

# PIONEER

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## NATURAL RESOURCES

### Meteorite Energy Services Survey Report

30 November, 2020

### PIONEER NATURAL RESOURCES

Midland Permian South

Reagan County

UNIVERSITY W2-34D #4H

API: 42-383-40906 TRRC: 864665

Survey: FINAL SURFACE SURVEYS (20MJ-669)



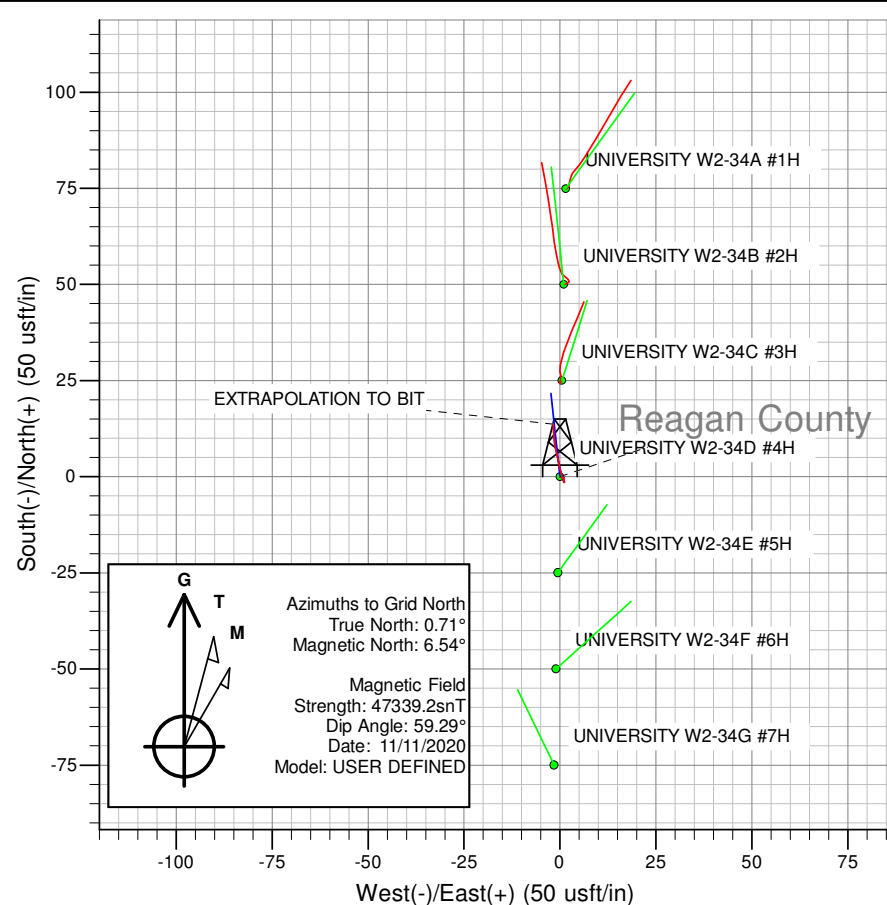
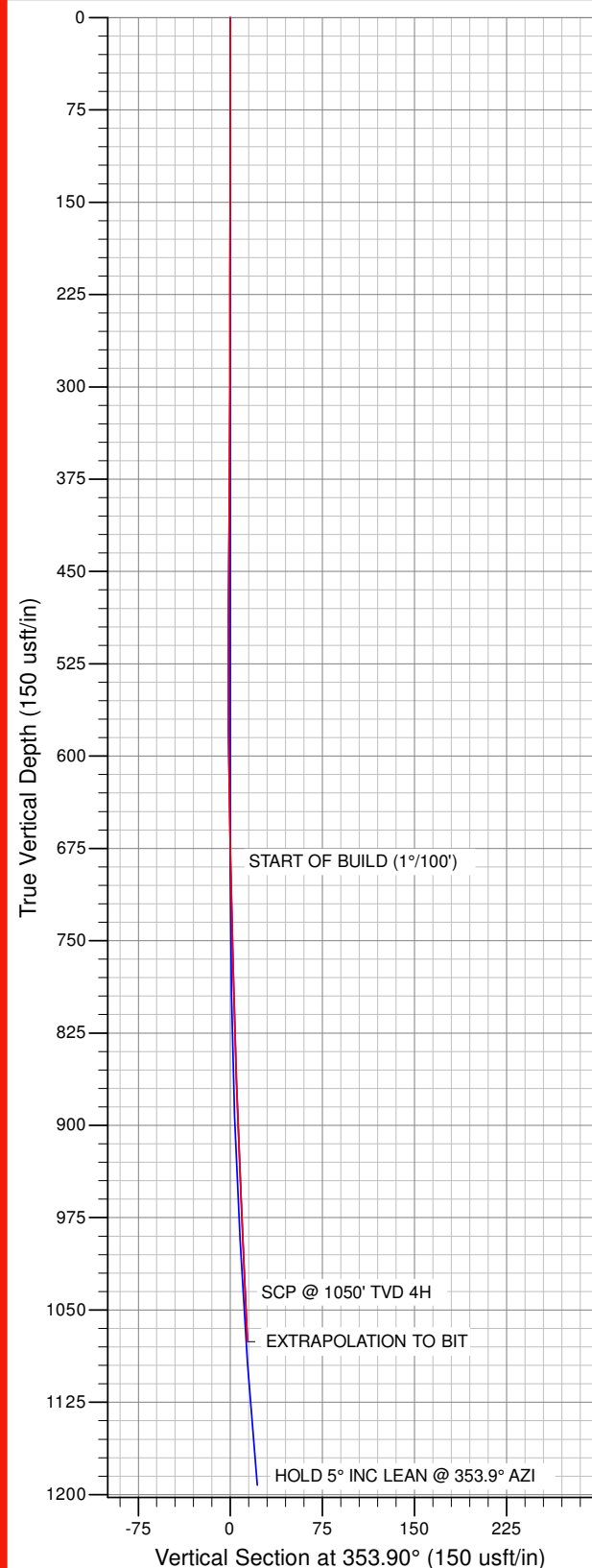
**METEORITE**  
*energy services*





### ANNOTATIONS

TVD MD Inc Azi +N/-S +E/-W VSect Annotation  
 1075.72 1076.00 2.60 356.50 13.71 -1.74 13.82 EXTRAPOLATION TO BIT



### PROJECT DETAILS: Midland Permian South

Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Texas Central 4203

System Datum: Mean Sea Level

### REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well UNIVERSITY W2-34D #4H, Grid North  
 Vertical (TVD) Reference: KB @ GL @ 2642.00usft (PINNERY 4)  
 Section (VS) Reference: Slot - (0.00N, 0.00E)  
 Measured Depth Reference: KB @ GL @ 2642.00usft (PINNERY 4)  
 Calculation Method: Minimum Curvature

Survey: FINAL SURFACE SURVEYS (20MJ-669) (UNIVERSITY W2-34D #4H/API: 42-383-40906 TRRC: 864665)

Created By: Meteorite Energy Services

Date: 12:38, November 30 2020

Checked: \_\_\_\_\_

Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_

Date: \_\_\_\_\_

Approved: \_\_\_\_\_

Date: \_\_\_\_\_

<b>Company:</b>	PIONEER NATURAL RESOURCES	<b>Local Co-ordinate Reference:</b>	Well UNIVERSITY W2-34D #4H
<b>Project:</b>	Midland Permian South	<b>TVD Reference:</b>	KB @ GL @ 2642.00usft (PINNERY 4)
<b>Site:</b>	Reagan County	<b>MD Reference:</b>	KB @ GL @ 2642.00usft (PINNERY 4)
<b>Well:</b>	UNIVERSITY W2-34D #4H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	API: 42-383-40906 TRRC: 864665	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURFACE SURVEYS (20MJ-669)	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Midland Permian South		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Texas Central 4203		

Site		Reagan County			
Site Position:		Northing:	614,939.50 usft	Latitude:	31° 21' 3.075988 N
From:	Map	Easting:	1,589,898.70 usft	Longitude:	101° 38' 49.684681 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.68 °

Well	UNIVERSITY W2-34D #4H					
Well Position	+N/-S	0.00 usft	Northing:	594,410.50 usft	Latitude:	31° 17' 37.219764 N
	+E/-W	0.00 usft	Easting:	1,567,598.80 usft	Longitude:	101° 43' 3.896433 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	2,642.00 usft

<b>Wellbore</b>	API: 42-383-40906 TRRC: 864665				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	User Defined	11/11/2020	5.83	59.29	47,339

Design		FINAL SURFACE SURVEYS (20MJ-669)		
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	353.90

<b>Survey Program</b>	<b>Date</b>	11/30/2020			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
120.27	1,076.00	FINAL SURFACE SURVEYS (20MJ-669) (	CLEAR MWD	MWD	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>Subsea Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>
0.00	0.00	0.00	0.00	2,642.00	0.00	0.00	0.00	0.00	0.00	0.00
120.27	0.40	107.10	120.27	2,521.73	-0.12	0.40	-0.17	0.33	0.33	0.00
211.12	0.10	65.20	211.12	2,430.88	-0.18	0.78	-0.26	0.37	-0.33	-46.12
298.55	0.20	135.90	298.55	2,343.45	-0.26	0.95	-0.36	0.22	0.11	80.86
390.79	0.40	176.30	390.79	2,251.21	-0.70	1.08	-0.81	0.30	0.22	43.80
485.13	0.50	179.50	485.12	2,156.88	-1.44	1.11	-1.55	0.11	0.11	3.39
579.94	0.60	348.60	579.93	2,062.07	-1.37	1.01	-1.47	1.16	0.11	178.36
674.24	1.10	336.30	674.22	1,967.78	-0.05	0.55	-0.11	0.56	0.53	-13.04
768.56	1.70	351.80	768.51	1,873.49	2.16	-0.01	2.15	0.75	0.64	16.43
863.20	1.70	343.70	863.11	1,778.89	4.90	-0.60	4.93	0.25	0.00	-8.56
957.56	2.60	351.80	957.40	1,684.60	8.36	-1.30	8.45	1.00	0.95	8.58
1,016.00	2.60	356.50	1,015.78	1,626.22	11.00	-1.57	11.10	0.36	0.00	8.04

<b>Company:</b>	PIONEER NATURAL RESOURCES	<b>Local Co-ordinate Reference:</b>	Well UNIVERSITY W2-34D #4H
<b>Project:</b>	Midland Permian South	<b>TVD Reference:</b>	KB @ GL @ 2642.00usft (PINNERGY 4)
<b>Site:</b>	Reagan County	<b>MD Reference:</b>	KB @ GL @ 2642.00usft (PINNERGY 4)
<b>Well:</b>	UNIVERSITY W2-34D #4H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	API: 42-383-40906 TRRC: 864665	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL SURFACE SURVEYS (20MJ-669)	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
EXTRAPOLATION TO BIT										
1,076.00	2.60	356.50	1,075.72	1,566.28	13.71	-1.74	13.82	0.00	0.00	0.00

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
W2-34A #1H FTP	0.00	360.00	5,535.00	1,156.79	782.77	595,567.29	1,568,381.57	31° 17' 48.765061 N	101° 42' 55.040677 W	
- survey misses target center by 4669.82usft at 1076.00usft MD (1075.72 TVD, 13.71 N, -1.74 E)										
- Point										
W2-34B #2H FTP	0.00	360.00	5,535.00	1,174.35	-117.62	595,584.85	1,567,481.18	31° 17' 48.828073 N	101° 43' 5.420444 W	
- survey misses target center by 4609.30usft at 1076.00usft MD (1075.72 TVD, 13.71 N, -1.74 E)										
- Point										
Interp @ 1050.00 (UNIV	0.00	0.00	1,025.00	10.64	-1.14	594,421.14	1,567,597.66	31° 17' 37.324926 N	101° 43' 3.911063 W	
- survey misses target center by 9.23usft at 1016.00usft MD (1015.78 TVD, 11.00 N, -1.57 E)										
- Point										
W2-34C #3H FTP	0.00	360.00	5,535.00	1,076.37	333.93	595,486.87	1,567,932.73	31° 17' 47.913934 N	101° 43' 0.202212 W	
- survey misses target center by 4596.42usft at 1076.00usft MD (1075.72 TVD, 13.71 N, -1.74 E)										
- Point										
W2-34D #4H FTP	0.00	360.00	5,535.00	1,085.56	-115.98	595,496.06	1,567,482.82	31° 17' 47.949497 N	101° 43' 5.388816 W	
- survey misses target center by 4587.71usft at 1076.00usft MD (1075.72 TVD, 13.71 N, -1.74 E)										
- Point										

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,076.00	1,075.72	13.71	-1.74	EXTRAPOLATION TO BIT	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



## Survey Certification

I, Bryson Kriz, an authorized employee of Meteorite Energy Services Inc., have verified the MWD surveys performed on **11/19/2020** to **11/20/2020**, from **120'** to **1076'**. The data are true, correct, complete and within the limitations of the tool. This survey was conducted at the request of Pioneer Natural Resources for # **864665 (42-383-40906)** drilled in Reagan County, Texas.

Sincerely

Meteorite Energy Services Inc.

A handwritten signature in black ink, appearing to read "Bryson A. Kriz", with a stylized flourish at the end.

**Bryson A. Kriz** B.a.GIS | Technical Operations Coordinator

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