

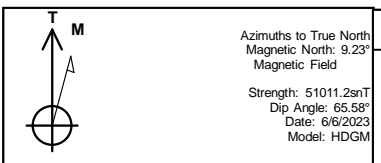


REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well TR 431-28-597 - Slot TR 431-28-597, True North
 Vertical (TVD) Reference: RKB @ 30' @ 8513.0ft
 Section (VS) Reference: Slot - TR 431-28-597(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 30' @ 8513.0ft
 Calculation Method: Minimum Curvature

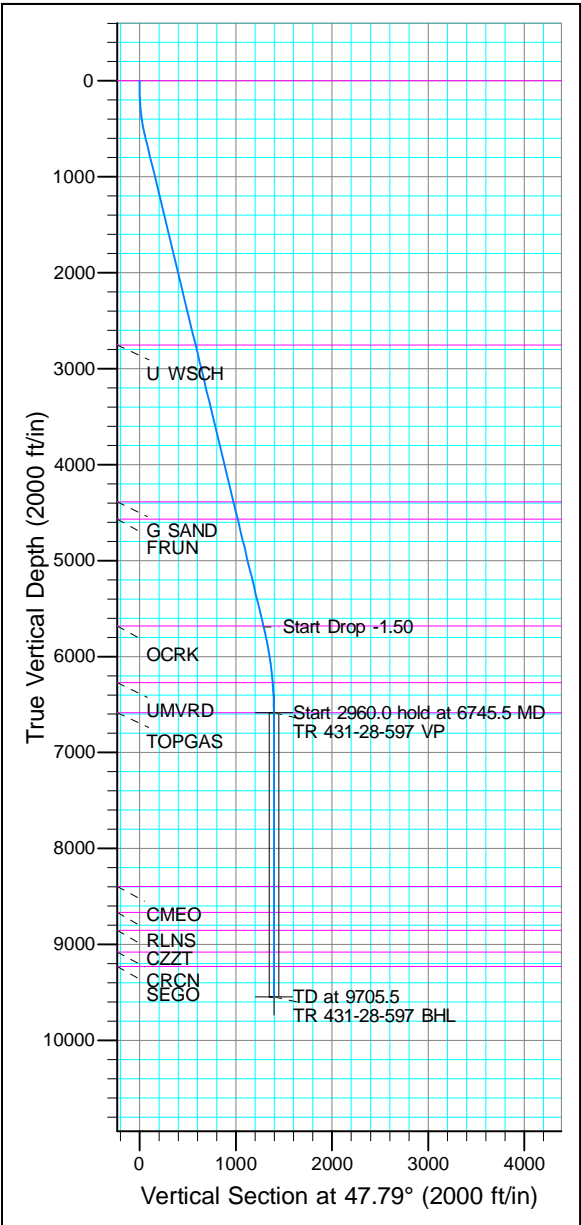


Project: Garfield County, CO (Nad 83)
 Site: TR 32-28-597 Pad
 Well: TR 431-28-597
 Wellbore: OWB
 Design: Plan



WELL DETAILS: TR 431-28-597

Azimuths to True North Magnetic North: 9.23° Magnetic Field				Ground Level: 8483.0	Latitude	Longitude	Slot
Strength: 51011.2srT Dip Angle: 65.58° Date: 6/6/2023 Model: HDGM	+N/-S 0.0	+E/-W 0.0	Northing 1650739.200	Easting 2216051.200	39.587114	-108.282021	TR 431-28-597



ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	V Sect	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 3.00
567.8	572.0	13.56	47.79	35.8	39.4	53.2	53.2	Start 5269.5 hold at 572.0
5690.4	5841.5	13.56	47.79	865.8	954.6	1288.8	1288.8	Start Drop -1.50
6586.0	6745.5	0.00	0.00	937.4	1033.5	1395.3	1395.3	Start 2960.0 hold at 6745.5
9546.0	9705.5	0.00	0.00	937.4	1033.5	1395.3	1395.3	TD at 9705.5

FORMATION TOP DETAILS

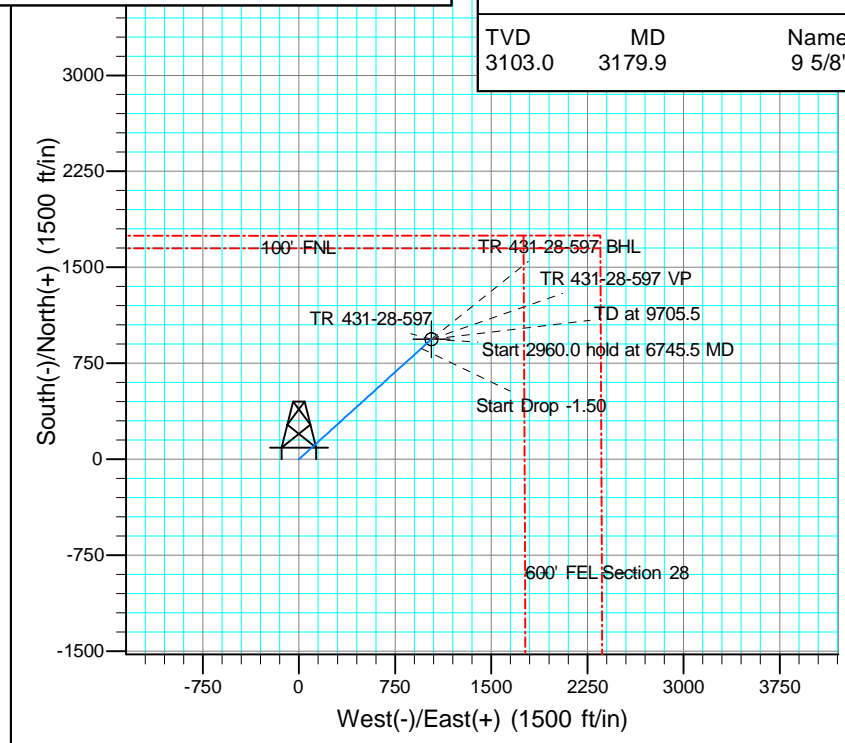
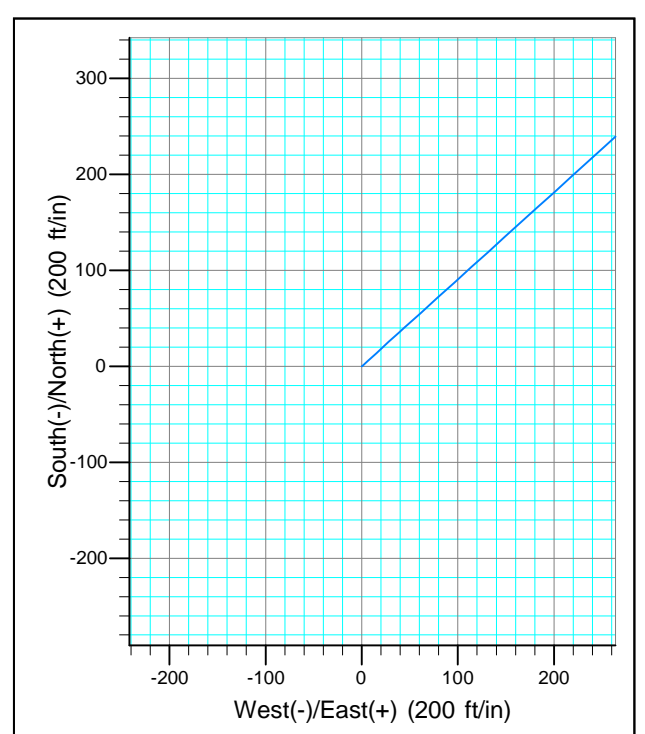
TVDPath	MDPath	Formation
0.0	0.0	GRRV
2753.0	2819.9	U WSCH
4387.0	4500.7	G SAND
4566.0	4684.9	FRUN
5679.0	5829.8	OCRK
6269.0	6428.2	UMVRD
6586.0	6745.5	TOPGAS
8395.0	8554.5	CMEO
8665.0	8824.5	RLNS
8852.0	9011.5	CZZT
9080.0	9239.5	CRCN
9230.0	9389.5	SEGO

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
VP	6586.0	937.4	1033.5	1651644.500	2217112.900	39.589688	-108.278354	Point
BHL	9546.0	937.4	1033.5	1651644.500	2217112.900	39.589688	-108.278354	Circle (Radius: 50.0)

CASING DETAILS

TVD	MD	Name
3103.0	3179.9	9 5/8"





Terra Energy Partners, LLP

Garfield County, CO (Nad 83)

TR 32-28-597 Pad

TR 431-28-597 - Slot TR 431-28-597

OWB

Plan: Plan

Standard Planning Report

24 July, 2023



Database:	NN	Local Co-ordinate Reference:	Well TR 431-28-597 - Slot TR 431-28-597
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8513.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8513.0ft
Site:	TR 32-28-597 Pad	North Reference:	True
Well:	TR 431-28-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Project	Garfield County, CO (Nad 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	TR 32-28-597 Pad, Sec 28, T5S, R97W				
Site Position:	Northing:	1,650,709.300 usft	Latitude:	39.587032	
From: Map	Easting:	2,216,053.200 usft	Longitude:	-108.282011	
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.75 °

Well	TR 431-28-597 - Slot TR 431-28-597					
Well Position	+N/-S	29.8 ft	Northing:	1,650,739.200 usft	Latitude:	39.587114
	+E/-W	-2.9 ft	Easting:	2,216,051.200 usft	Longitude:	-108.282021
Position Uncertainty		0.0 ft	Wellhead Elevation:	8,513.0 ft	Ground Level:	8,483.0 ft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/6/2023	9.23	65.58	51,011

Design	Plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	47.79

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.00	
572.0	13.56	47.79	567.8	35.8	39.4	3.00	3.00	0.00	47.79	
5,841.5	13.56	47.79	5,690.4	865.8	954.6	0.00	0.00	0.00	0.00	
6,745.5	0.00	0.00	6,586.0	937.4	1,033.5	1.50	-1.50	0.00	180.00	
9,705.5	0.00	0.00	9,546.0	937.4	1,033.5	0.00	0.00	0.00	0.00	TR 431-28-597 BHL

Database:	NN	Local Co-ordinate Reference:	Well TR 431-28-597 - Slot TR 431-28-597
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8513.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8513.0ft
Site:	TR 32-28-597 Pad	North Reference:	True
Well:	TR 431-28-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Start Build 3.00										
200.0	2.40	47.79	200.0	1.1	1.2	1.7	3.00	3.00	0.00	0.00
300.0	5.40	47.79	299.7	5.7	6.3	8.5	3.00	3.00	0.00	0.00
400.0	8.40	47.79	399.0	13.8	15.2	20.5	3.00	3.00	0.00	0.00
500.0	11.40	47.79	497.5	25.3	27.9	37.7	3.00	3.00	0.00	0.00
572.0	13.56	47.79	567.8	35.8	39.4	53.2	3.00	3.00	0.00	0.00
Start 5269.5 hold at 572.0 MD										
600.0	13.56	47.79	595.0	40.2	44.3	59.8	0.00	0.00	0.00	0.00
700.0	13.56	47.79	692.2	55.9	61.7	83.2	0.00	0.00	0.00	0.00
800.0	13.56	47.79	789.4	71.7	79.0	106.7	0.00	0.00	0.00	0.00
900.0	13.56	47.79	886.6	87.4	96.4	130.1	0.00	0.00	0.00	0.00
1,000.0	13.56	47.79	983.9	103.2	113.8	153.6	0.00	0.00	0.00	0.00
1,100.0	13.56	47.79	1,081.1	118.9	131.1	177.0	0.00	0.00	0.00	0.00
1,200.0	13.56	47.79	1,178.3	134.7	148.5	200.5	0.00	0.00	0.00	0.00
1,300.0	13.56	47.79	1,275.5	150.4	165.9	223.9	0.00	0.00	0.00	0.00
1,400.0	13.56	47.79	1,372.7	166.2	183.2	247.4	0.00	0.00	0.00	0.00
1,500.0	13.56	47.79	1,469.9	182.0	200.6	270.8	0.00	0.00	0.00	0.00
1,600.0	13.56	47.79	1,567.1	197.7	218.0	294.3	0.00	0.00	0.00	0.00
1,700.0	13.56	47.79	1,664.3	213.5	235.3	317.7	0.00	0.00	0.00	0.00
1,800.0	13.56	47.79	1,761.6	229.2	252.7	341.2	0.00	0.00	0.00	0.00
1,900.0	13.56	47.79	1,858.8	245.0	270.1	364.6	0.00	0.00	0.00	0.00
2,000.0	13.56	47.79	1,956.0	260.7	287.4	388.1	0.00	0.00	0.00	0.00
2,100.0	13.56	47.79	2,053.2	276.5	304.8	411.5	0.00	0.00	0.00	0.00
2,200.0	13.56	47.79	2,150.4	292.2	322.2	435.0	0.00	0.00	0.00	0.00
2,300.0	13.56	47.79	2,247.6	308.0	339.5	458.4	0.00	0.00	0.00	0.00
2,400.0	13.56	47.79	2,344.8	323.7	356.9	481.9	0.00	0.00	0.00	0.00
2,500.0	13.56	47.79	2,442.0	339.5	374.3	505.3	0.00	0.00	0.00	0.00
2,600.0	13.56	47.79	2,539.3	355.2	391.6	528.7	0.00	0.00	0.00	0.00
2,700.0	13.56	47.79	2,636.5	371.0	409.0	552.2	0.00	0.00	0.00	0.00
2,800.0	13.56	47.79	2,733.7	386.7	426.4	575.6	0.00	0.00	0.00	0.00
2,900.0	13.56	47.79	2,830.9	402.5	443.7	599.1	0.00	0.00	0.00	0.00
3,000.0	13.56	47.79	2,928.1	418.2	461.1	622.5	0.00	0.00	0.00	0.00
3,100.0	13.56	47.79	3,025.3	434.0	478.5	646.0	0.00	0.00	0.00	0.00
3,200.0	13.56	47.79	3,122.5	449.7	495.9	669.4	0.00	0.00	0.00	0.00
3,300.0	13.56	47.79	3,219.7	465.5	513.2	692.9	0.00	0.00	0.00	0.00
3,400.0	13.56	47.79	3,317.0	481.2	530.6	716.3	0.00	0.00	0.00	0.00
3,500.0	13.56	47.79	3,414.2	497.0	548.0	739.8	0.00	0.00	0.00	0.00
3,600.0	13.56	47.79	3,511.4	512.8	565.3	763.2	0.00	0.00	0.00	0.00
3,700.0	13.56	47.79	3,608.6	528.5	582.7	786.7	0.00	0.00	0.00	0.00
3,800.0	13.56	47.79	3,705.8	544.3	600.1	810.1	0.00	0.00	0.00	0.00
3,900.0	13.56	47.79	3,803.0	560.0	617.4	833.6	0.00	0.00	0.00	0.00
4,000.0	13.56	47.79	3,900.2	575.8	634.8	857.0	0.00	0.00	0.00	0.00
4,100.0	13.56	47.79	3,997.4	591.5	652.2	880.5	0.00	0.00	0.00	0.00
4,200.0	13.56	47.79	4,094.7	607.3	669.5	903.9	0.00	0.00	0.00	0.00
4,300.0	13.56	47.79	4,191.9	623.0	686.9	927.4	0.00	0.00	0.00	0.00
4,400.0	13.56	47.79	4,289.1	638.8	704.3	950.8	0.00	0.00	0.00	0.00
4,500.0	13.56	47.79	4,386.3	654.5	721.6	974.2	0.00	0.00	0.00	0.00
4,600.0	13.56	47.79	4,483.5	670.3	739.0	997.7	0.00	0.00	0.00	0.00
4,700.0	13.56	47.79	4,580.7	686.0	756.4	1,021.1	0.00	0.00	0.00	0.00
4,800.0	13.56	47.79	4,677.9	701.8	773.7	1,044.6	0.00	0.00	0.00	0.00
4,900.0	13.56	47.79	4,775.1	717.5	791.1	1,068.0	0.00	0.00	0.00	0.00

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Site:	TR 32-28-597 Pad	North Reference:	True
Well:	TR 431-28-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,000.0	13.56	47.79	4,872.4	733.3	808.5	1,091.5	0.00	0.00	0.00	
5,100.0	13.56	47.79	4,969.6	749.0	825.8	1,114.9	0.00	0.00	0.00	
5,200.0	13.56	47.79	5,066.8	764.8	843.2	1,138.4	0.00	0.00	0.00	
5,300.0	13.56	47.79	5,164.0	780.5	860.6	1,161.8	0.00	0.00	0.00	
5,400.0	13.56	47.79	5,261.2	796.3	877.9	1,185.3	0.00	0.00	0.00	
5,500.0	13.56	47.79	5,358.4	812.1	895.3	1,208.7	0.00	0.00	0.00	
5,600.0	13.56	47.79	5,455.6	827.8	912.7	1,232.2	0.00	0.00	0.00	
5,700.0	13.56	47.79	5,552.8	843.6	930.0	1,255.6	0.00	0.00	0.00	
5,800.0	13.56	47.79	5,650.0	859.3	947.4	1,279.1	0.00	0.00	0.00	
5,841.5	13.56	47.79	5,690.4	865.8	954.6	1,288.8	0.00	0.00	0.00	
Start Drop -1.50										
5,900.0	12.68	47.79	5,747.4	874.8	964.5	1,302.1	1.50	-1.50	0.00	
6,000.0	11.18	47.79	5,845.2	888.7	979.8	1,322.7	1.50	-1.50	0.00	
6,100.0	9.68	47.79	5,943.5	900.8	993.2	1,340.9	1.50	-1.50	0.00	
6,200.0	8.18	47.79	6,042.3	911.3	1,004.7	1,356.4	1.50	-1.50	0.00	
6,300.0	6.68	47.79	6,141.5	919.9	1,014.3	1,369.3	1.50	-1.50	0.00	
6,400.0	5.18	47.79	6,240.9	926.9	1,021.9	1,379.7	1.50	-1.50	0.00	
6,500.0	3.68	47.79	6,340.6	932.1	1,027.6	1,387.4	1.50	-1.50	0.00	
6,600.0	2.18	47.79	6,440.5	935.5	1,031.4	1,392.5	1.50	-1.50	0.00	
6,700.0	0.68	47.79	6,540.5	937.2	1,033.3	1,395.0	1.50	-1.50	0.00	
6,745.5	0.00	0.00	6,586.0	937.4	1,033.5	1,395.3	1.50	-1.50	-104.98	
Start 2960.0 hold at 6745.5 MD										
6,800.0	0.00	0.00	6,640.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,740.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,840.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,100.0	0.00	0.00	6,940.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,040.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,140.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,240.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,340.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,440.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,540.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,640.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,740.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,840.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,940.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,040.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,140.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,240.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,340.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,440.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,540.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,640.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,740.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,840.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
9,100.0	0.00	0.00	8,940.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,040.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,140.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,240.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,340.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,440.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,540.5	937.4	1,033.5	1,395.3	0.00	0.00	0.00	
9,705.5	0.00	0.00	9,546.0	937.4	1,033.5	1,395.3	0.00	0.00	0.00	

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Site:	TR 32-28-597 Pad	North Reference:	True
Well:	TR 431-28-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TD at 9705.5									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TR 431-28-597 VP - hit/miss target - Shape - Point	0.00	0.00	6,586.0	937.4	1,033.5	1,651,644.500	2,217,112.900	39.589688	-108.278354
TR 431-28-597 BHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	9,546.0	937.4	1,033.5	1,651,644.500	2,217,112.900	39.589688	-108.278354

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
3,179.9	3,103.0	9 5/8"	9-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.0	0.0	GRRV		0.00		
2,819.9	2,753.0	U WSCH		0.00		
4,500.7	4,387.0	G SAND		0.00		
4,684.9	4,566.0	FRUN		0.00		
5,829.8	5,679.0	OCRK		0.00		
6,428.2	6,269.0	UMVRD		0.00		
6,745.5	6,586.0	TOPGAS		0.00		
8,554.5	8,395.0	CME0		0.00		
8,824.5	8,665.0	RLNS		0.00		
9,011.5	8,852.0	CZZT		0.00		
9,239.5	9,080.0	CRCN		0.00		
9,389.5	9,230.0	SEGO		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
120.0	120.0	0.0	0.0	Start Build 3.00	
572.0	567.8	35.8	39.4	Start 5269.5 hold at 572.0 MD	
5,841.5	5,690.4	865.8	954.6	Start Drop -1.50	
6,745.5	6,586.0	937.4	1,033.5	Start 2960.0 hold at 6745.5 MD	
9,705.5	9,546.0	937.4	1,033.5	TD at 9705.5	