



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well TR 612-28-597 - Slot TR 612-28-597, True North
Vertical (TVD) Reference: RKB @ 30' @ 8513.0ft
Section (VS) Reference: Slot - TR 612-28-597(0.0N, 0.0E)
Measured Depth Reference: RKB @ 30' @ 8513.0ft
Calculation Method: Minimum Curvature

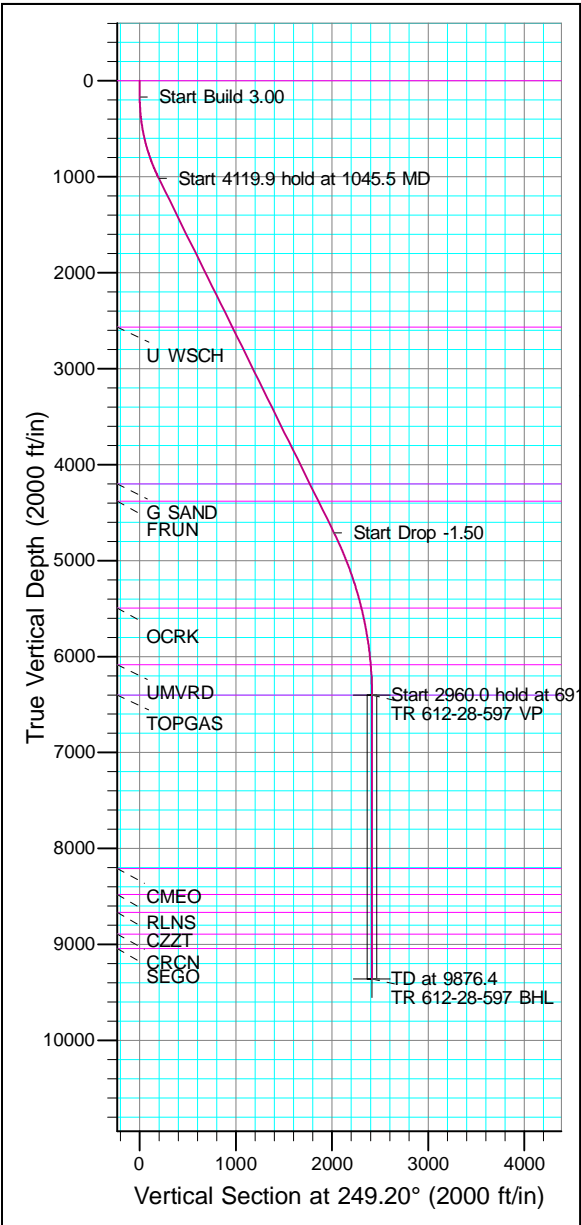


Project: Garfield County, CO (Nad 83)
Site: TR 32-28-597 Pad
Well: TR 612-28-597
Wellbore: OWB
Design: Plan

Azimuths to True North
Magnetic North: 9.23°
Magnetic Field

Strength: 51011.5nT
Dip Angle: 65.58°
Date: 6/5/2023
Model: HDGM

WELL DETAILS: TR 612-28-597					
+N/-S	+E/-W	Northing	Ground Level: 8483.0 Easting	Latitude	Longitude
0.0	0.0	1650701.800	2216053.600	39.587012	-108.282009
				Slot	
				TR 612-28-597	

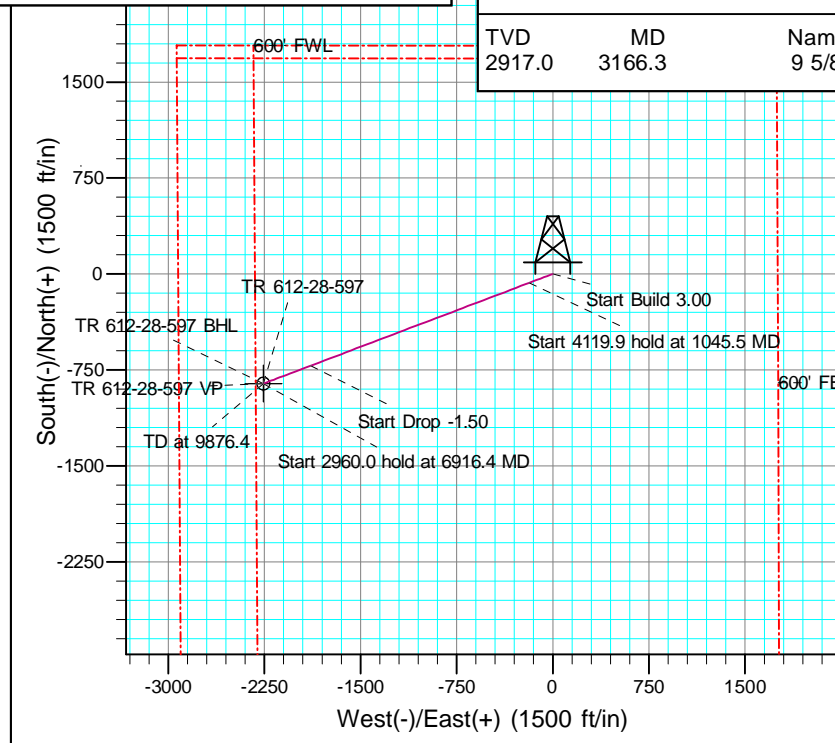
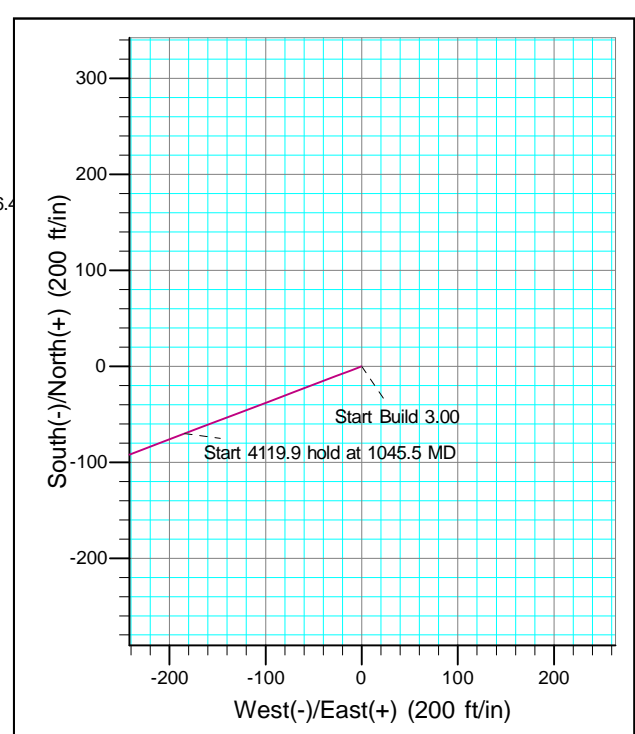


ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
170.0	170.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 3.00	
1015.2	1045.5	26.27	249.20	-70.0	-184.3	197.2	197.2	Start 4119.9 hold at 1045.5 MD	
4709.7	5165.4	26.27	249.20	-717.5	-1888.6	2020.3	2020.3	Start Drop -1.50	
6400.0	6916.4	0.00	0.00	-857.5	-2257.3	2414.7	2414.7	Start 2960.0 hold at 6916.4 MD	
9360.0	9876.4	0.00	0.00	-857.5	-2257.3	2414.7	2414.7	TD at 9876.4	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
0.0	0.0	GRRV
2567.0	2776.0	U WSCH
4201.0	4598.1	G SAND
4380.0	4797.7	FRUN
5493.0	6000.6	OCRK
6083.0	6599.0	UMVRD
6400.0	6916.4	TOPGAS
8209.0	8725.4	CMEQ
8479.0	8995.4	RLNS
8666.0	9182.4	CZZT
8894.0	9410.4	CRCN
9044.0	9560.4	SEGO

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
VP	6400.0	-857.5	-2257.3	1649913.800	2213771.100	39.584657	-108.290018	Circle (Radius: 0.0)	- plan hits target center
BHL	9360.0	-857.5	-2257.3	1649913.800	2213771.100	39.584657	-108.290018	Circle (Radius: 50.0)	- plan hits target center

CASING DETAILS		
TVD	MD	Name
2917.0	3166.3	9 5/8"





Terra Energy Partners, LLP

Garfield County, CO (Nad 83)

TR 32-28-597 Pad

TR 612-28-597 - Slot TR 612-28-597

OWB

Plan: Plan

Standard Planning Report

13 June, 2023



Database:	NN	Local Co-ordinate Reference:	Well TR 612-28-597 - Slot TR 612-28-597
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 612-28-597	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 612-28-597 - Slot TR 612-28-597					
Well Position	+N/-S	-7.5 ft	Northing:	1,650,701.800 usft	Latitude:	39.587012
	+E/-W	0.6 ft	Easting:	2,216,053.600 usft	Longitude:	-108.282009
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	6/5/2023	9.23	65.58	51,012

Design	Plan				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	249.20	

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	
170.0	0.00	0.00	170.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,045.5	26.27	249.20	1,015.2	-70.0	-184.3	3.00	3.00	0.00	249.20	
5,165.4	26.27	249.20	4,709.7	-717.5	-1,888.6	0.00	0.00	0.00	0.00	
6,916.4	0.00	0.00	6,400.0	-857.5	-2,257.3	1.50	-1.50	0.00	180.00	
9,876.4	0.00	0.00	9,360.0	-857.5	-2,257.3	0.00	0.00	0.00	0.00	TR 612-28-597 BHL

Database:	NN	Local Co-ordinate Reference:	Well TR 612-28-597 - Slot TR 612-28-597
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 612-28-597	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
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
170.0	0.00	0.00	170.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 3.00									
200.0	0.90	249.20	200.0	-0.1	-0.2	0.2	3.00	3.00	0.00
300.0	3.90	249.20	299.9	-1.6	-4.1	4.4	3.00	3.00	0.00
400.0	6.90	249.20	399.4	-4.9	-12.9	13.8	3.00	3.00	0.00
500.0	9.90	249.20	498.4	-10.1	-26.6	28.4	3.00	3.00	0.00
600.0	12.90	249.20	596.4	-17.1	-45.1	48.2	3.00	3.00	0.00
700.0	15.90	249.20	693.2	-25.9	-68.3	73.1	3.00	3.00	0.00
800.0	18.90	249.20	788.6	-36.6	-96.3	103.0	3.00	3.00	0.00
900.0	21.90	249.20	882.4	-48.9	-128.8	137.8	3.00	3.00	0.00
1,000.0	24.90	249.20	974.1	-63.0	-166.0	177.5	3.00	3.00	0.00
1,045.5	26.27	249.20	1,015.2	-70.0	-184.3	197.2	3.00	3.00	0.00
Start 4119.9 hold at 1045.5 MD									
1,100.0	26.27	249.20	1,064.0	-78.6	-206.9	221.3	0.00	0.00	0.00
1,200.0	26.27	249.20	1,153.7	-94.3	-248.2	265.5	0.00	0.00	0.00
1,300.0	26.27	249.20	1,243.4	-110.0	-289.6	309.8	0.00	0.00	0.00
1,400.0	26.27	249.20	1,333.1	-125.7	-331.0	354.1	0.00	0.00	0.00
1,500.0	26.27	249.20	1,422.7	-141.4	-372.3	398.3	0.00	0.00	0.00
1,600.0	26.27	249.20	1,512.4	-157.2	-413.7	442.6	0.00	0.00	0.00
1,700.0	26.27	249.20	1,602.1	-172.9	-455.1	486.8	0.00	0.00	0.00
1,800.0	26.27	249.20	1,691.8	-188.6	-496.5	531.1	0.00	0.00	0.00
1,900.0	26.27	249.20	1,781.4	-204.3	-537.8	575.3	0.00	0.00	0.00
2,000.0	26.27	249.20	1,871.1	-220.0	-579.2	619.6	0.00	0.00	0.00
2,100.0	26.27	249.20	1,960.8	-235.7	-620.6	663.8	0.00	0.00	0.00
2,200.0	26.27	249.20	2,050.5	-251.5	-661.9	708.1	0.00	0.00	0.00
2,300.0	26.27	249.20	2,140.1	-267.2	-703.3	752.3	0.00	0.00	0.00
2,400.0	26.27	249.20	2,229.8	-282.9	-744.7	796.6	0.00	0.00	0.00
2,500.0	26.27	249.20	2,319.5	-298.6	-786.0	840.8	0.00	0.00	0.00
2,600.0	26.27	249.20	2,409.2	-314.3	-827.4	885.1	0.00	0.00	0.00
2,700.0	26.27	249.20	2,498.8	-330.0	-868.8	929.3	0.00	0.00	0.00
2,800.0	26.27	249.20	2,588.5	-345.7	-910.1	973.6	0.00	0.00	0.00
2,900.0	26.27	249.20	2,678.2	-361.5	-951.5	1,017.8	0.00	0.00	0.00
3,000.0	26.27	249.20	2,767.9	-377.2	-992.9	1,062.1	0.00	0.00	0.00
3,100.0	26.27	249.20	2,857.5	-392.9	-1,034.2	1,106.4	0.00	0.00	0.00
3,200.0	26.27	249.20	2,947.2	-408.6	-1,075.6	1,150.6	0.00	0.00	0.00
3,300.0	26.27	249.20	3,036.9	-424.3	-1,117.0	1,194.9	0.00	0.00	0.00
3,400.0	26.27	249.20	3,126.6	-440.0	-1,158.3	1,239.1	0.00	0.00	0.00
3,500.0	26.27	249.20	3,216.2	-455.8	-1,199.7	1,283.4	0.00	0.00	0.00
3,600.0	26.27	249.20	3,305.9	-471.5	-1,241.1	1,327.6	0.00	0.00	0.00
3,700.0	26.27	249.20	3,395.6	-487.2	-1,282.4	1,371.9	0.00	0.00	0.00
3,800.0	26.27	249.20	3,485.3	-502.9	-1,323.8	1,416.1	0.00	0.00	0.00
3,900.0	26.27	249.20	3,574.9	-518.6	-1,365.2	1,460.4	0.00	0.00	0.00
4,000.0	26.27	249.20	3,664.6	-534.3	-1,406.6	1,504.6	0.00	0.00	0.00
4,100.0	26.27	249.20	3,754.3	-550.0	-1,447.9	1,548.9	0.00	0.00	0.00
4,200.0	26.27	249.20	3,844.0	-565.8	-1,489.3	1,593.1	0.00	0.00	0.00
4,300.0	26.27	249.20	3,933.6	-581.5	-1,530.7	1,637.4	0.00	0.00	0.00
4,400.0	26.27	249.20	4,023.3	-597.2	-1,572.0	1,681.6	0.00	0.00	0.00
4,500.0	26.27	249.20	4,113.0	-612.9	-1,613.4	1,725.9	0.00	0.00	0.00
4,600.0	26.27	249.20	4,202.7	-628.6	-1,654.8	1,770.1	0.00	0.00	0.00
4,700.0	26.27	249.20	4,292.3	-644.3	-1,696.1	1,814.4	0.00	0.00	0.00
4,800.0	26.27	249.20	4,382.0	-660.1	-1,737.5	1,858.6	0.00	0.00	0.00
4,900.0	26.27	249.20	4,471.7	-675.8	-1,778.9	1,902.9	0.00	0.00	0.00

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Site:	TR 32-28-597 Pad	North Reference:	True
Well:	TR 612-28-597	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	26.27	249.20	4,561.4	-691.5	-1,820.2	1,947.2	0.00	0.00	0.00
5,100.0	26.27	249.20	4,651.1	-707.2	-1,861.6	1,991.4	0.00	0.00	0.00
5,165.4	26.27	249.20	4,709.7	-717.5	-1,888.6	2,020.3	0.00	0.00	0.00
Start Drop -1.50									
5,200.0	25.75	249.20	4,740.8	-722.9	-1,902.8	2,035.5	1.50	-1.50	0.00
5,300.0	24.25	249.20	4,831.4	-737.9	-1,942.3	2,077.8	1.50	-1.50	0.00
5,400.0	22.75	249.20	4,923.1	-752.0	-1,979.6	2,117.6	1.50	-1.50	0.00
5,500.0	21.25	249.20	5,015.9	-765.3	-2,014.6	2,155.1	1.50	-1.50	0.00
5,600.0	19.75	249.20	5,109.5	-777.8	-2,047.4	2,190.1	1.50	-1.50	0.00
5,700.0	18.25	249.20	5,204.1	-789.3	-2,077.8	2,222.7	1.50	-1.50	0.00
5,800.0	16.75	249.20	5,299.4	-800.0	-2,105.9	2,252.7	1.50	-1.50	0.00
5,900.0	15.25	249.20	5,395.6	-809.8	-2,131.6	2,280.3	1.50	-1.50	0.00
6,000.0	13.75	249.20	5,492.4	-818.7	-2,155.0	2,305.3	1.50	-1.50	0.00
6,100.0	12.25	249.20	5,589.8	-826.7	-2,176.1	2,327.8	1.50	-1.50	0.00
6,200.0	10.75	249.20	5,687.8	-833.7	-2,194.7	2,347.7	1.50	-1.50	0.00
6,300.0	9.25	249.20	5,786.3	-839.9	-2,210.9	2,365.1	1.50	-1.50	0.00
6,400.0	7.75	249.20	5,885.2	-845.1	-2,224.7	2,379.8	1.50	-1.50	0.00
6,500.0	6.25	249.20	5,984.4	-849.5	-2,236.1	2,392.0	1.50	-1.50	0.00
6,600.0	4.75	249.20	6,084.0	-852.9	-2,245.1	2,401.6	1.50	-1.50	0.00
6,700.0	3.25	249.20	6,183.7	-855.3	-2,251.6	2,408.6	1.50	-1.50	0.00
6,800.0	1.75	249.20	6,283.6	-856.9	-2,255.6	2,412.9	1.50	-1.50	0.00
6,900.0	0.25	249.20	6,383.6	-857.5	-2,257.3	2,414.7	1.50	-1.50	0.00
6,916.4	0.00	0.00	6,400.0	-857.5	-2,257.3	2,414.7	1.50	-1.50	0.00
Start 2960.0 hold at 6916.4 MD									
7,000.0	0.00	0.00	6,483.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
7,100.0	0.00	0.00	6,583.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
7,200.0	0.00	0.00	6,683.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
7,300.0	0.00	0.00	6,783.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
7,400.0	0.00	0.00	6,883.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
7,500.0	0.00	0.00	6,983.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,083.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,183.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,283.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
7,900.0	0.00	0.00	7,383.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,483.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,100.0	0.00	0.00	7,583.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,200.0	0.00	0.00	7,683.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,300.0	0.00	0.00	7,783.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,400.0	0.00	0.00	7,883.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,500.0	0.00	0.00	7,983.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,083.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,183.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,283.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,383.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,483.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,100.0	0.00	0.00	8,583.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,200.0	0.00	0.00	8,683.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,300.0	0.00	0.00	8,783.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,400.0	0.00	0.00	8,883.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,500.0	0.00	0.00	8,983.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,083.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,183.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,283.6	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00
9,876.4	0.00	0.00	9,360.0	-857.5	-2,257.3	2,414.7	0.00	0.00	0.00

Database:	NN	Local Co-ordinate Reference:	Well TR 612-28-597 - Slot TR 612-28-597
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 612-28-597	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 9876.4									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
TR 612-28-597 VP	0.00	0.00	6,400.0	-857.5	-2,257.3	1,649,913.800	2,213,771.100	39.584657	-108.290018
- plan hits target center									
- Circle (radius 50.0)									
TR 612-28-597 BHL	0.00	0.00	9,360.0	-857.5	-2,257.3	1,649,913.800	2,213,771.100	39.584657	-108.290018
- plan hits target center									
- Circle (radius 50.0)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
3,166.3	2,917.0	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	
2,776.0	2,567.0	U WSCH		0.00	
4,598.1	4,201.0	G SAND		0.00	
4,797.7	4,380.0	FRUN		0.00	
6,000.6	5,493.0	OCRK		0.00	
6,599.0	6,083.0	UMVRD		0.00	
6,916.4	6,400.0	TOPGAS		0.00	
8,725.4	8,209.0	CME0		0.00	
8,995.4	8,479.0	RLNS		0.00	
9,182.4	8,666.0	CZZT		0.00	
9,410.4	8,894.0	CRCN		0.00	
9,560.4	9,044.0	SEGO		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
170.0	170.0	0.0	0.0	Start Build 3.00
1,045.5	1,015.2	-70.0	-184.3	Start 4119.9 hold at 1045.5 MD
5,165.4	4,709.7	-717.5	-1,888.6	Start Drop -1.50
6,916.4	6,400.0	-857.5	-2,257.3	Start 2960.0 hold at 6916.4 MD
9,876.4	9,360.0	-857.5	-2,257.3	TD at 9876.4