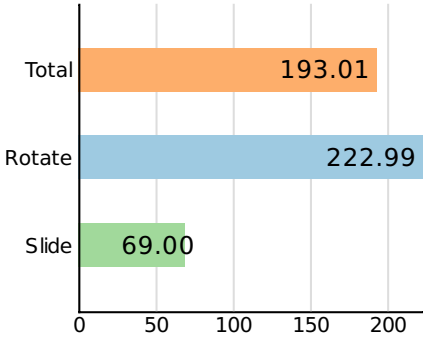


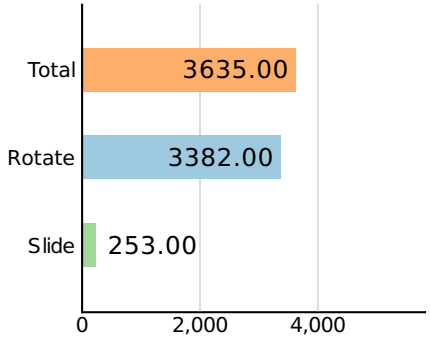


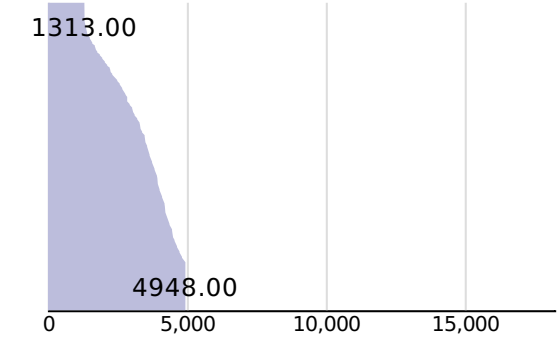
BHA 2

Intermediate 12.25"

In: **12/13/2020 08:40**
Out: **12/14/2020 13:30**



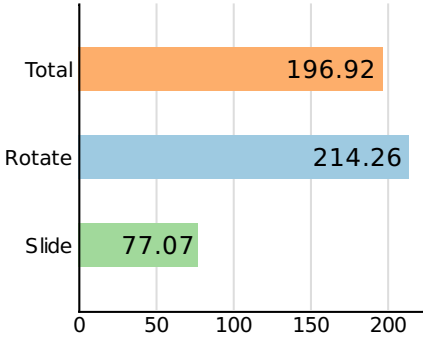


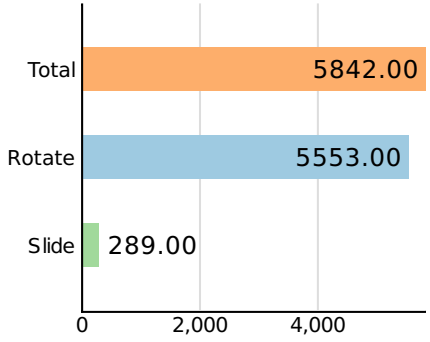


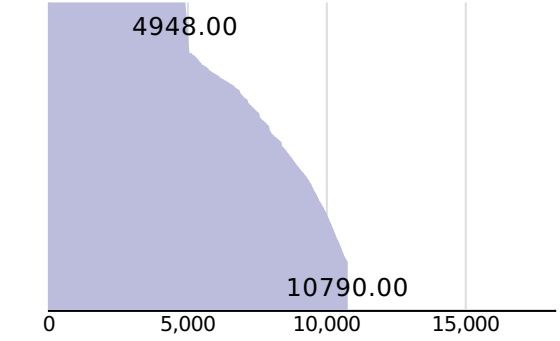
BHA 3

BHA #3 (8.5" Intermediate)

In: **12/24/2020 13:15**
Out: **12/26/2020 16:00**



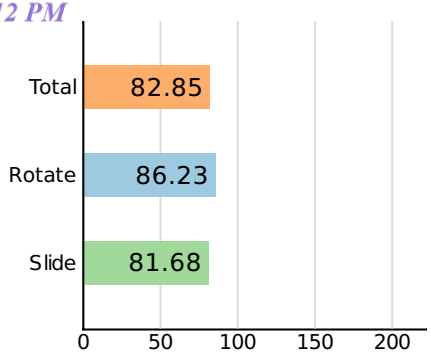


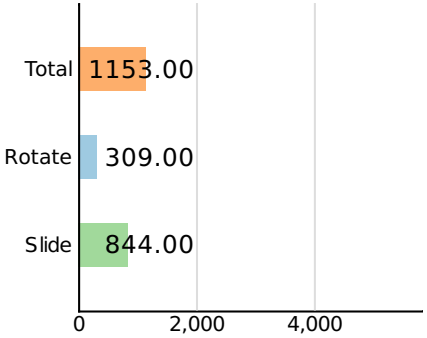


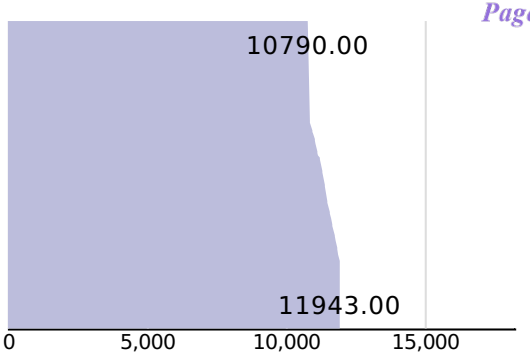
BHA 4

BHA #4 (Curve Assembly)

In: **12/26/2020 16:00**
Out: **12/28/2020 01:00**



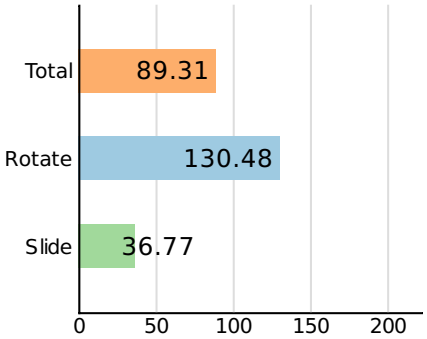


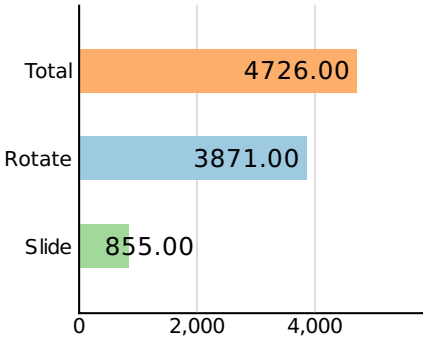


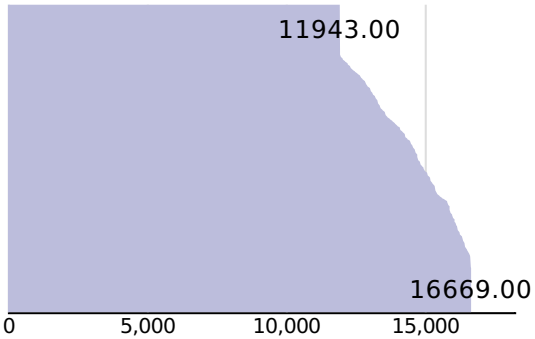
BHA 5

BHA #5 (Lateral Assembly)

In: **12/28/2020 01:00**
Out: **12/31/2020 18:45**



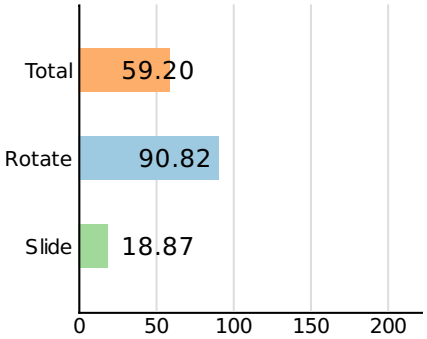


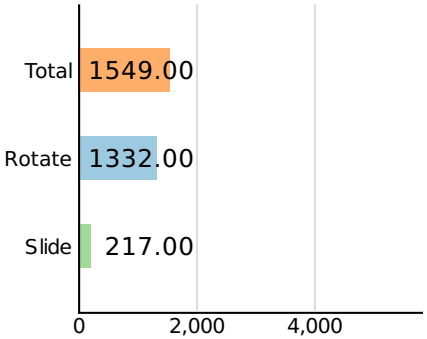


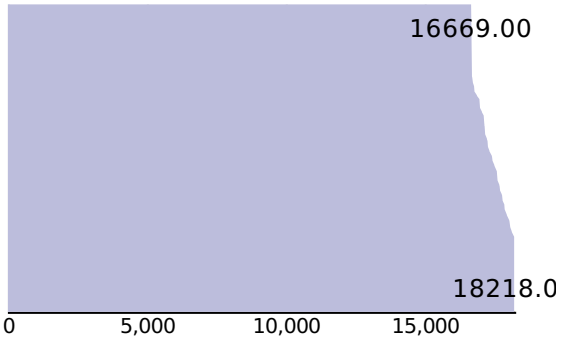
BHA 6

8.50" LATERAL

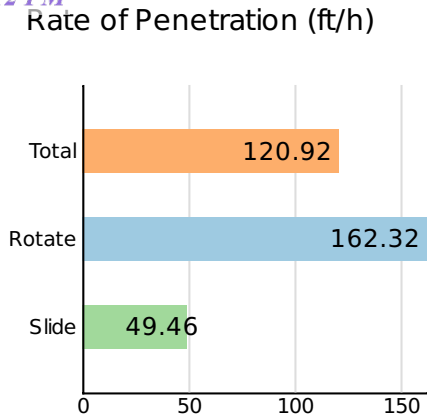
In: **12/31/2020 18:45**
Out: **01/03/2021 00:00**

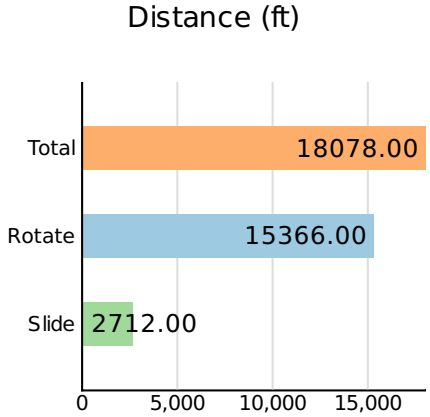


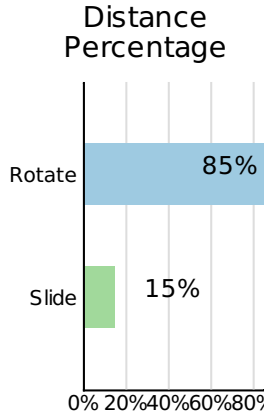


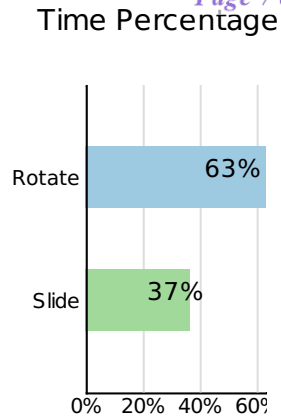


Total

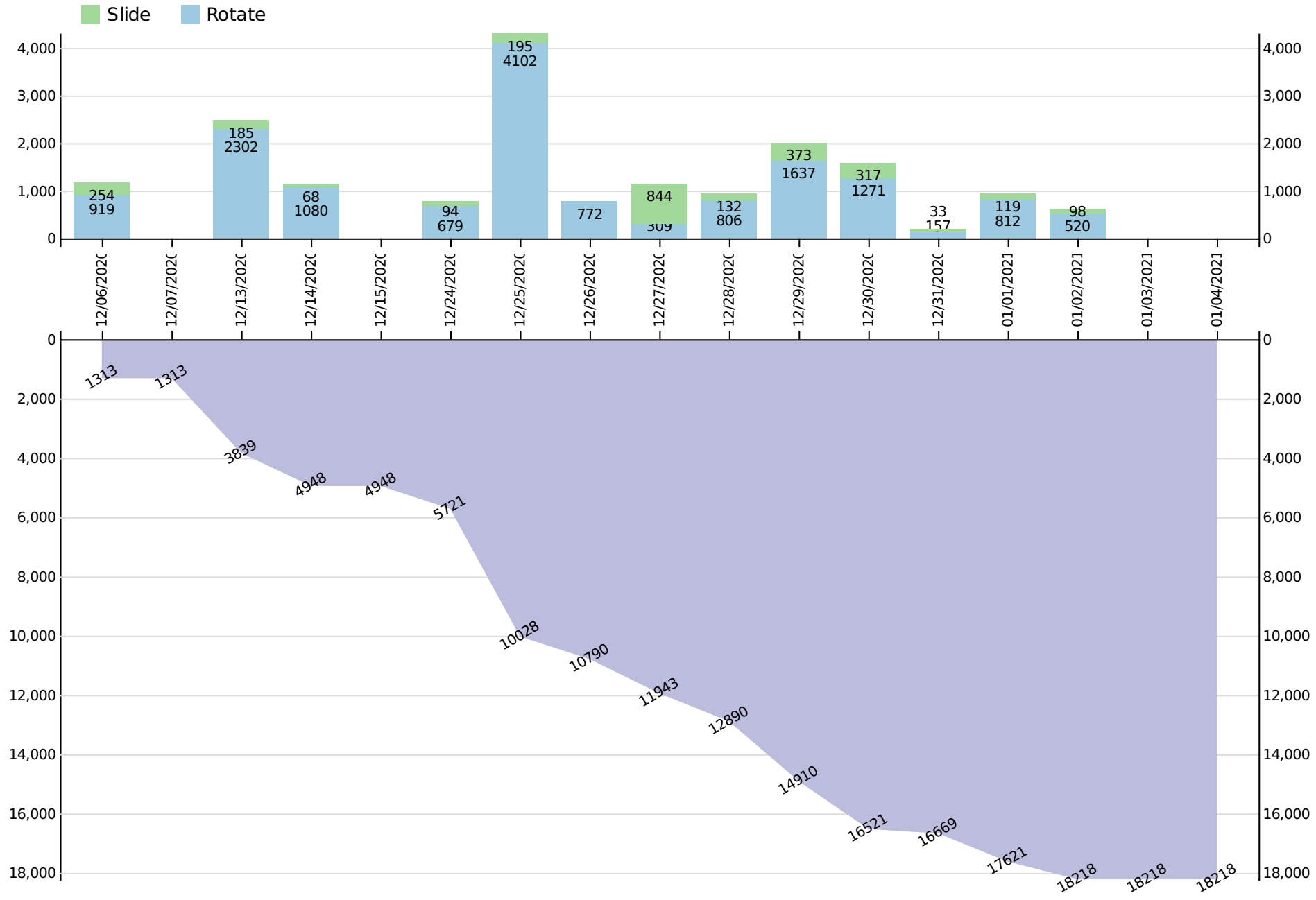

Rate of Penetration (ft/h)
Total
120.92
Rotate
162.32
Slide
49.46
0
50
100
150


Distance (ft)
Total
18078.00
Rotate
15366.00
Slide
2712.00
0
5,000
10,000
15,000

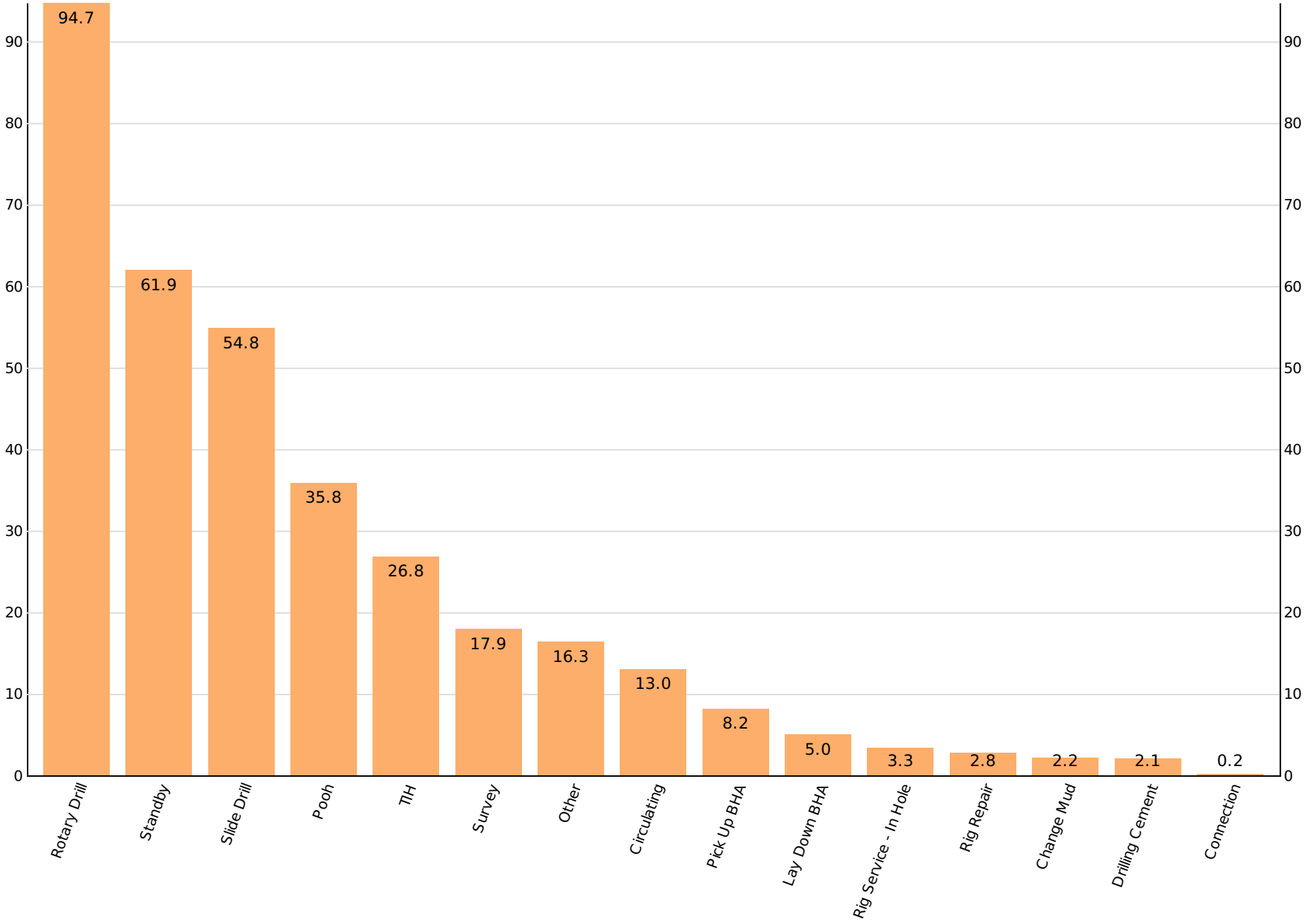

Distance Percentage
Rotate
85%
Slide
15%
0%
20%
40%
60%
80%


Time Percentage
Rotate
63%
Slide
37%
0%
20%
40%
60%

Days vs. Depth



Directional Activity Hours



Proposed vs. As Drilled

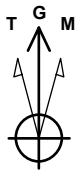
Anderson Fed Com 558H (WT-20-072)

2020-11-26 to 2021-01-10
Lea, New Mexico, US (32.43, -103.64)

Advance Energy Partners, LLC

Anderson Fed Com 558H
Lea County, New Mexico
WT-20-072
Pioneer 80
Plan 1.0

Aim Directional Service



Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.16°

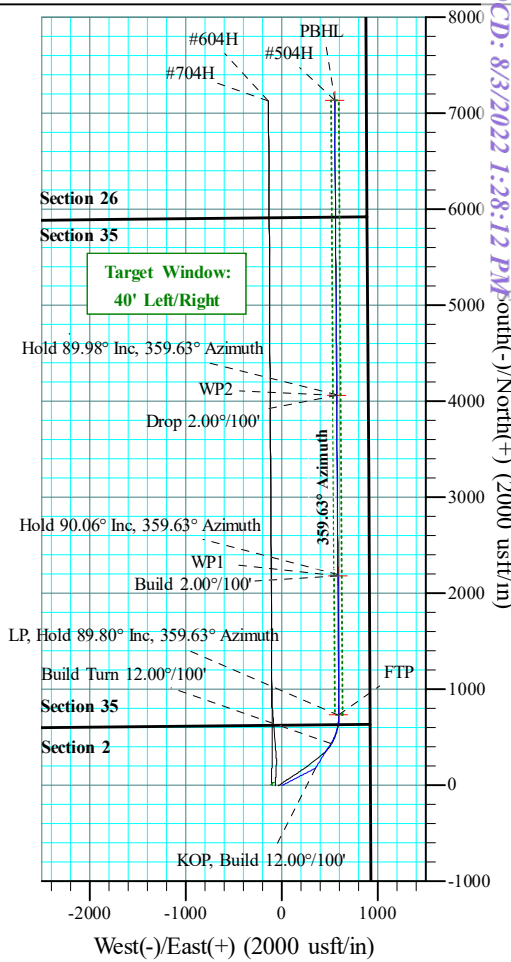
Magnetic Field
Strength: 47952.4nT
Dip Angle: 60.15°
Date: 11/9/2020
Model: MVHD

Magnetic North: 6.16° to Grid North

SITE DETAILS: Anderson Fed Com 558H	
Site Centre Northing:	519526.10
Easting:	755313.70
Positional Uncertainity:	0.00
Convergence:	0.37
Local North:	Grid

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

Depth Reference:
3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)

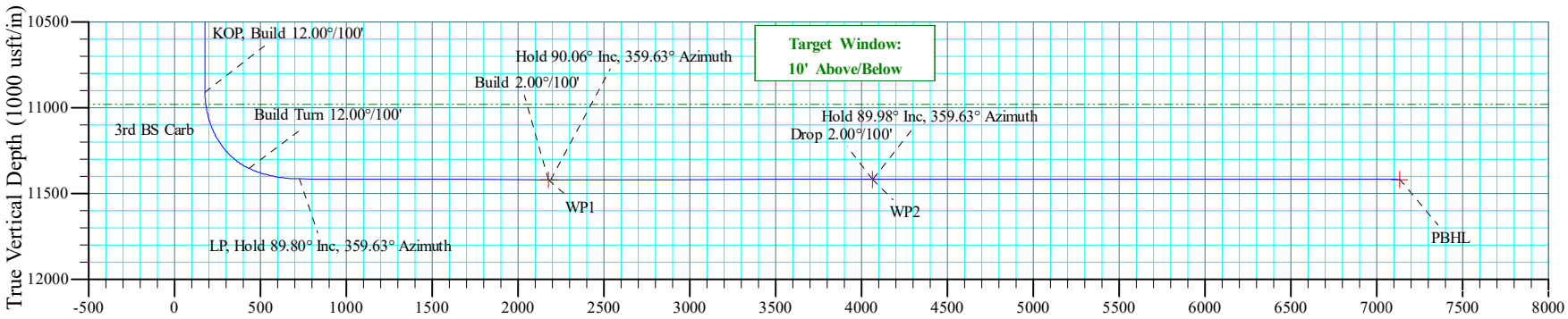


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	0.00	Build 1.00°/100'
3	5500.00	5.00	62.78	5499.37	9.97	19.39	1.00	62.78	9.85	Hold 5.00° Inc, 62.78° Azimuth
4	9515.43	5.00	62.78	9499.52	170.03	330.61	0.00	0.00	167.89	Drop 1.00°/100'
5	10015.43	0.00	0.00	9998.88	180.00	350.00	1.00	180.00	177.74	Hold Vertical
6	10927.05	0.00	0.00	10910.50	180.00	350.00	0.00	0.00	177.74	KOP, Build 12.00°/100'
7	11499.87	68.74	32.25	11355.47	437.38	512.39	12.00	32.25	434.06	Build Turn 12.00°/100'
8	11817.94	89.80	359.63	11415.94	732.76	593.47	12.00	-60.73	728.91	LP, Hold 89.80° Inc, 359.63° Azimuth
9	13267.22	89.80	359.63	11421.00	2182.00	584.11	0.00	0.00	2178.18	Build 2.00°/100'
10	13280.31	90.06	359.63	11421.02	2195.09	584.03	2.00	0.00	2191.27	Hold 90.06° Inc, 359.63° Azimuth
11	15153.26	90.06	359.63	11419.00	4068.00	571.93	0.00	0.00	4064.22	Drop 2.00°/100'
12	15157.29	89.98	359.63	11419.00	4072.02	571.90	2.00	180.00	4068.24	Hold 89.98° Inc, 359.63° Azimuth
13	18222.43	89.98	359.63	11420.00	7137.10	552.10	0.00	0.00	7133.39	PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Anderson558H)	0.00	736.40	590.20	520262.50	755903.90	32° 25' 42.054 N	103° 38' 16.483 W
PBHL (Anderson558H)	11420.00	7137.10	552.10	526663.20	755865.80	32° 26' 45.391 N	103° 38' 16.441 W
WP1 (Anderson558H)	11421.00	2182.00	584.11	521708.10	755897.81	32° 25' 56.358 N	103° 38' 16.444 W
WP2 (Anderson558H)	11419.00	4068.00	571.93	523594.10	755885.63	32° 26' 15.021 N	103° 38' 16.443 W

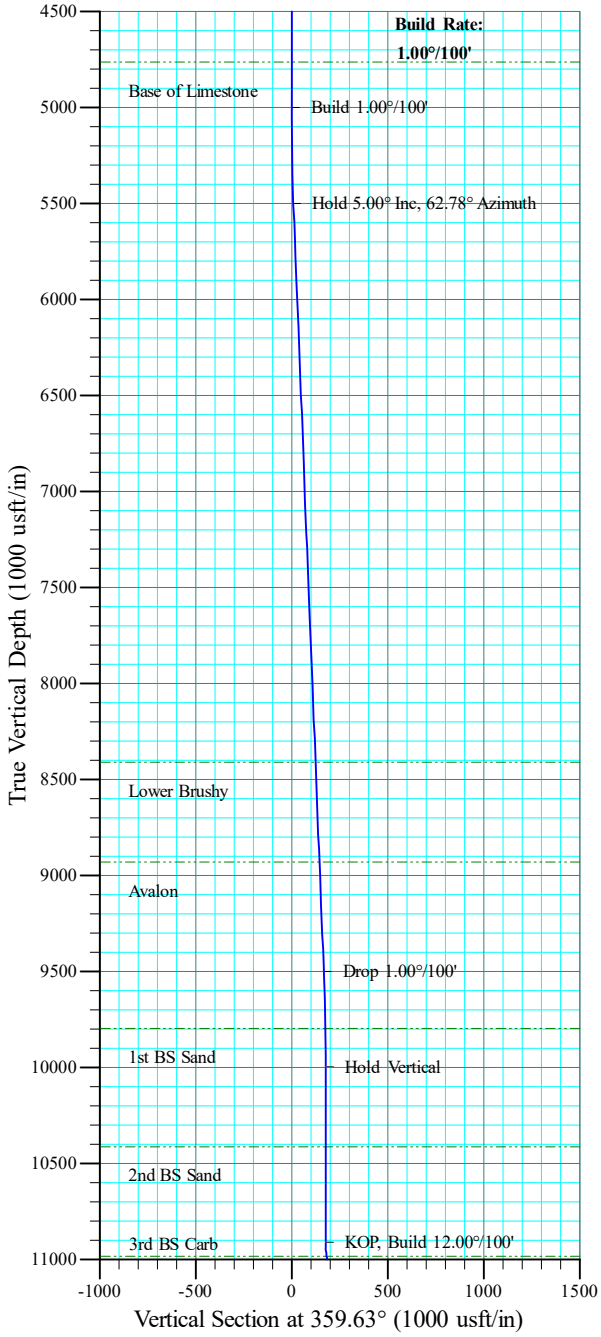


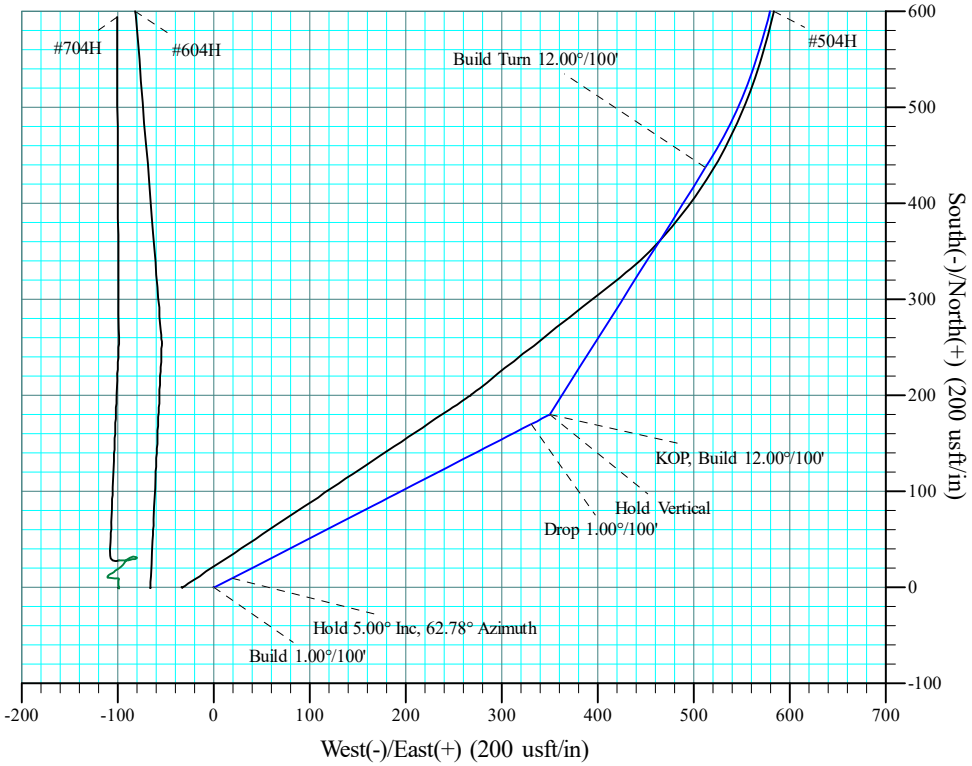
*Note - Aim is not responsible for any collision issues against unknown offset wells.

Drawn By: IG
Date Created: 11/9/2020
Date Revised: 11/9/2020
File: Advance Energy - Anderson Fed Com 558H Plan 1.0.wpc

Advance Energy Partners, LLC

Anderson Fed Com 558H
Lea County, New Mexico
WT-20-072
Pioneer 80
Plan 1.0





Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.16°

Magnetic Field
Strength: 47952.4nT
Dip Angle: 60.15°
Date: 11/9/2020
Model: MVHD

Magnetic North: 6.16° to Grid North

SLOTS		
Slot Name	+N/-S	+E/-W
504H	-0.30	-33.00
558H	0.00	0.00
604H	-0.50	-66.00
704H	-0.80	-98.90

SITE DETAILS: Anderson Fed Com 558H	
Site Centre Northing:	519526.10
Easting:	755313.70
Positional Uncertainty:	0.00
Convergence:	0.37
Local North:	Grid
Depth Reference:	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)

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

**Note - Aim is not responsible for collision issues against any unknown offset wells.*

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Anderson558H)	0.00	736.40	590.20	520262.50	755903.90	32° 25' 42.054 N	103° 38' 16.483 W
PBHL (Anderson558H)	11420.00	7137.10	552.10	526663.20	755865.80	32° 26' 45.391 N	103° 38' 16.441 W
WP1 (Anderson558H)	11421.00	2182.00	584.11	521708.10	755897.81	32° 25' 56.358 N	103° 38' 16.444 W
WP2 (Anderson558H)	11419.00	4068.00	571.93	523594.10	755885.63	32° 26' 15.021 N	103° 38' 16.443 W

Drawn By: IG
Date Created: 11/9/2020
Date Revised: 11/9/2020
File: Advance Energy - Anderson Fed Com 558H Plan 1.0 Surface.wpc

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	0.00	Build 1.00°/100'
3	5500.00	5.00	62.78	5499.37	9.97	19.39	1.00	62.78	9.85	Hold 5.00° Inc, 62.78° Azimuth
4	9515.43	5.00	62.78	9499.52	170.03	330.61	0.00	0.00	167.89	Drop 1.00°/100'
5	10015.43	0.00	0.00	9998.88	180.00	350.00	1.00	180.00	177.74	Hold Vertical
6	10927.05	0.00	0.00	10910.50	180.00	350.00	0.00	0.00	177.74	KOP, Build 12.00°/100'
7	11499.87	68.74	32.25	11355.47	437.38	512.39	12.00	32.25	434.06	Build Turn 12.00°/100'
8	11817.94	89.80	359.63	11415.94	732.76	593.47	12.00	-60.73	728.91	LP, Hold 89.80° Inc, 359.63° Azimuth
9	13267.22	89.80	359.63	11421.00	2182.00	584.11	0.00	0.00	2178.18	Build 2.00°/100'
10	13280.31	90.06	359.63	11421.02	2195.09	584.03	2.00	0.00	2191.27	Hold 90.06° Inc, 359.63° Azimuth
11	15153.26	90.06	359.63	11419.00	4068.00	571.93	0.00	0.00	4064.22	Drop 2.00°/100'
12	15253.26	89.98	359.63	11419.00	4072.02	571.90	2.00	180.00	4068.24	Hold 89.98° Inc, 359.63° Azimuth
13	18222.43	89.98	359.63	11420.00	7137.10	552.10	0.00	0.00	7133.39	PBHL

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Lateral 1r0	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**Database:**	EDM 5000.1 Aim Database

Project Lea County, New Mexico

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Anderson Fed Com 558H

Site Position:		**Northing:**	519,526.10 usft	**Latitude:**	32° 25' 34.805 N
From:	Map	**Easting:**	755,313.70 usft	**Longitude:**	103° 38' 23.424 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.37 °

Well Anderson #558H - Slot 558H

Well Position	**+N/-S**	0.00 usft	**Northing:**	519,526.10 usft	**Latitude:**	32° 25' 34.805 N
	+E/-W	0.00 usft	**Easting:**	755,313.70 usft	**Longitude:**	103° 38' 23.424 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,657.00 usft

Wellbore Lateral 1r0

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	11/9/2020	6.53	60.15	47,952.38602787

Design Plan 1.0

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.63

Survey Tool Program **Date** 11/10/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	18,222.43	Plan 1.0 (Lateral 1r0)	B001Mb_MWD+HRGM	OWSG MWD + HRGM

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

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Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Lateral 1r0	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**Database:**	EDM 5000.1 Aim Database

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,184.50	0.00	0.00	1,184.50	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,762.50	0.00	0.00	4,762.50	0.00	0.00	0.00	0.00	0.00	0.00
Base of Limestone									
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Lateral 1r0	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**Database:**	EDM 5000.1 Aim Database

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 1.00°/100'									
5,100.00	1.00	62.78	5,100.00	0.40	0.78	0.39	1.00	1.00	0.00
5,200.00	2.00	62.78	5,199.96	1.60	3.10	1.58	1.00	1.00	0.00
5,300.00	3.00	62.78	5,299.86	3.59	6.98	3.55	1.00	1.00	0.00
5,400.00	4.00	62.78	5,399.68	6.38	12.41	6.30	1.00	1.00	0.00
5,500.00	5.00	62.78	5,499.37	9.97	19.39	9.85	1.00	1.00	0.00
Hold 5.00° Inc, 62.78° Azimuth									
5,600.00	5.00	62.78	5,598.99	13.96	27.14	13.78	0.00	0.00	0.00
5,700.00	5.00	62.78	5,698.60	17.94	34.89	17.72	0.00	0.00	0.00
5,800.00	5.00	62.78	5,798.22	21.93	42.64	21.65	0.00	0.00	0.00
5,900.00	5.00	62.78	5,897.84	25.92	50.39	25.59	0.00	0.00	0.00
6,000.00	5.00	62.78	5,997.46	29.90	58.14	29.53	0.00	0.00	0.00
6,100.00	5.00	62.78	6,097.08	33.89	65.89	33.46	0.00	0.00	0.00
6,200.00	5.00	62.78	6,196.70	37.87	73.64	37.40	0.00	0.00	0.00
6,300.00	5.00	62.78	6,296.32	41.86	81.39	41.33	0.00	0.00	0.00
6,400.00	5.00	62.78	6,395.94	45.85	89.14	45.27	0.00	0.00	0.00
6,500.00	5.00	62.78	6,495.56	49.83	96.90	49.21	0.00	0.00	0.00
6,600.00	5.00	62.78	6,595.18	53.82	104.65	53.14	0.00	0.00	0.00
6,700.00	5.00	62.78	6,694.80	57.80	112.40	57.08	0.00	0.00	0.00
6,800.00	5.00	62.78	6,794.42	61.79	120.15	61.01	0.00	0.00	0.00
6,900.00	5.00	62.78	6,894.04	65.78	127.90	64.95	0.00	0.00	0.00
7,000.00	5.00	62.78	6,993.66	69.76	135.65	68.88	0.00	0.00	0.00
7,100.00	5.00	62.78	7,093.28	73.75	143.40	72.82	0.00	0.00	0.00
7,200.00	5.00	62.78	7,192.90	77.73	151.15	76.76	0.00	0.00	0.00
7,300.00	5.00	62.78	7,292.52	81.72	158.90	80.69	0.00	0.00	0.00
7,400.00	5.00	62.78	7,392.14	85.71	166.65	84.63	0.00	0.00	0.00
7,500.00	5.00	62.78	7,491.76	89.69	174.40	88.56	0.00	0.00	0.00
7,600.00	5.00	62.78	7,591.37	93.68	182.15	92.50	0.00	0.00	0.00
7,700.00	5.00	62.78	7,690.99	97.66	189.90	96.44	0.00	0.00	0.00
7,800.00	5.00	62.78	7,790.61	101.65	197.65	100.37	0.00	0.00	0.00
7,900.00	5.00	62.78	7,890.23	105.64	205.40	104.31	0.00	0.00	0.00
8,000.00	5.00	62.78	7,989.85	109.62	213.16	108.24	0.00	0.00	0.00
8,100.00	5.00	62.78	8,089.47	113.61	220.91	112.18	0.00	0.00	0.00
8,200.00	5.00	62.78	8,189.09	117.59	228.66	116.12	0.00	0.00	0.00
8,300.00	5.00	62.78	8,288.71	121.58	236.41	120.05	0.00	0.00	0.00
8,400.00	5.00	62.78	8,388.33	125.57	244.16	123.99	0.00	0.00	0.00
8,421.25	5.00	62.78	8,409.50	126.41	245.80	124.82	0.00	0.00	0.00
Lower Brushy									
8,500.00	5.00	62.78	8,487.95	129.55	251.91	127.92	0.00	0.00	0.00
8,600.00	5.00	62.78	8,587.57	133.54	259.66	131.86	0.00	0.00	0.00
8,700.00	5.00	62.78	8,687.19	137.53	267.41	135.80	0.00	0.00	0.00
8,800.00	5.00	62.78	8,786.81	141.51	275.16	139.73	0.00	0.00	0.00
8,900.00	5.00	62.78	8,886.43	145.50	282.91	143.67	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

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Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Lateral 1r0	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**Database:**	EDM 5000.1 Aim Database

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,943.24	5.00	62.78	8,929.50	147.22	286.26	145.37	0.00	0.00	0.00
Avalon									
9,000.00	5.00	62.78	8,986.05	149.48	290.66	147.60	0.00	0.00	0.00
9,100.00	5.00	62.78	9,085.67	153.47	298.41	151.54	0.00	0.00	0.00
9,200.00	5.00	62.78	9,185.29	157.46	306.16	155.47	0.00	0.00	0.00
9,300.00	5.00	62.78	9,284.91	161.44	313.91	159.41	0.00	0.00	0.00
9,400.00	5.00	62.78	9,384.53	165.43	321.66	163.35	0.00	0.00	0.00
9,500.00	5.00	62.78	9,484.14	169.41	329.42	167.28	0.00	0.00	0.00
9,515.43	5.00	62.78	9,499.52	170.03	330.61	167.89	0.00	0.00	0.00
Drop 1.00°/100'									
9,600.00	4.15	62.78	9,583.82	173.12	336.61	170.94	1.00	-1.00	0.00
9,700.00	3.15	62.78	9,683.61	176.03	342.28	173.82	1.00	-1.00	0.00
9,800.00	2.15	62.78	9,783.50	178.15	346.40	175.91	1.00	-1.00	0.00
9,813.01	2.02	62.78	9,796.50	178.36	346.82	176.12	1.00	-1.00	0.00
1st BS Sand									
9,900.00	1.15	62.78	9,883.46	179.47	348.97	177.21	1.00	-1.00	0.00
10,000.00	0.15	62.78	9,983.45	179.99	349.98	177.73	1.00	-1.00	0.00
10,015.43	0.00	0.00	9,998.88	180.00	350.00	177.74	1.00	-1.00	0.00
Hold Vertical									
10,100.00	0.00	0.00	10,083.45	180.00	350.00	177.74	0.00	0.00	0.00
10,200.00	0.00	0.00	10,183.45	180.00	350.00	177.74	0.00	0.00	0.00
10,300.00	0.00	0.00	10,283.45	180.00	350.00	177.74	0.00	0.00	0.00
10,400.00	0.00	0.00	10,383.45	180.00	350.00	177.74	0.00	0.00	0.00
10,431.05	0.00	0.00	10,414.50	180.00	350.00	177.74	0.00	0.00	0.00
2nd BS Sand									
10,500.00	0.00	0.00	10,483.45	180.00	350.00	177.74	0.00	0.00	0.00
10,600.00	0.00	0.00	10,583.45	180.00	350.00	177.74	0.00	0.00	0.00
10,700.00	0.00	0.00	10,683.45	180.00	350.00	177.74	0.00	0.00	0.00
10,800.00	0.00	0.00	10,783.45	180.00	350.00	177.74	0.00	0.00	0.00
10,900.00	0.00	0.00	10,883.45	180.00	350.00	177.74	0.00	0.00	0.00
10,927.05	0.00	0.00	10,910.50	180.00	350.00	177.74	0.00	0.00	0.00
KOP, Build 12.00°/100'									
10,950.00	2.75	32.25	10,933.44	180.47	350.29	178.20	12.00	12.00	0.00
10,975.00	5.75	32.25	10,958.37	182.03	351.28	179.76	12.00	12.00	0.00
10,999.32	8.67	32.25	10,982.50	184.62	352.91	182.33	12.00	12.00	0.00
3rd BS Carb									
11,000.00	8.75	32.25	10,983.17	184.70	352.97	182.42	12.00	12.00	0.00
11,025.00	11.75	32.25	11,007.77	188.47	355.34	186.17	12.00	12.00	0.00
11,050.00	14.75	32.25	11,032.10	193.31	358.40	191.00	12.00	12.00	0.00
11,075.00	17.75	32.25	11,056.10	199.23	362.13	196.89	12.00	12.00	0.00
11,100.00	20.75	32.25	11,079.69	206.20	366.53	203.83	12.00	12.00	0.00
11,125.00	23.75	32.25	11,102.83	214.21	371.58	211.81	12.00	12.00	0.00
11,150.00	26.75	32.25	11,125.44	223.23	377.28	220.79	12.00	12.00	0.00
11,175.00	29.75	32.25	11,147.46	233.24	383.59	230.75	12.00	12.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Lateral 1r0	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**Database:**	EDM 5000.1 Aim Database

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,200.00	32.75	32.25	11,168.83	244.21	390.51	241.68	12.00	12.00	0.00
11,225.00	35.75	32.25	11,189.49	256.10	398.02	253.53	12.00	12.00	0.00
11,250.00	38.75	32.25	11,209.38	268.90	406.09	266.27	12.00	12.00	0.00
11,275.00	41.75	32.25	11,228.46	282.56	414.71	279.88	12.00	12.00	0.00
11,300.00	44.75	32.25	11,246.67	297.05	423.85	294.31	12.00	12.00	0.00
11,325.00	47.75	32.25	11,263.95	312.32	433.49	309.52	12.00	12.00	0.00
11,350.00	50.75	32.25	11,280.27	328.34	443.59	325.47	12.00	12.00	0.00
11,375.00	53.75	32.25	11,295.57	345.05	454.14	342.12	12.00	12.00	0.00
11,400.00	56.75	32.25	11,309.82	362.43	465.10	359.42	12.00	12.00	0.00
11,425.00	59.75	32.25	11,322.97	380.40	476.45	377.32	12.00	12.00	0.00
11,450.00	62.75	32.25	11,334.99	398.94	488.14	395.78	12.00	12.00	0.00
11,475.00	65.75	32.25	11,345.85	417.98	500.16	414.74	12.00	12.00	0.00
11,499.87	68.74	32.25	11,355.47	437.38	512.39	434.06	12.00	12.00	0.00
Build Turn 12.00°/100'									
11,525.00	70.24	29.46	11,364.27	457.58	524.46	454.18	12.00	5.96	-11.12
11,550.00	71.77	26.73	11,372.41	478.43	535.59	474.96	12.00	6.13	-10.91
11,575.00	73.34	24.05	11,379.91	499.98	545.81	496.44	12.00	6.28	-10.72
11,600.00	74.94	21.41	11,386.74	522.16	555.10	518.56	12.00	6.41	-10.54
11,625.00	76.57	18.82	11,392.89	544.91	563.42	541.26	12.00	6.53	-10.38
11,650.00	78.23	16.25	11,398.35	568.17	570.77	564.47	12.00	6.64	-10.24
11,675.00	79.92	13.72	11,403.09	591.88	577.12	588.14	12.00	6.73	-10.12
11,700.00	81.62	11.22	11,407.10	615.97	582.45	612.20	12.00	6.81	-10.01
11,725.00	83.33	8.74	11,410.37	640.38	586.74	636.57	12.00	6.87	-9.93
11,750.00	85.06	6.28	11,412.90	665.03	589.99	661.21	12.00	6.92	-9.86
11,775.00	86.80	3.82	11,414.67	689.87	592.18	686.03	12.00	6.95	-9.81
11,800.00	88.55	1.38	11,415.69	714.82	593.32	710.97	12.00	6.98	-9.77
11,817.94	89.80	359.63	11,415.95	732.76	593.47	728.91	12.00	6.99	-9.76
LP, Hold 89.80° Inc, 359.63° Azimuth									
11,900.00	89.80	359.63	11,416.23	814.81	592.94	810.97	0.00	0.00	0.00
12,000.00	89.80	359.63	11,416.58	914.81	592.30	910.97	0.00	0.00	0.00
12,100.00	89.80	359.63	11,416.93	1,014.81	591.65	1,010.97	0.00	0.00	0.00
12,200.00	89.80	359.63	11,417.28	1,114.81	591.01	1,110.97	0.00	0.00	0.00
12,300.00	89.80	359.63	11,417.63	1,214.80	590.36	1,210.97	0.00	0.00	0.00
12,400.00	89.80	359.63	11,417.98	1,314.80	589.71	1,310.97	0.00	0.00	0.00
12,500.00	89.80	359.63	11,418.33	1,414.80	589.07	1,410.97	0.00	0.00	0.00
12,600.00	89.80	359.63	11,418.68	1,514.80	588.42	1,510.96	0.00	0.00	0.00
12,700.00	89.80	359.63	11,419.02	1,614.79	587.78	1,610.96	0.00	0.00	0.00
12,800.00	89.80	359.63	11,419.37	1,714.79	587.13	1,710.96	0.00	0.00	0.00
12,900.00	89.80	359.63	11,419.72	1,814.79	586.48	1,810.96	0.00	0.00	0.00
13,000.00	89.80	359.63	11,420.07	1,914.79	585.84	1,910.96	0.00	0.00	0.00
13,100.00	89.80	359.63	11,420.42	2,014.78	585.19	2,010.96	0.00	0.00	0.00
13,200.00	89.80	359.63	11,420.77	2,114.78	584.55	2,110.96	0.00	0.00	0.00
13,267.22	89.80	359.63	11,421.00	2,182.00	584.11	2,178.18	0.00	0.00	0.00
Build 2.00°/100'									

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Lateral 1r0	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**Database:**	EDM 5000.1 Aim Database

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,280.31	90.06	359.63	11,421.02	2,195.09	584.03	2,191.27	2.00	2.00	0.00
Hold 90.06° Inc, 359.63° Azimuth									
13,300.00	90.06	359.63	11,421.00	2,214.78	583.90	2,210.96	0.00	0.00	0.00
13,400.00	90.06	359.63	11,420.89	2,314.78	583.25	2,310.96	0.00	0.00	0.00
13,500.00	90.06	359.63	11,420.78	2,414.77	582.61	2,410.96	0.00	0.00	0.00
13,600.00	90.06	359.63	11,420.68	2,514.77	581.96	2,510.96	0.00	0.00	0.00
13,700.00	90.06	359.63	11,420.57	2,614.77	581.32	2,610.96	0.00	0.00	0.00
13,800.00	90.06	359.63	11,420.46	2,714.77	580.67	2,710.96	0.00	0.00	0.00
13,900.00	90.06	359.63	11,420.35	2,814.76	580.02	2,810.96	0.00	0.00	0.00
14,000.00	90.06	359.63	11,420.24	2,914.76	579.38	2,910.96	0.00	0.00	0.00
14,100.00	90.06	359.63	11,420.14	3,014.76	578.73	3,010.96	0.00	0.00	0.00
14,200.00	90.06	359.63	11,420.03	3,114.76	578.09	3,110.96	0.00	0.00	0.00
14,300.00	90.06	359.63	11,419.92	3,214.76	577.44	3,210.96	0.00	0.00	0.00
14,400.00	90.06	359.63	11,419.81	3,314.75	576.79	3,310.96	0.00	0.00	0.00
14,500.00	90.06	359.63	11,419.70	3,414.75	576.15	3,410.96	0.00	0.00	0.00
14,600.00	90.06	359.63	11,419.60	3,514.75	575.50	3,510.96	0.00	0.00	0.00
14,700.00	90.06	359.63	11,419.49	3,614.75	574.86	3,610.96	0.00	0.00	0.00
14,800.00	90.06	359.63	11,419.38	3,714.75	574.21	3,710.96	0.00	0.00	0.00
14,900.00	90.06	359.63	11,419.27	3,814.74	573.56	3,810.96	0.00	0.00	0.00
15,000.00	90.06	359.63	11,419.16	3,914.74	572.92	3,910.96	0.00	0.00	0.00
15,100.00	90.06	359.63	11,419.06	4,014.74	572.27	4,010.96	0.00	0.00	0.00
15,153.26	90.06	359.63	11,419.00	4,068.00	571.93	4,064.22	0.00	0.00	0.00
Drop 2.00°/100'									
15,157.29	89.98	359.63	11,419.00	4,072.02	571.90	4,068.24	2.00	-2.00	0.00
Hold 89.98° Inc, 359.63° Azimuth									
15,200.00	89.98	359.63	11,419.01	4,114.74	571.63	4,110.96	0.00	0.00	0.00
15,300.00	89.98	359.63	11,419.04	4,214.73	570.98	4,210.96	0.00	0.00	0.00
15,400.00	89.98	359.63	11,419.08	4,314.73	570.33	4,310.96	0.00	0.00	0.00
15,500.00	89.98	359.63	11,419.11	4,414.73	569.69	4,410.96	0.00	0.00	0.00
15,600.00	89.98	359.63	11,419.14	4,514.73	569.04	4,510.96	0.00	0.00	0.00
15,700.00	89.98	359.63	11,419.18	4,614.73	568.40	4,610.96	0.00	0.00	0.00
15,800.00	89.98	359.63	11,419.21	4,714.72	567.75	4,710.96	0.00	0.00	0.00
15,900.00	89.98	359.63	11,419.24	4,814.72	567.10	4,810.96	0.00	0.00	0.00
16,000.00	89.98	359.63	11,419.27	4,914.72	566.46	4,910.96	0.00	0.00	0.00
16,100.00	89.98	359.63	11,419.31	5,014.72	565.81	5,010.96	0.00	0.00	0.00
16,200.00	89.98	359.63	11,419.34	5,114.72	565.17	5,110.96	0.00	0.00	0.00
16,300.00	89.98	359.63	11,419.37	5,214.71	564.52	5,210.96	0.00	0.00	0.00
16,400.00	89.98	359.63	11,419.40	5,314.71	563.87	5,310.96	0.00	0.00	0.00
16,500.00	89.98	359.63	11,419.44	5,414.71	563.23	5,410.96	0.00	0.00	0.00
16,600.00	89.98	359.63	11,419.47	5,514.71	562.58	5,510.96	0.00	0.00	0.00
16,700.00	89.98	359.63	11,419.50	5,614.71	561.94	5,610.96	0.00	0.00	0.00
16,800.00	89.98	359.63	11,419.54	5,714.70	561.29	5,710.96	0.00	0.00	0.00
16,900.00	89.98	359.63	11,419.57	5,814.70	560.64	5,810.96	0.00	0.00	0.00
17,000.00	89.98	359.63	11,419.60	5,914.70	560.00	5,910.96	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Lateral 1r0	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**Database:**	EDM 5000.1 Aim Database

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,100.00	89.98	359.63	11,419.63	6,014.70	559.35	6,010.96	0.00	0.00	0.00
17,200.00	89.98	359.63	11,419.67	6,114.69	558.71	6,110.96	0.00	0.00	0.00
17,300.00	89.98	359.63	11,419.70	6,214.69	558.06	6,210.96	0.00	0.00	0.00
17,400.00	89.98	359.63	11,419.73	6,314.69	557.41	6,310.96	0.00	0.00	0.00
17,500.00	89.98	359.63	11,419.76	6,414.69	556.77	6,410.96	0.00	0.00	0.00
17,600.00	89.98	359.63	11,419.80	6,514.69	556.12	6,510.96	0.00	0.00	0.00
17,700.00	89.98	359.63	11,419.83	6,614.68	555.48	6,610.96	0.00	0.00	0.00
17,800.00	89.98	359.63	11,419.86	6,714.68	554.83	6,710.96	0.00	0.00	0.00
17,900.00	89.98	359.63	11,419.89	6,814.68	554.18	6,810.96	0.00	0.00	0.00
18,000.00	89.98	359.63	11,419.93	6,914.68	553.54	6,910.96	0.00	0.00	0.00
18,100.00	89.98	359.63	11,419.96	7,014.68	552.89	7,010.96	0.00	0.00	0.00
18,200.00	89.98	359.63	11,419.99	7,114.67	552.24	7,110.96	0.00	0.00	0.00
18,222.43	89.98	359.63	11,420.00	7,137.10	552.10	7,133.39	0.00	0.00	0.00
PBHL									

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
FTP (Anderson558H) - plan misses target center by 943.73usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	736.40	590.20	520,262.50	755,903.90	32° 25' 42.054 N	103° 38' 16.483 W
WP2 (Anderson558H) - plan hits target center - Point	0.00	0.00	11,419.00	4,068.00	571.93	523,594.10	755,885.62	32° 26' 15.021 N	103° 38' 16.443 W
PBHL (Anderson558H) - plan hits target center - Point	0.00	0.01	11,420.00	7,137.10	552.10	526,663.20	755,865.80	32° 26' 45.391 N	103° 38' 16.441 W
WP1 (Anderson558H) - plan hits target center - Point	0.00	0.00	11,421.00	2,182.00	584.11	521,708.10	755,897.81	32° 25' 56.358 N	103° 38' 16.444 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,184.50	1,184.50	Rustler			
4,762.50	4,762.50	Base of Limestone			
8,421.25	8,409.50	Lower Brushy			
8,943.24	8,929.50	Avalon			
9,813.01	9,796.50	1st BS Sand			
10,431.05	10,414.50	2nd BS Sand			
10,999.32	10,982.50	3rd BS Carb			

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Lateral 1r0	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1.0	**Database:**	EDM 5000.1 Aim Database

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
5000	5000	0	0	Build 1.00°/100'
5500	5499	10	19	Hold 5.00° Inc, 62.78° Azimuth
9515	9500	170	331	Drop 1.00°/100'
10,015	9999	180	350	Hold Vertical
10,927	10,911	180	350	KOP, Build 12.00°/100'
11,500	11,355	437	512	Build Turn 12.00°/100'
11,818	11,416	733	593	LP, Hold 89.80° Inc, 359.63° Azimuth
13,267	11,421	2182	584	Build 2.00°/100'
13,280	11,421	2195	584	Hold 90.06° Inc, 359.63° Azimuth
15,153	11,419	4068	572	Drop 2.00°/100'
15,157	11,419	4072	572	Hold 89.98° Inc, 359.63° Azimuth
18,222	11,420	7137	552	PBHL

Advance Energy Partners, LLC

Anderson Fed Com 558H
Lea County, New Mexico
WT-20-072
Pioneer 80
Plan 1.0 Final PVA

Aim Directional Service

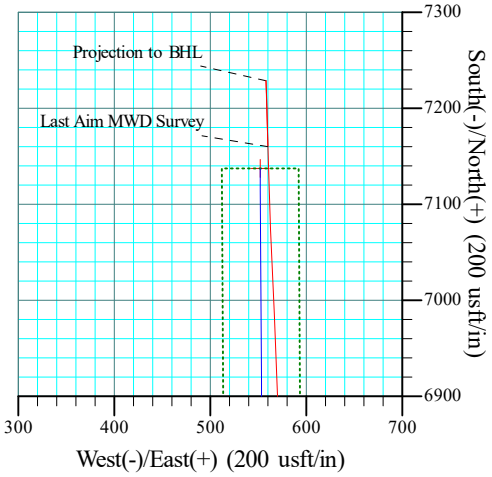
Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.14°

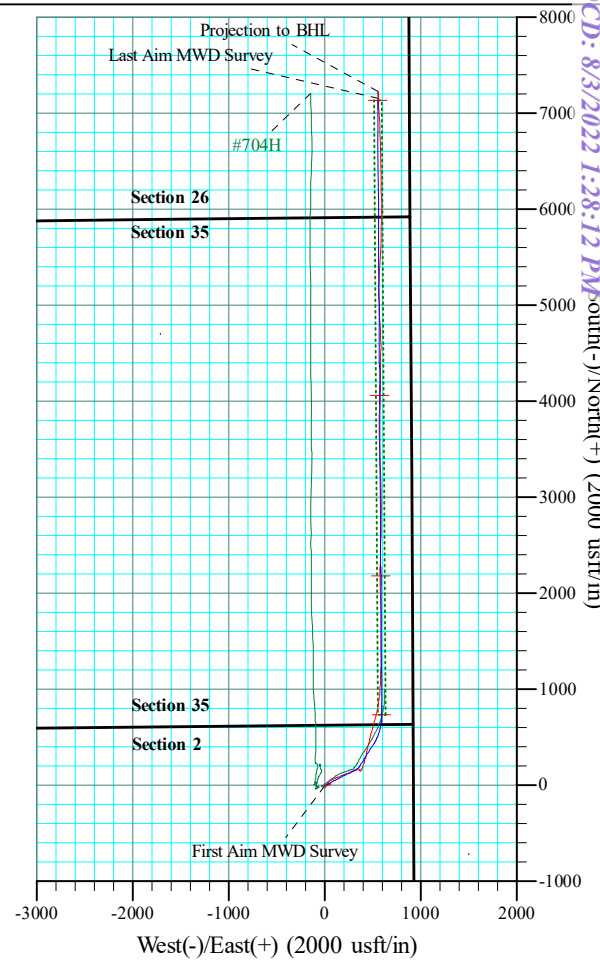
Magnetic Field
Strength: 47941.3nT
Dip Angle: 60.15°
Date: 12/17/2020
Model: MVHD

Magnetic North: 6.14° to Grid North

SITE DETAILS: Anderson Fed Com 558H	
Site Centre Northing:	519526.10
Easting:	755313.70
Positional Uncertainity:	0.00
Convergence:	0.37
Local North:	Grid

PROJECT DETAILS:	Lea County, New Mexico
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level
Depth Reference:	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)



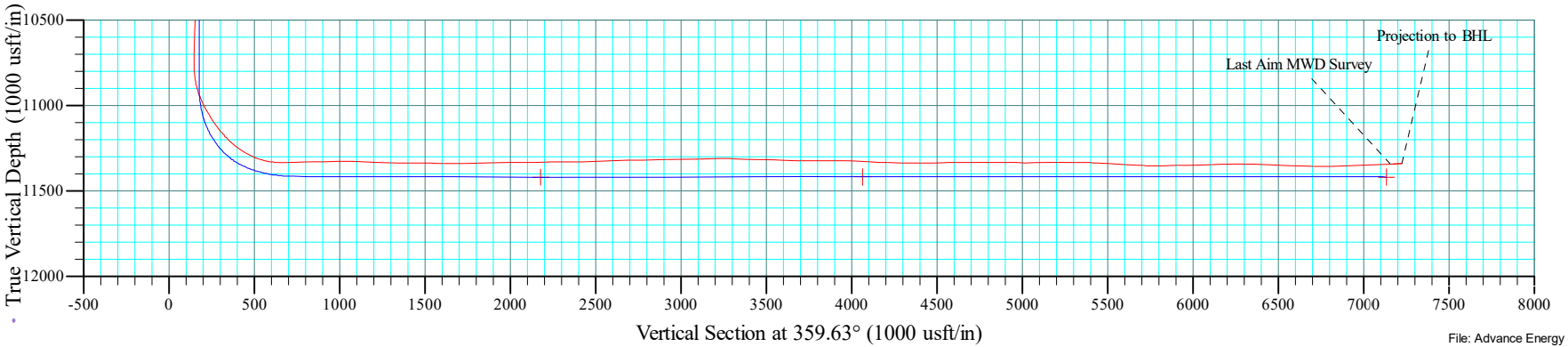


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	18149.00	92.04	358.05	11344.31	7159.46	560.15	0.00	0.00	7155.69	Last Aim MWD Survey
2	18218.00	92.04	358.05	11341.85	7228.37	557.80	0.00	0.00	7224.62	Projection to BHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Anderson558H)	0.00	736.40	590.20	520262.50	755903.90	32° 25' 42.054 N	103° 38' 16.483 W
PBHL (Anderson558H)	11420.00	7137.10	552.10	526663.20	755865.80	32° 26' 45.391 N	103° 38' 16.441 W
WP1 (Anderson558H)	11421.00	2182.00	584.11	521708.10	755897.81	32° 25' 56.358 N	103° 38' 16.444 W
WP2 (Anderson558H)	11419.00	4068.00	571.93	523594.10	755885.63	32° 26' 15.021 N	103° 38' 16.443 W



Drawn By: IG
Date Created: 11/9/2020
Date Revised: 1/4/2021
File: Advance Energy - Anderson Fed Com 558H Plan 1.0 Final PVA.wpc

Survey Reports

Anderson Fed Com 558H (WT-20-072)

2020-11-26 to 2021-01-10
Lea, New Mexico, US (32.43, -103.64)

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.1 Aim Database

Project Lea County, New Mexico

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Anderson Fed Com 558H

Site Position:		**Northing:**	519,526.10 usft	**Latitude:**	32° 25' 34.805 N
From:	Map	**Easting:**	755,313.70 usft	**Longitude:**	103° 38' 23.424 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.37 °

Well Anderson #558H - Slot 558H

Well Position	**+N/-S**	0.00 usft	**Northing:**	519,526.10 usft	**Latitude:**	32° 25' 34.805 N
	+E/-W	0.00 usft	**Easting:**	755,313.70 usft	**Longitude:**	103° 38' 23.424 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,657.00 usft

Wellbore Aim MWD Surveys

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	12/7/2020	6.52	60.15	47,944.19743804

Design Aim MWD Surveys

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.63

Survey Program **Date** 1/4/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.00	18,218.00	Aim MWD Surveys (Aim MWD Surveys)	B001Mb_MWD+HRGM	OWSG MWD + HRGM

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.97	246.72	199.99	-0.67	-1.56	-0.66	0.49	0.49	0.00
First Aim MWD Survey									
325.00	1.41	240.21	324.96	-1.85	-3.86	-1.83	0.37	0.35	-5.21
419.00	0.92	176.93	418.95	-3.18	-4.83	-3.15	1.37	-0.52	-67.32
512.00	1.23	159.35	511.93	-4.86	-4.43	-4.83	0.48	0.33	-18.90
606.00	1.67	130.53	605.90	-6.69	-3.04	-6.67	0.89	0.47	-30.66
699.00	2.86	99.68	698.83	-7.96	0.28	-7.97	1.79	1.28	-33.17
793.00	3.08	88.60	792.70	-8.30	5.12	-8.33	0.65	0.23	-11.79
887.00	3.69	83.15	886.54	-7.87	10.65	-7.94	0.73	0.65	-5.80
980.00	3.52	75.59	979.36	-6.81	16.38	-6.91	0.54	-0.18	-8.13

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.1 Aim Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,074.00	4.75	68.83	1,073.11	-4.68	22.81	-4.83	1.41	1.31	-7.19
1,167.00	4.66	63.29	1,165.80	-1.59	29.77	-1.79	0.50	-0.10	-5.96
1,244.00	3.47	59.51	1,242.60	0.99	34.57	0.77	1.58	-1.55	-4.91
1,350.00	2.95	57.14	1,348.44	4.10	39.63	3.85	0.51	-0.49	-2.24
1,440.00	2.59	57.93	1,438.33	6.44	43.30	6.16	0.40	-0.40	0.88
1,529.00	1.89	59.86	1,527.26	8.24	46.27	7.94	0.79	-0.79	2.17
1,619.00	1.27	72.25	1,617.23	9.29	48.50	8.98	0.78	-0.69	13.77
1,708.00	0.35	19.96	1,706.22	9.85	49.54	9.53	1.23	-1.03	-58.75
1,798.00	0.79	290.66	1,796.22	10.33	49.05	10.01	0.96	0.49	-99.22
1,888.00	0.84	296.11	1,886.21	10.83	47.88	10.52	0.10	0.06	6.06
1,978.00	0.57	300.95	1,976.20	11.35	46.90	11.05	0.31	-0.30	5.38
2,067.00	0.66	319.75	2,065.20	11.97	46.19	11.68	0.25	0.10	21.12
2,157.00	0.62	343.75	2,155.19	12.84	45.72	12.54	0.30	-0.04	26.67
2,247.00	0.35	261.57	2,245.19	13.26	45.31	12.97	0.74	-0.30	-91.31
2,426.00	0.40	175.00	2,424.18	12.56	44.82	12.27	0.29	0.03	-48.36
2,516.00	0.26	105.12	2,514.18	12.20	45.05	11.90	0.44	-0.16	-77.64
2,605.00	0.97	82.36	2,603.18	12.24	45.99	11.95	0.83	0.80	-25.57
2,784.00	0.92	66.72	2,782.15	13.01	48.81	12.70	0.15	-0.03	-8.74
2,874.00	0.57	94.31	2,872.15	13.26	49.92	12.94	0.55	-0.39	30.66
2,963.00	1.23	72.87	2,961.13	13.51	51.28	13.18	0.82	0.74	-24.09
3,053.00	1.05	43.69	3,051.12	14.39	52.77	14.05	0.67	-0.20	-32.42
3,143.00	1.23	34.90	3,141.10	15.78	53.89	15.43	0.28	0.20	-9.77
3,232.00	1.67	51.69	3,230.07	17.37	55.46	17.01	0.68	0.49	18.87
3,321.00	1.32	72.78	3,319.04	18.48	57.45	18.10	0.73	-0.39	23.70
3,411.00	1.23	117.69	3,409.02	18.33	59.30	17.95	1.09	-0.10	49.90
3,501.00	1.19	216.57	3,499.01	17.13	59.60	16.75	2.04	-0.04	109.87
3,590.00	2.29	235.55	3,587.97	15.39	57.58	15.01	1.38	1.24	21.33
3,680.00	2.46	246.89	3,677.89	13.61	54.32	13.26	0.55	0.19	12.60
3,770.00	2.46	251.20	3,767.81	12.23	50.72	11.90	0.21	0.00	4.79
3,859.00	2.46	253.92	3,856.73	11.09	47.07	10.78	0.13	0.00	3.06
3,949.00	1.98	262.19	3,946.66	10.34	43.68	10.06	0.64	-0.53	9.19
4,039.00	1.71	278.53	4,036.61	10.33	40.81	10.06	0.65	-0.30	18.16
4,129.00	2.07	277.65	4,126.56	10.74	37.87	10.50	0.40	0.40	-0.98
4,308.00	1.63	277.21	4,305.47	11.49	32.14	11.29	0.25	-0.25	-0.25
4,398.00	2.51	279.06	4,395.41	11.96	28.92	11.78	0.98	0.98	2.06
4,488.00	1.76	294.79	4,485.35	12.85	25.72	12.69	1.05	-0.83	17.48
4,577.00	1.27	356.05	4,574.32	14.41	24.41	14.25	1.80	-0.55	68.83
4,667.00	1.45	4.67	4,664.30	16.54	24.44	16.38	0.30	0.20	9.58
4,757.00	1.54	9.59	4,754.27	18.87	24.73	18.71	0.17	0.10	5.47
4,879.00	1.49	11.26	4,876.22	22.04	25.31	21.88	0.05	-0.04	1.37
5,025.00	1.58	29.17	5,022.17	25.66	26.67	25.49	0.33	0.06	12.27
5,114.00	1.63	25.48	5,111.14	27.87	27.81	27.69	0.13	0.06	-4.15
5,204.00	2.20	28.38	5,201.09	30.55	29.18	30.36	0.64	0.63	3.22

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.1 Aim Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,293.00	2.46	42.18	5,290.01	33.47	31.27	33.27	0.69	0.29	15.51
5,383.00	2.99	59.75	5,379.91	36.08	34.60	35.86	1.09	0.59	19.52
5,472.00	5.45	59.14	5,468.66	39.42	40.23	39.16	2.76	2.76	-0.69
5,562.00	6.86	60.63	5,558.14	44.25	48.59	43.93	1.58	1.57	1.66
5,652.00	6.46	58.00	5,647.54	49.57	57.56	49.19	0.56	-0.44	-2.92
5,742.00	6.33	55.10	5,736.98	55.09	65.93	54.66	0.39	-0.14	-3.22
5,831.00	6.95	66.17	5,825.38	60.07	74.88	59.59	1.59	0.70	12.44
5,921.00	6.81	63.80	5,914.73	64.63	84.65	64.08	0.35	-0.16	-2.63
6,011.00	6.24	64.32	6,004.15	69.10	93.84	68.50	0.64	-0.63	0.58
6,100.00	6.02	61.95	6,092.64	73.39	102.32	72.73	0.38	-0.25	-2.66
6,190.00	6.81	70.04	6,182.08	77.43	111.50	76.71	1.33	0.88	8.99
6,280.00	7.52	68.72	6,271.38	81.39	122.00	80.60	0.81	0.79	-1.47
6,369.00	7.34	67.49	6,359.63	85.68	132.68	84.83	0.27	-0.20	-1.38
6,459.00	6.81	67.93	6,448.94	89.89	142.94	88.96	0.59	-0.59	0.49
6,549.00	6.46	66.70	6,538.34	93.90	152.53	92.91	0.42	-0.39	-1.37
6,638.00	6.02	67.66	6,626.81	97.65	161.45	96.61	0.51	-0.49	1.08
6,728.00	6.64	68.81	6,716.26	101.33	170.67	100.22	0.70	0.69	1.28
6,818.00	6.33	69.33	6,805.69	104.96	180.16	103.79	0.35	-0.34	0.58
6,908.00	6.24	71.44	6,895.15	108.27	189.44	107.04	0.28	-0.10	2.34
6,997.00	6.64	71.00	6,983.59	111.48	198.89	110.19	0.45	0.45	-0.49
7,086.00	6.33	73.82	7,072.02	114.52	208.47	113.18	0.50	-0.35	3.17
7,176.00	5.45	73.38	7,161.54	117.13	217.33	115.72	0.98	-0.98	-0.49
7,266.00	6.29	69.07	7,251.07	120.11	226.03	118.65	1.05	0.93	-4.79
7,356.00	5.80	71.71	7,340.57	123.30	234.95	121.78	0.63	-0.54	2.93
7,446.00	5.32	73.55	7,430.14	125.91	243.27	124.34	0.57	-0.53	2.04
7,536.00	4.66	76.98	7,519.80	127.91	250.83	126.29	0.80	-0.73	3.81
7,625.00	5.58	70.56	7,608.45	130.17	258.44	128.50	1.22	1.03	-7.21
7,715.00	5.85	65.99	7,698.00	133.49	266.75	131.77	0.59	0.30	-5.08
7,805.00	5.10	69.07	7,787.59	136.79	274.68	135.01	0.89	-0.83	3.42
7,894.00	4.57	70.04	7,876.27	139.41	281.71	137.59	0.60	-0.60	1.09
7,984.00	5.05	64.32	7,965.96	142.35	288.65	140.48	0.75	0.53	-6.36
8,074.00	5.41	64.15	8,055.58	145.92	296.03	144.00	0.40	0.40	-0.19
8,164.00	4.79	66.61	8,145.22	149.26	303.30	147.30	0.73	-0.69	2.73
8,254.00	4.40	69.16	8,234.93	151.98	309.98	149.97	0.49	-0.43	2.83
8,343.00	4.04	70.12	8,323.69	154.26	316.12	152.22	0.41	-0.40	1.08
8,433.00	4.48	68.37	8,413.44	156.63	322.36	154.55	0.51	0.49	-1.94
8,522.00	4.79	67.14	8,502.15	159.36	329.02	157.23	0.37	0.35	-1.38
8,612.00	4.44	70.56	8,591.86	161.98	335.77	159.81	0.49	-0.39	3.80
8,702.00	3.87	71.44	8,681.62	164.10	341.93	161.89	0.64	-0.63	0.98
8,792.00	3.08	78.47	8,771.46	165.55	347.18	163.31	1.00	-0.88	7.81
8,882.00	1.89	90.08	8,861.37	166.04	351.03	163.77	1.43	-1.32	12.90
8,972.00	1.85	95.70	8,951.33	165.89	353.96	163.60	0.21	-0.04	6.24
9,061.00	1.49	93.42	9,040.29	165.68	356.55	163.37	0.41	-0.40	-2.56

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.1 Aim Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,151.00	1.80	89.99	9,130.25	165.61	359.13	163.29	0.36	0.34	-3.81
9,241.00	1.54	96.76	9,220.21	165.47	361.74	163.13	0.36	-0.29	7.52
9,331.00	1.58	113.54	9,310.18	164.83	364.08	162.47	0.51	0.04	18.64
9,420.00	1.19	117.41	9,399.15	163.91	366.03	161.55	0.45	-0.44	4.35
9,510.00	0.48	205.92	9,489.15	163.14	366.69	160.77	1.41	-0.79	98.34
9,600.00	1.05	257.95	9,579.14	162.63	365.72	160.27	0.94	0.63	57.81
9,690.00	0.62	241.34	9,669.13	162.23	364.49	159.87	0.54	-0.48	-18.46
9,779.00	0.26	191.33	9,758.13	161.80	364.02	159.44	0.56	-0.40	-56.19
9,869.00	0.88	158.45	9,848.12	160.95	364.24	158.60	0.75	0.69	-36.53
9,959.00	0.44	151.95	9,938.11	160.01	364.66	157.65	0.50	-0.49	-7.22
10,048.00	0.57	152.13	10,027.11	159.31	365.02	156.95	0.15	0.15	0.20
10,138.00	0.48	208.82	10,117.11	158.59	365.05	156.23	0.56	-0.10	62.99
10,228.00	1.05	254.08	10,207.10	158.03	364.08	155.68	0.88	0.63	50.29
10,317.00	0.48	202.49	10,296.09	157.46	363.15	155.11	0.94	-0.64	-57.97
10,407.00	1.19	145.71	10,386.08	156.34	363.53	153.99	1.12	0.79	-63.09
10,496.00	1.80	126.90	10,475.05	154.74	365.17	152.38	0.87	0.69	-21.13
10,586.00	1.85	113.72	10,565.01	153.31	367.63	150.93	0.47	0.06	-14.64
10,721.00	2.15	124.79	10,699.93	150.98	371.70	148.58	0.36	0.22	8.20
10,809.00	2.90	71.44	10,787.85	150.75	375.17	148.33	2.69	0.85	-60.63
10,899.00	13.76	24.95	10,876.83	161.22	381.87	158.75	13.27	12.07	-51.66
10,988.00	24.31	19.59	10,960.85	188.15	392.51	185.61	12.00	11.85	-6.02
11,078.00	32.22	18.71	11,040.05	228.39	406.44	225.77	8.80	8.79	-0.98
11,167.00	35.78	16.25	11,113.83	275.86	421.33	273.14	4.29	4.00	-2.76
11,257.00	43.69	10.45	11,183.01	331.80	434.36	328.99	9.70	8.79	-6.44
11,347.00	53.14	12.73	11,242.68	397.64	447.96	394.74	10.67	10.50	2.53
11,436.00	63.43	13.00	11,289.40	471.35	464.81	468.34	11.56	11.56	0.30
11,526.00	74.73	15.37	11,321.49	552.70	485.44	549.55	12.79	12.56	2.63
11,615.00	88.88	15.10	11,334.15	637.48	508.52	634.18	15.90	15.90	-0.30
11,705.00	91.16	14.84	11,334.12	724.42	531.77	720.97	2.55	2.53	-0.29
11,794.00	91.82	10.89	11,331.80	811.14	551.57	807.56	4.50	0.74	-4.44
11,884.00	90.46	7.63	11,330.01	899.93	566.05	896.26	3.92	-1.51	-3.62
11,974.00	90.68	3.77	11,329.11	989.47	574.99	985.73	4.30	0.24	-4.29
12,063.00	88.79	2.18	11,329.52	1,078.34	579.61	1,074.57	2.78	-2.12	-1.79
12,153.00	87.52	1.57	11,332.42	1,168.24	582.55	1,164.45	1.57	-1.41	-0.68
12,242.00	87.96	1.22	11,335.93	1,257.14	584.72	1,253.34	0.63	0.49	-0.39
12,332.00	89.36	0.52	11,338.04	1,347.11	586.08	1,343.29	1.74	1.56	-0.78
12,422.00	89.58	1.39	11,338.87	1,437.09	587.58	1,433.27	1.00	0.24	0.97
12,511.00	89.32	0.52	11,339.72	1,526.07	589.06	1,522.24	1.02	-0.29	-0.98
12,601.00	89.41	358.76	11,340.72	1,616.06	588.50	1,612.23	1.96	0.10	-1.96
12,691.00	91.08	358.67	11,340.34	1,706.03	586.48	1,702.21	1.86	1.86	-0.10
12,780.00	91.38	359.02	11,338.43	1,795.00	584.69	1,791.18	0.52	0.34	0.39
12,870.00	90.81	359.28	11,336.71	1,884.97	583.35	1,881.16	0.70	-0.63	0.29
12,959.00	90.81	358.41	11,335.45	1,973.94	581.56	1,970.14	0.98	0.00	-0.98
13,049.00	89.80	358.41	11,334.97	2,063.90	579.06	2,060.12	1.12	-1.12	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.1 Aim Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,138.00	90.90	359.46	11,334.43	2,152.88	577.41	2,149.11	1.71	1.24	1.18
13,228.00	91.16	0.60	11,332.81	2,242.87	577.45	2,239.09	1.30	0.29	1.27
13,317.00	89.89	1.31	11,331.99	2,331.85	578.94	2,328.06	1.63	-1.43	0.80
13,407.00	91.74	1.04	11,330.71	2,421.82	580.78	2,418.02	2.08	2.06	-0.30
13,497.00	92.62	0.87	11,327.29	2,511.74	582.28	2,507.93	1.00	0.98	-0.19
13,586.00	91.74	1.39	11,323.90	2,600.66	584.04	2,596.83	1.15	-0.99	0.58
13,676.00	90.64	0.25	11,322.03	2,690.63	585.32	2,686.79	1.76	-1.22	-1.27
13,765.00	90.64	359.37	11,321.04	2,779.62	585.03	2,775.78	0.99	0.00	-0.99
13,855.00	91.43	359.99	11,319.41	2,869.60	584.53	2,865.77	1.12	0.88	0.69
13,945.00	91.78	0.25	11,316.89	2,959.57	584.71	2,955.73	0.48	0.39	0.29
14,035.00	91.52	359.55	11,314.30	3,049.53	584.56	3,045.69	0.83	-0.29	-0.78
14,124.00	89.98	359.90	11,313.14	3,138.52	584.13	3,134.68	1.77	-1.73	0.39
14,214.00	90.77	358.76	11,312.55	3,228.51	583.08	3,224.67	1.54	0.88	-1.27
14,303.00	88.44	358.14	11,313.16	3,317.46	580.67	3,313.65	2.71	-2.62	-0.70
14,393.00	87.38	357.00	11,316.44	3,407.32	576.86	3,403.52	1.73	-1.18	-1.27
14,482.00	88.26	356.47	11,319.83	3,496.11	571.79	3,492.35	1.15	0.99	-0.60
14,572.00	88.62	358.49	11,322.28	3,585.99	567.84	3,582.24	2.28	0.40	2.24
14,662.00	89.36	359.20	11,323.87	3,675.95	566.02	3,672.22	1.14	0.82	0.79
14,751.00	91.03	0.95	11,323.56	3,764.95	566.14	3,761.21	2.72	1.88	1.97
14,841.00	89.45	2.80	11,323.19	3,854.89	569.08	3,851.13	2.70	-1.76	2.06
14,930.00	89.23	2.36	11,324.21	3,943.79	573.09	3,940.01	0.55	-0.25	-0.49
15,020.00	87.12	2.10	11,327.08	4,033.67	576.59	4,029.87	2.36	-2.34	-0.29
15,110.00	87.34	0.78	11,331.43	4,123.54	578.85	4,119.71	1.49	0.24	-1.47
15,199.00	88.53	0.16	11,334.63	4,212.48	579.58	4,208.65	1.51	1.34	-0.70
15,289.00	87.60	0.87	11,337.67	4,302.42	580.39	4,298.58	1.30	-1.03	0.79
15,378.00	89.89	1.04	11,339.62	4,391.38	581.87	4,387.53	2.58	2.57	0.19
15,468.00	91.87	0.87	11,338.24	4,481.35	583.37	4,477.49	2.21	2.20	-0.19
15,557.00	91.08	0.43	11,335.95	4,570.32	584.38	4,566.45	1.02	-0.89	-0.49
15,646.00	90.90	359.02	11,334.41	4,659.30	583.95	4,655.43	1.60	-0.20	-1.58
15,736.00	89.14	355.94	11,334.38	4,749.20	580.00	4,745.35	3.94	-1.96	-3.42
15,825.00	89.80	356.74	11,335.20	4,838.01	574.31	4,834.20	1.17	0.74	0.90
15,915.00	90.02	357.53	11,335.34	4,927.90	569.82	4,924.12	0.91	0.24	0.88
16,004.00	89.01	357.88	11,336.10	5,016.82	566.25	5,013.06	1.20	-1.13	0.39
16,094.00	91.78	358.76	11,335.48	5,106.77	563.61	5,103.03	3.23	3.08	0.98
16,183.00	89.76	1.13	11,334.28	5,195.75	563.53	5,192.00	3.50	-2.27	2.66
16,273.00	89.58	2.18	11,334.80	5,285.71	566.13	5,281.95	1.18	-0.20	1.17
16,362.00	89.45	4.21	11,335.55	5,374.57	571.09	5,370.77	2.29	-0.15	2.28
16,452.00	86.64	3.15	11,338.62	5,464.32	576.86	5,460.48	3.34	-3.12	-1.18
16,541.00	86.77	2.80	11,343.74	5,553.05	581.47	5,549.18	0.42	0.15	-0.39
16,631.00	85.80	1.83	11,349.57	5,642.79	585.10	5,638.89	1.52	-1.08	-1.08
16,720.00	89.36	0.69	11,353.33	5,731.67	587.05	5,727.76	4.20	4.00	-1.28
16,810.00	90.46	1.31	11,353.47	5,821.65	588.63	5,817.73	1.40	1.22	0.69
16,900.00	90.77	1.31	11,352.50	5,911.63	590.68	5,907.69	0.34	0.34	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 558H
Project:	Lea County, New Mexico	**TVD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Site:	Anderson Fed Com 558H	**MD Reference:**	3657'GL+25.5'KB @ 3682.50usft (Pioneer 80)
Well:	Anderson #558H	**North Reference:**	Grid
Wellbore:	Aim MWD Surveys	**Survey Calculation Method:**	Minimum Curvature
Design:	Aim MWD Surveys	**Database:**	EDM 5000.1 Aim Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,989.00	91.52	359.28	11,350.72	6,000.60	591.14	5,996.66	2.43	0.84	-2.28
17,079.00	93.32	359.64	11,346.92	6,090.51	590.29	6,086.57	2.04	2.00	0.40
17,169.00	90.68	359.11	11,343.78	6,180.44	589.31	6,176.51	2.99	-2.93	-0.59
17,258.00	89.54	359.11	11,343.61	6,269.43	587.93	6,265.50	1.28	-1.28	0.00
17,348.00	88.00	359.64	11,345.54	6,359.40	586.95	6,355.48	1.81	-1.71	0.59
17,437.00	88.22	358.49	11,348.48	6,448.34	585.50	6,444.43	1.31	0.25	-1.29
17,527.00	86.99	358.49	11,352.24	6,538.23	583.13	6,534.33	1.37	-1.37	0.00
17,616.00	88.88	358.67	11,355.45	6,627.14	580.92	6,623.25	2.13	2.12	0.20
17,706.00	89.63	358.23	11,356.62	6,717.10	578.49	6,713.22	0.97	0.83	-0.49
17,796.00	89.93	356.65	11,356.96	6,807.01	574.47	6,803.15	1.79	0.33	-1.76
17,885.00	92.31	357.70	11,355.22	6,895.87	570.08	6,892.05	2.92	2.67	1.18
17,975.00	92.79	357.61	11,351.22	6,985.71	566.40	6,981.90	0.54	0.53	-0.10
18,064.00	92.13	358.05	11,347.40	7,074.56	563.04	7,070.78	0.89	-0.74	0.49
18,149.00	92.04	358.05	11,344.31	7,159.46	560.15	7,155.69	0.11	-0.11	0.00
Last Aim MWD Survey									
18,218.00	92.04	358.05	11,341.85	7,228.37	557.80	7,224.62	0.00	0.00	0.00
Projection to BHL									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
200.00	199.99	-0.67	-1.56	First Aim MWD Survey
18,149.00	11,344.31	7,159.46	560.15	Last Aim MWD Survey
18,218.00	11,341.85	7,228.37	557.80	Projection to BHL

BHA Reports

Anderson Fed Com 558H (WT-20-072)

2020-11-26 to 2021-01-10
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #1 - BHA #1 (17.5" Surface) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	8.00	**Date In**	2020-12-06 10:45	**Downhole Hours**	15.00
Lobe/Stage	7/8, 5.9	**Depth In (ft)**	140.00	**Drilling/Circulating Hours**	8.50
Bend Angle	1.50	**Date Out**	2020-12-07 01:45	**Drilling Hours**	8.00
Speed (rev/gal)	0.17	**Depth Out (ft)**	1313.00	**Circulating Hours**	0.50
Wear Pad OD (in)	8.400	**Distance Slid (ft)**	254.00	**Sliding Hours**	2.33
Incident	No	**Distance Rotated (ft)**	919.00	**Rotating Hours**	5.67
Motor Results		**% Distance Sliding**	21.65%	**% Hours Sliding**	29.17%
Average Total ROP (ft/h)	146.62	**% Distance Rotating**	78.35%	**% Hours Rotating**	70.83%
Average Slide ROP (ft/h)	108.86	**BHA Objective**			
Average Rotating ROP (ft/h)	162.18	Drill Surface to Casing Point			
Bit Details					
OD (in)	17.500				
Vendor	BAKER	**POOH Reason/Notes**			
S/N	5311435	**Total Depth/Casing Point:** Pooh to Run Surface Casing			
Nozzles	9x12				
Total Flow Area (in²)	0.994				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: N/A			
		MWD:			
Bit Distances		**Comments**			
Bit To Survey: 69.00 ft, **Bend:** 6.20 ft		Directional: 1.5° FBH 7/8 5.9 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 1390 psi; Max TQ: 21,870 ft/lbs; Bit: Baker Type: T606KS, Jets: 9x12, TFA: 0.994 Runs: 4			
Mud Properties		**Parameters**			
Type	Water	**Flow Rate (gpm)**	550.00 - 800.00	**Motor RPM**	72.00 - 136.00
WT	9.70	**On Bottom Pressure (psi)**	1300.00 - 2500.00	**Surface RPM**	60.00 - 70.00
VIS	30.00	**Off Bottom Pressure (psi)**	700.00 - 1650.00	**Rotating WOB (klbs)**	15.00 - 34.00
PV	2.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	20.00 - 20.00
YP	5.00	**Stalls**	0	**Temp (ºF)**	75.00 - 84.00
		NPT	0.0		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *T606KS*, Style: *PDC*, Gauge Length (in): *5.00*, Size (in): *17.50*	BAKER	5311435	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: *1.5° FBH 7/8 5.9 Stg Mtr. w/ 12" NB Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5.9*	AIM	800-40-007	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.14	39.64
Stabilizer Description: *12" Stabilizer*	BLACK DIAMOND	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	47.04
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	800-609	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		3.00	50.04
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	AIM 800-01011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.28	80.32
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	DY80011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	110.35
Crossover Sub Description: *X/O ED54-BOX - 6 5/8 REG-PIN*, Type: *Steel*	BLACK DIAMOND	BD15080	EverDrlg54 Box	6 5/8" Reg Pin	2.813	8.000		3.41	113.76

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #2 - Intermediate 12.25" (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	8.00	**Date In**	2020-12-13 08:40	**Downhole Hours**	28.83
Lobe/Stage	7/8, 5.9	**Depth In (ft)**	1313.00	**Drilling/Circulating Hours**	20.67
Bend Angle	1.50	**Date Out**	2020-12-14 13:30	**Drilling Hours**	18.83
Speed (rev/gal)	0.17	**Depth Out (ft)**	4948.00	**Circulating Hours**	1.83
Wear Pad OD (in)	8.400	**Distance Slid (ft)**	253.00	**Sliding Hours**	3.67
Incident	No	**Distance Rotated (ft)**	3382.00	**Rotating Hours**	15.17
Motor Results		**% Distance Sliding**	6.96%	**% Hours Sliding**	19.47%
Average Total ROP (ft/h)	193.01	**% Distance Rotating**	93.04%	**% Hours Rotating**	80.53%
Average Slide ROP (ft/h)	69.00	**BHA Objective**			
Average Rotating ROP (ft/h)	222.99	Drill 12.25'' Intermediate Section			
Bit Details					
OD (in)	12.250				
Vendor	BAKER	**POOH Reason/Notes**			
S/N	5310497	Total Depth/Casing Point			
Nozzles	6x15's				
Total Flow Area (in²)	1.030				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: Motor appeared weak last couple slides. Wrapping up with just 25-30lb diff spikes. Motor did not drain.			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 6.20 ft, **Survey (Bit to Survey):** 69.00 ft		Directional: 1.5° FBH 7/8 5.9 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 1390 psi; Max TQ: 21,870 ft/lbs; Bit: Baker Type: D506WS, Jets: 6x15's, TFA: 1.03 Runs:			
Mud Properties		**Parameters**			
Type	Brine	**Flow Rate (gpm)**	800.00 - 800.00	**Motor RPM**	85.00 - 136.00
WT	10.30	**On Bottom Pressure (psi)**	2500.00 - 3000.00	**Surface RPM**	30.00 - 60.00
VIS	28.00	**Off Bottom Pressure (psi)**	1650.00 - 2200.00	**Rotating WOB (klbs)**	34.00 - 50.00
PV	1.00	**Stall Pressure (psi)**	1000.04	**Sliding WOB (klbs)**	35.00 - 35.00
YP	3.00	**Stalls**	5	**Temp (ºF)**	-0.00 - -0.00
		NPT	0.0		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *D506WS*, Style: *PDC*, Gauge Length (in): *6.00*, Size (in): *12.25*	BAKER	5310497	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: *1.5° FBH 7/8 5.9 Stg Mtr. w/ 12" NB Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5.9*	AIM	800-40-007	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.14	39.64
Stabilizer Description: *12" Stabilizer*	BLACK DIAMOND	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	47.04
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	800-609	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		3.00	50.04
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	AIM 800-01011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.28	80.32
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	DY80011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	110.35
Crossover Sub Description: *X/O ED54-BOX - 6 5/8 REG-PIN*, Type: *Steel*	BLACK DIAMOND	BD15080	EverDrlg54 Box	6 5/8" Reg Pin	2.813	8.000		3.41	113.76
HWDP Description: *13 STANDS of HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1330.31

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #3 - BHA #3 (8.5" Intermediate) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2020-12-24 13:15	**Downhole Hours**	50.75
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	4948.00	**Drilling/Circulating Hours**	32.25
Bend Angle	1.50	**Date Out**	2020-12-26 16:00	**Drilling Hours**	29.67
Speed (rev/gal)	0.26	**Depth Out (ft)**	10790.00	**Circulating Hours**	2.58
Wear Pad OD (in)	7.300	**Distance Slid (ft)**	289.00	**Sliding Hours**	3.75
Incident	No	**Distance Rotated (ft)**	5553.00	**Rotating Hours**	25.92
Motor Results		**% Distance Sliding**	4.95%	**% Hours Sliding**	12.64%
Average Total ROP (ft/h)	196.92	**% Distance Rotating**	95.05%	**% Hours Rotating**	87.36%
Average Slide ROP (ft/h)	77.07	**BHA Objective**			
Average Rotating ROP (ft/h)	214.26	Drill 8.5" Intermediate to KOP			
Bit Details					
OD (in)	8.500				
Vendor	NOV	**POOH Reason/Notes**			
S/N	A270529	**Change Bottom Hole Assembly:** POOH TO PICKUP CURVE ASSEMBLY			
Nozzles	6-15's				
Total Flow Area (in²)	1.035				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional:			
		MWD:			
Bit Distances		**Comments**			
Bit To Survey: 69.00 ft, **Gamma:** 54.00 ft, **Bend:** 5.33 ft		Directional: 1.5° FBH 7/8 8.5 Stg Mtr.w/8.25" Stab.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x15s , TFA: .1.035 Runs: 1			
Mud Properties		**Parameters**			
Type	Water Based	**Flow Rate (gpm)**	675.00 - 675.00	**Motor RPM**	162.00 - 175.00
WT	9.50	**On Bottom Pressure (psi)**	2400.00 - 2800.00	**Surface RPM**	30.00 - 30.00
VIS	28.00	**Off Bottom Pressure (psi)**	1700.00 - 2200.00	**Rotating WOB (klbs)**	40.00 - 40.00
PV	1.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	30.00 - 30.00
YP	3.00	**Stalls**	0	**Temp (ºF)**	135.00 - 135.00
		NPT	0.0		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	NOV	A270529	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-36	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.06	37.06
Stabilizer Description: *8.25' Stabilizer*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	43.79
UBHO Sub Description: *UBHO Sub*, Type: *NM*	AIM	67501NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		4.85	48.64
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		30.93	79.57
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	109.27
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	112.79
HWDP Description: *5.5" HWDP (13 Stands)*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1329.34

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #4 - BHA #4 (Curve Assembly) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	6.75	**Date In**	2020-12-26 16:00	**Downhole Hours**	33.00
Lobe/Stage	7/8, 5.0	**Depth In (ft)**	10790.00	**Drilling/Circulating Hours**	16.67
Bend Angle	2.12	**Date Out**	2020-12-28 01:00	**Drilling Hours**	13.92
Speed (rev/gal)	0.29	**Depth Out (ft)**	11943.00	**Circulating Hours**	2.75
Wear Pad OD (in)	7.000	**Distance Slid (ft)**	844.00	**Sliding Hours**	10.33
Incident	No	**Distance Rotated (ft)**	309.00	**Rotating Hours**	3.58
Motor Results		**% Distance Sliding**	73.20%	**% Hours Sliding**	74.25%
Average Total ROP (ft/h)	82.85	**% Distance Rotating**	26.80%	**% Hours Rotating**	25.75%
Average Slide ROP (ft/h)	81.68	**BHA Objective**			
Average Rotating ROP (ft/h)	86.23	Drill Curve to Landing point			
Bit Details					
OD (in)	8.500				
Vendor	Ulterra	**POOH Reason/Notes**			
S/N	51171	**Change Bottom Hole Assembly:** Pooh for Lateral Assembly			
Nozzles	6-15"s				
Total Flow Area (in²)	1.035				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: N/A			
		MWD:			
Bit Distances		**Comments**			
Bit To Survey: 59.00 ft, **Gamma:** 36.00 ft, **Bend:** 4.07 ft, **Resistivity:** 46.00 ft		Directional: 2.12° FBH 7/8 5.0 Stg Mtr. Slick.; Flow Range: 300-600 gpm; Max Diff: 1130 psi; Max TQ: 10,460 ft/lbs; Bit: Ulterra CF611, Jets: 6x15s , TFA: .1.035 Runs: 2			
Mud Properties		**Parameters**			
Type	Water Based	**Flow Rate (gpm)**	550.00 - 675.00	**Motor RPM**	159.00 - 174.00
WT	9.50	**On Bottom Pressure (psi)**	2100.00 - 2800.00	**Surface RPM**	30.00 - 30.00
VIS	28.00	**Off Bottom Pressure (psi)**	1500.00 - 2000.00	**Rotating WOB (klbs)**	35.00 - 35.00
PV	1.00	**Stall Pressure (psi)**	1800.06	**Sliding WOB (klbs)**	35.00 - 35.00
YP	3.00	**Stalls**	1	**Temp (ºF)**	135.00 - 135.00
		NPT	0.0		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *CF611*, Style: *PDC*, Gauge Length (in): *2.00*, Size (in): *8.50*	Ulterra	51171	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *2.12 FBH 7/8 5.0 Stg Mtr Slick*, Size (in): *6.75*, Bend Angle (°): *2.12*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5*	AIM	CDM650-017	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.20	27.20
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	58.70
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	76.07
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	105.77
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	109.29

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #5 - BHA #5 (Lateral Assembly) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2020-12-28 01:00	**Downhole Hours**	89.75
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	11943.00	**Drilling/Circulating Hours**	56.75
Bend Angle	1.75	**Date Out**	2020-12-31 18:45	**Drilling Hours**	52.92
Speed (rev/gal)	0.26	**Depth Out (ft)**	16669.00	**Circulating Hours**	3.83
Wear Pad OD (in)	7.250	**Distance Slid (ft)**	855.00	**Sliding Hours**	23.25
Incident	No	**Distance Rotated (ft)**	3871.00	**Rotating Hours**	29.67
Motor Results		**% Distance Sliding**	18.09%	**% Hours Sliding**	43.94%
Average Total ROP (ft/h)	89.31	**% Distance Rotating**	81.91%	**% Hours Rotating**	56.06%
Average Slide ROP (ft/h)	36.77	**BHA Objective**			
Average Rotating ROP (ft/h)	130.48	Drill Lateral Section to TD			
Bit Details					
OD (in)	8.500				
Vendor	REED	**POOH Reason/Notes**			
S/N	A270381	**Penetration Rate:** Pooh due to decrease in ROP.			
Nozzles	6 x 16				
Total Flow Area (in²)	1.178				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: Bit was dulled on the outer edge. Motor drained fine with about 1/2 squat.			
		MWD:			
Bit Distances		**Comments**			
Bit To Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.30 ft, **Resistivity:** 56.00 ft		Directional: 1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x16s , TFA: 1.178 Runs: 1			
Mud Properties		**Parameters**			
Type	Oil Based	**Flow Rate (gpm)**	600.00 - 680.00	**Motor RPM**	156.00 - 179.00
WT	9.40	**On Bottom Pressure (psi)**	2800.00 - 3750.00	**Surface RPM**	30.00 - 60.00
VIS	58.00	**Off Bottom Pressure (psi)**	2000.00 - 3400.00	**Rotating WOB (klbs)**	35.00 - 42.00
PV	14.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	35.00 - 60.00
YP	6.00	**Stalls**	0	**Temp (ºF)**	169.00 - 169.00
		NPT	0.0		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270381	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-033	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.23	37.23
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.73
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.10
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.80
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.32

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #6 - 8.50" LATERAL (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2020-12-31 18:45	**Downhole Hours**	53.25
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	16669.00	**Drilling/Circulating Hours**	31.92
Bend Angle	1.75	**Date Out**	2021-01-03 00:00	**Drilling Hours**	26.17
Speed (rev/gal)	0.26	**Depth Out (ft)**	18218.00	**Circulating Hours**	5.75
Wear Pad OD (in)	7.250	**Distance Slid (ft)**	217.00	**Sliding Hours**	11.50
Incident	No	**Distance Rotated (ft)**	1332.00	**Rotating Hours**	14.67
Motor Results		**% Distance Sliding**	14.01%	**% Hours Sliding**	43.95%
Average Total ROP (ft/h)	59.20	**% Distance Rotating**	85.99%	**% Hours Rotating**	56.05%
Average Slide ROP (ft/h)	18.87	**BHA Objective**			
Average Rotating ROP (ft/h)	90.82	Drill lateral to TD			
Bit Details					
OD (in)	8.500				
Vendor	BAKER	**POOH Reason/Notes**			
S/N	5308084	**Total Depth/Casing Point:** Pooh to Run Production casing			
Nozzles	6 x 15				
Total Flow Area (in²)	1.035				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: Motor Drained with no issues			
		MWD:			
Bit Distances		**Comments**			
Bit To Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.34 ft, **Resistivity:** 56.00 ft		Directional: 1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: Baker 506TWX, Jets: 6x15s , TFA: 1.035 Runs: 3			
Mud Properties		**Parameters**			
Type	Oil Based	**Flow Rate (gpm)**	600.00 - 680.00	**Motor RPM**	156.00 - 177.00
WT	9.40	**On Bottom Pressure (psi)**	3400.00 - 3750.00	**Surface RPM**	60.00 - 60.00
VIS	63.00	**Off Bottom Pressure (psi)**	2700.00 - 3400.00	**Rotating WOB (klbs)**	42.00 - 42.00
PV	13.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	60.00 - 60.00
YP	7.00	**Stalls**	0	**Temp (ºF)**	169.00 - 169.00
		NPT	0.0		

Items (Directional)

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	BAKER	5308084	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-038	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.25	37.25
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.75
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.12
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.82
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.34

Mud Motor Reports

Anderson Fed Com 558H (WT-20-072)

2020-11-26 to 2021-01-10
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 1 (BHA #1 (17.5" Surface))

Motor Details		Date/Depth/Distances		Hours	
S/N	800-40-007	**Date In**	2020-12-06 10:45	**Downhole Hours**	15.00
Size (in)	8.0	**Depth In (ft)**	140.00	**Drilling/Circulating Hours**	8.50
Lobe/Stage	7/8, 5.90	**Date Out**	2020-12-07 01:45		
Bend Angle	1.5	**Depth Out (ft)**	1313.00	**Circulating Hours**	0.50
Speed (rev/gal)	0.17	**Total Drilled (ft)**	1173.00	**Drilling Hours**	8.00
Wear Pad OD (in)	8.400	**Distance Slid (ft)**	254.00	**Sliding Hours**	2.33
Manufacturer	AIM	**Distance Rotated (ft)**	919.00	**Rotating Hours**	5.67
Motor Results		**% Distance Sliding**	21.65%	**% Hours Rotating**	70.83%
Motor Incident	No	**% Distance Rotating**	78.35%	**% Hours Sliding**	29.17%
Average Total ROP (ft/h)	146.62	**BHA Parameters**			
Average Slide ROP (ft/h)	108.86	**Flow Rate (gpm)**	550.00 - 800.00	**Motor RPM**	72.00 - 136.00
Average Rotating ROP (ft/h)	162.18	**Stalls**	0	**Surface RPM**	60.00 - 70.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	15.00 - 34.00
OD (in)	17.500	**On Bottom Pressure (psi)**	1300.00 - 2500.00	**Sliding WOB (klbs)**	20.00 - 20.00
Vendor	BAKER	**Off Bottom Pressure (psi)**	700.00 - 1650.00	**Temp (ºF)**	75.00 - 84.00
S/N	5311435	**NPT**	0.0		
Nozzles	9x12	**BHA Objective**			
Total Flow Area (in²)	0.994	Drill Surface to Casing Point			
Bit Type	PDC				
Bit Distances					
Survey: 69.00 ft, **Bend:** 6.20 ft					
Mud Properties					
Type	Water				
WT	9.70				
VIS	30.00				
PV	2.00				
YP	5.00				

POOH Reason/Notes

Total Depth/Casing Point: Pooh to Run Surface Casing

Incident Notes

Directional: N/A

MWD:

Comments

Directional: 1.5° FBH 7/8 5.9 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 1390 psi; Max TQ: 21,870 ft/lbs; Bit: Baker Type: T606KS, Jets: 9x12, TFA: 0.994 Runs: 4

MWD:

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 2 (Intermediate 12.25")

Motor Details		Date/Depth/Distances		Hours	
S/N	800-40-007	**Date In**	2020-12-13 08:40	**Downhole Hours**	28.83
Size (in)	8.0	**Depth In (ft)**	1313.00	**Drilling/Circulating Hours**	20.67
Lobe/Stage	7/8, 5.90	**Date Out**	2020-12-14 13:30		
Bend Angle	1.5	**Depth Out (ft)**	4948.00	**Circulating Hours**	1.83
Speed (rev/gal)	0.17	**Total Drilled (ft)**	3635.00	**Drilling Hours**	18.83
Wear Pad OD (in)	8.400	**Distance Slid (ft)**	253.00	**Sliding Hours**	3.67
Manufacturer	AIM	**Distance Rotated (ft)**	3382.00	**Rotating Hours**	15.17
Motor Results		**% Distance Sliding**	6.96%	**% Hours Rotating**	80.53%
Motor Incident	No	**% Distance Rotating**	93.04%	**% Hours Sliding**	19.47%
Average Total ROP (ft/h)	193.01	**BHA Parameters**			
Average Slide ROP (ft/h)	69.00	**Flow Rate (gpm)**	800.00 - 800.00	**Motor RPM**	85.00 - 136.00
Average Rotating ROP (ft/h)	222.99	**Stalls**	5	**Surface RPM**	30.00 - 60.00
Bit Details		**Stall Pressure (psi)**	1000.04	**Rotating WOB (klbs)**	34.00 - 50.00
OD (in)	12.250	**On Bottom Pressure (psi)**	2500.00 - 3000.00	**Sliding WOB (klbs)**	35.00 - 35.00
Vendor	BAKER	**Off Bottom Pressure (psi)**	1650.00 - 2200.00	**Temp (ºF)**	-0.00 - -0.00
S/N	5310497	**NPT**	0.0		
Nozzles	6x15's	**BHA Objective**			
Total Flow Area (in²)	1.030	Drill 12.25'' Intermediate Section			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 6.20 ft, **Survey (Bit to Survey):** 69.00 ft					
Mud Properties					
Type	Brine				
WT	10.30				
VIS	28.00				
PV	1.00				
YP	3.00				

POOH Reason/Notes

Total Depth/Casing Point

Incident Notes

Directional: Motor appeared weak last couple slides. Wrapping up with just 25-30lb diff spikes. Motor did not drain.

MWD:

Comments

Directional: 1.5° FBH 7/8 5.9 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 1390 psi; Max TQ: 21,870 ft/lbs; Bit: Baker Type: D506WS, Jets: 6x15's, TFA: 1.03 Runs:

MWD:

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 3 (BHA #3 (8.5" Intermediate))

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-36	**Date In**	2020-12-24 13:15	**Downhole Hours**	50.75
Size (in)	7.0	**Depth In (ft)**	4948.00	**Drilling/Circulating Hours**	32.25
Lobe/Stage	7/8, 8.50	**Date Out**	2020-12-26 16:00		
Bend Angle	1.5	**Depth Out (ft)**	10790.00	**Circulating Hours**	2.58
Speed (rev/gal)	0.26	**Total Drilled (ft)**	5842.00	**Drilling Hours**	29.67
Wear Pad OD (in)	7.300	**Distance Slid (ft)**	289.00	**Sliding Hours**	3.75
Manufacturer	AIM	**Distance Rotated (ft)**	5553.00	**Rotating Hours**	25.92
Motor Results		**% Distance Sliding**	4.95%	**% Hours Rotating**	87.36%
Motor Incident	No	**% Distance Rotating**	95.05%	**% Hours Sliding**	12.64%
Average Total ROP (ft/h)	196.92	**BHA Parameters**			
Average Slide ROP (ft/h)	77.07	**Flow Rate (gpm)**	675.00 - 675.00	**Motor RPM**	162.00 - 175.00
Average Rotating ROP (ft/h)	214.26	**Stalls**	0	**Surface RPM**	30.00 - 30.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	40.00 - 40.00
OD (in)	8.500	**On Bottom Pressure (psi)**	2400.00 - 2800.00	**Sliding WOB (klbs)**	30.00 - 30.00
Vendor	NOV	**Off Bottom Pressure (psi)**	1700.00 - 2200.00	**Temp (ºF)**	135.00 - 135.00
S/N	A270529	**NPT**	0.0		
Nozzles	6-15's	**BHA Objective**			
Total Flow Area (in²)	1.035	Drill 8.5" Intermediate to KOP			
Bit Type	PDC				
Bit Distances					
Survey: 69.00 ft, **Gamma:** 54.00 ft, **Bend:** 5.33 ft					
Mud Properties					
Type	Water Based				
WT	9.50				
VIS	28.00				
PV	1.00				
YP	3.00				

POOH Reason/Notes

Change Bottom Hole Assembly: POOH TO PICKUP CURVE ASSEMBLY

Incident Notes

Directional:

MWD:

Comments

Directional: 1.5° FBH 7/8 8.5 Stg Mtr.w/8.25" Stab.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x15s , TFA: .1.035 Runs: 1

MWD:

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 4 (BHA #4 (Curve Assembly))

Motor Details		Date/Depth/Distances		Hours	
S/N	CDM650-017	**Date In**	2020-12-26 16:00	**Downhole Hours**	33.00
Size (in)	6.75	**Depth In (ft)**	10790.00	**Drilling/Circulating Hours**	16.67
Lobe/Stage	7/8, 5.00	**Date Out**	2020-12-28 01:00		
Bend Angle	2.12	**Depth Out (ft)**	11943.00	**Circulating Hours**	2.75
Speed (rev/gal)	0.29	**Total Drilled (ft)**	1153.00	**Drilling Hours**	13.92
Wear Pad OD (in)	7.000	**Distance Slid (ft)**	844.00	**Sliding Hours**	10.33
Manufacturer	AIM	**Distance Rotated (ft)**	309.00	**Rotating Hours**	3.58
Motor Results		**% Distance Sliding**	73.20%	**% Hours Rotating**	25.75%
Motor Incident	No	**% Distance Rotating**	26.80%	**% Hours Sliding**	74.25%
Average Total ROP (ft/h)	82.85	**BHA Parameters**			
Average Slide ROP (ft/h)	81.68	**Flow Rate (gpm)**	550.00 - 675.00	**Motor RPM**	159.00 - 174.00
Average Rotating ROP (ft/h)	86.23	**Stalls**	1	**Surface RPM**	30.00 - 30.00
Bit Details		**Stall Pressure (psi)**	1800.06	**Rotating WOB (klbs)**	35.00 - 35.00
OD (in)	8.500	**On Bottom Pressure (psi)**	2100.00 - 2800.00	**Sliding WOB (klbs)**	35.00 - 35.00
Vendor	Ulterra	**Off Bottom Pressure (psi)**	1500.00 - 2000.00	**Temp (ºF)**	135.00 - 135.00
S/N	51171	**NPT**	0.0		
Nozzles	6-15"s	**BHA Objective**			
Total Flow Area (in²)	1.035	Drill Curve to Landing point			
Bit Type	PDC				
Bit Distances					
Survey: 59.00 ft, **Gamma:** 36.00 ft, **Bend:** 4.07 ft, **Resistivity:** 46.00 ft					
Mud Properties					
Type	Water Based				
WT	9.50				
VIS	28.00				
PV	1.00				
YP	3.00				

POOH Reason/Notes

Change Bottom Hole Assembly: Pooh for Lateral Assembly

Incident Notes

Directional: N/A

MWD:

Comments

Directional: 2.12° FBH 7/8 5.0 Stg Mtr. Slick.; Flow Range: 300-600 gpm; Max Diff: 1130 psi; Max TQ: 10,460 ft/lbs; Bit: Ulterra CF611, Jets: 6x15s , TFA: .1.035 Runs: 2

MWD:

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 5 (BHA #5 (Lateral Assembly))

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-033	**Date In**	2020-12-28 01:00	**Downhole Hours**	89.75
Size (in)	7.0	**Depth In (ft)**	11943.00	**Drilling/Circulating Hours**	56.75
Lobe/Stage	7/8, 8.50	**Date Out**	2020-12-31 18:45		
Bend Angle	1.75	**Depth Out (ft)**	16669.00	**Circulating Hours**	3.83
Speed (rev/gal)	0.26	**Total Drilled (ft)**	4726.00	**Drilling Hours**	52.92
Wear Pad OD (in)	7.250	**Distance Slid (ft)**	855.00	**Sliding Hours**	23.25
Manufacturer	AIM	**Distance Rotated (ft)**	3871.00	**Rotating Hours**	29.67
Motor Results		**% Distance Sliding**	18.09%	**% Hours Rotating**	56.06%
Motor Incident	No	**% Distance Rotating**	81.91%	**% Hours Sliding**	43.94%
Average Total ROP (ft/h)	89.31	**BHA Parameters**			
Average Slide ROP (ft/h)	36.77	**Flow Rate (gpm)**	600.00 - 680.00	**Motor RPM**	156.00 - 179.00
Average Rotating ROP (ft/h)	130.48	**Stalls**	0	**Surface RPM**	30.00 - 60.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	35.00 - 42.00
OD (in)	8.500	**On Bottom Pressure (psi)**	2800.00 - 3750.00	**Sliding WOB (klbs)**	35.00 - 60.00
Vendor	REED	**Off Bottom Pressure (psi)**	2000.00 - 3400.00	**Temp (ºF)**	169.00 - 169.00
S/N	A270381	**NPT**	0.0		
Nozzles	6 x 16	**BHA Objective**			
Total Flow Area (in²)	1.178	Drill Lateral Section to TD			
Bit Type	PDC				
Bit Distances					
Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.30 ft, **Resistivity:** 56.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.40				
VIS	58.00				
PV	14.00				
YP	6.00				

POOH Reason/Notes

Penetration Rate: Pooh due to decrease in ROP.

Incident Notes

Directional: Bit was dulled on the outer edge. Motor drained fine with about 1/2 squat.

MWD:

Comments

Directional: 1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x16s , TFA: 1.178 Runs: 1

MWD:

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 6 (8.50" LATERAL)

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-038	**Date In**	2020-12-31 18:45	**Downhole Hours**	53.25
Size (in)	7.0	**Depth In (ft)**	16669.00	**Drilling/Circulating Hours**	31.92
Lobe/Stage	7/8, 8.50	**Date Out**	2021-01-03 00:00		
Bend Angle	1.75	**Depth Out (ft)**	18218.00	**Circulating Hours**	5.75
Speed (rev/gal)	0.26	**Total Drilled (ft)**	1549.00	**Drilling Hours**	26.17
Wear Pad OD (in)	7.250	**Distance Slid (ft)**	217.00	**Sliding Hours**	11.50
Manufacturer	AIM	**Distance Rotated (ft)**	1332.00	**Rotating Hours**	14.67
Motor Results		**% Distance Sliding**	14.01%	**% Hours Rotating**	56.05%
Motor Incident	No	**% Distance Rotating**	85.99%	**% Hours Sliding**	43.95%
Average Total ROP (ft/h)	59.20	**BHA Parameters**			
Average Slide ROP (ft/h)	18.87	**Flow Rate (gpm)**	600.00 - 680.00	**Motor RPM**	156.00 - 177.00
Average Rotating ROP (ft/h)	90.82	**Stalls**	0	**Surface RPM**	60.00 - 60.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	42.00 - 42.00
OD (in)	8.500	**On Bottom Pressure (psi)**	3400.00 - 3750.00	**Sliding WOB (klbs)**	60.00 - 60.00
Vendor	BAKER	**Off Bottom Pressure (psi)**	2700.00 - 3400.00	**Temp (ºF)**	169.00 - 169.00
S/N	5308084	**NPT**	0.0		
Nozzles	6 x 15	**BHA Objective**			
Total Flow Area (in²)	1.035	Drill lateral to TD			
Bit Type	PDC				
Bit Distances					
Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.34 ft, **Resistivity:** 56.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.40				
VIS	63.00				
PV	13.00				
YP	7.00				

POOH Reason/Notes

Total Depth/Casing Point: Pooh to Run Production casing

Incident Notes

Directional: Motor Drained with no issues

MWD:

Comments

Directional: 1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: Baker 506TWX, Jets: 6x15s , TFA: 1.035 Runs: 3

MWD:

Slide/Rotate Reports

Anderson Fed Com 558H (WT-20-072)

2020-11-26 to 2021-01-10
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #1 (BHA #1 (17.5" Surface))

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	12-06	12:30	13:50	12-06	1.33	140.00	269.00	129.00	96.75	N/A	550.00	60.0	15.00	1300.00	700.00	
Rotate	12-06	13:55	14:45	12-06	0.83	269.00	394.00	125.00	150.00	N/A	650.00	70.0	15.00	1400.00	1000.00	
Slide	12-06	14:50	15:30	12-06	0.67	394.00	439.00	45.00	67.50	60.0	750.00	N/A	20.00	1900.00	1400.00	
Rotate	12-06	15:30	15:50	12-06	0.33	439.00	488.00	49.00	147.00	N/A	650.00	70.0	15.00	1400.00	1000.00	
Rotate	12-06	15:55	16:15	12-06	0.33	488.00	581.00	93.00	279.00	N/A	650.00	70.0	15.00	1400.00	1000.00	
Rotate	12-06	16:20	16:25	12-06	0.08	581.00	610.00	29.00	348.00	N/A	650.00	70.0	15.00	1400.00	1000.00	
Slide	12-06	16:25	16:40	12-06	0.25	610.00	650.00	40.00	160.00	45.0	750.00	N/A	20.00	1900.00	1400.00	
Rotate	12-06	16:40	16:50	12-06	0.17	650.00	675.00	25.00	150.00	N/A	650.00	70.0	15.00	1400.00	1000.00	
Rotate	12-06	16:55	17:00	12-06	0.08	675.00	698.00	23.00	276.00	N/A	650.00	70.0	15.00	1400.00	1000.00	
Slide	12-06	17:00	17:15	12-06	0.25	698.00	728.00	30.00	120.00	30.0	750.00	N/A	20.00	1900.00	1400.00	
Rotate	12-06	17:15	17:30	12-06	0.25	728.00	768.00	40.00	160.00	N/A	650.00	70.0	15.00	1400.00	1000.00	
Rotate	12-06	17:35	17:55	12-06	0.33	768.00	862.00	94.00	282.00	N/A	800.00	70.0	34.00	2500.00	1650.00	
Rotate	12-06	18:00	18:30	12-06	0.5	862.00	956.00	94.00	188.00	N/A	800.00	70.0	34.00	2500.00	1650.00	
Slide	12-06	18:35	18:50	12-06	0.25	956.00	1000.00	44.00	176.00	300.0	800.00	N/A	20.00	2500.00	1650.00	
Rotate	12-06	18:50	19:05	12-06	0.25	1000.00	1049.00	49.00	196.00	N/A	800.00	70.0	34.00	2500.00	1650.00	
Rotate	12-06	19:10	19:45	12-06	0.58	1049.00	1143.00	94.00	161.14	N/A	800.00	70.0	34.00	2500.00	1650.00	
Slide	12-06	19:50	20:25	12-06	0.58	1143.00	1198.00	55.00	94.29	260.0	800.00	N/A	20.00	2500.00	1650.00	
Rotate	12-06	20:25	20:45	12-06	0.33	1198.00	1236.00	38.00	114.00	N/A	800.00	70.0	34.00	2500.00	1650.00	
Slide	12-06	20:50	21:10	12-06	0.33	1236.00	1276.00	40.00	120.00	250.0	800.00	N/A	20.00	2500.00	1650.00	
Rotate	12-06	21:10	21:25	12-06	0.25	1276.00	1313.00	37.00	148.00	N/A	800.00	70.0	34.00	2500.00	1650.00	

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #2 (Intermediate 12.25")

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	12-13	10:20	10:25	12-13	0.08	1313.00	1320.00	7.00	84.00	N/A	800.00	30.0	34.00	2500.00	1650.00	
Rotate	12-13	10:55	11:35	12-13	0.67	1320.00	1419.00	99.00	148.50	N/A	800.00	40.0	34.00	2500.00	1650.00	
Rotate	12-13	11:40	11:55	12-13	0.25	1419.00	1509.00	90.00	360.00	N/A	800.00	40.0	34.00	3000.00	2200.00	
Rotate	12-13	12:00	12:05	12-13	0.08	1509.00	1520.00	11.00	132.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Slide	12-13	12:05	12:10	12-13	0.08	1520.00	1545.00	25.00	300.00	220.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-13	12:10	12:25	12-13	0.25	1545.00	1598.00	53.00	212.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	12:30	12:40	12-13	0.17	1598.00	1688.00	90.00	540.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	12:45	12:50	12-13	0.08	1688.00	1700.00	12.00	144.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Slide	12-13	12:50	13:05	12-13	0.25	1700.00	1730.00	30.00	120.00	270.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-13	13:05	13:15	12-13	0.17	1730.00	1777.00	47.00	282.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	13:20	13:30	12-13	0.17	1777.00	1867.00	90.00	540.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	13:35	13:50	12-13	0.25	1867.00	1957.00	90.00	360.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	13:55	14:10	12-13	0.25	1957.00	2047.00	90.00	360.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	14:15	14:30	12-13	0.25	2047.00	2136.00	89.00	356.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	14:35	14:45	12-13	0.17	2136.00	2226.00	90.00	540.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	14:50	14:55	12-13	0.08	2226.00	2240.00	14.00	168.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Slide	12-13	14:55	15:10	12-13	0.25	2240.00	2260.00	20.00	80.00	200.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-13	15:10	15:20	12-13	0.17	2260.00	2316.00	56.00	336.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	15:25	15:55	12-13	0.5	2316.00	2495.00	179.00	358.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	16:00	16:15	12-13	0.25	2495.00	2585.00	90.00	360.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	16:20	16:40	12-13	0.33	2585.00	2674.00	89.00	267.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	16:45	17:10	12-13	0.42	2674.00	2775.00	101.00	242.40	N/A	800.00	50.0	34.00	3000.00	2200.00	
Slide	12-13	17:10	17:20	12-13	0.17	2775.00	2805.00	30.00	180.00	270.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-13	17:20	17:30	12-13	0.17	2805.00	2853.00	48.00	288.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	17:55	18:10	12-13	0.25	2853.00	2943.00	90.00	360.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	18:15	18:30	12-13	0.25	2943.00	3032.00	89.00	356.00	N/A	800.00	50.0	34.00	3000.00	2200.00	
Rotate	12-13	18:35	18:40	12-13	0.08	3032.00	3042.00	10.00	120.00	N/A	800.00	50.0	45.00	3000.00	2200.00	
Slide	12-13	18:40	18:55	12-13	0.25	3042.00	3067.00	25.00	100.00	270.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-13	18:55	19:10	12-13	0.25	3067.00	3122.00	55.00	220.00	N/A	800.00	50.0	45.00	3000.00	2200.00	
Rotate	12-13	19:15	19:30	12-13	0.25	3122.00	3212.00	90.00	360.00	N/A	800.00	50.0	45.00	3000.00	2200.00	
Rotate	12-13	19:35	19:55	12-13	0.33	3212.00	3301.00	89.00	267.00	N/A	800.00	50.0	45.00	3000.00	2200.00	
Rotate	12-13	20:00	20:05	12-13	0.08	3301.00	3311.00	10.00	120.00	N/A	800.00	50.0	45.00	3000.00	2200.00	
Slide	12-13	20:05	20:30	12-13	0.42	3311.00	3336.00	25.00	60.00	230.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-13	20:30	20:45	12-13	0.25	3336.00	3390.00	54.00	216.00	N/A	800.00	50.0	45.00	3000.00	2200.00	
Rotate	12-13	20:50	21:05	12-13	0.25	3390.00	3480.00	90.00	360.00	N/A	800.00	50.0	45.00	3000.00	2200.00	
Slide	12-13	21:10	21:45	12-13	0.58	3480.00	3510.00	30.00	51.43	270.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-13	21:45	22:05	12-13	0.33	3510.00	3570.00	60.00	180.00	N/A	800.00	50.0	45.00	3000.00	2200.00	
Rotate	12-13	22:10	22:55	12-13	0.75	3570.00	3659.00	89.00	118.67	N/A	800.00	50.0	45.00	3000.00	2200.00	
Rotate	12-13	23:00	23:35	12-13	0.58	3659.00	3749.00	90.00	154.29	N/A	800.00	50.0	45.00	3000.00	2200.00	
Rotate	12-13	23:40	00:15	12-14	0.58	3749.00	3839.00	90.00	154.29	N/A	800.00	50.0	45.00	3000.00	2200.00	
Rotate	12-14	00:20	00:55	12-14	0.58	3839.00	3928.00	89.00	152.57	N/A	800.00	50.0	45.00	3000.00	2200.00	
Rotate	12-14	01:00	01:05	12-14	0.08	3928.00	3938.00	10.00	120.00	N/A	800.00	60.0	45.00	2800.00	2000.00	
Slide	12-14	01:05	01:40	12-14	0.58	3938.00	3956.00	18.00	30.86	75.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-14	01:40	02:10	12-14	0.5	3956.00	4018.00	62.00	124.00	N/A	800.00	60.0	45.00	2800.00	2000.00	
Rotate	12-14	02:15	02:50	12-14	0.58	4018.00	4108.00	90.00	154.29	N/A	800.00	60.0	45.00	2800.00	2000.00	
Rotate	12-14	02:55	03:30	12-14	0.58	4108.00	4198.00	90.00	154.29	N/A	800.00	60.0	45.00	2800.00	2000.00	
Rotate	12-14	03:35	03:45	12-14	0.17	4198.00	4208.00	10.00	60.00	N/A	800.00	60.0	45.00	2800.00	2000.00	
Slide	12-14	03:45	04:20	12-14	0.58	4208.00	4228.00	20.00	34.29	90.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-14	04:20	05:25	12-14	1.08	4228.00	4377.00	149.00	137.54	N/A	800.00	60.0	50.00	2800.00	2000.00	
Rotate	12-14	05:30	05:55	12-14	0.42	4377.00	4467.00	90.00	216.00	N/A	800.00	60.0	50.00	2800.00	2000.00	
Rotate	12-14	06:00	06:10	12-14	0.17	4467.00	4475.00	8.00	48.00	N/A	800.00	60.0	50.00	2800.00	2000.00	
Slide	12-14	06:10	06:40	12-14	0.5	4475.00	4505.00	30.00	60.00	90.0	800.00	N/A	35.00	3000.00	2200.00	
Rotate	12-14	06:40	06:55	12-14	0.25	4505.00	4557.00	52.00	208.00	N/A	800.00	60.0	50.00	2800.00	2000.00	
Rotate	12-14	07:00	07:30	12-14	0.5	4557.00	4646.00	89.00	178.00	N/A	800.00	60.0	50.00	2800.00	2000.00	
Rotate	12-14	07:35	08:00	12-14	0.42	4646.00	4736.00	90.00	216.00	N/A	800.00	60.0	50.00	2800.00	2000.00	
Rotate	12-14	08:05	08:30	12-14	0.42	4736.00	4826.00	90.00	216.00	N/A	800.00	60.0	50.00	2800.00	2000.00	
Rotate	12-14	08:35	09:00	12-14	0.42	4826.00	4948.00	122.00	292.80	N/A	800.00	60.0	50.00	2800.00	2000.00	

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #3 (BHA #3 (8.5" Intermediate))

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	12-24	21:00	21:30	12-24	0.5	4948.00	5094.00	146.00	292.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-24	21:35	21:40	12-24	0.08	5094.00	5183.00	89.00	1068.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-24	21:45	21:50	12-24	0.08	5183.00	5205.00	22.00	264.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-24	21:50	21:55	12-24	0.08	5205.00	5225.00	20.00	240.00	80.0	675.00	N/A	30.00	2400.00	1700.00	
Rotate	12-24	21:55	22:00	12-24	0.08	5225.00	5273.00	48.00	576.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-24	22:05	22:10	12-24	0.08	5273.00	5304.00	31.00	372.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-24	22:10	22:15	12-24	0.08	5304.00	5326.00	22.00	264.00	80.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-24	22:15	22:25	12-24	0.17	5326.00	5362.00	36.00	216.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-24	22:30	22:35	12-24	0.08	5362.00	5399.00	37.00	444.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-24	22:35	22:50	12-24	0.25	5399.00	5426.00	27.00	108.00	70.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-24	22:50	22:55	12-24	0.08	5426.00	5452.00	26.00	312.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-24	23:00	23:05	12-24	0.08	5452.00	5485.00	33.00	396.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-24	23:05	23:15	12-24	0.17	5485.00	5510.00	25.00	150.00	70.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-24	23:15	23:25	12-24	0.17	5510.00	5541.00	31.00	186.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-24	23:30	23:40	12-24	0.17	5541.00	5631.00	90.00	540.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-24	23:45	23:55	12-24	0.17	5631.00	5721.00	90.00	540.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	00:00	00:10	12-25	0.17	5721.00	5775.00	54.00	324.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-25	00:10	00:20	12-25	0.17	5775.00	5795.00	20.00	120.00	120.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-25	00:20	00:25	12-25	0.08	5795.00	5811.00	16.00	192.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	00:30	00:40	12-25	0.17	5811.00	5900.00	89.00	534.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	00:45	00:55	12-25	0.17	5900.00	5990.00	90.00	540.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	01:00	01:10	12-25	0.17	5990.00	6080.00	90.00	540.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	01:15	01:25	12-25	0.17	6080.00	6169.00	89.00	534.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-25	01:30	01:40	12-25	0.17	6169.00	6194.00	25.00	150.00	120.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-25	01:40	01:45	12-25	0.08	6194.00	6259.00	65.00	780.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	01:50	02:00	12-25	0.17	6259.00	6349.00	90.00	540.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	02:05	02:15	12-25	0.17	6349.00	6438.00	89.00	534.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	02:20	02:30	12-25	0.17	6438.00	6528.00	90.00	540.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	02:35	02:45	12-25	0.17	6528.00	6618.00	90.00	540.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	02:50	03:00	12-25	0.17	6618.00	6707.00	89.00	534.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-25	03:05	03:15	12-25	0.17	6707.00	6730.00	23.00	138.00	70.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-25	03:15	03:25	12-25	0.17	6730.00	6797.00	67.00	402.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	03:30	03:40	12-25	0.17	6797.00	6887.00	90.00	540.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	03:45	03:50	12-25	0.08	6887.00	6900.00	13.00	156.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-25	03:50	04:15	12-25	0.42	6900.00	6930.00	30.00	72.00	60.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-25	04:15	04:25	12-25	0.17	6930.00	6977.00	47.00	282.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	04:30	04:55	12-25	0.42	6977.00	7066.00	89.00	213.60	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	05:00	05:10	12-25	0.17	7066.00	7155.00	89.00	534.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	05:15	05:20	12-25	0.08	7155.00	7190.00	35.00	420.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-25	05:20	05:50	12-25	0.5	7190.00	7210.00	20.00	40.00	50.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-25	05:50	05:55	12-25	0.08	7210.00	7245.00	35.00	420.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	06:00	06:20	12-25	0.33	7245.00	7335.00	90.00	270.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	06:25	06:45	12-25	0.33	7335.00	7425.00	90.00	270.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	06:50	07:10	12-25	0.33	7425.00	7515.00	90.00	270.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	07:15	07:30	12-25	0.25	7515.00	7605.00	90.00	360.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-25	07:35	08:15	12-25	0.67	7605.00	7635.00	30.00	45.00	50.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-25	08:15	08:30	12-25	0.25	7635.00	7694.00	59.00	236.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	08:35	08:50	12-25	0.25	7694.00	7784.00	90.00	360.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	08:55	09:15	12-25	0.33	7784.00	7874.00	90.00	270.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	09:20	09:40	12-25	0.33	7874.00	7963.00	89.00	267.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-25	09:50	10:25	12-25	0.58	7963.00	7993.00	30.00	51.43	50.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-25	10:25	10:50	12-25	0.42	7993.00	8053.00	60.00	144.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	10:55	11:15	12-25	0.33	8053.00	8143.00	90.00	270.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	11:20	11:35	12-25	0.25	8143.00	8233.00	90.00	360.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	11:40	11:55	12-25	0.25	8233.00	8323.00	90.00	360.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	12:00	12:20	12-25	0.33	8323.00	8412.00	89.00	267.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Slide	12-25	12:30	13:00	12-25	0.5	8412.00	8429.00	17.00	34.00	40.0	675.00	N/A	30.00	2600.00	2200.00	
Rotate	12-25	13:00	13:15	12-25	0.25	8429.00	8502.00	73.00	292.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	13:20	13:45	12-25	0.42	8502.00	8591.00	89.00	213.60	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	13:50	14:20	12-25	0.5	8591.00	8681.00	90.00	180.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	14:25	14:50	12-25	0.42	8681.00	8771.00	90.00	216.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	14:55	15:25	12-25	0.5	8771.00	8861.00	90.00	180.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	15:30	16:00	12-25	0.5	8861.00	8951.00	90.00	180.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	16:05	16:30	12-25	0.42	8951.00	9041.00	90.00	216.00	N/A	675.00	30.0	40.00	2800.00	2000.00	

Rotate	12-25	16:35	17:00	12-25	0.42	9041.00	9130.00	89.00	213.60	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	17:05	17:30	12-25	0.42	9130.00	9220.00	90.00	216.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	17:35	18:00	12-25	0.42	9220.00	9310.00	90.00	216.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	18:05	18:40	12-25	0.58	9310.00	9400.00	90.00	154.29	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	18:45	19:20	12-25	0.58	9400.00	9489.00	89.00	152.57	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	19:25	20:15	12-25	0.83	9489.00	9579.00	90.00	108.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	20:20	20:55	12-25	0.58	9579.00	9669.00	90.00	154.29	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	21:00	21:50	12-25	0.83	9669.00	9759.00	90.00	108.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	21:55	22:30	12-25	0.58	9759.00	9848.00	89.00	152.57	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	22:35	23:15	12-25	0.67	9848.00	9938.00	90.00	135.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-25	23:20	00:05	12-26	0.75	9938.00	10028.00	90.00	120.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-26	00:10	01:00	12-26	0.83	10028.00	10117.00	89.00	106.80	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-26	01:05	01:55	12-26	0.83	10117.00	10207.00	90.00	108.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-26	02:00	02:55	12-26	0.92	10207.00	10297.00	90.00	98.18	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-26	03:00	04:00	12-26	1.0	10297.00	10386.00	89.00	89.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-26	04:05	04:50	12-26	0.75	10386.00	10476.00	90.00	120.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-26	04:55	05:50	12-26	0.92	10476.00	10565.00	89.00	97.09	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-26	05:55	06:55	12-26	1.0	10565.00	10655.00	90.00	90.00	N/A	675.00	30.0	40.00	2800.00	2000.00	
Rotate	12-26	07:00	08:05	12-26	1.08	10655.00	10790.00	135.00	124.62	N/A	675.00	30.0	40.00	2800.00	2000.00	

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #4 (BHA #4 (Curve Assembly))

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Slide	12-27	01:45	02:45	12-27	1.0	10790.00	10868.00	78.00	78.00	20.0	550.00	N/A	35.00	2100.00	1500.00	
Slide	12-27	02:55	03:45	12-27	0.83	10868.00	10958.00	90.00	108.00	20.0	550.00	N/A	35.00	2100.00	1500.00	
Rotate	12-27	03:55	04:00	12-27	0.08	10958.00	10973.00	15.00	180.00	N/A	675.00	30.0	35.00	2800.00	2000.00	
Slide	12-27	04:00	04:40	12-27	0.67	10973.00	11047.00	74.00	111.00	0.0	550.00	N/A	35.00	2100.00	1500.00	
Rotate	12-27	04:50	05:10	12-27	0.33	11047.00	11068.00	21.00	63.00	N/A	675.00	30.0	35.00	2800.00	2000.00	
Slide	12-27	05:10	06:00	12-27	0.83	11068.00	11137.00	69.00	82.80	10.0	550.00	N/A	35.00	2100.00	1500.00	
Rotate	12-27	06:10	06:25	12-27	0.25	11137.00	11157.00	20.00	80.00	N/A	675.00	30.0	35.00	2800.00	2000.00	
Slide	12-27	06:25	06:40	12-27	0.25	11157.00	11226.00	69.00	276.00	10.0	550.00	N/A	35.00	2100.00	1500.00	
Slide	12-27	06:50	08:05	12-27	1.25	11226.00	11316.00	90.00	72.00	0.0	550.00	N/A	35.00	2100.00	1500.00	
Slide	12-27	08:15	09:35	12-27	1.33	11316.00	11406.00	90.00	67.50	30.0	550.00	N/A	35.00	2100.00	1500.00	
Slide	12-27	09:45	11:20	12-27	1.58	11406.00	11495.00	89.00	56.21	0.0	550.00	N/A	35.00	2100.00	1500.00	
Slide	12-27	11:30	12:30	12-27	1.0	11495.00	11585.00	90.00	90.00	0.0	550.00	N/A	35.00	2100.00	1500.00	
Slide	12-27	12:40	13:10	12-27	0.5	11585.00	11630.00	45.00	90.00	0.0	550.00	N/A	35.00	2100.00	1500.00	
Rotate	12-27	13:20	13:50	12-27	0.5	11630.00	11674.00	44.00	88.00	N/A	675.00	30.0	35.00	2800.00	2000.00	
Rotate	12-27	14:00	15:00	12-27	1.0	11674.00	11764.00	90.00	90.00	N/A	675.00	30.0	35.00	2800.00	2000.00	
Slide	12-27	15:05	15:35	12-27	0.5	11764.00	11794.00	30.00	60.00	260.0	550.00	N/A	35.00	2100.00	1500.00	
Rotate	12-27	15:35	16:20	12-27	0.75	11794.00	11853.00	59.00	78.67	N/A	675.00	30.0	35.00	2800.00	2000.00	
Slide	12-27	16:30	17:05	12-27	0.58	11853.00	11883.00	30.00	51.43	220.0	550.00	N/A	35.00	2100.00	1500.00	
Rotate	12-27	17:05	17:45	12-27	0.67	11883.00	11943.00	60.00	90.00	N/A	675.00	30.0	35.00	2800.00	2000.00	

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #5 (BHA #5 (Lateral Assembly))

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	12-28	15:30	15:35	12-28	0.08	11943.00	11953.00	10.00	120.00	N/A	675.00	30.0	35.00	2800.00	2000.00	
Slide	12-28	15:45	16:15	12-28	0.5	11953.00	11983.00	30.00	60.00	240.0	600.00	N/A	35.00	3100.00	2700.00	
Rotate	12-28	16:15	16:40	12-28	0.42	11983.00	12043.00	60.00	144.00	N/A	600.00	40.0	35.00	3400.00	2700.00	
Slide	12-28	16:50	17:05	12-28	0.25	12043.00	12063.00	20.00	80.00	200.0	600.00	N/A	35.00	3200.00	2700.00	
Rotate	12-28	17:05	17:30	12-28	0.42	12063.00	12132.00	69.00	165.60	N/A	600.00	40.0	35.00	3400.00	2700.00	
Rotate	12-28	17:35	18:05	12-28	0.5	12132.00	12222.00	90.00	180.00	N/A	600.00	40.0	35.00	3400.00	2700.00	
Slide	12-28	18:10	18:30	12-28	0.33	12222.00	12237.00	15.00	45.00	10.0	600.00	N/A	35.00	3200.00	2700.00	
Rotate	12-28	18:30	18:55	12-28	0.42	12237.00	12311.00	74.00	177.60	N/A	600.00	40.0	35.00	3400.00	2700.00	
Rotate	12-28	19:00	19:10	12-28	0.17	12311.00	12323.00	12.00	72.00	N/A	600.00	40.0	35.00	3400.00	2700.00	
Slide	12-28	19:10	19:30	12-28	0.33	12323.00	12339.00	16.00	48.00	30.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-28	19:30	19:55	12-28	0.42	12339.00	12401.00	62.00	148.80	N/A	600.00	40.0	35.00	3400.00	2700.00	
Rotate	12-28	20:00	20:30	12-28	0.5	12401.00	12491.00	90.00	180.00	N/A	600.00	40.0	35.00	3400.00	2700.00	
Rotate	12-28	20:35	21:05	12-28	0.5	12491.00	12580.00	89.00	178.00	N/A	600.00	40.0	35.00	3400.00	2700.00	
Rotate	12-28	21:10	21:40	12-28	0.5	12580.00	12670.00	90.00	180.00	N/A	600.00	40.0	40.00	3400.00	2700.00	
Rotate	12-28	21:45	21:55	12-28	0.17	12670.00	12683.00	13.00	78.00	N/A	600.00	40.0	40.00	3400.00	2700.00	
Slide	12-28	21:55	22:20	12-28	0.42	12683.00	12713.00	30.00	72.00	80.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-28	22:20	22:40	12-28	0.33	12713.00	12760.00	47.00	141.00	N/A	600.00	40.0	40.00	3400.00	2700.00	
Rotate	12-28	22:45	23:20	12-28	0.58	12760.00	12849.00	89.00	152.57	N/A	600.00	40.0	40.00	3400.00	2700.00	
Rotate	12-28	23:25	23:35	12-28	0.17	12849.00	12860.00	11.00	66.00	N/A	600.00	40.0	40.00	3400.00	2700.00	
Slide	12-28	23:35	00:10	12-29	0.58	12860.00	12890.00	30.00	51.43	80.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	00:10	00:45	12-29	0.58	12890.00	12939.00	49.00	84.00	N/A	600.00	40.0	40.00	3400.00	2700.00	
Rotate	12-29	00:50	01:20	12-29	0.5	12939.00	13028.00	89.00	178.00	N/A	600.00	40.0	40.00	3400.00	2700.00	
Rotate	12-29	01:25	01:30	12-29	0.08	13028.00	13033.00	5.00	60.00	N/A	600.00	40.0	40.00	3400.00	2700.00	
Slide	12-29	01:30	02:15	12-29	0.75	13033.00	13063.00	30.00	40.00	80.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	02:15	02:45	12-29	0.5	13063.00	13118.00	55.00	110.00	N/A	600.00	40.0	40.00	3400.00	2700.00	
Slide	12-29	02:50	03:15	12-29	0.42	13118.00	13140.00	22.00	52.80	45.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	03:15	03:40	12-29	0.42	13140.00	13207.00	67.00	160.80	N/A	600.00	40.0	40.00	3400.00	2700.00	
Slide	12-29	03:45	04:20	12-29	0.58	13207.00	13237.00	30.00	51.43	60.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	04:20	04:55	12-29	0.58	13237.00	13297.00	60.00	102.86	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	05:00	05:50	12-29	0.83	13297.00	13322.00	25.00	30.00	50.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	05:50	06:30	12-29	0.67	13322.00	13386.00	64.00	96.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	06:40	07:15	12-29	0.58	13386.00	13416.00	30.00	51.43	20.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	07:15	07:40	12-29	0.42	13416.00	13476.00	60.00	144.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	07:45	08:20	12-29	0.58	13476.00	13566.00	90.00	154.29	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	08:30	09:15	12-29	0.75	13566.00	13596.00	30.00	40.00	160.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	09:15	09:45	12-29	0.5	13596.00	13655.00	59.00	118.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	09:50	10:20	12-29	0.5	13655.00	13745.00	90.00	180.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	10:25	10:55	12-29	0.5	13745.00	13834.00	89.00	178.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	11:00	11:35	12-29	0.58	13834.00	13924.00	90.00	154.29	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	11:40	12:20	12-29	0.67	13924.00	14014.00	90.00	135.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	12:25	12:50	12-29	0.42	14014.00	14104.00	90.00	216.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	13:00	13:35	12-29	0.58	14104.00	14124.00	20.00	34.29	180.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	13:35	14:00	12-29	0.42	14124.00	14193.00	69.00	165.60	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	14:05	14:45	12-29	0.67	14193.00	14283.00	90.00	135.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	14:55	15:40	12-29	0.75	14283.00	14303.00	20.00	26.67	160.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	15:40	16:05	12-29	0.42	14303.00	14372.00	69.00	165.60	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	16:15	16:40	12-29	0.42	14372.00	14462.00	90.00	216.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	16:45	16:50	12-29	0.08	14462.00	14472.00	10.00	120.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	16:50	17:40	12-29	0.83	14472.00	14509.00	37.00	44.40	50.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	17:40	18:00	12-29	0.33	14509.00	14551.00	42.00	126.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	18:05	18:45	12-29	0.67	14551.00	14586.00	35.00	52.50	90.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	18:45	19:15	12-29	0.5	14586.00	14641.00	55.00	110.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	19:20	20:10	12-29	0.83	14641.00	14671.00	30.00	36.00	85.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	20:10	20:45	12-29	0.58	14671.00	14731.00	60.00	102.86	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	21:30	21:35	12-29	0.08	14731.00	14737.00	6.00	72.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	21:35	22:25	12-29	0.83	14737.00	14767.00	30.00	36.00	100.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	22:25	22:45	12-29	0.33	14767.00	14820.00	53.00	159.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-29	22:50	22:55	12-29	0.08	14820.00	14827.00	7.00	84.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-29	22:55	23:40	12-29	0.75	14827.00	14852.00	25.00	33.33	140.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-29	23:40	00:10	12-30	0.5	14852.00	14910.00	58.00	116.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-30	00:15	00:25	12-30	0.17	14910.00	14946.00	36.00	216.00	N/A	600.00	40.0	42.00	3400.00	2700.00	
Slide	12-30	00:25	01:00	12-30	0.58	14946.00	14966.00	20.00	34.29	160.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	12-30	01:00	01:25	12-30	0.42	14966.00	14999.00	33.00	79.20	N/A	600.00	40.0	42.00	3400.00	2700.00	
Rotate	12-30	01:30	02:05	12-30	0.58	14999.00	15089.00	90.00	154.29	N/A	600.00	40.0	42.00	3400.00	2700.00	

Slide	12-30	02:10	02:50	12-30	0.67	15089.00	15109.00	20.00	30.00	10.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	02:50	03:20	12-30	0.5	15109.00	15179.00	70.00	140.00	N/A	600.00	40.0	42.00	3400.00	2700.00
Rotate	12-30	03:25	03:30	12-30	0.08	15179.00	15190.00	11.00	132.00	N/A	600.00	40.0	42.00	3400.00	2700.00
Slide	12-30	03:30	04:25	12-30	0.92	15190.00	15210.00	20.00	21.82	40.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	04:25	05:00	12-30	0.58	15210.00	15268.00	58.00	99.43	N/A	600.00	40.0	42.00	3400.00	2700.00
Rotate	12-30	05:05	05:55	12-30	0.83	15268.00	15358.00	90.00	108.00	N/A	600.00	40.0	42.00	3400.00	2700.00
Slide	12-30	06:00	07:15	12-30	1.25	15358.00	15385.00	27.00	21.60	20.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	07:15	08:10	12-30	0.92	15385.00	15447.00	62.00	67.64	N/A	600.00	40.0	42.00	3400.00	2700.00
Rotate	12-30	08:15	08:50	12-30	0.58	15447.00	15537.00	90.00	154.29	N/A	600.00	60.0	42.00	3400.00	2700.00
Rotate	12-30	08:55	09:25	12-30	0.5	15537.00	15626.00	89.00	178.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Rotate	12-30	09:30	09:50	12-30	0.33	15626.00	15715.00	89.00	267.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Rotate	12-30	09:55	10:20	12-30	0.42	15715.00	15805.00	90.00	216.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Rotate	12-30	10:25	10:40	12-30	0.25	15805.00	15810.00	5.00	20.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Slide	12-30	10:40	11:30	12-30	0.83	15810.00	15850.00	40.00	48.00	90.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	11:30	11:50	12-30	0.33	15850.00	15894.00	44.00	132.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Rotate	12-30	13:00	13:05	12-30	0.08	15894.00	15905.00	11.00	132.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Slide	12-30	13:05	13:45	12-30	0.67	15905.00	15928.00	23.00	34.50	120.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	13:45	14:15	12-30	0.5	15928.00	15984.00	56.00	112.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Rotate	12-30	14:20	14:25	12-30	0.08	15984.00	15985.00	1.00	12.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Slide	12-30	14:25	15:15	12-30	0.83	15985.00	16020.00	35.00	42.00	135.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	15:15	15:40	12-30	0.42	16020.00	16073.00	53.00	127.20	N/A	600.00	60.0	42.00	3400.00	2700.00
Rotate	12-30	16:25	16:40	12-30	0.25	16073.00	16107.00	34.00	136.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Slide	12-30	16:40	17:25	12-30	0.75	16107.00	16137.00	30.00	40.00	160.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	17:25	17:40	12-30	0.25	16137.00	16163.00	26.00	104.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Slide	12-30	17:45	18:50	12-30	1.08	16163.00	16190.00	27.00	24.92	140.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	18:50	19:25	12-30	0.58	16190.00	16252.00	62.00	106.29	N/A	600.00	60.0	42.00	3400.00	2700.00
Slide	12-30	19:30	20:05	12-30	0.58	16252.00	16267.00	15.00	25.71	160.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	20:05	20:40	12-30	0.58	16267.00	16342.00	75.00	128.57	N/A	600.00	60.0	42.00	3400.00	2700.00
Slide	12-30	20:45	21:55	12-30	1.17	16342.00	16382.00	40.00	34.29	180.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	21:55	22:35	12-30	0.67	16382.00	16431.00	49.00	73.50	N/A	600.00	60.0	42.00	3400.00	2700.00
Slide	12-30	22:40	23:40	12-30	1.0	16431.00	16451.00	20.00	20.00	230.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-30	23:40	00:30	12-31	0.83	16451.00	16521.00	70.00	84.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Rotate	12-31	00:35	01:50	12-31	1.25	16521.00	16610.00	89.00	71.20	N/A	600.00	60.0	42.00	3400.00	2700.00
Rotate	12-31	01:55	02:10	12-31	0.25	16610.00	16626.00	16.00	64.00	N/A	600.00	60.0	42.00	3400.00	2700.00
Slide	12-31	02:10	02:35	12-31	0.42	16626.00	16637.00	11.00	26.40	340.0	680.00	N/A	60.00	3750.00	3400.00
Slide	12-31	04:40	05:35	12-31	0.92	16637.00	16659.00	22.00	24.00	0.0	680.00	N/A	60.00	3750.00	3400.00
Rotate	12-31	05:35	05:55	12-31	0.33	16659.00	16669.00	10.00	30.00	N/A	600.00	60.0	42.00	3400.00	2700.00

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #6 (8.50" LATERAL)

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	01-01	06:40	07:10	01-01	0.5	16669.00	16700.00	31.00	62.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	07:15	07:25	01-01	0.17	16700.00	16710.00	10.00	60.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-01	07:25	08:20	01-01	0.92	16710.00	16735.00	25.00	27.27	20.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-01	08:20	08:55	01-01	0.58	16735.00	16775.00	40.00	68.57	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	09:35	09:45	01-01	0.17	16775.00	16789.00	14.00	84.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	09:50	10:30	01-01	0.67	16789.00	16879.00	90.00	135.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	10:35	11:10	01-01	0.58	16879.00	16969.00	90.00	154.29	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	11:15	11:20	01-01	0.08	16969.00	16970.00	1.00	12.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-01	11:20	12:40	01-01	1.33	16970.00	16990.00	20.00	15.00	240.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-01	12:40	13:20	01-01	0.67	16990.00	17058.00	68.00	102.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	13:25	14:00	01-01	0.58	17058.00	17122.00	64.00	109.71	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-01	14:00	15:20	01-01	1.33	17122.00	17142.00	20.00	15.00	200.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-01	15:20	15:35	01-01	0.25	17142.00	17148.00	6.00	24.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	15:45	15:50	01-01	0.08	17148.00	17155.00	7.00	84.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-01	15:50	17:15	01-01	1.42	17155.00	17175.00	20.00	14.12	200.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-01	17:15	18:00	01-01	0.75	17175.00	17238.00	63.00	84.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	18:05	18:25	01-01	0.33	17238.00	17260.00	22.00	66.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-01	18:25	19:25	01-01	1.0	17260.00	17275.00	15.00	15.00	200.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-01	19:25	20:05	01-01	0.67	17275.00	17327.00	52.00	78.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	20:10	21:00	01-01	0.83	17327.00	17417.00	90.00	108.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	21:05	21:15	01-01	0.17	17417.00	17425.00	8.00	48.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-01	21:15	21:50	01-01	0.58	17425.00	17440.00	15.00	25.71	290.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-01	21:50	22:35	01-01	0.75	17440.00	17506.00	66.00	88.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-01	22:40	23:40	01-01	1.0	17506.00	17596.00	90.00	90.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-01	23:45	01:15	01-02	1.5	17596.00	17621.00	25.00	16.67	350.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-02	01:15	02:00	01-02	0.75	17621.00	17685.00	64.00	85.33	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-02	02:05	02:15	01-02	0.17	17685.00	17695.00	10.00	60.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-02	02:15	03:00	01-02	0.75	17695.00	17712.00	17.00	22.67	350.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-02	03:00	03:40	01-02	0.67	17712.00	17775.00	63.00	94.50	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-02	03:45	03:50	01-02	0.08	17775.00	17784.00	9.00	108.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-02	03:50	04:45	01-02	0.92	17784.00	17804.00	20.00	21.82	350.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-02	04:45	05:25	01-02	0.67	17804.00	17865.00	61.00	91.50	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-02	05:30	06:15	01-02	0.75	17865.00	17877.00	12.00	16.00	340.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-02	06:15	07:10	01-02	0.92	17877.00	17954.00	77.00	84.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-02	07:15	08:10	01-02	0.92	17954.00	18044.00	90.00	98.18	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-02	08:15	08:20	01-02	0.08	18044.00	18050.00	6.00	72.00	N/A	600.00	60.0	42.00	3400.00	2700.00	
Slide	01-02	08:20	09:20	01-02	1.0	18050.00	18078.00	28.00	28.00	180.0	680.00	N/A	60.00	3750.00	3400.00	
Rotate	01-02	09:20	10:05	01-02	0.75	18078.00	18133.00	55.00	73.33	N/A	600.00	60.0	42.00	3400.00	2700.00	
Rotate	01-02	10:10	11:00	01-02	0.83	18133.00	18218.00	85.00	102.00	N/A	600.00	60.0	42.00	3400.00	2700.00	

Daily Reports

Anderson Fed Com 558H (WT-20-072)

2020-11-26 to 2021-01-10
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Dec 06 00:00 - 23:59 (Day 1 of 17)

Billing: $16,000.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	140.00	**Downhole Hours**	13.25
Bit Depth (ft)	1313.00	**Drilling Hours**	8.00
Bottom Hole Depth (ft)	1313.00	**Hours Circulating**	0.50
Total Distance (ft)	1173.00	**Hours Sliding**	2.33
Distance Rotated (ft)	919.00	**Hours Rotating**	5.67
Distance Slid (ft)	254.00		
Inclination In	0.97		
Inclination Out	3.47		
Azimuth In	246.72	**% Hours Rotating**	71%
Azimuth Out	59.51	**% Hours Sliding**	29%
AVG Total ROP (ft/h)	146.62	**% Distance Sliding**	22%
AVG Rotating ROP (ft/h)	162.18	**% Distance Rotating**	78%
AVG Sliding ROP (ft/h)	108.86		

Drilling Parameters

Rotating WOB (klbs)	15.00 - 34.00
Sliding WOB (klbs)	20.00 - 20.00
Rotating SPM	144.00 - 208.00
Sliding SPM	196.00 - 208.00
Motor RPM	72.00 - 136.00
Surface RPM	60.00 - 70.00
Flow Rate (gpm)	550.00 - 800.00
On Bottom Pressure (psi)	1300.00 - 2500.00
Off Bottom Pressure (psi)	700.00 - 1650.00

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Advance Directional	Directional Driller

BHA #1 - BHA #1 (17.5" Surface)

Date In: Dec 6, 2020, 10:45 Date Out: Dec 7, 2020, 1:45

Bit Details

OD (in)	17.500
Vendor	BAKER
S/N	5311435
Nozzles	9x12
Total Flow Area (in²)	0.994
Drilling Hours for Day	8.00
Total Drilled for Day (ft)	1173.00
Drilling Hours for BHA	8.00
Total Drilled for BHA (ft)	1173.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 5.9
Bend Angle	1.5
Speed (rev/gal)	0.17
Wear Pad OD (in)	8.400

Bit Distances

Survey: 69.00 ft, **Bend:** 6.20 ft

Directional Comments

1.5° FBH 7/8 5.9 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 1390 psi; Max TQ: 21,870 ft/lbs; Bit: Baker Type: T606KS, Jets: 9x12, TFA: 0.994 Runs: 4

MWD Comments

POOH Reason

Total Depth/Casing Point: Pooh to Run Surface Casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *T606KS*, Style: *PDC*, Gauge Length (in): *5.00*, Size (in): *17.50*	BAKER	5311435	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: *1.5° FBH 7/8 5.9 Stg Mtr. w/ 12" NB Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5.9*	AIM	800-40-007	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.14	39.64
Stabilizer Description: *12" Stabilizer*	BLACK DIAMOND	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	47.04
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	800-609	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		3.00	50.04
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	AIM 800-01011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.28	80.32
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	DY80011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	110.35
Crossover Sub Description: *X/O ED54-BOX - 6 5/8 REG-PIN*, Type: *Steel*	BLACK DIAMOND	BD15080	EverDrlg54 Box	6 5/8" Reg Pin	2.813	8.000		3.41	113.76

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Other	16	12-06	00:00	10:45	12-06			Walk rig from 504H. Rig up
Pick Up BHA	64	12-06	10:45	12:30	12-06			

Rotary Drill	1	12-06	12:30	13:50	12-06	140.00	269.00	Pressure On (psi): *1300.00*, Pressure Off (psi): *700.00*, Weight On Bit (klbs): *15.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *144.00*
Survey	46	12-06	13:50	13:55	12-06	269.00	269.00	Inclination (°): *0.970*, Azimuth (°): *246.720*, TVD (ft): *199.99*, Dogleg (º/100 ft): *0.48*, Sensor Depth (ft): *200.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-06	13:55	14:45	12-06	269.00	394.00	Pressure On (psi): *1400.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *15.00*, Surface RPM: *70*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *650.00*, Strokes Per Minute: *170.00*
Survey	46	12-06	14:45	14:50	12-06	394.00	394.00	Inclination (°): *1.410*, Azimuth (°): *240.210*, TVD (ft): *324.96*, Dogleg (º/100 ft): *0.37*, Sensor Depth (ft): *325.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-06	14:50	15:30	12-06	394.00	439.00	Pressure On (psi): *1900.00*, Pressure Off (psi): *1400.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *196*, Toolface: *60*, Toolface Type: *magnetic*
Rotary Drill	1	12-06	15:30	15:50	12-06	439.00	488.00	Pressure On (psi): *1400.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *15.00*, Surface RPM: *70*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *650.00*, Strokes Per Minute: *170.00*
Survey	46	12-06	15:50	15:55	12-06	488.00	488.00	Inclination (°): *0.920*, Azimuth (°): *176.930*, TVD (ft): *418.95*, Dogleg (º/100 ft): *1.37*, Sensor Depth (ft): *419.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-06	15:55	16:15	12-06	488.00	581.00	Pressure On (psi): *1400.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *15.00*, Surface RPM: *70*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *650.00*, Strokes Per Minute: *170.00*
Survey	46	12-06	16:15	16:20	12-06	581.00	581.00	Inclination (°): *1.230*, Azimuth (°): *159.350*, TVD (ft): *511.93*, Dogleg (º/100 ft): *0.48*, Sensor Depth (ft): *512.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-06	16:20	16:25	12-06	581.00	610.00	Pressure On (psi): *1400.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *15.00*, Surface RPM: *70*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *650.00*, Strokes Per Minute: *170.00*
Slide Drill	2	12-06	16:25	16:40	12-06	610.00	650.00	Pressure On (psi): *1900.00*, Pressure Off (psi): *1400.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *196*, Toolface: *45*, Toolface Type: *magnetic*
Rotary Drill	1	12-06	16:40	16:50	12-06	650.00	675.00	Pressure On (psi): *1400.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *15.00*, Surface RPM: *70*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *650.00*, Strokes Per Minute: *170.00*
Survey	46	12-06	16:50	16:55	12-06	675.00	675.00	Inclination (°): *1.670*, Azimuth (°): *130.530*, TVD (ft): *605.90*, Dogleg (º/100 ft): *0.89*, Sensor Depth (ft): *606.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-06	16:55	17:00	12-06	675.00	698.00	Pressure On (psi): *1400.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *15.00*, Surface RPM: *70*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *650.00*, Strokes Per Minute: *170.00*
Slide Drill	2	12-06	17:00	17:15	12-06	698.00	728.00	Pressure On (psi): *1900.00*, Pressure Off (psi): *1400.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *750.00*, Strokes Per Minute: *196*, Toolface: *30*, Toolface Type: *magnetic*
Rotary Drill	1	12-06	17:15	17:30	12-06	728.00	768.00	Pressure On (psi): *1400.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *15.00*, Surface RPM: *70*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *650.00*, Strokes Per Minute: *170.00*
Survey	46	12-06	17:30	17:35	12-06	768.00	768.00	Inclination (°): *2.860*, Azimuth (°): *99.680*, TVD (ft): *698.83*, Dogleg (º/100 ft): *1.79*, Sensor Depth (ft): *699.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-06	17:35	17:55	12-06	768.00	862.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *70*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-06	17:55	18:00	12-06	862.00	862.00	Inclination (°): *3.080*, Azimuth (°): *88.600*, TVD (ft): *792.70*, Dogleg (º/100 ft): *0.65*, Sensor Depth (ft): *793.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-06	18:00	18:30	12-06	862.00	956.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *70*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-06	18:30	18:35	12-06	956.00	956.00	Inclination (°): *3.690*, Azimuth (°): *83.150*, TVD (ft): *886.54*, Dogleg (º/100 ft): *0.73*, Sensor Depth (ft): *887.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-06	18:35	18:50	12-06	956.00	1000.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *300*, Toolface Type: *magnetic*
Rotary Drill	1	12-06	18:50	19:05	12-06	1000.00	1049.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *70*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-06	19:05	19:10	12-06	1049.00	1049.00	Inclination (°): *3.520*, Azimuth (°): *75.590*, TVD (ft): *979.36*, Dogleg (º/100 ft): *0.54*, Sensor Depth (ft): *980.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-06	19:10	19:45	12-06	1049.00	1143.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *70*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*

Survey	46	12-06	19:45	19:50	12-06	1143.00	1143.00	Inclination (°): *4.750*, Azimuth (°): *68.830*, TVD (ft): *1073.11*, Dogleg (º/100 ft): *1.41*, Sensor Depth (ft): *1074.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-06	19:50	20:25	12-06	1143.00	1198.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *260*, Toolface Type: *magnetic*
Rotary Drill	1	12-06	20:25	20:45	12-06	1198.00	1236.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *70*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-06	20:45	20:50	12-06	1236.00	1236.00	Inclination (°): *4.660*, Azimuth (°): *63.290*, TVD (ft): *1165.80*, Dogleg (º/100 ft): *0.50*, Sensor Depth (ft): *1167.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-06	20:50	21:10	12-06	1236.00	1276.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *250*, Toolface Type: *magnetic*
Rotary Drill	1	12-06	21:10	21:25	12-06	1276.00	1313.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *70*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-06	21:25	21:30	12-06	1313.00	1313.00	Inclination (°): *3.470*, Azimuth (°): *59.510*, TVD (ft): *1242.60*, Dogleg (º/100 ft): *1.58*, Sensor Depth (ft): *1244.00*, Bit To Sensor (ft): *69.00*
Circulating	3	12-06	21:30	22:00	12-06			Circulate hole clean to run Surface Casing
Pooh	7	12-06	22:00	00:45	12-07			POOH to run Surface Casing

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Dec 07 00:00 - 23:59 (Day 2 of 17)

Billing: N/A ($162,365.50 total)

Drilling Summary

Start Depth (ft)		**Downhole Hours**	1.75
Bit Depth (ft)		**Drilling Hours**	0.00
Bottom Hole Depth (ft)		**Hours Circulating**	0.00
Total Distance (ft)	0.00	**Hours Sliding**	0.00
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00
Distance Slid (ft)	0.00		
Inclination In			
Inclination Out			
Azimuth In		**% Hours Rotating**	
Azimuth Out		**% Hours Sliding**	
AVG Total ROP (ft/h)	0.00	**% Distance Sliding**	
AVG Rotating ROP (ft/h)	0.00	**% Distance Rotating**	
AVG Sliding ROP (ft/h)	0.00		

Drilling Parameters

Rotating WOB (klbs)	
Sliding WOB (klbs)	
Rotating SPM	
Sliding SPM	
Motor RPM	72.00 - 136.00
Surface RPM	
Flow Rate (gpm)	
On Bottom Pressure (psi)	
Off Bottom Pressure (psi)	

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Advance Directional	Directional Driller

BHA #1 - BHA #1 (17.5" Surface)

Date In: Dec 6, 2020, 10:45 Date Out: Dec 7, 2020, 1:45

Bit Details

OD (in)	17.500
Vendor	BAKER
S/N	5311435
Nozzles	9x12
Total Flow Area (in²)	0.994
Drilling Hours for Day	0.00
Total Drilled for Day (ft)	
Drilling Hours for BHA	8.00
Total Drilled for BHA (ft)	1173.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 5.9
Bend Angle	1.5
Speed (rev/gal)	0.17
Wear Pad OD (in)	8.400

Bit Distances

Survey: 69.00 ft, **Bend:** 6.20 ft

Directional Comments

1.5° FBH 7/8 5.9 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 1390 psi; Max TQ: 21,870 ft/lbs; Bit: Baker Type: T606KS, Jets: 9x12, TFA: 0.994 Runs: 4

MWD Comments

POOH Reason

Total Depth/Casing Point: Pooh to Run Surface Casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *T606KS*, Style: *PDC*, Gauge Length (in): *5.00*, Size (in): *17.50*	BAKER	5311435	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: *1.5° FBH 7/8 5.9 Stg Mtr. w/ 12" NB Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5.9*	AIM	800-40-007	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.14	39.64
Stabilizer Description: *12" Stabilizer*	BLACK DIAMOND	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	47.04
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	800-609	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		3.00	50.04
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	AIM 800-01011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.28	80.32
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	DY80011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	110.35
Crossover Sub Description: *X/O ED54-BOX - 6 5/8 REG-PIN*, Type: *Steel*	BLACK DIAMOND	BD15080	EverDrlg54 Box	6 5/8" Reg Pin	2.813	8.000		3.41	113.76

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Pooh	7	12-06	22:00	00:45	12-07			POOH to run Surface Casing
Lay Down BHA	65	12-07	00:45	01:45	12-07			Rack BHA #1 (Pull MWD tool, break off UBHO and Stabilizer, Break off Bit)
Standby	15	12-07	01:45	09:00	12-07			Standby while Running Surface casing. Skid to 604H

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Dec 13 00:00 - 23:59 (Day 3 of 17)

Billing: $4,700.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	1313.00	**Downhole Hours**	15.33	**Rotating WOB (klbs)**	34.00 - 45.00
Bit Depth (ft)	3749.00	**Drilling Hours**	10.42	**Sliding WOB (klbs)**	35.00 - 35.00
Bottom Hole Depth (ft)	3749.00	**Hours Circulating**	0.92	**Rotating SPM**	208.00 - 208.00
Total Distance (ft)	2436.00	**Hours Sliding**	2.00	**Sliding SPM**	208.00 - 208.00
Distance Rotated (ft)	2251.00	**Hours Rotating**	8.42	**Motor RPM**	85.00 - 136.00
Distance Slid (ft)	185.00			**Surface RPM**	30.00 - 50.00
Inclination In	2.95			**Flow Rate (gpm)**	800.00 - 800.00
Inclination Out	2.46			**On Bottom Pressure (psi)**	2500.00 - 3000.00
Azimuth In	57.14	**% Hours Rotating**	81%	**Off Bottom Pressure (psi)**	1650.00 - 2200.00
Azimuth Out	246.89	**% Hours Sliding**	19%		
AVG Total ROP (ft/h)	229.64	**% Distance Sliding**	8%		
AVG Rotating ROP (ft/h)	260.11	**% Distance Rotating**	92%		
AVG Sliding ROP (ft/h)	92.50				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Advance Directional	Directional Driller

BHA #2 - Intermediate 12.25"

Date In: Dec 13, 2020, 8:40 Date Out: Dec 14, 2020, 13:30

Bit Details

OD (in)	12.250
Vendor	BAKER
S/N	5310497
Nozzles	6x15's
Total Flow Area (in²)	1.030
Drilling Hours for Day	10.42
Total Drilled for Day (ft)	2436.00
Drilling Hours for BHA	18.83
Total Drilled for BHA (ft)	3635.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 5.9
Bend Angle	1.5
Speed (rev/gal)	0.17
Wear Pad OD (in)	8.400

Bit Distances

Bend (Bit to Bend): 6.20 ft, **Survey (Bit to Survey):** 69.00 ft

Directional Comments

1.5° FBH 7/8 5.9 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 1390 psi; Max TQ: 21,870 ft/lbs; Bit: Baker Type: D506WS, Jets: 6x15's, TFA: 1.03 Runs:

MWD Comments

POOH Reason

Total Depth/Casing Point

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *D506WS*, Style: *PDC*, Gauge Length (in): *6.00*, Size (in): *12.25*	BAKER	5310497	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: *1.5° FBH 7/8 5.9 Stg Mtr. w/ 12" NB Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5.9*	AIM	800-40-007	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.14	39.64
Stabilizer Description: *12" Stabilizer*	BLACK DIAMOND	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	47.04
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	800-609	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		3.00	50.04
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	AIM 800-01011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.28	80.32
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	DY80011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	110.35
Crossover Sub Description: *X/O ED54-BOX - 6 5/8 REG-PIN*, Type: *Steel*	BLACK DIAMOND	BD15080	EverDrlg54 Box	6 5/8" Reg Pin	2.813	8.000		3.41	113.76
HWDP Description: *13 STANDS of HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1330.31

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-13	00:00	07:40	12-13			Standby- Skid from 504H, N/U BOPs & Test
Pick Up BHA	64	12-13	07:40	08:40	12-13			
TIH	8	12-13	08:40	09:25	12-13			TIH

Drilling Cement	17	12-13	09:25	10:20	12-13	1234.00	1313.00	Drilling Cement and Float Equipment
Rotary Drill	1	12-13	10:20	10:25	12-13	1313.00	1320.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *30*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Other	16	12-13	10:25	10:55	12-13			FIT
Rotary Drill	1	12-13	10:55	11:35	12-13	1320.00	1419.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1650.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	11:35	11:40	12-13	1419.00	1419.00	Inclination (°): *2.950*, Azimuth (°): *57.140*, TVD (ft): *1348.44*, Dogleg (º/100 ft): *0.51*, Sensor Depth (ft): *1350.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	11:40	11:55	12-13	1419.00	1509.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	11:55	12:00	12-13	1509.00	1509.00	Inclination (°): *2.590*, Azimuth (°): *57.930*, TVD (ft): *1438.33*, Dogleg (º/100 ft): *0.40*, Sensor Depth (ft): *1440.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	12:00	12:05	12-13	1509.00	1520.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-13	12:05	12:10	12-13	1520.00	1545.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *220*, Toolface Type: *magnetic*
Rotary Drill	1	12-13	12:10	12:25	12-13	1545.00	1598.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	12:25	12:30	12-13	1598.00	1598.00	Inclination (°): *1.890*, Azimuth (°): *59.860*, TVD (ft): *1527.26*, Dogleg (º/100 ft): *0.79*, Sensor Depth (ft): *1529.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	12:30	12:40	12-13	1598.00	1688.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	12:40	12:45	12-13	1688.00	1688.00	Inclination (°): *1.270*, Azimuth (°): *72.250*, TVD (ft): *1617.23*, Dogleg (º/100 ft): *0.78*, Sensor Depth (ft): *1619.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	12:45	12:50	12-13	1688.00	1700.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-13	12:50	13:05	12-13	1700.00	1730.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *270*, Toolface Type: *magnetic*
Rotary Drill	1	12-13	13:05	13:15	12-13	1730.00	1777.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	13:15	13:20	12-13	1777.00	1777.00	Inclination (°): *0.350*, Azimuth (°): *19.960*, TVD (ft): *1706.22*, Dogleg (º/100 ft): *1.23*, Sensor Depth (ft): *1708.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	13:20	13:30	12-13	1777.00	1867.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	13:30	13:35	12-13	1867.00	1867.00	Inclination (°): *0.790*, Azimuth (°): *290.660*, TVD (ft): *1796.22*, Dogleg (º/100 ft): *0.96*, Sensor Depth (ft): *1798.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	13:35	13:50	12-13	1867.00	1957.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	13:50	13:55	12-13	1957.00	1957.00	Inclination (°): *0.840*, Azimuth (°): *296.110*, TVD (ft): *1886.21*, Dogleg (º/100 ft): *0.10*, Sensor Depth (ft): *1888.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	13:55	14:10	12-13	1957.00	2047.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	14:10	14:15	12-13	2047.00	2047.00	Inclination (°): *0.570*, Azimuth (°): *300.950*, TVD (ft): *1976.20*, Dogleg (º/100 ft): *0.31*, Sensor Depth (ft): *1978.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	14:15	14:30	12-13	2047.00	2136.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	14:30	14:35	12-13	2136.00	2136.00	Inclination (°): *0.660*, Azimuth (°): *319.750*, TVD (ft): *2065.20*, Dogleg (º/100 ft): *0.25*, Sensor Depth (ft): *2067.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	14:35	14:45	12-13	2136.00	2226.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	14:45	14:50	12-13	2226.00	2226.00	Inclination (°): *0.620*, Azimuth (°): *343.750*, TVD (ft): *2155.19*, Dogleg (º/100 ft): *0.30*, Sensor Depth (ft): *2157.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	14:50	14:55	12-13	2226.00	2240.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-13	14:55	15:10	12-13	2240.00	2260.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *200*, Toolface Type: *magnetic*
Rotary Drill	1	12-13	15:10	15:20	12-13	2260.00	2316.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*

Survey	46	12-13	15:20	15:25	12-13	2316.00	2316.00	Inclination (°): *0.350*, Azimuth (°): *261.570*, TVD (ft): *2245.19*, Dogleg (º/100 ft): *0.74*, Sensor Depth (ft): *2247.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	15:25	15:55	12-13	2316.00	2495.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	15:55	16:00	12-13	2495.00	2495.00	Inclination (°): *0.400*, Azimuth (°): *175.000*, TVD (ft): *2424.18*, Dogleg (º/100 ft): *0.29*, Sensor Depth (ft): *2426.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	16:00	16:15	12-13	2495.00	2585.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	16:15	16:20	12-13	2585.00	2585.00	Inclination (°): *0.260*, Azimuth (°): *105.120*, TVD (ft): *2514.18*, Dogleg (º/100 ft): *0.44*, Sensor Depth (ft): *2516.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	16:20	16:40	12-13	2585.00	2674.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	16:40	16:45	12-13	2674.00	2674.00	Inclination (°): *0.970*, Azimuth (°): *82.360*, TVD (ft): *2603.18*, Dogleg (º/100 ft): *0.83*, Sensor Depth (ft): *2605.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	16:45	17:10	12-13	2674.00	2775.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-13	17:10	17:20	12-13	2775.00	2805.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *270*, Toolface Type: *magnetic*
Rotary Drill	1	12-13	17:20	17:30	12-13	2805.00	2853.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Rig Service - In Hole	19	12-13	17:30	17:50	12-13			
Survey	46	12-13	17:50	17:55	12-13	2853.00	2853.00	Inclination (°): *0.920*, Azimuth (°): *66.720*, TVD (ft): *2782.15*, Dogleg (º/100 ft): *0.15*, Sensor Depth (ft): *2784.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	17:55	18:10	12-13	2853.00	2943.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	18:10	18:15	12-13	2943.00	2943.00	Inclination (°): *0.570*, Azimuth (°): *94.310*, TVD (ft): *2872.15*, Dogleg (º/100 ft): *0.55*, Sensor Depth (ft): *2874.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	18:15	18:30	12-13	2943.00	3032.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *34.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	18:30	18:35	12-13	3032.00	3032.00	Inclination (°): *1.230*, Azimuth (°): *72.870*, TVD (ft): *2961.13*, Dogleg (º/100 ft): *0.82*, Sensor Depth (ft): *2963.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	18:35	18:40	12-13	3032.00	3042.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-13	18:40	18:55	12-13	3042.00	3067.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *270*, Toolface Type: *magnetic*
Rotary Drill	1	12-13	18:55	19:10	12-13	3067.00	3122.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	19:10	19:15	12-13	3122.00	3122.00	Inclination (°): *1.050*, Azimuth (°): *43.690*, TVD (ft): *3051.12*, Dogleg (º/100 ft): *0.67*, Sensor Depth (ft): *3053.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	19:15	19:30	12-13	3122.00	3212.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	19:30	19:35	12-13	3212.00	3212.00	Inclination (°): *1.230*, Azimuth (°): *34.900*, TVD (ft): *3141.10*, Dogleg (º/100 ft): *0.28*, Sensor Depth (ft): *3143.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	19:35	19:55	12-13	3212.00	3301.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	19:55	20:00	12-13	3301.00	3301.00	Inclination (°): *1.670*, Azimuth (°): *51.690*, TVD (ft): *3230.07*, Dogleg (º/100 ft): *0.68*, Sensor Depth (ft): *3232.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	20:00	20:05	12-13	3301.00	3311.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-13	20:05	20:30	12-13	3311.00	3336.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *230*, Toolface Type: *magnetic*
Rotary Drill	1	12-13	20:30	20:45	12-13	3336.00	3390.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	20:45	20:50	12-13	3390.00	3390.00	Inclination (°): *1.320*, Azimuth (°): *72.780*, TVD (ft): *3319.04*, Dogleg (º/100 ft): *0.73*, Sensor Depth (ft): *3321.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	20:50	21:05	12-13	3390.00	3480.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*

Survey	46	12-13	21:05	21:10	12-13	3480.00	3480.00	Inclination (°): *1.230*, Azimuth (°): *117.690*, TVD (ft): *3409.02*, Dogleg (º/100 ft): *1.09*, Sensor Depth (ft): *3411.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-13	21:10	21:45	12-13	3480.00	3510.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *270*, Toolface Type: *magnetic*
Rotary Drill	1	12-13	21:45	22:05	12-13	3510.00	3570.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	22:05	22:10	12-13	3570.00	3570.00	Inclination (°): *1.190*, Azimuth (°): *216.570*, TVD (ft): *3499.01*, Dogleg (º/100 ft): *2.04*, Sensor Depth (ft): *3501.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	22:10	22:55	12-13	3570.00	3659.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	22:55	23:00	12-13	3659.00	3659.00	Inclination (°): *2.290*, Azimuth (°): *235.550*, TVD (ft): *3587.97*, Dogleg (º/100 ft): *1.38*, Sensor Depth (ft): *3590.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	23:00	23:35	12-13	3659.00	3749.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-13	23:35	23:40	12-13	3749.00	3749.00	Inclination (°): *2.460*, Azimuth (°): *246.890*, TVD (ft): *3677.89*, Dogleg (º/100 ft): *0.55*, Sensor Depth (ft): *3680.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-13	23:40	00:15	12-14	3749.00	3839.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Dec 14 00:00 - 23:59 (Day 4 of 17)

Billing: $4,700.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	3749.00	**Downhole Hours**	13.50
Bit Depth (ft)	4948.00	**Drilling Hours**	8.42
Bottom Hole Depth (ft)	4948.00	**Hours Circulating**	0.92
Total Distance (ft)	1199.00	**Hours Sliding**	1.67
Distance Rotated (ft)	1131.00	**Hours Rotating**	6.75
Distance Slid (ft)	68.00		
Inclination In	2.46		
Inclination Out	1.49		
Azimuth In	251.20	**% Hours Rotating**	80%
Azimuth Out	11.26	**% Hours Sliding**	20%
AVG Total ROP (ft/h)	142.46	**% Distance Sliding**	6%
AVG Rotating ROP (ft/h)	167.56	**% Distance Rotating**	94%
AVG Sliding ROP (ft/h)	40.80		

Drilling Parameters

Rotating WOB (klbs)	45.00 - 50.00
Sliding WOB (klbs)	35.00 - 35.00
Rotating SPM	208.00 - 208.00
Sliding SPM	208.00 - 208.00
Motor RPM	85.00 - 136.00
Surface RPM	50.00 - 60.00
Flow Rate (gpm)	800.00 - 800.00
On Bottom Pressure (psi)	2800.00 - 3000.00
Off Bottom Pressure (psi)	2000.00 - 2200.00

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Advance Directional	Directional Driller

BHA #2 - Intermediate 12.25"

Date In: Dec 13, 2020, 8:40 Date Out: Dec 14, 2020, 13:30

Bit Details

OD (in)	12.250
Vendor	BAKER
S/N	5310497
Nozzles	6x15's
Total Flow Area (in²)	1.030
Drilling Hours for Day	8.42
Total Drilled for Day (ft)	1199.00
Drilling Hours for BHA	18.83
Total Drilled for BHA (ft)	3635.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 5.9
Bend Angle	1.5
Speed (rev/gal)	0.17
Wear Pad OD (in)	8.400

Bit Distances

Bend (Bit to Bend): 6.20 ft, **Survey (Bit to Survey):** 69.00 ft

Directional Comments

1.5° FBH 7/8 5.9 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 1390 psi; Max TQ: 21,870 ft/lbs; Bit: Baker Type: D506WS, Jets: 6x15's, TFA: 1.03 Runs:

MWD Comments

POOH Reason

Total Depth/Casing Point

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *D506WS*, Style: *PDC*, Gauge Length (in): *6.00*, Size (in): *12.25*	BAKER	5310497	6 5/8" Reg Pin			12.250		1.50	1.50
Mud Motor Description: *1.5° FBH 7/8 5.9 Stg Mtr. w/ 12" NB Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5.9*	AIM	800-40-007	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.14	39.64
Stabilizer Description: *12" Stabilizer*	BLACK DIAMOND	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	47.04
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	800-609	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		3.00	50.04
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	AIM 800-01011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.28	80.32
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	DY80011	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	110.35
Crossover Sub Description: *X/O ED54-BOX - 6 5/8 REG-PIN*, Type: *Steel*	BLACK DIAMOND	BD15080	EverDrlg54 Box	6 5/8" Reg Pin	2.813	8.000		3.41	113.76
HWDP Description: *13 STANDS of HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1330.31

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	12-13	23:40	00:15	12-14	3749.00	3839.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*

Survey	46	12-14	00:15	00:20	12-14	3839.00	3839.00	Inclination (°): *2.460*, Azimuth (°): *251.200*, TVD (ft): *3767.81*, Dogleg (º/100 ft): *0.21*, Sensor Depth (ft): *3770.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	00:20	00:55	12-14	3839.00	3928.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	00:55	01:00	12-14	3928.00	3928.00	Inclination (°): *2.460*, Azimuth (°): *253.920*, TVD (ft): *3856.73*, Dogleg (º/100 ft): *0.13*, Sensor Depth (ft): *3859.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	01:00	01:05	12-14	3928.00	3938.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-14	01:05	01:40	12-14	3938.00	3956.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *75*, Toolface Type: *magnetic*
Rotary Drill	1	12-14	01:40	02:10	12-14	3956.00	4018.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	02:10	02:15	12-14	4018.00	4018.00	Inclination (°): *1.980*, Azimuth (°): *262.190*, TVD (ft): *3946.66*, Dogleg (º/100 ft): *0.64*, Sensor Depth (ft): *3949.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	02:15	02:50	12-14	4018.00	4108.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	02:50	02:55	12-14	4108.00	4108.00	Inclination (°): *1.710*, Azimuth (°): *278.530*, TVD (ft): *4036.61*, Dogleg (º/100 ft): *0.65*, Sensor Depth (ft): *4039.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	02:55	03:30	12-14	4108.00	4198.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	03:30	03:35	12-14	4198.00	4198.00	Inclination (°): *2.070*, Azimuth (°): *277.650*, TVD (ft): *4126.56*, Dogleg (º/100 ft): *0.40*, Sensor Depth (ft): *4129.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	03:35	03:45	12-14	4198.00	4208.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-14	03:45	04:20	12-14	4208.00	4228.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *90*, Toolface Type: *magnetic*
Rotary Drill	1	12-14	04:20	05:25	12-14	4228.00	4377.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	05:25	05:30	12-14	4377.00	4377.00	Inclination (°): *1.630*, Azimuth (°): *277.210*, TVD (ft): *4305.47*, Dogleg (º/100 ft): *0.25*, Sensor Depth (ft): *4308.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	05:30	05:55	12-14	4377.00	4467.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	05:55	06:00	12-14	4467.00	4467.00	Inclination (°): *2.510*, Azimuth (°): *279.060*, TVD (ft): *4395.41*, Dogleg (º/100 ft): *0.98*, Sensor Depth (ft): *4398.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	06:00	06:10	12-14	4467.00	4475.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-14	06:10	06:40	12-14	4475.00	4505.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *90*, Toolface Type: *magnetic*
Rotary Drill	1	12-14	06:40	06:55	12-14	4505.00	4557.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	06:55	07:00	12-14	4557.00	4557.00	Inclination (°): *1.760*, Azimuth (°): *294.790*, TVD (ft): *4485.35*, Dogleg (º/100 ft): *1.05*, Sensor Depth (ft): *4488.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	07:00	07:30	12-14	4557.00	4646.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	07:30	07:35	12-14	4646.00	4646.00	Inclination (°): *1.270*, Azimuth (°): *356.050*, TVD (ft): *4574.32*, Dogleg (º/100 ft): *1.80*, Sensor Depth (ft): *4577.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	07:35	08:00	12-14	4646.00	4736.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	08:00	08:05	12-14	4736.00	4736.00	Inclination (°): *1.450*, Azimuth (°): *4.670*, TVD (ft): *4664.30*, Dogleg (º/100 ft): *0.30*, Sensor Depth (ft): *4667.00*, Bit To Sensor (ft): *69.00*

Rotary Drill	1	12-14	08:05	08:30	12-14	4736.00	4826.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	08:30	08:35	12-14	4826.00	4826.00	Inclination (°): *1.540*, Azimuth (°): *9.590*, TVD (ft): *4754.27*, Dogleg (º/100 ft): *0.17*, Sensor Depth (ft): *4757.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-14	08:35	09:00	12-14	4826.00	4948.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-14	09:00	09:05	12-14	4948.00	4948.00	Inclination (°): *1.490*, Azimuth (°): *11.260*, TVD (ft): *4876.22*, Dogleg (º/100 ft): *0.05*, Sensor Depth (ft): *4879.00*, Bit To Sensor (ft): *69.00*
Circulating	3	12-14	09:05	10:00	12-14			
Pooh	7	12-14	10:00	13:30	12-14			POOH
Lay Down BHA	65	12-14	13:30	14:15	12-14			
Standby	15	12-14	14:15	00:00	12-15			Standby-Casing Ops

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Dec 15 00:00 - 23:59 (Day 5 of 17)

Billing: N/A ($162,365.50 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		**Downhole Hours**	0.00	**Rotating WOB (klbs)**	
Bit Depth (ft)		**Drilling Hours**		**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)		**Hours Circulating**		**Rotating SPM**	
Total Distance (ft)		**Hours Sliding**		**Sliding SPM**	
Distance Rotated (ft)		**Hours Rotating**		**Motor RPM**	-
Distance Slid (ft)				**Surface RPM**	
Inclination In				**Flow Rate (gpm)**	
Inclination Out				**On Bottom Pressure (psi)**	
Azimuth In		**% Hours Rotating**		**Off Bottom Pressure (psi)**	
Azimuth Out		**% Hours Sliding**			
AVG Total ROP (ft/h)	0.00	**% Distance Sliding**			
AVG Rotating ROP (ft/h)	0.00	**% Distance Rotating**			
AVG Sliding ROP (ft/h)	0.00				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Advance Directional	Directional Driller

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-14	14:15	00:00	12-15			Standby-Casing Ops

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Dec 24 00:00 - 23:59 (Day 6 of 17)

Billing: $11,655.25 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	4948.00	**Downhole Hours**	10.75
Bit Depth (ft)	5721.00	**Drilling Hours**	2.33
Bottom Hole Depth (ft)	5721.00	**Hours Circulating**	1.17
Total Distance (ft)	773.00	**Hours Sliding**	0.58
Distance Rotated (ft)	679.00	**Hours Rotating**	1.75
Distance Slid (ft)	94.00		
Inclination In	1.58		
Inclination Out	6.46		
Azimuth In	29.17	**% Hours Rotating**	75%
Azimuth Out	58.00	**% Hours Sliding**	25%
AVG Total ROP (ft/h)	331.29	**% Distance Sliding**	12%
AVG Rotating ROP (ft/h)	388.00	**% Distance Rotating**	88%
AVG Sliding ROP (ft/h)	161.14		

Drilling Parameters

Rotating WOB (klbs)	40.00 - 40.00
Sliding WOB (klbs)	30.00 - 30.00
Rotating SPM	156.00 - 156.00
Sliding SPM	176.00 - 176.00
Motor RPM	162.00 - 175.00
Surface RPM	30.00 - 30.00
Flow Rate (gpm)	675.00 - 675.00
On Bottom Pressure (psi)	2400.00 - 2800.00
Off Bottom Pressure (psi)	1700.00 - 2200.00

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Carlos Jensen	MWD Engineer
Advance Directional	Directional Driller

BHA #3 - BHA #3 (8.5" Intermediate)

Date In: Dec 24, 2020, 13:15 Date Out: Dec 26, 2020, 16:00

Bit Details

OD (in)	8.500
Vendor	NOV
S/N	A270529
Nozzles	6-15's
Total Flow Area (in²)	1.035
Drilling Hours for Day	2.33
Total Drilled for Day (ft)	773.00
Drilling Hours for BHA	29.67
Total Drilled for BHA (ft)	5842.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.5
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.300

Bit Distances

Survey: 69.00 ft, **Gamma:** 54.00 ft, **Bend:** 5.33 ft

Directional Comments

1.5° FBH 7/8 8.5 Stg Mtr.w/8.25" Stab.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x15s , TFA: .1.035 Runs: 1

MWD Comments

POOH Reason

Change Bottom Hole Assembly: POOH TO PICKUP CURVE ASSEMBLY

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	NOV	A270529	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-36	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.06	37.06
Stabilizer Description: *8.25' Stabilizer*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	43.79
UBHO Sub Description: *UBHO Sub*, Type: *NM*	AIM	67501NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		4.85	48.64
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		30.93	79.57
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	109.27
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	112.79
HWDP Description: *5.5" HWDP (13 Stands)*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1329.34

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-24	00:00	13:15	12-24			Standby: WALK RIG FROM 504H & RIG UP

Pick Up BHA	64	12-24	13:15	15:00	12-24			C/O BHA
Other	16	12-24	15:00	15:45	12-24			TRANSFER WATER TO TRIP TANKS
Other	16	12-24	15:45	15:50	12-24			TEST MWD
TIH	8	12-24	15:50	17:00	12-24			TIH W/ BHA #3
Other	16	12-24	17:00	19:00	12-24			SLIP AND CUT DRILL LINE
TIH	8	12-24	19:00	19:50	12-24			TIH W/ BHA #3
Drilling Cement	17	12-24	19:50	21:00	12-24	4932.00	4948.00	Drilling Cement and Float Equipment
Rotary Drill	1	12-24	21:00	21:30	12-24	4948.00	5094.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-24	21:30	21:35	12-24	5094.00	5094.00	Inclination (°): *1.580*, Azimuth (°): *29.170*, TVD (ft): *5022.17*, Dogleg (º/100 ft): *0.33*, Sensor Depth (ft): *5025.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-24	21:35	21:40	12-24	5094.00	5183.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-24	21:40	21:45	12-24	5183.00	5183.00	Inclination (°): *1.630*, Azimuth (°): *25.480*, TVD (ft): *5111.14*, Dogleg (º/100 ft): *0.13*, Sensor Depth (ft): *5114.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-24	21:45	21:50	12-24	5183.00	5205.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-24	21:50	21:55	12-24	5205.00	5225.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *1700.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *80*, Toolface Type: *magnetic*
Rotary Drill	1	12-24	21:55	22:00	12-24	5225.00	5273.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-24	22:00	22:05	12-24	5273.00	5273.00	Inclination (°): *2.200*, Azimuth (°): *28.380*, TVD (ft): *5201.09*, Dogleg (º/100 ft): *0.64*, Sensor Depth (ft): *5204.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-24	22:05	22:10	12-24	5273.00	5304.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-24	22:10	22:15	12-24	5304.00	5326.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *80*, Toolface Type: *magnetic*
Rotary Drill	1	12-24	22:15	22:25	12-24	5326.00	5362.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-24	22:25	22:30	12-24	5362.00	5362.00	Inclination (°): *2.460*, Azimuth (°): *42.180*, TVD (ft): *5290.01*, Dogleg (º/100 ft): *0.69*, Sensor Depth (ft): *5293.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-24	22:30	22:35	12-24	5362.00	5399.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-24	22:35	22:50	12-24	5399.00	5426.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *70*, Toolface Type: *magnetic*
Rotary Drill	1	12-24	22:50	22:55	12-24	5426.00	5452.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-24	22:55	23:00	12-24	5452.00	5452.00	Inclination (°): *2.990*, Azimuth (°): *59.750*, TVD (ft): *5379.91*, Dogleg (º/100 ft): *1.09*, Sensor Depth (ft): *5383.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-24	23:00	23:05	12-24	5452.00	5485.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-24	23:05	23:15	12-24	5485.00	5510.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *70*, Toolface Type: *magnetic*
Rotary Drill	1	12-24	23:15	23:25	12-24	5510.00	5541.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-24	23:25	23:30	12-24	5541.00	5541.00	Inclination (°): *5.450*, Azimuth (°): *59.140*, TVD (ft): *5468.66*, Dogleg (º/100 ft): *2.76*, Sensor Depth (ft): *5472.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-24	23:30	23:40	12-24	5541.00	5631.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-24	23:40	23:45	12-24	5631.00	5631.00	Inclination (°): *6.860*, Azimuth (°): *60.630*, TVD (ft): *5558.14*, Dogleg (º/100 ft): *1.58*, Sensor Depth (ft): *5562.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-24	23:45	23:55	12-24	5631.00	5721.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-24	23:55	00:00	12-25	5721.00	5721.00	Inclination (°): *6.460*, Azimuth (°): *58.000*, TVD (ft): *5647.54*, Dogleg (º/100 ft): *0.56*, Sensor Depth (ft): *5652.00*, Bit To Sensor (ft): *69.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Dec 25 00:00 - 23:59 (Day 7 of 17)

Billing: $8,455.25 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	5721.00	**Downhole Hours**	24.00
Bit Depth (ft)	9938.00	**Drilling Hours**	19.25
Bottom Hole Depth (ft)	9938.00	**Hours Circulating**	0.00
Total Distance (ft)	4217.00	**Hours Sliding**	3.17
Distance Rotated (ft)	4022.00	**Hours Rotating**	16.08
Distance Slid (ft)	195.00		
Inclination In	6.33		
Inclination Out	0.88		
Azimuth In	55.10	**% Hours Rotating**	84%
Azimuth Out	158.45	**% Hours Sliding**	16%
AVG Total ROP (ft/h)	215.35	**% Distance Sliding**	5%
AVG Rotating ROP (ft/h)	244.28	**% Distance Rotating**	95%
AVG Sliding ROP (ft/h)	61.58		

Drilling Parameters

Rotating WOB (klbs)	40.00 - 40.00
Sliding WOB (klbs)	30.00 - 30.00
Rotating SPM	156.00 - 176.00
Sliding SPM	176.00 - 176.00
Motor RPM	162.00 - 175.00
Surface RPM	30.00 - 30.00
Flow Rate (gpm)	675.00 - 675.00
On Bottom Pressure (psi)	2600.00 - 2800.00
Off Bottom Pressure (psi)	2000.00 - 2200.00

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Carlos Jensen	MWD Engineer
Advance Directional	Directional Driller

BHA #3 - BHA #3 (8.5" Intermediate)

Date In: Dec 24, 2020, 13:15 Date Out: Dec 26, 2020, 16:00

Bit Details

OD (in)	8.500
Vendor	NOV
S/N	A270529
Nozzles	6-15's
Total Flow Area (in²)	1.035
Drilling Hours for Day	19.25
Total Drilled for Day (ft)	4217.00
Drilling Hours for BHA	29.67
Total Drilled for BHA (ft)	5842.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.5
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.300

Bit Distances

Survey: 69.00 ft, **Gamma:** 54.00 ft, **Bend:** 5.33 ft

Directional Comments

1.5° FBH 7/8 8.5 Stg Mtr.w/8.25" Stab.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x15s , TFA: .1.035 Runs: 1

MWD Comments

POOH Reason

Change Bottom Hole Assembly: POOH TO PICKUP CURVE ASSEMBLY

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	NOV	A270529	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-36	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.06	37.06
Stabilizer Description: *8.25' Stabilizer*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	43.79
UBHO Sub Description: *UBHO Sub*, Type: *NM*	AIM	67501NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		4.85	48.64
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		30.93	79.57
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	109.27
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	112.79
HWDP Description: *5.5" HWDP (13 Stands)*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1329.34

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details

Survey	46	12-24	23:55	00:00	12-25	5721.00	5721.00	Inclination (°): *6.460*, Azimuth (°): *58.000*, TVD (ft): *5647.54*, Dogleg (º/100 ft): *0.56*, Sensor Depth (ft): *5652.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	00:00	00:10	12-25	5721.00	5775.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-25	00:10	00:20	12-25	5775.00	5795.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *120*, Toolface Type: *magnetic*
Rotary Drill	1	12-25	00:20	00:25	12-25	5795.00	5811.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	00:25	00:30	12-25	5811.00	5811.00	Inclination (°): *6.330*, Azimuth (°): *55.100*, TVD (ft): *5736.98*, Dogleg (º/100 ft): *0.39*, Sensor Depth (ft): *5742.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	00:30	00:40	12-25	5811.00	5900.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	00:40	00:45	12-25	5900.00	5900.00	Inclination (°): *6.950*, Azimuth (°): *66.170*, TVD (ft): *5825.38*, Dogleg (º/100 ft): *1.59*, Sensor Depth (ft): *5831.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	00:45	00:55	12-25	5900.00	5990.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	00:55	01:00	12-25	5990.00	5990.00	Inclination (°): *6.810*, Azimuth (°): *63.800*, TVD (ft): *5914.73*, Dogleg (º/100 ft): *0.35*, Sensor Depth (ft): *5921.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	01:00	01:10	12-25	5990.00	6080.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	01:10	01:15	12-25	6080.00	6080.00	Inclination (°): *6.240*, Azimuth (°): *64.320*, TVD (ft): *6004.15*, Dogleg (º/100 ft): *0.64*, Sensor Depth (ft): *6011.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	01:15	01:25	12-25	6080.00	6169.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	01:25	01:30	12-25	6169.00	6169.00	Inclination (°): *6.020*, Azimuth (°): *61.950*, TVD (ft): *6092.64*, Dogleg (º/100 ft): *0.38*, Sensor Depth (ft): *6100.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-25	01:30	01:40	12-25	6169.00	6194.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *120*, Toolface Type: *magnetic*
Rotary Drill	1	12-25	01:40	01:45	12-25	6194.00	6259.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	01:45	01:50	12-25	6259.00	6259.00	Inclination (°): *6.810*, Azimuth (°): *70.040*, TVD (ft): *6182.08*, Dogleg (º/100 ft): *1.33*, Sensor Depth (ft): *6190.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	01:50	02:00	12-25	6259.00	6349.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	02:00	02:05	12-25	6349.00	6349.00	Inclination (°): *7.520*, Azimuth (°): *68.720*, TVD (ft): *6271.38*, Dogleg (º/100 ft): *0.81*, Sensor Depth (ft): *6280.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	02:05	02:15	12-25	6349.00	6438.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	02:15	02:20	12-25	6438.00	6438.00	Inclination (°): *7.340*, Azimuth (°): *67.490*, TVD (ft): *6359.63*, Dogleg (º/100 ft): *0.27*, Sensor Depth (ft): *6369.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	02:20	02:30	12-25	6438.00	6528.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	02:30	02:35	12-25	6528.00	6528.00	Inclination (°): *6.810*, Azimuth (°): *67.930*, TVD (ft): *6448.94*, Dogleg (º/100 ft): *0.59*, Sensor Depth (ft): *6459.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	02:35	02:45	12-25	6528.00	6618.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	02:45	02:50	12-25	6618.00	6618.00	Inclination (°): *6.460*, Azimuth (°): *66.700*, TVD (ft): *6538.34*, Dogleg (º/100 ft): *0.42*, Sensor Depth (ft): *6549.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	02:50	03:00	12-25	6618.00	6707.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	03:00	03:05	12-25	6707.00	6707.00	Inclination (°): *6.020*, Azimuth (°): *67.660*, TVD (ft): *6626.81*, Dogleg (º/100 ft): *0.51*, Sensor Depth (ft): *6638.00*, Bit To Sensor (ft): *69.00*

Slide Drill	2	12-25	03:05	03:15	12-25	6707.00	6730.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *70*, Toolface Type: *magnetic*
Rotary Drill	1	12-25	03:15	03:25	12-25	6730.00	6797.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	03:25	03:30	12-25	6797.00	6797.00	Inclination (°): *6.640*, Azimuth (°): *68.810*, TVD (ft): *6716.26*, Dogleg (º/100 ft): *0.70*, Sensor Depth (ft): *6728.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	03:30	03:40	12-25	6797.00	6887.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	03:40	03:45	12-25	6887.00	6887.00	Inclination (°): *6.330*, Azimuth (°): *69.330*, TVD (ft): *6805.69*, Dogleg (º/100 ft): *0.35*, Sensor Depth (ft): *6818.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	03:45	03:50	12-25	6887.00	6900.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-25	03:50	04:15	12-25	6900.00	6930.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *60*, Toolface Type: *magnetic*
Rotary Drill	1	12-25	04:15	04:25	12-25	6930.00	6977.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	04:25	04:30	12-25	6977.00	6977.00	Inclination (°): *6.240*, Azimuth (°): *71.440*, TVD (ft): *6895.15*, Dogleg (º/100 ft): *0.28*, Sensor Depth (ft): *6908.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	04:30	04:55	12-25	6977.00	7066.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	04:55	05:00	12-25	7066.00	7066.00	Inclination (°): *6.640*, Azimuth (°): *71.000*, TVD (ft): *6983.59*, Dogleg (º/100 ft): *0.45*, Sensor Depth (ft): *6997.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	05:00	05:10	12-25	7066.00	7155.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	05:10	05:15	12-25	7155.00	7155.00	Inclination (°): *6.330*, Azimuth (°): *73.820*, TVD (ft): *7072.02*, Dogleg (º/100 ft): *0.50*, Sensor Depth (ft): *7086.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	05:15	05:20	12-25	7155.00	7190.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-25	05:20	05:50	12-25	7190.00	7210.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *50*, Toolface Type: *magnetic*
Rotary Drill	1	12-25	05:50	05:55	12-25	7210.00	7245.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	05:55	06:00	12-25	7245.00	7245.00	Inclination (°): *5.450*, Azimuth (°): *73.380*, TVD (ft): *7161.54*, Dogleg (º/100 ft): *0.98*, Sensor Depth (ft): *7176.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	06:00	06:20	12-25	7245.00	7335.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	06:20	06:25	12-25	7335.00	7335.00	Inclination (°): *6.290*, Azimuth (°): *69.070*, TVD (ft): *7251.07*, Dogleg (º/100 ft): *1.05*, Sensor Depth (ft): *7266.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	06:25	06:45	12-25	7335.00	7425.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	06:45	06:50	12-25	7425.00	7425.00	Inclination (°): *5.800*, Azimuth (°): *71.710*, TVD (ft): *7340.57*, Dogleg (º/100 ft): *0.63*, Sensor Depth (ft): *7356.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	06:50	07:10	12-25	7425.00	7515.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	07:10	07:15	12-25	7515.00	7515.00	Inclination (°): *5.320*, Azimuth (°): *73.550*, TVD (ft): *7430.14*, Dogleg (º/100 ft): *0.57*, Sensor Depth (ft): *7446.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	07:15	07:30	12-25	7515.00	7605.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	07:30	07:35	12-25	7605.00	7605.00	Inclination (°): *4.660*, Azimuth (°): *76.980*, TVD (ft): *7519.80*, Dogleg (º/100 ft): *0.80*, Sensor Depth (ft): *7536.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-25	07:35	08:15	12-25	7605.00	7635.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *50*, Toolface Type: *magnetic*

Rotary Drill	1	12-25	08:15	08:30	12-25	7635.00	7694.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	08:30	08:35	12-25	7694.00	7694.00	Inclination (°): *5.580*, Azimuth (°): *70.560*, TVD (ft): *7608.45*, Dogleg (º/100 ft): *1.22*, Sensor Depth (ft): *7625.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	08:35	08:50	12-25	7694.00	7784.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	08:50	08:55	12-25	7784.00	7784.00	Inclination (°): *5.850*, Azimuth (°): *65.990*, TVD (ft): *7698.00*, Dogleg (º/100 ft): *0.59*, Sensor Depth (ft): *7715.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	08:55	09:15	12-25	7784.00	7874.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	09:15	09:20	12-25	7874.00	7874.00	Inclination (°): *5.100*, Azimuth (°): *69.070*, TVD (ft): *7787.59*, Dogleg (º/100 ft): *0.89*, Sensor Depth (ft): *7805.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	09:20	09:40	12-25	7874.00	7963.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	09:40	09:50	12-25	7963.00	7963.00	Inclination (°): *4.570*, Azimuth (°): *70.040*, TVD (ft): *7876.27*, Dogleg (º/100 ft): *0.60*, Sensor Depth (ft): *7894.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-25	09:50	10:25	12-25	7963.00	7993.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *50*, Toolface Type: *magnetic*
Rotary Drill	1	12-25	10:25	10:50	12-25	7993.00	8053.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	10:50	10:55	12-25	8053.00	8053.00	Inclination (°): *5.050*, Azimuth (°): *64.320*, TVD (ft): *7965.96*, Dogleg (º/100 ft): *0.75*, Sensor Depth (ft): *7984.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	10:55	11:15	12-25	8053.00	8143.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	11:15	11:20	12-25	8143.00	8143.00	Inclination (°): *5.410*, Azimuth (°): *64.150*, TVD (ft): *8055.58*, Dogleg (º/100 ft): *0.40*, Sensor Depth (ft): *8074.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	11:20	11:35	12-25	8143.00	8233.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	11:35	11:40	12-25	8233.00	8233.00	Inclination (°): *4.790*, Azimuth (°): *66.610*, TVD (ft): *8145.22*, Dogleg (º/100 ft): *0.73*, Sensor Depth (ft): *8164.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	11:40	11:55	12-25	8233.00	8323.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	11:55	12:00	12-25	8323.00	8323.00	Inclination (°): *4.400*, Azimuth (°): *69.160*, TVD (ft): *8234.93*, Dogleg (º/100 ft): *0.49*, Sensor Depth (ft): *8254.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	12:00	12:20	12-25	8323.00	8412.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	12:20	12:30	12-25	8412.00	8412.00	Inclination (°): *4.040*, Azimuth (°): *70.120*, TVD (ft): *8323.69*, Dogleg (º/100 ft): *0.41*, Sensor Depth (ft): *8343.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-25	12:30	13:00	12-25	8412.00	8429.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *40*, Toolface Type: *magnetic*
Rotary Drill	1	12-25	13:00	13:15	12-25	8429.00	8502.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	13:15	13:20	12-25	8502.00	8502.00	Inclination (°): *4.480*, Azimuth (°): *68.370*, TVD (ft): *8413.44*, Dogleg (º/100 ft): *0.51*, Sensor Depth (ft): *8433.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	13:20	13:45	12-25	8502.00	8591.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	13:45	13:50	12-25	8591.00	8591.00	Inclination (°): *4.790*, Azimuth (°): *67.140*, TVD (ft): *8502.15*, Dogleg (º/100 ft): *0.37*, Sensor Depth (ft): *8522.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	13:50	14:20	12-25	8591.00	8681.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	14:20	14:25	12-25	8681.00	8681.00	Inclination (°): *4.440*, Azimuth (°): *70.560*, TVD (ft): *8591.86*, Dogleg (º/100 ft): *0.49*, Sensor Depth (ft): *8612.00*, Bit To Sensor (ft): *69.00*

Rotary Drill	1	12-25	14:25	14:50	12-25	8681.00	8771.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	14:50	14:55	12-25	8771.00	8771.00	Inclination (°): *3.870*, Azimuth (°): *71.440*, TVD (ft): *8681.62*, Dogleg (º/100 ft): *0.64*, Sensor Depth (ft): *8702.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	14:55	15:25	12-25	8771.00	8861.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	15:25	15:30	12-25	8861.00	8861.00	Inclination (°): *3.080*, Azimuth (°): *78.470*, TVD (ft): *8771.46*, Dogleg (º/100 ft): *1.00*, Sensor Depth (ft): *8792.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	15:30	16:00	12-25	8861.00	8951.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	16:00	16:05	12-25	8951.00	8951.00	Inclination (°): *1.890*, Azimuth (°): *90.080*, TVD (ft): *8861.37*, Dogleg (º/100 ft): *1.43*, Sensor Depth (ft): *8882.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	16:05	16:30	12-25	8951.00	9041.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	16:30	16:35	12-25	9041.00	9041.00	Inclination (°): *1.850*, Azimuth (°): *95.700*, TVD (ft): *8951.33*, Dogleg (º/100 ft): *0.21*, Sensor Depth (ft): *8972.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	16:35	17:00	12-25	9041.00	9130.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	17:00	17:05	12-25	9130.00	9130.00	Inclination (°): *1.490*, Azimuth (°): *93.420*, TVD (ft): *9040.29*, Dogleg (º/100 ft): *0.41*, Sensor Depth (ft): *9061.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	17:05	17:30	12-25	9130.00	9220.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	17:30	17:35	12-25	9220.00	9220.00	Inclination (°): *1.800*, Azimuth (°): *89.990*, TVD (ft): *9130.25*, Dogleg (º/100 ft): *0.36*, Sensor Depth (ft): *9151.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	17:35	18:00	12-25	9220.00	9310.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *156.00*
Survey	46	12-25	18:00	18:05	12-25	9310.00	9310.00	Inclination (°): *1.540*, Azimuth (°): *96.760*, TVD (ft): *9220.21*, Dogleg (º/100 ft): *0.36*, Sensor Depth (ft): *9241.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	18:05	18:40	12-25	9310.00	9400.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-25	18:40	18:45	12-25	9400.00	9400.00	Inclination (°): *1.580*, Azimuth (°): *113.540*, TVD (ft): *9310.18*, Dogleg (º/100 ft): *0.51*, Sensor Depth (ft): *9331.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	18:45	19:20	12-25	9400.00	9489.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-25	19:20	19:25	12-25	9489.00	9489.00	Inclination (°): *1.190*, Azimuth (°): *117.410*, TVD (ft): *9399.15*, Dogleg (º/100 ft): *0.45*, Sensor Depth (ft): *9420.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	19:25	20:15	12-25	9489.00	9579.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-25	20:15	20:20	12-25	9579.00	9579.00	Inclination (°): *0.480*, Azimuth (°): *205.920*, TVD (ft): *9489.15*, Dogleg (º/100 ft): *1.41*, Sensor Depth (ft): *9510.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	20:20	20:55	12-25	9579.00	9669.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-25	20:55	21:00	12-25	9669.00	9669.00	Inclination (°): *1.050*, Azimuth (°): *257.950*, TVD (ft): *9579.14*, Dogleg (º/100 ft): *0.94*, Sensor Depth (ft): *9600.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	21:00	21:50	12-25	9669.00	9759.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-25	21:50	21:55	12-25	9759.00	9759.00	Inclination (°): *0.620*, Azimuth (°): *241.340*, TVD (ft): *9669.13*, Dogleg (º/100 ft): *0.54*, Sensor Depth (ft): *9690.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	21:55	22:30	12-25	9759.00	9848.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*

Survey	46	12-25	22:30	22:35	12-25	9848.00	9848.00	Inclination (°): *0.260*, Azimuth (°): *191.330*, TVD (ft): *9758.13*, Dogleg (º/100 ft): *0.56*, Sensor Depth (ft): *9779.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	22:35	23:15	12-25	9848.00	9938.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-25	23:15	23:20	12-25	9938.00	9938.00	Inclination (°): *0.880*, Azimuth (°): *158.450*, TVD (ft): *9848.12*, Dogleg (º/100 ft): *0.75*, Sensor Depth (ft): *9869.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-25	23:20	00:05	12-26	9938.00	10028.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Dec 26 00:00 - 23:59 (Day 8 of 17)

Billing: $19,065.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	9938.00	**Downhole Hours**	24.00	**Rotating WOB (klbs)**	40.00 - 40.00
Bit Depth (ft)	10790.00	**Drilling Hours**	8.08	**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)	10790.00	**Hours Circulating**	1.42	**Rotating SPM**	176.00 - 176.00
Total Distance (ft)	852.00	**Hours Sliding**	0.00	**Sliding SPM**	
Distance Rotated (ft)	852.00	**Hours Rotating**	8.08	**Motor RPM**	159.00 - 175.00
Distance Slid (ft)	0.00			**Surface RPM**	30.00 - 30.00
Inclination In	0.44			**Flow Rate (gpm)**	675.00 - 675.00
Inclination Out	2.15			**On Bottom Pressure (psi)**	2800.00 - 2800.00
Azimuth In	151.95	**% Hours Rotating**	100%	**Off Bottom Pressure (psi)**	2000.00 - 2000.00
Azimuth Out	124.79	**% Hours Sliding**	0%		
AVG Total ROP (ft/h)	105.40	**% Distance Sliding**	0%		
AVG Rotating ROP (ft/h)	105.40	**% Distance Rotating**	100%		
AVG Sliding ROP (ft/h)	0.00				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Carlos Jensen	MWD Engineer
Advance Directional	Directional Driller

BHA #3 - BHA #3 (8.5" Intermediate)

Date In: Dec 24, 2020, 13:15 Date Out: Dec 26, 2020, 16:00

Bit Details

OD (in)	8.500
Vendor	NOV
S/N	A270529
Nozzles	6-15's
Total Flow Area (in²)	1.035
Drilling Hours for Day	8.08
Total Drilled for Day (ft)	852.00
Drilling Hours for BHA	29.67
Total Drilled for BHA (ft)	5842.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.5
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.300

Bit Distances

Survey: 69.00 ft, **Gamma:** 54.00 ft, **Bend:** 5.33 ft

Directional Comments

1.5° FBH 7/8 8.5 Stg Mtr.w/8.25" Stab.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x15s , TFA: .1.035 Runs: 1

MWD Comments

POOH Reason

Change Bottom Hole Assembly: POOH TO PICKUP CURVE ASSEMBLY

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	NOV	A270529	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.5° FBH 7/8 8.5 Stg Mtr w/ 8.25" Stab*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-36	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.06	37.06
Stabilizer Description: *8.25' Stabilizer*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	43.79
UBHO Sub Description: *UBHO Sub*, Type: *NM*	AIM	67501NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		4.85	48.64
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		30.93	79.57
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	109.27
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	112.79
HWDP Description: *5.5" HWDP (13 Stands)*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1329.34

MWD Items

No Items

BHA #4 - BHA #4 (Curve Assembly)

Date In: Dec 26, 2020, 16:00 Date Out: Dec 28, 2020, 1:00

Bit Details

OD (in)	8.500
Vendor	Ulterra
S/N	51171
Nozzles	6-15"s
Total Flow Area (in²)	1.035
Drilling Hours for Day	0.00
Total Drilled for Day (ft)	
Drilling Hours for BHA	13.92
Total Drilled for BHA (ft)	1153.00

Motor Details

Size (in)	6.75
Lobe/Stage	7/8, 5.0
Bend Angle	2.12
Speed (rev/gal)	0.29
Wear Pad OD (in)	7.000

Bit Distances

Survey: 59.00 ft, **Gamma:** 36.00 ft, **Bend:** 4.07 ft, **Resistivity:** 46.00 ft

Directional Comments

2.12° FBH 7/8 5.0 Stg Mtr. Slick.; Flow Range: 300-600 gpm; Max Diff: 1130 psi; Max TQ: 10,460 ft/lbs; Bit: Ulterra CF611, Jets: 6x15s , TFA: .1.035 Runs: 2

MWD Comments

POOH Reason

Change Bottom Hole Assembly: Pooh for Lateral Assembly

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *CF611*, Style: *PDC*, Gauge Length (in): *2.00*, Size (in): *8.50*	Ulterra	51171	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *2.12 FBH 7/8 5.0 Stg Mtr Slick*, Size (in): *6.75*, Bend Angle (°): *2.12*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5*	AIM	CDM650-017	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.20	27.20
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	58.70
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	76.07
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	105.77
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	109.29

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	12-25	23:20	00:05	12-26	9938.00	10028.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-26	00:05	00:10	12-26	10028.00	10028.00	Inclination (°): *0.440*, Azimuth (°): *151.950*, TVD (ft): *9938.11*, Dogleg (º/100 ft): *0.50*, Sensor Depth (ft): *9959.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-26	00:10	01:00	12-26	10028.00	10117.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-26	01:00	01:05	12-26	10117.00	10117.00	Inclination (°): *0.570*, Azimuth (°): *152.130*, TVD (ft): *10027.11*, Dogleg (º/100 ft): *0.15*, Sensor Depth (ft): *10048.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-26	01:05	01:55	12-26	10117.00	10207.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-26	01:55	02:00	12-26	10207.00	10207.00	Inclination (°): *0.480*, Azimuth (°): *208.820*, TVD (ft): *10117.11*, Dogleg (º/100 ft): *0.56*, Sensor Depth (ft): *10138.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-26	02:00	02:55	12-26	10207.00	10297.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-26	02:55	03:00	12-26	10297.00	10297.00	Inclination (°): *1.050*, Azimuth (°): *254.080*, TVD (ft): *10207.10*, Dogleg (º/100 ft): *0.88*, Sensor Depth (ft): *10228.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-26	03:00	04:00	12-26	10297.00	10386.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-26	04:00	04:05	12-26	10386.00	10386.00	Inclination (°): *0.480*, Azimuth (°): *202.490*, TVD (ft): *10296.09*, Dogleg (º/100 ft): *0.94*, Sensor Depth (ft): *10317.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-26	04:05	04:50	12-26	10386.00	10476.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-26	04:50	04:55	12-26	10476.00	10476.00	Inclination (°): *1.190*, Azimuth (°): *145.710*, TVD (ft): *10386.08*, Dogleg (º/100 ft): *1.12*, Sensor Depth (ft): *10407.00*, Bit To Sensor (ft): *69.00*

Rotary Drill	1	12-26	04:55	05:50	12-26	10476.00	10565.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-26	05:50	05:55	12-26	10565.00	10565.00	Inclination (°): *1.800*, Azimuth (°): *126.900*, TVD (ft): *10475.05*, Dogleg (º/100 ft): *0.87*, Sensor Depth (ft): *10496.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-26	05:55	06:55	12-26	10565.00	10655.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-26	06:55	07:00	12-26	10655.00	10655.00	Inclination (°): *1.850*, Azimuth (°): *113.720*, TVD (ft): *10565.01*, Dogleg (º/100 ft): *0.47*, Sensor Depth (ft): *10586.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-26	07:00	08:05	12-26	10655.00	10790.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-26	08:05	08:10	12-26	10790.00	10790.00	Inclination (°): *2.150*, Azimuth (°): *124.790*, TVD (ft): *10699.93*, Dogleg (º/100 ft): *0.36*, Sensor Depth (ft): *10721.00*, Bit To Sensor (ft): *69.00*
Circulating	3	12-26	08:10	09:35	12-26			CIRC
Pooh	7	12-26	09:35	15:00	12-26			POOH for CURVE ASSEMBLY
Lay Down BHA	65	12-26	15:00	16:00	12-26			L/D BHA #3
Pick Up BHA	64	12-26	16:00	17:00	12-26			P/U BHA #4
Other	16	12-26	17:00	17:30	12-26			PROGRAM RESISTIVITY / GAMMA MWD TOOL
Other	16	12-26	17:30	17:50	12-26			P/U NMDC & STAND OF DP
Other	16	12-26	17:50	18:00	12-26			TEST MWD
TIH	8	12-26	18:00	00:00	12-27			TIH W/ BHA #4

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Dec 27 00:00 - 23:59 (Day 9 of 17)

Billing: $9,000.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	10790.00	**Downhole Hours**	24.00
Bit Depth (ft)	11943.00	**Drilling Hours**	13.92
Bottom Hole Depth (ft)	11943.00	**Hours Circulating**	2.75
Total Distance (ft)	1153.00	**Hours Sliding**	10.33
Distance Rotated (ft)	309.00	**Hours Rotating**	3.58
Distance Slid (ft)	844.00		
Inclination In	2.90		
Inclination Out	90.46		
Azimuth In	71.44	**% Hours Rotating**	26%
Azimuth Out	7.63	**% Hours Sliding**	74%
AVG Total ROP (ft/h)	82.85	**% Distance Sliding**	73%
AVG Rotating ROP (ft/h)	86.23	**% Distance Rotating**	27%
AVG Sliding ROP (ft/h)	81.68		

Drilling Parameters

Rotating WOB (klbs)	35.00 - 35.00
Sliding WOB (klbs)	35.00 - 35.00
Rotating SPM	176.00 - 176.00
Sliding SPM	142.00 - 142.00
Motor RPM	159.00 - 174.00
Surface RPM	30.00 - 30.00
Flow Rate (gpm)	550.00 - 675.00
On Bottom Pressure (psi)	2100.00 - 2800.00
Off Bottom Pressure (psi)	1500.00 - 2000.00

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Carlos Jensen	MWD Engineer
Advance Directional	Directional Driller

BHA #4 - BHA #4 (Curve Assembly)

Date In: Dec 26, 2020, 16:00 Date Out: Dec 28, 2020, 1:00

Bit Details

OD (in)	8.500
Vendor	Ulterra
S/N	51171
Nozzles	6-15"s
Total Flow Area (in²)	1.035
Drilling Hours for Day	13.92
Total Drilled for Day (ft)	1153.00
Drilling Hours for BHA	13.92
Total Drilled for BHA (ft)	1153.00

Motor Details

Size (in)	6.75
Lobe/Stage	7/8, 5.0
Bend Angle	2.12
Speed (rev/gal)	0.29
Wear Pad OD (in)	7.000

Bit Distances

Survey: 59.00 ft, **Gamma:** 36.00 ft, **Bend:** 4.07 ft, **Resistivity:** 46.00 ft

Directional Comments

2.12° FBH 7/8 5.0 Stg Mtr. Slick.; Flow Range: 300-600 gpm; Max Diff: 1130 psi; Max TQ: 10,460 ft/lbs; Bit: Ulterra CF611, Jets: 6x15s , TFA: .1.035 Runs: 2

MWD Comments

POOH Reason

Change Bottom Hole Assembly: Pooh for Lateral Assembly

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *CF611*, Style: *PDC*, Gauge Length (in): *2.00*, Size (in): *8.50*	Ulterra	51171	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *2.12 FBH 7/8 5.0 Stg Mtr Slick*, Size (in): *6.75*, Bend Angle (°): *2.12*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5*	AIM	CDM650-017	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.20	27.20
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	58.70
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	76.07
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	105.77
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	109.29

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
TIH	8	12-26	18:00	00:00	12-27			TIH W/ BHA #4
Circulating	3	12-27	00:00	01:45	12-27			Relog gamma F/ 10722 - 10970
Slide Drill	2	12-27	01:45	02:45	12-27	10790.00	10868.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *20*, Toolface Type: *magnetic*
Survey	46	12-27	02:45	02:55	12-27	10868.00	10868.00	Inclination (°): *2.900*, Azimuth (°): *71.440*, TVD (ft): *10787.85*, Dogleg (º/100 ft): *2.69*, Sensor Depth (ft): *10809.00*, Bit To Sensor (ft): *59.00*

Slide Drill	2	12-27	02:55	03:45	12-27	10868.00	10958.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *20*, Toolface Type: *magnetic*
Survey	46	12-27	03:45	03:55	12-27	10958.00	10958.00	Inclination (°): *13.760*, Azimuth (°): *24.950*, TVD (ft): *10876.83*, Dogleg (º/100 ft): *13.27*, Sensor Depth (ft): *10899.00*, Bit To Sensor (ft): *59.00*
Rotary Drill	1	12-27	03:55	04:00	12-27	10958.00	10973.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-27	04:00	04:40	12-27	10973.00	11047.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *0*, Toolface Type: *gravity*
Survey	46	12-27	04:40	04:50	12-27	11047.00	11047.00	Inclination (°): *24.310*, Azimuth (°): *19.590*, TVD (ft): *10960.85*, Dogleg (º/100 ft): *12.00*, Sensor Depth (ft): *10988.00*, Bit To Sensor (ft): *59.00*
Rotary Drill	1	12-27	04:50	05:10	12-27	11047.00	11068.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-27	05:10	06:00	12-27	11068.00	11137.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *10*, Toolface Type: *gravity*
Survey	46	12-27	06:00	06:10	12-27	11137.00	11137.00	Inclination (°): *32.220*, Azimuth (°): *18.710*, TVD (ft): *11040.05*, Dogleg (º/100 ft): *8.80*, Sensor Depth (ft): *11078.00*, Bit To Sensor (ft): *59.00*
Rotary Drill	1	12-27	06:10	06:25	12-27	11137.00	11157.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-27	06:25	06:40	12-27	11157.00	11226.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *10*, Toolface Type: *gravity*
Survey	46	12-27	06:40	06:50	12-27	11226.00	11226.00	Inclination (°): *35.780*, Azimuth (°): *16.250*, TVD (ft): *11113.83*, Dogleg (º/100 ft): *4.29*, Sensor Depth (ft): *11167.00*, Bit To Sensor (ft): *59.00*
Slide Drill	2	12-27	06:50	08:05	12-27	11226.00	11316.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *0*, Toolface Type: *gravity*
Survey	46	12-27	08:05	08:15	12-27	11316.00	11316.00	Inclination (°): *43.690*, Azimuth (°): *10.450*, TVD (ft): *11183.01*, Dogleg (º/100 ft): *9.70*, Sensor Depth (ft): *11257.00*, Bit To Sensor (ft): *59.00*
Slide Drill	2	12-27	08:15	09:35	12-27	11316.00	11406.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *30*, Toolface Type: *gravity*
Survey	46	12-27	09:35	09:45	12-27	11406.00	11406.00	Inclination (°): *53.140*, Azimuth (°): *12.730*, TVD (ft): *11242.68*, Dogleg (º/100 ft): *10.67*, Sensor Depth (ft): *11347.00*, Bit To Sensor (ft): *59.00*
Slide Drill	2	12-27	09:45	11:20	12-27	11406.00	11495.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *0*, Toolface Type: *gravity*
Survey	46	12-27	11:20	11:30	12-27	11495.00	11495.00	Inclination (°): *63.430*, Azimuth (°): *13.000*, TVD (ft): *11289.40*, Dogleg (º/100 ft): *11.56*, Sensor Depth (ft): *11436.00*, Bit To Sensor (ft): *59.00*
Slide Drill	2	12-27	11:30	12:30	12-27	11495.00	11585.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *0*, Toolface Type: *gravity*
Survey	46	12-27	12:30	12:40	12-27	11585.00	11585.00	Inclination (°): *74.730*, Azimuth (°): *15.370*, TVD (ft): *11321.49*, Dogleg (º/100 ft): *12.79*, Sensor Depth (ft): *11526.00*, Bit To Sensor (ft): *59.00*
Slide Drill	2	12-27	12:40	13:10	12-27	11585.00	11630.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *0*, Toolface Type: *gravity*
Other	16	12-27	13:10	13:20	12-27			CHECK SHOT
Rotary Drill	1	12-27	13:20	13:50	12-27	11630.00	11674.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-27	13:50	14:00	12-27	11674.00	11674.00	Inclination (°): *88.880*, Azimuth (°): *15.100*, TVD (ft): *11334.15*, Dogleg (º/100 ft): *15.90*, Sensor Depth (ft): *11615.00*, Bit To Sensor (ft): *59.00*
Rotary Drill	1	12-27	14:00	15:00	12-27	11674.00	11764.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-27	15:00	15:05	12-27	11764.00	11764.00	Inclination (°): *91.160*, Azimuth (°): *14.840*, TVD (ft): *11334.11*, Dogleg (º/100 ft): *2.55*, Sensor Depth (ft): *11705.00*, Bit To Sensor (ft): *59.00*
Slide Drill	2	12-27	15:05	15:35	12-27	11764.00	11794.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *260*, Toolface Type: *gravity*
Rotary Drill	1	12-27	15:35	16:20	12-27	11794.00	11853.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-27	16:20	16:30	12-27	11853.00	11853.00	Inclination (°): *91.820*, Azimuth (°): *10.890*, TVD (ft): *11331.80*, Dogleg (º/100 ft): *4.50*, Sensor Depth (ft): *11794.00*, Bit To Sensor (ft): *59.00*

Slide Drill	2	12-27	16:30	17:05	12-27	11853.00	11883.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *550.00*, Strokes Per Minute: *142*, Toolface: *220*, Toolface Type: *gravity*
Rotary Drill	1	12-27	17:05	17:45	12-27	11883.00	11943.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-27	17:45	17:50	12-27	11943.00	11943.00	Inclination (°): *90.460*, Azimuth (°): *7.630*, TVD (ft): *11330.01*, Dogleg (º/100 ft): *3.92*, Sensor Depth (ft): *11884.00*, Bit To Sensor (ft): *59.00*
Circulating	3	12-27	17:50	18:50	12-27			Circulate Hole clean to Pooh for Lateral Assembly
Pooh	7	12-27	18:50	00:30	12-28			POOH for Lateral Assembly

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Dec 28 00:00 - 23:59 (Day 10 of 17)

Billing: $23,545.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	11943.00	**Downhole Hours**	24.00
Bit Depth (ft)	12860.00	**Drilling Hours**	7.00
Bottom Hole Depth (ft)	12860.00	**Hours Circulating**	2.25
Total Distance (ft)	917.00	**Hours Sliding**	1.83
Distance Rotated (ft)	806.00	**Hours Rotating**	5.17
Distance Slid (ft)	111.00		
Inclination In	90.68		
Inclination Out	91.38		
Azimuth In	3.77	**% Hours Rotating**	74%
Azimuth Out	359.02	**% Hours Sliding**	26%
AVG Total ROP (ft/h)	124.88	**% Distance Sliding**	12%
AVG Rotating ROP (ft/h)	156.00	**% Distance Rotating**	88%
AVG Sliding ROP (ft/h)	58.34		

Drilling Parameters

Rotating WOB (klbs)	35.00 - 40.00
Sliding WOB (klbs)	35.00 - 60.00
Rotating SPM	156.00 - 176.00
Sliding SPM	156.00 - 176.00
Motor RPM	156.00 - 179.00
Surface RPM	30.00 - 40.00
Flow Rate (gpm)	600.00 - 680.00
On Bottom Pressure (psi)	2800.00 - 3750.00
Off Bottom Pressure (psi)	2000.00 - 3400.00

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Carlos Jensen	MWD Engineer
Advance Directional	Directional Driller

BHA #4 - BHA #4 (Curve Assembly)

Date In: Dec 26, 2020, 16:00 Date Out: Dec 28, 2020, 1:00

Bit Details

OD (in)	8.500
Vendor	Ulterra
S/N	51171
Nozzles	6-15"s
Total Flow Area (in²)	1.035
Drilling Hours for Day	0.00
Total Drilled for Day (ft)	
Drilling Hours for BHA	13.92
Total Drilled for BHA (ft)	1153.00

Motor Details

Size (in)	6.75
Lobe/Stage	7/8, 5.0
Bend Angle	2.12
Speed (rev/gal)	0.29
Wear Pad OD (in)	7.000

Bit Distances

Survey: 59.00 ft, **Gamma:** 36.00 ft, **Bend:** 4.07 ft, **Resistivity:** 46.00 ft

Directional Comments

2.12° FBH 7/8 5.0 Stg Mtr. Slick.; Flow Range: 300-600 gpm; Max Diff: 1130 psi; Max TQ: 10,460 ft/lbs; Bit: Ulterra CF611, Jets: 6x15s , TFA: .1.035 Runs: 2

MWD Comments

POOH Reason

Change Bottom Hole Assembly: Pooh for Lateral Assembly

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *CF611*, Style: *PDC*, Gauge Length (in): *2.00*, Size (in): *8.50*	Ulterra	51171	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *2.12 FBH 7/8 5.0 Stg Mtr Slick*, Size (in): *6.75*, Bend Angle (°): *2.12*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5*	AIM	CDM650-017	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.20	27.20
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	58.70
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	76.07
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	105.77
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	109.29

MWD Items

No Items

BHA #5 - BHA #5 (Lateral Assembly)

Date In: Dec 28, 2020, 1:00 Date Out: Dec 31, 2020, 18:45

Bit Details

OD (in)	8.500
Vendor	REED
S/N	A270381
Nozzles	6 x 16
Total Flow Area (in²)	1.178
Drilling Hours for Day	7.00
Total Drilled for Day (ft)	917.00
Drilling Hours for BHA	52.92
Total Drilled for BHA (ft)	4726.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.250

Bit Distances

Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.30 ft, **Resistivity:** 56.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x16s , TFA: 1.178 Runs: 1

MWD Comments

POOH Reason

Penetration Rate: Pooh due to decrease in ROP.

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270381	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-033	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.23	37.23
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.73
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.10
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.80
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.32

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Pooh	7	12-27	18:50	00:30	12-28			POOH for Lateral Assembly
Lay Down BHA	65	12-28	00:30	01:00	12-28			L/D BHA #4 Motor & Bit
Pick Up BHA	64	12-28	01:00	02:25	12-28			P/U BHA #5 / P/U Lateral Motor, Bit, and Scribe Motor & MWD Tool
Circulating	3	12-28	02:25	02:30	12-28			Test MWD tool and Motor
TIH	8	12-28	02:30	04:00	12-28			TIH W/ BHA #5
Other	16	12-28	04:00	04:30	12-28			Slip & Cut Drill Line
Rig Service - In Hole	19	12-28	04:30	05:00	12-28			Rig Service
TIH	8	12-28	05:00	12:45	12-28			TIH W/ BHA #5
Other	16	12-28	12:45	13:20	12-28			RELOG GAMMA
Change Mud	5	12-28	13:20	15:30	12-28			Displace w/ OBM
Rotary Drill	1	12-28	15:30	15:35	12-28	11943.00	11953.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *30*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Connection	33	12-28	15:35	15:45	12-28			CONNECTION
Slide Drill	2	12-28	15:45	16:15	12-28	11953.00	11983.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156*, Toolface: *240*, Toolface Type: *gravity*
Rotary Drill	1	12-28	16:15	16:40	12-28	11983.00	12043.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	16:40	16:50	12-28	12043.00	12043.00	Inclination (°): *90.680*, Azimuth (°): *3.770*, TVD (ft): *11329.11*, Dogleg (º/100 ft): *4.30*, Sensor Depth (ft): *11974.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-28	16:50	17:05	12-28	12043.00	12063.00	Pressure On (psi): *3200.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156*, Toolface: *200*, Toolface Type: *gravity*
Rotary Drill	1	12-28	17:05	17:30	12-28	12063.00	12132.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	17:30	17:35	12-28	12132.00	12132.00	Inclination (°): *88.790*, Azimuth (°): *2.180*, TVD (ft): *11329.52*, Dogleg (º/100 ft): *2.78*, Sensor Depth (ft): *12063.00*, Bit To Sensor (ft): *69.00*

Rotary Drill	1	12-28	17:35	18:05	12-28	12132.00	12222.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	18:05	18:10	12-28	12222.00	12222.00	Inclination (°): *87.520*, Azimuth (°): *1.570*, TVD (ft): *11332.42*, Dogleg (º/100 ft): *1.57*, Sensor Depth (ft): *12153.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-28	18:10	18:30	12-28	12222.00	12237.00	Pressure On (psi): *3200.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156*, Toolface: *10*, Toolface Type: *gravity*
Rotary Drill	1	12-28	18:30	18:55	12-28	12237.00	12311.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	18:55	19:00	12-28	12311.00	12311.00	Inclination (°): *87.960*, Azimuth (°): *1.220*, TVD (ft): *11335.93*, Dogleg (º/100 ft): *0.63*, Sensor Depth (ft): *12242.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-28	19:00	19:10	12-28	12311.00	12323.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-28	19:10	19:30	12-28	12323.00	12339.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *30*, Toolface Type: *gravity*
Rotary Drill	1	12-28	19:30	19:55	12-28	12339.00	12401.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	19:55	20:00	12-28	12401.00	12401.00	Inclination (°): *89.360*, Azimuth (°): *0.520*, TVD (ft): *11338.04*, Dogleg (º/100 ft): *1.74*, Sensor Depth (ft): *12332.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-28	20:00	20:30	12-28	12401.00	12491.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	20:30	20:35	12-28	12491.00	12491.00	Inclination (°): *89.580*, Azimuth (°): *1.390*, TVD (ft): *11338.87*, Dogleg (º/100 ft): *1.00*, Sensor Depth (ft): *12422.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-28	20:35	21:05	12-28	12491.00	12580.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *35.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	21:05	21:10	12-28	12580.00	12580.00	Inclination (°): *89.320*, Azimuth (°): *0.520*, TVD (ft): *11339.72*, Dogleg (º/100 ft): *1.02*, Sensor Depth (ft): *12511.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-28	21:10	21:40	12-28	12580.00	12670.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	21:40	21:45	12-28	12670.00	12670.00	Inclination (°): *89.410*, Azimuth (°): *358.760*, TVD (ft): *11340.72*, Dogleg (º/100 ft): *1.96*, Sensor Depth (ft): *12601.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-28	21:45	21:55	12-28	12670.00	12683.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-28	21:55	22:20	12-28	12683.00	12713.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *80*, Toolface Type: *gravity*
Rotary Drill	1	12-28	22:20	22:40	12-28	12713.00	12760.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	22:40	22:45	12-28	12760.00	12760.00	Inclination (°): *91.080*, Azimuth (°): *358.670*, TVD (ft): *11340.34*, Dogleg (º/100 ft): *1.86*, Sensor Depth (ft): *12691.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-28	22:45	23:20	12-28	12760.00	12849.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-28	23:20	23:25	12-28	12849.00	12849.00	Inclination (°): *91.380*, Azimuth (°): *359.020*, TVD (ft): *11338.43*, Dogleg (º/100 ft): *0.52*, Sensor Depth (ft): *12780.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-28	23:25	23:35	12-28	12849.00	12860.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-28	23:35	00:10	12-29	12860.00	12890.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *80*, Toolface Type: *gravity*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Dec 29 00:00 - 23:59 (Day 11 of 17)

Billing: $9,500.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	12860.00	**Downhole Hours**	24.00	**Rotating WOB (klbs)**	40.00 - 42.00
Bit Depth (ft)	14852.00	**Drilling Hours**	21.17	**Sliding WOB (klbs)**	60.00 - 60.00
Bottom Hole Depth (ft)	14852.00	**Hours Circulating**	0.00	**Rotating SPM**	156.00 - 156.00
Total Distance (ft)	1992.00	**Hours Sliding**	9.75	**Sliding SPM**	176.00 - 176.00
Distance Rotated (ft)	1598.00	**Hours Rotating**	11.42	**Motor RPM**	156.00 - 179.00
Distance Slid (ft)	394.00			**Surface RPM**	40.00 - 40.00
Inclination In	90.81			**Flow Rate (gpm)**	600.00 - 680.00
Inclination Out	91.03			**On Bottom Pressure (psi)**	3400.00 - 3750.00
Azimuth In	359.28	**% Hours Rotating**	54%	**Off Bottom Pressure (psi)**	2700.00 - 3400.00
Azimuth Out	0.95	**% Hours Sliding**	46%		
AVG Total ROP (ft/h)	94.62	**% Distance Sliding**	20%		
AVG Rotating ROP (ft/h)	138.97	**% Distance Rotating**	80%		
AVG Sliding ROP (ft/h)	40.41				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Carlos Jensen	MWD Engineer
Advance Directional	Directional Driller

BHA #5 - BHA #5 (Lateral Assembly)

Date In: Dec 28, 2020, 1:00 Date Out: Dec 31, 2020, 18:45

Bit Details

OD (in)	8.500
Vendor	REED
S/N	A270381
Nozzles	6 x 16
Total Flow Area (in²)	1.178
Drilling Hours for Day	21.17
Total Drilled for Day (ft)	1992.00
Drilling Hours for BHA	52.92
Total Drilled for BHA (ft)	4726.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.250

Bit Distances

Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.30 ft, **Resistivity:** 56.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x16s , TFA: 1.178 Runs: 1

MWD Comments

POOH Reason

Penetration Rate: Pooh due to decrease in ROP.

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270381	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-033	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.23	37.23
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.73
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.10
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.80
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.32

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Slide Drill	2	12-28	23:35	00:10	12-29	12860.00	12890.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *80*, Toolface Type: *gravity*
Rotary Drill	1	12-29	00:10	00:45	12-29	12890.00	12939.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*

Survey	46	12-29	00:45	00:50	12-29	12939.00	12939.00	Inclination (°): *90.810*, Azimuth (°): *359.280*, TVD (ft): *11336.71*, Dogleg (º/100 ft): *0.70*, Sensor Depth (ft): *12870.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	00:50	01:20	12-29	12939.00	13028.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	01:20	01:25	12-29	13028.00	13028.00	Inclination (°): *90.810*, Azimuth (°): *358.410*, TVD (ft): *11335.45*, Dogleg (º/100 ft): *0.98*, Sensor Depth (ft): *12959.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	01:25	01:30	12-29	13028.00	13033.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-29	01:30	02:15	12-29	13033.00	13063.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *80*, Toolface Type: *gravity*
Rotary Drill	1	12-29	02:15	02:45	12-29	13063.00	13118.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	02:45	02:50	12-29	13118.00	13118.00	Inclination (°): *89.800*, Azimuth (°): *358.410*, TVD (ft): *11334.97*, Dogleg (º/100 ft): *1.12*, Sensor Depth (ft): *13049.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-29	02:50	03:15	12-29	13118.00	13140.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *45*, Toolface Type: *gravity*
Rotary Drill	1	12-29	03:15	03:40	12-29	13140.00	13207.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	03:40	03:45	12-29	13207.00	13207.00	Inclination (°): *90.900*, Azimuth (°): *359.460*, TVD (ft): *11334.42*, Dogleg (º/100 ft): *1.71*, Sensor Depth (ft): *13138.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-29	03:45	04:20	12-29	13207.00	13237.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *60*, Toolface Type: *gravity*
Rotary Drill	1	12-29	04:20	04:55	12-29	13237.00	13297.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	04:55	05:00	12-29	13297.00	13297.00	Inclination (°): *91.160*, Azimuth (°): *0.600*, TVD (ft): *11332.81*, Dogleg (º/100 ft): *1.30*, Sensor Depth (ft): *13228.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-29	05:00	05:50	12-29	13297.00	13322.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *50*, Toolface Type: *gravity*
Rotary Drill	1	12-29	05:50	06:30	12-29	13322.00	13386.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	06:30	06:40	12-29	13386.00	13386.00	Inclination (°): *89.890*, Azimuth (°): *1.310*, TVD (ft): *11331.99*, Dogleg (º/100 ft): *1.63*, Sensor Depth (ft): *13317.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-29	06:40	07:15	12-29	13386.00	13416.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *20*, Toolface Type: *gravity*
Rotary Drill	1	12-29	07:15	07:40	12-29	13416.00	13476.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	07:40	07:45	12-29	13476.00	13476.00	Inclination (°): *91.740*, Azimuth (°): *1.040*, TVD (ft): *11330.71*, Dogleg (º/100 ft): *2.08*, Sensor Depth (ft): *13407.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	07:45	08:20	12-29	13476.00	13566.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	08:20	08:30	12-29	13566.00	13566.00	Inclination (°): *92.620*, Azimuth (°): *0.870*, TVD (ft): *11327.29*, Dogleg (º/100 ft): *1.00*, Sensor Depth (ft): *13497.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-29	08:30	09:15	12-29	13566.00	13596.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *160*, Toolface Type: *gravity*
Rotary Drill	1	12-29	09:15	09:45	12-29	13596.00	13655.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	09:45	09:50	12-29	13655.00	13655.00	Inclination (°): *91.740*, Azimuth (°): *1.390*, TVD (ft): *11323.90*, Dogleg (º/100 ft): *1.15*, Sensor Depth (ft): *13586.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	09:50	10:20	12-29	13655.00	13745.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	10:20	10:25	12-29	13745.00	13745.00	Inclination (°): *90.640*, Azimuth (°): *0.250*, TVD (ft): *11322.03*, Dogleg (º/100 ft): *1.76*, Sensor Depth (ft): *13676.00*, Bit To Sensor (ft): *69.00*

Rotary Drill	1	12-29	10:25	10:55	12-29	13745.00	13834.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	10:55	11:00	12-29	13834.00	13834.00	Inclination (°): *90.640*, Azimuth (°): *359.370*, TVD (ft): *11321.04*, Dogleg (º/100 ft): *0.99*, Sensor Depth (ft): *13765.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	11:00	11:35	12-29	13834.00	13924.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	11:35	11:40	12-29	13924.00	13924.00	Inclination (°): *91.430*, Azimuth (°): *359.990*, TVD (ft): *11319.41*, Dogleg (º/100 ft): *1.12*, Sensor Depth (ft): *13855.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	11:40	12:20	12-29	13924.00	14014.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	12:20	12:25	12-29	14014.00	14014.00	Inclination (°): *91.780*, Azimuth (°): *0.250*, TVD (ft): *11316.89*, Dogleg (º/100 ft): *0.48*, Sensor Depth (ft): *13945.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	12:25	12:50	12-29	14014.00	14104.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	12:50	13:00	12-29	14104.00	14104.00	Inclination (°): *91.520*, Azimuth (°): *359.550*, TVD (ft): *11314.30*, Dogleg (º/100 ft): *0.83*, Sensor Depth (ft): *14035.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-29	13:00	13:35	12-29	14104.00	14124.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *180*, Toolface Type: *gravity*
Rotary Drill	1	12-29	13:35	14:00	12-29	14124.00	14193.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	14:00	14:05	12-29	14193.00	14193.00	Inclination (°): *89.980*, Azimuth (°): *359.900*, TVD (ft): *11313.14*, Dogleg (º/100 ft): *1.77*, Sensor Depth (ft): *14124.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	14:05	14:45	12-29	14193.00	14283.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	14:45	14:55	12-29	14283.00	14283.00	Inclination (°): *90.770*, Azimuth (°): *358.760*, TVD (ft): *11312.55*, Dogleg (º/100 ft): *1.54*, Sensor Depth (ft): *14214.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-29	14:55	15:40	12-29	14283.00	14303.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *160*, Toolface Type: *gravity*
Rotary Drill	1	12-29	15:40	16:05	12-29	14303.00	14372.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	16:05	16:15	12-29	14372.00	14372.00	Inclination (°): *88.440*, Azimuth (°): *358.140*, TVD (ft): *11313.16*, Dogleg (º/100 ft): *2.71*, Sensor Depth (ft): *14303.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	16:15	16:40	12-29	14372.00	14462.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	16:40	16:45	12-29	14462.00	14462.00	Inclination (°): *87.380*, Azimuth (°): *357.000*, TVD (ft): *11316.44*, Dogleg (º/100 ft): *1.73*, Sensor Depth (ft): *14393.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	16:45	16:50	12-29	14462.00	14472.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-29	16:50	17:40	12-29	14472.00	14509.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *50*, Toolface Type: *gravity*
Rotary Drill	1	12-29	17:40	18:00	12-29	14509.00	14551.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	18:00	18:05	12-29	14551.00	14551.00	Inclination (°): *88.260*, Azimuth (°): *356.470*, TVD (ft): *11319.83*, Dogleg (º/100 ft): *1.15*, Sensor Depth (ft): *14482.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-29	18:05	18:45	12-29	14551.00	14586.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *90*, Toolface Type: *gravity*
Rotary Drill	1	12-29	18:45	19:15	12-29	14586.00	14641.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	19:15	19:20	12-29	14641.00	14641.00	Inclination (°): *88.620*, Azimuth (°): *358.490*, TVD (ft): *11322.28*, Dogleg (º/100 ft): *2.28*, Sensor Depth (ft): *14572.00*, Bit To Sensor (ft): *69.00*

Slide Drill	2	12-29	19:20	20:10	12-29	14641.00	14671.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *85*, Toolface Type: *gravity*
Rotary Drill	1	12-29	20:10	20:45	12-29	14671.00	14731.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Rig Service - In Hole	19	12-29	20:45	21:25	12-29			Rig Service
Survey	46	12-29	21:25	21:30	12-29	14731.00	14731.00	Inclination (°): *89.360*, Azimuth (°): *359.200*, TVD (ft): *11323.87*, Dogleg (º/100 ft): *1.14*, Sensor Depth (ft): *14662.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	21:30	21:35	12-29	14731.00	14737.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-29	21:35	22:25	12-29	14737.00	14767.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *100*, Toolface Type: *gravity*
Rotary Drill	1	12-29	22:25	22:45	12-29	14767.00	14820.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-29	22:45	22:50	12-29	14820.00	14820.00	Inclination (°): *91.030*, Azimuth (°): *0.950*, TVD (ft): *11323.56*, Dogleg (º/100 ft): *2.72*, Sensor Depth (ft): *14751.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-29	22:50	22:55	12-29	14820.00	14827.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-29	22:55	23:40	12-29	14827.00	14852.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *140*, Toolface Type: *gravity*
Rotary Drill	1	12-29	23:40	00:10	12-30	14852.00	14910.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Dec 30 00:00 - 23:59 (Day 12 of 17)

Billing: $9,500.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	14852.00	**Downhole Hours**	24.00
Bit Depth (ft)	16451.00	**Drilling Hours**	20.75
Bottom Hole Depth (ft)	16451.00	**Hours Circulating**	0.00
Total Distance (ft)	1599.00	**Hours Sliding**	10.33
Distance Rotated (ft)	1282.00	**Hours Rotating**	10.42
Distance Slid (ft)	317.00		
Inclination In	89.45		
Inclination Out	89.45		
Azimuth In	2.80	**% Hours Rotating**	50%
Azimuth Out	4.21	**% Hours Sliding**	50%
AVG Total ROP (ft/h)	77.33	**% Distance Sliding**	20%
AVG Rotating ROP (ft/h)	120.18	**% Distance Rotating**	80%
AVG Sliding ROP (ft/h)	30.68		

Drilling Parameters

Rotating WOB (klbs)	42.00 - 42.00
Sliding WOB (klbs)	60.00 - 60.00
Rotating SPM	156.00 - 156.00
Sliding SPM	176.00 - 176.00
Motor RPM	156.00 - 179.00
Surface RPM	40.00 - 60.00
Flow Rate (gpm)	600.00 - 680.00
On Bottom Pressure (psi)	3400.00 - 3750.00
Off Bottom Pressure (psi)	2700.00 - 3400.00

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Carlos Jensen	MWD Engineer
Advance Directional	Directional Driller

BHA #5 - BHA #5 (Lateral Assembly)

Date In: Dec 28, 2020, 1:00 Date Out: Dec 31, 2020, 18:45

Bit Details

OD (in)	8.500
Vendor	REED
S/N	A270381
Nozzles	6 x 16
Total Flow Area (in²)	1.178
Drilling Hours for Day	20.75
Total Drilled for Day (ft)	1599.00
Drilling Hours for BHA	52.92
Total Drilled for BHA (ft)	4726.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.250

Bit Distances

Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.30 ft, **Resistivity:** 56.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x16s , TFA: 1.178 Runs: 1

MWD Comments

POOH Reason

Penetration Rate: Pooh due to decrease in ROP.

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270381	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-033	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.23	37.23
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.73
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.10
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.80
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.32

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	12-29	23:40	00:10	12-30	14852.00	14910.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	00:10	00:15	12-30	14910.00	14910.00	Inclination (°): *89.450*, Azimuth (°): *2.800*, TVD (ft): *11323.19*, Dogleg (º/100 ft): *2.70*, Sensor Depth (ft): *14841.00*, Bit To Sensor (ft): *69.00*

Rotary Drill	1	12-30	00:15	00:25	12-30	14910.00	14946.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-30	00:25	01:00	12-30	14946.00	14966.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *160*, Toolface Type: *gravity*
Rotary Drill	1	12-30	01:00	01:25	12-30	14966.00	14999.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	01:25	01:30	12-30	14999.00	14999.00	Inclination (°): *89.230*, Azimuth (°): *2.360*, TVD (ft): *11324.21*, Dogleg (º/100 ft): *0.55*, Sensor Depth (ft): *14930.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	01:30	02:05	12-30	14999.00	15089.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	02:05	02:10	12-30	15089.00	15089.00	Inclination (°): *87.120*, Azimuth (°): *2.100*, TVD (ft): *11327.08*, Dogleg (º/100 ft): *2.36*, Sensor Depth (ft): *15020.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-30	02:10	02:50	12-30	15089.00	15109.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *10*, Toolface Type: *gravity*
Rotary Drill	1	12-30	02:50	03:20	12-30	15109.00	15179.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	03:20	03:25	12-30	15179.00	15179.00	Inclination (°): *87.340*, Azimuth (°): *0.780*, TVD (ft): *11331.43*, Dogleg (º/100 ft): *1.49*, Sensor Depth (ft): *15110.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	03:25	03:30	12-30	15179.00	15190.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-30	03:30	04:25	12-30	15190.00	15210.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *40*, Toolface Type: *gravity*
Rotary Drill	1	12-30	04:25	05:00	12-30	15210.00	15268.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	05:00	05:05	12-30	15268.00	15268.00	Inclination (°): *88.530*, Azimuth (°): *0.160*, TVD (ft): *11334.63*, Dogleg (º/100 ft): *1.51*, Sensor Depth (ft): *15199.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	05:05	05:55	12-30	15268.00	15358.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	05:55	06:00	12-30	15358.00	15358.00	Inclination (°): *87.600*, Azimuth (°): *0.870*, TVD (ft): *11337.67*, Dogleg (º/100 ft): *1.30*, Sensor Depth (ft): *15289.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-30	06:00	07:15	12-30	15358.00	15385.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *20*, Toolface Type: *gravity*
Rotary Drill	1	12-30	07:15	08:10	12-30	15385.00	15447.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *40*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	08:10	08:15	12-30	15447.00	15447.00	Inclination (°): *89.890*, Azimuth (°): *1.040*, TVD (ft): *11339.62*, Dogleg (º/100 ft): *2.58*, Sensor Depth (ft): *15378.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	08:15	08:50	12-30	15447.00	15537.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	08:50	08:55	12-30	15537.00	15537.00	Inclination (°): *91.870*, Azimuth (°): *0.870*, TVD (ft): *11338.24*, Dogleg (º/100 ft): *2.21*, Sensor Depth (ft): *15468.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	08:55	09:25	12-30	15537.00	15626.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	09:25	09:30	12-30	15626.00	15626.00	Inclination (°): *91.080*, Azimuth (°): *0.430*, TVD (ft): *11335.95*, Dogleg (º/100 ft): *1.02*, Sensor Depth (ft): *15557.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	09:30	09:50	12-30	15626.00	15715.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	09:50	09:55	12-30	15715.00	15715.00	Inclination (°): *90.900*, Azimuth (°): *359.020*, TVD (ft): *11334.41*, Dogleg (º/100 ft): *1.60*, Sensor Depth (ft): *15646.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	09:55	10:20	12-30	15715.00	15805.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	10:20	10:25	12-30	15805.00	15805.00	Inclination (°): *89.140*, Azimuth (°): *355.940*, TVD (ft): *11334.38*, Dogleg (º/100 ft): *3.94*, Sensor Depth (ft): *15736.00*, Bit To Sensor (ft): *69.00*

Rotary Drill	1	12-30	10:25	10:40	12-30	15805.00	15810.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-30	10:40	11:30	12-30	15810.00	15850.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *90*, Toolface Type: *gravity*
Rotary Drill	1	12-30	11:30	11:50	12-30	15850.00	15894.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Rig Service - In Hole	19	12-30	11:50	12:55	12-30			C/O Rot Head
Survey	46	12-30	12:55	13:00	12-30	15894.00	15894.00	Inclination (°): *89.800*, Azimuth (°): *356.740*, TVD (ft): *11335.20*, Dogleg (º/100 ft): *1.17*, Sensor Depth (ft): *15825.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	13:00	13:05	12-30	15894.00	15905.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-30	13:05	13:45	12-30	15905.00	15928.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *120*, Toolface Type: *gravity*
Rotary Drill	1	12-30	13:45	14:15	12-30	15928.00	15984.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	14:15	14:20	12-30	15984.00	15984.00	Inclination (°): *90.020*, Azimuth (°): *357.530*, TVD (ft): *11335.34*, Dogleg (º/100 ft): *0.91*, Sensor Depth (ft): *15915.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	14:20	14:25	12-30	15984.00	15985.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-30	14:25	15:15	12-30	15985.00	16020.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *135*, Toolface Type: *gravity*
Rotary Drill	1	12-30	15:15	15:40	12-30	16020.00	16073.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Rig Service - In Hole	19	12-30	15:40	16:20	12-30			
Survey	46	12-30	16:20	16:25	12-30	16073.00	16073.00	Inclination (°): *89.010*, Azimuth (°): *357.880*, TVD (ft): *11336.10*, Dogleg (º/100 ft): *1.20*, Sensor Depth (ft): *16004.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-30	16:25	16:40	12-30	16073.00	16107.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-30	16:40	17:25	12-30	16107.00	16137.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *160*, Toolface Type: *gravity*
Rotary Drill	1	12-30	17:25	17:40	12-30	16137.00	16163.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	17:40	17:45	12-30	16163.00	16163.00	Inclination (°): *91.780*, Azimuth (°): *358.760*, TVD (ft): *11335.48*, Dogleg (º/100 ft): *3.23*, Sensor Depth (ft): *16094.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-30	17:45	18:50	12-30	16163.00	16190.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *140*, Toolface Type: *gravity*
Rotary Drill	1	12-30	18:50	19:25	12-30	16190.00	16252.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	19:25	19:30	12-30	16252.00	16252.00	Inclination (°): *89.760*, Azimuth (°): *1.130*, TVD (ft): *11334.28*, Dogleg (º/100 ft): *3.50*, Sensor Depth (ft): *16183.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-30	19:30	20:05	12-30	16252.00	16267.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *160*, Toolface Type: *gravity*
Rotary Drill	1	12-30	20:05	20:40	12-30	16267.00	16342.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	20:40	20:45	12-30	16342.00	16342.00	Inclination (°): *89.580*, Azimuth (°): *2.180*, TVD (ft): *11334.80*, Dogleg (º/100 ft): *1.18*, Sensor Depth (ft): *16273.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-30	20:45	21:55	12-30	16342.00	16382.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *180*, Toolface Type: *gravity*
Rotary Drill	1	12-30	21:55	22:35	12-30	16382.00	16431.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-30	22:35	22:40	12-30	16431.00	16431.00	Inclination (°): *89.450*, Azimuth (°): *4.210*, TVD (ft): *11335.55*, Dogleg (º/100 ft): *2.29*, Sensor Depth (ft): *16362.00*, Bit To Sensor (ft): *69.00*

Slide Drill	2	12-30	22:40	23:40	12-30	16431.00	16451.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *230*, Toolface Type: *gravity*
Rotary Drill	1	12-30	23:40	00:30	12-31	16451.00	16521.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Dec 31 00:00 - 23:59 (Day 13 of 17)

Billing: $23,545.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	16451.00	**Downhole Hours**	24.00
Bit Depth (ft)	16669.00	**Drilling Hours**	4.00
Bottom Hole Depth (ft)	16669.00	**Hours Circulating**	1.75
Total Distance (ft)	218.00	**Hours Sliding**	1.33
Distance Rotated (ft)	185.00	**Hours Rotating**	2.67
Distance Slid (ft)	33.00		
Inclination In	86.64		
Inclination Out	86.77		
Azimuth In	3.15	**% Hours Rotating**	67%
Azimuth Out	2.80	**% Hours Sliding**	33%
AVG Total ROP (ft/h)	54.50	**% Distance Sliding**	15%
AVG Rotating ROP (ft/h)	69.37	**% Distance Rotating**	85%
AVG Sliding ROP (ft/h)	24.75		

Drilling Parameters

Rotating WOB (klbs)	42.00 - 42.00
Sliding WOB (klbs)	60.00 - 60.00
Rotating SPM	156.00 - 156.00
Sliding SPM	176.00 - 176.00
Motor RPM	156.00 - 179.00
Surface RPM	60.00 - 60.00
Flow Rate (gpm)	600.00 - 680.00
On Bottom Pressure (psi)	3400.00 - 3750.00
Off Bottom Pressure (psi)	2700.00 - 3400.00

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Carlos Jensen	MWD Engineer
Advance Directional	Directional Driller

BHA #5 - BHA #5 (Lateral Assembly)

Date In: Dec 28, 2020, 1:00 Date Out: Dec 31, 2020, 18:45

Bit Details

OD (in)	8.500
Vendor	REED
S/N	A270381
Nozzles	6 x 16
Total Flow Area (in²)	1.178
Drilling Hours for Day	4.00
Total Drilled for Day (ft)	218.00
Drilling Hours for BHA	52.92
Total Drilled for BHA (ft)	4726.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.250

Bit Distances

Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.30 ft, **Resistivity:** 56.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: NOV TKC66, Jets: 6x16s , TFA: 1.178 Runs: 1

MWD Comments

POOH Reason

Penetration Rate: Pooh due to decrease in ROP.

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270381	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-033	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.23	37.23
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.73
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.10
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.80
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.32

MWD Items

No Items

BHA #6 - 8.50" LATERAL

Date In: Dec 31, 2020, 18:45 Date Out: Jan 3, 2021, 0:00

Bit Details

OD (in)	8.500
Vendor	BAKER
S/N	5308084
Nozzles	6 x 15
Total Flow Area (in²)	1.035
Drilling Hours for Day	0.00
Total Drilled for Day (ft)	
Drilling Hours for BHA	26.17
Total Drilled for BHA (ft)	1549.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.250

Bit Distances

Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.34 ft, **Resistivity:** 56.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: Baker 506TWX, Jets: 6x15s , TFA: 1.035 Runs: 3

MWD Comments

POOH Reason

Total Depth/Casing Point: Pooh to Run Production casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	BAKER	5308084	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-038	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.25	37.25
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.75
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.12
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.82
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.34

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	12-30	23:40	00:30	12-31	16451.00	16521.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-31	00:30	00:35	12-31	16521.00	16521.00	Inclination (°): *86.640*, Azimuth (°): *3.150*, TVD (ft): *11338.62*, Dogleg (º/100 ft): *3.34*, Sensor Depth (ft): *16452.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-31	00:35	01:50	12-31	16521.00	16610.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-31	01:50	01:55	12-31	16610.00	16610.00	Inclination (°): *86.770*, Azimuth (°): *2.800*, TVD (ft): *11343.74*, Dogleg (º/100 ft): *0.42*, Sensor Depth (ft): *16541.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-31	01:55	02:10	12-31	16610.00	16626.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	12-31	02:10	02:35	12-31	16626.00	16637.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *340*, Toolface Type: *gravity*
Rig Repair	14	12-31	02:35	04:40	12-31			Work on Pump #1
Slide Drill	2	12-31	04:40	05:35	12-31	16637.00	16659.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	12-31	05:35	05:55	12-31	16659.00	16669.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Circulating	3	12-31	05:55	07:30	12-31			Circulate to POOH for new bit and motor
Pooh	7	12-31	07:30	18:00	12-31			POOH due to decrease in ROP
Lay Down BHA	65	12-31	18:00	18:45	12-31			L/D Motor & Bit
Pick Up BHA	64	12-31	18:45	20:00	12-31			P/U New Motor, Bit, Scribe and Program Res Tool
Circulating	3	12-31	20:00	20:10	12-31			Test MWD Tool
TIH	8	12-31	20:10	05:00	01-01			TIH W/ BHA #6

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Jan 01 00:00 - 23:59 (Day 14 of 17)

Billing: $9,500.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	16669.00	**Downhole Hours**	24.00	**Rotating WOB (klbs)**	42.00 - 42.00
Bit Depth (ft)	17596.00	**Drilling Hours**	15.42	**Sliding WOB (klbs)**	60.00 - 60.00
Bottom Hole Depth (ft)	17596.00	**Hours Circulating**	1.67	**Rotating SPM**	156.00 - 156.00
Total Distance (ft)	927.00	**Hours Sliding**	6.58	**Sliding SPM**	176.00 - 176.00
Distance Rotated (ft)	812.00	**Hours Rotating**	8.83	**Motor RPM**	156.00 - 177.00
Distance Slid (ft)	115.00			**Surface RPM**	60.00 - 60.00
Inclination In	85.80			**Flow Rate (gpm)**	600.00 - 680.00
Inclination Out	86.99			**On Bottom Pressure (psi)**	3400.00 - 3750.00
Azimuth In	1.83	**% Hours Rotating**	57%	**Off Bottom Pressure (psi)**	2700.00 - 3400.00
Azimuth Out	358.49	**% Hours Sliding**	43%		
AVG Total ROP (ft/h)	56.28	**% Distance Sliding**	12%		
AVG Rotating ROP (ft/h)	91.92	**% Distance Rotating**	88%		
AVG Sliding ROP (ft/h)	17.32				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Advance Directional	Directional Driller

BHA #6 - 8.50" LATERAL

Date In: Dec 31, 2020, 18:45 Date Out: Jan 3, 2021, 0:00

Bit Details

OD (in)	8.500
Vendor	BAKER
S/N	5308084
Nozzles	6 x 15
Total Flow Area (in²)	1.035
Drilling Hours for Day	15.42
Total Drilled for Day (ft)	927.00
Drilling Hours for BHA	26.17
Total Drilled for BHA (ft)	1549.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.250

Bit Distances

Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.34 ft, **Resistivity:** 56.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: Baker 506TWX, Jets: 6x15s , TFA: 1.035 Runs: 3

MWD Comments

POOH Reason

Total Depth/Casing Point: Pooh to Run Production casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	BAKER	5308084	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-038	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.25	37.25
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.75
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.12
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.82
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.34

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
TIH	8	12-31	20:10	05:00	01-01			TIH W/ BHA #6
Circulating	3	01-01	05:00	06:40	01-01			Fill Pipe, Down link MWD tool & Re-log Gamma and Resistivity F/16,610' - T/16,669'
Rotary Drill	1	01-01	06:40	07:10	01-01	16669.00	16700.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*

Survey	46	01-01	07:10	07:15	01-01	16700.00	16700.00	Inclination (°): *85.800*, Azimuth (°): *1.830*, TVD (ft): *11349.57*, Dogleg (º/100 ft): *1.52*, Sensor Depth (ft): *16631.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	07:15	07:25	01-01	16700.00	16710.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-01	07:25	08:20	01-01	16710.00	16735.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *20*, Toolface Type: *gravity*
Rotary Drill	1	01-01	08:20	08:55	01-01	16735.00	16775.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Rig Repair	14	01-01	08:55	09:35	01-01			Rig Power Outage
Rotary Drill	1	01-01	09:35	09:45	01-01	16775.00	16789.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-01	09:45	09:50	01-01	16789.00	16789.00	Inclination (°): *89.360*, Azimuth (°): *0.690*, TVD (ft): *11353.33*, Dogleg (º/100 ft): *4.20*, Sensor Depth (ft): *16720.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	09:50	10:30	01-01	16789.00	16879.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-01	10:30	10:35	01-01	16879.00	16879.00	Inclination (°): *90.460*, Azimuth (°): *1.310*, TVD (ft): *11353.47*, Dogleg (º/100 ft): *1.40*, Sensor Depth (ft): *16810.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	10:35	11:10	01-01	16879.00	16969.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-01	11:10	11:15	01-01	16969.00	16969.00	Inclination (°): *90.770*, Azimuth (°): *1.310*, TVD (ft): *11352.50*, Dogleg (º/100 ft): *0.34*, Sensor Depth (ft): *16900.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	11:15	11:20	01-01	16969.00	16970.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-01	11:20	12:40	01-01	16970.00	16990.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *240*, Toolface Type: *gravity*
Rotary Drill	1	01-01	12:40	13:20	01-01	16990.00	17058.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-01	13:20	13:25	01-01	17058.00	17058.00	Inclination (°): *91.520*, Azimuth (°): *359.280*, TVD (ft): *11350.72*, Dogleg (º/100 ft): *2.43*, Sensor Depth (ft): *16989.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	13:25	14:00	01-01	17058.00	17122.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-01	14:00	15:20	01-01	17122.00	17142.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *200*, Toolface Type: *gravity*
Rotary Drill	1	01-01	15:20	15:35	01-01	17142.00	17148.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Rig Service - In Hole	19	01-01	15:35	15:40	01-01			
Survey	46	01-01	15:40	15:45	01-01	17148.00	17148.00	Inclination (°): *93.320*, Azimuth (°): *359.640*, TVD (ft): *11346.92*, Dogleg (º/100 ft): *2.04*, Sensor Depth (ft): *17079.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	15:45	15:50	01-01	17148.00	17155.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-01	15:50	17:15	01-01	17155.00	17175.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *200*, Toolface Type: *gravity*
Rotary Drill	1	01-01	17:15	18:00	01-01	17175.00	17238.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-01	18:00	18:05	01-01	17238.00	17238.00	Inclination (°): *90.680*, Azimuth (°): *359.110*, TVD (ft): *11343.78*, Dogleg (º/100 ft): *2.99*, Sensor Depth (ft): *17169.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	18:05	18:25	01-01	17238.00	17260.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-01	18:25	19:25	01-01	17260.00	17275.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *200*, Toolface Type: *gravity*

Rotary Drill	1	01-01	19:25	20:05	01-01	17275.00	17327.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-01	20:05	20:10	01-01	17327.00	17327.00	Inclination (°): *89.540*, Azimuth (°): *359.110*, TVD (ft): *11343.61*, Dogleg (º/100 ft): *1.28*, Sensor Depth (ft): *17258.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	20:10	21:00	01-01	17327.00	17417.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-01	21:00	21:05	01-01	17417.00	17417.00	Inclination (°): *88.000*, Azimuth (°): *359.640*, TVD (ft): *11345.54*, Dogleg (º/100 ft): *1.81*, Sensor Depth (ft): *17348.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	21:05	21:15	01-01	17417.00	17425.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-01	21:15	21:50	01-01	17425.00	17440.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *290*, Toolface Type: *gravity*
Rotary Drill	1	01-01	21:50	22:35	01-01	17440.00	17506.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-01	22:35	22:40	01-01	17506.00	17506.00	Inclination (°): *88.220*, Azimuth (°): *358.490*, TVD (ft): *11348.48*, Dogleg (º/100 ft): *1.31*, Sensor Depth (ft): *17437.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-01	22:40	23:40	01-01	17506.00	17596.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-01	23:40	23:45	01-01	17596.00	17596.00	Inclination (°): *86.990*, Azimuth (°): *358.490*, TVD (ft): *11352.24*, Dogleg (º/100 ft): *1.37*, Sensor Depth (ft): *17527.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	01-01	23:45	01:15	01-02	17596.00	17621.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *350*, Toolface Type: *gravity*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Jan 02 00:00 - 23:59 (Day 15 of 17)

Billing: $9,500.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)	17596.00	**Downhole Hours**	24.00	**Rotating WOB (klbs)**	42.00 - 42.00
Bit Depth (ft)	18218.00	**Drilling Hours**	10.75	**Sliding WOB (klbs)**	60.00 - 60.00
Bottom Hole Depth (ft)	18218.00	**Hours Circulating**	3.92	**Rotating SPM**	156.00 - 156.00
Total Distance (ft)	622.00	**Hours Sliding**	4.92	**Sliding SPM**	176.00 - 176.00
Distance Rotated (ft)	520.00	**Hours Rotating**	5.83	**Motor RPM**	156.00 - 177.00
Distance Slid (ft)	102.00			**Surface RPM**	60.00 - 60.00
Inclination In	88.88			**Flow Rate (gpm)**	600.00 - 680.00
Inclination Out	92.04			**On Bottom Pressure (psi)**	3400.00 - 3750.00
Azimuth In	358.67	**% Hours Rotating**	54%	**Off Bottom Pressure (psi)**	2700.00 - 3400.00
Azimuth Out	358.05	**% Hours Sliding**	46%		
AVG Total ROP (ft/h)	57.86	**% Distance Sliding**	16%		
AVG Rotating ROP (ft/h)	89.14	**% Distance Rotating**	84%		
AVG Sliding ROP (ft/h)	20.75				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Advance Directional	Directional Driller

BHA #6 - 8.50" LATERAL

Date In: Dec 31, 2020, 18:45 Date Out: Jan 3, 2021, 0:00

Bit Details

OD (in)	8.500
Vendor	BAKER
S/N	5308084
Nozzles	6 x 15
Total Flow Area (in²)	1.035
Drilling Hours for Day	10.75
Total Drilled for Day (ft)	622.00
Drilling Hours for BHA	26.17
Total Drilled for BHA (ft)	1549.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.250

Bit Distances

Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.34 ft, **Resistivity:** 56.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: Baker 506TWX, Jets: 6x15s , TFA: 1.035 Runs: 3

MWD Comments

POOH Reason

Total Depth/Casing Point: Pooh to Run Production casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	BAKER	5308084	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-038	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.25	37.25
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.75
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.12
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.82
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.34

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Slide Drill	2	01-01	23:45	01:15	01-02	17596.00	17621.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *350*, Toolface Type: *gravity*
Rotary Drill	1	01-02	01:15	02:00	01-02	17621.00	17685.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-02	02:00	02:05	01-02	17685.00	17685.00	Inclination (°): *88.880*, Azimuth (°): *358.670*, TVD (ft): *11355.45*, Dogleg (º/100 ft): *2.13*, Sensor Depth (ft): *17616.00*, Bit To Sensor (ft): *69.00*

Rotary Drill	1	01-02	02:05	02:15	01-02	17685.00	17695.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-02	02:15	03:00	01-02	17695.00	17712.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *350*, Toolface Type: *gravity*
Rotary Drill	1	01-02	03:00	03:40	01-02	17712.00	17775.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-02	03:40	03:45	01-02	17775.00	17775.00	Inclination (°): *89.630*, Azimuth (°): *358.230*, TVD (ft): *11356.62*, Dogleg (º/100 ft): *0.97*, Sensor Depth (ft): *17706.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-02	03:45	03:50	01-02	17775.00	17784.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-02	03:50	04:45	01-02	17784.00	17804.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *350*, Toolface Type: *gravity*
Rotary Drill	1	01-02	04:45	05:25	01-02	17804.00	17865.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-02	05:25	05:30	01-02	17865.00	17865.00	Inclination (°): *89.930*, Azimuth (°): *356.650*, TVD (ft): *11356.96*, Dogleg (º/100 ft): *1.79*, Sensor Depth (ft): *17796.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	01-02	05:30	06:15	01-02	17865.00	17877.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *340*, Toolface Type: *gravity*
Rotary Drill	1	01-02	06:15	07:10	01-02	17877.00	17954.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-02	07:10	07:15	01-02	17954.00	17954.00	Inclination (°): *92.310*, Azimuth (°): *357.700*, TVD (ft): *11355.22*, Dogleg (º/100 ft): *2.92*, Sensor Depth (ft): *17885.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-02	07:15	08:10	01-02	17954.00	18044.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-02	08:10	08:15	01-02	18044.00	18044.00	Inclination (°): *92.790*, Azimuth (°): *357.610*, TVD (ft): *11351.22*, Dogleg (º/100 ft): *0.54*, Sensor Depth (ft): *17975.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-02	08:15	08:20	01-02	18044.00	18050.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-02	08:20	09:20	01-02	18050.00	18078.00	Pressure On (psi): *3750.00*, Pressure Off (psi): *3400.00*, Weight On Bit (klbs): *60.00*, Flow Rate (gpm): *680.00*, Strokes Per Minute: *176*, Toolface: *180*, Toolface Type: *gravity*
Rotary Drill	1	01-02	09:20	10:05	01-02	18078.00	18133.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-02	10:05	10:10	01-02	18133.00	18133.00	Inclination (°): *92.130*, Azimuth (°): *358.050*, TVD (ft): *11347.40*, Dogleg (º/100 ft): *0.89*, Sensor Depth (ft): *18064.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	01-02	10:10	11:00	01-02	18133.00	18218.00	Pressure On (psi): *3400.00*, Pressure Off (psi): *2700.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-02	11:00	11:05	01-02	18218.00	18218.00	Inclination (°): *92.040*, Azimuth (°): *358.050*, TVD (ft): *11344.31*, Dogleg (º/100 ft): *0.11*, Sensor Depth (ft): *18149.00*, Bit To Sensor (ft): *69.00*
Circulating	3	01-02	11:05	15:00	01-02			Circulate hole clean after TD
Pooh	7	01-02	15:00	23:00	01-02			POOH to run Production Casing
Lay Down BHA	65	01-02	23:00	00:00	01-03			L/D BHA #6

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Jan 03 00:00 - 23:59 (Day 16 of 17)

Billing: $3,700.00 ($162,365.50 total)

Drilling Summary

Start Depth (ft)		**Downhole Hours**	0.00
Bit Depth (ft)		**Drilling Hours**	0.00
Bottom Hole Depth (ft)		**Hours Circulating**	0.00
Total Distance (ft)	0.00	**Hours Sliding**	0.00
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00
Distance Slid (ft)	0.00		
Inclination In			
Inclination Out			
Azimuth In		**% Hours Rotating**	
Azimuth Out		**% Hours Sliding**	
AVG Total ROP (ft/h)	0.00	**% Distance Sliding**	
AVG Rotating ROP (ft/h)	0.00	**% Distance Rotating**	
AVG Sliding ROP (ft/h)	0.00		

Drilling Parameters

Rotating WOB (klbs)	
Sliding WOB (klbs)	
Rotating SPM	
Sliding SPM	
Motor RPM	156.00 - 177.00
Surface RPM	
Flow Rate (gpm)	
On Bottom Pressure (psi)	
Off Bottom Pressure (psi)	

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Advance Directional	Directional Driller

BHA #6 - 8.50" LATERAL

Date In: Dec 31, 2020, 18:45 Date Out: Jan 3, 2021, 0:00

Bit Details

OD (in)	8.500
Vendor	BAKER
S/N	5308084
Nozzles	6 x 15
Total Flow Area (in²)	1.035
Drilling Hours for Day	
Total Drilled for Day (ft)	
Drilling Hours for BHA	26.17
Total Drilled for BHA (ft)	1549.00

Motor Details

Size (in)	7.0
Lobe/Stage	7/8, 8.5
Bend Angle	1.75
Speed (rev/gal)	0.26
Wear Pad OD (in)	7.250

Bit Distances

Survey: 69.00 ft, **Gamma:** 46.00 ft, **Bend:** 5.34 ft, **Resistivity:** 56.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr. Slick.; Flow Range: 500-700 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit: Baker 506TWX, Jets: 6x15s , TFA: 1.035 Runs: 3

MWD Comments

POOH Reason

Total Depth/Casing Point: Pooh to Run Production casing

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *DD506TWX*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	BAKER	5308084	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *1.75° FBH 7/8 8.5 Stg. Mtr Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-038	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.25	37.25
MWD Hangoff Sub Description: *MWD / RESISTIVITY*, Type: *NM*	BENCHTREE	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		31.50	68.75
Drill Collar Description: *BATTERY*, Style: *Slick Drill*, Type: *NM*	BENCHTREE	B6006X	4 1/2" IF Box	4 1/2" IF Pin	3.000	6.500		17.37	86.12
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-193	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.850		29.70	115.82
Crossover Sub Description: *X/O ED54-Box - 4 1/2 IF-Pin*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	119.34

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Lay Down BHA	65	01-02	23:00	00:00	01-03			L/D BHA #6
Standby	15	01-03	00:00	00:00	01-04			Standby while running production casing & Cementing

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-072	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-26	Anderson Fed Com 558H		Anderson Fed Com 558H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Jan 04 00:00 - 23:59 (Day 17 of 17)

Billing: N/A ($162,365.50 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		**Downhole Hours**	0.00	**Rotating WOB (klbs)**	
Bit Depth (ft)		**Drilling Hours**		**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)		**Hours Circulating**		**Rotating SPM**	
Total Distance (ft)		**Hours Sliding**		**Sliding SPM**	
Distance Rotated (ft)		**Hours Rotating**		**Motor RPM**	-
Distance Slid (ft)				**Surface RPM**	
Inclination In				**Flow Rate (gpm)**	
Inclination Out				**On Bottom Pressure (psi)**	
Azimuth In		**% Hours Rotating**		**Off Bottom Pressure (psi)**	
Azimuth Out		**% Hours Sliding**			
AVG Total ROP (ft/h)	0.00	**% Distance Sliding**			
AVG Rotating ROP (ft/h)	0.00	**% Distance Rotating**			
AVG Sliding ROP (ft/h)	0.00				

Personnel

Name	Position
Robert Olivarez	MWD Engineer
Kyle Kusak	MWD Engineer
Advance Directional	Directional Driller

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	01-03	00:00	00:00	01-04			Standby while running production casing & Cementing

MWD Activities

No Activities

Surface Plat

Anderson Fed Com 558H (WT-20-072)

2020-11-26 to 2021-01-10
Lea, New Mexico, US (32.43, -103.64)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 4, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	ANDERSON FED COM	558H
OGRID No.	**Operator Name**	**Elevation**
	ADVANCE ENERGY PARTNERS, LLC	3657'

Surface Location

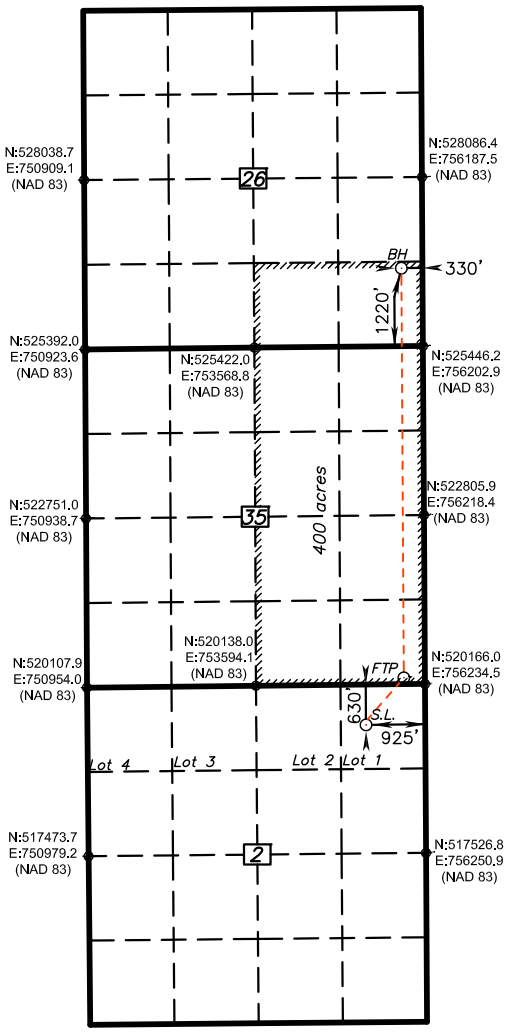
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 1	2	22 S	32 E		630	NORTH	925	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
P	26	21 S	32 E		1220	SOUTH	330	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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



PROPOSED BOTTOM HOLE LOCATION
Lat – N 32.445942°
Long – W 103.637900°
NMSPCE– N 526663.2
E 755865.8
(NAD-83)

FIRST TAKE POINT
100' FSL & 330' FEL
Lat – N 32.428348°
Long – W 103.637912°
NMSPCE– N 520262.5
E 755903.9
(NAD-83)

SURFACE LOCATION
Lat – N 32.426335°
Long – W 103.639840°
NMSPCE– N 529526.1
E 755313.7
(NAD-83)

OPERATOR CERTIFICATION

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

Signature Date

Printed Name

Email Address

SURVEYOR CERTIFICATION

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

Date Surveyed JULY 22, 2020

Signature & Seal of Professional Surveyor

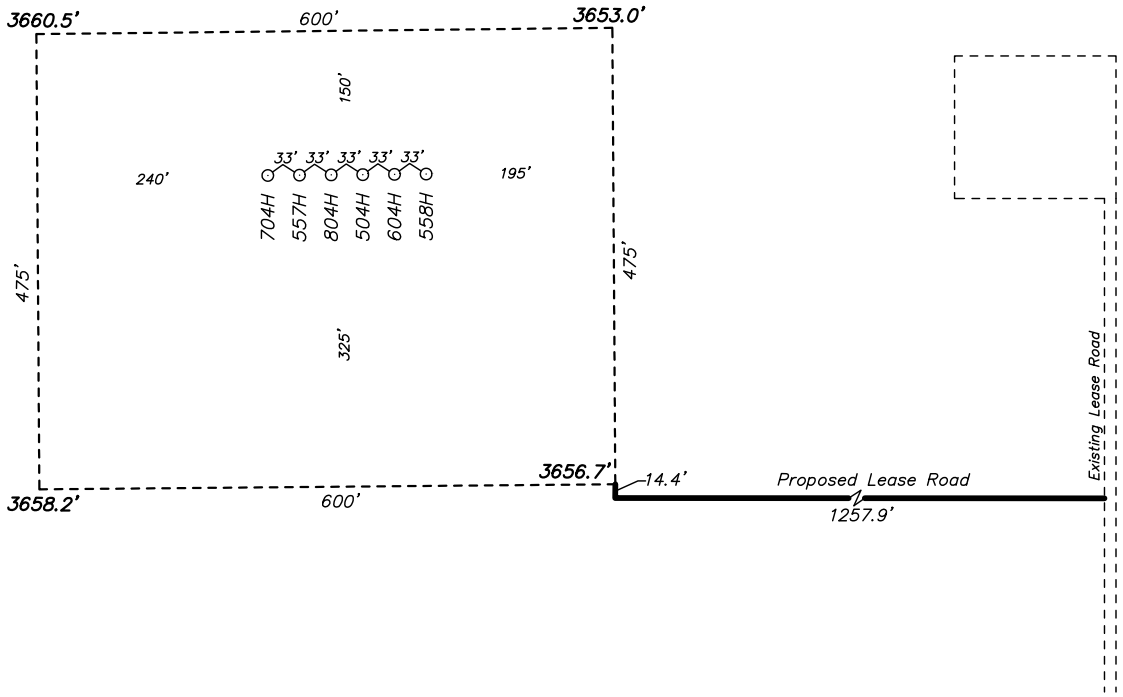
GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977
BASIN SURVEYS

0' 1500' 3000' 4500' 6000' N
SCALE: 1" = 3000'
WO Num.: 35112

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,

LEA COUNTY, NEW MEXICO.



N

ADVANCE ENERGY PARTNERS, LLC
ANDERSON FED COM 558H
ELEV. – 3657'

Lat – N 32.426335°
Long – W 103.639840°
NMSPCE– N 529526.1
E 755313.7
(NAD–83)

EUNICE, NM IS ±28 MILES TO THE EAST OF LOCATION.

200 0 200 400 FEET

SCALE: 1" = 200'

ADVANCE ENERGY PARTNERS, LLC

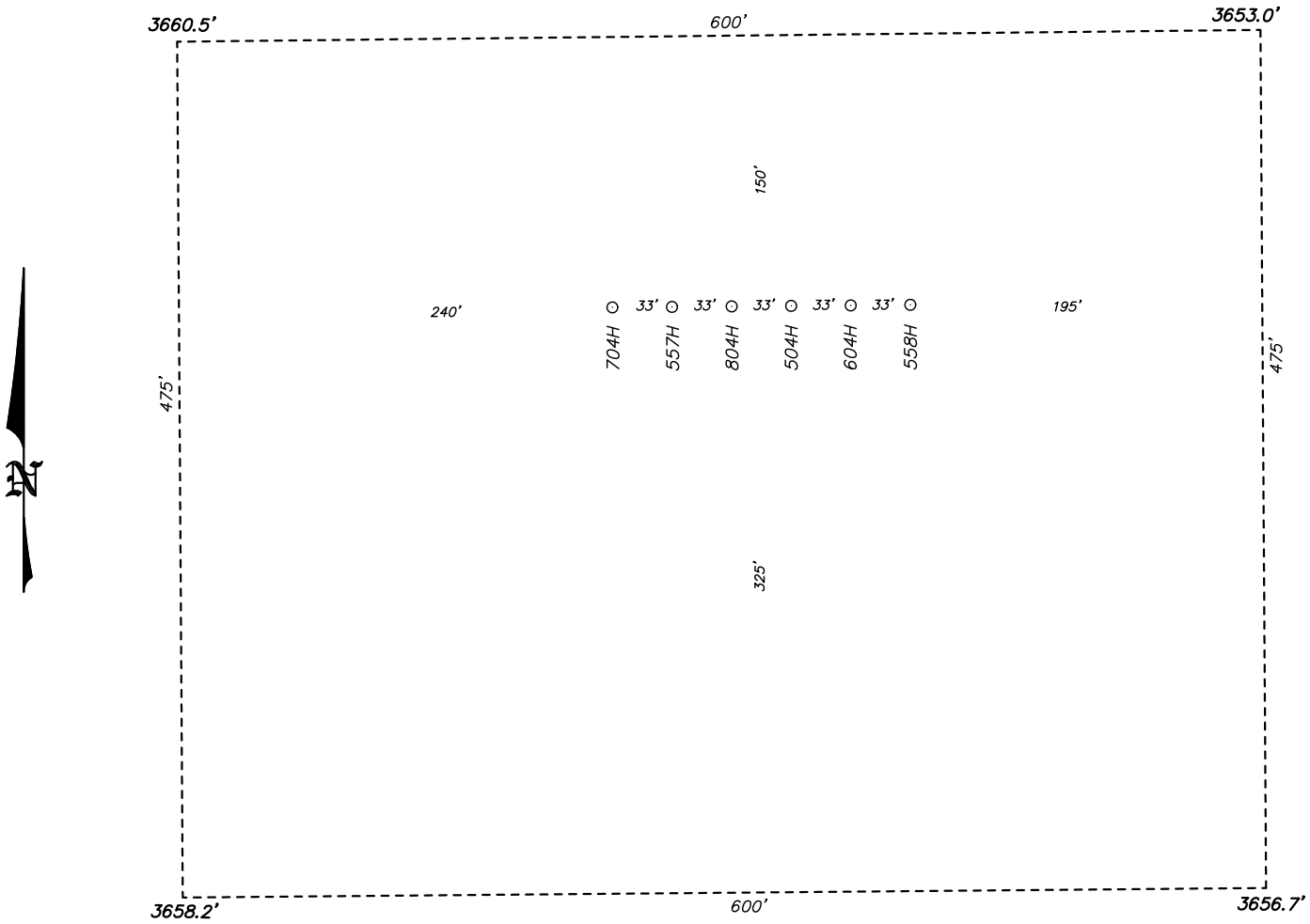
REF: ANDERSON FED COM 558H / WELL PAD TOPO

THE ANDERSON FED COM 558H LOCATED 630' FROM THE NORTH LINE AND 925' FROM THE EAST LINE OF SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393–7316 – Office
(575) 392–2206 – Fax
basinsurveys.com

W.O. Number: 35112	Drawn By: K. GOAD	Date: 07–23–2020	Survey Date: 07–22–2020	Sheet 1 of 1 Sheets

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS, LLC

REF: ANDERSON FED COM 558H / WELL PAD TOPO

THE ANDERSON FED COM 558H LOCATED 630' FROM THE NORTH LINE AND 925' FROM THE EAST LINE OF SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

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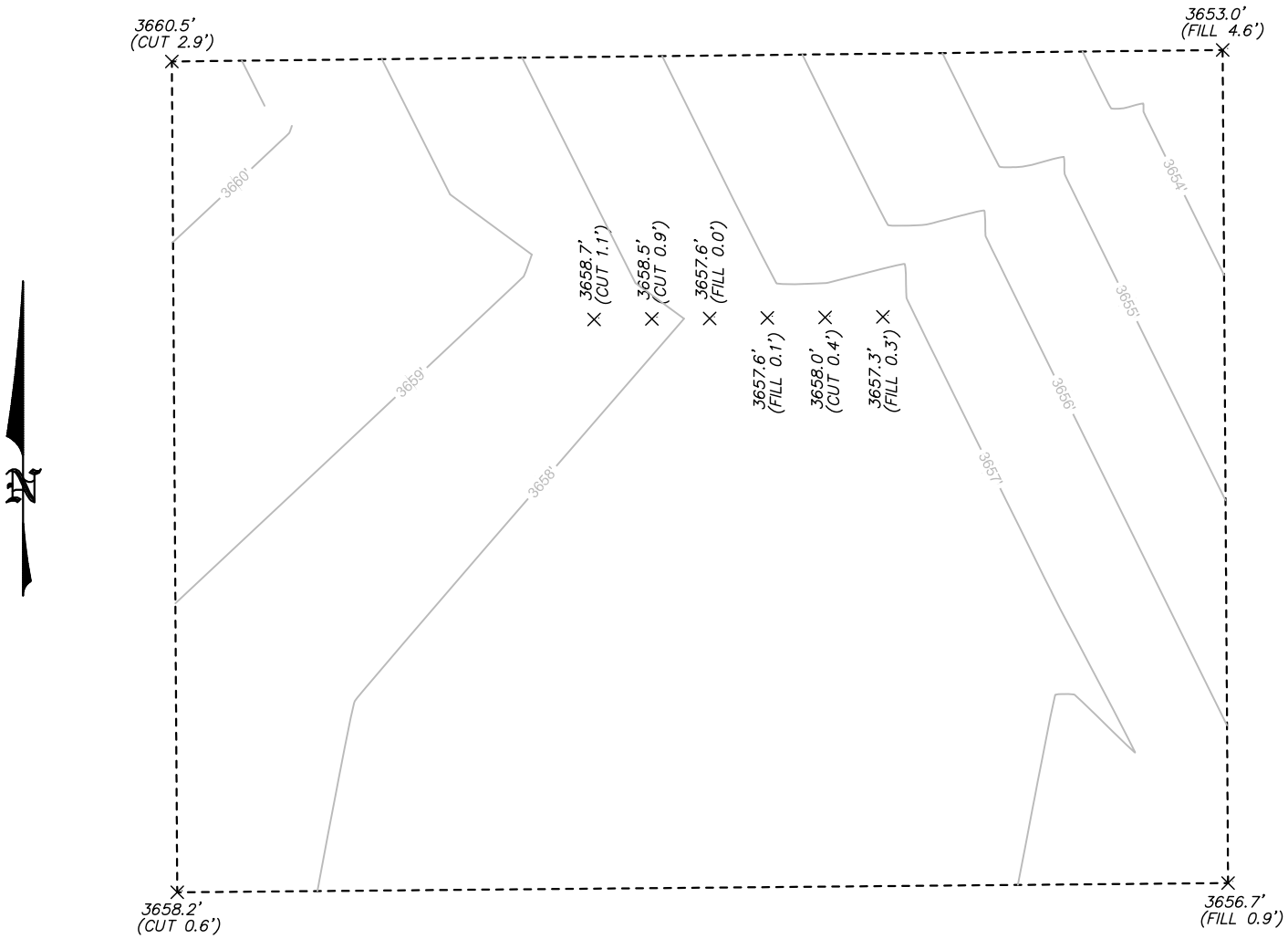
W.O. Number: 35112	Drawn By: K. GOAD	Date: 07-23-2020	Survey Date: 07-22-2020	Sheet 1 of 1 Sheets

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,

LEA COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS, LLC

REF: ANDERSON FED COM PAD A / CUT & FILL

THE ANDERSON FED COM PAD A LOCATED IN

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST.

N.M.P.M., LEA COUNTY, NEW MEXICO.

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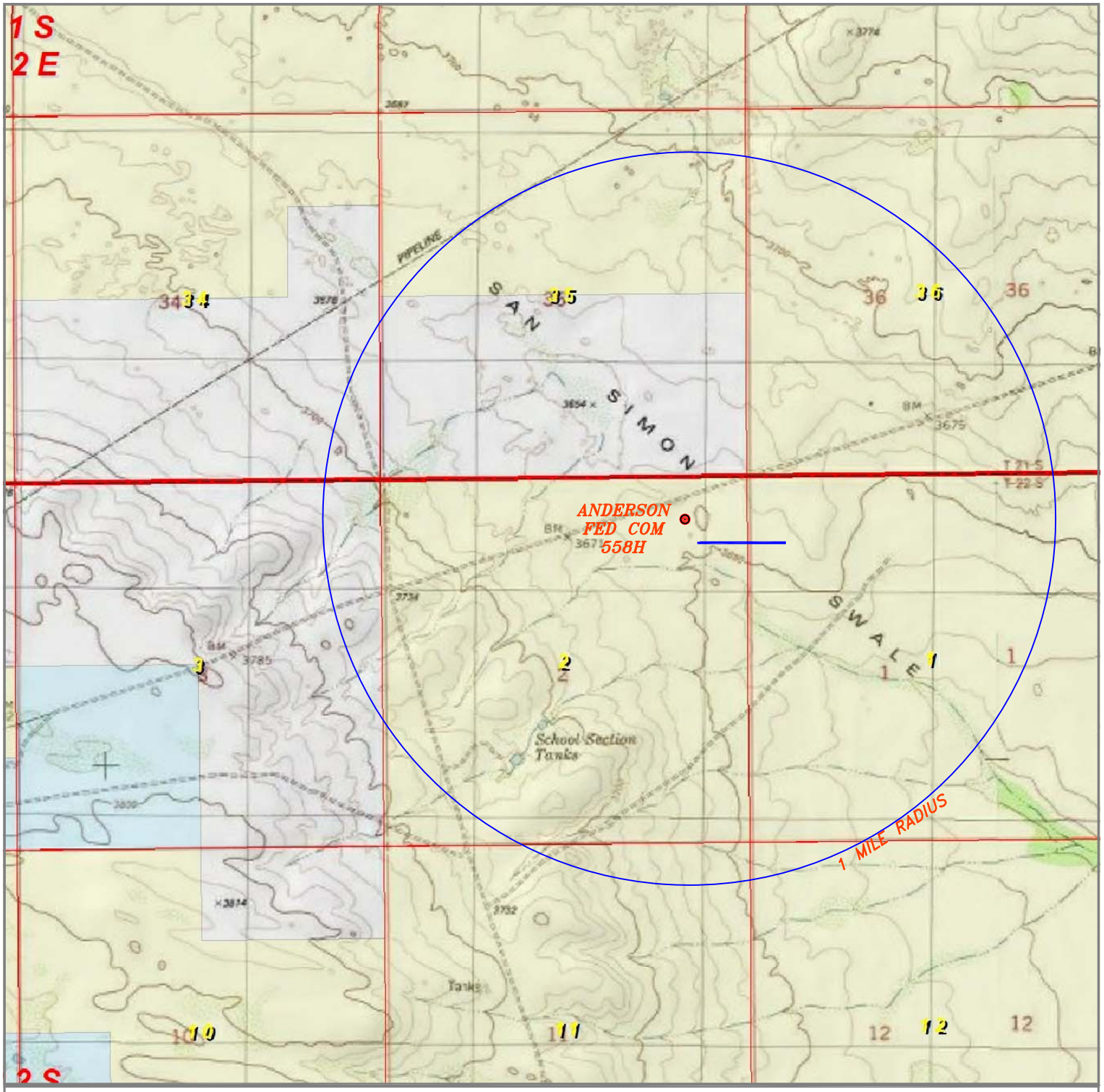
W.O. Number: 35112	Drawn By: K. GOAD	Date: 07-23-2020	Survey Date: 07-22-2020	Sheet 1 of 1 Sheets



ANDERSON FED COM 558H

Located 630' FNL and 925' FEL
Section 2, Township 22 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.

basin surveys
focused on excellence in the oilfield

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Hobbs, New Mexico 88241
(575) 393-7316 – Office
(575) 392-2206 – Fax
basinsurveys.com

0' 1000' 2000' 3000' 150'0'
SCALE: 1" = 2000'

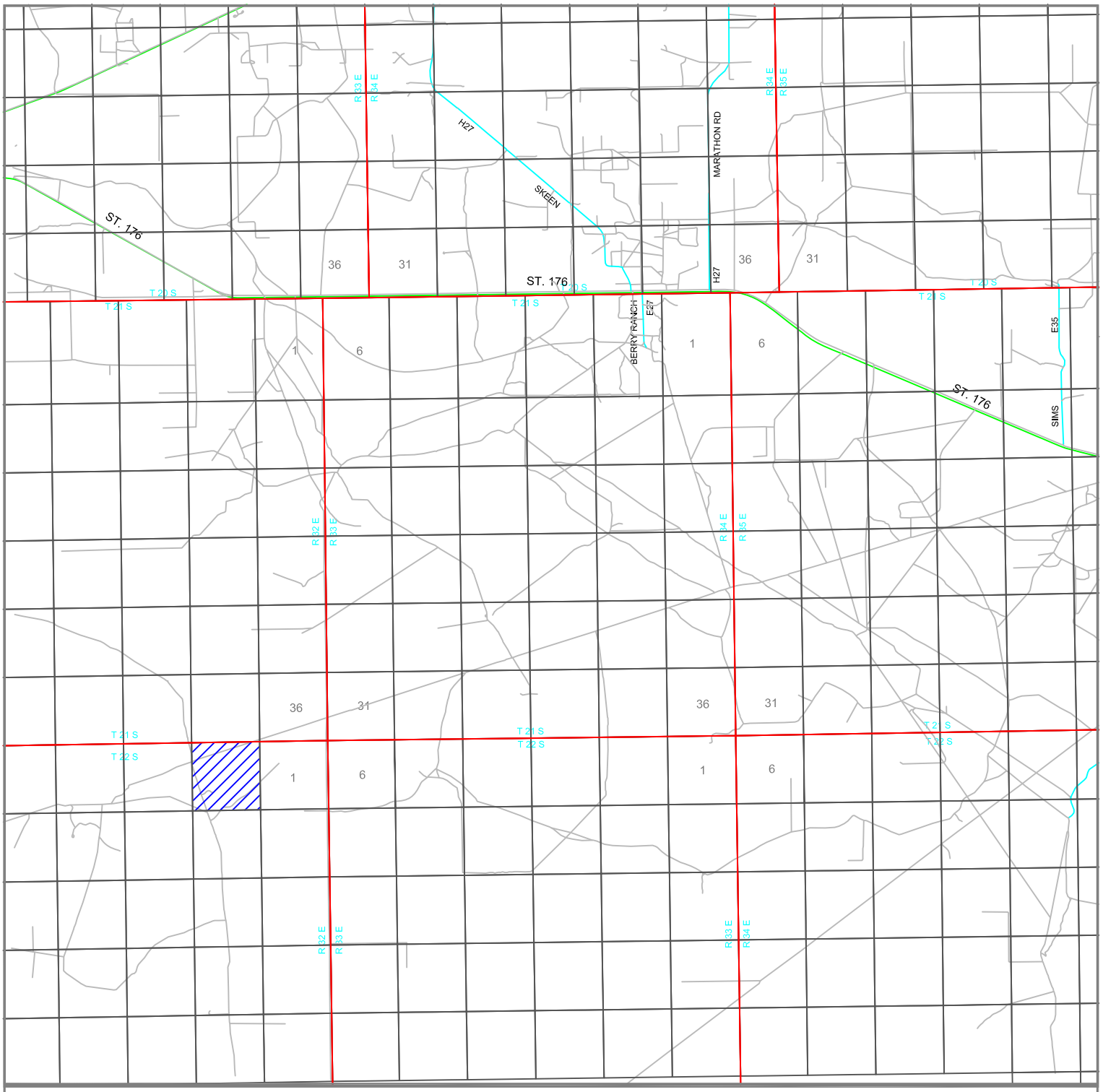
W.O. Number: KJG 35112

Survey Date: 07-22-2020

YELLOW TINT – USA LAND
BLUE TINT – STATE LAND
NATURAL COLOR – FEE LAND

N

ADVANCE ENERGY PARTNERS, LLC



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(575) 393-7316 – Office
(575) 392-2206 – Fax
basinsurveys.com

0 1 MI 2 MI 3 MI 4 MI
SCALE: 1" = 2 MILES

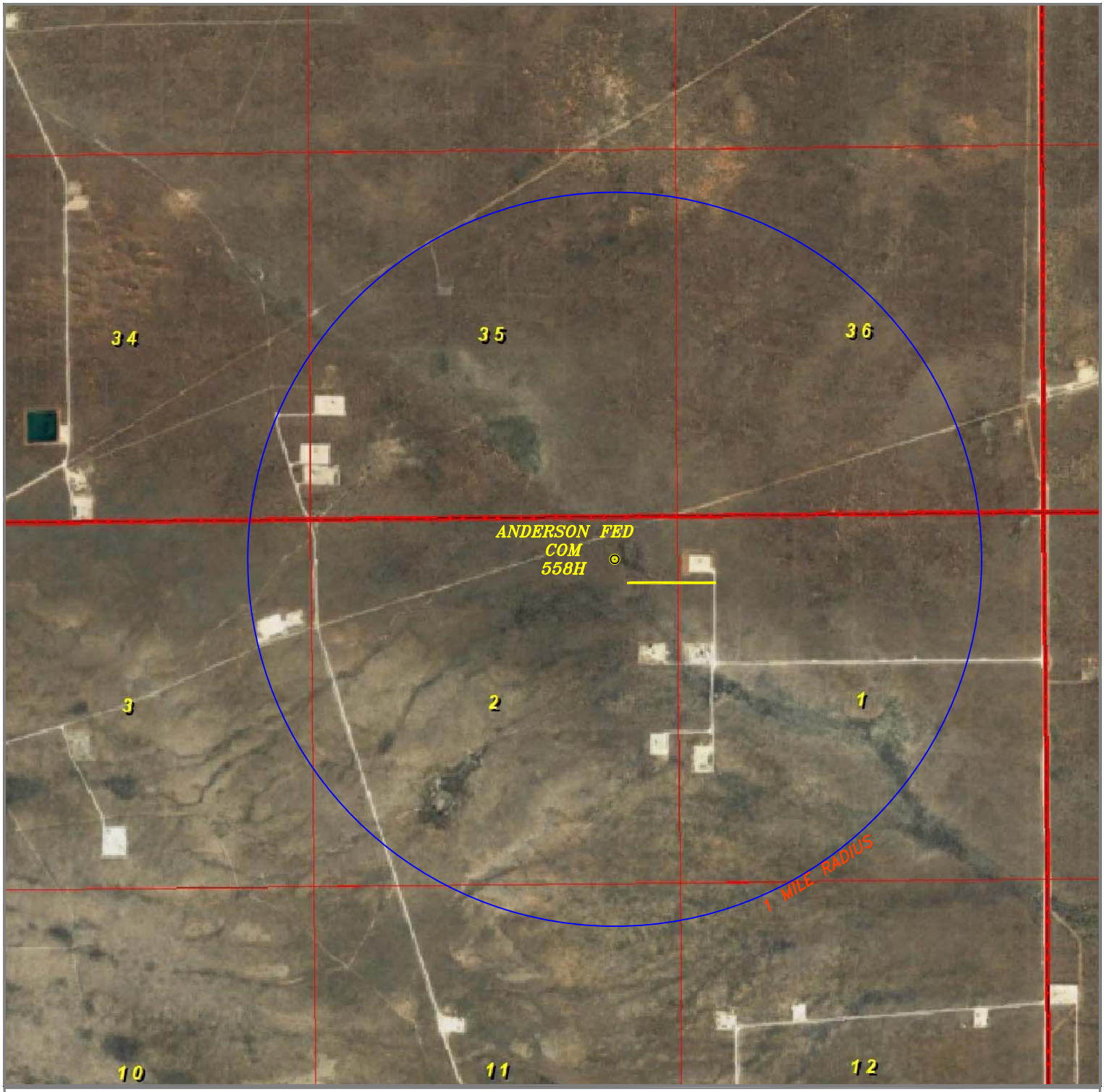
W.O. Number: KJG 35112

Survey Date: 07-22-2020

YELLOW TINT – USA LAND
BLUE TINT – STATE LAND
NATURAL COLOR – FEE LAND

N

ADVANCE ENERGY PARTNERS, LLC



ANDERSON FED COM 558H

Located 630' FNL and 925' FEL
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0' 1000' 2000' 3000' 150'0'
SCALE: 1" = 2000'

W.O. Number: KJG 35112

Survey Date: 07-22-2020

YELLOW TINT – USA LAND
BLUE TINT – STATE LAND
NATURAL COLOR – FEE LAND

N

ADVANCE ENERGY PARTNERS, LLC

Submit 1 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

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

Form C-103
Revised July 18, 2013

	WELL API NO. 30-025-48007
	5. Indicate Type of Lease STATE ☒ FEE ☐
	6. State Oil & Gas Lease No.
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.)	7. Lease Name or Unit Agreement Name Anderson Fed Com
1. Type of Well: Oil Well ☒ Gas Well ☐ Other	8. Well Number 558H
2. Name of Operator Advance Energy Partners Hat Mesa	9. OGRID Number 372417
3. Address of Operator 11490 Westheimer Rd, Houston, TX 77077	10. Pool name or Wildcat Red Tank; Bone Spring
4. Well Location Unit Letter Lot 1 : 630 feet from the North line and 925 feet from the EAST line Section 2 Township 22 S Range 32 E NMPM County LEA	
	11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3657'

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

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

- 1/27/21: Pressure test casing to 9800 psi for 30 minutes.
- 2/6-3/14/21: Perforate from 11,615' – 18,108' (1968). Frac with 16,240,069 lbs sand and 18,718,728 gal fluid.
- 3/19/21: Drill all plugs out and clean out to a PBTD of 18,117'.
- 3/24/21: Begin flowback operations
- 5/13/21: Run 2-7/8" production tubing to 10,487' and ESP to 10,719'

Spud Date: 12/6/20 Rig Release Date: 1/4/21

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

SIGNATURE: Eileen Kosakowski TITLE: Sr. Eng. Tech DATE: 8/3/22

PRINT NAME: Eileen M Koskowski 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. 30-025-48007
2. Type of Lease ☒ STATE ☐ FEE ☐ FED/INDIAN
3. State Oil & Gas Lease No.

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: ANDERSON FED COM
6. Well Number: 558H

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: RED TANK; BONE SPRING

12.Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	LOT 1	2	22 S	32 E		630	N	925	E	LEA
BH:	P	26	21 S	32 E		1311	S	324	E	LEA

13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released	16. Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc.)
12/6/20	1/2/21	1/4/21	3/24/21	3657’

18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run
18,218’	18,117’	YES	GAMMA

22. Producing Interval(s), of this completion - Top, Bottom, Name
11,615’ – 18,108’ – RED TANK; 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”	54.4#	1,298’	17.5”	715	
9.625”	40#	3,699’/4,933’	12.25”	1675	
5.5”	20#	18,198’	8.5”	2530	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-7/8”	10,487’	

26. Perforation record (interval, size, and number)
11,615’ – 18,108’ – 1968 holes

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
11,615’-18,108’	16,240,069 lbs sand, 18,718,728 bbls water

28. **PRODUCTION**

Date First Production	Production Method *(Flowing, gas lift, pumping - Size and type pump)*	Well Status *(Prod. or Shut-in)*
3/25/21	Free Flowing	Prod

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
4/29/21	24	58		1665	2041	2057	1209

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas – MCF	Water - Bbl.	Oil Gravity - API - *(Corr.)*
n/a	642		1665	2041	2057	42.1

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
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: 1/4/21

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 Eileen Kosakowski Date: 8/3/22
Printed Name: Eileen M Kosakowski Title: Sr. Eng. Tech E-mail Address: ekosakowski@advanceenergypartners.com

INSTRUCTIONS

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.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

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	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	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 9787MD/9771TVD	T.Todilto	
T. Abo	T. 2BS 10,406MD/10,389TVD	T. Entrada	
T. Wolfcamp	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

OIL OR GAS SANDS OR ZONES

No. 1, from……..……..….to……. No. 3, from……to…….……

No. 2, from……to…… No. 4, from……to…….

IMPORTANT WATER SANDS

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……

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology		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

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	OGRID: 372417
	Action Number: 131225
	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.

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

CONDITIONS

Action 131225

CONDITIONS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	OGRID: 372417
	Action Number: 131225
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
crystal.walker	None	10/6/2025