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
30-025-48077	RED TANK; BONE SPRING	51683

[7] Property Code	[8] Property Name	[9] Well Number
326484	ANDERSON FED COM	604H

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
LOT 1	2	22 S	32 E		630	NORTH	991	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		1288	SOUTH	1034	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
12/3/20	4/7/21	18,637’	18,579’	12,146’ – 18,527’	

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
17.5”	13.375”	1,298’	715
12.25”	9.625”	3,671’/4,924’	1675
8.5”	5.5”	18,617’	2535

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
4/9/21	4/9/21	5/10/21	24 hrs	N/A	260
[37] Choke Size	**[38] Oil**	**[39] Water**	**[40] Gas**		**[41] Test Method**
90	710	4445	1507		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: 8/4/22

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

☐ AMENDED REPORT
As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-48077	51683	RED TANK;BONE SPRING

Property Code	Property Name	Well Number
326484	ANDERSON FED COM	604H

OGRID No.	Operator Name	Elevation
372417	ADVANCE ENERGY PARTNERS HAT MESA, LLC	3658'

Surface Location

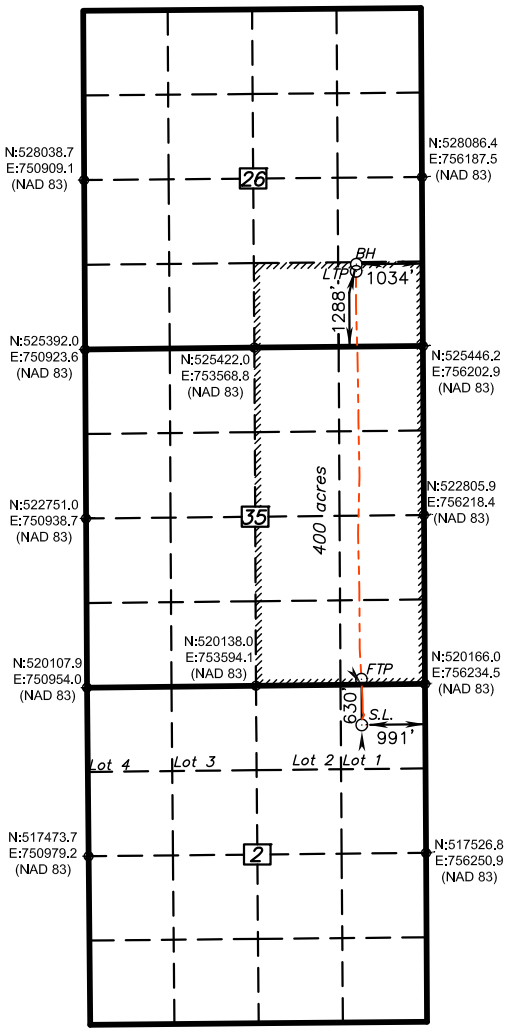
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 1	2	22 S	32 E		630	NORTH	991	EAST	LEA

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		1288	SOUTH	1034	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
220		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



PROPOSED BOTTOM HOLE LOCATION
Lat – N 32.446123°
Long – W 103.640182°
NMSPCE– N 526724.5
E 755161.4
(NAD-83)

LAST TAKE POINT
1177' FSL & 1037' FEL
Lat – N 32.445818°
Long – W 103.640193°
NMSPCE– N 526613.6
E 755158.8
(NAD-83)

FIRST TAKE POINT
85' FSL & 993' FEL
Lat – N 32.428299°
Long – W 103.640060°
NMSPCE– N 520240.5
E 755241.3
(NAD-83)

SURFACE LOCATION
Lat – N 32.426334°
Long – W 103.640054°
NMSPCE– N 519525.6
E 755247.7
(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 8/3/22
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.

JANUARY 19, 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.: 35282

End of Well Report

Advance Energy Partners, LLC
Anderson Fed Com, Well No. 604H
Lea County, New Mexico
Rig: Pioneer #80
Job No.: WT-20-070

Start Date: 12/03/2020
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

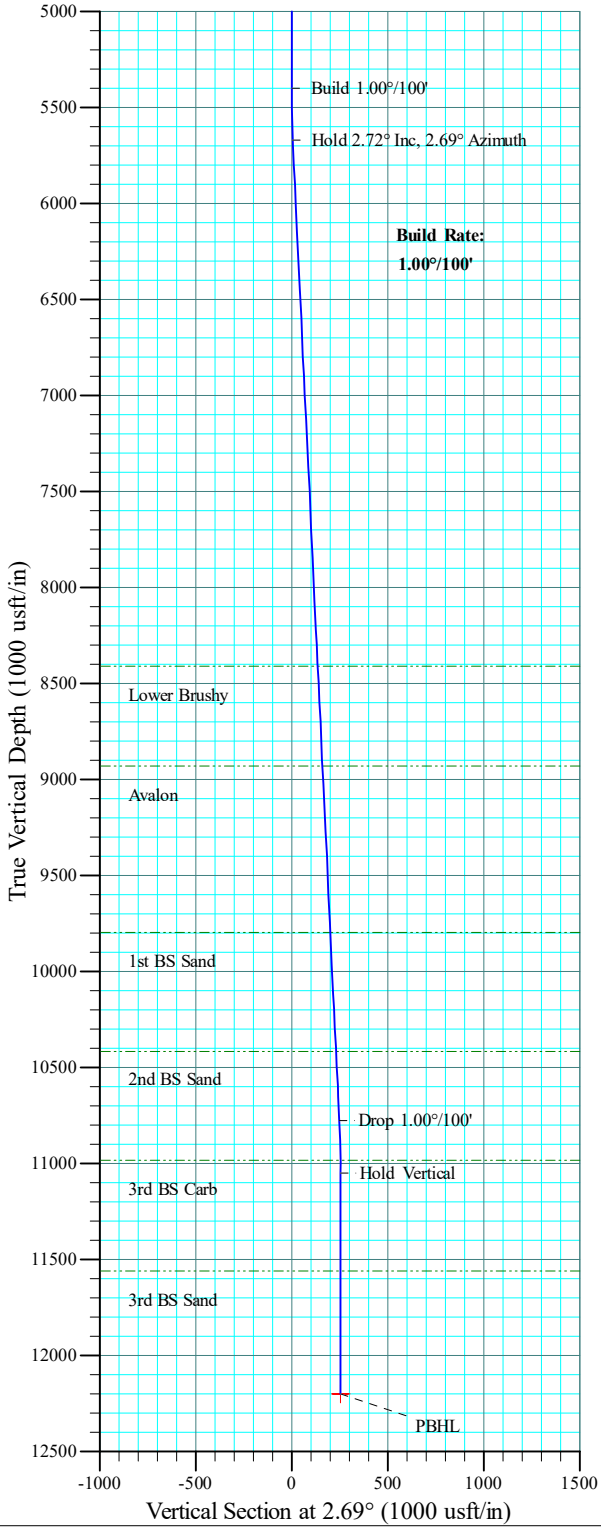
Proposed vs. As Drilled Pilot Hole

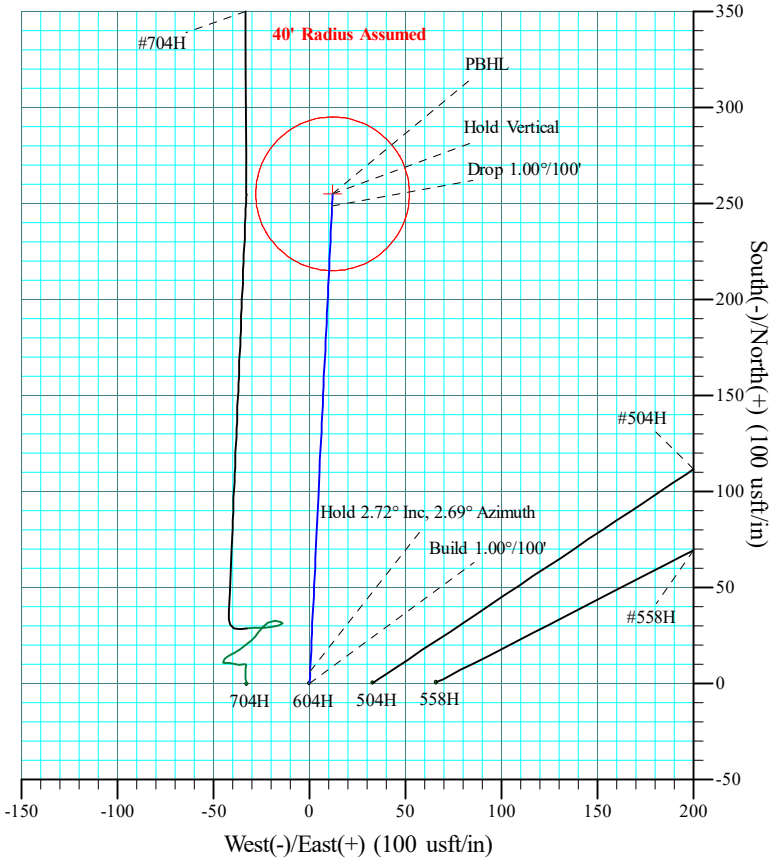
Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Advance Energy Partners, LLC

Anderson Fed Com 604H
Lea County, New Mexico
WT-20-070
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	0.20	33.00
558H	0.50	66.00
604H	0.00	0.00
704H	-0.30	-32.90

SITE DETAILS: Anderson Fed Com 604H	
Site Centre Northing:	519525.60
Easting:	755247.70
Positional Uncertainty:	0.00
Convergence:	0.37
Local North:	Grid
Depth Reference:	3658'GL+25.5'KB @ 3683.50usft (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	Shape
PBHL Pilot Hole (Anderson604H)	12200.00	255.00	12.00	519780.60	755259.70	32° 25' 37.327 N	103° 38' 24.035 W	Circle (Radius: 40.00)

Drawn By: IG
Date Created: 11/9/2020
Date Revised: 11/9/2020
File: Advance Energy - Anderson Fed Com 604H Pilot Hole Plan 1.0.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	5400.00	0.00	0.00	5400.00	0.00	0.00	0.00	0.00	0.00	Build 1.00°/100'
3	5671.76	2.72	2.69	5671.66	6.44	0.30	1.00	2.69	6.44	Hold 2.72° Inc, 2.69° Azimuth
4	10784.20	2.72	2.69	10778.34	248.56	11.70	0.00	0.00	248.84	Drop 1.00°/100'
5	11005.95	0.00	0.00	11050.00	255.00	12.00	1.00	180.00	255.28	Hold Vertical
6	12205.95	0.00	0.00	12200.00	255.00	12.00	0.00	0.00	255.28	PBHL

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**North Reference:**	Grid
Wellbore:	Pilot Hole	**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 604H

Site Position:		**Northing:**	519,525.60 usft	**Latitude:**	32° 25' 34.804 N
From:	Map	**Easting:**	755,247.70 usft	**Longitude:**	103° 38' 24.194 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.37 °

Well Anderson #604H - Slot 604H

Well Position	**+N/-S**	0.00 usft	**Northing:**	519,525.60 usft	**Latitude:**	32° 25' 34.804 N
	+E/-W	0.00 usft	**Easting:**	755,247.70 usft	**Longitude:**	103° 38' 24.194 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,658.00 usft

Wellbore Pilot Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	11/9/2020	6.53	60.15	47,952.41264865

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	2.69

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

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	12,205.95	Plan 1.0 (Pilot Hole)	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

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**North Reference:**	Grid
Wellbore:	Pilot Hole	**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
1,185.50	0.00	0.00	1,185.50	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
4,763.50	0.00	0.00	4,763.50	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 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**North Reference:**	Grid
Wellbore:	Pilot Hole	**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
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 1.00°/100'									
5,500.00	1.00	2.69	5,500.00	0.87	0.04	0.87	1.00	1.00	0.00
5,600.00	2.00	2.69	5,599.96	3.49	0.16	3.49	1.00	1.00	0.00
5,671.76	2.72	2.69	5,671.66	6.44	0.30	6.44	1.00	1.00	0.00
Hold 2.72° Inc, 2.69° Azimuth									
5,700.00	2.72	2.69	5,699.87	7.77	0.37	7.78	0.00	0.00	0.00
5,800.00	2.72	2.69	5,799.75	12.51	0.59	12.52	0.00	0.00	0.00
5,900.00	2.72	2.69	5,899.64	17.25	0.81	17.27	0.00	0.00	0.00
6,000.00	2.72	2.69	5,999.53	21.98	1.03	22.01	0.00	0.00	0.00
6,100.00	2.72	2.69	6,099.42	26.72	1.26	26.75	0.00	0.00	0.00
6,200.00	2.72	2.69	6,199.30	31.45	1.48	31.49	0.00	0.00	0.00
6,300.00	2.72	2.69	6,299.19	36.19	1.70	36.23	0.00	0.00	0.00
6,400.00	2.72	2.69	6,399.08	40.93	1.93	40.97	0.00	0.00	0.00
6,500.00	2.72	2.69	6,498.97	45.66	2.15	45.71	0.00	0.00	0.00
6,600.00	2.72	2.69	6,598.85	50.40	2.37	50.45	0.00	0.00	0.00
6,700.00	2.72	2.69	6,698.74	55.13	2.59	55.20	0.00	0.00	0.00
6,800.00	2.72	2.69	6,798.63	59.87	2.82	59.94	0.00	0.00	0.00
6,900.00	2.72	2.69	6,898.52	64.61	3.04	64.68	0.00	0.00	0.00
7,000.00	2.72	2.69	6,998.40	69.34	3.26	69.42	0.00	0.00	0.00
7,100.00	2.72	2.69	7,098.29	74.08	3.49	74.16	0.00	0.00	0.00
7,200.00	2.72	2.69	7,198.18	78.81	3.71	78.90	0.00	0.00	0.00
7,300.00	2.72	2.69	7,298.07	83.55	3.93	83.64	0.00	0.00	0.00
7,400.00	2.72	2.69	7,397.95	88.29	4.15	88.38	0.00	0.00	0.00
7,500.00	2.72	2.69	7,497.84	93.02	4.38	93.13	0.00	0.00	0.00
7,600.00	2.72	2.69	7,597.73	97.76	4.60	97.87	0.00	0.00	0.00
7,700.00	2.72	2.69	7,697.62	102.49	4.82	102.61	0.00	0.00	0.00
7,800.00	2.72	2.69	7,797.50	107.23	5.05	107.35	0.00	0.00	0.00
7,900.00	2.72	2.69	7,897.39	111.97	5.27	112.09	0.00	0.00	0.00
8,000.00	2.72	2.69	7,997.28	116.70	5.49	116.83	0.00	0.00	0.00
8,100.00	2.72	2.69	8,097.17	121.44	5.71	121.57	0.00	0.00	0.00
8,200.00	2.72	2.69	8,197.05	126.18	5.94	126.31	0.00	0.00	0.00
8,300.00	2.72	2.69	8,296.94	130.91	6.16	131.06	0.00	0.00	0.00
8,400.00	2.72	2.69	8,396.83	135.65	6.38	135.80	0.00	0.00	0.00
8,413.69	2.72	2.69	8,410.50	136.30	6.41	136.45	0.00	0.00	0.00
Lower Brushy									
8,500.00	2.72	2.69	8,496.72	140.38	6.61	140.54	0.00	0.00	0.00
8,600.00	2.72	2.69	8,596.61	145.12	6.83	145.28	0.00	0.00	0.00
8,700.00	2.72	2.69	8,696.49	149.86	7.05	150.02	0.00	0.00	0.00
8,800.00	2.72	2.69	8,796.38	154.59	7.27	154.76	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 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**North Reference:**	Grid
Wellbore:	Pilot Hole	**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)
8,900.00	2.72	2.69	8,896.27	159.33	7.50	159.50	0.00	0.00	0.00
8,934.27	2.72	2.69	8,930.50	160.95	7.57	161.13	0.00	0.00	0.00
Avalon									
9,000.00	2.72	2.69	8,996.16	164.06	7.72	164.24	0.00	0.00	0.00
9,100.00	2.72	2.69	9,096.04	168.80	7.94	168.99	0.00	0.00	0.00
9,200.00	2.72	2.69	9,195.93	173.54	8.17	173.73	0.00	0.00	0.00
9,300.00	2.72	2.69	9,295.82	178.27	8.39	178.47	0.00	0.00	0.00
9,400.00	2.72	2.69	9,395.71	183.01	8.61	183.21	0.00	0.00	0.00
9,500.00	2.72	2.69	9,495.59	187.74	8.83	187.95	0.00	0.00	0.00
9,600.00	2.72	2.69	9,595.48	192.48	9.06	192.69	0.00	0.00	0.00
9,700.00	2.72	2.69	9,695.37	197.22	9.28	197.43	0.00	0.00	0.00
9,800.00	2.72	2.69	9,795.26	201.95	9.50	202.18	0.00	0.00	0.00
9,802.25	2.72	2.69	9,797.50	202.06	9.51	202.28	0.00	0.00	0.00
1st BS Sand									
9,900.00	2.72	2.69	9,895.14	206.69	9.73	206.92	0.00	0.00	0.00
10,000.00	2.72	2.69	9,995.03	211.42	9.95	211.66	0.00	0.00	0.00
10,100.00	2.72	2.69	10,094.92	216.16	10.17	216.40	0.00	0.00	0.00
10,200.00	2.72	2.69	10,194.81	220.90	10.40	221.14	0.00	0.00	0.00
10,300.00	2.72	2.69	10,294.69	225.63	10.62	225.88	0.00	0.00	0.00
10,400.00	2.72	2.69	10,394.58	230.37	10.84	230.62	0.00	0.00	0.00
10,420.94	2.72	2.69	10,415.50	231.36	10.89	231.62	0.00	0.00	0.00
2nd BS Sand									
10,500.00	2.72	2.69	10,494.47	235.10	11.06	235.36	0.00	0.00	0.00
10,600.00	2.72	2.69	10,594.36	239.84	11.29	240.11	0.00	0.00	0.00
10,700.00	2.72	2.69	10,694.24	244.58	11.51	244.85	0.00	0.00	0.00
10,784.20	2.72	2.69	10,778.34	248.56	11.70	248.84	0.00	0.00	0.00
Drop 1.00°/100'									
10,800.00	2.56	2.69	10,794.13	249.29	11.73	249.57	1.00	-1.00	0.00
10,900.00	1.56	2.69	10,894.07	252.88	11.90	253.16	1.00	-1.00	0.00
10,989.45	0.67	2.69	10,983.50	254.61	11.98	254.90	1.00	-1.00	0.00
3rd BS Carb									
11,000.00	0.56	2.69	10,994.05	254.73	11.99	255.01	1.00	-1.00	0.00
11,055.95	0.00	0.00	11,050.00	255.00	12.00	255.28	1.00	-1.00	-4.82
Hold Vertical									
11,100.00	0.00	0.00	11,094.05	255.00	12.00	255.28	0.00	0.00	0.00
11,200.00	0.00	0.00	11,194.05	255.00	12.00	255.28	0.00	0.00	0.00
11,300.00	0.00	0.00	11,294.05	255.00	12.00	255.28	0.00	0.00	0.00
11,400.00	0.00	0.00	11,394.05	255.00	12.00	255.28	0.00	0.00	0.00
11,500.00	0.00	0.00	11,494.05	255.00	12.00	255.28	0.00	0.00	0.00
11,566.45	0.00	0.00	11,560.50	255.00	12.00	255.28	0.00	0.00	0.00
3rd BS Sand									
11,600.00	0.00	0.00	11,594.05	255.00	12.00	255.28	0.00	0.00	0.00
11,700.00	0.00	0.00	11,694.05	255.00	12.00	255.28	0.00	0.00	0.00
11,800.00	0.00	0.00	11,794.05	255.00	12.00	255.28	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 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**North Reference:**	Grid
Wellbore:	Pilot Hole	**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)
11,900.00	0.00	0.00	11,894.05	255.00	12.00	255.28	0.00	0.00	0.00
12,000.00	0.00	0.00	11,994.05	255.00	12.00	255.28	0.00	0.00	0.00
12,100.00	0.00	0.00	12,094.05	255.00	12.00	255.28	0.00	0.00	0.00
12,205.95	0.00	0.00	12,200.00	255.00	12.00	255.28	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
PBHL Pilot Hole (Anders - plan hits target center - Circle (radius 40.00)	0.00	0.00	12,200.00	255.00	12.00	519,780.60	755,259.70	32° 25' 37.327 N	103° 38' 24.035 W

Formations

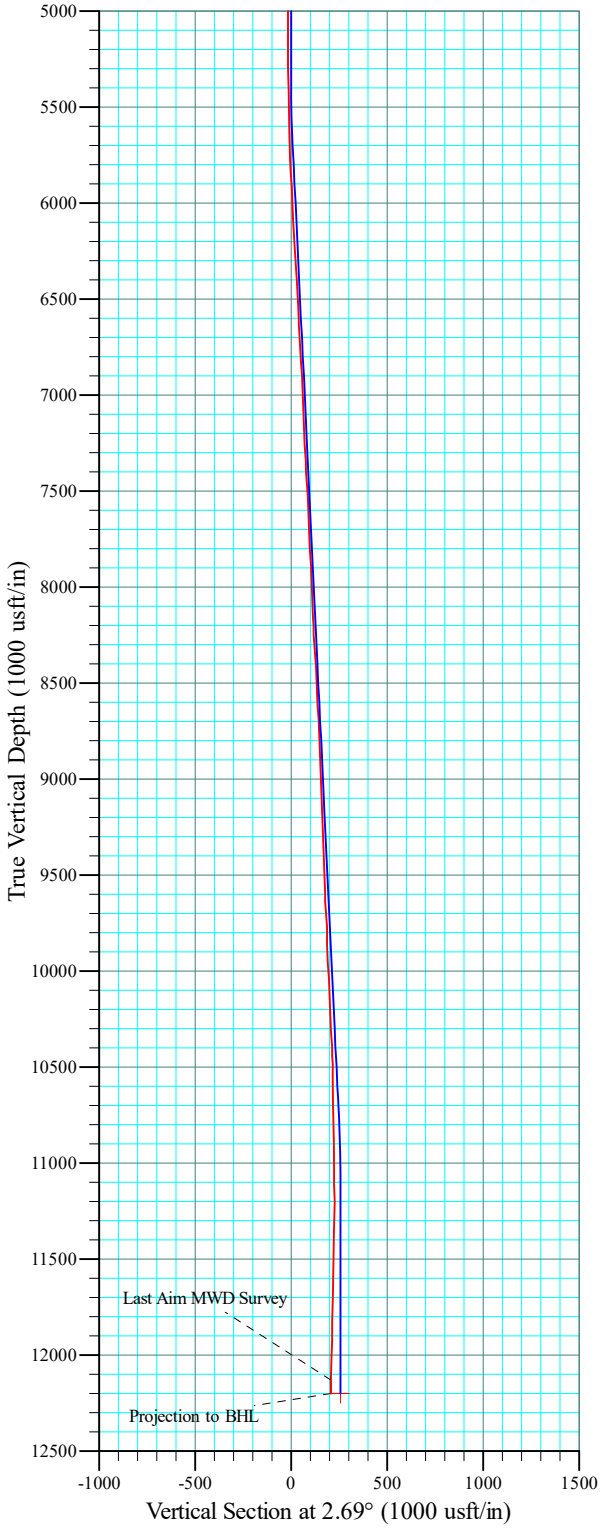
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,185.50	1,185.50	Rustler			
4,763.50	4,763.50	Base of Limestone			
8,413.69	8,410.50	Lower Brushy			
8,934.27	8,930.50	Avalon			
9,802.25	9,797.50	1st BS Sand			
10,420.94	10,415.50	2nd BS Sand			
10,989.45	10,983.50	3rd BS Carb			
11,566.45	11,560.50	3rd BS Sand		0.00	

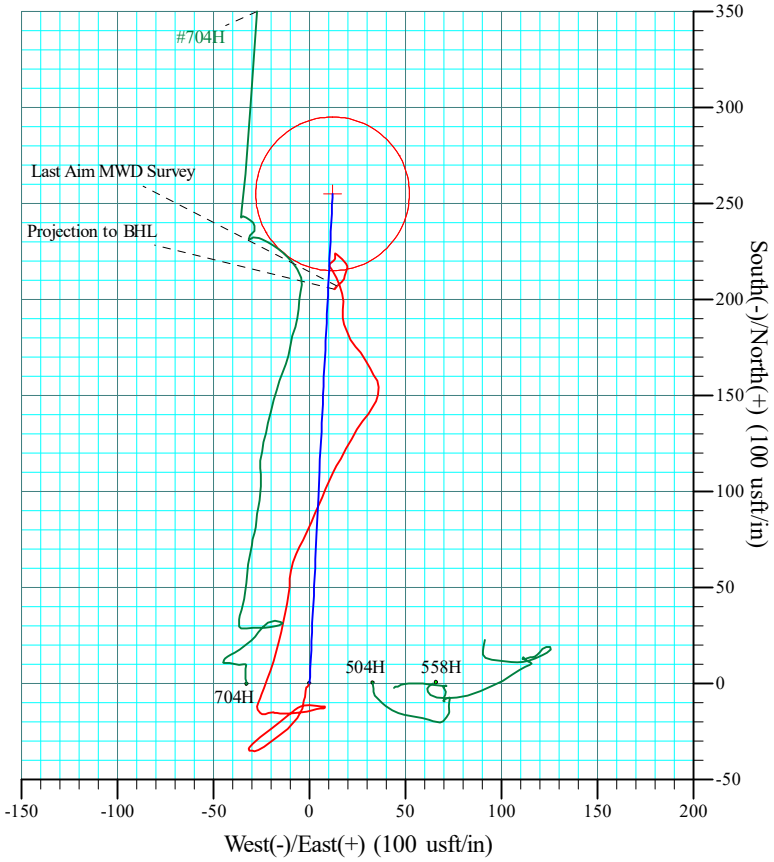
Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
5400	5400	0	0	Build 1.00°/100'
5672	5672	6	0	Hold 2.72° Inc, 2.69° Azimuth
10,784	10,778	249	12	Drop 1.00°/100'
11,056	11,050	255	12	Hold Vertical
12,206	12,200	255	12	PBHL

Advance Energy Partners, LLC

Anderson Fed Com 604H
Lea County, New Mexico
WT-20-070
Pioneer 80
Plan 1.0 Final PVA





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	0.20	33.00
558H	0.50	66.00
604H	0.00	0.00
704H	-0.30	-32.90

SITE DETAILS: Anderson Fed Com 604H	
Site Centre Northing:	519525.60
Easting:	755247.70
Positional Uncertainity:	0.00
Convergence:	0.37
Local North:	Grid
Depth Reference:	3658'GL+25.5'KB @ 3683.50usft (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

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL Pilot Hole (Anderson604H)	12200.00	255.00	12.00	519780.60	755259.70	32° 25' 37.327 N	103° 38' 24.035 W	Circle (Radius: 40.00)

Drawn By: IG
Date Created: 11/9/2020
Date Revised: 12/19/2020
File: Advance Energy - Anderson Fed Com 604H Pilot Hole Plan 1.0 Final PVA.wpc

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	12138.00	1.71	223.60	12128.99	206.80	14.40	0.00	0.00	207.25	Last Aim MWD Survey
2	12210.00	1.71	223.60	12200.95	205.25	12.92	0.00	0.00	205.63	Projection to BHL

Proposed vs. As Drilled Lateral

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Advance Energy Partners, LLC

Anderson Fed Com 604H
Lea County, New Mexico
WT-20-070
Pioneer 80
Plan 1.0

Aim Directional Service

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	11056.00	0.00	0.00	11050.05	255.00	12.00	0.00	0.00	254.92	Tie-on to Pilot Hole
2	11360.49	0.00	0.00	11354.54	255.00	12.00	0.00	0.00	254.92	KOP, Build 12.00°/100'
3	12110.49	90.00	355.45	11832.00	730.96	-25.91	12.00	355.45	731.10	LP, Drop 2.00°/100'
4	12325.42	89.15	359.66	11833.61	945.64	-35.09	2.00	101.47	945.83	Hold 89.15° Inc, 359.66° Azimuth
5	14096.01	89.15	359.66	11860.00	2716.00	-45.62	0.00	0.00	2716.22	Build 2.00°/100'
6	14200.29	91.23	359.66	11859.66	2820.27	-46.24	2.00	0.00	2820.49	Hold 91.23° Inc, 359.66° Azimuth
7	18512.40	91.23	359.66	11767.00	7131.30	-71.90	0.00	0.00	7131.60	PBHL

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Anderson604H)	0.00	729.70	-33.80	520255.30	755213.90	32° 25' 42.027 N	103° 38' 24.533 W
PBHL (Anderson604H)	11767.00	7131.30	-71.90	526656.90	755175.80	32° 26' 45.373 N	103° 38' 24.493 W
WP1 (Anderson604H)	11860.00	2716.00	-45.62	522241.60	755202.08	32° 26' 1.682 N	103° 38' 24.521 W

T G M

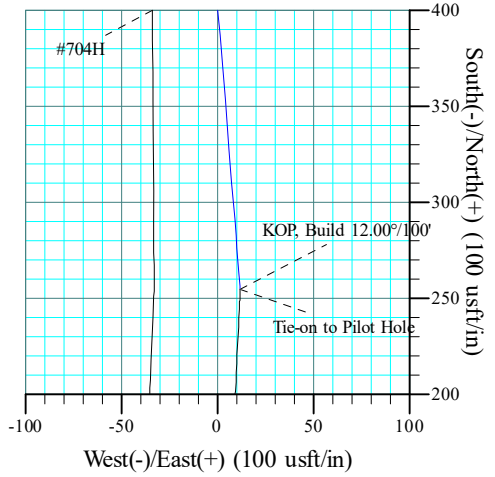
Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.16°

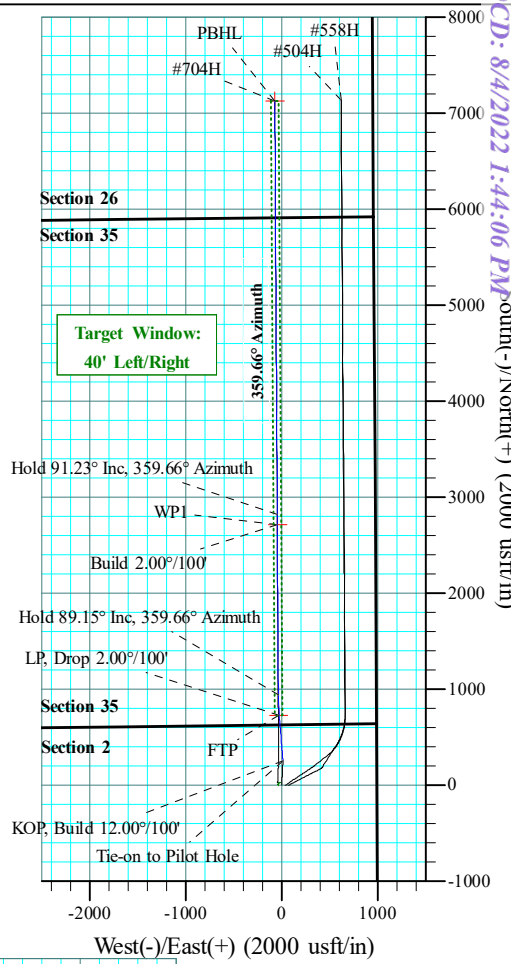
Magnetic Field
Strength: 47952.4nT
Dip Angle: 60.15°
Date: 11/9/2020
Model: MVHD

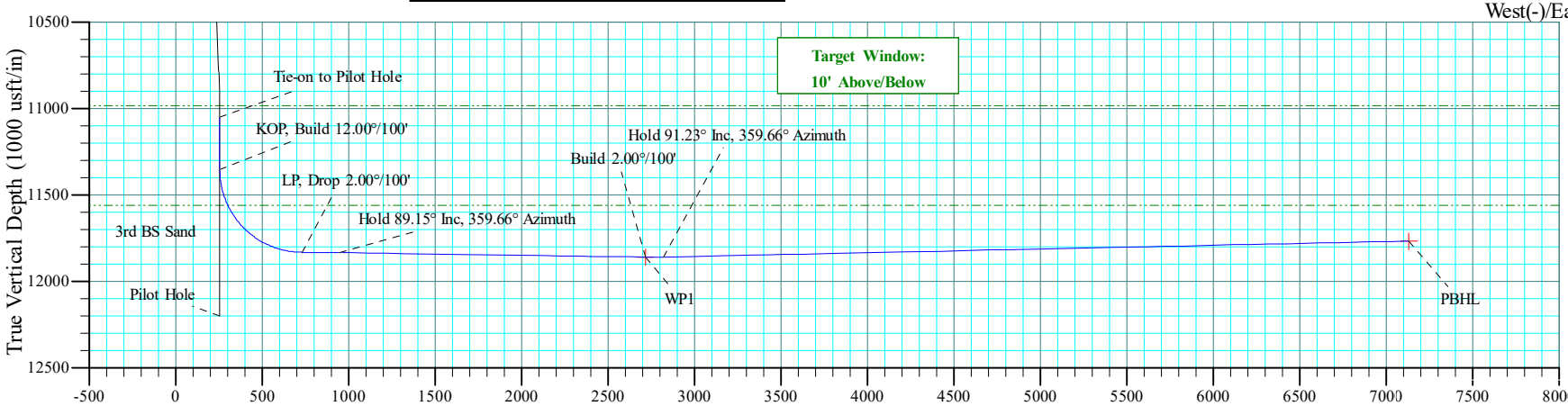
Magnetic North: 6.16° to Grid North

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:	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)

SITE DETAILS: Anderson Fed Com 604H	
Site Centre Northing:	519525.60
Easting:	755247.70
Positional Uncertainity:	0.00
Convergence:	0.37
Local North:	Grid







*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 604H Plan 1.0.wpc

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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 604H

Site Position:		**Northing:**	519,525.60 usft	**Latitude:**	32° 25' 34.804 N
From:	Map	**Easting:**	755,247.70 usft	**Longitude:**	103° 38' 24.194 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.37 °

Well Anderson #604H - Slot 604H

Well Position	**+N/-S**	0.00 usft	**Northing:**	519,525.60 usft	**Latitude:**	32° 25' 34.804 N
	+E/-W	0.00 usft	**Easting:**	755,247.70 usft	**Longitude:**	103° 38' 24.194 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,658.00 usft

Wellbore Lateral 1r0

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	11/9/2020	6.53	60.15	47,952.41264865

Design Plan 1.0

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	11,056.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.66

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

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	11,056.00	Plan 1.0 (Pilot Hole)	B001Mb_MWD+HRGM	OWSG MWD + HRGM
11,056.00	18,512.40	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

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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
1,200.00	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
4,800.00	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
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	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 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	1.00	2.69	5,500.00	0.87	0.04	0.87	1.00	1.00	0.00
5,600.00	2.00	2.69	5,599.96	3.49	0.16	3.49	1.00	1.00	0.00
5,671.76	2.72	2.69	5,671.66	6.44	0.30	6.43	1.00	1.00	0.00
5,700.00	2.72	2.69	5,699.87	7.77	0.37	7.77	0.00	0.00	0.00
5,800.00	2.72	2.69	5,799.75	12.51	0.59	12.51	0.00	0.00	0.00
5,900.00	2.72	2.69	5,899.64	17.25	0.81	17.24	0.00	0.00	0.00
6,000.00	2.72	2.69	5,999.53	21.98	1.03	21.98	0.00	0.00	0.00
6,100.00	2.72	2.69	6,099.42	26.72	1.26	26.71	0.00	0.00	0.00
6,200.00	2.72	2.69	6,199.30	31.45	1.48	31.44	0.00	0.00	0.00
6,300.00	2.72	2.69	6,299.19	36.19	1.70	36.18	0.00	0.00	0.00
6,400.00	2.72	2.69	6,399.08	40.93	1.93	40.91	0.00	0.00	0.00
6,500.00	2.72	2.69	6,498.97	45.66	2.15	45.65	0.00	0.00	0.00
6,600.00	2.72	2.69	6,598.85	50.40	2.37	50.38	0.00	0.00	0.00
6,700.00	2.72	2.69	6,698.74	55.13	2.59	55.12	0.00	0.00	0.00
6,800.00	2.72	2.69	6,798.63	59.87	2.82	59.85	0.00	0.00	0.00
6,900.00	2.72	2.69	6,898.52	64.61	3.04	64.59	0.00	0.00	0.00
7,000.00	2.72	2.69	6,998.40	69.34	3.26	69.32	0.00	0.00	0.00
7,100.00	2.72	2.69	7,098.29	74.08	3.49	74.06	0.00	0.00	0.00
7,200.00	2.72	2.69	7,198.18	78.81	3.71	78.79	0.00	0.00	0.00
7,300.00	2.72	2.69	7,298.07	83.55	3.93	83.53	0.00	0.00	0.00
7,400.00	2.72	2.69	7,397.95	88.29	4.15	88.26	0.00	0.00	0.00
7,500.00	2.72	2.69	7,497.84	93.02	4.38	93.00	0.00	0.00	0.00
7,600.00	2.72	2.69	7,597.73	97.76	4.60	97.73	0.00	0.00	0.00
7,700.00	2.72	2.69	7,697.62	102.49	4.82	102.46	0.00	0.00	0.00
7,800.00	2.72	2.69	7,797.50	107.23	5.05	107.20	0.00	0.00	0.00
7,900.00	2.72	2.69	7,897.39	111.97	5.27	111.93	0.00	0.00	0.00
8,000.00	2.72	2.69	7,997.28	116.70	5.49	116.67	0.00	0.00	0.00
8,100.00	2.72	2.69	8,097.17	121.44	5.71	121.40	0.00	0.00	0.00
8,200.00	2.72	2.69	8,197.05	126.18	5.94	126.14	0.00	0.00	0.00
8,300.00	2.72	2.69	8,296.94	130.91	6.16	130.87	0.00	0.00	0.00
8,400.00	2.72	2.69	8,396.83	135.65	6.38	135.61	0.00	0.00	0.00
8,500.00	2.72	2.69	8,496.72	140.38	6.61	140.34	0.00	0.00	0.00
8,600.00	2.72	2.69	8,596.61	145.12	6.83	145.08	0.00	0.00	0.00
8,700.00	2.72	2.69	8,696.49	149.86	7.05	149.81	0.00	0.00	0.00
8,800.00	2.72	2.69	8,796.38	154.59	7.27	154.55	0.00	0.00	0.00
8,900.00	2.72	2.69	8,896.27	159.33	7.50	159.28	0.00	0.00	0.00
9,000.00	2.72	2.69	8,996.16	164.06	7.72	164.01	0.00	0.00	0.00
9,100.00	2.72	2.69	9,096.04	168.80	7.94	168.75	0.00	0.00	0.00
9,200.00	2.72	2.69	9,195.93	173.54	8.17	173.48	0.00	0.00	0.00
9,300.00	2.72	2.69	9,295.82	178.27	8.39	178.22	0.00	0.00	0.00
9,400.00	2.72	2.69	9,395.71	183.01	8.61	182.95	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 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
9,500.00	2.72	2.69	9,495.59	187.74	8.83	187.69	0.00	0.00	0.00
9,600.00	2.72	2.69	9,595.48	192.48	9.06	192.42	0.00	0.00	0.00
9,700.00	2.72	2.69	9,695.37	197.22	9.28	197.16	0.00	0.00	0.00
9,800.00	2.72	2.69	9,795.26	201.95	9.50	201.89	0.00	0.00	0.00
9,900.00	2.72	2.69	9,895.14	206.69	9.73	206.63	0.00	0.00	0.00
10,000.00	2.72	2.69	9,995.03	211.42	9.95	211.36	0.00	0.00	0.00
10,100.00	2.72	2.69	10,094.92	216.16	10.17	216.10	0.00	0.00	0.00
10,200.00	2.72	2.69	10,194.81	220.90	10.40	220.83	0.00	0.00	0.00
10,300.00	2.72	2.69	10,294.69	225.63	10.62	225.56	0.00	0.00	0.00
10,400.00	2.72	2.69	10,394.58	230.37	10.84	230.30	0.00	0.00	0.00
10,420.94	2.72	2.69	10,415.50	231.36	10.89	231.29	0.00	0.00	0.00
2nd BS Sand									
10,500.00	2.72	2.69	10,494.47	235.10	11.06	235.03	0.00	0.00	0.00
10,600.00	2.72	2.69	10,594.36	239.84	11.29	239.77	0.00	0.00	0.00
10,700.00	2.72	2.69	10,694.24	244.58	11.51	244.50	0.00	0.00	0.00
10,784.20	2.72	2.69	10,778.34	248.56	11.70	248.49	0.00	0.00	0.00
10,800.00	2.56	2.69	10,794.13	249.29	11.73	249.22	1.00	-1.00	0.00
10,900.00	1.56	2.69	10,894.07	252.88	11.90	252.80	1.00	-1.00	0.00
10,989.45	0.67	2.69	10,983.50	254.61	11.98	254.54	1.00	-1.00	0.00
3rd BS Carb									
11,000.00	0.56	2.69	10,994.05	254.73	11.99	254.65	1.00	-1.00	0.00
11,055.95	0.00	0.00	11,050.00	255.00	12.00	254.92	1.00	-1.00	0.00
11,056.00	0.00	0.00	11,050.05	255.00	12.00	254.92	0.00	0.00	0.00
Tie-on to Pilot Hole									
11,100.00	0.00	0.00	11,094.05	255.00	12.00	254.92	0.00	0.00	0.00
11,200.00	0.00	0.00	11,194.05	255.00	12.00	254.92	0.00	0.00	0.00
11,300.00	0.00	0.00	11,294.05	255.00	12.00	254.92	0.00	0.00	0.00
11,360.49	0.00	0.00	11,354.54	255.00	12.00	254.92	0.00	0.00	0.00
KOP, Build 12.00°/100'									
11,375.00	1.74	355.45	11,369.04	255.22	11.98	255.14	12.00	12.00	0.00
11,400.00	4.74	355.45	11,394.00	256.63	11.87	256.55	12.00	12.00	0.00
11,425.00	7.74	355.45	11,418.85	259.34	11.65	259.26	12.00	12.00	0.00
11,450.00	10.74	355.45	11,443.52	263.34	11.34	263.27	12.00	12.00	0.00
11,475.00	13.74	355.45	11,467.95	268.62	10.92	268.55	12.00	12.00	0.00
11,500.00	16.74	355.45	11,492.07	275.17	10.39	275.11	12.00	12.00	0.00
11,525.00	19.74	355.45	11,515.81	282.97	9.77	282.91	12.00	12.00	0.00
11,550.00	22.74	355.45	11,539.11	292.00	9.05	291.94	12.00	12.00	0.00
11,573.44	25.55	355.45	11,560.50	301.56	8.29	301.50	12.00	12.00	0.00
3rd BS Sand									
11,575.00	25.74	355.45	11,561.90	302.23	8.24	302.18	12.00	12.00	0.00
11,600.00	28.74	355.45	11,584.13	313.64	7.33	313.59	12.00	12.00	0.00
11,625.00	31.74	355.45	11,605.72	326.19	6.33	326.14	12.00	12.00	0.00
11,650.00	34.74	355.45	11,626.63	339.84	5.24	339.81	12.00	12.00	0.00
11,675.00	37.74	355.45	11,646.79	354.58	4.07	354.55	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 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
11,700.00	40.74	355.45	11,666.15	370.34	2.81	370.32	12.00	12.00	0.00
11,725.00	43.74	355.45	11,684.66	387.09	1.48	387.07	12.00	12.00	0.00
11,750.00	46.74	355.45	11,702.26	404.78	0.07	404.78	12.00	12.00	0.00
11,775.00	49.74	355.45	11,718.91	423.37	-1.41	423.37	12.00	12.00	0.00
11,800.00	52.74	355.45	11,734.56	442.80	-2.96	442.81	12.00	12.00	0.00
11,825.00	55.74	355.45	11,749.16	463.02	-4.57	463.04	12.00	12.00	0.00
11,850.00	58.74	355.45	11,762.69	483.98	-6.24	484.01	12.00	12.00	0.00
11,875.00	61.74	355.45	11,775.10	505.61	-7.96	505.65	12.00	12.00	0.00
11,900.00	64.74	355.45	11,786.35	527.86	-9.73	527.91	12.00	12.00	0.00
11,925.00	67.74	355.45	11,796.42	550.67	-11.55	550.72	12.00	12.00	0.00
11,950.00	70.74	355.45	11,805.28	573.97	-13.41	574.04	12.00	12.00	0.00
11,975.00	73.74	355.45	11,812.91	597.70	-15.30	597.78	12.00	12.00	0.00
12,000.00	76.74	355.45	11,819.28	621.79	-17.22	621.88	12.00	12.00	0.00
12,025.00	79.74	355.45	11,824.37	646.19	-19.16	646.29	12.00	12.00	0.00
12,050.00	82.74	355.45	11,828.18	670.82	-21.12	670.93	12.00	12.00	0.00
12,075.00	85.74	355.45	11,830.69	695.61	-23.09	695.73	12.00	12.00	0.00
12,100.00	88.74	355.45	11,831.89	720.50	-25.08	720.63	12.00	12.00	0.00
12,110.49	90.00	355.45	11,832.01	730.96	-25.91	731.10	12.00	12.00	0.00
LP, Drop 2.00°/100'									
12,200.00	89.64	357.20	11,832.28	820.28	-31.65	820.45	2.00	-0.40	1.96
12,300.00	89.25	359.16	11,833.25	920.22	-34.82	920.41	2.00	-0.40	1.96
12,325.42	89.15	359.66	11,833.61	945.64	-35.09	945.83	2.00	-0.40	1.96
Hold 89.15° Inc, 359.66° Azimuth									
12,400.00	89.15	359.66	11,834.72	1,020.20	-35.53	1,020.40	0.00	0.00	0.00
12,500.00	89.15	359.66	11,836.21	1,120.19	-36.13	1,120.38	0.00	0.00	0.00
12,600.00	89.15	359.66	11,837.70	1,220.18	-36.72	1,220.37	0.00	0.00	0.00
12,700.00	89.15	359.66	11,839.19	1,320.16	-37.32	1,320.36	0.00	0.00	0.00
12,800.00	89.15	359.66	11,840.68	1,420.15	-37.91	1,420.35	0.00	0.00	0.00
12,900.00	89.15	359.66	11,842.17	1,520.14	-38.51	1,520.34	0.00	0.00	0.00
13,000.00	89.15	359.66	11,843.67	1,620.12	-39.10	1,620.33	0.00	0.00	0.00
13,100.00	89.15	359.66	11,845.16	1,720.11	-39.70	1,720.32	0.00	0.00	0.00
13,200.00	89.15	359.66	11,846.65	1,820.10	-40.29	1,820.31	0.00	0.00	0.00
13,300.00	89.15	359.66	11,848.14	1,920.09	-40.89	1,920.30	0.00	0.00	0.00
13,400.00	89.15	359.66	11,849.63	2,020.07	-41.48	2,020.28	0.00	0.00	0.00
13,500.00	89.15	359.66	11,851.12	2,120.06	-42.08	2,120.27	0.00	0.00	0.00
13,600.00	89.15	359.66	11,852.61	2,220.05	-42.67	2,220.26	0.00	0.00	0.00
13,700.00	89.15	359.66	11,854.10	2,320.03	-43.27	2,320.25	0.00	0.00	0.00
13,800.00	89.15	359.66	11,855.59	2,420.02	-43.86	2,420.24	0.00	0.00	0.00
13,900.00	89.15	359.66	11,857.08	2,520.01	-44.46	2,520.23	0.00	0.00	0.00
14,000.00	89.15	359.66	11,858.57	2,620.00	-45.05	2,620.22	0.00	0.00	0.00
14,096.02	89.15	359.66	11,860.01	2,716.00	-45.62	2,716.22	0.00	0.00	0.00
Build 2.00°/100'									
14,100.00	89.23	359.66	11,860.06	2,719.98	-45.65	2,720.21	2.00	2.00	0.00
14,200.29	91.23	359.66	11,859.66	2,820.27	-46.24	2,820.49	2.00	2.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
Hold 91.23° Inc, 359.66° Azimuth									
14,300.00	91.23	359.66	11,857.52	2,919.95	-46.84	2,920.18	0.00	0.00	0.00
14,400.00	91.23	359.66	11,855.37	3,019.93	-47.43	3,020.15	0.00	0.00	0.00
14,500.00	91.23	359.66	11,853.22	3,119.90	-48.03	3,120.13	0.00	0.00	0.00
14,600.00	91.23	359.66	11,851.07	3,219.88	-48.62	3,220.11	0.00	0.00	0.00
14,700.00	91.23	359.66	11,848.92	3,319.85	-49.22	3,320.08	0.00	0.00	0.00
14,800.00	91.23	359.66	11,846.78	3,419.83	-49.81	3,420.06	0.00	0.00	0.00
14,900.00	91.23	359.66	11,844.63	3,519.80	-50.41	3,520.04	0.00	0.00	0.00
15,000.00	91.23	359.66	11,842.48	3,619.78	-51.00	3,620.02	0.00	0.00	0.00
15,100.00	91.23	359.66	11,840.33	3,719.75	-51.60	3,719.99	0.00	0.00	0.00
15,200.00	91.23	359.66	11,838.18	3,819.73	-52.19	3,819.97	0.00	0.00	0.00
15,300.00	91.23	359.66	11,836.03	3,919.70	-52.79	3,919.95	0.00	0.00	0.00
15,400.00	91.23	359.66	11,833.88	4,019.68	-53.38	4,019.92	0.00	0.00	0.00
15,500.00	91.23	359.66	11,831.73	4,119.65	-53.98	4,119.90	0.00	0.00	0.00
15,600.00	91.23	359.66	11,829.58	4,219.63	-54.57	4,219.88	0.00	0.00	0.00
15,700.00	91.23	359.66	11,827.44	4,319.60	-55.17	4,319.85	0.00	0.00	0.00
15,800.00	91.23	359.66	11,825.29	4,419.58	-55.76	4,419.83	0.00	0.00	0.00
15,900.00	91.23	359.66	11,823.14	4,519.55	-56.36	4,519.81	0.00	0.00	0.00
16,000.00	91.23	359.66	11,820.99	4,619.53	-56.95	4,619.78	0.00	0.00	0.00
16,100.00	91.23	359.66	11,818.84	4,719.50	-57.55	4,719.76	0.00	0.00	0.00
16,200.00	91.23	359.66	11,816.69	4,819.48	-58.14	4,819.74	0.00	0.00	0.00
16,300.00	91.23	359.66	11,814.54	4,919.45	-58.74	4,919.72	0.00	0.00	0.00
16,400.00	91.23	359.66	11,812.39	5,019.43	-59.33	5,019.69	0.00	0.00	0.00
16,500.00	91.23	359.66	11,810.24	5,119.40	-59.93	5,119.67	0.00	0.00	0.00
16,600.00	91.23	359.66	11,808.10	5,219.38	-60.52	5,219.65	0.00	0.00	0.00
16,700.00	91.23	359.66	11,805.95	5,319.35	-61.12	5,319.62	0.00	0.00	0.00
16,800.00	91.23	359.66	11,803.80	5,419.33	-61.71	5,419.60	0.00	0.00	0.00
16,900.00	91.23	359.66	11,801.65	5,519.30	-62.31	5,519.58	0.00	0.00	0.00
17,000.00	91.23	359.66	11,799.50	5,619.28	-62.90	5,619.55	0.00	0.00	0.00
17,100.00	91.23	359.66	11,797.35	5,719.25	-63.50	5,719.53	0.00	0.00	0.00
17,200.00	91.23	359.66	11,795.20	5,819.23	-64.09	5,819.51	0.00	0.00	0.00
17,300.00	91.23	359.66	11,793.05	5,919.20	-64.69	5,919.48	0.00	0.00	0.00
17,400.00	91.23	359.66	11,790.90	6,019.18	-65.28	6,019.46	0.00	0.00	0.00
17,500.00	91.23	359.66	11,788.76	6,119.16	-65.88	6,119.44	0.00	0.00	0.00
17,600.00	91.23	359.66	11,786.61	6,219.13	-66.47	6,219.42	0.00	0.00	0.00
17,700.00	91.23	359.66	11,784.46	6,319.11	-67.07	6,319.39	0.00	0.00	0.00
17,800.00	91.23	359.66	11,782.31	6,419.08	-67.66	6,419.37	0.00	0.00	0.00
17,900.00	91.23	359.66	11,780.16	6,519.06	-68.26	6,519.35	0.00	0.00	0.00
18,000.00	91.23	359.66	11,778.01	6,619.03	-68.85	6,619.32	0.00	0.00	0.00
18,100.00	91.23	359.66	11,775.86	6,719.01	-69.45	6,719.30	0.00	0.00	0.00
18,200.00	91.23	359.66	11,773.71	6,818.98	-70.04	6,819.28	0.00	0.00	0.00
18,300.00	91.23	359.66	11,771.56	6,918.96	-70.64	6,919.25	0.00	0.00	0.00
18,400.00	91.23	359.66	11,769.42	7,018.93	-71.23	7,019.23	0.00	0.00	0.00
18,500.00	91.23	359.66	11,767.27	7,118.91	-71.83	7,119.21	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 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
18,512.40	91.23	359.66	11,767.00	7,131.30	-71.90	7,131.60	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 (Anderson604H)	0.00	0.00	0.00	729.70	-33.80	520,255.30	755,213.90	32° 25' 42.027 N	103° 38' 24.533 W
- plan misses target center by 730.48usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
PBHL (Anderson604H)	0.00	0.00	11,767.00	7,131.30	-71.90	526,656.90	755,175.80	32° 26' 45.373 N	103° 38' 24.493 W
- plan hits target center									
- Point									
WP1 (Anderson604H)	0.00	0.00	11,860.01	2,716.00	-45.62	522,241.60	755,202.08	32° 26' 1.682 N	103° 38' 24.521 W
- plan hits target center									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,185.50	1,185.50	Rustler			
4,763.50	4,763.50	Base of Limestone			
8,413.69	8,410.50	Lower Brushy			
8,934.27	8,930.50	Avalon			
9,802.25	9,797.50	1st BS Sand			
10,420.94	10,415.50	2nd BS Sand			
10,989.45	10,983.50	3rd BS Carb			
11,573.44	11,560.50	3rd BS Sand		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
11,056	11,050	255	12	Tie-on to Pilot Hole
11,360	11,355	255	12	KOP, Build 12.00°/100'
12,110	11,832	731	-26	LP, Drop 2.00°/100'
12,325	11,834	946	-35	Hold 89.15° Inc, 359.66° Azimuth
14,096	11,860	2716	-46	Build 2.00°/100'
14,200	11,860	2820	-46	Hold 91.23° Inc, 359.66° Azimuth
18,512	11,767	7131	-72	PBHL

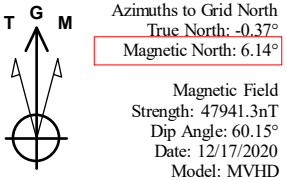
Advance Energy Partners, LLC

Anderson Fed Com 604H
Lea County, New Mexico
WT-20-070
Pioneer 80
Plan 1.0 Final PVA

Aim Directional Service

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	18537.00	89.63	1.31	11775.07	7099.02	-88.58	0.00	0.00	7099.42	Last Aim MWD Survey
2	18637.00	89.63	1.31	11775.72	7198.99	-86.30	0.00	0.00	7199.37	Projection to BHL

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Anderson604H)	0.00	729.70	-33.80	520255.30	755213.90	32° 25' 42.027 N	103° 38' 24.533 W
PBHL (Anderson604H)	11767.00	7131.30	-71.90	526656.90	755175.80	32° 26' 45.373 N	103° 38' 24.493 W
WP1 (Anderson604H)	11860.00	2716.00	-45.62	522241.60	755202.08	32° 26' 1.682 N	103° 38' 24.521 W



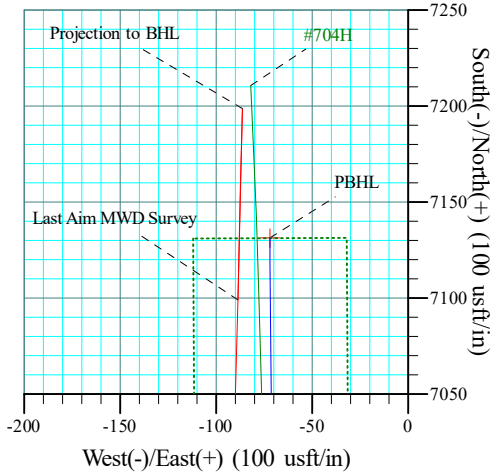
Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.14°

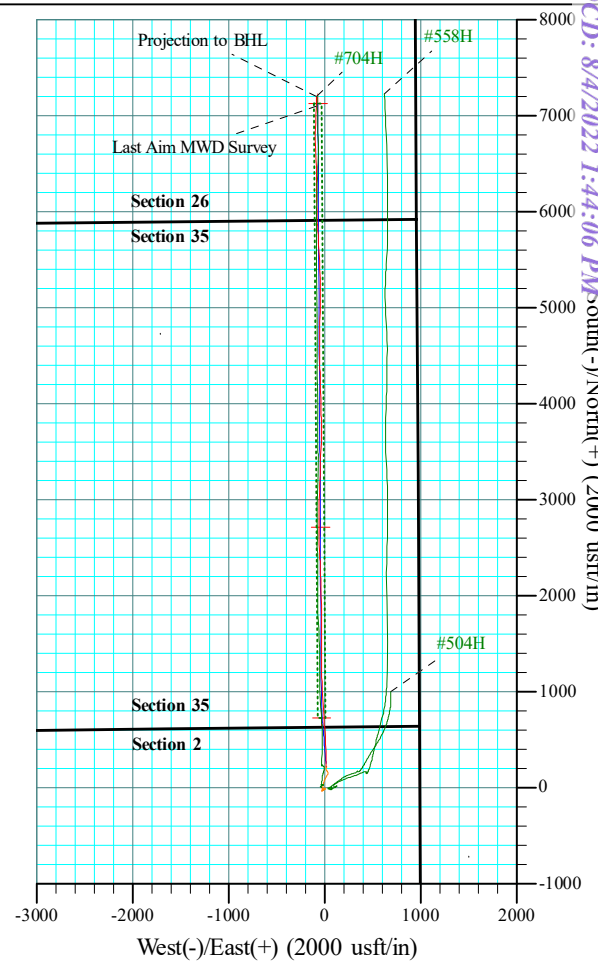
Magnetic Field
Strength: 47941.3nT
Dip Angle: 60.15°
Date: 12/17/2020
Model: MVHD

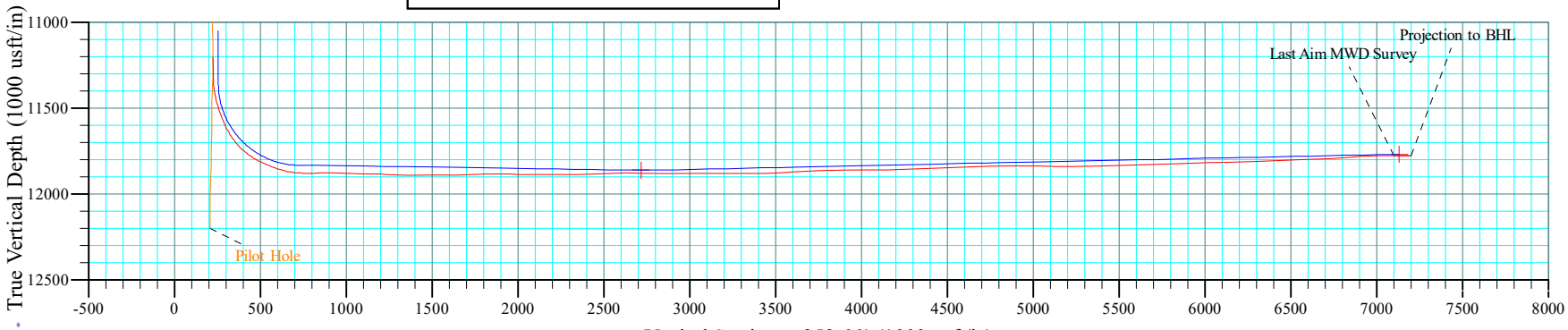
Magnetic North: 6.14° to Grid North

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:	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)

SITE DETAILS: Anderson Fed Com 604H	
Site Centre Northing:	519525.60
Easting:	755247.70
Positional Uncertainity:	0.00
Convergence:	0.37
Local North:	Grid







Drawn: JG
Date Created: 11/9/2020
Date Revised: 1/11/2021
File: Advance Energy - Anderson Fed Com 604H Plan 1.0 Final PVA.wpc

Survey Reports
Pilot Hole

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
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 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**North Reference:**	Grid
Wellbore:	Pilot Hole 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 604H

Site Position:		**Northing:**	519,525.60 usft	**Latitude:**	32° 25' 34.804 N
From:	Map	**Easting:**	755,247.70 usft	**Longitude:**	103° 38' 24.194 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.37 °

Well Anderson #604H - Slot 604H

Well Position	**+N/-S**	0.00 usft	**Northing:**	519,525.60 usft	**Latitude:**	32° 25' 34.804 N
	+E/-W	0.00 usft	**Easting:**	755,247.70 usft	**Longitude:**	103° 38' 24.194 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,658.00 usft

Wellbore Pilot Hole Surveys

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	12/4/2020	6.52	60.15	47,945.10178103

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	2.69

Survey Program **Date** 12/19/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.00	12,210.00	Aim MWD Survey (Pilot Hole 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	1.10	218.06	199.99	-1.51	-1.18	-1.57	0.55	0.55	0.00
First Aim MWD Survey									
232.00	1.05	220.00	231.98	-1.98	-1.56	-2.05	0.19	-0.16	6.06
325.00	1.10	173.24	324.97	-3.52	-2.00	-3.61	0.92	0.05	-50.28
512.00	1.10	200.05	511.93	-6.99	-2.41	-7.09	0.27	0.00	14.34
606.00	0.18	196.53	605.93	-7.98	-2.76	-8.10	0.98	-0.98	-3.74
700.00	1.27	185.63	699.92	-9.15	-2.90	-9.28	1.16	1.16	-11.60
887.00	1.27	202.24	886.87	-13.13	-3.89	-13.30	0.20	0.00	8.88
1,074.00	2.02	209.80	1,073.79	-17.91	-6.31	-18.19	0.42	0.40	4.04
1,253.00	3.03	229.31	1,252.62	-23.73	-11.47	-24.25	0.73	0.56	10.90

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**North Reference:**	Grid
Wellbore:	Pilot Hole 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)
1,350.00	3.30	231.69	1,349.47	-27.14	-15.60	-27.84	0.31	0.28	2.45
1,529.00	3.08	237.22	1,528.20	-32.93	-23.69	-34.01	0.21	-0.12	3.09
1,619.00	1.54	246.37	1,618.12	-34.73	-26.83	-35.95	1.75	-1.71	10.17
1,708.00	0.88	268.95	1,707.10	-35.22	-28.61	-36.52	0.90	-0.74	25.37
1,798.00	0.75	273.26	1,797.09	-35.20	-29.89	-36.56	0.16	-0.14	4.79
1,888.00	0.48	275.63	1,887.09	-35.13	-30.85	-36.54	0.30	-0.30	2.63
1,978.00	0.35	285.83	1,977.08	-35.02	-31.49	-36.46	0.17	-0.14	11.33
2,157.00	0.48	17.41	2,156.08	-34.15	-31.79	-35.61	0.34	0.07	51.16
2,247.00	0.62	21.80	2,246.08	-33.34	-31.50	-34.78	0.16	0.16	4.88
2,426.00	1.14	49.31	2,425.06	-31.28	-29.79	-32.64	0.37	0.29	15.37
2,516.00	1.54	50.90	2,515.03	-29.93	-28.17	-31.22	0.45	0.44	1.77
2,605.00	2.02	52.83	2,603.99	-28.23	-25.99	-29.42	0.54	0.54	2.17
2,784.00	3.21	51.60	2,782.80	-23.21	-19.55	-24.10	0.67	0.66	-0.69
2,874.00	3.38	52.57	2,872.65	-20.03	-15.47	-20.74	0.20	0.19	1.08
2,963.00	2.64	51.51	2,961.53	-17.16	-11.78	-17.70	0.83	-0.83	-1.19
3,053.00	2.42	50.72	3,051.44	-14.67	-8.69	-15.06	0.25	-0.24	-0.88
3,143.00	1.80	53.97	3,141.38	-12.64	-6.08	-12.91	0.70	-0.69	3.61
3,232.00	1.67	77.79	3,230.34	-11.54	-3.68	-11.70	0.82	-0.15	26.76
3,321.00	2.77	94.93	3,319.27	-11.45	-0.27	-11.45	1.43	1.24	19.26
3,411.00	2.07	95.19	3,409.19	-11.78	3.52	-11.61	0.78	-0.78	0.29
3,501.00	1.05	95.28	3,499.16	-12.01	5.96	-11.71	1.13	-1.13	0.10
3,590.00	0.62	87.46	3,588.15	-12.06	7.25	-11.71	0.50	-0.48	-8.79
3,680.00	0.31	126.92	3,678.14	-12.19	7.93	-11.80	0.48	-0.34	43.84
3,770.00	0.44	220.70	3,768.14	-12.59	7.90	-12.21	0.62	0.14	104.20
3,859.00	0.66	260.69	3,857.14	-12.94	7.17	-12.59	0.48	0.25	44.93
3,949.00	1.23	263.94	3,947.13	-13.12	5.70	-12.84	0.64	0.63	3.61
4,039.00	1.41	257.09	4,037.10	-13.47	3.66	-13.28	0.27	0.20	-7.61
4,129.00	1.63	254.10	4,127.07	-14.07	1.35	-13.99	0.26	0.24	-3.32
4,219.00	1.71	262.19	4,217.03	-14.60	-1.21	-14.64	0.28	0.09	8.99
4,308.00	1.93	262.80	4,305.99	-14.97	-4.01	-15.14	0.25	0.25	0.69
4,398.00	2.15	264.82	4,395.93	-15.31	-7.20	-15.63	0.26	0.24	2.24
4,488.00	2.15	262.80	4,485.87	-15.68	-10.55	-16.16	0.08	0.00	-2.24
4,577.00	1.49	269.83	4,574.82	-15.89	-13.37	-16.50	0.78	-0.74	7.90
4,667.00	1.05	280.38	4,664.80	-15.74	-15.35	-16.45	0.55	-0.49	11.72
4,757.00	1.01	277.39	4,754.78	-15.49	-16.95	-16.27	0.07	-0.04	-3.32
4,847.00	0.92	281.26	4,844.77	-15.25	-18.44	-16.10	0.12	-0.10	4.30
4,871.00	0.88	280.99	4,868.77	-15.18	-18.81	-16.04	0.17	-0.17	-1.13
5,023.00	1.10	253.22	5,020.75	-15.38	-21.36	-16.36	0.34	0.14	-18.27
5,113.00	1.23	248.83	5,110.73	-15.98	-23.08	-17.04	0.18	0.14	-4.88
5,202.00	0.88	285.92	5,199.71	-16.13	-24.63	-17.27	0.84	-0.39	41.67
5,291.00	1.19	320.28	5,288.70	-15.23	-25.88	-16.43	0.76	0.35	38.61
5,381.00	1.19	320.37	5,378.68	-13.80	-27.07	-15.05	0.00	0.00	0.10
5,471.00	1.23	10.12	5,468.66	-12.13	-27.50	-13.40	1.13	0.04	55.28

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**North Reference:**	Grid
Wellbore:	Pilot Hole 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)
5,561.00	1.49	24.70	5,558.64	-10.11	-26.84	-11.36	0.48	0.29	16.20
5,650.00	1.63	22.60	5,647.60	-7.89	-25.87	-9.10	0.17	0.16	-2.36
5,740.00	1.54	15.83	5,737.57	-5.55	-25.05	-6.72	0.23	-0.10	-7.52
5,830.00	2.90	21.19	5,827.50	-2.26	-23.90	-3.38	1.53	1.51	5.96
5,919.00	3.21	21.98	5,916.37	2.15	-22.15	1.11	0.35	0.35	0.89
6,009.00	3.12	19.96	6,006.24	6.79	-20.37	5.83	0.16	-0.10	-2.24
6,099.00	3.34	15.56	6,096.09	11.62	-18.83	10.72	0.37	0.24	-4.89
6,189.00	3.34	14.33	6,185.94	16.68	-17.48	15.84	0.08	0.00	-1.37
6,279.00	3.34	14.51	6,275.79	21.76	-16.17	20.98	0.01	0.00	0.20
6,369.00	3.34	13.98	6,365.64	26.84	-14.88	26.12	0.03	0.00	-0.59
6,458.00	3.30	13.63	6,454.49	31.85	-13.65	31.17	0.05	-0.04	-0.39
6,548.00	3.16	11.70	6,544.34	36.79	-12.54	36.17	0.20	-0.16	-2.14
6,637.00	3.03	9.59	6,633.21	41.52	-11.65	40.92	0.19	-0.15	-2.37
6,816.00	2.77	5.81	6,811.98	50.48	-10.42	49.94	0.18	-0.15	-2.11
6,906.00	2.55	359.04	6,901.89	54.65	-10.24	54.11	0.43	-0.24	-7.52
6,995.00	2.73	12.75	6,990.79	58.70	-9.80	58.17	0.74	0.20	15.40
7,085.00	3.08	19.52	7,080.68	63.07	-8.52	62.60	0.54	0.39	7.52
7,174.00	2.73	22.07	7,169.56	67.28	-6.93	66.88	0.42	-0.39	2.87
7,264.00	2.55	26.11	7,259.47	71.07	-5.24	70.74	0.29	-0.20	4.49
7,354.00	2.46	28.40	7,349.38	74.56	-3.44	74.32	0.15	-0.10	2.54
7,444.00	3.60	23.83	7,439.25	78.85	-1.38	78.70	1.29	1.27	-5.08
7,534.00	3.69	23.04	7,529.07	84.10	0.90	84.05	0.11	0.10	-0.88
7,624.00	3.16	23.74	7,618.91	89.03	3.03	89.08	0.59	-0.59	0.78
7,713.00	2.81	25.50	7,707.79	93.25	4.95	93.38	0.41	-0.39	1.98
7,803.00	2.51	24.79	7,797.69	97.03	6.73	97.24	0.34	-0.33	-0.79
7,893.00	3.38	20.13	7,887.57	101.31	8.47	101.59	1.00	0.97	-5.18
8,072.00	2.59	27.78	8,066.33	109.84	12.17	110.29	0.49	-0.44	4.27
8,162.00	2.20	30.95	8,156.25	113.12	14.01	113.66	0.46	-0.43	3.52
8,252.00	3.52	28.40	8,246.14	117.03	16.21	117.67	1.47	1.47	-2.83
8,342.00	4.00	27.61	8,335.94	122.25	18.98	123.00	0.54	0.53	-0.88
8,431.00	3.65	30.51	8,424.75	127.44	21.86	128.32	0.45	-0.39	3.26
8,521.00	3.52	32.35	8,514.57	132.24	24.79	133.26	0.19	-0.14	2.04
8,611.00	3.16	37.45	8,604.42	136.54	27.78	137.70	0.52	-0.40	5.67
8,701.00	2.90	36.92	8,694.29	140.33	30.65	141.62	0.29	-0.29	-0.59
8,880.00	2.07	26.02	8,873.12	146.86	34.79	148.33	0.53	-0.46	-6.09
8,970.00	2.46	5.37	8,963.05	150.24	35.68	151.75	1.00	0.43	-22.94
9,060.00	2.59	2.12	9,052.97	154.20	35.94	155.71	0.21	0.14	-3.61
9,150.00	2.15	331.27	9,142.89	157.71	35.20	159.19	1.48	-0.49	-34.28
9,240.00	2.15	324.41	9,232.83	160.56	33.41	161.95	0.29	0.00	-7.62
9,329.00	2.68	335.40	9,321.75	163.81	31.57	165.11	0.79	0.60	12.35
9,419.00	3.47	330.12	9,411.62	168.09	29.34	169.28	0.93	0.88	-5.87
9,509.00	2.86	322.57	9,501.48	172.23	26.62	173.29	0.82	-0.68	-8.39
9,598.00	2.33	309.29	9,590.39	175.14	23.87	176.07	0.90	-0.60	-14.92

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**North Reference:**	Grid
Wellbore:	Pilot Hole 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)
9,688.00	3.69	335.66	9,680.27	178.94	21.26	179.74	2.12	1.51	29.30
9,868.00	1.89	339.27	9,860.05	186.99	17.82	187.62	1.00	-1.00	2.01
9,957.00	2.42	356.32	9,948.99	190.24	17.18	190.84	0.93	0.60	19.16
10,047.00	3.21	5.90	10,038.88	194.64	17.32	195.24	1.02	0.88	10.64
10,136.00	2.29	0.89	10,127.77	198.90	17.60	199.51	1.07	-1.03	-5.63
10,226.00	2.90	344.98	10,217.68	202.90	17.04	203.47	1.04	0.68	-17.68
10,315.00	3.12	340.85	10,306.56	207.36	15.66	207.87	0.35	0.25	-4.64
10,405.00	2.64	330.56	10,396.45	211.48	13.84	211.89	0.78	-0.53	-11.43
10,495.00	1.45	329.69	10,486.39	214.27	12.24	214.60	1.32	-1.32	-0.97
10,585.00	1.23	330.04	10,576.36	216.09	11.19	216.37	0.24	-0.24	0.39
10,674.00	0.75	325.64	10,665.35	217.39	10.38	217.64	0.55	-0.54	-4.94
10,764.00	1.45	40.44	10,755.34	218.75	10.79	219.01	1.61	0.78	83.11
10,853.00	0.97	58.98	10,844.32	219.99	12.16	220.32	0.69	-0.54	20.83
10,943.00	0.40	37.71	10,934.31	220.63	13.01	221.00	0.68	-0.63	-23.63
11,033.00	0.70	32.35	11,024.31	221.35	13.49	221.74	0.34	0.33	-5.96
11,122.00	1.14	340.85	11,113.29	222.64	13.50	223.03	1.00	0.49	-57.87
11,212.00	0.62	355.61	11,203.28	223.97	13.16	224.34	0.63	-0.58	16.40
11,301.00	1.93	131.93	11,292.27	223.45	14.24	223.87	2.72	1.47	153.17
11,391.00	2.73	136.33	11,382.19	220.89	16.85	221.44	0.91	0.89	4.89
11,480.00	1.32	138.52	11,471.14	218.59	18.99	219.24	1.59	-1.58	2.46
11,570.00	0.62	173.59	11,561.12	217.33	19.73	218.01	0.99	-0.78	38.97
11,660.00	0.97	200.49	11,651.12	216.13	19.52	216.81	0.56	0.39	29.89
11,749.00	1.58	195.21	11,740.09	214.24	18.94	214.89	0.70	0.69	-5.93
11,839.00	1.05	191.61	11,830.07	212.23	18.44	212.87	0.60	-0.59	-4.00
11,929.00	1.19	205.06	11,920.05	210.58	17.88	211.19	0.33	0.16	14.94
12,018.00	1.36	228.52	12,009.03	209.04	16.70	209.60	0.61	0.19	26.36
12,138.00	1.71	223.60	12,128.99	206.80	14.40	207.25	0.31	0.29	-4.10
Last Aim MWD Survey									
12,210.00	1.71	223.60	12,200.96	205.25	12.92	205.63	0.00	0.00	0.00
Projection to BHL									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
200.00	199.99	-1.51	-1.18	First Aim MWD Survey
12,138.00	12,128.99	206.80	14.40	Last Aim MWD Survey
12,210.00	12,200.96	205.25	12.92	Projection to BHL

Survey Reports
Lateral

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
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 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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 604H

Site Position:		**Northing:**	519,525.60 usft	**Latitude:**	32° 25' 34.804 N
From:	Map	**Easting:**	755,247.70 usft	**Longitude:**	103° 38' 24.194 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.37 °

Well Anderson #604H - Slot 604H

Well Position	**+N/-S**	0.00 usft	**Northing:**	519,525.60 usft	**Latitude:**	32° 25' 34.804 N
	+E/-W	0.00 usft	**Easting:**	755,247.70 usft	**Longitude:**	103° 38' 24.194 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,658.00 usft

Wellbore Aim MWD Surveys

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	1/6/2021	6.51	60.15	47,935.44608190

Design Aim MWD Surveys

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	11,212.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.66

Survey Program **Date** 1/11/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.00	11,212.00	Aim MWD Survey (Pilot Hole Surveys)	B001Mb_MWD+HRGM	OWSG MWD + HRGM
11,340.00	18,637.00	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	1.10	218.06	199.99	-1.51	-1.18	-1.50	0.55	0.55	0.00
232.00	1.05	220.00	231.98	-1.98	-1.56	-1.97	0.19	-0.16	6.06
325.00	1.10	173.24	324.97	-3.52	-2.00	-3.51	0.92	0.05	-50.28
512.00	1.10	200.05	511.93	-6.99	-2.41	-6.97	0.27	0.00	14.34
606.00	0.18	196.53	605.93	-7.98	-2.76	-7.96	0.98	-0.98	-3.74
700.00	1.27	185.63	699.92	-9.15	-2.90	-9.14	1.16	1.16	-11.60
887.00	1.27	202.24	886.87	-13.13	-3.89	-13.11	0.20	0.00	8.88
1,074.00	2.02	209.80	1,073.79	-17.91	-6.31	-17.87	0.42	0.40	4.04
1,253.00	3.03	229.31	1,252.62	-23.73	-11.47	-23.67	0.73	0.56	10.90

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
1,350.00	3.30	231.69	1,349.47	-27.14	-15.60	-27.04	0.31	0.28	2.45
1,529.00	3.08	237.22	1,528.20	-32.93	-23.69	-32.79	0.21	-0.12	3.09
1,619.00	1.54	246.37	1,618.12	-34.73	-26.83	-34.57	1.75	-1.71	10.17
1,708.00	0.88	268.95	1,707.10	-35.22	-28.61	-35.05	0.90	-0.74	25.37
1,798.00	0.75	273.26	1,797.09	-35.20	-29.89	-35.02	0.16	-0.14	4.79
1,888.00	0.48	275.63	1,887.09	-35.13	-30.85	-34.94	0.30	-0.30	2.63
1,978.00	0.35	285.83	1,977.08	-35.02	-31.49	-34.83	0.17	-0.14	11.33
2,157.00	0.48	17.41	2,156.08	-34.15	-31.79	-33.96	0.34	0.07	51.16
2,247.00	0.62	21.80	2,246.08	-33.34	-31.50	-33.15	0.16	0.16	4.88
2,426.00	1.14	49.31	2,425.06	-31.28	-29.79	-31.10	0.37	0.29	15.37
2,516.00	1.54	50.90	2,515.03	-29.93	-28.17	-29.77	0.45	0.44	1.77
2,605.00	2.02	52.83	2,603.99	-28.23	-25.99	-28.08	0.54	0.54	2.17
2,784.00	3.21	51.60	2,782.80	-23.21	-19.55	-23.10	0.67	0.66	-0.69
2,874.00	3.38	52.57	2,872.65	-20.03	-15.47	-19.94	0.20	0.19	1.08
2,963.00	2.64	51.51	2,961.53	-17.16	-11.78	-17.09	0.83	-0.83	-1.19
3,053.00	2.42	50.72	3,051.44	-14.67	-8.69	-14.62	0.25	-0.24	-0.88
3,143.00	1.80	53.97	3,141.38	-12.64	-6.08	-12.60	0.70	-0.69	3.61
3,232.00	1.67	77.79	3,230.34	-11.54	-3.68	-11.52	0.82	-0.15	26.76
3,321.00	2.77	94.93	3,319.27	-11.45	-0.27	-11.45	1.43	1.24	19.26
3,411.00	2.07	95.19	3,409.19	-11.78	3.52	-11.81	0.78	-0.78	0.29
3,501.00	1.05	95.28	3,499.16	-12.01	5.96	-12.04	1.13	-1.13	0.10
3,590.00	0.62	87.46	3,588.15	-12.06	7.25	-12.10	0.50	-0.48	-8.79
3,680.00	0.31	126.92	3,678.14	-12.19	7.93	-12.23	0.48	-0.34	43.84
3,770.00	0.44	220.70	3,768.14	-12.59	7.90	-12.64	0.62	0.14	104.20
3,859.00	0.66	260.69	3,857.14	-12.94	7.17	-12.98	0.48	0.25	44.93
3,949.00	1.23	263.94	3,947.13	-13.12	5.70	-13.16	0.64	0.63	3.61
4,039.00	1.41	257.09	4,037.10	-13.47	3.66	-13.49	0.27	0.20	-7.61
4,129.00	1.63	254.10	4,127.07	-14.07	1.35	-14.08	0.26	0.24	-3.32
4,219.00	1.71	262.19	4,217.03	-14.60	-1.21	-14.60	0.28	0.09	8.99
4,308.00	1.93	262.80	4,305.99	-14.97	-4.01	-14.95	0.25	0.25	0.69
4,398.00	2.15	264.82	4,395.93	-15.31	-7.20	-15.27	0.26	0.24	2.24
4,488.00	2.15	262.80	4,485.87	-15.68	-10.55	-15.61	0.08	0.00	-2.24
4,577.00	1.49	269.83	4,574.82	-15.89	-13.37	-15.81	0.78	-0.74	7.90
4,667.00	1.05	280.38	4,664.80	-15.74	-15.35	-15.65	0.55	-0.49	11.72
4,757.00	1.01	277.39	4,754.78	-15.49	-16.95	-15.39	0.07	-0.04	-3.32
4,847.00	0.92	281.26	4,844.77	-15.25	-18.44	-15.14	0.12	-0.10	4.30
4,871.00	0.88	280.99	4,868.77	-15.18	-18.81	-15.07	0.17	-0.17	-1.13
5,023.00	1.10	253.22	5,020.75	-15.38	-21.36	-15.25	0.34	0.14	-18.27
5,113.00	1.23	248.83	5,110.73	-15.98	-23.08	-15.84	0.18	0.14	-4.88
5,202.00	0.88	285.92	5,199.71	-16.13	-24.63	-15.99	0.84	-0.39	41.67
5,291.00	1.19	320.28	5,288.70	-15.23	-25.88	-15.08	0.76	0.35	38.61
5,381.00	1.19	320.37	5,378.68	-13.80	-27.07	-13.64	0.00	0.00	0.10
5,471.00	1.23	10.12	5,468.66	-12.13	-27.50	-11.96	1.13	0.04	55.28

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
5,561.00	1.49	24.70	5,558.64	-10.11	-26.84	-9.95	0.48	0.29	16.20
5,650.00	1.63	22.60	5,647.60	-7.89	-25.87	-7.74	0.17	0.16	-2.36
5,740.00	1.54	15.83	5,737.57	-5.55	-25.05	-5.40	0.23	-0.10	-7.52
5,830.00	2.90	21.19	5,827.50	-2.26	-23.90	-2.12	1.53	1.51	5.96
5,919.00	3.21	21.98	5,916.37	2.15	-22.15	2.28	0.35	0.35	0.89
6,009.00	3.12	19.96	6,006.24	6.79	-20.37	6.91	0.16	-0.10	-2.24
6,099.00	3.34	15.56	6,096.09	11.62	-18.83	11.73	0.37	0.24	-4.89
6,189.00	3.34	14.33	6,185.94	16.68	-17.48	16.79	0.08	0.00	-1.37
6,279.00	3.34	14.51	6,275.79	21.76	-16.17	21.86	0.01	0.00	0.20
6,369.00	3.34	13.98	6,365.64	26.84	-14.88	26.93	0.03	0.00	-0.59
6,458.00	3.30	13.63	6,454.49	31.85	-13.65	31.93	0.05	-0.04	-0.39
6,548.00	3.16	11.70	6,544.34	36.79	-12.54	36.87	0.20	-0.16	-2.14
6,637.00	3.03	9.59	6,633.21	41.52	-11.65	41.58	0.19	-0.15	-2.37
6,816.00	2.77	5.81	6,811.98	50.48	-10.42	50.54	0.18	-0.15	-2.11
6,906.00	2.55	359.04	6,901.89	54.65	-10.24	54.71	0.43	-0.24	-7.52
6,995.00	2.73	12.75	6,990.79	58.70	-9.80	58.75	0.74	0.20	15.40
7,085.00	3.08	19.52	7,080.68	63.07	-8.52	63.12	0.54	0.39	7.52
7,174.00	2.73	22.07	7,169.56	67.28	-6.93	67.32	0.42	-0.39	2.87
7,264.00	2.55	26.11	7,259.47	71.07	-5.24	71.10	0.29	-0.20	4.49
7,354.00	2.46	28.40	7,349.38	74.56	-3.44	74.58	0.15	-0.10	2.54
7,444.00	3.60	23.83	7,439.25	78.85	-1.38	78.86	1.29	1.27	-5.08
7,534.00	3.69	23.04	7,529.07	84.10	0.90	84.09	0.11	0.10	-0.88
7,624.00	3.16	23.74	7,618.91	89.03	3.03	89.01	0.59	-0.59	0.78
7,713.00	2.81	25.50	7,707.79	93.25	4.95	93.22	0.41	-0.39	1.98
7,803.00	2.51	24.79	7,797.69	97.03	6.73	96.99	0.34	-0.33	-0.79
7,893.00	3.38	20.13	7,887.57	101.31	8.47	101.26	1.00	0.97	-5.18
8,072.00	2.59	27.78	8,066.33	109.84	12.17	109.77	0.49	-0.44	4.27
8,162.00	2.20	30.95	8,156.25	113.12	14.01	113.04	0.46	-0.43	3.52
8,252.00	3.52	28.40	8,246.14	117.03	16.21	116.94	1.47	1.47	-2.83
8,342.00	4.00	27.61	8,335.94	122.25	18.98	122.13	0.54	0.53	-0.88
8,431.00	3.65	30.51	8,424.75	127.44	21.86	127.31	0.45	-0.39	3.26
8,521.00	3.52	32.35	8,514.57	132.24	24.79	132.09	0.19	-0.14	2.04
8,611.00	3.16	37.45	8,604.42	136.54	27.78	136.38	0.52	-0.40	5.67
8,701.00	2.90	36.92	8,694.29	140.33	30.65	140.15	0.29	-0.29	-0.59
8,880.00	2.07	26.02	8,873.12	146.86	34.79	146.65	0.53	-0.46	-6.09
8,970.00	2.46	5.37	8,963.05	150.24	35.68	150.03	1.00	0.43	-22.94
9,060.00	2.59	2.12	9,052.97	154.20	35.94	153.98	0.21	0.14	-3.61
9,150.00	2.15	331.27	9,142.89	157.71	35.20	157.50	1.48	-0.49	-34.28
9,240.00	2.15	324.41	9,232.83	160.56	33.41	160.36	0.29	0.00	-7.62
9,329.00	2.68	335.40	9,321.75	163.81	31.57	163.62	0.79	0.60	12.35
9,419.00	3.47	330.12	9,411.62	168.09	29.34	167.91	0.93	0.88	-5.87
9,509.00	2.86	322.57	9,501.48	172.23	26.62	172.07	0.82	-0.68	-8.39
9,598.00	2.33	309.29	9,590.39	175.14	23.87	175.00	0.90	-0.60	-14.92

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
9,688.00	3.69	335.66	9,680.27	178.94	21.26	178.81	2.12	1.51	29.30
9,868.00	1.89	339.27	9,860.05	186.99	17.82	186.88	1.00	-1.00	2.01
9,957.00	2.42	356.32	9,948.99	190.24	17.18	190.13	0.93	0.60	19.16
10,047.00	3.21	5.90	10,038.88	194.64	17.32	194.54	1.02	0.88	10.64
10,136.00	2.29	0.89	10,127.77	198.90	17.60	198.79	1.07	-1.03	-5.63
10,226.00	2.90	344.98	10,217.68	202.90	17.04	202.79	1.04	0.68	-17.68
10,315.00	3.12	340.85	10,306.56	207.36	15.66	207.26	0.35	0.25	-4.64
10,405.00	2.64	330.56	10,396.45	211.48	13.84	211.39	0.78	-0.53	-11.43
10,495.00	1.45	329.69	10,486.39	214.27	12.24	214.19	1.32	-1.32	-0.97
10,585.00	1.23	330.04	10,576.36	216.09	11.19	216.02	0.24	-0.24	0.39
10,674.00	0.75	325.64	10,665.35	217.39	10.38	217.33	0.55	-0.54	-4.94
10,764.00	1.45	40.44	10,755.34	218.75	10.79	218.68	1.61	0.78	83.11
10,853.00	0.97	58.98	10,844.32	219.99	12.16	219.92	0.69	-0.54	20.83
10,943.00	0.40	37.71	10,934.31	220.63	13.01	220.55	0.68	-0.63	-23.63
11,033.00	0.70	32.35	11,024.31	221.35	13.49	221.26	0.34	0.33	-5.96
11,122.00	1.14	340.85	11,113.29	222.64	13.50	222.56	1.00	0.49	-57.87
11,212.00	0.62	355.61	11,203.28	223.97	13.16	223.89	0.63	-0.58	16.40
Tie-on to Pilot Hole									
11,340.00	1.58	40.77	11,331.26	226.00	14.26	225.91	0.96	0.75	35.28
First Lateral Survey									
11,386.00	6.64	4.12	11,377.13	229.14	14.87	229.04	11.86	11.00	-79.67
11,430.00	10.81	354.80	11,420.62	235.79	14.68	235.69	9.98	9.48	-21.18
11,519.00	18.77	3.59	11,506.61	258.43	14.82	258.33	9.27	8.94	9.88
11,609.00	23.52	0.60	11,590.53	290.85	15.91	290.76	5.41	5.28	-3.32
11,698.00	34.20	357.61	11,668.36	333.73	15.05	333.63	12.11	12.00	-3.36
11,788.00	46.64	355.94	11,736.75	391.87	11.67	391.79	13.87	13.82	-1.86
11,878.00	58.81	357.70	11,791.16	463.24	7.79	463.18	13.61	13.52	1.96
11,967.00	68.09	356.91	11,830.90	542.68	4.03	542.64	10.46	10.43	-0.89
12,057.00	73.76	356.03	11,860.30	627.54	-1.21	627.53	6.37	6.30	-0.98
12,146.00	86.64	357.18	11,875.41	714.90	-6.38	714.93	14.53	14.47	1.29
12,236.00	90.77	356.65	11,877.45	804.73	-11.22	804.78	4.63	4.59	-0.59
12,268.00	91.34	355.86	11,876.86	836.65	-13.31	836.72	3.04	1.78	-2.47
12,357.00	88.92	356.38	11,876.66	925.44	-19.33	925.54	2.78	-2.72	0.58
12,447.00	88.13	356.30	11,878.97	1,015.23	-25.08	1,015.36	0.88	-0.88	-0.09
12,537.00	88.66	357.79	11,881.49	1,105.07	-29.71	1,105.23	1.76	0.59	1.66
12,626.00	88.13	359.11	11,883.99	1,194.00	-32.12	1,194.17	1.60	-0.60	1.48
12,716.00	87.43	359.37	11,887.47	1,283.92	-33.31	1,284.10	0.83	-0.78	0.29
12,805.00	89.63	359.99	11,889.76	1,372.89	-33.81	1,373.06	2.57	2.47	0.70
12,895.00	89.10	359.99	11,890.75	1,462.88	-33.83	1,463.06	0.59	-0.59	0.00
12,984.00	90.64	0.95	11,890.96	1,551.87	-33.10	1,552.04	2.04	1.73	1.08
13,074.00	92.26	1.13	11,888.68	1,641.83	-31.46	1,641.99	1.81	1.80	0.20
13,164.00	91.60	0.16	11,885.65	1,731.77	-30.45	1,731.92	1.30	-0.73	-1.08
13,253.00	91.25	358.23	11,883.43	1,820.73	-31.70	1,820.88	2.20	-0.39	-2.17
13,343.00	89.58	358.85	11,882.78	1,910.69	-33.99	1,910.86	1.98	-1.86	0.69

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
13,432.00	88.18	358.41	11,884.52	1,999.65	-36.12	1,999.83	1.65	-1.57	-0.49
13,522.00	89.71	358.58	11,886.18	2,089.60	-38.48	2,089.79	1.71	1.70	0.19
13,611.00	90.37	358.23	11,886.12	2,178.56	-40.96	2,178.77	0.84	0.74	-0.39
13,701.00	90.20	356.56	11,885.67	2,268.47	-45.05	2,268.69	1.87	-0.19	-1.86
13,791.00	90.95	358.05	11,884.77	2,358.36	-49.28	2,358.61	1.85	0.83	1.66
13,880.00	92.31	356.56	11,882.23	2,447.22	-53.46	2,447.50	2.27	1.53	-1.67
13,970.00	92.35	357.53	11,878.58	2,537.03	-58.10	2,537.33	1.08	0.04	1.08
14,060.00	89.80	358.93	11,876.89	2,626.96	-60.88	2,627.27	3.23	-2.83	1.56
14,150.00	89.01	0.51	11,877.82	2,716.95	-61.32	2,717.26	1.96	-0.88	1.76
14,239.00	89.67	0.16	11,878.85	2,805.94	-60.80	2,806.25	0.84	0.74	-0.39
14,329.00	89.85	0.69	11,879.22	2,895.94	-60.13	2,896.24	0.62	0.20	0.59
14,418.00	91.12	1.92	11,878.47	2,984.91	-58.10	2,985.20	1.99	1.43	1.38
14,508.00	89.67	2.45	11,877.85	3,074.84	-54.67	3,075.11	1.72	-1.61	0.59
14,597.00	90.11	2.98	11,878.02	3,163.74	-50.46	3,163.98	0.77	0.49	0.60
14,687.00	88.22	1.13	11,879.33	3,253.66	-47.23	3,253.88	2.94	-2.10	-2.06
14,776.00	90.33	1.92	11,880.46	3,342.62	-44.86	3,342.82	2.53	2.37	0.89
14,866.00	92.09	1.66	11,878.56	3,432.55	-42.05	3,432.74	1.98	1.96	-0.29
14,956.00	93.67	2.45	11,874.04	3,522.37	-38.83	3,522.54	1.96	1.76	0.88
15,045.00	92.35	1.57	11,869.36	3,611.19	-35.71	3,611.34	1.78	-1.48	-0.99
15,135.00	92.48	0.43	11,865.57	3,701.10	-34.14	3,701.24	1.27	0.14	-1.27
15,224.00	91.65	359.46	11,862.36	3,790.04	-34.23	3,790.17	1.43	-0.93	-1.09
15,314.00	90.46	357.70	11,860.71	3,879.99	-36.46	3,880.14	2.36	-1.32	-1.96
15,404.00	89.98	358.05	11,860.36	3,969.93	-39.80	3,970.09	0.66	-0.53	0.39
15,493.00	90.99	359.72	11,859.61	4,058.90	-41.53	4,059.08	2.19	1.13	1.88
15,582.00	90.99	358.85	11,858.07	4,147.88	-42.64	4,148.06	0.98	0.00	-0.98
15,672.00	92.00	358.23	11,855.72	4,237.82	-44.93	4,238.01	1.32	1.12	-0.69
15,761.00	91.78	356.21	11,852.79	4,326.66	-49.24	4,326.88	2.28	-0.25	-2.27
15,850.00	92.57	357.53	11,849.41	4,415.46	-54.10	4,415.71	1.73	0.89	1.48
15,940.00	92.26	0.43	11,845.61	4,505.36	-55.70	4,505.61	3.24	-0.34	3.22
16,030.00	92.13	0.16	11,842.17	4,595.29	-55.24	4,595.54	0.33	-0.14	-0.30
16,119.00	93.76	1.39	11,837.59	4,684.16	-54.04	4,684.40	2.29	1.83	1.38
16,208.00	90.42	0.69	11,834.35	4,773.07	-52.42	4,773.30	3.83	-3.75	-0.79
16,298.00	89.71	1.04	11,834.25	4,863.06	-51.06	4,863.28	0.88	-0.79	0.39
16,388.00	89.27	0.87	11,835.05	4,953.05	-49.56	4,953.25	0.52	-0.49	-0.19
16,477.00	88.84	0.78	11,836.52	5,042.03	-48.28	5,042.22	0.49	-0.48	-0.10
16,567.00	88.79	0.60	11,838.38	5,132.00	-47.20	5,132.19	0.21	-0.06	-0.20
16,656.00	90.51	359.55	11,838.92	5,220.99	-47.08	5,221.18	2.26	1.93	-1.18
16,746.00	90.81	358.58	11,837.88	5,310.97	-48.55	5,311.17	1.13	0.33	-1.08
16,835.00	92.31	357.97	11,835.46	5,399.90	-51.23	5,400.11	1.82	1.69	-0.69
16,925.00	92.53	357.61	11,831.66	5,489.75	-54.70	5,489.98	0.47	0.24	-0.40
17,014.00	90.81	356.74	11,829.07	5,578.60	-59.08	5,578.85	2.17	-1.93	-0.98
17,104.00	90.02	356.30	11,828.42	5,668.43	-64.54	5,668.71	1.00	-0.88	-0.49
17,194.00	92.84	357.79	11,826.17	5,758.27	-69.18	5,758.58	3.54	3.13	1.66

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson Fed Com 604H
Project:	Lea County, New Mexico	**TVD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Site:	Anderson Fed Com 604H	**MD Reference:**	3658'GL+25.5'KB @ 3683.50usft (Pioneer 80)
Well:	Anderson #604H	**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)
17,283.00	92.66	355.86	11,821.90	5,847.03	-74.11	5,847.37	2.18	-0.20	-2.17
17,373.00	92.44	357.53	11,817.89	5,936.79	-79.29	5,937.15	1.87	-0.24	1.86
17,463.00	91.08	359.11	11,815.13	6,026.70	-81.93	6,027.08	2.32	-1.51	1.76
17,552.00	89.67	359.72	11,814.55	6,115.69	-82.83	6,116.08	1.73	-1.58	0.69
17,642.00	92.88	0.16	11,812.55	6,205.66	-82.93	6,206.04	3.60	3.57	0.49
17,731.00	92.70	358.49	11,808.21	6,294.54	-83.98	6,294.93	1.89	-0.20	-1.88
17,821.00	91.21	359.02	11,805.14	6,384.47	-85.93	6,384.86	1.76	-1.66	0.59
17,911.00	91.78	357.79	11,802.79	6,474.40	-88.43	6,474.81	1.51	0.63	-1.37
18,000.00	91.82	358.14	11,800.00	6,563.30	-91.59	6,563.73	0.40	0.04	0.39
18,090.00	92.88	356.91	11,796.31	6,653.14	-95.48	6,653.59	1.80	1.18	-1.37
18,179.00	92.75	358.05	11,791.94	6,741.94	-99.38	6,742.41	1.29	-0.15	1.28
18,269.00	96.22	1.92	11,784.90	6,831.63	-99.41	6,832.10	5.77	3.86	4.30
18,358.00	93.54	3.24	11,777.33	6,920.21	-95.42	6,920.66	3.35	-3.01	1.48
18,448.00	89.85	2.10	11,774.67	7,010.06	-91.23	7,010.48	4.29	-4.10	-1.27
18,537.00	89.63	1.31	11,775.07	7,099.02	-88.58	7,099.42	0.92	-0.25	-0.89
Last Aim MWD Survey									
18,637.00	89.63	1.31	11,775.72	7,198.99	-86.30	7,199.37	0.00	0.00	0.00
Projection to BHL									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
11,212.00	11,203.28	223.97	13.16	Tie-on to Pilot Hole
11,340.00	11,331.26	226.00	14.26	First Lateral Survey
18,537.00	11,775.07	7,099.02	-88.58	Last Aim MWD Survey
18,637.00	11,775.72	7,198.99	-86.30	Projection to BHL

Daily Reports
Pilot Hole

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Nov 30 00:00 - 23:59 (Day 1 of 25)

Billing: $11,100.00 ($143,637.38 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		**Downhole Hours**	0.00	**Rotating WOB (klbs)**	
Bit Depth (ft)		**Drilling Hours**	0.00	**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)		**Hours Circulating**	0.00	**Rotating SPM**	
Total Distance (ft)	0.00	**Hours Sliding**	0.00	**Sliding SPM**	
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00	**Motor RPM**	-
Distance Slid (ft)	0.00			**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
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Other	16	11-30	00:00	06:00	11-30			Arrive on Location
Standby	15	11-30	06:00	20:30	12-03			Standby while Rig Moves on Location and rigs up

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Dec 01 00:00 - 23:59 (Day 2 of 25)

Billing: $3,200.00 ($143,637.38 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
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	11-30	06:00	20:30	12-03			Standby while Rig Moves on Location and rigs up

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Dec 02 00:00 - 23:59 (Day 3 of 25)

Billing: $3,200.00 ($143,637.38 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
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	11-30	06:00	20:30	12-03			Standby while Rig Moves on Location and rigs up

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Dec 03 00:00 - 23:59 (Day 4 of 25)

Billing: $8,100.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	100.00	**Downhole Hours**	3.50	**Rotating WOB (klbs)**	10.00 - 10.00
Bit Depth (ft)	110.00	**Drilling Hours**	0.07	**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)	110.00	**Hours Circulating**	0.00	**Rotating SPM**	112.00 - 112.00
Total Distance (ft)	10.00	**Hours Sliding**	0.00	**Sliding SPM**	
Distance Rotated (ft)	10.00	**Hours Rotating**	0.07	**Motor RPM**	96.00 - 96.00
Distance Slid (ft)	0.00			**Surface RPM**	40.00 - 40.00
Inclination In				**Flow Rate (gpm)**	430.00 - 430.00
Inclination Out				**On Bottom Pressure (psi)**	900.00 - 900.00
Azimuth In		**% Hours Rotating**	100%	**Off Bottom Pressure (psi)**	650.00 - 650.00
Azimuth Out		**% Hours Sliding**	0%		
AVG Total ROP (ft/h)	213.33	**% Distance Sliding**	0%		
AVG Rotating ROP (ft/h)	213.33	**% Distance Rotating**	100%		
AVG Sliding ROP (ft/h)	0.00				

Personnel

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

BHA #1 - Surface 17.5"

Date In: Dec 3, 2020, 20:30 Date Out: Dec 4, 2020, 12:45

Bit Details

OD (in)	17.500
Vendor	Baker
S/N	5296623
Nozzles	9x12's
Total Flow Area (in²)	0.994
Drilling Hours for Day	0.07
Total Drilled for Day (ft)	10.00
Drilling Hours for BHA	8.58
Total Drilled for BHA (ft)	1213.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 4.0
Bend Angle	1.5
Speed (rev/gal)	0.16
Wear Pad OD (in)	8.250

Bit Distances

Survey (Bit to Survey): 60.00 ft, **Bend (Bit to Bend):** 4.75 ft

Directional Comments

1.5° FBH 7/8 4.0 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 900 psi; Max TQ: 14,930 ft/lbs; Bit: Baker Type: DP606S, Jets: 9x12, TFA: 0.994 Runs: 6

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: *DP606S*, Style: *PDC*, Gauge Length (in): *5.00*, Size (in): *17.50*	Baker	5296623	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: *1.5 FBH 7/8 4.0 Stg Mtr. w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	AIM	800-002	6 5/8" Reg Box	6 5/8" Reg Box		8.000		29.34	30.84
Stabilizer Description: *12" Stabilizer*	BD	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	38.24
UBHO Sub Description: *UBHO Sub*, Type: *NM*	AIM	800-609	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		3.00	41.24
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	71.52
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	DY8001	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	101.55
Crossover Sub Description: *X-over (ED 54 Box x 6 5/8 Reg Pin)* , Type: *Steel*	BLACK DIAMOND	BD15080	EverDrlg54 Box	6 5/8" Reg Pin	2.813	8.000		3.41	104.96

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	11-30	06:00	20:30	12-03			Standby while Rig Moves on Location and rigs up
Pick Up BHA	64	12-03	20:30	23:55	12-03			P/U Surface BHA #1
Rotary Drill	1	12-03	23:55	23:59	12-03	100.00	110.00	Pressure On (psi): *900.00*, Pressure Off (psi): *650.00*, Weight On Bit (klbs): *10.00*, Surface RPM: *40*, Surface Torque (ft lbf): *7000.00*, Flow Rate (gpm): *430.00*, Strokes Per Minute: *112.00*

Rotary Drill	1	12-03	23:59	00:40	12-04	110.00	260.00	Pressure On (psi): *900.00*, Pressure Off (psi): *650.00*, Weight On Bit (klbs): *10.00*, Surface RPM: *40*, Surface Torque (ft lbf): *7000.00*, Flow Rate (gpm): *430.00*, Strokes Per Minute: *112.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Dec 04 00:00 - 23:59 (Day 5 of 25)

Billing: $4,200.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	110.00	**Downhole Hours**	12.75
Bit Depth (ft)	1313.00	**Drilling Hours**	8.52
Bottom Hole Depth (ft)	1313.00	**Hours Circulating**	1.25
Total Distance (ft)	1203.00	**Hours Sliding**	0.00
Distance Rotated (ft)	1203.00	**Hours Rotating**	8.52
Distance Slid (ft)	0.00		
Inclination In	1.10		
Inclination Out	3.03		
Azimuth In	218.06	**% Hours Rotating**	100%
Azimuth Out	229.31	**% Hours Sliding**	0%
AVG Total ROP (ft/h)	141.25	**% Distance Sliding**	0%
AVG Rotating ROP (ft/h)	141.25	**% Distance Rotating**	100%
AVG Sliding ROP (ft/h)	0.00		

Drilling Parameters

Rotating WOB (klbs)	10.00 - 30.00
Sliding WOB (klbs)	
Rotating SPM	112.00 - 208.00
Sliding SPM	
Motor RPM	96.00 - 96.00
Surface RPM	40.00 - 70.00
Flow Rate (gpm)	430.00 - 800.00
On Bottom Pressure (psi)	900.00 - 2500.00
Off Bottom Pressure (psi)	650.00 - 1750.00

Personnel

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

BHA #1 - Surface 17.5"

Date In: Dec 3, 2020, 20:30 Date Out: Dec 4, 2020, 12:45

Bit Details

OD (in)	17.500
Vendor	Baker
S/N	5296623
Nozzles	9x12's
Total Flow Area (in²)	0.994
Drilling Hours for Day	8.52
Total Drilled for Day (ft)	1203.00
Drilling Hours for BHA	8.58
Total Drilled for BHA (ft)	1213.00

Motor Details

Size (in)	8.0
Lobe/Stage	7/8, 4.0
Bend Angle	1.5
Speed (rev/gal)	0.16
Wear Pad OD (in)	8.250

Bit Distances

Survey (Bit to Survey): 60.00 ft, **Bend (Bit to Bend):** 4.75 ft

Directional Comments

1.5° FBH 7/8 4.0 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 900 psi; Max TQ: 14,930 ft/lbs; Bit: Baker Type: DP606S, Jets: 9x12, TFA: 0.994 Runs: 6

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: *DP606S*, Style: *PDC*, Gauge Length (in): *5.00*, Size (in): *17.50*	Baker	5296623	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: *1.5 FBH 7/8 4.0 Stg Mtr. w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	AIM	800-002	6 5/8" Reg Box	6 5/8" Reg Box		8.000		29.34	30.84
Stabilizer Description: *12" Stabilizer*	BD	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	38.24
UBHO Sub Description: *UBHO Sub*, Type: *NM*	AIM	800-609	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		3.00	41.24
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	71.52
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	DY8001	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	101.55
Crossover Sub Description: *X-over (ED 54 Box x 6 5/8 Reg Pin)* , Type: *Steel*	BLACK DIAMOND	BD15080	EverDrlg54 Box	6 5/8" Reg Pin	2.813	8.000		3.41	104.96

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	12-03	23:59	00:40	12-04	110.00	260.00	Pressure On (psi): *900.00*, Pressure Off (psi): *650.00*, Weight On Bit (klbs): *10.00*, Surface RPM: *40*, Surface Torque (ft lbf): *7000.00*, Flow Rate (gpm): *430.00*, Strokes Per Minute: *112.00*
Survey	46	12-04	00:40	00:45	12-04	260.00	260.00	Inclination (°): *1.100*, Azimuth (°): *218.060*, TVD (ft): *199.99*, Dogleg (º/100 ft): *0.55*, Sensor Depth (ft): *200.00*, Bit To Sensor (ft): *60.00*

Rotary Drill	1	12-04	00:45	01:00	12-04	260.00	292.00	Pressure On (psi): *900.00*, Pressure Off (psi): *650.00*, Weight On Bit (klbs): *10.00*, Surface RPM: *40*, Surface Torque (ft lbf): *7000.00*, Flow Rate (gpm): *430.00*, Strokes Per Minute: *112.00*
Survey	46	12-04	01:00	01:05	12-04	292.00	292.00	Inclination (°): *1.050*, Azimuth (°): *220.000*, TVD (ft): *231.98*, Dogleg (º/100 ft): *0.19*, Sensor Depth (ft): *232.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	12-04	01:05	01:30	12-04	292.00	385.00	Pressure On (psi): *1500.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *18.00*, Surface RPM: *60*, Surface Torque (ft lbf): *13000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-04	01:30	01:35	12-04	385.00	385.00	Inclination (°): *1.100*, Azimuth (°): *173.240*, TVD (ft): *324.97*, Dogleg (º/100 ft): *0.92*, Sensor Depth (ft): *325.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	12-04	01:35	03:05	12-04	385.00	572.00	Pressure On (psi): *1500.00*, Pressure Off (psi): *1000.00*, Weight On Bit (klbs): *18.00*, Surface RPM: *60*, Surface Torque (ft lbf): *13000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	12-04	03:05	03:10	12-04	572.00	572.00	Inclination (°): *1.100*, Azimuth (°): *200.050*, TVD (ft): *511.93*, Dogleg (º/100 ft): *0.27*, Sensor Depth (ft): *512.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	12-04	03:10	03:35	12-04	572.00	666.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1600.00*, Weight On Bit (klbs): *18.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-04	03:35	03:40	12-04	666.00	666.00	Inclination (°): *0.180*, Azimuth (°): *196.630*, TVD (ft): *605.93*, Dogleg (º/100 ft): *0.98*, Sensor Depth (ft): *606.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	12-04	03:40	04:05	12-04	666.00	760.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1600.00*, Weight On Bit (klbs): *18.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-04	04:05	04:10	12-04	760.00	760.00	Inclination (°): *1.270*, Azimuth (°): *185.630*, TVD (ft): *699.92*, Dogleg (º/100 ft): *1.16*, Sensor Depth (ft): *700.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	12-04	04:10	05:25	12-04	760.00	947.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1750.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *70*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-04	05:25	05:30	12-04	947.00	947.00	Inclination (°): *1.270*, Azimuth (°): *202.240*, TVD (ft): *886.87*, Dogleg (º/100 ft): *0.20*, Sensor Depth (ft): *887.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	12-04	05:30	05:40	12-04	947.00	984.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1750.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *70*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Rig Repair	14	12-04	05:40	06:45	12-04			Swab #1 Pump
Rotary Drill	1	12-04	06:45	07:00	12-04	984.00	1040.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1750.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *70*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Rotary Drill	1	12-04	07:00	07:50	12-04	1040.00	1134.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1750.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *70*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-04	07:50	07:55	12-04	1134.00	1134.00	Inclination (°): *2.020*, Azimuth (°): *209.800*, TVD (ft): *1073.79*, Dogleg (º/100 ft): *0.42*, Sensor Depth (ft): *1074.00*, Bit To Sensor (ft): *60.00*
Rotary Drill	1	12-04	07:55	10:15	12-04	1134.00	1313.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *1750.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *70*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-04	10:15	10:20	12-04	1313.00	1313.00	Inclination (°): *3.030*, Azimuth (°): *229.310*, TVD (ft): *1252.62*, Dogleg (º/100 ft): *0.73*, Sensor Depth (ft): *1253.00*, Bit To Sensor (ft): *60.00*
Circulating	3	12-04	10:20	11:35	12-04			
Pooh	7	12-04	11:35	12:30	12-04			POOH
Lay Down BHA	65	12-04	12:30	12:45	12-04			Break Bit. Rack Back BHA
Standby	15	12-04	12:45	00:00	12-05			Standby while running Casing and Rig Skids to the 504H

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Dec 05 00:00 - 23:59 (Day 6 of 25)

Billing: N/A ($143,637.38 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		**Downhole Hours**	0.00	**Rotating WOB (klbs)**	
Bit Depth (ft)		**Drilling Hours**	0.00	**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)		**Hours Circulating**	0.00	**Rotating SPM**	
Total Distance (ft)	0.00	**Hours Sliding**	0.00	**Sliding SPM**	
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00	**Motor RPM**	-
Distance Slid (ft)	0.00			**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
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-04	12:45	00:00	12-05			Standby while running Casing and Rig Skids to the 504H
Standby	15	12-05	00:00	06:00	12-05			Standby Rig Skid to 504H
Standby	15	12-05	06:00	23:05	12-05			Standby while ???

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Dec 07 00:00 - 23:59 (Day 7 of 25)

Billing: $3,200.00 ($143,637.38 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		**Downhole Hours**	0.00	**Rotating WOB (klbs)**	
Bit Depth (ft)		**Drilling Hours**	0.00	**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)		**Hours Circulating**	0.00	**Rotating SPM**	
Total Distance (ft)	0.00	**Hours Sliding**	0.00	**Sliding SPM**	
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00	**Motor RPM**	-
Distance Slid (ft)	0.00			**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
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-07	00:00	09:00	12-07			Standy.Casing Ops on 558H. Walk Rig to 604H
Standby	15	12-07	09:00	01:15	12-09			Standby while Rig nipples up, test and rig up flow line

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Dec 08 00:00 - 23:59 (Day 8 of 25)

Billing: $3,200.00 ($143,637.38 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
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-07	09:00	01:15	12-09			Standby while Rig nipples up, test and rig up flow line

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Dec 09 00:00 - 23:59 (Day 9 of 25)

Billing: $4,700.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	1313.00	**Downhole Hours**	22.75
Bit Depth (ft)	4018.00	**Drilling Hours**	12.75
Bottom Hole Depth (ft)	4018.00	**Hours Circulating**	3.17
Total Distance (ft)	2705.00	**Hours Sliding**	1.33
Distance Rotated (ft)	2583.00	**Hours Rotating**	11.42
Distance Slid (ft)	122.00		
Inclination In	3.30		
Inclination Out	0.66		
Azimuth In	231.69	**% Hours Rotating**	90%
Azimuth Out	260.69	**% Hours Sliding**	10%
AVG Total ROP (ft/h)	212.16	**% Distance Sliding**	5%
AVG Rotating ROP (ft/h)	226.25	**% Distance Rotating**	95%
AVG Sliding ROP (ft/h)	91.50		

Drilling Parameters

Rotating WOB (klbs)	18.00 - 50.00
Sliding WOB (klbs)	30.00 - 30.00
Rotating SPM	130.00 - 208.00
Sliding SPM	208.00 - 208.00
Motor RPM	85.00 - 136.00
Surface RPM	40.00 - 60.00
Flow Rate (gpm)	500.00 - 800.00
On Bottom Pressure (psi)	800.00 - 2900.00
Off Bottom Pressure (psi)	600.00 - 1900.00

Personnel

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

BHA #2 - BHA #2 (12.25" Intermediate)

Date In: Dec 9, 2020, 1:15 Date Out: Dec 10, 2020, 12:00

Bit Details

OD (in)	12.250
Vendor	Ulterra
S/N	52606
Nozzles	9x12's
Total Flow Area (in²)	0.994
Drilling Hours for Day	12.75
Total Drilled for Day (ft)	2705.00
Drilling Hours for BHA	18.83
Total Drilled for BHA (ft)	3627.00

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 (Bit to Survey): 69.00 ft, **Bend (Bit to 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: Ulterra SPL616, Jets: 9x12's , TFA: .994 Runs: 2

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: *SPL616*, Style: *PDC*, Gauge Length (in): *6.00*, Size (in): *12.25*	Ulterra	52606	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*	BD	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	47.04
UBHO Sub Description: *UBHO Sub*, 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	DY8001	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	110.35
Crossover Sub Description: *X-over (ED 54 Box x 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) 5.5" 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	12-07	09:00	01:15	12-09			Standby while Rig nipples up, test and rig up flow line
Pick Up BHA	64	12-09	01:15	03:00	12-09			P/U BHA #2 (M/U Bit, M/U UBHO Sub, 12" Stabilizer, and P/U MWD tool)

Circulating	3	12-09	03:00	04:00	12-09			Test MWD Tool / Pull MWD Tool and Tap test / Re-Seat MWD tool. Retest (Good Test)
TIH	8	12-09	04:00	05:35	12-09			TIH W/ BHA #2
Drilling Cement	17	12-09	05:35	07:45	12-09	1250.00	1313.00	Drilling Cement and Float Equipment
Rotary Drill	1	12-09	07:45	07:55	12-09	1313.00	1320.00	Pressure On (psi): *800.00*, Pressure Off (psi): *600.00*, Weight On Bit (klbs): *18.00*, Surface RPM: *40*, Surface Torque (ft lbf): *7000.00*, Flow Rate (gpm): *500.00*, Strokes Per Minute: *130.00*
Other	16	12-09	07:55	08:55	12-09			FIT
Rotary Drill	1	12-09	08:55	09:25	12-09	1320.00	1419.00	Pressure On (psi): *800.00*, Pressure Off (psi): *600.00*, Weight On Bit (klbs): *18.00*, Surface RPM: *40*, Surface Torque (ft lbf): *7000.00*, Flow Rate (gpm): *500.00*, Strokes Per Minute: *130.00*
Survey	46	12-09	09:25	09:30	12-09	1419.00	1419.00	Inclination (°): *3.300*, Azimuth (°): *231.690*, TVD (ft): *1349.47*, Dogleg (º/100 ft): *0.31*, Sensor Depth (ft): *1350.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	09:30	10:05	12-09	1419.00	1598.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *50*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	10:05	10:10	12-09	1598.00	1598.00	Inclination (°): *3.080*, Azimuth (°): *237.220*, TVD (ft): *1528.20*, Dogleg (º/100 ft): *0.21*, Sensor Depth (ft): *1529.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	10:10	10:15	12-09	1598.00	1605.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *50*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-09	10:15	10:25	12-09	1605.00	1625.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *1600.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *30*, Toolface Type: *magnetic*
Rotary Drill	1	12-09	10:25	10:40	12-09	1625.00	1688.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *50*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	10:40	10:45	12-09	1688.00	1688.00	Inclination (°): *1.540*, Azimuth (°): *246.370*, TVD (ft): *1618.12*, Dogleg (º/100 ft): *1.75*, Sensor Depth (ft): *1619.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	10:45	10:55	12-09	1688.00	1777.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *50*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	10:55	11:00	12-09	1777.00	1777.00	Inclination (°): *0.880*, Azimuth (°): *268.950*, TVD (ft): *1707.10*, Dogleg (º/100 ft): *0.90*, Sensor Depth (ft): *1708.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	11:00	11:20	12-09	1777.00	1867.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *50*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	11:20	11:25	12-09	1867.00	1867.00	Inclination (°): *0.750*, Azimuth (°): *273.260*, TVD (ft): *1797.09*, Dogleg (º/100 ft): *0.16*, Sensor Depth (ft): *1798.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	11:25	11:40	12-09	1867.00	1957.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *50*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	11:40	11:45	12-09	1957.00	1957.00	Inclination (°): *0.480*, Azimuth (°): *275.630*, TVD (ft): *1887.09*, Dogleg (º/100 ft): *0.30*, Sensor Depth (ft): *1888.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	11:45	12:00	12-09	1957.00	2047.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *50*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	12:00	12:05	12-09	2047.00	2047.00	Inclination (°): *0.350*, Azimuth (°): *285.830*, TVD (ft): *1977.08*, Dogleg (º/100 ft): *0.17*, Sensor Depth (ft): *1978.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	12:05	12:10	12-09	2047.00	2055.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *50*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-09	12:10	12:15	12-09	2055.00	2062.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *1600.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *15*, Toolface Type: *magnetic*
Rotary Drill	1	12-09	12:15	12:55	12-09	2062.00	2226.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	12:55	13:00	12-09	2226.00	2226.00	Inclination (°): *0.480*, Azimuth (°): *17.410*, TVD (ft): *2156.08*, Dogleg (º/100 ft): *0.34*, Sensor Depth (ft): *2157.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	13:00	13:25	12-09	2226.00	2316.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	13:25	13:30	12-09	2316.00	2316.00	Inclination (°): *0.620*, Azimuth (°): *21.800*, TVD (ft): *2246.08*, Dogleg (º/100 ft): *0.16*, Sensor Depth (ft): *2247.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	13:30	14:05	12-09	2316.00	2495.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*

Survey	46	12-09	14:05	14:10	12-09	2495.00	2495.00	Inclination (°): *1.140*, Azimuth (°): *49.310*, TVD (ft): *2425.06*, Dogleg (º/100 ft): *0.37*, Sensor Depth (ft): *2426.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	14:10	14:30	12-09	2495.00	2585.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	14:30	14:35	12-09	2585.00	2585.00	Inclination (°): *1.540*, Azimuth (°): *50.900*, TVD (ft): *2515.03*, Dogleg (º/100 ft): *0.45*, Sensor Depth (ft): *2516.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	14:35	14:50	12-09	2585.00	2674.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	14:50	14:55	12-09	2674.00	2674.00	Inclination (°): *2.020*, Azimuth (°): *52.830*, TVD (ft): *2603.99*, Dogleg (º/100 ft): *0.54*, Sensor Depth (ft): *2605.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	14:55	15:10	12-09	2674.00	2764.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Rotary Drill	1	12-09	15:10	15:35	12-09	2764.00	2853.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	15:35	15:40	12-09	2853.00	2853.00	Inclination (°): *3.210*, Azimuth (°): *51.600*, TVD (ft): *2782.80*, Dogleg (º/100 ft): *0.67*, Sensor Depth (ft): *2784.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	15:40	15:45	12-09	2853.00	2865.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-09	15:45	16:00	12-09	2865.00	2890.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *1600.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *230*, Toolface Type: *magnetic*
Rotary Drill	1	12-09	16:00	16:10	12-09	2890.00	2943.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	16:10	16:15	12-09	2943.00	2943.00	Inclination (°): *3.380*, Azimuth (°): *52.570*, TVD (ft): *2872.65*, Dogleg (º/100 ft): *0.20*, Sensor Depth (ft): *2874.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	16:15	16:20	12-09	2943.00	2960.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-09	16:20	16:30	12-09	2960.00	2980.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *1600.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *230*, Toolface Type: *magnetic*
Rotary Drill	1	12-09	16:30	16:45	12-09	2980.00	3032.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Rig Service - In Hole	19	12-09	16:45	17:10	12-09			
Survey	46	12-09	17:10	17:15	12-09	3032.00	3032.00	Inclination (°): *2.640*, Azimuth (°): *51.510*, TVD (ft): *2961.53*, Dogleg (º/100 ft): *0.83*, Sensor Depth (ft): *2963.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	17:15	17:30	12-09	3032.00	3122.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	17:30	17:35	12-09	3122.00	3122.00	Inclination (°): *2.420*, Azimuth (°): *50.720*, TVD (ft): *3051.44*, Dogleg (º/100 ft): *0.25*, Sensor Depth (ft): *3053.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	17:35	17:40	12-09	3122.00	3140.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-09	17:40	18:00	12-09	3140.00	3165.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *1600.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *230*, Toolface Type: *magnetic*
Rotary Drill	1	12-09	18:00	18:15	12-09	3165.00	3212.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	18:15	18:20	12-09	3212.00	3212.00	Inclination (°): *1.800*, Azimuth (°): *53.970*, TVD (ft): *3141.38*, Dogleg (º/100 ft): *0.70*, Sensor Depth (ft): *3143.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	18:20	18:30	12-09	3212.00	3301.00	Pressure On (psi): *2600.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *30.00*, Surface RPM: *60*, Surface Torque (ft lbf): *15000.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	18:30	18:35	12-09	3301.00	3301.00	Inclination (°): *1.670*, Azimuth (°): *77.790*, TVD (ft): *3230.34*, Dogleg (º/100 ft): *0.82*, Sensor Depth (ft): *3232.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	18:35	19:00	12-09	3301.00	3390.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*

Survey	46	12-09	19:00	19:05	12-09	3390.00	3390.00	Inclination (°): *2.770*, Azimuth (°): *94.930*, TVD (ft): *3319.27*, Dogleg (º/100 ft): *1.43*, Sensor Depth (ft): *3321.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	19:05	19:10	12-09	3390.00	3400.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Slide Drill	2	12-09	19:10	19:30	12-09	3400.00	3425.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *1600.00*, Weight On Bit (klbs): *30.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208*, Toolface: *275*, Toolface Type: *magnetic*
Rotary Drill	1	12-09	19:30	19:45	12-09	3425.00	3480.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	19:45	19:50	12-09	3480.00	3480.00	Inclination (°): *2.070*, Azimuth (°): *95.190*, TVD (ft): *3409.19*, Dogleg (º/100 ft): *0.78*, Sensor Depth (ft): *3411.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	19:50	20:20	12-09	3480.00	3570.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	20:20	20:25	12-09	3570.00	3570.00	Inclination (°): *1.050*, Azimuth (°): *95.280*, TVD (ft): *3499.16*, Dogleg (º/100 ft): *1.13*, Sensor Depth (ft): *3501.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	20:25	20:55	12-09	3570.00	3659.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	20:55	21:00	12-09	3659.00	3659.00	Inclination (°): *0.620*, Azimuth (°): *87.460*, TVD (ft): *3588.15*, Dogleg (º/100 ft): *0.50*, Sensor Depth (ft): *3590.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	21:00	21:40	12-09	3659.00	3749.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	21:40	21:45	12-09	3749.00	3749.00	Inclination (°): *0.310*, Azimuth (°): *126.920*, TVD (ft): *3678.14*, Dogleg (º/100 ft): *0.48*, Sensor Depth (ft): *3680.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	21:45	22:25	12-09	3749.00	3839.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	22:25	22:30	12-09	3839.00	3839.00	Inclination (°): *0.440*, Azimuth (°): *220.700*, TVD (ft): *3768.14*, Dogleg (º/100 ft): *0.62*, Sensor Depth (ft): *3770.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	22:30	23:05	12-09	3839.00	3928.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *46.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-09	23:05	23:10	12-09	3928.00	3928.00	Inclination (°): *0.660*, Azimuth (°): *260.690*, TVD (ft): *3857.14*, Dogleg (º/100 ft): *0.48*, Sensor Depth (ft): *3859.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-09	23:10	00:00	12-10	3928.00	4018.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Dec 10 00:00 - 23:59 (Day 10 of 25)

Billing: $4,700.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	4018.00	**Downhole Hours**	12.00
Bit Depth (ft)	4940.00	**Drilling Hours**	6.08
Bottom Hole Depth (ft)	4940.00	**Hours Circulating**	0.92
Total Distance (ft)	922.00	**Hours Sliding**	0.83
Distance Rotated (ft)	902.00	**Hours Rotating**	5.25
Distance Slid (ft)	20.00		
Inclination In	1.23		
Inclination Out	0.88		
Azimuth In	263.94	**% Hours Rotating**	86%
Azimuth Out	280.99	**% Hours Sliding**	14%
AVG Total ROP (ft/h)	146.31	**% Distance Sliding**	2%
AVG Rotating ROP (ft/h)	163.07	**% Distance Rotating**	98%
AVG Sliding ROP (ft/h)	24.00		

Drilling Parameters

Rotating WOB (klbs)	50.00 - 50.00
Sliding WOB (klbs)	20.00 - 20.00
Rotating SPM	108.00 - 108.00
Sliding SPM	108.00 - 108.00
Motor RPM	85.00 - 136.00
Surface RPM	60.00 - 60.00
Flow Rate (gpm)	800.00 - 800.00
On Bottom Pressure (psi)	3000.00 - 3300.00
Off Bottom Pressure (psi)	2000.00 - 3000.00

Personnel

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

BHA #2 - BHA #2 (12.25" Intermediate)

Date In: Dec 9, 2020, 1:15 Date Out: Dec 10, 2020, 12:00

Bit Details

OD (in)	12.250
Vendor	Ulterra
S/N	52606
Nozzles	9x12's
Total Flow Area (in²)	0.994
Drilling Hours for Day	6.08
Total Drilled for Day (ft)	922.00
Drilling Hours for BHA	18.83
Total Drilled for BHA (ft)	3627.00

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 (Bit to Survey): 69.00 ft, **Bend (Bit to 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: Ulterra SPL616, Jets: 9x12's , TFA: .994 Runs: 2

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: *SPL616*, Style: *PDC*, Gauge Length (in): *6.00*, Size (in): *12.25*	Ulterra	52606	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*	BD	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	47.04
UBHO Sub Description: *UBHO Sub*, 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	DY8001	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	110.35
Crossover Sub Description: *X-over (ED 54 Box x 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) 5.5" 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	12-09	23:10	00:00	12-10	3928.00	4018.00	Pressure On (psi): *2900.00*, Pressure Off (psi): *1900.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *20500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *208.00*
Survey	46	12-10	00:00	00:05	12-10	4018.00	4018.00	Inclination (°): *1.230*, Azimuth (°): *263.940*, TVD (ft): *3947.12*, Dogleg (º/100 ft): *0.64*, Sensor Depth (ft): *3949.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	00:05	00:50	12-10	4018.00	4108.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	00:50	00:55	12-10	4108.00	4108.00	Inclination (°): *1.410*, Azimuth (°): *257.090*, TVD (ft): *4037.10*, Dogleg (º/100 ft): *0.27*, Sensor Depth (ft): *4039.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	00:55	01:40	12-10	4108.00	4198.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	01:40	01:45	12-10	4198.00	4198.00	Inclination (°): *1.630*, Azimuth (°): *254.100*, TVD (ft): *4127.07*, Dogleg (º/100 ft): *0.26*, Sensor Depth (ft): *4129.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	01:45	02:30	12-10	4198.00	4288.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	02:30	02:35	12-10	4288.00	4288.00	Inclination (°): *1.710*, Azimuth (°): *262.190*, TVD (ft): *4217.03*, Dogleg (º/100 ft): *0.28*, Sensor Depth (ft): *4219.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	02:35	03:10	12-10	4288.00	4377.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	03:10	03:15	12-10	4377.00	4377.00	Inclination (°): *1.930*, Azimuth (°): *262.800*, TVD (ft): *4305.99*, Dogleg (º/100 ft): *0.25*, Sensor Depth (ft): *4308.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	03:15	03:35	12-10	4377.00	4467.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	03:35	03:40	12-10	4467.00	4467.00	Inclination (°): *2.150*, Azimuth (°): *264.820*, TVD (ft): *4395.93*, Dogleg (º/100 ft): *0.26*, Sensor Depth (ft): *4398.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	03:40	04:00	12-10	4467.00	4557.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	04:00	04:05	12-10	4557.00	4557.00	Inclination (°): *2.150*, Azimuth (°): *262.800*, TVD (ft): *4485.87*, Dogleg (º/100 ft): *0.08*, Sensor Depth (ft): *4488.00*, Bit To Sensor (ft): *69.00*
Slide Drill	2	12-10	04:05	04:55	12-10	4557.00	4577.00	Pressure On (psi): *3300.00*, Pressure Off (psi): *3000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108*, Toolface: *85*, Toolface Type: *magnetic*
Rotary Drill	1	12-10	04:55	05:15	12-10	4577.00	4646.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	05:15	05:20	12-10	4646.00	4646.00	Inclination (°): *1.490*, Azimuth (°): *269.830*, TVD (ft): *4574.82*, Dogleg (º/100 ft): *0.78*, Sensor Depth (ft): *4577.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	05:20	05:50	12-10	4646.00	4736.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	05:50	05:55	12-10	4736.00	4736.00	Inclination (°): *1.050*, Azimuth (°): *280.380*, TVD (ft): *4664.80*, Dogleg (º/100 ft): *0.55*, Sensor Depth (ft): *4667.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	05:55	06:25	12-10	4736.00	4826.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	06:25	06:30	12-10	4826.00	4826.00	Inclination (°): *1.010*, Azimuth (°): *277.390*, TVD (ft): *4754.78*, Dogleg (º/100 ft): *0.07*, Sensor Depth (ft): *4757.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	06:30	06:50	12-10	4826.00	4916.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	06:50	06:55	12-10	4916.00	4916.00	Inclination (°): *0.920*, Azimuth (°): *281.260*, TVD (ft): *4844.77*, Dogleg (º/100 ft): *0.12*, Sensor Depth (ft): *4847.00*, Bit To Sensor (ft): *69.00*
Rotary Drill	1	12-10	06:55	07:00	12-10	4916.00	4940.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *50.00*, Surface RPM: *60*, Surface Torque (ft lbf): *21500.00*, Flow Rate (gpm): *800.00*, Strokes Per Minute: *108.00*
Survey	46	12-10	07:00	07:05	12-10	4940.00	4940.00	Inclination (°): *0.880*, Azimuth (°): *280.990*, TVD (ft): *4868.77*, Dogleg (º/100 ft): *0.17*, Sensor Depth (ft): *4871.00*, Bit To Sensor (ft): *69.00*
Circulating	3	12-10	07:05	08:00	12-10			
Pooh	7	12-10	08:00	11:25	12-10			POOH

Lay Down BHA	65	12-10	11:25	12:00	12-10			Rack Back BHA
Standby	15	12-10	12:00	22:00	12-10			Standby. Casing Ops
Standby	15	12-10	22:00	00:00	12-11			Standby. N/D BOPs & PREPARE SKID TO 504H

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Dec 11 00:00 - 23:59 (Day 11 of 25)

Billing: N/A ($143,637.38 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
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-10	22:00	00:00	12-11			Standby. N/D BOPs & PREPARE SKID TO 504H

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Dec 15 00:00 - 23:59 (Day 12 of 25)

Billing: $8,500.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	4940.00	**Downhole Hours**	12.00
Bit Depth (ft)	6080.00	**Drilling Hours**	3.25
Bottom Hole Depth (ft)	6080.00	**Hours Circulating**	0.83
Total Distance (ft)	1140.00	**Hours Sliding**	0.50
Distance Rotated (ft)	1080.00	**Hours Rotating**	2.75
Distance Slid (ft)	60.00		
Inclination In	1.10		
Inclination Out	3.21		
Azimuth In	253.22	**% Hours Rotating**	85%
Azimuth Out	21.98	**% Hours Sliding**	15%
AVG Total ROP (ft/h)	350.77	**% Distance Sliding**	5%
AVG Rotating ROP (ft/h)	392.73	**% Distance Rotating**	95%
AVG Sliding ROP (ft/h)	120.00		

Drilling Parameters

Rotating WOB (klbs)	20.00 - 40.00
Sliding WOB (klbs)	20.00 - 20.00
Rotating SPM	176.00 - 176.00
Sliding SPM	176.00 - 176.00
Motor RPM	130.00 - 176.00
Surface RPM	40.00 - 40.00
Flow Rate (gpm)	675.00 - 675.00
On Bottom Pressure (psi)	2000.00 - 2700.00
Off Bottom Pressure (psi)	1500.00 - 2000.00

Personnel

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

BHA #3 - Intermediate 8.5"

Date In: Dec 15, 2020, 12:00 Date Out: Dec 17, 2020, 23:00

Bit Details

OD (in)	8.500
Vendor	REED
S/N	A270265
Nozzles	6x14's
Total Flow Area (in²)	0.902
Drilling Hours for Day	3.25
Total Drilled for Day (ft)	1140.00
Drilling Hours for BHA	34.00
Total Drilled for BHA (ft)	6720.00

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

Bend (Bit to Bend): 5.25 ft, **Gamma (Bit to Gamma):** 56.00 ft, **Survey (Bit to Survey):** 71.00 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: Reed TK66, Jets: 6x14s , TFA: .902 Runs: 0

MWD Comments

POOH Reason

Penetration Rate

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TK66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270265	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7'' 7/8 8.5 FXD 1.5° w/ 8.25'' STAB*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-029	4 1/2" IF Box	4 1/2" Reg Box		7.050		36.27	37.27
Stabilizer Description: *8.25'' STABILIZER*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	44.00
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	49.00
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	79.93
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	109.63
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	113.15
HWDP Description: *(13 Stands) 5.5" HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1329.70

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	12-15	00:00	12:00	12-15			Standby. Walk Rig from 558H. N/U & Test
Pick Up BHA	64	12-15	12:00	13:15	12-15			
TIH	8	12-15	13:15	15:00	12-15			TIH W/ BHA #3
Other	16	12-15	15:00	15:15	12-15			Drilling DV Tool

Other	16	12-15	15:15	16:00	12-15			Test Casing
TIH	8	12-15	16:00	16:40	12-15			TIH W/ BHA #3
Circulating	3	12-15	16:40	17:30	12-15			Drill Cement Float Equipment
Rotary Drill	1	12-15	17:30	17:40	12-15	4940.00	4950.00	Pressure On (psi): *2000.00*, Pressure Off (psi): *1500.00*, Weight On Bit (klbs): *20.00*, Surface RPM: *40*, Surface Torque (ft lbf): *12000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Other	16	12-15	17:40	19:20	12-15			Preform FIT
Rotary Drill	1	12-15	19:20	19:50	12-15	4950.00	5094.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	19:50	19:55	12-15	5094.00	5094.00	Inclination (°): *1.100*, Azimuth (°): *253.220*, TVD (ft): *5020.75*, Dogleg (º/100 ft): *0.34*, Sensor Depth (ft): *5023.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	19:55	20:05	12-15	5094.00	5184.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	20:05	20:10	12-15	5184.00	5184.00	Inclination (°): *1.230*, Azimuth (°): *248.830*, TVD (ft): *5110.73*, Dogleg (º/100 ft): *0.18*, Sensor Depth (ft): *5113.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	20:10	20:15	12-15	5184.00	5198.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-15	20:15	20:25	12-15	5198.00	5218.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *10*, Toolface Type: *magnetic*
Rotary Drill	1	12-15	20:25	20:35	12-15	5218.00	5273.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	20:35	20:40	12-15	5273.00	5273.00	Inclination (°): *0.880*, Azimuth (°): *285.920*, TVD (ft): *5199.71*, Dogleg (º/100 ft): *0.84*, Sensor Depth (ft): *5202.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	20:40	20:50	12-15	5273.00	5362.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	20:50	20:55	12-15	5362.00	5362.00	Inclination (°): *1.190*, Azimuth (°): *320.280*, TVD (ft): *5288.70*, Dogleg (º/100 ft): *0.76*, Sensor Depth (ft): *5291.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	20:55	21:00	12-15	5362.00	5452.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Rig Repair	14	12-15	21:00	21:40	12-15			Work on Mud Pump
Survey	46	12-15	21:40	21:45	12-15	5452.00	5452.00	Inclination (°): *1.190*, Azimuth (°): *320.370*, TVD (ft): *5378.68*, Dogleg (º/100 ft): *0.00*, Sensor Depth (ft): *5381.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	21:45	21:55	12-15	5452.00	5465.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-15	21:55	22:05	12-15	5465.00	5485.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *50*, Toolface Type: *magnetic*
Rotary Drill	1	12-15	22:05	22:20	12-15	5485.00	5542.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	22:20	22:25	12-15	5542.00	5542.00	Inclination (°): *1.230*, Azimuth (°): *10.120*, TVD (ft): *5468.66*, Dogleg (º/100 ft): *1.13*, Sensor Depth (ft): *5471.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	22:25	22:35	12-15	5542.00	5632.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	22:35	22:40	12-15	5632.00	5632.00	Inclination (°): *1.490*, Azimuth (°): *24.700*, TVD (ft): *5558.64*, Dogleg (º/100 ft): *0.48*, Sensor Depth (ft): *5561.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	22:40	22:50	12-15	5632.00	5721.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	22:50	22:55	12-15	5721.00	5721.00	Inclination (°): *1.630*, Azimuth (°): *22.600*, TVD (ft): *5647.60*, Dogleg (º/100 ft): *0.17*, Sensor Depth (ft): *5650.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	22:55	23:00	12-15	5721.00	5811.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	23:00	23:05	12-15	5811.00	5811.00	Inclination (°): *1.540*, Azimuth (°): *15.830*, TVD (ft): *5737.57*, Dogleg (º/100 ft): *0.23*, Sensor Depth (ft): *5740.00*, Bit To Sensor (ft): *71.00*
Slide Drill	2	12-15	23:05	23:15	12-15	5811.00	5831.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *30*, Toolface Type: *magnetic*

Rotary Drill	1	12-15	23:15	23:30	12-15	5831.00	5901.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	23:30	23:35	12-15	5901.00	5901.00	Inclination (°): *2.900*, Azimuth (°): *21.190*, TVD (ft): *5827.50*, Dogleg (º/100 ft): *1.53*, Sensor Depth (ft): *5830.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	23:35	23:45	12-15	5901.00	5990.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-15	23:45	23:50	12-15	5990.00	5990.00	Inclination (°): *3.210*, Azimuth (°): *21.980*, TVD (ft): *5916.37*, Dogleg (º/100 ft): *0.35*, Sensor Depth (ft): *5919.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-15	23:50	00:00	12-16	5990.00	6080.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Dec 16 00:00 - 23:59 (Day 13 of 25)

Billing: $5,300.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	6080.00	**Downhole Hours**	24.00
Bit Depth (ft)	9759.00	**Drilling Hours**	15.92
Bottom Hole Depth (ft)	9759.00	**Hours Circulating**	1.42
Total Distance (ft)	3679.00	**Hours Sliding**	4.25
Distance Rotated (ft)	3454.00	**Hours Rotating**	11.67
Distance Slid (ft)	225.00		
Inclination In	3.12		
Inclination Out	3.69		
Azimuth In	19.96	**% Hours Rotating**	73%
Azimuth Out	335.66	**% Hours Sliding**	27%
AVG Total ROP (ft/h)	230.04	**% Distance Sliding**	6%
AVG Rotating ROP (ft/h)	288.31	**% Distance Rotating**	94%
AVG Sliding ROP (ft/h)	52.94		

Drilling Parameters

Rotating WOB (klbs)	40.00 - 44.00
Sliding WOB (klbs)	20.00 - 20.00
Rotating SPM	176.00 - 176.00
Sliding SPM	176.00 - 176.00
Motor RPM	130.00 - 176.00
Surface RPM	30.00 - 60.00
Flow Rate (gpm)	675.00 - 675.00
On Bottom Pressure (psi)	2300.00 - 3000.00
Off Bottom Pressure (psi)	2000.00 - 2300.00

Personnel

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

BHA #3 - Intermediate 8.5"

Date In: Dec 15, 2020, 12:00 Date Out: Dec 17, 2020, 23:00

Bit Details

OD (in)	8.500
Vendor	REED
S/N	A270265
Nozzles	6x14's
Total Flow Area (in²)	0.902
Drilling Hours for Day	15.92
Total Drilled for Day (ft)	3679.00
Drilling Hours for BHA	34.00
Total Drilled for BHA (ft)	6720.00

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

Bend (Bit to Bend): 5.25 ft, **Gamma (Bit to Gamma):** 56.00 ft, **Survey (Bit to Survey):** 71.00 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: Reed TK66, Jets: 6x14s , TFA: .902 Runs: 0

MWD Comments

POOH Reason

Penetration Rate

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TK66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270265	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7'' 7/8 8.5 FXD 1.5° w/ 8.25'' STAB*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-029	4 1/2" IF Box	4 1/2" Reg Box		7.050		36.27	37.27
Stabilizer Description: *8.25'' STABILIZER*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	44.00
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	49.00
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	79.93
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	109.63
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	113.15
HWDP Description: *(13 Stands) 5.5" HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1329.70

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	12-15	23:50	00:00	12-16	5990.00	6080.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*

Survey	46	12-16	00:00	00:05	12-16	6080.00	6080.00	Inclination (°): *3.120*, Azimuth (°): *19.960*, TVD (ft): *6006.24*, Dogleg (º/100 ft): *0.16*, Sensor Depth (ft): *6009.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	00:05	00:20	12-16	6080.00	6170.00	Pressure On (psi): *2700.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *40*, Surface Torque (ft lbf): *14000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	00:20	00:25	12-16	6170.00	6170.00	Inclination (°): *3.340*, Azimuth (°): *15.560*, TVD (ft): *6096.09*, Dogleg (º/100 ft): *0.37*, Sensor Depth (ft): *6099.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	00:25	00:40	12-16	6170.00	6260.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	00:40	00:45	12-16	6260.00	6260.00	Inclination (°): *3.340*, Azimuth (°): *14.330*, TVD (ft): *6185.94*, Dogleg (º/100 ft): *0.08*, Sensor Depth (ft): *6189.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	00:45	00:55	12-16	6260.00	6350.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	00:55	01:00	12-16	6350.00	6350.00	Inclination (°): *3.340*, Azimuth (°): *14.510*, TVD (ft): *6275.79*, Dogleg (º/100 ft): *0.01*, Sensor Depth (ft): *6279.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	01:00	01:10	12-16	6350.00	6440.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	01:10	01:15	12-16	6440.00	6440.00	Inclination (°): *3.340*, Azimuth (°): *13.980*, TVD (ft): *6365.63*, Dogleg (º/100 ft): *0.03*, Sensor Depth (ft): *6369.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	01:15	01:30	12-16	6440.00	6529.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	01:30	01:35	12-16	6529.00	6529.00	Inclination (°): *3.300*, Azimuth (°): *13.630*, TVD (ft): *6454.49*, Dogleg (º/100 ft): *0.05*, Sensor Depth (ft): *6458.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	01:35	01:45	12-16	6529.00	6619.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	01:45	01:50	12-16	6619.00	6619.00	Inclination (°): *3.160*, Azimuth (°): *11.700*, TVD (ft): *6544.34*, Dogleg (º/100 ft): *0.20*, Sensor Depth (ft): *6548.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	01:50	02:00	12-16	6619.00	6708.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	02:00	02:05	12-16	6708.00	6708.00	Inclination (°): *3.030*, Azimuth (°): *9.590*, TVD (ft): *6633.21*, Dogleg (º/100 ft): *0.19*, Sensor Depth (ft): *6637.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	02:05	02:30	12-16	6708.00	6887.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	02:30	02:35	12-16	6887.00	6887.00	Inclination (°): *2.770*, Azimuth (°): *5.810*, TVD (ft): *6811.98*, Dogleg (º/100 ft): *0.18*, Sensor Depth (ft): *6816.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	02:35	02:55	12-16	6887.00	6977.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	02:55	03:05	12-16	6977.00	6977.00	Inclination (°): *2.550*, Azimuth (°): *359.040*, TVD (ft): *6901.89*, Dogleg (º/100 ft): *0.43*, Sensor Depth (ft): *6906.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	03:05	03:10	12-16	6977.00	6987.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-16	03:10	03:20	12-16	6987.00	6993.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *50*, Toolface Type: *magnetic*
Circulating	3	12-16	03:20	04:45	12-16			Work on Mud Pump
Slide Drill	2	12-16	04:45	05:00	12-16	6993.00	7007.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *50*, Toolface Type: *magnetic*
Rotary Drill	1	12-16	05:00	05:15	12-16	7007.00	7066.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	05:15	05:20	12-16	7066.00	7066.00	Inclination (°): *2.730*, Azimuth (°): *12.750*, TVD (ft): *6990.79*, Dogleg (º/100 ft): *0.74*, Sensor Depth (ft): *6995.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	05:20	05:40	12-16	7066.00	7156.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*

Survey	46	12-16	05:40	05:45	12-16	7156.00	7156.00	Inclination (°): *3.080*, Azimuth (°): *19.520*, TVD (ft): *7080.68*, Dogleg (º/100 ft): *0.54*, Sensor Depth (ft): *7085.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	05:45	05:55	12-16	7156.00	7245.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	05:55	06:00	12-16	7245.00	7245.00	Inclination (°): *2.730*, Azimuth (°): *22.070*, TVD (ft): *7169.56*, Dogleg (º/100 ft): *0.42*, Sensor Depth (ft): *7174.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	06:00	06:10	12-16	7245.00	7335.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	06:10	06:15	12-16	7335.00	7335.00	Inclination (°): *2.550*, Azimuth (°): *26.110*, TVD (ft): *7259.47*, Dogleg (º/100 ft): *0.29*, Sensor Depth (ft): *7264.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	06:15	06:30	12-16	7335.00	7425.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	06:30	06:35	12-16	7425.00	7425.00	Inclination (°): *2.460*, Azimuth (°): *28.400*, TVD (ft): *7349.38*, Dogleg (º/100 ft): *0.15*, Sensor Depth (ft): *7354.00*, Bit To Sensor (ft): *71.00*
Slide Drill	2	12-16	06:35	06:50	12-16	7425.00	7445.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *10*, Toolface Type: *magnetic*
Rotary Drill	1	12-16	06:50	07:05	12-16	7445.00	7515.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	07:05	07:10	12-16	7515.00	7515.00	Inclination (°): *3.600*, Azimuth (°): *23.830*, TVD (ft): *7439.25*, Dogleg (º/100 ft): *1.29*, Sensor Depth (ft): *7444.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	07:10	07:25	12-16	7515.00	7605.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	07:25	07:30	12-16	7605.00	7605.00	Inclination (°): *3.690*, Azimuth (°): *23.040*, TVD (ft): *7529.07*, Dogleg (º/100 ft): *0.11*, Sensor Depth (ft): *7534.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	07:30	07:45	12-16	7605.00	7695.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	07:45	07:50	12-16	7695.00	7695.00	Inclination (°): *3.160*, Azimuth (°): *23.740*, TVD (ft): *7618.91*, Dogleg (º/100 ft): *0.59*, Sensor Depth (ft): *7624.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	07:50	08:05	12-16	7695.00	7784.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	08:05	08:10	12-16	7784.00	7784.00	Inclination (°): *2.810*, Azimuth (°): *25.500*, TVD (ft): *7707.79*, Dogleg (º/100 ft): *0.41*, Sensor Depth (ft): *7713.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	08:10	08:25	12-16	7784.00	7874.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	08:25	08:30	12-16	7874.00	7874.00	Inclination (°): *2.510*, Azimuth (°): *24.790*, TVD (ft): *7797.69*, Dogleg (º/100 ft): *0.34*, Sensor Depth (ft): *7803.00*, Bit To Sensor (ft): *71.00*
Slide Drill	2	12-16	08:30	08:35	12-16	7874.00	7884.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *0*, Toolface Type: *magnetic*
Rig Repair	14	12-16	08:35	09:15	12-16			C/O VALVE & SEAT ON MP #1
Slide Drill	2	12-16	09:15	09:25	12-16	7884.00	7894.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *0*, Toolface Type: *magnetic*
Rig Repair	14	12-16	09:25	11:00	12-16			C/O VALVE & SEAT ON MP #2
Rotary Drill	1	12-16	11:00	11:10	12-16	7894.00	7964.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	11:10	11:15	12-16	7964.00	7964.00	Inclination (°): *3.380*, Azimuth (°): *20.130*, TVD (ft): *7887.57*, Dogleg (º/100 ft): *1.00*, Sensor Depth (ft): *7893.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	11:15	11:30	12-16	7964.00	8054.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Rotary Drill	1	12-16	11:30	11:50	12-16	8054.00	8143.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	11:50	12:00	12-16	8143.00	8143.00	Inclination (°): *2.590*, Azimuth (°): *27.780*, TVD (ft): *8066.33*, Dogleg (º/100 ft): *0.49*, Sensor Depth (ft): *8072.00*, Bit To Sensor (ft): *71.00*

Rotary Drill	1	12-16	12:00	12:15	12-16	8143.00	8233.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	12:15	12:20	12-16	8233.00	8233.00	Inclination (°): *2.200*, Azimuth (°): *30.950*, TVD (ft): *8156.25*, Dogleg (º/100 ft): *0.46*, Sensor Depth (ft): *8162.00*, Bit To Sensor (ft): *71.00*
Slide Drill	2	12-16	12:20	12:45	12-16	8233.00	8263.00	Pressure On (psi): *2300.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *350*, Toolface Type: *magnetic*
Rotary Drill	1	12-16	12:45	12:55	12-16	8263.00	8323.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	12:55	13:00	12-16	8323.00	8323.00	Inclination (°): *3.520*, Azimuth (°): *28.400*, TVD (ft): *8246.14*, Dogleg (º/100 ft): *1.47*, Sensor Depth (ft): *8252.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	13:00	13:15	12-16	8323.00	8413.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	13:15	13:20	12-16	8413.00	8413.00	Inclination (°): *4.000*, Azimuth (°): *27.610*, TVD (ft): *8335.94*, Dogleg (º/100 ft): *0.54*, Sensor Depth (ft): *8342.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	13:20	13:35	12-16	8413.00	8502.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	13:35	13:40	12-16	8502.00	8502.00	Inclination (°): *3.650*, Azimuth (°): *30.510*, TVD (ft): *8424.75*, Dogleg (º/100 ft): *0.45*, Sensor Depth (ft): *8431.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	13:40	14:00	12-16	8502.00	8592.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	14:00	14:15	12-16	8592.00	8592.00	Inclination (°): *3.520*, Azimuth (°): *32.350*, TVD (ft): *8514.57*, Dogleg (º/100 ft): *0.19*, Sensor Depth (ft): *8521.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	14:15	14:35	12-16	8592.00	8682.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	14:35	14:40	12-16	8682.00	8682.00	Inclination (°): *3.160*, Azimuth (°): *37.450*, TVD (ft): *8604.42*, Dogleg (º/100 ft): *0.52*, Sensor Depth (ft): *8611.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	14:40	15:00	12-16	8682.00	8772.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	15:00	15:05	12-16	8772.00	8772.00	Inclination (°): *2.900*, Azimuth (°): *36.920*, TVD (ft): *8694.29*, Dogleg (º/100 ft): *0.29*, Sensor Depth (ft): *8701.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	15:05	15:30	12-16	8772.00	8861.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Rotary Drill	1	12-16	15:30	16:00	12-16	8861.00	8951.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	16:00	16:10	12-16	8951.00	8951.00	Inclination (°): *2.070*, Azimuth (°): *26.020*, TVD (ft): *8873.12*, Dogleg (º/100 ft): *0.53*, Sensor Depth (ft): *8880.00*, Bit To Sensor (ft): *71.00*
Slide Drill	2	12-16	16:10	16:40	12-16	8951.00	8981.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *330*, Toolface Type: *magnetic*
Rotary Drill	1	12-16	16:40	17:05	12-16	8981.00	9041.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	17:05	17:15	12-16	9041.00	9041.00	Inclination (°): *2.460*, Azimuth (°): *5.370*, TVD (ft): *8963.05*, Dogleg (º/100 ft): *1.00*, Sensor Depth (ft): *8970.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	17:15	17:40	12-16	9041.00	9131.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	17:40	17:45	12-16	9131.00	9131.00	Inclination (°): *2.590*, Azimuth (°): *2.120*, TVD (ft): *9052.97*, Dogleg (º/100 ft): *0.21*, Sensor Depth (ft): *9060.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	17:45	18:05	12-16	9131.00	9221.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	18:05	18:10	12-16	9221.00	9221.00	Inclination (°): *2.150*, Azimuth (°): *331.270*, TVD (ft): *9142.89*, Dogleg (º/100 ft): *1.48*, Sensor Depth (ft): *9150.00*, Bit To Sensor (ft): *71.00*

Rotary Drill	1	12-16	18:10	18:15	12-16	9221.00	9236.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-16	18:15	18:55	12-16	9236.00	9266.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *350*, Toolface Type: *magnetic*
Rotary Drill	1	12-16	18:55	19:10	12-16	9266.00	9311.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	19:10	19:15	12-16	9311.00	9311.00	Inclination (°): *2.150*, Azimuth (°): *324.410*, TVD (ft): *9232.83*, Dogleg (º/100 ft): *0.29*, Sensor Depth (ft): *9240.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	19:15	19:45	12-16	9311.00	9400.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	19:45	19:50	12-16	9400.00	9400.00	Inclination (°): *2.680*, Azimuth (°): *335.400*, TVD (ft): *9321.75*, Dogleg (º/100 ft): *0.79*, Sensor Depth (ft): *9329.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	19:50	19:55	12-16	9400.00	9410.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-16	19:55	20:30	12-16	9410.00	9435.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *350*, Toolface Type: *magnetic*
Rotary Drill	1	12-16	20:30	20:45	12-16	9435.00	9490.00	Pressure On (psi): *3000.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *60*, Surface Torque (ft lbf): *17000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	20:45	20:50	12-16	9490.00	9490.00	Inclination (°): *3.470*, Azimuth (°): *330.120*, TVD (ft): *9411.62*, Dogleg (º/100 ft): *0.93*, Sensor Depth (ft): *9419.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	20:50	21:05	12-16	9490.00	9580.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	21:05	21:10	12-16	9580.00	9580.00	Inclination (°): *2.860*, Azimuth (°): *322.570*, TVD (ft): *9501.48*, Dogleg (º/100 ft): *0.82*, Sensor Depth (ft): *9509.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	21:10	21:20	12-16	9580.00	9590.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-16	21:20	21:55	12-16	9590.00	9610.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *10*, Toolface Type: *magnetic*
Rotary Drill	1	12-16	21:55	22:15	12-16	9610.00	9669.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	22:15	22:20	12-16	9669.00	9669.00	Inclination (°): *2.330*, Azimuth (°): *309.290*, TVD (ft): *9590.39*, Dogleg (º/100 ft): *0.90*, Sensor Depth (ft): *9598.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	22:20	22:25	12-16	9669.00	9672.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-16	22:25	23:00	12-16	9672.00	9702.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *10*, Toolface Type: *magnetic*
Rotary Drill	1	12-16	23:00	23:15	12-16	9702.00	9759.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-16	23:15	23:20	12-16	9759.00	9759.00	Inclination (°): *3.690*, Azimuth (°): *335.660*, TVD (ft): *9680.27*, Dogleg (º/100 ft): *2.12*, Sensor Depth (ft): *9688.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-16	23:20	00:25	12-17	9759.00	9939.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Dec 17 00:00 - 23:59 (Day 14 of 25)

Billing: $9,000.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	9759.00	**Downhole Hours**	23.00	**Rotating WOB (klbs)**	44.00 - 45.00
Bit Depth (ft)	11660.00	**Drilling Hours**	14.83	**Sliding WOB (klbs)**	20.00 - 20.00
Bottom Hole Depth (ft)	11660.00	**Hours Circulating**	0.50	**Rotating SPM**	176.00 - 176.00
Total Distance (ft)	1901.00	**Hours Sliding**	3.33	**Sliding SPM**	176.00 - 176.00
Distance Rotated (ft)	1760.00	**Hours Rotating**	11.50	**Motor RPM**	130.00 - 176.00
Distance Slid (ft)	141.00			**Surface RPM**	30.00 - 30.00
Inclination In	1.89			**Flow Rate (gpm)**	675.00 - 675.00
Inclination Out	0.62			**On Bottom Pressure (psi)**	2400.00 - 2800.00
Azimuth In	339.27	**% Hours Rotating**	78%	**Off Bottom Pressure (psi)**	2000.00 - 2200.00
Azimuth Out	173.59	**% Hours Sliding**	22%		
AVG Total ROP (ft/h)	128.16	**% Distance Sliding**	7%		
AVG Rotating ROP (ft/h)	153.04	**% Distance Rotating**	93%		
AVG Sliding ROP (ft/h)	42.30				

Personnel

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

BHA #3 - Intermediate 8.5"

Date In: Dec 15, 2020, 12:00 Date Out: Dec 17, 2020, 23:00

Bit Details

OD (in)	8.500
Vendor	REED
S/N	A270265
Nozzles	6x14's
Total Flow Area (in²)	0.902
Drilling Hours for Day	14.83
Total Drilled for Day (ft)	1901.00
Drilling Hours for BHA	34.00
Total Drilled for BHA (ft)	6720.00

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

Bend (Bit to Bend): 5.25 ft, **Gamma (Bit to Gamma):** 56.00 ft, **Survey (Bit to Survey):** 71.00 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: Reed TK66, Jets: 6x14s , TFA: .902 Runs: 0

MWD Comments

POOH Reason

Penetration Rate

Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
Bit Description: *TK66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270265	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7'' 7/8 8.5 FXD 1.5° w/ 8.25'' STAB*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-029	4 1/2" IF Box	4 1/2" Reg Box		7.050		36.27	37.27
Stabilizer Description: *8.25'' STABILIZER*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	44.00
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	49.00
Drill Collar Description: *NMDC (MWD Tool)*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	79.93
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	109.63
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	113.15
HWDP Description: *(13 Stands) 5.5" HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1329.70

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	12-16	23:20	00:25	12-17	9759.00	9939.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*

Survey	46	12-17	00:25	00:30	12-17	9939.00	9939.00	Inclination (°): *1.890*, Azimuth (°): *339.270*, TVD (ft): *9860.05*, Dogleg (º/100 ft): *1.00*, Sensor Depth (ft): *9868.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	00:30	00:40	12-17	9939.00	9948.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-17	00:40	01:25	12-17	9948.00	9978.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *30*, Toolface Type: *magnetic*
Rotary Drill	1	12-17	01:25	01:45	12-17	9978.00	10028.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	01:45	01:50	12-17	10028.00	10028.00	Inclination (°): *2.420*, Azimuth (°): *356.320*, TVD (ft): *9948.99*, Dogleg (º/100 ft): *0.93*, Sensor Depth (ft): *9957.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	01:50	02:30	12-17	10028.00	10118.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	02:30	02:35	12-17	10118.00	10118.00	Inclination (°): *3.210*, Azimuth (°): *5.900*, TVD (ft): *10038.88*, Dogleg (º/100 ft): *1.02*, Sensor Depth (ft): *10047.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	02:35	03:05	12-17	10118.00	10207.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	03:05	03:10	12-17	10207.00	10207.00	Inclination (°): *2.290*, Azimuth (°): *0.890*, TVD (ft): *10127.77*, Dogleg (º/100 ft): *1.07*, Sensor Depth (ft): *10136.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	03:10	03:15	12-17	10207.00	10217.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *44.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-17	03:15	04:00	12-17	10217.00	10247.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *10*, Toolface Type: *magnetic*
Rotary Drill	1	12-17	04:00	04:25	12-17	10247.00	10297.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	04:25	04:30	12-17	10297.00	10297.00	Inclination (°): *2.900*, Azimuth (°): *344.980*, TVD (ft): *10217.68*, Dogleg (º/100 ft): *1.04*, Sensor Depth (ft): *10226.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	04:30	05:10	12-17	10297.00	10386.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	05:10	05:15	12-17	10386.00	10386.00	Inclination (°): *3.120*, Azimuth (°): *340.850*, TVD (ft): *10306.56*, Dogleg (º/100 ft): *0.35*, Sensor Depth (ft): *10315.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	05:15	05:50	12-17	10386.00	10476.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	05:50	05:55	12-17	10476.00	10476.00	Inclination (°): *2.640*, Azimuth (°): *330.560*, TVD (ft): *10396.45*, Dogleg (º/100 ft): *0.78*, Sensor Depth (ft): *10405.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	05:55	06:25	12-17	10476.00	10566.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	06:25	06:30	12-17	10566.00	10566.00	Inclination (°): *1.450*, Azimuth (°): *329.690*, TVD (ft): *10486.39*, Dogleg (º/100 ft): *1.32*, Sensor Depth (ft): *10495.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	06:30	06:35	12-17	10566.00	10574.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Slide Drill	2	12-17	06:35	06:50	12-17	10574.00	10580.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *30*, Toolface Type: *magnetic*
Rig Repair	14	12-17	06:50	07:20	12-17			C/O VALVE & SEAT MP #1
Slide Drill	2	12-17	07:20	07:35	12-17	10580.00	10595.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *30*, Toolface Type: *magnetic*
Rotary Drill	1	12-17	07:35	08:00	12-17	10595.00	10656.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	08:00	08:05	12-17	10656.00	10656.00	Inclination (°): *1.230*, Azimuth (°): *330.040*, TVD (ft): *10576.36*, Dogleg (º/100 ft): *0.24*, Sensor Depth (ft): *10585.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	08:05	08:35	12-17	10656.00	10745.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*

Survey	46	12-17	08:35	08:40	12-17	10745.00	10745.00	Inclination (°): *0.750*, Azimuth (°): *325.640*, TVD (ft): *10665.35*, Dogleg (º/100 ft): *0.55*, Sensor Depth (ft): *10674.00*, Bit To Sensor (ft): *71.00*
Slide Drill	2	12-17	08:40	09:15	12-17	10745.00	10775.00	Pressure On (psi): *2400.00*, Pressure Off (psi): *2100.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *50*, Toolface Type: *magnetic*
Rotary Drill	1	12-17	09:15	09:40	12-17	10775.00	10835.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	09:40	09:45	12-17	10835.00	10835.00	Inclination (°): *1.450*, Azimuth (°): *40.440*, TVD (ft): *10755.34*, Dogleg (º/100 ft): *1.61*, Sensor Depth (ft): *10764.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	09:45	10:15	12-17	10835.00	10924.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	10:15	10:20	12-17	10924.00	10924.00	Inclination (°): *0.970*, Azimuth (°): *58.980*, TVD (ft): *10844.32*, Dogleg (º/100 ft): *0.69*, Sensor Depth (ft): *10853.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	10:20	10:40	12-17	10924.00	10988.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Rig Repair	14	12-17	10:40	11:10	12-17			C/O VALVE & SEAT ON MP #2
Rotary Drill	1	12-17	11:10	11:20	12-17	10988.00	11014.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	11:20	11:25	12-17	11014.00	11014.00	Inclination (°): *0.400*, Azimuth (°): *37.710*, TVD (ft): *10934.31*, Dogleg (º/100 ft): *0.68*, Sensor Depth (ft): *10943.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	11:25	12:00	12-17	11014.00	11104.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	12:00	12:05	12-17	11104.00	11104.00	Inclination (°): *0.700*, Azimuth (°): *32.350*, TVD (ft): *11024.30*, Dogleg (º/100 ft): *0.34*, Sensor Depth (ft): *11033.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	12:05	12:35	12-17	11104.00	11193.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	12:35	12:40	12-17	11193.00	11193.00	Inclination (°): *1.140*, Azimuth (°): *340.850*, TVD (ft): *11113.29*, Dogleg (º/100 ft): *1.00*, Sensor Depth (ft): *11122.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	12:40	13:15	12-17	11193.00	11283.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	13:15	13:20	12-17	11283.00	11283.00	Inclination (°): *0.620*, Azimuth (°): *355.610*, TVD (ft): *11203.28*, Dogleg (º/100 ft): *0.63*, Sensor Depth (ft): *11212.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	13:20	13:45	12-17	11283.00	11372.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	13:45	13:50	12-17	11372.00	11372.00	Inclination (°): *1.930*, Azimuth (°): *131.930*, TVD (ft): *11292.27*, Dogleg (º/100 ft): *2.72*, Sensor Depth (ft): *11301.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	13:50	14:20	12-17	11372.00	11447.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Rig Repair	14	12-17	14:20	14:45	12-17			C/O VALVE & SEAT MP #1
Rotary Drill	1	12-17	14:45	15:00	12-17	11447.00	11462.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	15:00	15:05	12-17	11462.00	11462.00	Inclination (°): *2.730*, Azimuth (°): *136.330*, TVD (ft): *11382.19*, Dogleg (º/100 ft): *0.91*, Sensor Depth (ft): *11391.00*, Bit To Sensor (ft): *71.00*
Slide Drill	2	12-17	15:05	15:50	12-17	11462.00	11492.00	Pressure On (psi): *2500.00*, Pressure Off (psi): *2200.00*, Weight On Bit (klbs): *20.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176*, Toolface: *315*, Toolface Type: *magnetic*
Rotary Drill	1	12-17	15:50	16:20	12-17	11492.00	11551.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	16:20	16:25	12-17	11551.00	11551.00	Inclination (°): *1.320*, Azimuth (°): *138.520*, TVD (ft): *11471.14*, Dogleg (º/100 ft): *1.59*, Sensor Depth (ft): *11480.00*, Bit To Sensor (ft): *71.00*
Rotary Drill	1	12-17	16:25	16:55	12-17	11551.00	11641.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-17	16:55	17:00	12-17	11641.00	11641.00	Inclination (°): *0.620*, Azimuth (°): *173.590*, TVD (ft): *11561.12*, Dogleg (º/100 ft): *0.99*, Sensor Depth (ft): *11570.00*, Bit To Sensor (ft): *71.00*

Rotary Drill	1	12-17	17:00	17:15	12-17	11641.00	11660.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Circulating	3	12-17	17:15	17:45	12-17			Circulate
Pooh	7	12-17	17:45	23:00	12-17			POOH
Change BHA	6	12-17	23:00	00:00	12-18			P/U BHA # 4

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Dec 18 00:00 - 23:59 (Day 15 of 25)

Billing: $5,800.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	11660.00	**Downhole Hours**	22.75	**Rotating WOB (klbs)**	45.00 - 45.00
Bit Depth (ft)	12210.00	**Drilling Hours**	1.92	**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)	12210.00	**Hours Circulating**	4.58	**Rotating SPM**	176.00 - 176.00
Total Distance (ft)	550.00	**Hours Sliding**	0.00	**Sliding SPM**	
Distance Rotated (ft)	550.00	**Hours Rotating**	1.92	**Motor RPM**	175.00 - 176.00
Distance Slid (ft)	0.00			**Surface RPM**	30.00 - 30.00
Inclination In	0.97			**Flow Rate (gpm)**	675.00 - 675.00
Inclination Out	1.71			**On Bottom Pressure (psi)**	2800.00 - 2800.00
Azimuth In	200.49	**% Hours Rotating**	100%	**Off Bottom Pressure (psi)**	2000.00 - 2000.00
Azimuth Out	223.60	**% Hours Sliding**	0%		
AVG Total ROP (ft/h)	286.96	**% Distance Sliding**	0%		
AVG Rotating ROP (ft/h)	286.96	**% Distance Rotating**	100%		
AVG Sliding ROP (ft/h)	0.00				

Personnel

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

BHA #4 - Intermediate 8.5"

Date In: Dec 18, 2020, 0:15 Date Out: Dec 18, 2020, 23:00

Bit Details

OD (in)	8.500
Vendor	REED
S/N	A270266
Nozzles	6x14's
Total Flow Area (in²)	0.902
Drilling Hours for Day	1.92
Total Drilled for Day (ft)	550.00
Drilling Hours for BHA	1.92
Total Drilled for BHA (ft)	550.00

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

Bend (Bit to Bend): 5.30 ft, **Gamma (Bit to Gamma):** 57.00 ft, **Survey (Bit to Survey):** 72.00 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: Reed TKC66, Jets: 6x14s , TFA: .902 Runs: 1

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: *TKC66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270266	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7'' 7/8 8.5 FXD 1.5° w/ 8.25'' STAB*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-006	4 1/2" IF Box	4 1/2" Reg Box		7.050		37.73	38.73
Stabilizer Description: *8.25'' STABILIZER*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	45.46
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	50.46
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	6.870		30.93	81.39
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	111.09
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	114.61
HWDP Description: *(13 Stands) 5.5" HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1331.16

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Change BHA	6	12-17	23:00	00:00	12-18			P/U BHA # 4
Circulating	3	12-18	00:00	00:15	12-18			Test MWD(Good)
TIH	8	12-18	00:15	03:15	12-18			TIH W/ BHA #4
Work Pipe	18	12-18	03:15	04:45	12-18			Work Stuck Pipe

TIH	8	12-18	04:45	05:00	12-18			TIH W/ BHA #4
Circulating	3	12-18	05:00	06:20	12-18			Wash & Ream
TIH	8	12-18	06:20	08:00	12-18			TIH W/ BHA #4
Other	16	12-18	08:00	08:05	12-18			RELOG 30' OF GAMMA
Rotary Drill	1	12-18	08:05	08:20	12-18	11660.00	11732.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-18	08:20	08:25	12-18	11732.00	11732.00	Inclination (°): *0.970*, Azimuth (°): *200.490*, TVD (ft): *11651.11*, Dogleg (º/100 ft): *0.56*, Sensor Depth (ft): *11660.00*, Bit To Sensor (ft): *72.00*
Rotary Drill	1	12-18	08:25	08:40	12-18	11732.00	11821.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Pooh	7	12-18	08:40	09:00	12-18			POOH 3 STANDS TO RELOG GAMMA
Circulating	3	12-18	09:00	10:00	12-18			RELOG GAMMA
Rig Repair	14	12-18	10:00	10:25	12-18			C/O VALVE & SEAT MP #2
Survey	46	12-18	10:25	10:30	12-18	11821.00	11821.00	Inclination (°): *1.580*, Azimuth (°): *195.240*, TVD (ft): *11740.09*, Dogleg (º/100 ft): *0.70*, Sensor Depth (ft): *11749.00*, Bit To Sensor (ft): *72.00*
Rotary Drill	1	12-18	10:30	10:45	12-18	11821.00	11911.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-18	10:45	10:50	12-18	11911.00	11911.00	Inclination (°): *1.050*, Azimuth (°): *191.610*, TVD (ft): *11830.07*, Dogleg (º/100 ft): *0.60*, Sensor Depth (ft): *11839.00*, Bit To Sensor (ft): *72.00*
Rotary Drill	1	12-18	10:50	11:10	12-18	11911.00	12001.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-18	11:10	11:15	12-18	12001.00	12001.00	Inclination (°): *1.190*, Azimuth (°): *205.060*, TVD (ft): *11920.05*, Dogleg (º/100 ft): *0.33*, Sensor Depth (ft): *11929.00*, Bit To Sensor (ft): *72.00*
Rotary Drill	1	12-18	11:15	11:35	12-18	12001.00	12090.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-18	11:35	11:40	12-18	12090.00	12090.00	Inclination (°): *1.360*, Azimuth (°): *228.520*, TVD (ft): *12009.03*, Dogleg (º/100 ft): *0.61*, Sensor Depth (ft): *12018.00*, Bit To Sensor (ft): *72.00*
Rotary Drill	1	12-18	11:40	12:10	12-18	12090.00	12210.00	Pressure On (psi): *2800.00*, Pressure Off (psi): *2000.00*, Weight On Bit (klbs): *45.00*, Surface RPM: *30*, Surface Torque (ft lbf): *19000.00*, Flow Rate (gpm): *675.00*, Strokes Per Minute: *176.00*
Survey	46	12-18	12:10	12:25	12-18	12210.00	12210.00	Inclination (°): *1.710*, Azimuth (°): *223.600*, TVD (ft): *12128.99*, Dogleg (º/100 ft): *0.31*, Sensor Depth (ft): *12138.00*, Bit To Sensor (ft): *72.00*
Circulating	3	12-18	12:25	14:25	12-18			CIRCULATING @ TD
Pooh	7	12-18	14:25	23:00	12-18			POOH
Lay Down BHA	65	12-18	23:00	23:45	12-18			L/D STABILIZER & UBHO, RACK BACK BHA
Wireline	9	12-18	23:45	18:30	12-19			STANDBY WHILE WIRELINE LOGS

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Dec 19 00:00 - 23:59 (Day 16 of 25)

Billing: $7,692.38 ($143,637.38 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		**Downhole Hours**	0.00	**Rotating WOB (klbs)**	
Bit Depth (ft)		**Drilling Hours**	0.00	**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)		**Hours Circulating**	0.00	**Rotating SPM**	
Total Distance (ft)	0.00	**Hours Sliding**	0.00	**Sliding SPM**	
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00	**Motor RPM**	-
Distance Slid (ft)	0.00			**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
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Wireline	9	12-18	23:45	18:30	12-19			STANDBY WHILE WIRELINE LOGS
Standby	15	12-19	18:30	04:00	12-20			Standby- CEMENT PLUG OPS

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Dec 20 00:00 - 23:59 (Day 17 of 25)

Billing: N/A ($143,637.38 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)		**Downhole Hours**	0.00	**Rotating WOB (klbs)**	
Bit Depth (ft)		**Drilling Hours**	0.00	**Sliding WOB (klbs)**	
Bottom Hole Depth (ft)		**Hours Circulating**	0.00	**Rotating SPM**	
Total Distance (ft)	0.00	**Hours Sliding**	0.00	**Sliding SPM**	
Distance Rotated (ft)	0.00	**Hours Rotating**	0.00	**Motor RPM**	-
Distance Slid (ft)	0.00			**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
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-19	18:30	04:00	12-20			Standby- CEMENT PLUG OPS

MWD Activities

No Activities

Daily Reports
Lateral

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Jan 04 00:00 - 23:59 (Day 18 of 25)

Billing: $3,700.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)		**Downhole Hours**	0.50
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	145.00 - 160.00
Surface RPM	
Flow Rate (gpm)	
On Bottom Pressure (psi)	
Off Bottom Pressure (psi)	

Personnel

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

BHA #5 - Curve 8.5"

Date In: Jan 4, 2021, 23:30 Date Out: Jan 6, 2021, 10:30

Bit Details

OD (in)	8.500
Vendor	Ulterra
S/N	51347
Nozzles	9x13's
Total Flow Area (in²)	1.166
Drilling Hours for Day	
Total Drilled for Day (ft)	
Drilling Hours for BHA	13.67
Total Drilled for BHA (ft)	985.00

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: 52.00 ft, **Gamma:** 38.00 ft

Directional Comments

Directional: Flow Rate: 300-600, Max Diff: 1130 psi, Max Torque: 10,460 ft-lbs, BIT Runs: 3

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: *CF611*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Ulterra	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 5.0 FXD 2.12 True Slick*, Size (in): *6.75*, Bend Angle (°): *2.12*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5*	AIM	650-010	4 1/2" IF Box	4 1/2" Reg Box		6.750		25.77	26.77
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	31.77
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	62.70
Drill Collar Description: *NMDC*, 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	92.40
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	95.92

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	01-04	00:00	23:30	01-04			Standby while Rig rigs over the 604H
Pick Up BHA	64	01-04	23:30	00:15	01-05			P/U BHA #5 (Curve Assembly)

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Tuesday, Jan 05 00:00 - 23:59 (Day 19 of 25)

Billing: $15,000.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	11303.00	**Downhole Hours**	24.00
Bit Depth (ft)	12064.00	**Drilling Hours**	11.33
Bottom Hole Depth (ft)	12064.00	**Hours Circulating**	4.17
Total Distance (ft)	761.00	**Hours Sliding**	10.75
Distance Rotated (ft)	75.00	**Hours Rotating**	0.58
Distance Slid (ft)	686.00		
Inclination In	1.58		
Inclination Out	68.09		
Azimuth In	40.77	**% Hours Rotating**	5%
Azimuth Out	356.91	**% Hours Sliding**	95%
AVG Total ROP (ft/h)	67.15	**% Distance Sliding**	90%
AVG Rotating ROP (ft/h)	128.57	**% Distance Rotating**	10%
AVG Sliding ROP (ft/h)	63.81		

Drilling Parameters

Rotating WOB (klbs)	40.00 - 40.00
Sliding WOB (klbs)	40.00 - 50.00
Rotating SPM	156.00 - 156.00
Sliding SPM	130.00 - 156.00
Motor RPM	145.00 - 160.00
Surface RPM	30.00 - 30.00
Flow Rate (gpm)	525.00 - 600.00
On Bottom Pressure (psi)	2100.00 - 3100.00
Off Bottom Pressure (psi)	1700.00 - 2300.00

Personnel

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

BHA #5 - Curve 8.5"

Date In: Jan 4, 2021, 23:30 Date Out: Jan 6, 2021, 10:30

Bit Details

OD (in)	8.500
Vendor	Ulterra
S/N	51347
Nozzles	9x13's
Total Flow Area (in²)	1.166
Drilling Hours for Day	11.33
Total Drilled for Day (ft)	761.00
Drilling Hours for BHA	13.67
Total Drilled for BHA (ft)	985.00

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: 52.00 ft, **Gamma:** 38.00 ft

Directional Comments

Directional: Flow Rate: 300-600, Max Diff: 1130 psi, Max Torque: 10,460 ft-lbs, BIT Runs: 3

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: *CF611*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Ulterra	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 5.0 FXD 2.12 True Slick*, Size (in): *6.75*, Bend Angle (°): *2.12*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5*	AIM	650-010	4 1/2" IF Box	4 1/2" Reg Box		6.750		25.77	26.77
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	31.77
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	62.70
Drill Collar Description: *NMDC*, 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	92.40
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	95.92

MWD Items

No Items

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Pick Up BHA	64	01-04	23:30	00:15	01-05			P/U BHA #5 (Curve Assembly)
Circulating	3	01-05	00:15	00:30	01-05			Test MWD Tool & Motor
TIH	8	01-05	00:30	02:15	01-05			TIH W/ BHA #5
Other	16	01-05	02:15	03:30	01-05			Slip & Cut Drill line
TIH	8	01-05	03:30	06:55	01-05			TIH W/ BHA #5
Circulating	3	01-05	06:55	07:10	01-05			Fill Pipe
TIH	8	01-05	07:10	07:25	01-05			Wash to Bottom. Tag and hold 15K WOB at 11200'
Circulating	3	01-05	07:25	09:40	01-05			Bottoms Up, Displace with OBM

Drilling Cement	17	01-05	09:40	11:05	01-05	12210.00	11303.00	Drilling Cement and Float Equipment F/ 11200 - T/ 11303
Slide Drill	2	01-05	11:05	14:55	01-05	11303.00	11392.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1700.00*, Weight On Bit (klbs): *40.00*, Flow Rate (gpm): *525.00*, Strokes Per Minute: *130*, Toolface: *357*, Toolface Type: *magnetic*
Survey	46	01-05	14:55	15:10	01-05	11392.00	11392.00	Inclination (°): *1.580*, Azimuth (°): *40.770*, TVD (ft): *11331.26*, Dogleg (º/100 ft): *0.96*, Sensor Depth (ft): *11340.00*, Bit To Sensor (ft): *52.00*
Slide Drill	2	01-05	15:10	16:05	01-05	11392.00	11438.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1700.00*, Weight On Bit (klbs): *40.00*, Flow Rate (gpm): *525.00*, Strokes Per Minute: *130*, Toolface: *357*, Toolface Type: *magnetic*
Survey	46	01-05	16:05	16:20	01-05	11438.00	11438.00	Inclination (°): *6.640*, Azimuth (°): *4.120*, TVD (ft): *11377.13*, Dogleg (º/100 ft): *11.86*, Sensor Depth (ft): *11386.00*, Bit To Sensor (ft): *52.00*
Slide Drill	2	01-05	16:20	16:45	01-05	11438.00	11482.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1700.00*, Weight On Bit (klbs): *40.00*, Flow Rate (gpm): *525.00*, Strokes Per Minute: *130*, Toolface: *340*, Toolface Type: *gravity*
Survey	46	01-05	16:45	16:50	01-05	11482.00	11482.00	Inclination (°): *10.810*, Azimuth (°): *354.800*, TVD (ft): *11420.61*, Dogleg (º/100 ft): *9.98*, Sensor Depth (ft): *11430.00*, Bit To Sensor (ft): *52.00*
Slide Drill	2	01-05	16:50	17:55	01-05	11482.00	11571.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1700.00*, Weight On Bit (klbs): *40.00*, Flow Rate (gpm): *525.00*, Strokes Per Minute: *130*, Toolface: *20*, Toolface Type: *gravity*
Survey	46	01-05	17:55	18:05	01-05	11571.00	11571.00	Inclination (°): *18.770*, Azimuth (°): *3.590*, TVD (ft): *11506.60*, Dogleg (º/100 ft): *9.27*, Sensor Depth (ft): *11519.00*, Bit To Sensor (ft): *52.00*
Slide Drill	2	01-05	18:05	19:05	01-05	11571.00	11661.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1700.00*, Weight On Bit (klbs): *40.00*, Flow Rate (gpm): *525.00*, Strokes Per Minute: *130*, Toolface: *350*, Toolface Type: *gravity*
Survey	46	01-05	19:05	19:15	01-05	11661.00	11661.00	Inclination (°): *23.520*, Azimuth (°): *0.600*, TVD (ft): *11590.52*, Dogleg (º/100 ft): *5.41*, Sensor Depth (ft): *11609.00*, Bit To Sensor (ft): *52.00*
Slide Drill	2	01-05	19:15	20:15	01-05	11661.00	11750.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1700.00*, Weight On Bit (klbs): *40.00*, Flow Rate (gpm): *525.00*, Strokes Per Minute: *130*, Toolface: *0*, Toolface Type: *gravity*
Survey	46	01-05	20:15	20:25	01-05	11750.00	11750.00	Inclination (°): *34.200*, Azimuth (°): *357.610*, TVD (ft): *11668.36*, Dogleg (º/100 ft): *12.11*, Sensor Depth (ft): *11698.00*, Bit To Sensor (ft): *52.00*
Slide Drill	2	01-05	20:25	21:20	01-05	11750.00	11840.00	Pressure On (psi): *2100.00*, Pressure Off (psi): *1700.00*, Weight On Bit (klbs): *40.00*, Flow Rate (gpm): *525.00*, Strokes Per Minute: *130*, Toolface: *0*, Toolface Type: *gravity*
Survey	46	01-05	21:20	21:30	01-05	11840.00	11840.00	Inclination (°): *46.640*, Azimuth (°): *355.940*, TVD (ft): *11736.75*, Dogleg (º/100 ft): *13.87*, Sensor Depth (ft): *11788.00*, Bit To Sensor (ft): *52.00*
Slide Drill	2	01-05	21:30	22:20	01-05	11840.00	11930.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *50.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156*, Toolface: *0*, Toolface Type: *gravity*
Survey	46	01-05	22:20	22:30	01-05	11930.00	11930.00	Inclination (°): *58.810*, Azimuth (°): *357.700*, TVD (ft): *11791.15*, Dogleg (º/100 ft): *13.61*, Sensor Depth (ft): *11878.00*, Bit To Sensor (ft): *52.00*
Rotary Drill	1	01-05	22:30	22:45	01-05	11930.00	11960.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-05	22:45	23:30	01-05	11960.00	12019.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *50.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156*, Toolface: *350*, Toolface Type: *gravity*
Survey	46	01-05	23:30	23:40	01-05	12019.00	12019.00	Inclination (°): *68.090*, Azimuth (°): *356.910*, TVD (ft): *11830.89*, Dogleg (º/100 ft): *10.46*, Sensor Depth (ft): *11967.00*, Bit To Sensor (ft): *52.00*
Rotary Drill	1	01-05	23:40	00:00	01-06	12019.00	12064.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Wednesday, Jan 06 00:00 - 23:59 (Day 20 of 25)

Billing: $19,845.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	12064.00	**Downhole Hours**	22.50
Bit Depth (ft)	12868.00	**Drilling Hours**	6.42
Bottom Hole Depth (ft)	12868.00	**Hours Circulating**	1.50
Total Distance (ft)	804.00	**Hours Sliding**	2.75
Distance Rotated (ft)	620.00	**Hours Rotating**	3.67
Distance Slid (ft)	184.00		
Inclination In	73.76		
Inclination Out	89.63		
Azimuth In	356.03	**% Hours Rotating**	57%
Azimuth Out	359.99	**% Hours Sliding**	43%
AVG Total ROP (ft/h)	134.14	**% Distance Sliding**	23%
AVG Rotating ROP (ft/h)	177.65	**% Distance Rotating**	77%
AVG Sliding ROP (ft/h)	66.91		

Drilling Parameters

Rotating WOB (klbs)	40.00 - 42.00
Sliding WOB (klbs)	25.00 - 50.00
Rotating SPM	156.00 - 164.00
Sliding SPM	156.00 - 164.00
Motor RPM	145.00 - 182.00
Surface RPM	30.00 - 50.00
Flow Rate (gpm)	600.00 - 630.00
On Bottom Pressure (psi)	3100.00 - 3850.00
Off Bottom Pressure (psi)	2300.00 - 3100.00

Personnel

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

BHA #5 - Curve 8.5"

Date In: Jan 4, 2021, 23:30 Date Out: Jan 6, 2021, 10:30

Bit Details

OD (in)	8.500
Vendor	Ulterra
S/N	51347
Nozzles	9x13's
Total Flow Area (in²)	1.166
Drilling Hours for Day	2.33
Total Drilled for Day (ft)	224.00
Drilling Hours for BHA	13.67
Total Drilled for BHA (ft)	985.00

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: 52.00 ft, **Gamma:** 38.00 ft

Directional Comments

Directional: Flow Rate: 300-600, Max Diff: 1130 psi, Max Torque: 10,460 ft-lbs, BIT Runs: 3

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: *CF611*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Ulterra	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 5.0 FXD 2.12 True Slick*, Size (in): *6.75*, Bend Angle (°): *2.12*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5*	AIM	650-010	4 1/2" IF Box	4 1/2" Reg Box		6.750		25.77	26.77
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	31.77
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	62.70
Drill Collar Description: *NMDC*, 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	92.40
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	95.92

MWD Items

No Items

BHA #6 - BHA #6 (Lateral Assembly)

Date In: Jan 6, 2021, 12:00 Date Out: Jan 10, 2021, 11:20

Bit Details

OD (in)	8.500
Vendor	REED
S/N	51347
Nozzles	6x16's
Total Flow Area (in²)	1.170
Drilling Hours for Day	4.08
Total Drilled for Day (ft)	580.00
Drilling Hours for BHA	62.58
Total Drilled for BHA (ft)	6349.00

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: 63.00 ft, **Gamma:** 48.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr.w/True Slick.; Flow Range: 500-750 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit Runs: 2

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: *E267948*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 8.5 FXD 1.75 True Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-032	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.26	37.26
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	42.26
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	73.19
Drill Collar Description: *NMDC*, 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	102.89
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	106.41
Drill Pipe Description: *28 Stands 5.5" Drill Pipe*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		2509.00	2615.41
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD13749	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.740		3.57	2618.98
Agitator Description: *AGITATOR*, Size (in): *6.75*	NOV	675-0054	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.48	2643.46
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD18869	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.730		1.88	2645.34

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	01-05	23:40	00:00	01-06	12019.00	12064.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Slide Drill	2	01-06	00:00	00:35	01-06	12064.00	12109.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *50.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156*, Toolface: *0*, Toolface Type: *gravity*
Survey	46	01-06	00:35	00:45	01-06	12109.00	12109.00	Inclination (°): *73.760*, Azimuth (°): *356.030*, TVD (ft): *11860.29*, Dogleg (º/100 ft): *6.37*, Sensor Depth (ft): *12057.00*, Bit To Sensor (ft): *52.00*
Slide Drill	2	01-06	00:45	01:20	01-06	12109.00	12168.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *50.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156*, Toolface: *20*, Toolface Type: *gravity*
Rotary Drill	1	01-06	01:20	01:35	01-06	12168.00	12198.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-06	01:35	01:45	01-06	12198.00	12198.00	Inclination (°): *86.640*, Azimuth (°): *357.180*, TVD (ft): *11875.41*, Dogleg (º/100 ft): *14.53*, Sensor Depth (ft): *12146.00*, Bit To Sensor (ft): *52.00*
Rotary Drill	1	01-06	01:45	02:40	01-06	12198.00	12288.00	Pressure On (psi): *3100.00*, Pressure Off (psi): *2300.00*, Weight On Bit (klbs): *40.00*, Surface RPM: *30*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *600.00*, Strokes Per Minute: *156.00*
Survey	46	01-06	02:40	02:45	01-06	12288.00	12288.00	Inclination (°): *90.770*, Azimuth (°): *356.650*, TVD (ft): *11877.44*, Dogleg (º/100 ft): *4.63*, Sensor Depth (ft): *12236.00*, Bit To Sensor (ft): *52.00*
Circulating	3	01-06	02:45	03:30	01-06			Circulating to Pooh for Lateral Assembly
Pooh	7	01-06	03:30	10:30	01-06			POOH to P/U Lateral Assembly
Change BHA	6	01-06	10:30	12:00	01-06			P/U BHA # 6

TIH	8	01-06	12:00	13:15	01-06			TIH W/ BHA #6
Other	16	01-06	13:15	13:30	01-06			P/U Agitator
Circulating	3	01-06	13:30	13:35	01-06			Test with Agitator
TIH	8	01-06	13:35	18:30	01-06			TIH W/ BHA #6
Circulating	3	01-06	18:30	19:10	01-06			Relog 50' Gamma
Rotary Drill	1	01-06	19:10	19:25	01-06	12288.00	12331.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-06	19:25	19:30	01-06	12331.00	12331.00	Inclination (°): *91.340*, Azimuth (°): *355.860*, TVD (ft): *11876.85*, Dogleg (º/100 ft): *3.04*, Sensor Depth (ft): *12268.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-06	19:30	20:05	01-06	12331.00	12356.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *140*, Toolface Type: *gravity*
Rotary Drill	1	01-06	20:05	20:25	01-06	12356.00	12420.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-06	20:25	20:30	01-06	12420.00	12420.00	Inclination (°): *88.920*, Azimuth (°): *356.380*, TVD (ft): *11876.65*, Dogleg (º/100 ft): *2.78*, Sensor Depth (ft): *12357.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-06	20:30	20:55	01-06	12420.00	12510.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-06	20:55	21:00	01-06	12510.00	12510.00	Inclination (°): *88.130*, Azimuth (°): *356.300*, TVD (ft): *11878.97*, Dogleg (º/100 ft): *0.88*, Sensor Depth (ft): *12447.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-06	21:00	21:05	01-06	12510.00	12520.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-06	21:05	21:40	01-06	12520.00	12550.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *80*, Toolface Type: *gravity*
Rotary Drill	1	01-06	21:40	21:55	01-06	12550.00	12600.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-06	21:55	22:00	01-06	12600.00	12600.00	Inclination (°): *88.660*, Azimuth (°): *357.790*, TVD (ft): *11881.49*, Dogleg (º/100 ft): *1.76*, Sensor Depth (ft): *12537.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-06	22:00	22:25	01-06	12600.00	12689.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-06	22:25	22:30	01-06	12689.00	12689.00	Inclination (°): *88.130*, Azimuth (°): *359.110*, TVD (ft): *11883.98*, Dogleg (º/100 ft): *1.60*, Sensor Depth (ft): *12626.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-06	22:30	22:55	01-06	12689.00	12779.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-06	22:55	23:00	01-06	12779.00	12779.00	Inclination (°): *87.430*, Azimuth (°): *359.370*, TVD (ft): *11887.47*, Dogleg (º/100 ft): *0.83*, Sensor Depth (ft): *12716.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-06	23:00	23:05	01-06	12779.00	12789.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-06	23:05	23:30	01-06	12789.00	12814.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *20*, Toolface Type: *gravity*
Rotary Drill	1	01-06	23:30	23:45	01-06	12814.00	12868.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-06	23:45	23:50	01-06	12868.00	12868.00	Inclination (°): *89.630*, Azimuth (°): *359.990*, TVD (ft): *11889.75*, Dogleg (º/100 ft): *2.57*, Sensor Depth (ft): *12805.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-06	23:50	00:05	01-07	12868.00	12958.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Thursday, Jan 07 00:00 - 23:59 (Day 21 of 25)

Billing: $5,800.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	12868.00	**Downhole Hours**	24.00
Bit Depth (ft)	15417.00	**Drilling Hours**	21.08
Bottom Hole Depth (ft)	15417.00	**Hours Circulating**	0.00
Total Distance (ft)	2549.00	**Hours Sliding**	7.08
Distance Rotated (ft)	2184.00	**Hours Rotating**	14.00
Distance Slid (ft)	365.00		
Inclination In	89.10		
Inclination Out	90.46		
Azimuth In	359.99	**% Hours Rotating**	66%
Azimuth Out	357.70	**% Hours Sliding**	34%
AVG Total ROP (ft/h)	120.90	**% Distance Sliding**	14%
AVG Rotating ROP (ft/h)	156.00	**% Distance Rotating**	86%
AVG Sliding ROP (ft/h)	51.53		

Drilling Parameters

Rotating WOB (klbs)	42.00 - 52.00
Sliding WOB (klbs)	25.00 - 25.00
Rotating SPM	164.00 - 164.00
Sliding SPM	164.00 - 164.00
Motor RPM	162.00 - 182.00
Surface RPM	50.00 - 50.00
Flow Rate (gpm)	630.00 - 630.00
On Bottom Pressure (psi)	3500.00 - 3850.00
Off Bottom Pressure (psi)	3100.00 - 3100.00

Personnel

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

BHA #6 - BHA #6 (Lateral Assembly)

Date In: Jan 6, 2021, 12:00 Date Out: Jan 10, 2021, 11:20

Bit Details

OD (in)	8.500
Vendor	REED
S/N	51347
Nozzles	6x16's
Total Flow Area (in²)	1.170
Drilling Hours for Day	21.08
Total Drilled for Day (ft)	2549.00
Drilling Hours for BHA	62.58
Total Drilled for BHA (ft)	6349.00

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: 63.00 ft, **Gamma:** 48.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr.w/True Slick.; Flow Range: 500-750 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit Runs: 2

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: *E267948*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 8.5 FXD 1.75 True Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-032	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.26	37.26
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	42.26
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	73.19
Drill Collar Description: *NMDC*, 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	102.89
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	106.41
Drill Pipe Description: *28 Stands 5.5" Drill Pipe*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		2509.00	2615.41
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD13749	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.740		3.57	2618.98
Agitator Description: *AGITATOR*, Size (in): *6.75*	NOV	675-0054	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.48	2643.46
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD18869	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.730		1.88	2645.34

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	01-06	23:50	00:05	01-07	12868.00	12958.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	00:05	00:10	01-07	12958.00	12958.00	Inclination (°): *89.100*, Azimuth (°): *359.990*, TVD (ft): *11890.75*, Dogleg (º/100 ft): *0.59*, Sensor Depth (ft): *12895.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	00:10	00:20	01-07	12958.00	12978.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	00:20	00:40	01-07	12978.00	12993.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	01-07	00:40	01:00	01-07	12993.00	13047.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	01:00	01:05	01-07	13047.00	13047.00	Inclination (°): *90.640*, Azimuth (°): *0.950*, TVD (ft): *11890.95*, Dogleg (º/100 ft): *2.04*, Sensor Depth (ft): *12984.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	01:05	01:35	01-07	13047.00	13137.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	01:35	01:40	01-07	13137.00	13137.00	Inclination (°): *92.260*, Azimuth (°): *1.130*, TVD (ft): *11888.67*, Dogleg (º/100 ft): *1.81*, Sensor Depth (ft): *13074.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	01:40	02:10	01-07	13137.00	13227.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	02:10	02:15	01-07	13227.00	13227.00	Inclination (°): *91.600*, Azimuth (°): *0.160*, TVD (ft): *11885.64*, Dogleg (º/100 ft): *1.30*, Sensor Depth (ft): *13164.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	02:15	02:55	01-07	13227.00	13316.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	02:55	03:00	01-07	13316.00	13316.00	Inclination (°): *91.250*, Azimuth (°): *358.230*, TVD (ft): *11883.43*, Dogleg (º/100 ft): *2.20*, Sensor Depth (ft): *13253.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	03:00	03:05	01-07	13316.00	13326.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	03:05	03:30	01-07	13326.00	13346.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *100*, Toolface Type: *gravity*
Rotary Drill	1	01-07	03:30	03:55	01-07	13346.00	13406.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	03:55	04:00	01-07	13406.00	13406.00	Inclination (°): *89.580*, Azimuth (°): *358.850*, TVD (ft): *11882.78*, Dogleg (º/100 ft): *1.98*, Sensor Depth (ft): *13343.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	04:00	04:25	01-07	13406.00	13495.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	04:25	04:30	01-07	13495.00	13495.00	Inclination (°): *88.180*, Azimuth (°): *358.410*, TVD (ft): *11884.52*, Dogleg (º/100 ft): *1.65*, Sensor Depth (ft): *13432.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	04:30	04:35	01-07	13495.00	13505.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	04:35	05:15	01-07	13505.00	13530.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *40*, Toolface Type: *gravity*
Rotary Drill	1	01-07	05:15	05:45	01-07	13530.00	13585.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	05:45	05:50	01-07	13585.00	13585.00	Inclination (°): *89.710*, Azimuth (°): *358.580*, TVD (ft): *11886.17*, Dogleg (º/100 ft): *1.71*, Sensor Depth (ft): *13522.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	05:50	06:35	01-07	13585.00	13674.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	06:35	06:40	01-07	13674.00	13674.00	Inclination (°): *90.370*, Azimuth (°): *358.230*, TVD (ft): *11886.11*, Dogleg (º/100 ft): *0.84*, Sensor Depth (ft): *13611.00*, Bit To Sensor (ft): *63.00*

Rotary Drill	1	01-07	06:40	07:20	01-07	13674.00	13764.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	07:20	07:25	01-07	13764.00	13764.00	Inclination (°): *90.200*, Azimuth (°): *356.560*, TVD (ft): *11885.66*, Dogleg (º/100 ft): *1.87*, Sensor Depth (ft): *13701.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	07:25	07:30	01-07	13764.00	13770.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	07:30	08:05	01-07	13770.00	13800.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *90*, Toolface Type: *gravity*
Rotary Drill	1	01-07	08:05	08:20	01-07	13800.00	13854.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	08:20	08:35	01-07	13854.00	13854.00	Inclination (°): *90.950*, Azimuth (°): *358.050*, TVD (ft): *11884.76*, Dogleg (º/100 ft): *1.85*, Sensor Depth (ft): *13791.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	08:35	09:05	01-07	13854.00	13943.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	09:05	09:10	01-07	13943.00	13943.00	Inclination (°): *92.310*, Azimuth (°): *356.560*, TVD (ft): *11882.23*, Dogleg (º/100 ft): *2.27*, Sensor Depth (ft): *13880.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	09:10	09:15	01-07	13943.00	13950.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	09:15	09:50	01-07	13950.00	13990.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *120*, Toolface Type: *gravity*
Rotary Drill	1	01-07	09:50	10:10	01-07	13990.00	14033.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	10:10	10:15	01-07	14033.00	14033.00	Inclination (°): *92.350*, Azimuth (°): *357.530*, TVD (ft): *11878.57*, Dogleg (º/100 ft): *1.08*, Sensor Depth (ft): *13970.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	10:15	10:20	01-07	14033.00	14035.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	10:20	10:55	01-07	14035.00	14075.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *160*, Toolface Type: *gravity*
Rotary Drill	1	01-07	10:55	11:20	01-07	14075.00	14123.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	11:20	11:25	01-07	14123.00	14123.00	Inclination (°): *89.800*, Azimuth (°): *358.930*, TVD (ft): *11876.88*, Dogleg (º/100 ft): *3.23*, Sensor Depth (ft): *14060.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	11:25	11:35	01-07	14123.00	14130.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	11:35	11:55	01-07	14130.00	14155.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *90*, Toolface Type: *gravity*
Rotary Drill	1	01-07	11:55	12:20	01-07	14155.00	14213.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	12:20	12:25	01-07	14213.00	14213.00	Inclination (°): *89.010*, Azimuth (°): *0.510*, TVD (ft): *11877.82*, Dogleg (º/100 ft): *1.96*, Sensor Depth (ft): *14150.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	12:25	12:50	01-07	14213.00	14302.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	12:50	12:55	01-07	14302.00	14302.00	Inclination (°): *89.670*, Azimuth (°): *0.160*, TVD (ft): *11878.84*, Dogleg (º/100 ft): *0.84*, Sensor Depth (ft): *14239.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	12:55	13:20	01-07	14302.00	14392.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	13:20	13:25	01-07	14392.00	14392.00	Inclination (°): *89.850*, Azimuth (°): *0.690*, TVD (ft): *11879.22*, Dogleg (º/100 ft): *0.62*, Sensor Depth (ft): *14329.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	13:25	13:50	01-07	14392.00	14481.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*

Rig Service - In Hole	19	01-07	13:50	14:25	01-07			
Survey	46	01-07	14:25	14:30	01-07	14481.00	14481.00	Inclination (°): *91.120*, Azimuth (°): *1.920*, TVD (ft): *11878.47*, Dogleg (º/100 ft): *1.99*, Sensor Depth (ft): *14418.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-07	14:30	14:55	01-07	14481.00	14511.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *200*, Toolface Type: *gravity*
Rotary Drill	1	01-07	14:55	15:15	01-07	14511.00	14571.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	15:15	15:20	01-07	14571.00	14571.00	Inclination (°): *89.670*, Azimuth (°): *2.450*, TVD (ft): *11877.85*, Dogleg (º/100 ft): *1.72*, Sensor Depth (ft): *14508.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	15:20	15:50	01-07	14571.00	14660.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	15:50	15:55	01-07	14660.00	14660.00	Inclination (°): *90.110*, Azimuth (°): *2.980*, TVD (ft): *11878.02*, Dogleg (º/100 ft): *0.77*, Sensor Depth (ft): *14597.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	15:55	16:00	01-07	14660.00	14670.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	16:00	16:25	01-07	14670.00	14690.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *270*, Toolface Type: *gravity*
Rotary Drill	1	01-07	16:25	16:50	01-07	14690.00	14750.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	16:50	16:55	01-07	14750.00	14750.00	Inclination (°): *88.220*, Azimuth (°): *1.130*, TVD (ft): *11879.33*, Dogleg (º/100 ft): *2.94*, Sensor Depth (ft): *14687.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-07	16:55	17:40	01-07	14750.00	14780.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *20*, Toolface Type: *gravity*
Rotary Drill	1	01-07	17:40	18:00	01-07	14780.00	14839.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *42.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	18:00	18:05	01-07	14839.00	14839.00	Inclination (°): *90.330*, Azimuth (°): *1.920*, TVD (ft): *11880.45*, Dogleg (º/100 ft): *2.53*, Sensor Depth (ft): *14776.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	18:05	18:10	01-07	14839.00	14849.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	18:10	18:35	01-07	14849.00	14864.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *340*, Toolface Type: *gravity*
Rotary Drill	1	01-07	18:35	19:05	01-07	14864.00	14929.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	19:05	19:10	01-07	14929.00	14929.00	Inclination (°): *92.090*, Azimuth (°): *1.660*, TVD (ft): *11878.55*, Dogleg (º/100 ft): *1.98*, Sensor Depth (ft): *14866.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	19:10	19:45	01-07	14929.00	15019.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	19:45	19:50	01-07	15019.00	15019.00	Inclination (°): *93.670*, Azimuth (°): *2.450*, TVD (ft): *11874.03*, Dogleg (º/100 ft): *1.96*, Sensor Depth (ft): *14956.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	19:50	19:55	01-07	15019.00	15029.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	19:55	20:30	01-07	15029.00	15054.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *230*, Toolface Type: *gravity*
Rotary Drill	1	01-07	20:30	20:55	01-07	15054.00	15108.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	20:55	21:00	01-07	15108.00	15108.00	Inclination (°): *92.350*, Azimuth (°): *1.570*, TVD (ft): *11869.36*, Dogleg (º/100 ft): *1.78*, Sensor Depth (ft): *15045.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	21:00	21:35	01-07	15108.00	15198.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	21:35	21:40	01-07	15198.00	15198.00	Inclination (°): *92.480*, Azimuth (°): *0.430*, TVD (ft): *11865.57*, Dogleg (º/100 ft): *1.27*, Sensor Depth (ft): *15135.00*, Bit To Sensor (ft): *63.00*

Rotary Drill	1	01-07	21:40	21:50	01-07	15198.00	15225.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	21:50	22:15	01-07	15225.00	15240.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *220*, Toolface Type: *gravity*
Rotary Drill	1	01-07	22:15	22:35	01-07	15240.00	15287.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	22:35	22:40	01-07	15287.00	15287.00	Inclination (°): *91.650*, Azimuth (°): *359.460*, TVD (ft): *11862.36*, Dogleg (º/100 ft): *1.43*, Sensor Depth (ft): *15224.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	22:40	23:15	01-07	15287.00	15377.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-07	23:15	23:20	01-07	15377.00	15377.00	Inclination (°): *90.460*, Azimuth (°): *357.700*, TVD (ft): *11860.70*, Dogleg (º/100 ft): *2.36*, Sensor Depth (ft): *15314.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-07	23:20	23:25	01-07	15377.00	15382.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-07	23:25	00:00	01-08	15382.00	15417.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *60*, Toolface Type: *gravity*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Friday, Jan 08 00:00 - 23:59 (Day 22 of 25)

Billing: $5,800.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	15417.00	**Downhole Hours**	24.00
Bit Depth (ft)	17464.00	**Drilling Hours**	21.50
Bottom Hole Depth (ft)	17464.00	**Hours Circulating**	0.00
Total Distance (ft)	2047.00	**Hours Sliding**	10.17
Distance Rotated (ft)	1686.00	**Hours Rotating**	11.33
Distance Slid (ft)	361.00		
Inclination In	89.98		
Inclination Out	92.44		
Azimuth In	358.05	**% Hours Rotating**	53%
Azimuth Out	357.53	**% Hours Sliding**	47%
AVG Total ROP (ft/h)	94.28	**% Distance Sliding**	18%
AVG Rotating ROP (ft/h)	148.76	**% Distance Rotating**	82%
AVG Sliding ROP (ft/h)	36.84		

Drilling Parameters

Rotating WOB (klbs)	52.00 - 52.00
Sliding WOB (klbs)	25.00 - 25.00
Rotating SPM	164.00 - 164.00
Sliding SPM	164.00 - 164.00
Motor RPM	162.00 - 182.00
Surface RPM	50.00 - 50.00
Flow Rate (gpm)	630.00 - 630.00
On Bottom Pressure (psi)	3500.00 - 3850.00
Off Bottom Pressure (psi)	3100.00 - 3100.00

Personnel

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

BHA #6 - BHA #6 (Lateral Assembly)

Date In: Jan 6, 2021, 12:00 Date Out: Jan 10, 2021, 11:20

Bit Details

OD (in)	8.500
Vendor	REED
S/N	51347
Nozzles	6x16's
Total Flow Area (in²)	1.170
Drilling Hours for Day	21.50
Total Drilled for Day (ft)	2047.00
Drilling Hours for BHA	62.58
Total Drilled for BHA (ft)	6349.00

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: 63.00 ft, **Gamma:** 48.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr.w/True Slick.; Flow Range: 500-750 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit Runs: 2

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: *E267948*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 8.5 FXD 1.75 True Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-032	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.26	37.26
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	42.26
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	73.19
Drill Collar Description: *NMDC*, 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	102.89
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	106.41
Drill Pipe Description: *28 Stands 5.5" Drill Pipe*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		2509.00	2615.41
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD13749	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.740		3.57	2618.98
Agitator Description: *AGITATOR*, Size (in): *6.75*	NOV	675-0054	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.48	2643.46
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD18869	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.730		1.88	2645.34

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	01-07	23:25	00:00	01-08	15382.00	15417.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *60*, Toolface Type: *gravity*
Rotary Drill	1	01-08	00:00	00:30	01-08	15417.00	15467.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	00:30	00:35	01-08	15467.00	15467.00	Inclination (°): *89.980*, Azimuth (°): *358.050*, TVD (ft): *11860.36*, Dogleg (º/100 ft): *0.66*, Sensor Depth (ft): *15404.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	00:35	00:40	01-08	15467.00	15472.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-08	00:40	01:20	01-08	15472.00	15502.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *45*, Toolface Type: *gravity*
Rotary Drill	1	01-08	01:20	01:45	01-08	15502.00	15556.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	01:45	01:50	01-08	15556.00	15556.00	Inclination (°): *90.990*, Azimuth (°): *359.720*, TVD (ft): *11859.60*, Dogleg (º/100 ft): *2.19*, Sensor Depth (ft): *15493.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	01:50	02:20	01-08	15556.00	15645.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	02:20	02:25	01-08	15645.00	15645.00	Inclination (°): *90.990*, Azimuth (°): *358.850*, TVD (ft): *11858.06*, Dogleg (º/100 ft): *0.98*, Sensor Depth (ft): *15582.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	02:25	02:30	01-08	15645.00	15655.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-08	02:30	02:55	01-08	15655.00	15675.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *45*, Toolface Type: *gravity*
Rotary Drill	1	01-08	02:55	03:25	01-08	15675.00	15735.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	03:25	03:35	01-08	15735.00	15735.00	Inclination (°): *92.000*, Azimuth (°): *358.230*, TVD (ft): *11855.72*, Dogleg (º/100 ft): *1.32*, Sensor Depth (ft): *15672.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	03:35	04:00	01-08	15735.00	15824.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	04:00	04:05	01-08	15824.00	15824.00	Inclination (°): *91.780*, Azimuth (°): *356.210*, TVD (ft): *11852.78*, Dogleg (º/100 ft): *2.28*, Sensor Depth (ft): *15761.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	04:05	04:10	01-08	15824.00	15830.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-08	04:10	05:05	01-08	15830.00	15870.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *80*, Toolface Type: *gravity*
Rotary Drill	1	01-08	05:05	05:20	01-08	15870.00	15913.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	05:20	05:25	01-08	15913.00	15913.00	Inclination (°): *92.570*, Azimuth (°): *357.530*, TVD (ft): *11849.40*, Dogleg (º/100 ft): *1.73*, Sensor Depth (ft): *15850.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	05:25	05:30	01-08	15913.00	15923.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-08	05:30	05:55	01-08	15923.00	15943.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *90*, Toolface Type: *gravity*
Rotary Drill	1	01-08	05:55	06:15	01-08	15943.00	16003.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	06:15	06:20	01-08	16003.00	16003.00	Inclination (°): *92.260*, Azimuth (°): *0.430*, TVD (ft): *11845.61*, Dogleg (º/100 ft): *3.24*, Sensor Depth (ft): *15940.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	06:20	06:50	01-08	16003.00	16093.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*

Survey	46	01-08	06:50	06:55	01-08	16093.00	16093.00	Inclination (°): *92.130*, Azimuth (°): *0.160*, TVD (ft): *11842.16*, Dogleg (º/100 ft): *0.33*, Sensor Depth (ft): *16030.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	06:55	07:30	01-08	16093.00	16182.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	07:30	07:35	01-08	16182.00	16182.00	Inclination (°): *93.760*, Azimuth (°): *1.390*, TVD (ft): *11837.59*, Dogleg (º/100 ft): *2.29*, Sensor Depth (ft): *16119.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-08	07:35	08:10	01-08	16182.00	16217.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *200*, Toolface Type: *gravity*
Rotary Drill	1	01-08	08:10	08:35	01-08	16217.00	16271.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	08:35	08:40	01-08	16271.00	16271.00	Inclination (°): *90.420*, Azimuth (°): *0.690*, TVD (ft): *11834.35*, Dogleg (º/100 ft): *3.83*, Sensor Depth (ft): *16208.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	08:40	09:00	01-08	16271.00	16361.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	09:00	09:05	01-08	16361.00	16361.00	Inclination (°): *89.710*, Azimuth (°): *1.040*, TVD (ft): *11834.24*, Dogleg (º/100 ft): *0.88*, Sensor Depth (ft): *16298.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	09:05	09:30	01-08	16361.00	16451.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	09:30	09:35	01-08	16451.00	16451.00	Inclination (°): *89.270*, Azimuth (°): *0.870*, TVD (ft): *11835.04*, Dogleg (º/100 ft): *0.52*, Sensor Depth (ft): *16388.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	09:35	10:05	01-08	16451.00	16540.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	10:05	10:10	01-08	16540.00	16540.00	Inclination (°): *88.840*, Azimuth (°): *0.780*, TVD (ft): *11836.51*, Dogleg (º/100 ft): *0.49*, Sensor Depth (ft): *16477.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	10:10	10:15	01-08	16540.00	16550.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-08	10:15	10:35	01-08	16550.00	16565.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *340*, Toolface Type: *gravity*
Rotary Drill	1	01-08	10:35	11:05	01-08	16565.00	16630.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	11:05	11:10	01-08	16630.00	16630.00	Inclination (°): *88.790*, Azimuth (°): *0.600*, TVD (ft): *11838.37*, Dogleg (º/100 ft): *0.21*, Sensor Depth (ft): *16567.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-08	11:10	11:45	01-08	16630.00	16665.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *340*, Toolface Type: *gravity*
Rotary Drill	1	01-08	11:45	12:15	01-08	16665.00	16719.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	12:15	12:20	01-08	16719.00	16719.00	Inclination (°): *90.510*, Azimuth (°): *359.550*, TVD (ft): *11838.92*, Dogleg (º/100 ft): *2.26*, Sensor Depth (ft): *16656.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-08	12:20	12:50	01-08	16719.00	16739.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	01-08	12:50	13:25	01-08	16739.00	16809.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	13:25	13:40	01-08	16809.00	16809.00	Inclination (°): *90.810*, Azimuth (°): *358.580*, TVD (ft): *11837.88*, Dogleg (º/100 ft): *1.13*, Sensor Depth (ft): *16746.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-08	13:40	14:15	01-08	16809.00	16839.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *0*, Toolface Type: *gravity*
Rotary Drill	1	01-08	14:15	14:35	01-08	16839.00	16898.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	14:35	14:40	01-08	16898.00	16898.00	Inclination (°): *92.310*, Azimuth (°): *357.970*, TVD (ft): *11835.46*, Dogleg (º/100 ft): *1.82*, Sensor Depth (ft): *16835.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	14:40	15:10	01-08	16898.00	16988.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*

Survey	46	01-08	15:10	15:15	01-08	16988.00	16988.00	Inclination (°): *92.530*, Azimuth (°): *357.610*, TVD (ft): *11831.66*, Dogleg (º/100 ft): *0.47*, Sensor Depth (ft): *16925.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	15:15	15:50	01-08	16988.00	17077.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	15:50	15:55	01-08	17077.00	17077.00	Inclination (°): *90.810*, Azimuth (°): *356.740*, TVD (ft): *11829.06*, Dogleg (º/100 ft): *2.17*, Sensor Depth (ft): *17014.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-08	15:55	16:35	01-08	17077.00	17096.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *20*, Toolface Type: *gravity*
Rotary Drill	1	01-08	16:35	17:10	01-08	17096.00	17167.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Rig Service - In Hole	19	01-08	17:10	17:30	01-08			
Survey	46	01-08	17:30	17:35	01-08	17167.00	17167.00	Inclination (°): *90.020*, Azimuth (°): *356.300*, TVD (ft): *11828.41*, Dogleg (º/100 ft): *1.00*, Sensor Depth (ft): *17104.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-08	17:35	18:35	01-08	17167.00	17204.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *45*, Toolface Type: *gravity*
Rotary Drill	1	01-08	18:35	19:00	01-08	17204.00	17257.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	19:00	19:05	01-08	17257.00	17257.00	Inclination (°): *92.840*, Azimuth (°): *357.790*, TVD (ft): *11826.17*, Dogleg (º/100 ft): *3.54*, Sensor Depth (ft): *17194.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	19:05	19:40	01-08	17257.00	17346.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	19:40	19:45	01-08	17346.00	17346.00	Inclination (°): *92.660*, Azimuth (°): *355.860*, TVD (ft): *11821.90*, Dogleg (º/100 ft): *2.18*, Sensor Depth (ft): *17283.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	19:45	19:50	01-08	17346.00	17350.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-08	19:50	22:00	01-08	17350.00	17390.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *90*, Toolface Type: *gravity*
Rotary Drill	1	01-08	22:00	22:30	01-08	17390.00	17436.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-08	22:30	22:35	01-08	17436.00	17436.00	Inclination (°): *92.440*, Azimuth (°): *357.530*, TVD (ft): *11817.89*, Dogleg (º/100 ft): *1.87*, Sensor Depth (ft): *17373.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-08	22:35	22:40	01-08	17436.00	17444.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-08	22:40	00:00	01-09	17444.00	17464.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *90*, Toolface Type: *gravity*

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Saturday, Jan 09 00:00 - 23:59 (Day 23 of 25)

Billing: $5,800.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)	17464.00	**Downhole Hours**	24.00
Bit Depth (ft)	18637.00	**Drilling Hours**	15.92
Bottom Hole Depth (ft)	18637.00	**Hours Circulating**	4.33
Total Distance (ft)	1173.00	**Hours Sliding**	8.17
Distance Rotated (ft)	928.00	**Hours Rotating**	7.75
Distance Slid (ft)	245.00		
Inclination In	91.08		
Inclination Out	89.63		
Azimuth In	359.11	**% Hours Rotating**	49%
Azimuth Out	1.31	**% Hours Sliding**	51%
AVG Total ROP (ft/h)	69.16	**% Distance Sliding**	21%
AVG Rotating ROP (ft/h)	119.74	**% Distance Rotating**	79%
AVG Sliding ROP (ft/h)	27.89		

Drilling Parameters

Rotating WOB (klbs)	52.00 - 52.00
Sliding WOB (klbs)	25.00 - 25.00
Rotating SPM	164.00 - 164.00
Sliding SPM	164.00 - 164.00
Motor RPM	162.00 - 182.00
Surface RPM	50.00 - 50.00
Flow Rate (gpm)	630.00 - 630.00
On Bottom Pressure (psi)	3500.00 - 3850.00
Off Bottom Pressure (psi)	3100.00 - 3100.00

Personnel

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

BHA #6 - BHA #6 (Lateral Assembly)

Date In: Jan 6, 2021, 12:00 Date Out: Jan 10, 2021, 11:20

Bit Details

OD (in)	8.500
Vendor	REED
S/N	51347
Nozzles	6x16's
Total Flow Area (in²)	1.170
Drilling Hours for Day	15.92
Total Drilled for Day (ft)	1173.00
Drilling Hours for BHA	62.58
Total Drilled for BHA (ft)	6349.00

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: 63.00 ft, **Gamma:** 48.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr.w/True Slick.; Flow Range: 500-750 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit Runs: 2

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: *E267948*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 8.5 FXD 1.75 True Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-032	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.26	37.26
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	42.26
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	73.19
Drill Collar Description: *NMDC*, 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	102.89
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	106.41
Drill Pipe Description: *28 Stands 5.5" Drill Pipe*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		2509.00	2615.41
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD13749	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.740		3.57	2618.98
Agitator Description: *AGITATOR*, Size (in): *6.75*	NOV	675-0054	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.48	2643.46
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD18869	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.730		1.88	2645.34

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	01-08	22:40	00:00	01-09	17444.00	17464.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *90*, Toolface Type: *gravity*
Rotary Drill	1	01-09	00:00	00:50	01-09	17464.00	17526.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	00:50	00:55	01-09	17526.00	17526.00	Inclination (°): *91.080*, Azimuth (°): *359.110*, TVD (ft): *11815.13*, Dogleg (º/100 ft): *2.32*, Sensor Depth (ft): *17463.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	00:55	01:30	01-09	17526.00	17615.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	01:30	01:40	01-09	17615.00	17615.00	Inclination (°): *89.670*, Azimuth (°): *359.720*, TVD (ft): *11814.54*, Dogleg (º/100 ft): *1.73*, Sensor Depth (ft): *17552.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-09	01:40	02:50	01-09	17615.00	17640.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *20*, Toolface Type: *gravity*
Rotary Drill	1	01-09	02:50	03:20	01-09	17640.00	17705.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	03:20	03:30	01-09	17705.00	17705.00	Inclination (°): *92.880*, Azimuth (°): *0.160*, TVD (ft): *11812.54*, Dogleg (º/100 ft): *3.60*, Sensor Depth (ft): *17642.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	03:30	04:20	01-09	17705.00	17794.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	04:20	04:25	01-09	17794.00	17794.00	Inclination (°): *92.700*, Azimuth (°): *358.490*, TVD (ft): *11808.21*, Dogleg (º/100 ft): *1.89*, Sensor Depth (ft): *17731.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	04:25	04:30	01-09	17794.00	17804.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-09	04:30	05:40	01-09	17804.00	17834.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *80*, Toolface Type: *gravity*
Rotary Drill	1	01-09	05:40	06:00	01-09	17834.00	17884.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	06:00	06:05	01-09	17884.00	17884.00	Inclination (°): *91.210*, Azimuth (°): *359.020*, TVD (ft): *11805.14*, Dogleg (º/100 ft): *1.76*, Sensor Depth (ft): *17821.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	06:05	06:40	01-09	17884.00	17974.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	06:40	06:45	01-09	17974.00	17974.00	Inclination (°): *91.780*, Azimuth (°): *357.790*, TVD (ft): *11802.79*, Dogleg (º/100 ft): *1.51*, Sensor Depth (ft): *17911.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	06:45	06:50	01-09	17974.00	17980.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-09	06:50	07:50	01-09	17980.00	18015.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *70*, Toolface Type: *gravity*
Rotary Drill	1	01-09	07:50	08:10	01-09	18015.00	18063.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	08:10	08:15	01-09	18063.00	18063.00	Inclination (°): *91.820*, Azimuth (°): *358.140*, TVD (ft): *11800.00*, Dogleg (º/100 ft): *0.40*, Sensor Depth (ft): *18000.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	08:15	08:25	01-09	18063.00	18075.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-09	08:25	08:50	01-09	18075.00	18080.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *90*, Toolface Type: *gravity*
Rotary Drill	1	01-09	08:50	09:20	01-09	18080.00	18153.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	09:20	09:25	01-09	18153.00	18153.00	Inclination (°): *92.880*, Azimuth (°): *356.910*, TVD (ft): *11796.30*, Dogleg (º/100 ft): *1.80*, Sensor Depth (ft): *18090.00*, Bit To Sensor (ft): *63.00*

Slide Drill	2	01-09	09:25	11:10	01-09	18153.00	18215.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *70*, Toolface Type: *gravity*
Rotary Drill	1	01-09	11:10	11:35	01-09	18215.00	18242.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	11:35	11:40	01-09	18242.00	18242.00	Inclination (°): *92.750*, Azimuth (°): *358.050*, TVD (ft): *11791.93*, Dogleg (º/100 ft): *1.29*, Sensor Depth (ft): *18179.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	11:40	12:25	01-09	18242.00	18310.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-09	12:25	13:20	01-09	18310.00	18332.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *180*, Toolface Type: *gravity*
Survey	46	01-09	13:20	13:25	01-09	18332.00	18332.00	Inclination (°): *96.220*, Azimuth (°): *1.920*, TVD (ft): *11784.89*, Dogleg (º/100 ft): *5.77*, Sensor Depth (ft): *18269.00*, Bit To Sensor (ft): *63.00*
Slide Drill	2	01-09	13:25	14:15	01-09	18332.00	18358.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *180*, Toolface Type: *gravity*
Rotary Drill	1	01-09	14:15	14:40	01-09	18358.00	18421.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	14:40	14:45	01-09	18421.00	18421.00	Inclination (°): *93.540*, Azimuth (°): *3.240*, TVD (ft): *11777.32*, Dogleg (º/100 ft): *3.35*, Sensor Depth (ft): *18358.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	14:45	14:55	01-09	18421.00	18426.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Slide Drill	2	01-09	14:55	15:50	01-09	18426.00	18466.00	Pressure On (psi): *3500.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *25.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164*, Toolface: *180*, Toolface Type: *gravity*
Rotary Drill	1	01-09	15:50	16:05	01-09	18466.00	18511.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	16:05	16:10	01-09	18511.00	18511.00	Inclination (°): *89.850*, Azimuth (°): *2.100*, TVD (ft): *11774.66*, Dogleg (º/100 ft): *4.29*, Sensor Depth (ft): *18448.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	16:10	16:45	01-09	18511.00	18600.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Survey	46	01-09	16:45	16:50	01-09	18600.00	18600.00	Inclination (°): *89.630*, Azimuth (°): *1.310*, TVD (ft): *11775.07*, Dogleg (º/100 ft): *0.92*, Sensor Depth (ft): *18537.00*, Bit To Sensor (ft): *63.00*
Rotary Drill	1	01-09	16:50	17:10	01-09	18600.00	18637.00	Pressure On (psi): *3850.00*, Pressure Off (psi): *3100.00*, Weight On Bit (klbs): *52.00*, Surface RPM: *50*, Surface Torque (ft lbf): *20000.00*, Flow Rate (gpm): *630.00*, Strokes Per Minute: *164.00*
Circulating	3	01-09	17:10	21:30	01-09			Circulate Hole Clean @ TD
Pooh	7	01-09	21:30	11:20	01-10			POOH

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Sunday, Jan 10 00:00 - 23:59 (Day 24 of 25)

Billing: $5,800.00 ($143,637.38 total)

Drilling Summary

Start Depth (ft)		**Downhole Hours**	11.33
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	162.00 - 182.00
Surface RPM	
Flow Rate (gpm)	
On Bottom Pressure (psi)	
Off Bottom Pressure (psi)	

Personnel

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

BHA #6 - BHA #6 (Lateral Assembly)

Date In: Jan 6, 2021, 12:00 Date Out: Jan 10, 2021, 11:20

Bit Details

OD (in)	8.500
Vendor	REED
S/N	51347
Nozzles	6x16's
Total Flow Area (in²)	1.170
Drilling Hours for Day	0.00
Total Drilled for Day (ft)	
Drilling Hours for BHA	62.58
Total Drilled for BHA (ft)	6349.00

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: 63.00 ft, **Gamma:** 48.00 ft

Directional Comments

1.75° FBH 7/8 8.5 Stg Mtr.w/True Slick.; Flow Range: 500-750 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit Runs: 2

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: *E267948*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 8.5 FXD 1.75 True Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-032	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.26	37.26
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	42.26
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	73.19
Drill Collar Description: *NMDC*, 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	102.89
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	106.41
Drill Pipe Description: *28 Stands 5.5" Drill Pipe*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		2509.00	2615.41
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD13749	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.740		3.57	2618.98
Agitator Description: *AGITATOR*, Size (in): *6.75*	NOV	675-0054	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.48	2643.46
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD18869	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.730		1.88	2645.34

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	01-09	21:30	11:20	01-10			POOH
Lay Down BHA	65	01-10	11:20	12:40	01-10			
Standby	15	01-10	12:40	00:00	01-11			Standby- Casing / Cement Ops, N/D BOPs & Skid to 504H

MWD Activities

No Activities

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Monday, Jan 11 00:00 - 23:59 (Day 25 of 25)

Billing: N/A ($143,637.38 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
Carlos Jensen	MWD Engineer
Advance Directional	Directional Driller
Kyle Kusak	MWD Engineer
Robert Olivarez	MWD Engineer

No BHAs

Directional Activities

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	01-10	12:40	00:00	01-11			Standby- Casing / Cement Ops, N/D BOPs & Skid to 504H

MWD Activities

No Activities

BHA Reports
Pilot Hole

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #1 - Surface 17.5" (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	8.00	**Date In**	2020-12-03 20:30	**Downhole Hours**	16.25
Lobe/Stage	7/8, 4.0	**Depth In (ft)**	100.00	**Drilling/Circulating Hours**	9.83
Bend Angle	1.50	**Date Out**	2020-12-04 12:45	**Drilling Hours**	8.58
Speed (rev/gal)	0.16	**Depth Out (ft)**	1313.00	**Circulating Hours**	1.25
Wear Pad OD (in)	8.250	**Distance Slid (ft)**	0.00	**Sliding Hours**	0.00
Incident	No	**Distance Rotated (ft)**	1213.00	**Rotating Hours**	8.58
Motor Results		**% Distance Sliding**	0.00%	**% Hours Sliding**	0.00%
Average Total ROP (ft/h)	141.32	**% Distance Rotating**	100.00%	**% Hours Rotating**	100.00%
Average Slide ROP (ft/h)	0.00	**BHA Objective**			
Average Rotating ROP (ft/h)	141.32	Drill 17.5" Surface Section			
Bit Details					
OD (in)	17.500				
Vendor	Baker	**POOH Reason/Notes**			
S/N	5296623	Total Depth/Casing Point			
Nozzles	9x12's				
Total Flow Area (in²)	0.994				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional:			
		MWD:			
Bit Distances		**Comments**			
Bit To Survey (Bit to Survey): 60.00 ft, **Bend (Bit to Bend):** 4.75 ft		Directional: 1.5° FBH 7/8 4.0 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 900 psi; Max TQ: 14,930 ft/lbs; Bit: Baker Type: DP606S, Jets: 9x12, TFA: 0.994 Runs: 6			
Mud Properties		**Parameters**			
Type	Water	**Flow Rate (gpm)**	430.00 - 800.00	**Motor RPM**	96.00 - 96.00
WT	9.70	**On Bottom Pressure (psi)**	900.00 - 2500.00	**Surface RPM**	40.00 - 70.00
VIS	29.00	**Off Bottom Pressure (psi)**	650.00 - 1750.00	**Rotating WOB (klbs)**	10.00 - 30.00
PV	2.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	0.00 - 0.00
YP	3.00	**Stalls**	0	**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: *DP606S*, Style: *PDC*, Gauge Length (in): *5.00*, Size (in): *17.50*	Baker	5296623	6 5/8" Reg Pin			17.500		1.50	1.50
Mud Motor Description: *1.5 FBH 7/8 4.0 Stg Mtr. w/ 12" Stab*, Size (in): *8.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *4*	AIM	800-002	6 5/8" Reg Box	6 5/8" Reg Box		8.000		29.34	30.84
Stabilizer Description: *12" Stabilizer*	BD	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	38.24
UBHO Sub Description: *UBHO Sub*, Type: *NM*	AIM	800-609	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		3.00	41.24
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	71.52
Drill Collar Description: *NMDC (Spacer)*, Style: *Slick Drill*, Type: *NM*	AIM	DY8001	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	101.55
Crossover Sub Description: *X-over (ED 54 Box x 6 5/8 Reg Pin)* , Type: *Steel*	BLACK DIAMOND	BD15080	EverDrlg54 Box	6 5/8" Reg Pin	2.813	8.000		3.41	104.96

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #2 - BHA #2 (12.25" Intermediate) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	8.00	**Date In**	2020-12-09 01:15	**Downhole Hours**	34.75
Lobe/Stage	7/8, 5.9	**Depth In (ft)**	1313.00	**Drilling/Circulating Hours**	22.92
Bend Angle	1.50	**Date Out**	2020-12-10 12:00	**Drilling Hours**	18.83
Speed (rev/gal)	0.17	**Depth Out (ft)**	4940.00	**Circulating Hours**	4.08
Wear Pad OD (in)	8.400	**Distance Slid (ft)**	142.00	**Sliding Hours**	2.17
Incident	No	**Distance Rotated (ft)**	3485.00	**Rotating Hours**	16.67
Motor Results		**% Distance Sliding**	3.92%	**% Hours Sliding**	11.50%
Average Total ROP (ft/h)	192.58	**% Distance Rotating**	96.08%	**% Hours Rotating**	88.50%
Average Slide ROP (ft/h)	65.54	**BHA Objective**			
Average Rotating ROP (ft/h)	209.10	Drill 12.25" Hole section to Casing Point			
Bit Details					
OD (in)	12.250				
Vendor	Ulterra	**POOH Reason/Notes**			
S/N	52606	Total Depth/Casing Point			
Nozzles	9x12's				
Total Flow Area (in²)	0.994				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional:			
		MWD:			
Bit Distances		**Comments**			
Bit To Survey (Bit to Survey): 69.00 ft, **Bend (Bit to 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: Ulterra SPL616, Jets: 9x12's , TFA: .994 Runs: 2			
Mud Properties		**Parameters**			
Type	Brine	**Flow Rate (gpm)**	500.00 - 800.00	**Motor RPM**	85.00 - 136.00
WT	10.20	**On Bottom Pressure (psi)**	800.00 - 3300.00	**Surface RPM**	40.00 - 60.00
VIS	28.00	**Off Bottom Pressure (psi)**	600.00 - 3000.00	**Rotating WOB (klbs)**	18.00 - 50.00
PV	1.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	20.00 - 30.00
YP	3.00	**Stalls**	0	**Temp (ºF)**	115.00 - 115.00
		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: *SPL616*, Style: *PDC*, Gauge Length (in): *6.00*, Size (in): *12.25*	Ulterra	52606	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*	BD	12476	6 5/8" Reg Box	6 5/8" Reg Pin	2.813	8.000		7.40	47.04
UBHO Sub Description: *UBHO Sub*, 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	DY8001	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.03	110.35
Crossover Sub Description: *X-over (ED 54 Box x 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) 5.5" HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1330.31

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #3 - Intermediate 8.5" (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2020-12-15 12:00	**Downhole Hours**	59.00
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	4940.00	**Drilling/Circulating Hours**	36.75
Bend Angle	1.50	**Date Out**	2020-12-17 23:00	**Drilling Hours**	34.00
Speed (rev/gal)	0.26	**Depth Out (ft)**	11660.00	**Circulating Hours**	2.75
Wear Pad OD (in)	7.300	**Distance Slid (ft)**	426.00	**Sliding Hours**	8.08
Incident	Yes	**Distance Rotated (ft)**	6294.00	**Rotating Hours**	25.92
Motor Results		**% Distance Sliding**	6.34%	**% Hours Sliding**	23.77%
Average Total ROP (ft/h)	197.65	**% Distance Rotating**	93.66%	**% Hours Rotating**	76.23%
Average Slide ROP (ft/h)	52.70	**BHA Objective**			
Average Rotating ROP (ft/h)	242.86	Drill 8.5'' Hole, Hold 2° Nudge. Drill Pilot Hole.			
Bit Details					
OD (in)	8.500				
Vendor	REED	**POOH Reason/Notes**			
S/N	A270265	Penetration Rate			
Nozzles	6x14's				
Total Flow Area (in²)	0.902				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional: Lost all Differential Pressure while drilling on Bottom. Motor did drain. No visible damage on surface. Possible internal damage.			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 5.25 ft, **Gamma (Bit to Gamma):** 56.00 ft, **Survey (Bit to Survey):** 71.00 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: Reed TK66, Jets: 6x14s , TFA: .902 Runs: 0			
Mud Properties		**Parameters**			
Type	Brine	**Flow Rate (gpm)**	675.00 - 675.00	**Motor RPM**	130.00 - 176.00
WT	9.30	**On Bottom Pressure (psi)**	2000.00 - 3000.00	**Surface RPM**	30.00 - 60.00
VIS	28.00	**Off Bottom Pressure (psi)**	1500.00 - 2300.00	**Rotating WOB (klbs)**	20.00 - 45.00
PV	1.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	20.00 - 20.00
YP	3.00	**Stalls**	0	**Temp (ºF)**	100.00 - 150.80
		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: *TK66*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	A270265	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7'' 7/8 8.5 FXD 1.5° w/ 8.25'' STAB*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-029	4 1/2" IF Box	4 1/2" Reg Box		7.050		36.27	37.27
Stabilizer Description: *8.25'' STABILIZER*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	44.00
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	49.00
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	6.870		30.93	79.93
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	109.63
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	113.15
HWDP Description: *(13 Stands) 5.5" HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1329.70

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #4 - Intermediate 8.5" (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2020-12-18 00:15	**Downhole Hours**	22.75
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	11660.00	**Drilling/Circulating Hours**	6.25
Bend Angle	1.50	**Date Out**	2020-12-18 23:00	**Drilling Hours**	1.92
Speed (rev/gal)	0.26	**Depth Out (ft)**	12210.00	**Circulating Hours**	4.33
Wear Pad OD (in)	7.300	**Distance Slid (ft)**	0.00	**Sliding Hours**	0.00
Incident	No	**Distance Rotated (ft)**	550.00	**Rotating Hours**	1.92
Motor Results		**% Distance Sliding**	0.00%	**% Hours Sliding**	0.00%
Average Total ROP (ft/h)	286.96	**% Distance Rotating**	100.00%	**% Hours Rotating**	100.00%
Average Slide ROP (ft/h)	0.00	**BHA Objective**			
Average Rotating ROP (ft/h)	286.96	Drill 8.5'' Pilot Hole to TD			
Bit Details					
OD (in)	8.500				
Vendor	REED	**POOH Reason/Notes**			
S/N	A270266	Total Depth/Casing Point			
Nozzles	6x14's				
Total Flow Area (in²)	0.902				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional:			
		MWD:			
Bit Distances		**Comments**			
Bit To Bend (Bit to Bend): 5.30 ft, **Gamma (Bit to Gamma):** 57.00 ft, **Survey (Bit to Survey):** 72.00 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: Reed TKC66, Jets: 6x14s , TFA: .902 Runs: 1			
Mud Properties		**Parameters**			
Type	Brine	**Flow Rate (gpm)**	675.00 - 675.00	**Motor RPM**	175.00 - 176.00
WT	9.60	**On Bottom Pressure (psi)**	2800.00 - 2800.00	**Surface RPM**	30.00 - 30.00
VIS	41.00	**Off Bottom Pressure (psi)**	2000.00 - 2000.00	**Rotating WOB (klbs)**	45.00 - 45.00
PV	1.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	0.00 - 0.00
YP	3.00	**Stalls**	0	**Temp (ºF)**	150.80 - 150.80
		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	A270266	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7'' 7/8 8.5 FXD 1.5° w/ 8.25'' STAB*, Size (in): *7.00*, Bend Angle (°): *1.5*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-006	4 1/2" IF Box	4 1/2" Reg Box		7.050		37.73	38.73
Stabilizer Description: *8.25'' STABILIZER*	JAO	86947	4 1/2" IF Box	4 1/2" IF Pin	2.375	6.750		6.73	45.46
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	50.46
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	6.870		30.93	81.39
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	111.09
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	114.61
HWDP Description: *(13 Stands) 5.5" HWDP*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.750	5.500		1216.55	1331.16

BHA Reports
Lateral

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #5 - Curve 8.5" (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	6.75	**Date In**	2021-01-04 23:30	**Downhole Hours**	35.00
Lobe/Stage	7/8, 5.0	**Depth In (ft)**	11303.00	**Drilling/Circulating Hours**	18.58
Bend Angle	2.12	**Date Out**	2021-01-06 10:30	**Drilling Hours**	13.67
Speed (rev/gal)	0.29	**Depth Out (ft)**	12288.00	**Circulating Hours**	4.92
Wear Pad OD (in)	7.000	**Distance Slid (ft)**	790.00	**Sliding Hours**	11.92
Incident	No	**Distance Rotated (ft)**	195.00	**Rotating Hours**	1.75
Motor Results		**% Distance Sliding**	80.20%	**% Hours Sliding**	87.20%
Average Total ROP (ft/h)	72.07	**% Distance Rotating**	19.80%	**% Hours Rotating**	12.80%
Average Slide ROP (ft/h)	66.29	**BHA Objective**			
Average Rotating ROP (ft/h)	111.43	Kick off cement plug. Drill down to KOP. Build and Land Curve.			
Bit Details					
OD (in)	8.500				
Vendor	Ulterra	**POOH Reason/Notes**			
S/N	51347	Total Depth/Casing Point			
Nozzles	9x13's				
Total Flow Area (in²)	1.166				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional:			
		MWD:			
Bit Distances		**Comments**			
Bit To Survey: 52.00 ft, **Gamma:** 38.00 ft		Directional: Directional: Flow Rate: 300-600, Max Diff: 1130 psi, Max Torque: 10,460 ft-lbs, BIT Runs: 3			
Mud Properties		**Parameters**			
Type	Oil Based	**Flow Rate (gpm)**	525.00 - 600.00	**Motor RPM**	145.00 - 160.00
WT	9.30	**On Bottom Pressure (psi)**	2100.00 - 3100.00	**Surface RPM**	30.00 - 30.00
VIS	64.00	**Off Bottom Pressure (psi)**	1700.00 - 2300.00	**Rotating WOB (klbs)**	40.00 - 40.00
PV	14.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	40.00 - 50.00
YP	6.00	**Stalls**	0	**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: *CF611*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	Ulterra	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 5.0 FXD 2.12 True Slick*, Size (in): *6.75*, Bend Angle (°): *2.12*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *5*	AIM	650-010	4 1/2" IF Box	4 1/2" Reg Box		6.750		25.77	26.77
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	31.77
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	62.70
Drill Collar Description: *NMDC*, 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	92.40
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	95.92

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

BHA #6 - BHA #6 (Lateral Assembly) (Directional)

Motor Details		Date/Depth/Distances		Hours	
Size(in)	7.00	**Date In**	2021-01-06 12:00	**Downhole Hours**	95.33
Lobe/Stage	7/8, 8.5	**Depth In (ft)**	12288.00	**Drilling/Circulating Hours**	67.67
Bend Angle	1.75	**Date Out**	2021-01-10 11:20	**Drilling Hours**	62.58
Speed (rev/gal)	0.26	**Depth Out (ft)**	18637.00	**Circulating Hours**	5.08
Wear Pad OD (in)	7.250	**Distance Slid (ft)**	1051.00	**Sliding Hours**	27.00
Incident	No	**Distance Rotated (ft)**	5298.00	**Rotating Hours**	35.58
Motor Results		**% Distance Sliding**	16.55%	**% Hours Sliding**	43.14%
Average Total ROP (ft/h)	101.45	**% Distance Rotating**	83.45%	**% Hours Rotating**	56.86%
Average Slide ROP (ft/h)	38.93	**BHA Objective**			
Average Rotating ROP (ft/h)	148.89	Drill Lateral to TD			
Bit Details					
OD (in)	8.500				
Vendor	REED	**POOH Reason/Notes**			
S/N	51347	Total Depth/Casing Point			
Nozzles	6x16's				
Total Flow Area (in²)	1.170				
MWD		**Incident Notes**			
Max Downhole Temp (ºF)	N/A	Directional:			
		MWD:			
Bit Distances		**Comments**			
Bit To Survey: 63.00 ft, **Gamma:** 48.00 ft		Directional: 1.75° FBH 7/8 8.5 Stg Mtr.w/True Slick.; Flow Range: 500-750 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit Runs: 2			
Mud Properties		**Parameters**			
Type	Oil Based	**Flow Rate (gpm)**	630.00 - 630.00	**Motor RPM**	162.00 - 182.00
WT	9.50	**On Bottom Pressure (psi)**	3500.00 - 3850.00	**Surface RPM**	50.00 - 50.00
VIS	64.00	**Off Bottom Pressure (psi)**	3100.00 - 3100.00	**Rotating WOB (klbs)**	42.00 - 52.00
PV	15.00	**Stall Pressure (psi)**	0.00	**Sliding WOB (klbs)**	25.00 - 25.00
YP	7.00	**Stalls**	0	**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: *E267948*, Style: *PDC*, Gauge Length (in): *4.00*, Size (in): *8.50*	REED	51347	4 1/2" Reg Pin			8.500		1.00	1.00
Mud Motor Description: *7" 7/8 8.5 FXD 1.75 True Slick*, Size (in): *7.00*, Bend Angle (°): *1.75*, Rotor Lobe: *7*, Stator Lobe: *8*, Stator Stage: *8.5*	AIM	700-40-032	4 1/2" IF Box	4 1/2" Reg Box		7.000		36.26	37.26
UBHO Sub Description: *NM DAO UBHO*, Type: *NM*	AIM	67502NM	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.780		5.00	42.26
Drill Collar Description: *MWD NMDC*, Style: *Slick Drill*, Type: *NM*	AIM	GT 67-30-315	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.870		30.93	73.19
Drill Collar Description: *NMDC*, 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	102.89
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD11664	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.700		3.52	106.41
Drill Pipe Description: *28 Stands 5.5" Drill Pipe*, Style: *Slick*	BLACK DIAMOND		EverDrlg54 Box	EverDrlg54 Pin	3.000	5.500		2509.00	2615.41
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD13749	4 1/2" IF Box	EverDrlg54 Pin	3.000	6.740		3.57	2618.98
Agitator Description: *AGITATOR*, Size (in): *6.75*	NOV	675-0054	4 1/2" IF Box	4 1/2" IF Pin		6.750		24.48	2643.46
Crossover Sub Description: *X-O SUB*, Type: *Steel*	BLACK DIAMOND	BD18869	EverDrlg54 Box	4 1/2" IF Pin	3.000	6.730		1.88	2645.34

Mud Motor Reports
Pilot Hole

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 1 (Surface 17.5")

Motor Details		Date/Depth/Distances		Hours	
S/N	800-002	**Date In**	2020-12-03 20:30	**Downhole Hours**	16.25
Size (in)	8.0	**Depth In (ft)**	100.00	**Drilling/Circulating Hours**	9.83
Lobe/Stage	7/8, 4.00	**Date Out**	2020-12-04 12:45		
Bend Angle	1.5	**Depth Out (ft)**	1313.00	**Circulating Hours**	1.25
Speed (rev/gal)	0.16	**Total Drilled (ft)**	1213.00	**Drilling Hours**	8.58
Wear Pad OD (in)	8.250	**Distance Slid (ft)**	0.00	**Sliding Hours**	0.00
Manufacturer	AIM	**Distance Rotated (ft)**	1213.00	**Rotating Hours**	8.58
Motor Results		**% Distance Sliding**	0.00%	**% Hours Rotating**	100.00%
Motor Incident	No	**% Distance Rotating**	100.00%	**% Hours Sliding**	0.00%
Average Total ROP (ft/h)	141.32	**BHA Parameters**			
Average Slide ROP (ft/h)	0.00	**Flow Rate (gpm)**	430.00 - 800.00	**Motor RPM**	96.00 - 96.00
Average Rotating ROP (ft/h)	141.32	**Stalls**	0	**Surface RPM**	40.00 - 70.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	10.00 - 30.00
OD (in)	17.500	**On Bottom Pressure (psi)**	900.00 - 2500.00	**Sliding WOB (klbs)**	0.00 - 0.00
Vendor	Baker	**Off Bottom Pressure (psi)**	650.00 - 1750.00	**Temp (ºF)**	-0.00 - -0.00
S/N	5296623	**NPT**	0.0		
Nozzles	9x12's	**BHA Objective**			
Total Flow Area (in²)	0.994	Drill 17.5" Surface Section			
Bit Type	PDC				
Bit Distances					
Survey (Bit to Survey): 60.00 ft, **Bend (Bit to Bend):** 4.75 ft					
Mud Properties					
Type	Water				
WT	9.70				
VIS	29.00				
PV	2.00				
YP	3.00				

POOH Reason/Notes

Total Depth/Casing Point

Incident Notes

Directional:

MWD:

Comments

Directional: 1.5° FBH 7/8 4.0 Stg Mtr.w/12" Stab.; Flow Range: 400-900 gpm; Max Diff: 900 psi; Max TQ: 14,930 ft/lbs; Bit: Baker Type: DP606S, Jets: 9x12, TFA: 0.994 Runs: 6

MWD:

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 2 (BHA #2 (12.25" Intermediate))

Motor Details		Date/Depth/Distances		Hours	
S/N	800-40-007	**Date In**	2020-12-09 01:15	**Downhole Hours**	34.75
Size (in)	8.0	**Depth In (ft)**	1313.00	**Drilling/Circulating Hours**	22.92
Lobe/Stage	7/8, 5.90	**Date Out**	2020-12-10 12:00		
Bend Angle	1.5	**Depth Out (ft)**	4940.00	**Circulating Hours**	4.08
Speed (rev/gal)	0.17	**Total Drilled (ft)**	3627.00	**Drilling Hours**	18.83
Wear Pad OD (in)	8.400	**Distance Slid (ft)**	142.00	**Sliding Hours**	2.17
Manufacturer	AIM	**Distance Rotated (ft)**	3485.00	**Rotating Hours**	16.67
Motor Results		**% Distance Sliding**	3.92%	**% Hours Rotating**	88.50%
Motor Incident	No	**% Distance Rotating**	96.08%	**% Hours Sliding**	11.50%
Average Total ROP (ft/h)	192.58	**BHA Parameters**			
Average Slide ROP (ft/h)	65.54	**Flow Rate (gpm)**	500.00 - 800.00	**Motor RPM**	85.00 - 136.00
Average Rotating ROP (ft/h)	209.10	**Stalls**	0	**Surface RPM**	40.00 - 60.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	18.00 - 50.00
OD (in)	12.250	**On Bottom Pressure (psi)**	800.00 - 3300.00	**Sliding WOB (klbs)**	20.00 - 30.00
Vendor	Ulterra	**Off Bottom Pressure (psi)**	600.00 - 3000.00	**Temp (ºF)**	115.00 - 115.00
S/N	52606	**NPT**	0.0		
Nozzles	9x12's	**BHA Objective**			
Total Flow Area (in²)	0.994	Drill 12.25" Hole section to Casing Point			
Bit Type	PDC				
Bit Distances					
Survey (Bit to Survey): 69.00 ft, **Bend (Bit to Bend):** 6.20 ft					
Mud Properties					
Type	Brine				
WT	10.20				
VIS	28.00				
PV	1.00				
YP	3.00				

POOH Reason/Notes

Total Depth/Casing Point

Incident Notes

Directional:

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: Ulterra SPL616, Jets: 9x12's , TFA: .994 Runs: 2

MWD:

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 3 (Intermediate 8.5")

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-029	**Date In**	2020-12-15 12:00	**Downhole Hours**	59.00
Size (in)	7.0	**Depth In (ft)**	4940.00	**Drilling/Circulating Hours**	36.75
Lobe/Stage	7/8, 8.50	**Date Out**	2020-12-17 23:00		
Bend Angle	1.5	**Depth Out (ft)**	11660.00	**Circulating Hours**	2.75
Speed (rev/gal)	0.26	**Total Drilled (ft)**	6720.00	**Drilling Hours**	34.00
Wear Pad OD (in)	7.300	**Distance Slid (ft)**	426.00	**Sliding Hours**	8.08
Manufacturer	AIM	**Distance Rotated (ft)**	6294.00	**Rotating Hours**	25.92
Motor Results		**% Distance Sliding**	6.34%	**% Hours Rotating**	76.23%
Motor Incident	Yes	**% Distance Rotating**	93.66%	**% Hours Sliding**	23.77%
Average Total ROP (ft/h)	197.65	**BHA Parameters**			
Average Slide ROP (ft/h)	52.70	**Flow Rate (gpm)**	675.00 - 675.00	**Motor RPM**	130.00 - 176.00
Average Rotating ROP (ft/h)	242.86	**Stalls**	0	**Surface RPM**	30.00 - 60.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	20.00 - 45.00
OD (in)	8.500	**On Bottom Pressure (psi)**	2000.00 - 3000.00	**Sliding WOB (klbs)**	20.00 - 20.00
Vendor	REED	**Off Bottom Pressure (psi)**	1500.00 - 2300.00	**Temp (ºF)**	100.00 - 150.80
S/N	A270265	**NPT**	0.0		
Nozzles	6x14's	**BHA Objective**			
Total Flow Area (in²)	0.902	Drill 8.5'' Hole, Hold 2° Nudge. Drill Pilot Hole.			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 5.25 ft, **Gamma (Bit to Gamma):** 56.00 ft, **Survey (Bit to Survey):** 71.00 ft					
Mud Properties					
Type	Brine				
WT	9.30				
VIS	28.00				
PV	1.00				
YP	3.00				

POOH Reason/Notes

Penetration Rate

Incident Notes

Directional: Lost all Differential Pressure while drilling on Bottom. Motor did drain. No visible damage on surface. Possible internal damage.

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: Reed TK66, Jets: 6x14s , TFA: .902 Runs: 0

MWD:

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 4 (Intermediate 8.5")

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-006	**Date In**	2020-12-18 00:15	**Downhole Hours**	22.75
Size (in)	7.0	**Depth In (ft)**	11660.00	**Drilling/Circulating Hours**	6.25
Lobe/Stage	7/8, 8.50	**Date Out**	2020-12-18 23:00		
Bend Angle	1.5	**Depth Out (ft)**	12210.00	**Circulating Hours**	4.33
Speed (rev/gal)	0.26	**Total Drilled (ft)**	550.00	**Drilling Hours**	1.92
Wear Pad OD (in)	7.300	**Distance Slid (ft)**	0.00	**Sliding Hours**	0.00
Manufacturer	AIM	**Distance Rotated (ft)**	550.00	**Rotating Hours**	1.92
Motor Results		**% Distance Sliding**	0.00%	**% Hours Rotating**	100.00%
Motor Incident	No	**% Distance Rotating**	100.00%	**% Hours Sliding**	0.00%
Average Total ROP (ft/h)	286.96	**BHA Parameters**			
Average Slide ROP (ft/h)	0.00	**Flow Rate (gpm)**	675.00 - 675.00	**Motor RPM**	175.00 - 176.00
Average Rotating ROP (ft/h)	286.96	**Stalls**	0	**Surface RPM**	30.00 - 30.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	45.00 - 45.00
OD (in)	8.500	**On Bottom Pressure (psi)**	2800.00 - 2800.00	**Sliding WOB (klbs)**	0.00 - 0.00
Vendor	REED	**Off Bottom Pressure (psi)**	2000.00 - 2000.00	**Temp (ºF)**	150.80 - 150.80
S/N	A270266	**NPT**	0.0		
Nozzles	6x14's	**BHA Objective**			
Total Flow Area (in²)	0.902	Drill 8.5'' Pilot Hole to TD			
Bit Type	PDC				
Bit Distances					
Bend (Bit to Bend): 5.30 ft, **Gamma (Bit to Gamma):** 57.00 ft, **Survey (Bit to Survey):** 72.00 ft					
Mud Properties					
Type	Brine				
WT	9.60				
VIS	41.00				
PV	1.00				
YP	3.00				

POOH Reason/Notes

Total Depth/Casing Point

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: Reed TKC66, Jets: 6x14s , TFA: .902 Runs: 1

MWD:

Mud Motor Reports
Lateral

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 5 (Curve 8.5")

Motor Details		Date/Depth/Distances		Hours	
S/N	650-010	**Date In**	2021-01-04 23:30	**Downhole Hours**	35.00
Size (in)	6.75	**Depth In (ft)**	11303.00	**Drilling/Circulating Hours**	18.58
Lobe/Stage	7/8, 5.00	**Date Out**	2021-01-06 10:30		
Bend Angle	2.12	**Depth Out (ft)**	12288.00	**Circulating Hours**	4.92
Speed (rev/gal)	0.29	**Total Drilled (ft)**	985.00	**Drilling Hours**	13.67
Wear Pad OD (in)	7.000	**Distance Slid (ft)**	790.00	**Sliding Hours**	11.92
Manufacturer	AIM	**Distance Rotated (ft)**	195.00	**Rotating Hours**	1.75
Motor Results		**% Distance Sliding**	80.20%	**% Hours Rotating**	12.80%
Motor Incident	No	**% Distance Rotating**	19.80%	**% Hours Sliding**	87.20%
Average Total ROP (ft/h)	72.07	**BHA Parameters**			
Average Slide ROP (ft/h)	66.29	**Flow Rate (gpm)**	525.00 - 600.00	**Motor RPM**	145.00 - 160.00
Average Rotating ROP (ft/h)	111.43	**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)**	2100.00 - 3100.00	**Sliding WOB (klbs)**	40.00 - 50.00
Vendor	Ulterra	**Off Bottom Pressure (psi)**	1700.00 - 2300.00	**Temp (ºF)**	-0.00 - -0.00
S/N	51347	**NPT**	0.0		
Nozzles	9x13's	**BHA Objective**			
Total Flow Area (in²)	1.166	Kick off cement plug. Drill down to KOP. Build and Land Curve.			
Bit Type	PDC				
Bit Distances					
Survey: 52.00 ft, **Gamma:** 38.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.30				
VIS	64.00				
PV	14.00				
YP	6.00				

POOH Reason/Notes

Total Depth/Casing Point

Incident Notes

Directional:

MWD:

Comments

Directional: Directional: Flow Rate: 300-600, Max Diff: 1130 psi, Max Torque: 10,460 ft-lbs, BIT Runs: 3

MWD:

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Mud Motor Report - BHA 6 (BHA #6 (Lateral Assembly))

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-032	**Date In**	2021-01-06 12:00	**Downhole Hours**	95.33
Size (in)	7.0	**Depth In (ft)**	12288.00	**Drilling/Circulating Hours**	67.67
Lobe/Stage	7/8, 8.50	**Date Out**	2021-01-10 11:20		
Bend Angle	1.75	**Depth Out (ft)**	18637.00	**Circulating Hours**	5.08
Speed (rev/gal)	0.26	**Total Drilled (ft)**	6349.00	**Drilling Hours**	62.58
Wear Pad OD (in)	7.250	**Distance Slid (ft)**	1051.00	**Sliding Hours**	27.00
Manufacturer	AIM	**Distance Rotated (ft)**	5298.00	**Rotating Hours**	35.58
Motor Results		**% Distance Sliding**	16.55%	**% Hours Rotating**	56.86%
Motor Incident	No	**% Distance Rotating**	83.45%	**% Hours Sliding**	43.14%
Average Total ROP (ft/h)	101.45	**BHA Parameters**			
Average Slide ROP (ft/h)	38.93	**Flow Rate (gpm)**	630.00 - 630.00	**Motor RPM**	162.00 - 182.00
Average Rotating ROP (ft/h)	148.89	**Stalls**	0	**Surface RPM**	50.00 - 50.00
Bit Details		**Stall Pressure (psi)**	0.00	**Rotating WOB (klbs)**	42.00 - 52.00
OD (in)	8.500	**On Bottom Pressure (psi)**	3500.00 - 3850.00	**Sliding WOB (klbs)**	25.00 - 25.00
Vendor	REED	**Off Bottom Pressure (psi)**	3100.00 - 3100.00	**Temp (ºF)**	-0.00 - -0.00
S/N	51347	**NPT**	0.0		
Nozzles	6x16's	**BHA Objective**			
Total Flow Area (in²)	1.170	Drill Lateral to TD			
Bit Type	PDC				
Bit Distances					
Survey: 63.00 ft, **Gamma:** 48.00 ft					
Mud Properties					
Type	Oil Based				
WT	9.50				
VIS	64.00				
PV	15.00				
YP	7.00				

POOH Reason/Notes

Total Depth/Casing Point

Incident Notes

Directional:

MWD:

Comments

Directional: 1.75° FBH 7/8 8.5 Stg Mtr.w/True Slick.; Flow Range: 500-750 gpm; Max Diff: 1910 psi; Max TQ: 18,710 ft/lbs; Bit Runs: 2

MWD:

Slide/Rotate Reports
Pilot Hole

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

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

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	12-03	23:55	23:59	12-03	0.07	100.00	110.00	10.00	150.00	N/A	430.00	40.0	10.00	900.00	650.00	
Rotate	12-03	23:59	00:40	12-04	0.68	110.00	260.00	150.00	219.51	N/A	430.00	40.0	10.00	900.00	650.00	
Rotate	12-04	00:45	01:00	12-04	0.25	260.00	292.00	32.00	128.00	N/A	430.00	40.0	10.00	900.00	650.00	
Rotate	12-04	01:05	01:30	12-04	0.42	292.00	385.00	93.00	223.20	N/A	600.00	60.0	18.00	1500.00	1000.00	
Rotate	12-04	01:35	03:05	12-04	1.5	385.00	572.00	187.00	124.67	N/A	600.00	60.0	18.00	1500.00	1000.00	
Rotate	12-04	03:10	03:35	12-04	0.42	572.00	666.00	94.00	225.60	N/A	800.00	60.0	18.00	2100.00	1600.00	
Rotate	12-04	03:40	04:05	12-04	0.42	666.00	760.00	94.00	225.60	N/A	800.00	60.0	18.00	2100.00	1600.00	
Rotate	12-04	04:10	05:25	12-04	1.25	760.00	947.00	187.00	149.60	N/A	800.00	70.0	30.00	2500.00	1750.00	
Rotate	12-04	05:30	05:40	12-04	0.17	947.00	984.00	37.00	222.00	N/A	800.00	70.0	30.00	2500.00	1750.00	
Rotate	12-04	06:45	07:00	12-04	0.25	984.00	1040.00	56.00	224.00	N/A	800.00	70.0	30.00	2500.00	1750.00	
Rotate	12-04	07:00	07:50	12-04	0.83	1040.00	1134.00	94.00	112.80	N/A	800.00	70.0	30.00	2500.00	1750.00	
Rotate	12-04	07:55	10:15	12-04	2.33	1134.00	1313.00	179.00	76.71	N/A	800.00	70.0	30.00	2500.00	1750.00	

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #2 (BHA #2 (12.25" 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	12-09	07:45	07:55	12-09	0.17	1313.00	1320.00	7.00	42.00	N/A	500.00	40.0	18.00	800.00	600.00	
Rotate	12-09	08:55	09:25	12-09	0.5	1320.00	1419.00	99.00	198.00	N/A	500.00	40.0	18.00	800.00	600.00	
Rotate	12-09	09:30	10:05	12-09	0.58	1419.00	1598.00	179.00	306.86	N/A	800.00	50.0	30.00	2600.00	1500.00	
Rotate	12-09	10:10	10:15	12-09	0.08	1598.00	1605.00	7.00	84.00	N/A	800.00	50.0	30.00	2600.00	1500.00	
Slide	12-09	10:15	10:25	12-09	0.17	1605.00	1625.00	20.00	120.00	30.0	800.00	N/A	30.00	2300.00	1600.00	
Rotate	12-09	10:25	10:40	12-09	0.25	1625.00	1688.00	63.00	252.00	N/A	800.00	50.0	30.00	2600.00	1500.00	
Rotate	12-09	10:45	10:55	12-09	0.17	1688.00	1777.00	89.00	534.00	N/A	800.00	50.0	30.00	2600.00	1500.00	
Rotate	12-09	11:00	11:20	12-09	0.33	1777.00	1867.00	90.00	270.00	N/A	800.00	50.0	30.00	2600.00	1500.00	
Rotate	12-09	11:25	11:40	12-09	0.25	1867.00	1957.00	90.00	360.00	N/A	800.00	50.0	30.00	2600.00	1500.00	
Rotate	12-09	11:45	12:00	12-09	0.25	1957.00	2047.00	90.00	360.00	N/A	800.00	50.0	30.00	2600.00	1500.00	
Rotate	12-09	12:05	12:10	12-09	0.08	2047.00	2055.00	8.00	96.00	N/A	800.00	50.0	30.00	2600.00	1500.00	
Slide	12-09	12:10	12:15	12-09	0.08	2055.00	2062.00	7.00	84.00	15.0	800.00	N/A	30.00	2300.00	1600.00	
Rotate	12-09	12:15	12:55	12-09	0.67	2062.00	2226.00	164.00	246.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	13:00	13:25	12-09	0.42	2226.00	2316.00	90.00	216.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	13:30	14:05	12-09	0.58	2316.00	2495.00	179.00	306.86	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	14:10	14:30	12-09	0.33	2495.00	2585.00	90.00	270.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	14:35	14:50	12-09	0.25	2585.00	2674.00	89.00	356.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	14:55	15:10	12-09	0.25	2674.00	2764.00	90.00	360.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	15:10	15:35	12-09	0.42	2764.00	2853.00	89.00	213.60	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	15:40	15:45	12-09	0.08	2853.00	2865.00	12.00	144.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Slide	12-09	15:45	16:00	12-09	0.25	2865.00	2890.00	25.00	100.00	230.0	800.00	N/A	30.00	2300.00	1600.00	
Rotate	12-09	16:00	16:10	12-09	0.17	2890.00	2943.00	53.00	318.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	16:15	16:20	12-09	0.08	2943.00	2960.00	17.00	204.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Slide	12-09	16:20	16:30	12-09	0.17	2960.00	2980.00	20.00	120.00	230.0	800.00	N/A	30.00	2300.00	1600.00	
Rotate	12-09	16:30	16:45	12-09	0.25	2980.00	3032.00	52.00	208.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	17:15	17:30	12-09	0.25	3032.00	3122.00	90.00	360.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	17:35	17:40	12-09	0.08	3122.00	3140.00	18.00	216.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Slide	12-09	17:40	18:00	12-09	0.33	3140.00	3165.00	25.00	75.00	230.0	800.00	N/A	30.00	2300.00	1600.00	
Rotate	12-09	18:00	18:15	12-09	0.25	3165.00	3212.00	47.00	188.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	18:20	18:30	12-09	0.17	3212.00	3301.00	89.00	534.00	N/A	800.00	60.0	30.00	2600.00	1500.00	
Rotate	12-09	18:35	19:00	12-09	0.42	3301.00	3390.00	89.00	213.60	N/A	800.00	60.0	46.00	2900.00	1900.00	
Rotate	12-09	19:05	19:10	12-09	0.08	3390.00	3400.00	10.00	120.00	N/A	800.00	60.0	46.00	2900.00	1900.00	
Slide	12-09	19:10	19:30	12-09	0.33	3400.00	3425.00	25.00	75.00	275.0	800.00	N/A	30.00	2300.00	1600.00	
Rotate	12-09	19:30	19:45	12-09	0.25	3425.00	3480.00	55.00	220.00	N/A	800.00	60.0	46.00	2900.00	1900.00	
Rotate	12-09	19:50	20:20	12-09	0.5	3480.00	3570.00	90.00	180.00	N/A	800.00	60.0	46.00	2900.00	1900.00	
Rotate	12-09	20:25	20:55	12-09	0.5	3570.00	3659.00	89.00	178.00	N/A	800.00	60.0	46.00	2900.00	1900.00	
Rotate	12-09	21:00	21:40	12-09	0.67	3659.00	3749.00	90.00	135.00	N/A	800.00	60.0	46.00	2900.00	1900.00	
Rotate	12-09	21:45	22:25	12-09	0.67	3749.00	3839.00	90.00	135.00	N/A	800.00	60.0	46.00	2900.00	1900.00	
Rotate	12-09	22:30	23:05	12-09	0.58	3839.00	3928.00	89.00	152.57	N/A	800.00	60.0	46.00	2900.00	1900.00	
Rotate	12-09	23:10	00:00	12-10	0.83	3928.00	4018.00	90.00	108.00	N/A	800.00	60.0	50.00	2900.00	1900.00	
Rotate	12-10	00:05	00:50	12-10	0.75	4018.00	4108.00	90.00	120.00	N/A	800.00	60.0	50.00	3000.00	2000.00	
Rotate	12-10	00:55	01:40	12-10	0.75	4108.00	4198.00	90.00	120.00	N/A	800.00	60.0	50.00	3000.00	2000.00	
Rotate	12-10	01:45	02:30	12-10	0.75	4198.00	4288.00	90.00	120.00	N/A	800.00	60.0	50.00	3000.00	2000.00	
Rotate	12-10	02:35	03:10	12-10	0.58	4288.00	4377.00	89.00	152.57	N/A	800.00	60.0	50.00	3000.00	2000.00	
Rotate	12-10	03:15	03:35	12-10	0.33	4377.00	4467.00	90.00	270.00	N/A	800.00	60.0	50.00	3000.00	2000.00	
Rotate	12-10	03:40	04:00	12-10	0.33	4467.00	4557.00	90.00	270.00	N/A	800.00	60.0	50.00	3000.00	2000.00	
Slide	12-10	04:05	04:55	12-10	0.83	4557.00	4577.00	20.00	24.00	85.0	800.00	N/A	20.00	3300.00	3000.00	
Rotate	12-10	04:55	05:15	12-10	0.33	4577.00	4646.00	69.00	207.00	N/A	800.00	60.0	50.00	3000.00	2000.00	
Rotate	12-10	05:20	05:50	12-10	0.5	4646.00	4736.00	90.00	180.00	N/A	800.00	60.0	50.00	3000.00	2000.00	
Rotate	12-10	05:55	06:25	12-10	0.5	4736.00	4826.00	90.00	180.00	N/A	800.00	60.0	50.00	3000.00	2000.00	
Rotate	12-10	06:30	06:50	12-10	0.33	4826.00	4916.00	90.00	270.00	N/A	800.00	60.0	50.00	3000.00	2000.00	
Rotate	12-10	06:55	07:00	12-10	0.08	4916.00	4940.00	24.00	288.00	N/A	800.00	60.0	50.00	3000.00	2000.00	

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

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

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	12-15	17:30	17:40	12-15	0.17	4940.00	4950.00	10.00	60.00	N/A	675.00	40.0	20.00	2000.00	1500.00	
Rotate	12-15	19:20	19:50	12-15	0.5	4950.00	5094.00	144.00	288.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	19:55	20:05	12-15	0.17	5094.00	5184.00	90.00	540.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	20:10	20:15	12-15	0.08	5184.00	5198.00	14.00	168.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Slide	12-15	20:15	20:25	12-15	0.17	5198.00	5218.00	20.00	120.00	10.0	675.00	N/A	20.00	2400.00	2000.00	
Rotate	12-15	20:25	20:35	12-15	0.17	5218.00	5273.00	55.00	330.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	20:40	20:50	12-15	0.17	5273.00	5362.00	89.00	534.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	20:55	21:00	12-15	0.08	5362.00	5452.00	90.00	1080.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	21:45	21:55	12-15	0.17	5452.00	5465.00	13.00	78.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Slide	12-15	21:55	22:05	12-15	0.17	5465.00	5485.00	20.00	120.00	50.0	675.00	N/A	20.00	2400.00	2000.00	
Rotate	12-15	22:05	22:20	12-15	0.25	5485.00	5542.00	57.00	228.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	22:25	22:35	12-15	0.17	5542.00	5632.00	90.00	540.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	22:40	22:50	12-15	0.17	5632.00	5721.00	89.00	534.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	22:55	23:00	12-15	0.08	5721.00	5811.00	90.00	1080.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Slide	12-15	23:05	23:15	12-15	0.17	5811.00	5831.00	20.00	120.00	30.0	675.00	N/A	20.00	2400.00	2000.00	
Rotate	12-15	23:15	23:30	12-15	0.25	5831.00	5901.00	70.00	280.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	23:35	23:45	12-15	0.17	5901.00	5990.00	89.00	534.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-15	23:50	00:00	12-16	0.17	5990.00	6080.00	90.00	540.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-16	00:05	00:20	12-16	0.25	6080.00	6170.00	90.00	360.00	N/A	675.00	40.0	40.00	2700.00	2000.00	
Rotate	12-16	00:25	00:40	12-16	0.25	6170.00	6260.00	90.00	360.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	00:45	00:55	12-16	0.17	6260.00	6350.00	90.00	540.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	01:00	01:10	12-16	0.17	6350.00	6440.00	90.00	540.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	01:15	01:30	12-16	0.25	6440.00	6529.00	89.00	356.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	01:35	01:45	12-16	0.17	6529.00	6619.00	90.00	540.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	01:50	02:00	12-16	0.17	6619.00	6708.00	89.00	534.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	02:05	02:30	12-16	0.42	6708.00	6887.00	179.00	429.60	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	02:35	02:55	12-16	0.33	6887.00	6977.00	90.00	270.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	03:05	03:10	12-16	0.08	6977.00	6987.00	10.00	120.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Slide	12-16	03:10	03:20	12-16	0.17	6987.00	6993.00	6.00	36.00	50.0	675.00	N/A	20.00	2300.00	2000.00	
Slide	12-16	04:45	05:00	12-16	0.25	6993.00	7007.00	14.00	56.00	50.0	675.00	N/A	20.00	2300.00	2000.00	
Rotate	12-16	05:00	05:15	12-16	0.25	7007.00	7066.00	59.00	236.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	05:20	05:40	12-16	0.33	7066.00	7156.00	90.00	270.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	05:45	05:55	12-16	0.17	7156.00	7245.00	89.00	534.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	06:00	06:10	12-16	0.17	7245.00	7335.00	90.00	540.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	06:15	06:30	12-16	0.25	7335.00	7425.00	90.00	360.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Slide	12-16	06:35	06:50	12-16	0.25	7425.00	7445.00	20.00	80.00	10.0	675.00	N/A	20.00	2300.00	2000.00	
Rotate	12-16	06:50	07:05	12-16	0.25	7445.00	7515.00	70.00	280.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	07:10	07:25	12-16	0.25	7515.00	7605.00	90.00	360.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	07:30	07:45	12-16	0.25	7605.00	7695.00	90.00	360.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	07:50	08:05	12-16	0.25	7695.00	7784.00	89.00	356.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	08:10	08:25	12-16	0.25	7784.00	7874.00	90.00	360.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Slide	12-16	08:30	08:35	12-16	0.08	7874.00	7884.00	10.00	120.00	0.0	675.00	N/A	20.00	2300.00	2000.00	
Slide	12-16	09:15	09:25	12-16	0.17	7884.00	7894.00	10.00	60.00	0.0	675.00	N/A	20.00	2300.00	2000.00	
Rotate	12-16	11:00	11:10	12-16	0.17	7894.00	7964.00	70.00	420.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	11:15	11:30	12-16	0.25	7964.00	8054.00	90.00	360.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	11:30	11:50	12-16	0.33	8054.00	8143.00	89.00	267.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	12:00	12:15	12-16	0.25	8143.00	8233.00	90.00	360.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Slide	12-16	12:20	12:45	12-16	0.42	8233.00	8263.00	30.00	72.00	350.0	675.00	N/A	20.00	2300.00	2000.00	
Rotate	12-16	12:45	12:55	12-16	0.17	8263.00	8323.00	60.00	360.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	13:00	13:15	12-16	0.25	8323.00	8413.00	90.00	360.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	13:20	13:35	12-16	0.25	8413.00	8502.00	89.00	356.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	13:40	14:00	12-16	0.33	8502.00	8592.00	90.00	270.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	14:15	14:35	12-16	0.33	8592.00	8682.00	90.00	270.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	14:40	15:00	12-16	0.33	8682.00	8772.00	90.00	270.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	15:05	15:30	12-16	0.42	8772.00	8861.00	89.00	213.60	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	15:30	16:00	12-16	0.5	8861.00	8951.00	90.00	180.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Slide	12-16	16:10	16:40	12-16	0.5	8951.00	8981.00	30.00	60.00	330.0	675.00	N/A	20.00	2400.00	2100.00	
Rotate	12-16	16:40	17:05	12-16	0.42	8981.00	9041.00	60.00	144.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	17:15	17:40	12-16	0.42	9041.00	9131.00	90.00	216.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	17:45	18:05	12-16	0.33	9131.00	9221.00	90.00	270.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	18:10	18:15	12-16	0.08	9221.00	9236.00	15.00	180.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Slide	12-16	18:15	18:55	12-16	0.67	9236.00	9266.00	30.00	45.00	350.0	675.00	N/A	20.00	2400.00	2100.00	
Rotate	12-16	18:55	19:10	12-16	0.25	9266.00	9311.00	45.00	180.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	19:15	19:45	12-16	0.5	9311.00	9400.00	89.00	178.00	N/A	675.00	60.0	40.00	3000.00	2300.00	

Rotate	12-16	19:50	19:55	12-16	0.08	9400.00	9410.00	10.00	120.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Slide	12-16	19:55	20:30	12-16	0.58	9410.00	9435.00	25.00	42.86	350.0	675.00	N/A	20.00	2400.00	2100.00	
Rotate	12-16	20:30	20:45	12-16	0.25	9435.00	9490.00	55.00	220.00	N/A	675.00	60.0	40.00	3000.00	2300.00	
Rotate	12-16	20:50	21:05	12-16	0.25	9490.00	9580.00	90.00	360.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Rotate	12-16	21:10	21:20	12-16	0.17	9580.00	9590.00	10.00	60.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Slide	12-16	21:20	21:55	12-16	0.58	9590.00	9610.00	20.00	34.29	10.0	675.00	N/A	20.00	2400.00	2100.00	
Rotate	12-16	21:55	22:15	12-16	0.33	9610.00	9669.00	59.00	177.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Rotate	12-16	22:20	22:25	12-16	0.08	9669.00	9672.00	3.00	36.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Slide	12-16	22:25	23:00	12-16	0.58	9672.00	9702.00	30.00	51.43	10.0	675.00	N/A	20.00	2400.00	2100.00	
Rotate	12-16	23:00	23:15	12-16	0.25	9702.00	9759.00	57.00	228.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Rotate	12-16	23:20	00:25	12-17	1.08	9759.00	9939.00	180.00	166.15	N/A	675.00	30.0	44.00	2800.00	2000.00	
Rotate	12-17	00:30	00:40	12-17	0.17	9939.00	9948.00	9.00	54.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Slide	12-17	00:40	01:25	12-17	0.75	9948.00	9978.00	30.00	40.00	30.0	675.00	N/A	20.00	2400.00	2100.00	
Rotate	12-17	01:25	01:45	12-17	0.33	9978.00	10028.00	50.00	150.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Rotate	12-17	01:50	02:30	12-17	0.67	10028.00	10118.00	90.00	135.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Rotate	12-17	02:35	03:05	12-17	0.5	10118.00	10207.00	89.00	178.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Rotate	12-17	03:10	03:15	12-17	0.08	10207.00	10217.00	10.00	120.00	N/A	675.00	30.0	44.00	2800.00	2000.00	
Slide	12-17	03:15	04:00	12-17	0.75	10217.00	10247.00	30.00	40.00	10.0	675.00	N/A	20.00	2400.00	2100.00	
Rotate	12-17	04:00	04:25	12-17	0.42	10247.00	10297.00	50.00	120.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	04:30	05:10	12-17	0.67	10297.00	10386.00	89.00	133.50	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	05:15	05:50	12-17	0.58	10386.00	10476.00	90.00	154.29	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	05:55	06:25	12-17	0.5	10476.00	10566.00	90.00	180.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	06:30	06:35	12-17	0.08	10566.00	10574.00	8.00	96.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Slide	12-17	06:35	06:50	12-17	0.25	10574.00	10580.00	6.00	24.00	30.0	675.00	N/A	20.00	2400.00	2100.00	
Slide	12-17	07:20	07:35	12-17	0.25	10580.00	10595.00	15.00	60.00	30.0	675.00	N/A	20.00	2400.00	2100.00	
Rotate	12-17	07:35	08:00	12-17	0.42	10595.00	10656.00	61.00	146.40	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	08:05	08:35	12-17	0.5	10656.00	10745.00	89.00	178.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Slide	12-17	08:40	09:15	12-17	0.58	10745.00	10775.00	30.00	51.43	50.0	675.00	N/A	20.00	2400.00	2100.00	
Rotate	12-17	09:15	09:40	12-17	0.42	10775.00	10835.00	60.00	144.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	09:45	10:15	12-17	0.5	10835.00	10924.00	89.00	178.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	10:20	10:40	12-17	0.33	10924.00	10988.00	64.00	192.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	11:10	11:20	12-17	0.17	10988.00	11014.00	26.00	156.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	11:25	12:00	12-17	0.58	11014.00	11104.00	90.00	154.29	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	12:05	12:35	12-17	0.5	11104.00	11193.00	89.00	178.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	12:40	13:15	12-17	0.58	11193.00	11283.00	90.00	154.29	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	13:20	13:45	12-17	0.42	11283.00	11372.00	89.00	213.60	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	13:50	14:20	12-17	0.5	11372.00	11447.00	75.00	150.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	14:45	15:00	12-17	0.25	11447.00	11462.00	15.00	60.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Slide	12-17	15:05	15:50	12-17	0.75	11462.00	11492.00	30.00	40.00	315.0	675.00	N/A	20.00	2500.00	2200.00	
Rotate	12-17	15:50	16:20	12-17	0.5	11492.00	11551.00	59.00	118.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	16:25	16:55	12-17	0.5	11551.00	11641.00	90.00	180.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-17	17:00	17:15	12-17	0.25	11641.00	11660.00	19.00	76.00	N/A	675.00	30.0	45.00	2800.00	2000.00	

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #4 (Intermediate 8.5")

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	12-18	08:05	08:20	12-18	0.25	11660.00	11732.00	72.00	288.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-18	08:25	08:40	12-18	0.25	11732.00	11821.00	89.00	356.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-18	10:30	10:45	12-18	0.25	11821.00	11911.00	90.00	360.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-18	10:50	11:10	12-18	0.33	11911.00	12001.00	90.00	270.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-18	11:15	11:35	12-18	0.33	12001.00	12090.00	89.00	267.00	N/A	675.00	30.0	45.00	2800.00	2000.00	
Rotate	12-18	11:40	12:10	12-18	0.5	12090.00	12210.00	120.00	240.00	N/A	675.00	30.0	45.00	2800.00	2000.00	

Slide/Rotate Reports
Lateral

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #5 (Curve 8.5")

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	01-05	11:05	14:55	01-05	3.83	11303.00	11392.00	89.00	23.22	357.0	525.00	N/A	40.00	2100.00	1700.00	
Slide	01-05	15:10	16:05	01-05	0.92	11392.00	11438.00	46.00	50.18	357.0	525.00	N/A	40.00	2100.00	1700.00	
Slide	01-05	16:20	16:45	01-05	0.42	11438.00	11482.00	44.00	105.60	340.0	525.00	N/A	40.00	2100.00	1700.00	
Slide	01-05	16:50	17:55	01-05	1.08	11482.00	11571.00	89.00	82.15	20.0	525.00	N/A	40.00	2100.00	1700.00	
Slide	01-05	18:05	19:05	01-05	1.0	11571.00	11661.00	90.00	90.00	350.0	525.00	N/A	40.00	2100.00	1700.00	
Slide	01-05	19:15	20:15	01-05	1.0	11661.00	11750.00	89.00	89.00	0.0	525.00	N/A	40.00	2100.00	1700.00	
Slide	01-05	20:25	21:20	01-05	0.92	11750.00	11840.00	90.00	98.18	0.0	525.00	N/A	40.00	2100.00	1700.00	
Slide	01-05	21:30	22:20	01-05	0.83	11840.00	11930.00	90.00	108.00	0.0	600.00	N/A	50.00	3100.00	2300.00	
Rotate	01-05	22:30	22:45	01-05	0.25	11930.00	11960.00	30.00	120.00	N/A	600.00	30.0	40.00	3100.00	2300.00	
Slide	01-05	22:45	23:30	01-05	0.75	11960.00	12019.00	59.00	78.67	350.0	600.00	N/A	50.00	3100.00	2300.00	
Rotate	01-05	23:40	00:00	01-06	0.33	12019.00	12064.00	45.00	135.00	N/A	600.00	30.0	40.00	3100.00	2300.00	
Slide	01-06	00:00	00:35	01-06	0.58	12064.00	12109.00	45.00	77.14	0.0	600.00	N/A	50.00	3100.00	2300.00	
Slide	01-06	00:45	01:20	01-06	0.58	12109.00	12168.00	59.00	101.14	20.0	600.00	N/A	50.00	3100.00	2300.00	
Rotate	01-06	01:20	01:35	01-06	0.25	12168.00	12198.00	30.00	120.00	N/A	600.00	30.0	40.00	3100.00	2300.00	
Rotate	01-06	01:45	02:40	01-06	0.92	12198.00	12288.00	90.00	98.18	N/A	600.00	30.0	40.00	3100.00	2300.00	

Job Number	Operator		Rig Name
WT-20-070	Advance Energy Partners		Pioneer #80
Start Date	**Well Name**		**Legal Well Name | AFE**
2020-11-12	Anderson Fed Com 604H		Anderson Fed Com 604H
Play	**State/Province and Country**	**County**	**Company Man**
Delaware Basin	New Mexico, US	Lea	

Slide/Rotate Report - BHA #6 (BHA #6 (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	01-06	19:10	19:25	01-06	0.25	12288.00	12331.00	43.00	172.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-06	19:30	20:05	01-06	0.58	12331.00	12356.00	25.00	42.86	140.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-06	20:05	20:25	01-06	0.33	12356.00	12420.00	64.00	192.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-06	20:30	20:55	01-06	0.42	12420.00	12510.00	90.00	216.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-06	21:00	21:05	01-06	0.08	12510.00	12520.00	10.00	120.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-06	21:05	21:40	01-06	0.58	12520.00	12550.00	30.00	51.43	80.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-06	21:40	21:55	01-06	0.25	12550.00	12600.00	50.00	200.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-06	22:00	22:25	01-06	0.42	12600.00	12689.00	89.00	213.60	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-06	22:30	22:55	01-06	0.42	12689.00	12779.00	90.00	216.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-06	23:00	23:05	01-06	0.08	12779.00	12789.00	10.00	120.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-06	23:05	23:30	01-06	0.42	12789.00	12814.00	25.00	60.00	20.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-06	23:30	23:45	01-06	0.25	12814.00	12868.00	54.00	216.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-06	23:50	00:05	01-07	0.25	12868.00	12958.00	90.00	360.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	00:10	00:20	01-07	0.17	12958.00	12978.00	20.00	120.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	00:20	00:40	01-07	0.33	12978.00	12993.00	15.00	45.00	0.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	00:40	01:00	01-07	0.33	12993.00	13047.00	54.00	162.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	01:05	01:35	01-07	0.5	13047.00	13137.00	90.00	180.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	01:40	02:10	01-07	0.5	13137.00	13227.00	90.00	180.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	02:15	02:55	01-07	0.67	13227.00	13316.00	89.00	133.50	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	03:00	03:05	01-07	0.08	13316.00	13326.00	10.00	120.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	03:05	03:30	01-07	0.42	13326.00	13346.00	20.00	48.00	100.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	03:30	03:55	01-07	0.42	13346.00	13406.00	60.00	144.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	04:00	04:25	01-07	0.42	13406.00	13495.00	89.00	213.60	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	04:30	04:35	01-07	0.08	13495.00	13505.00	10.00	120.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	04:35	05:15	01-07	0.67	13505.00	13530.00	25.00	37.50	40.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	05:15	05:45	01-07	0.5	13530.00	13585.00	55.00	110.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	05:50	06:35	01-07	0.75	13585.00	13674.00	89.00	118.67	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	06:40	07:20	01-07	0.67	13674.00	13764.00	90.00	135.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	07:25	07:30	01-07	0.08	13764.00	13770.00	6.00	72.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	07:30	08:05	01-07	0.58	13770.00	13800.00	30.00	51.43	90.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	08:05	08:20	01-07	0.25	13800.00	13854.00	54.00	216.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	08:35	09:05	01-07	0.5	13854.00	13943.00	89.00	178.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	09:10	09:15	01-07	0.08	13943.00	13950.00	7.00	84.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	09:15	09:50	01-07	0.58	13950.00	13990.00	40.00	68.57	120.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	09:50	10:10	01-07	0.33	13990.00	14033.00	43.00	129.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	10:15	10:20	01-07	0.08	14033.00	14035.00	2.00	24.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	10:20	10:55	01-07	0.58	14035.00	14075.00	40.00	68.57	160.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	10:55	11:20	01-07	0.42	14075.00	14123.00	48.00	115.20	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	11:25	11:35	01-07	0.17	14123.00	14130.00	7.00	42.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	11:35	11:55	01-07	0.33	14130.00	14155.00	25.00	75.00	90.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	11:55	12:20	01-07	0.42	14155.00	14213.00	58.00	139.20	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	12:25	12:50	01-07	0.42	14213.00	14302.00	89.00	213.60	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	12:55	13:20	01-07	0.42	14302.00	14392.00	90.00	216.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	13:25	13:50	01-07	0.42	14392.00	14481.00	89.00	213.60	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	14:30	14:55	01-07	0.42	14481.00	14511.00	30.00	72.00	200.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	14:55	15:15	01-07	0.33	14511.00	14571.00	60.00	180.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	15:20	15:50	01-07	0.5	14571.00	14660.00	89.00	178.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	15:55	16:00	01-07	0.08	14660.00	14670.00	10.00	120.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	16:00	16:25	01-07	0.42	14670.00	14690.00	20.00	48.00	270.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	16:25	16:50	01-07	0.42	14690.00	14750.00	60.00	144.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Slide	01-07	16:55	17:40	01-07	0.75	14750.00	14780.00	30.00	40.00	20.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	17:40	18:00	01-07	0.33	14780.00	14839.00	59.00	177.00	N/A	630.00	50.0	42.00	3850.00	3100.00	
Rotate	01-07	18:05	18:10	01-07	0.08	14839.00	14849.00	10.00	120.00	N/A	630.00	50.0	52.00	3850.00	3100.00	
Slide	01-07	18:10	18:35	01-07	0.42	14849.00	14864.00	15.00	36.00	340.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	18:35	19:05	01-07	0.5	14864.00	14929.00	65.00	130.00	N/A	630.00	50.0	52.00	3850.00	3100.00	
Rotate	01-07	19:10	19:45	01-07	0.58	14929.00	15019.00	90.00	154.29	N/A	630.00	50.0	52.00	3850.00	3100.00	
Rotate	01-07	19:50	19:55	01-07	0.08	15019.00	15029.00	10.00	120.00	N/A	630.00	50.0	52.00	3850.00	3100.00	
Slide	01-07	19:55	20:30	01-07	0.58	15029.00	15054.00	25.00	42.86	230.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	20:30	20:55	01-07	0.42	15054.00	15108.00	54.00	129.60	N/A	630.00	50.0	52.00	3850.00	3100.00	
Rotate	01-07	21:00	21:35	01-07	0.58	15108.00	15198.00	90.00	154.29	N/A	630.00	50.0	52.00	3850.00	3100.00	
Rotate	01-07	21:40	21:50	01-07	0.17	15198.00	15225.00	27.00	162.00	N/A	630.00	50.0	52.00	3850.00	3100.00	
Slide	01-07	21:50	22:15	01-07	0.42	15225.00	15240.00	15.00	36.00	220.0	630.00	N/A	25.00	3500.00	3100.00	
Rotate	01-07	22:15	22:35	01-07	0.33	15240.00	15287.00	47.00	141.00	N/A	630.00	50.0	52.00	3850.00	3100.00	
Rotate	01-07	22:40	23:15	01-07	0.58	15287.00	15377.00	90.00	154.29	N/A	630.00	50.0	52.00	3850.00	3100.00	

Rotate	01-07	23:20	23:25	01-07	0.08	15377.00	15382.00	5.00	60.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-07	23:25	00:00	01-08	0.58	15382.00	15417.00	35.00	60.00	60.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	00:00	00:30	01-08	0.5	15417.00	15467.00	50.00	100.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	00:35	00:40	01-08	0.08	15467.00	15472.00	5.00	60.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	00:40	01:20	01-08	0.67	15472.00	15502.00	30.00	45.00	45.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	01:20	01:45	01-08	0.42	15502.00	15556.00	54.00	129.60	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	01:50	02:20	01-08	0.5	15556.00	15645.00	89.00	178.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	02:25	02:30	01-08	0.08	15645.00	15655.00	10.00	120.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	02:30	02:55	01-08	0.42	15655.00	15675.00	20.00	48.00	45.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	02:55	03:25	01-08	0.5	15675.00	15735.00	60.00	120.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	03:35	04:00	01-08	0.42	15735.00	15824.00	89.00	213.60	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	04:05	04:10	01-08	0.08	15824.00	15830.00	6.00	72.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	04:10	05:05	01-08	0.92	15830.00	15870.00	40.00	43.64	80.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	05:05	05:20	01-08	0.25	15870.00	15913.00	43.00	172.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	05:25	05:30	01-08	0.08	15913.00	15923.00	10.00	120.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	05:30	05:55	01-08	0.42	15923.00	15943.00	20.00	48.00	90.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	05:55	06:15	01-08	0.33	15943.00	16003.00	60.00	180.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	06:20	06:50	01-08	0.5	16003.00	16093.00	90.00	180.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	06:55	07:30	01-08	0.58	16093.00	16182.00	89.00	152.57	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	07:35	08:10	01-08	0.58	16182.00	16217.00	35.00	60.00	200.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	08:10	08:35	01-08	0.42	16217.00	16271.00	54.00	129.60	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	08:40	09:00	01-08	0.33	16271.00	16361.00	90.00	270.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	09:05	09:30	01-08	0.42	16361.00	16451.00	90.00	216.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	09:35	10:05	01-08	0.5	16451.00	16540.00	89.00	178.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	10:10	10:15	01-08	0.08	16540.00	16550.00	10.00	120.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	10:15	10:35	01-08	0.33	16550.00	16565.00	15.00	45.00	340.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	10:35	11:05	01-08	0.5	16565.00	16630.00	65.00	130.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	11:10	11:45	01-08	0.58	16630.00	16665.00	35.00	60.00	340.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	11:45	12:15	01-08	0.5	16665.00	16719.00	54.00	108.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	12:20	12:50	01-08	0.5	16719.00	16739.00	20.00	40.00	0.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	12:50	13:25	01-08	0.58	16739.00	16809.00	70.00	120.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	13:40	14:15	01-08	0.58	16809.00	16839.00	30.00	51.43	0.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	14:15	14:35	01-08	0.33	16839.00	16898.00	59.00	177.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	14:40	15:10	01-08	0.5	16898.00	16988.00	90.00	180.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	15:15	15:50	01-08	0.58	16988.00	17077.00	89.00	152.57	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	15:55	16:35	01-08	0.67	17077.00	17096.00	19.00	28.50	20.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	16:35	17:10	01-08	0.58	17096.00	17167.00	71.00	121.71	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	17:35	18:35	01-08	1.0	17167.00	17204.00	37.00	37.00	45.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	18:35	19:00	01-08	0.42	17204.00	17257.00	53.00	127.20	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	19:05	19:40	01-08	0.58	17257.00	17346.00	89.00	152.57	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	19:45	19:50	01-08	0.08	17346.00	17350.00	4.00	48.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	19:50	22:00	01-08	2.17	17350.00	17390.00	40.00	18.46	90.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-08	22:00	22:30	01-08	0.5	17390.00	17436.00	46.00	92.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-08	22:35	22:40	01-08	0.08	17436.00	17444.00	8.00	96.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-08	22:40	00:00	01-09	1.33	17444.00	17464.00	20.00	15.00	90.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-09	00:00	00:50	01-09	0.83	17464.00	17526.00	62.00	74.40	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	00:55	01:30	01-09	0.58	17526.00	17615.00	89.00	152.57	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-09	01:40	02:50	01-09	1.17	17615.00	17640.00	25.00	21.43	20.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-09	02:50	03:20	01-09	0.5	17640.00	17705.00	65.00	130.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	03:30	04:20	01-09	0.83	17705.00	17794.00	89.00	106.80	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	04:25	04:30	01-09	0.08	17794.00	17804.00	10.00	120.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-09	04:30	05:40	01-09	1.17	17804.00	17834.00	30.00	25.71	80.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-09	05:40	06:00	01-09	0.33	17834.00	17884.00	50.00	150.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	06:05	06:40	01-09	0.58	17884.00	17974.00	90.00	154.29	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	06:45	06:50	01-09	0.08	17974.00	17980.00	6.00	72.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-09	06:50	07:50	01-09	1.0	17980.00	18015.00	35.00	35.00	70.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-09	07:50	08:10	01-09	0.33	18015.00	18063.00	48.00	144.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	08:15	08:25	01-09	0.17	18063.00	18075.00	12.00	72.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-09	08:25	08:50	01-09	0.42	18075.00	18080.00	5.00	12.00	90.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-09	08:50	09:20	01-09	0.5	18080.00	18153.00	73.00	146.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-09	09:25	11:10	01-09	1.75	18153.00	18215.00	62.00	35.43	70.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-09	11:10	11:35	01-09	0.42	18215.00	18242.00	27.00	64.80	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	11:40	12:25	01-09	0.75	18242.00	18310.00	68.00	90.67	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-09	12:25	13:20	01-09	0.92	18310.00	18332.00	22.00	24.00	180.0	630.00	N/A	25.00	3500.00	3100.00
Slide	01-09	13:25	14:15	01-09	0.83	18332.00	18358.00	26.00	31.20	180.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-09	14:15	14:40	01-09	0.42	18358.00	18421.00	63.00	151.20	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	14:45	14:55	01-09	0.17	18421.00	18426.00	5.00	30.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Slide	01-09	14:55	15:50	01-09	0.92	18426.00	18466.00	40.00	43.64	180.0	630.00	N/A	25.00	3500.00	3100.00
Rotate	01-09	15:50	16:05	01-09	0.25	18466.00	18511.00	45.00	180.00	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	16:10	16:45	01-09	0.58	18511.00	18600.00	89.00	152.57	N/A	630.00	50.0	52.00	3850.00	3100.00
Rotate	01-09	16:50	17:10	01-09	0.33	18600.00	18637.00	37.00	111.00	N/A	630.00	50.0	52.00	3850.00	3100.00

Performance Overview

Anderson Fed Com 604H (WT-20-070)

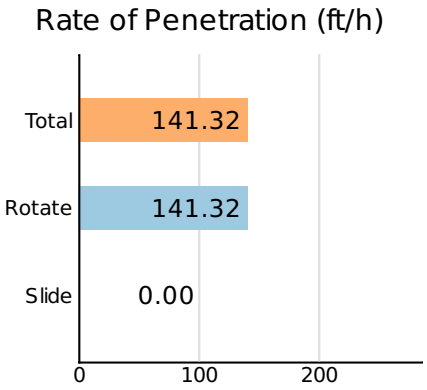
2020-11-12 to 2021-01-15
Lea, New Mexico, US (32.43, -103.64)

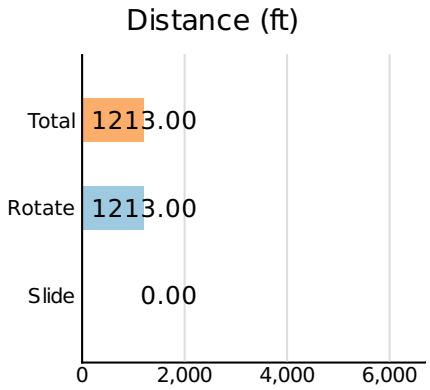
BHA Performance

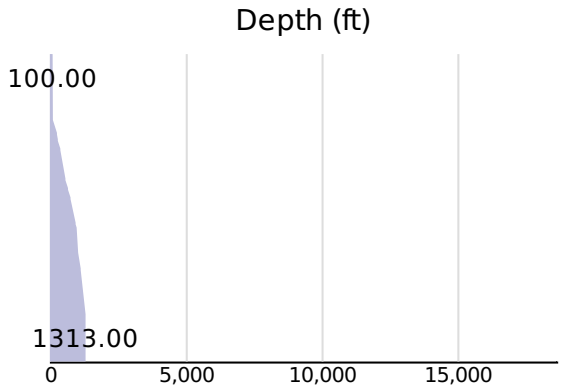
BHA 1

Surface 17.5"

In: **12/03/2020 20:30**
Out: **12/04/2020 12:45**



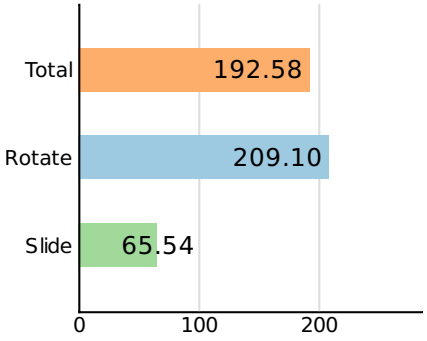


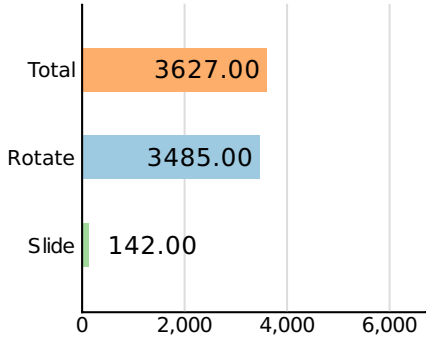


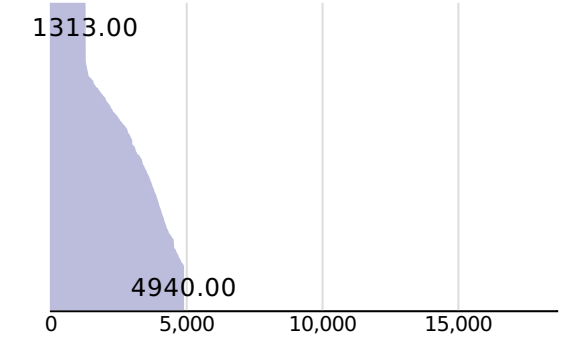
BHA 2

BHA #2 (12.25" Intermediate)

In: **12/09/2020 01:15**
Out: **12/10/2020 12:00**



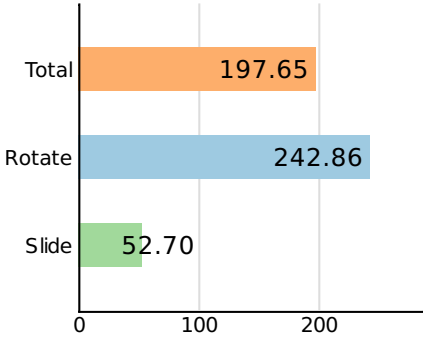


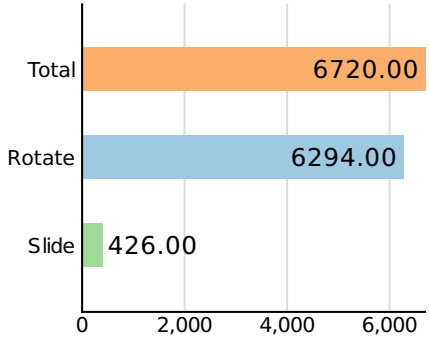


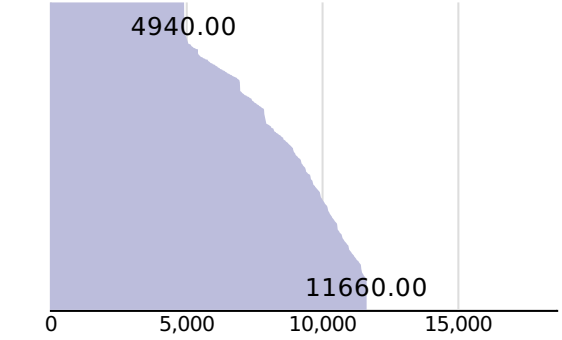
BHA 3

Intermediate 8.5"

In: **12/15/2020 12:00**
Out: **12/17/2020 23:00**



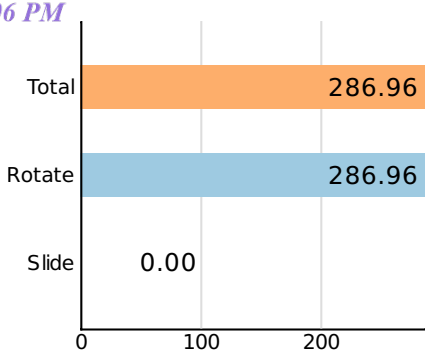


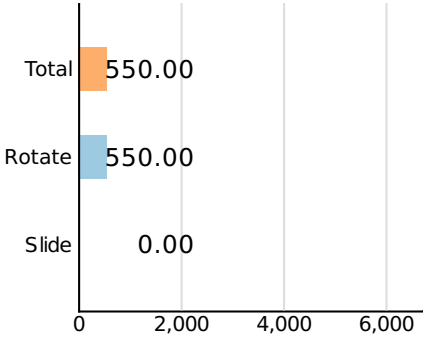


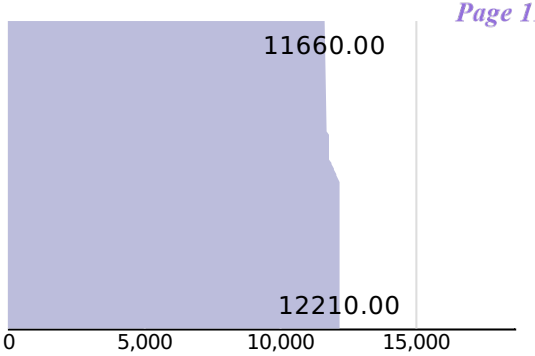
BHA 4

Intermediate 8.5"

In: **12/18/2020 00:15**
Out: **12/18/2020 23:00**



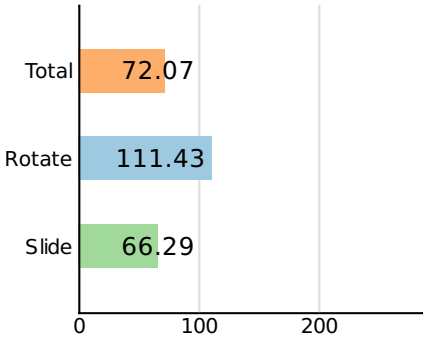


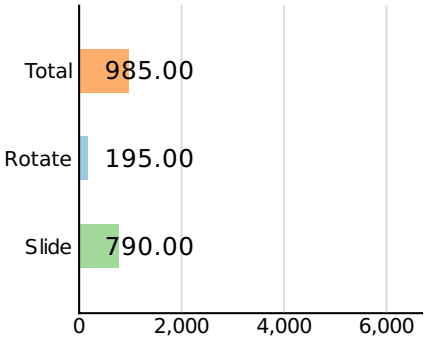


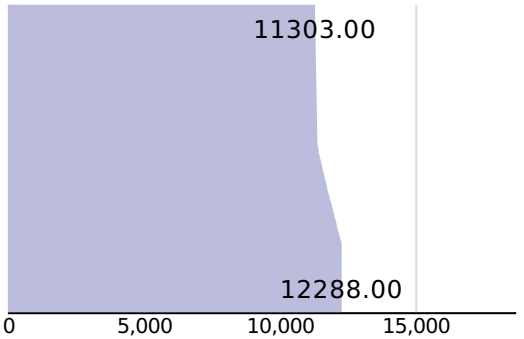
BHA 5

Curve 8.5"

In: **01/04/2021 23:30**
Out: **01/06/2021 10:30**



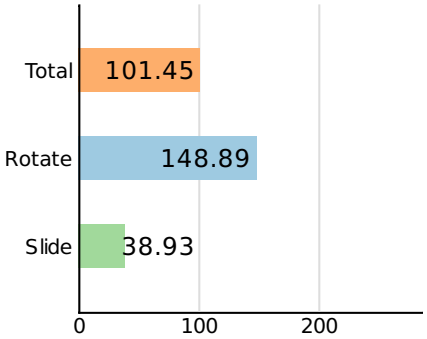


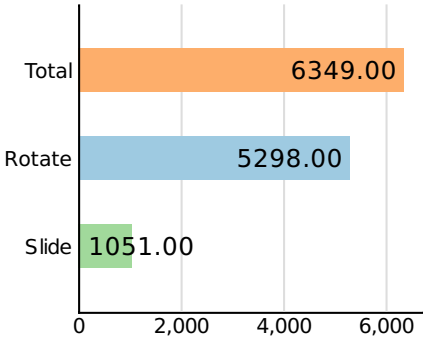


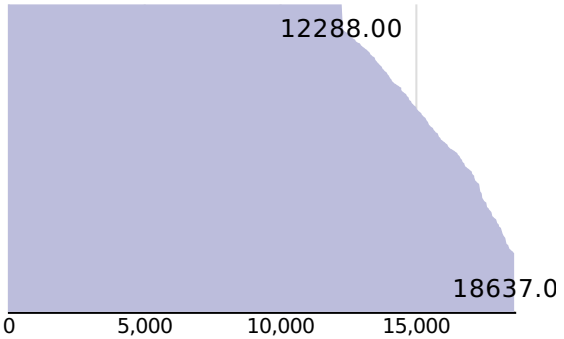
BHA 6

BHA #6 (Lateral Assembly)

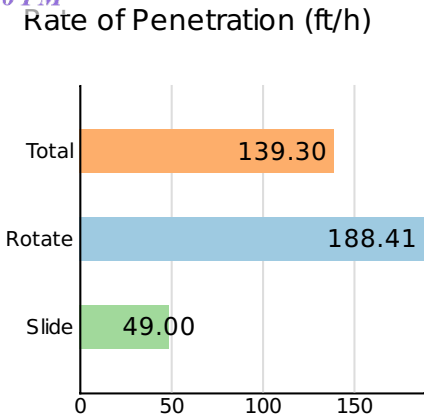
In: **01/06/2021 12:00**
Out: **01/10/2021 11:20**

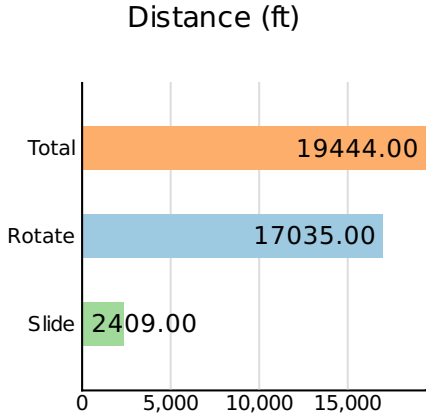


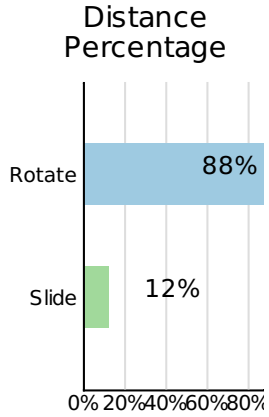


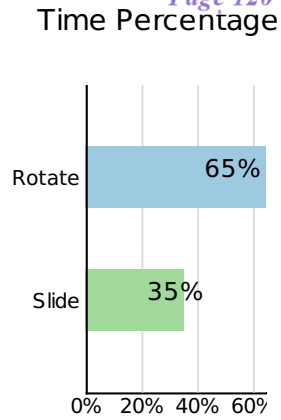


Total

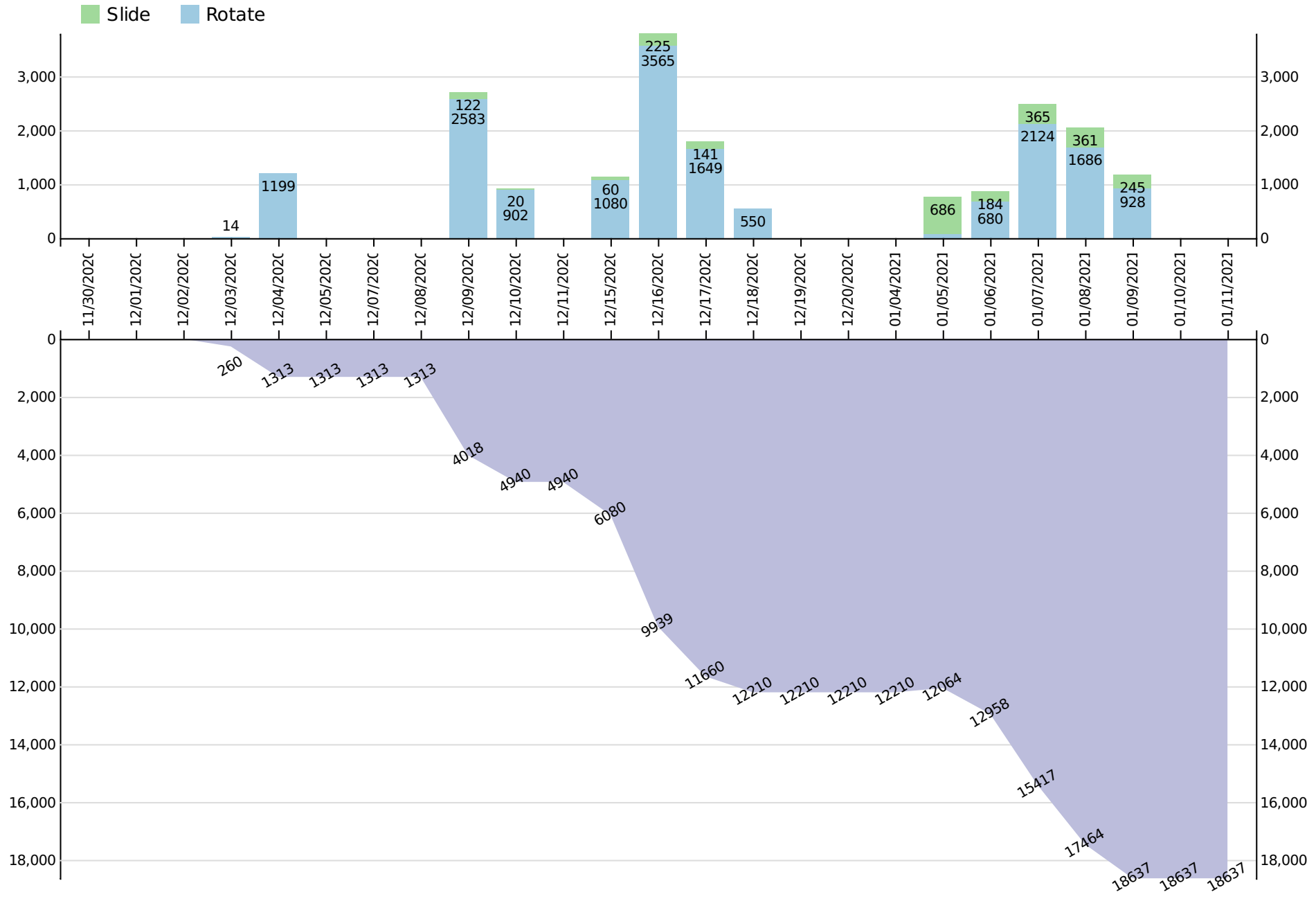

Rate of Penetration (ft/h)
Total
139.30
Rotate
188.41
Slide
49.00
0
50
100
150


Distance (ft)
Total
19444.00
Rotate
17035.00
Slide
2409.00
0
5,000
10,000
15,000

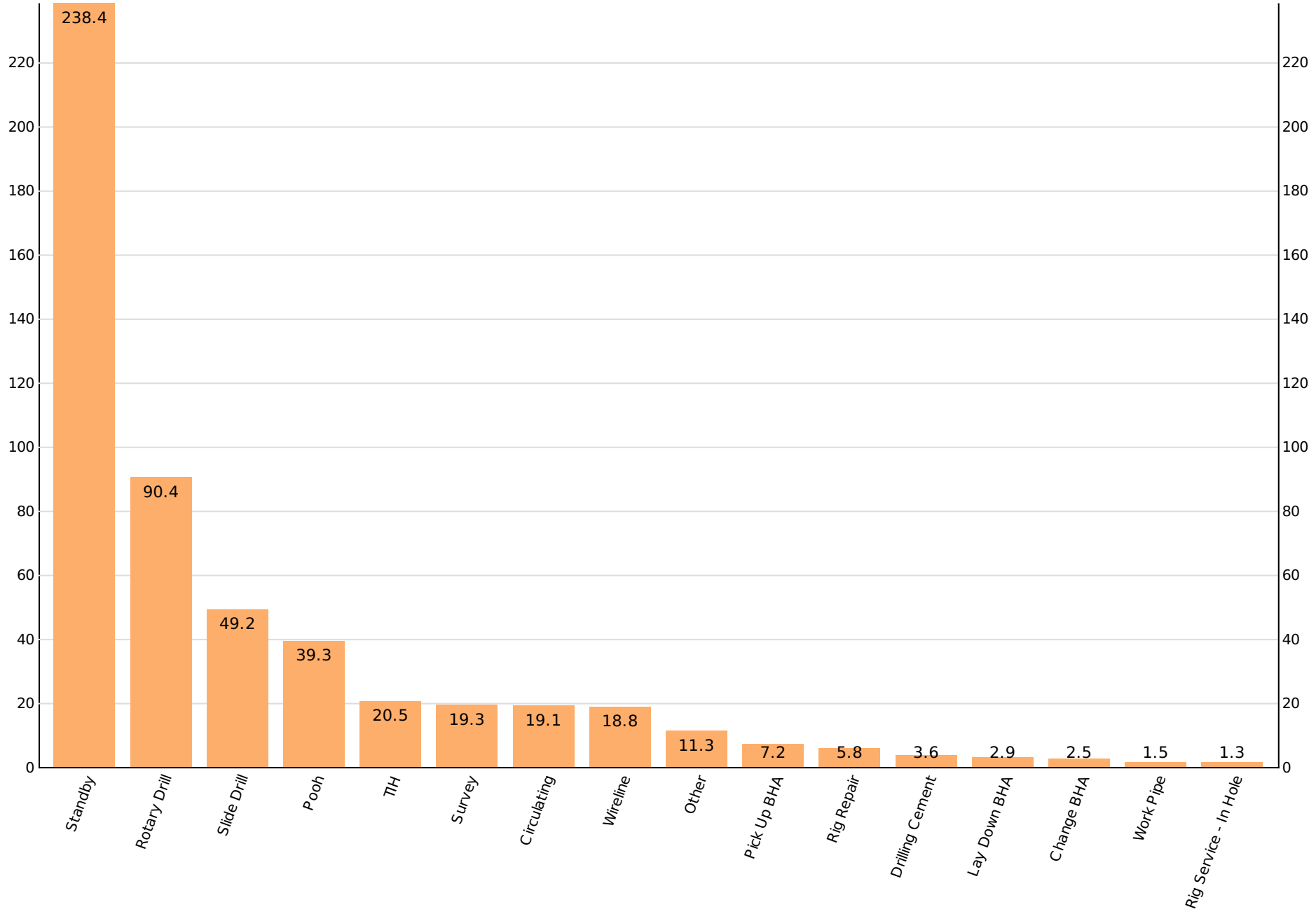

Distance Percentage
Rotate
88%
Slide
12%
0%
20%
40%
60%
80%


Time Percentage
Rotate
65%
Slide
35%
0%
20%
40%
60%

Days vs. Depth



Directional Activity Hours



Surface Plat

Anderson Fed Com 604H (WT-20-070)

2020-11-12 to 2021-01-15
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	604H
OGRID No.	**Operator Name**	**Elevation**
	ADVANCE ENERGY PARTNERS, LLC	3658'

Surface Location

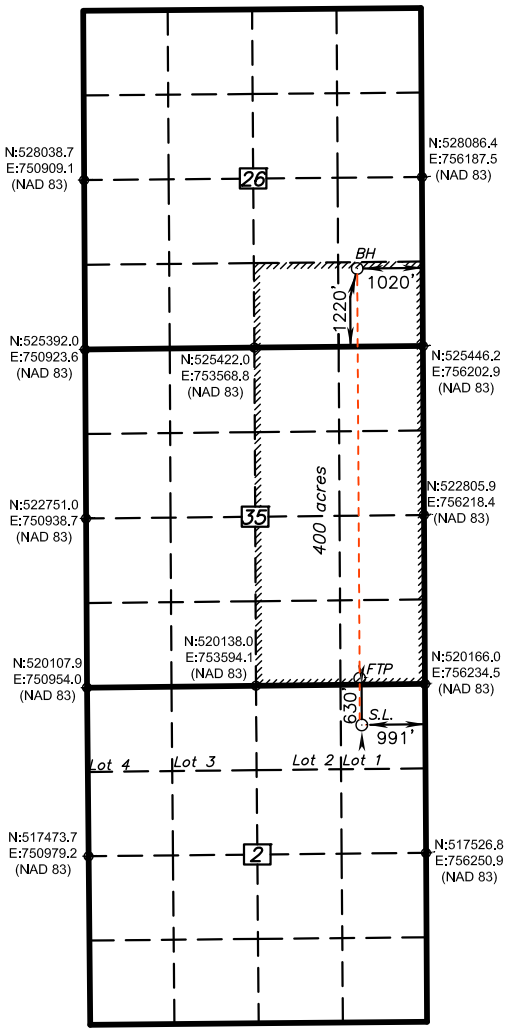
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 1	2	22 S	32 E		630	NORTH	991	EAST	LEA

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	1020	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 32.445937°
Long – W 103.640137°
NMSPCE– N 526656.9
E 755175.8
(NAD-83)

FIRST TAKE POINT
100' FSL & 1020' FEL
Lat – N 32.428341°
Long – W 103.640148°
NMSPCE– N 520255.3
E 755213.9
(NAD-83)

SURFACE LOCATION
Lat – N 32.426334°
Long – W 103.640054°
NMSPCE– N 519525.6
E 755247.7
(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.

JULY 22, 2020
Date Surveyed

Signature & Seal of Professional Surveyor

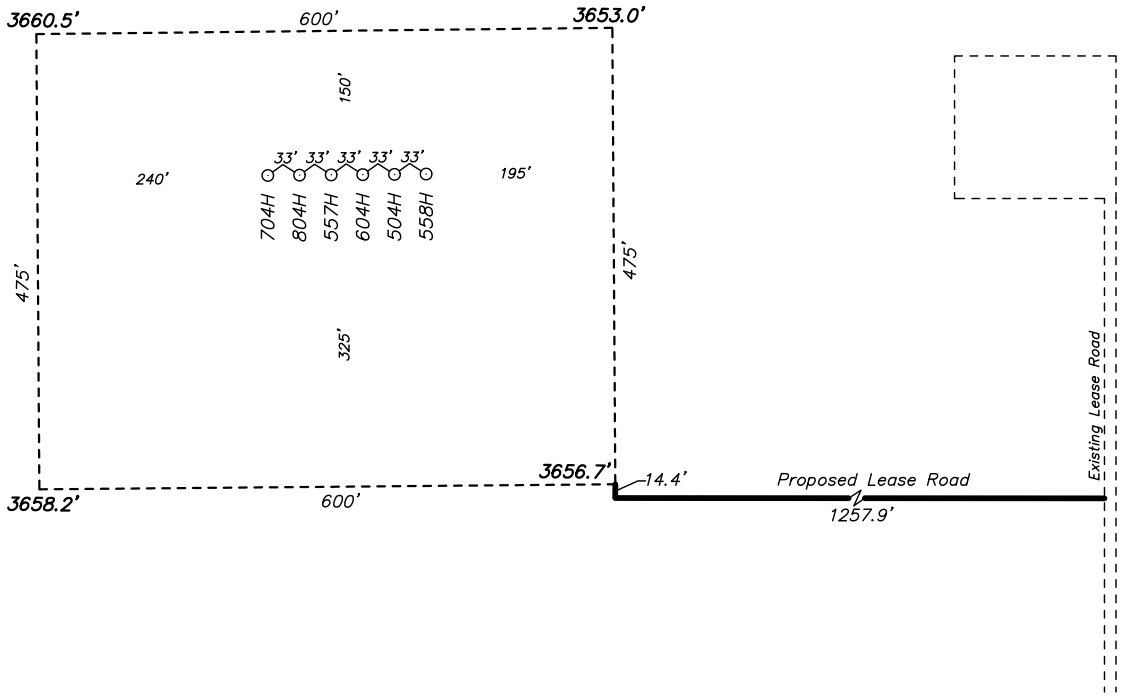
GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977
BASIN SURVEYS

0' 1500' 3000' 4500' 6000' N
SCALE: 1" = 3000'
WO Num.: 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 604H
ELEV. – 3658'

Lat – N 32.426334°
Long – W 103.640054°
NMSPCE– N 519525.6
E 755247.7
(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 604H / WELL PAD TOPO

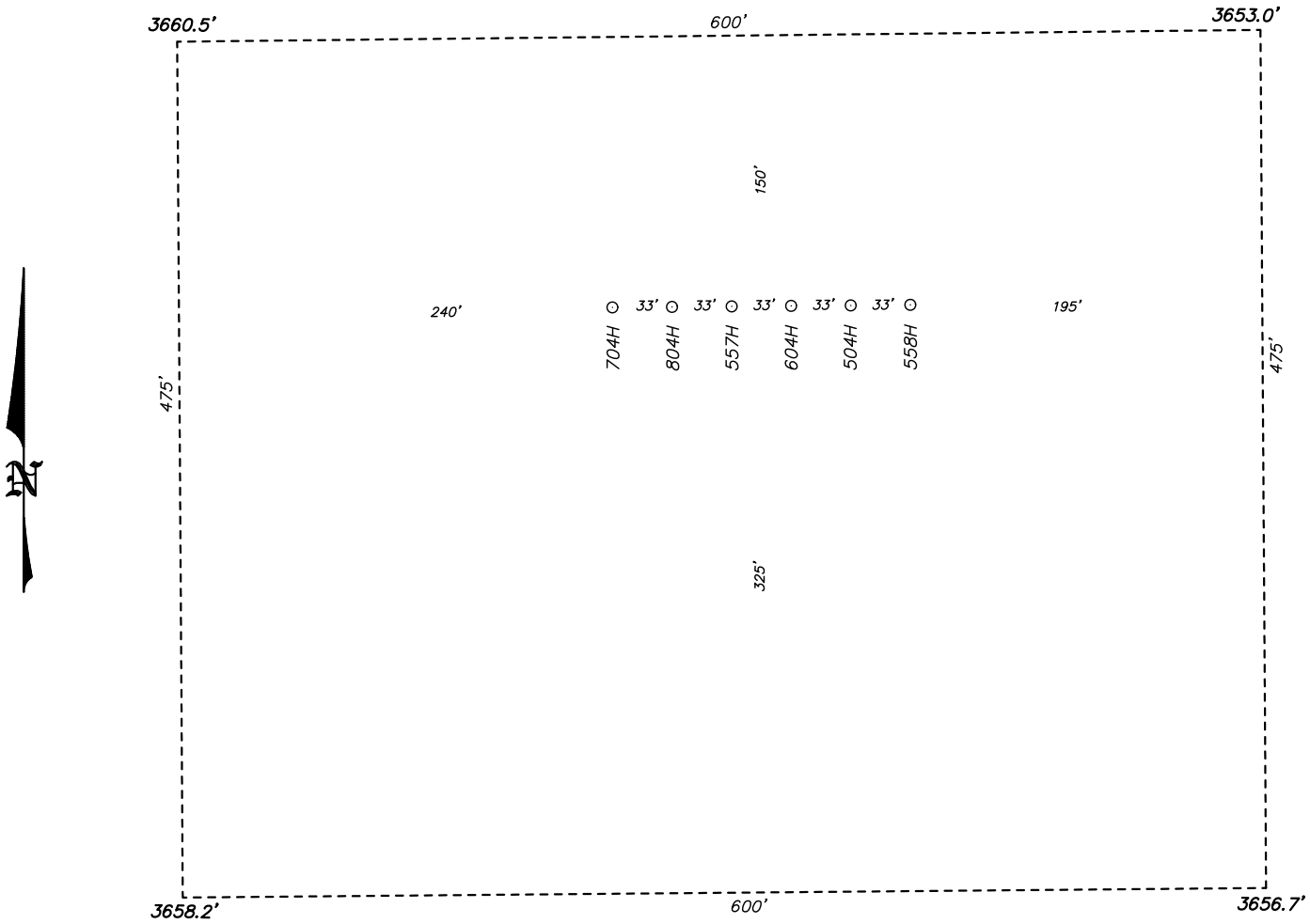
THE ANDERSON FED COM 604H LOCATED 630' FROM THE NORTH LINE AND 991' FROM THE EAST LINE OF SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

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 604H / WELL PAD TOPO

THE ANDERSON FED COM 604H LOCATED 630' FROM THE NORTH LINE AND 991' 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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basinsurveys.com

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 604H

Located 630' FNL and 991' 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'

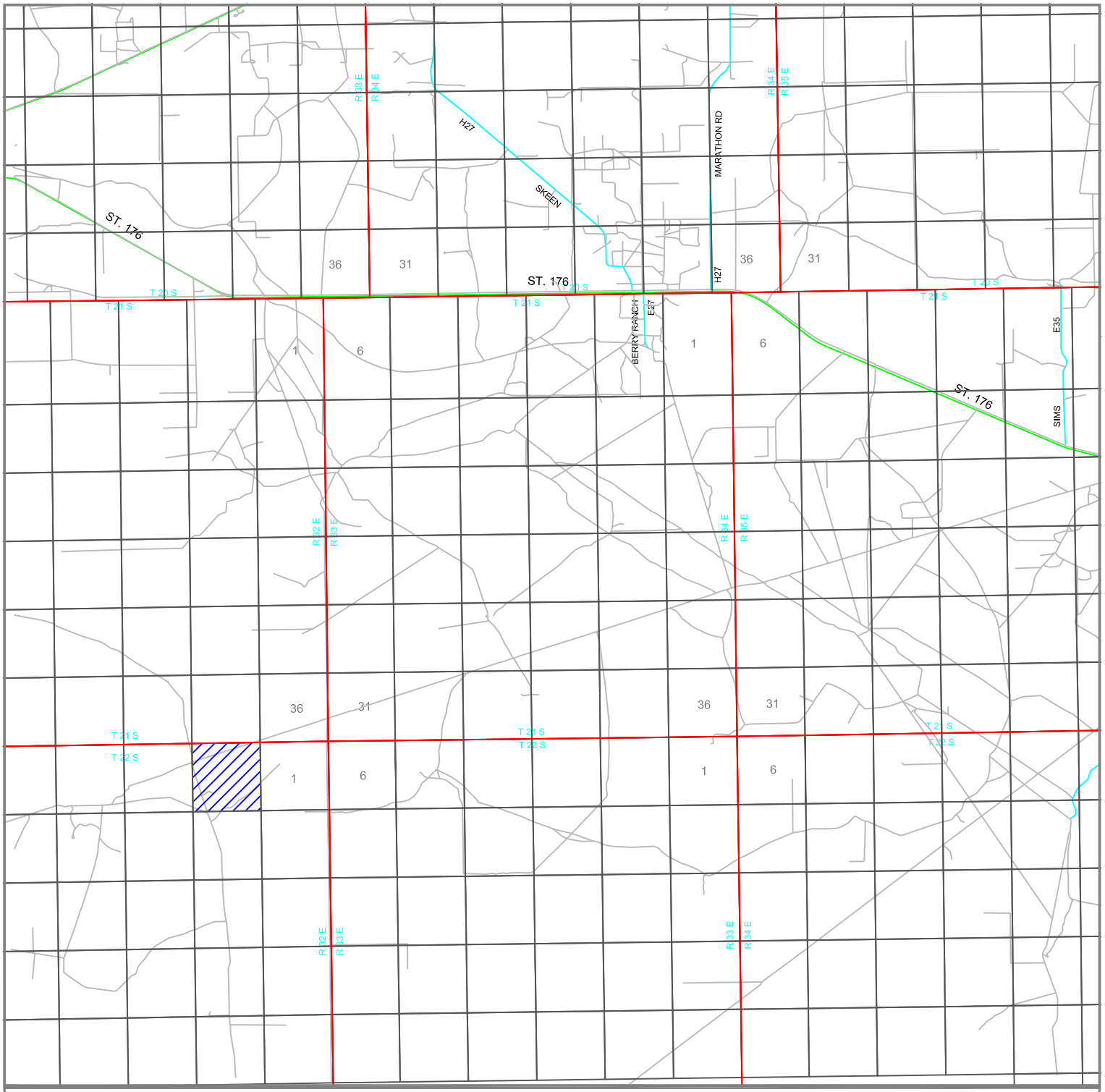
W.O. Number: KJG 35112

Survey Date: 07-22-2020

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

N

ADVANCE ENERGY PARTNERS, LLC



ANDERSON FED COM 604H

Located 630' FNL and 991' FEL
Section 2, Township 22 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.

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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

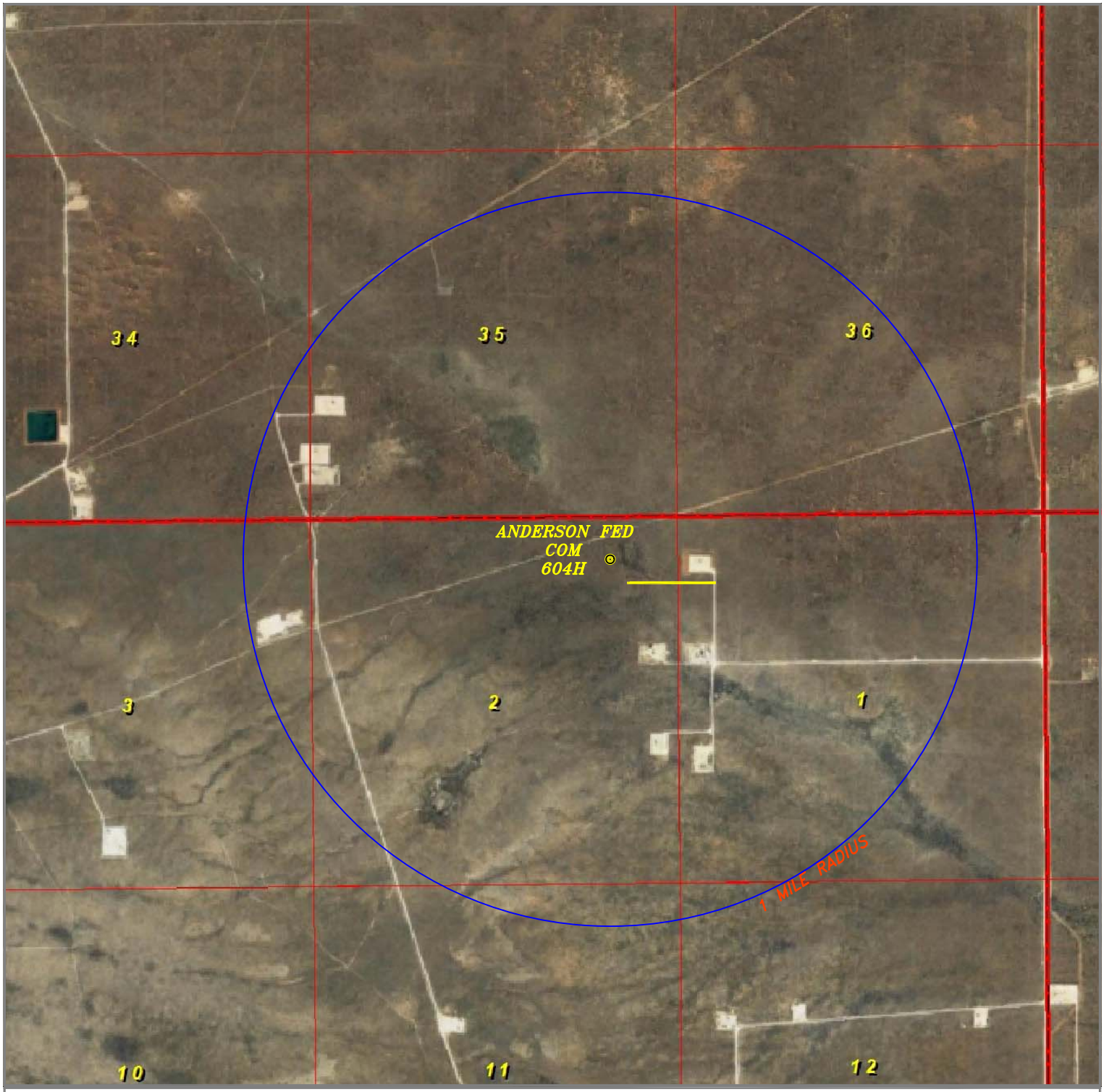
W.O. Number: KJG 35112

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 604H

Located 630' FNL and 991' 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

P.O. Box 1786
1120 N. West County Rd.
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

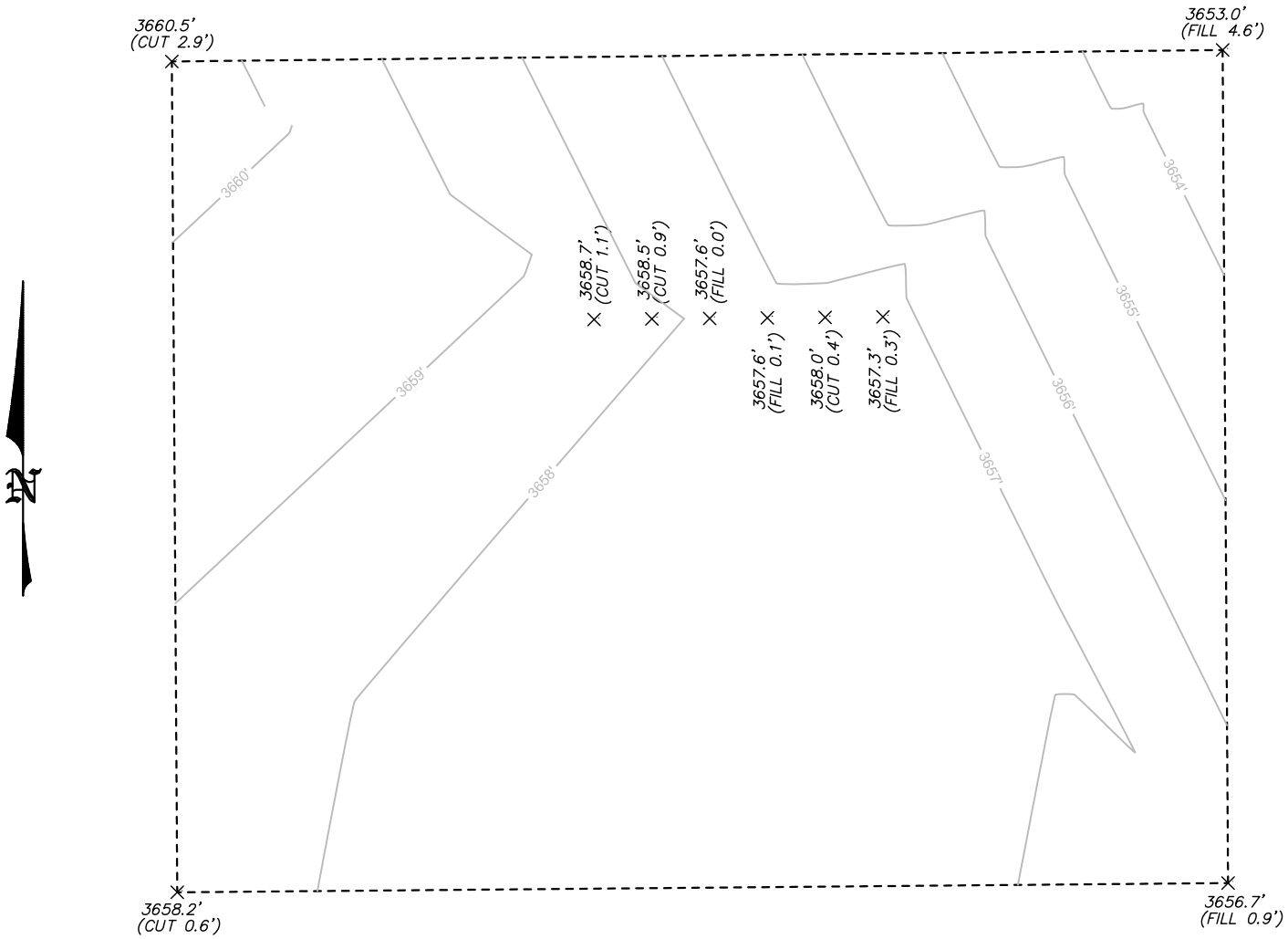
YELLOW TINT – USA LAND
BLUE TINT – STATE LAND
NATURAL COLOR – FEE LAND

N

ADVANCE ENERGY PARTNERS, LLC

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.

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

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.
30-025-48077

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
604H

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 991 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.)*
3,658'

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.

- 2/4/21: Pressure test casing to 9800 psi for 30 minutes.
- 3/3-12/21: Perforate from 12,146' – 18,527' (1968). Frac with 16,232,440 lbs sand and 18,727,422 gal fluid.
- 3/15-16/21: Drill all plugs out and clean out to a PBTD of 18,579'.
- 4/7/21: Begin flowback operations
- 5/21/21: Run 2-7/8" production tubing to 11,046' and ESP to 11,271'.

Spud Date: 12/3/20 Rig Release Date: 1/11/21

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: 8/4/22

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. 30-025-48077
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: 604H

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	991	E	LEA
BH:	P	26	21 S	32 E		1288	S	1034	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.)
12/3/20	1/9/21	1/11/21	4/7/21	3658’

18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run
18,637’	18,579’	YES	GAMMA

22. Producing Interval(s), of this completion - Top, Bottom, Name
12,146’-18,527’ - 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#	3,671’/4,924’	12.25”	1675	
5.5”	20#	18,617’	8.5”	2535	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-7/8”	11,046’	

26. Perforation record (interval, size, and number)
12,146’-18,527’ – 1968 holes

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

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
12,146’-18,527’	16,232,440 lbs sand, 18,727,422 bbls water

28. **PRODUCTION**

Date First Production	Production Method *(Flowing, gas lift, pumping - Size and type pump)*	Well Status *(Prod. or Shut-in)*
4/9/21	Free Flowing	Prod

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
5/10/21	24	90		710	1507	4445	2060

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas – MCF	Water - Bbl.	Oil Gravity - API - *(Corr.)*
N/A	260		710	1507	4445	41.1

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: 1/11/21
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: 8/4/22
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	T.Todilto	
T. Abo	T. 1BS 9,860MD/9,852TVD	T. Entrada	
T. Wolfcamp	T. 2SS 10,430MD/10,421TVD	T. Wingate	
T. Penn	T. 3SS 11,580MD/11,563TVD	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: 131625
	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

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	OGRID: 372417
	Action Number: 131625
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

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