

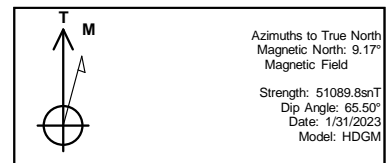


REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well WGV 411-27-697 - Slot WGV 411-27-697, True North
 Vertical (TVD) Reference: RKB @ 30' @ 8412.0ft
 Section (VS) Reference: Slot - WGV 411-27-697(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 30' @ 8412.0ft
 Calculation Method: Minimum Curvature

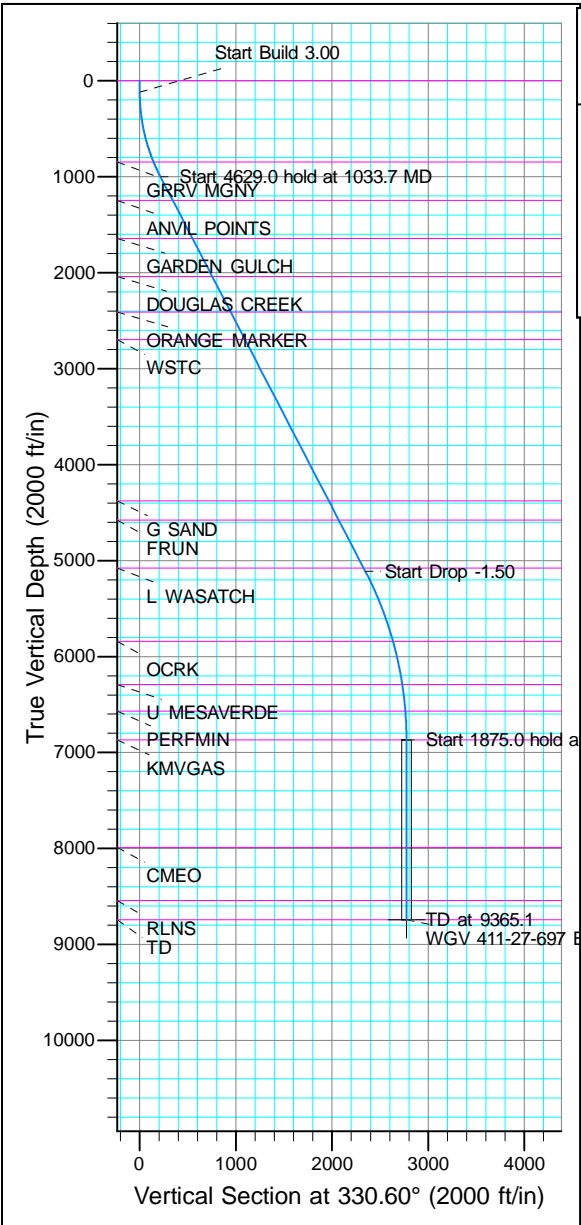


Project: Garfield County, CO (Nad 83)
 Site: Acro Deep 1-27
 Well: WGV 411-27-697
 Wellbore: OWB
 Design: Plan



WELL DETAILS: WGV 411-27-697

+N/-S	+E/-W	Northing	Ground Level:	8382.0	Easting	Latitude	Longitude
0.0	0.0	1615680.800			2235942.000	39.492558	-108.207769 WGV 411-27-697



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.0	
1033.7	27.41	330.60	999.2	186.8	-105.3	3.00	330.60	214.4	Start Build 3.00
5662.7	27.41	330.60	5108.6	2043.3	-1151.5	0.00	0.00	2345.4	Start Drop -1.50
7490.1	0.00	0.00	6867.0	2416.9	-1362.0	1.50	180.00	2774.3	Start 1875.0 hold at 7490.1 MD
9365.1	0.00	0.00	8742.0	2416.9	-1362.0	0.00	0.00	2774.3	TD at 9365.1

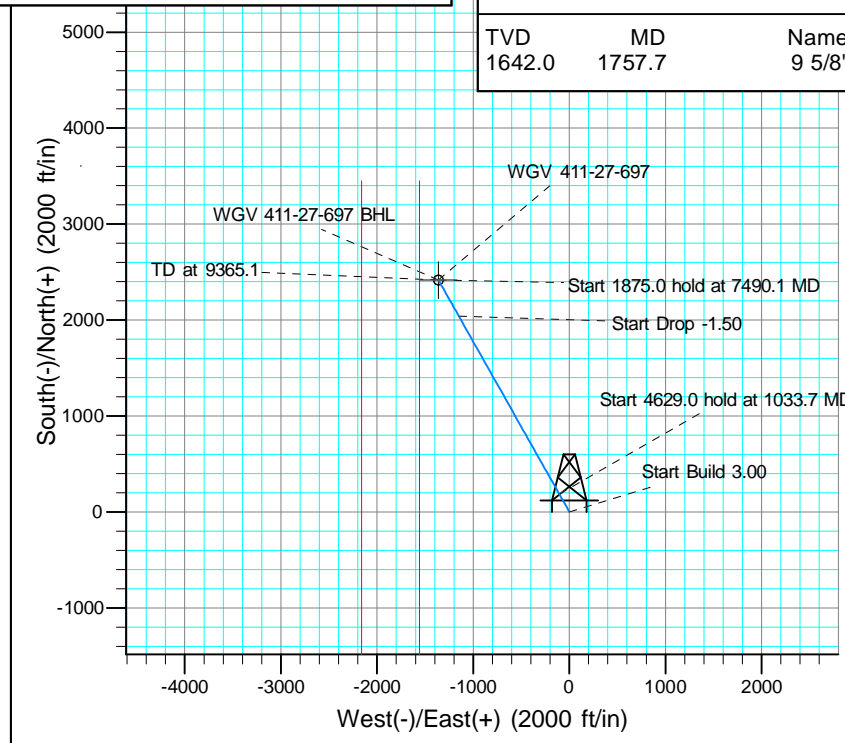
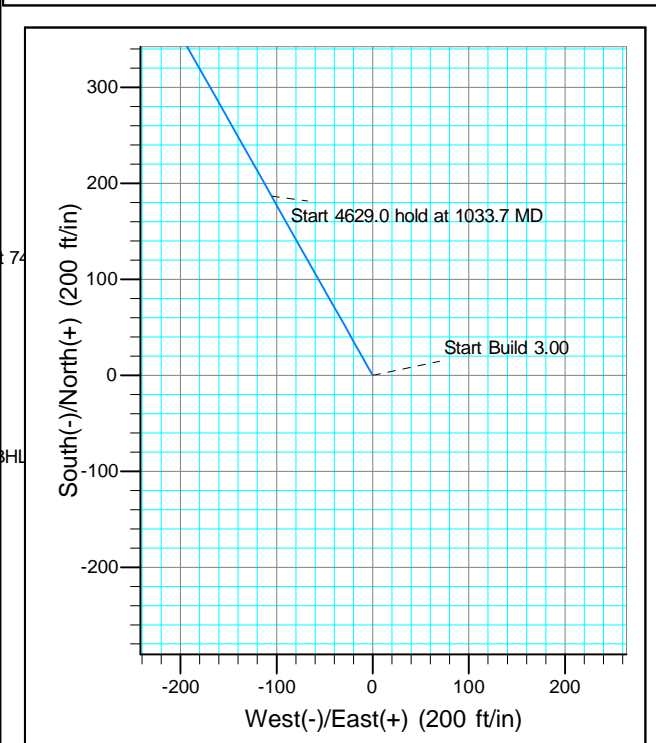
FORMATION TOP DETAILS

VDPPath	MDPath	Formation
0.0	0.0	GRRV
846.0	864.7	GRRV MGNV
1246.0	1311.7	ANVIL POINTS
1642.0	1757.7	GARDEN GULCH
2037.0	2202.7	DOUGLAS CREEK
2410.0	2622.9	ORANGE MARKER
2695.0	2943.9	WSTC
4377.0	4838.6	G SAND
4577.0	5063.9	FRUN
5677.0	5627.2	L WASATCH
5842.0	6452.3	OCRK
6292.0	6912.9	U MESAVERDE
6567.0	7189.7	PERFMIN
6867.0	7490.1	KMV GAS
7987.0	8610.1	CMEO
8542.0	9165.1	RLNS
8742.0	9365.1	TD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL	8742.0	2416.9	-1362.0	1618137.200	2234652.600	39.499193	-108.212596	Circle (Radius: 50.0)

- plan hits target center



CASING DETAILS

TVD	MD	Name
1642.0	1757.7	9 5/8"



Terra Energy Partners, LLP

Garfield County, CO (Nad 83)

Acro Deep 1-27

WGV 411-27-697 - Slot WGV 411-27-697

OWB

Plan: Plan

Standard Planning Report

07 March, 2023



Database:	NN	Local Co-ordinate Reference:	Well WGV 411-27-697 - Slot WGV 411-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 411-27-697	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	Acro Deep 1-27				
Site Position:		Northing:	1,615,634.200 usft	Latitude:	39.492428
From:	Map	Easting:	2,235,915.800 usft	Longitude:	-108.207857
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.71 °

Well	WGV 411-27-697 - Slot WGV 411-27-697					
Well Position	+N/-S	47.4 ft	Northing:	1,615,680.800 usft	Latitude:	39.492558
	+E/-W	24.8 ft	Easting:	2,235,942.000 usft	Longitude:	-108.207770
Position Uncertainty		0.0 ft	Wellhead Elevation:	8,412.0 ft	Ground Level:	8,382.0 ft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/31/2023	9.17	65.50	51,090

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	330.60

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	
1,033.7	27.41	330.60	999.2	186.8	-105.3	3.00	3.00	0.00	330.60	
5,662.7	27.41	330.60	5,108.6	2,043.3	-1,151.5	0.00	0.00	0.00	0.00	
7,490.1	0.00	0.00	6,867.0	2,416.9	-1,362.0	1.50	-1.50	0.00	180.00	
9,365.1	0.00	0.00	8,742.0	2,416.9	-1,362.0	0.00	0.00	0.00	0.00	WGV 411-27-697 BHI

Database:	NN	Local Co-ordinate Reference:	Well WGV 411-27-697 - Slot WGV 411-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 411-27-697	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	
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00	
Start Build 3.00										
200.0	2.40	330.60	200.0	1.5	-0.8	1.7	3.00	3.00	0.00	
300.0	5.40	330.60	299.7	7.4	-4.2	8.5	3.00	3.00	0.00	
400.0	8.40	330.60	399.0	17.8	-10.1	20.5	3.00	3.00	0.00	
500.0	11.40	330.60	497.5	32.8	-18.5	37.7	3.00	3.00	0.00	
600.0	14.40	330.60	595.0	52.3	-29.5	60.0	3.00	3.00	0.00	
700.0	17.40	330.60	691.1	76.1	-42.9	87.4	3.00	3.00	0.00	
800.0	20.40	330.60	785.7	104.4	-58.8	119.8	3.00	3.00	0.00	
900.0	23.40	330.60	878.5	136.8	-77.1	157.1	3.00	3.00	0.00	
1,000.0	26.40	330.60	969.2	173.5	-97.8	199.2	3.00	3.00	0.00	
1,033.7	27.41	330.60	999.2	186.8	-105.3	214.4	3.00	3.00	0.00	
Start 4629.0 hold at 1033.7 MD										
1,100.0	27.41	330.60	1,058.1	213.4	-120.3	244.9	0.00	0.00	0.00	
1,200.0	27.41	330.60	1,146.9	253.5	-142.9	291.0	0.00	0.00	0.00	
1,300.0	27.41	330.60	1,235.6	293.6	-165.5	337.0	0.00	0.00	0.00	
1,400.0	27.41	330.60	1,324.4	333.7	-188.1	383.1	0.00	0.00	0.00	
1,500.0	27.41	330.60	1,413.2	373.8	-210.7	429.1	0.00	0.00	0.00	
1,600.0	27.41	330.60	1,502.0	413.9	-233.3	475.1	0.00	0.00	0.00	
1,700.0	27.41	330.60	1,590.7	454.0	-255.9	521.2	0.00	0.00	0.00	
1,800.0	27.41	330.60	1,679.5	494.1	-278.5	567.2	0.00	0.00	0.00	
1,900.0	27.41	330.60	1,768.3	534.2	-301.1	613.2	0.00	0.00	0.00	
2,000.0	27.41	330.60	1,857.1	574.3	-323.7	659.3	0.00	0.00	0.00	
2,100.0	27.41	330.60	1,945.8	614.5	-346.3	705.3	0.00	0.00	0.00	
2,200.0	27.41	330.60	2,034.6	654.6	-368.9	751.3	0.00	0.00	0.00	
2,300.0	27.41	330.60	2,123.4	694.7	-391.5	797.4	0.00	0.00	0.00	
2,400.0	27.41	330.60	2,212.2	734.8	-414.1	843.4	0.00	0.00	0.00	
2,500.0	27.41	330.60	2,300.9	774.9	-436.7	889.4	0.00	0.00	0.00	
2,600.0	27.41	330.60	2,389.7	815.0	-459.3	935.5	0.00	0.00	0.00	
2,700.0	27.41	330.60	2,478.5	855.1	-481.9	981.5	0.00	0.00	0.00	
2,800.0	27.41	330.60	2,567.2	895.2	-504.5	1,027.6	0.00	0.00	0.00	
2,900.0	27.41	330.60	2,656.0	935.3	-527.1	1,073.6	0.00	0.00	0.00	
3,000.0	27.41	330.60	2,744.8	975.4	-549.7	1,119.6	0.00	0.00	0.00	
3,100.0	27.41	330.60	2,833.6	1,015.5	-572.3	1,165.7	0.00	0.00	0.00	
3,200.0	27.41	330.60	2,922.3	1,055.6	-594.9	1,211.7	0.00	0.00	0.00	
3,300.0	27.41	330.60	3,011.1	1,095.7	-617.5	1,257.7	0.00	0.00	0.00	
3,400.0	27.41	330.60	3,099.9	1,135.8	-640.1	1,303.8	0.00	0.00	0.00	
3,500.0	27.41	330.60	3,188.7	1,175.9	-662.7	1,349.8	0.00	0.00	0.00	
3,600.0	27.41	330.60	3,277.4	1,216.0	-685.3	1,395.8	0.00	0.00	0.00	
3,700.0	27.41	330.60	3,366.2	1,256.1	-707.9	1,441.9	0.00	0.00	0.00	
3,800.0	27.41	330.60	3,455.0	1,296.2	-730.5	1,487.9	0.00	0.00	0.00	
3,900.0	27.41	330.60	3,543.8	1,336.4	-753.1	1,534.0	0.00	0.00	0.00	
4,000.0	27.41	330.60	3,632.5	1,376.5	-775.7	1,580.0	0.00	0.00	0.00	
4,100.0	27.41	330.60	3,721.3	1,416.6	-798.3	1,626.0	0.00	0.00	0.00	
4,200.0	27.41	330.60	3,810.1	1,456.7	-820.9	1,672.1	0.00	0.00	0.00	
4,300.0	27.41	330.60	3,898.8	1,496.8	-843.5	1,718.1	0.00	0.00	0.00	
4,400.0	27.41	330.60	3,987.6	1,536.9	-866.1	1,764.1	0.00	0.00	0.00	
4,500.0	27.41	330.60	4,076.4	1,577.0	-888.7	1,810.2	0.00	0.00	0.00	
4,600.0	27.41	330.60	4,165.2	1,617.1	-911.3	1,856.2	0.00	0.00	0.00	
4,700.0	27.41	330.60	4,253.9	1,657.2	-933.9	1,902.2	0.00	0.00	0.00	
4,800.0	27.41	330.60	4,342.7	1,697.3	-956.5	1,948.3	0.00	0.00	0.00	

Database:	NN	Local Co-ordinate Reference:	Well WGV 411-27-697 - Slot WGV 411-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 411-27-697	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)	
4,900.0	27.41	330.60	4,431.5	1,737.4	-979.1	1,994.3	0.00	0.00	0.00	
5,000.0	27.41	330.60	4,520.3	1,777.5	-1,001.7	2,040.3	0.00	0.00	0.00	
5,100.0	27.41	330.60	4,609.0	1,817.6	-1,024.3	2,086.4	0.00	0.00	0.00	
5,200.0	27.41	330.60	4,697.8	1,857.7	-1,046.9	2,132.4	0.00	0.00	0.00	
5,300.0	27.41	330.60	4,786.6	1,897.8	-1,069.5	2,178.5	0.00	0.00	0.00	
5,400.0	27.41	330.60	4,875.4	1,937.9	-1,092.1	2,224.5	0.00	0.00	0.00	
5,500.0	27.41	330.60	4,964.1	1,978.0	-1,114.7	2,270.5	0.00	0.00	0.00	
5,600.0	27.41	330.60	5,052.9	2,018.2	-1,137.3	2,316.6	0.00	0.00	0.00	
5,662.7	27.41	330.60	5,108.6	2,043.3	-1,151.5	2,345.4	0.00	0.00	0.00	
Start Drop -1.50										
5,700.0	26.85	330.60	5,141.8	2,058.1	-1,159.9	2,362.4	1.50	-1.50	0.00	
5,800.0	25.35	330.60	5,231.6	2,096.4	-1,181.4	2,406.4	1.50	-1.50	0.00	
5,900.0	23.85	330.60	5,322.5	2,132.7	-1,201.9	2,448.1	1.50	-1.50	0.00	
6,000.0	22.35	330.60	5,414.5	2,166.9	-1,221.1	2,487.3	1.50	-1.50	0.00	
6,100.0	20.85	330.60	5,507.4	2,199.0	-1,239.2	2,524.1	1.50	-1.50	0.00	
6,200.0	19.35	330.60	5,601.3	2,228.9	-1,256.1	2,558.5	1.50	-1.50	0.00	
6,300.0	17.85	330.60	5,696.1	2,256.7	-1,271.8	2,590.4	1.50	-1.50	0.00	
6,400.0	16.35	330.60	5,791.7	2,282.3	-1,286.2	2,619.8	1.50	-1.50	0.00	
6,500.0	14.85	330.60	5,888.0	2,305.7	-1,299.4	2,646.7	1.50	-1.50	0.00	
6,600.0	13.35	330.60	5,985.0	2,327.0	-1,311.4	2,671.0	1.50	-1.50	0.00	
6,700.0	11.85	330.60	6,082.6	2,346.0	-1,322.1	2,692.8	1.50	-1.50	0.00	
6,800.0	10.35	330.60	6,180.7	2,362.7	-1,331.5	2,712.1	1.50	-1.50	0.00	
6,900.0	8.85	330.60	6,279.3	2,377.3	-1,339.7	2,728.8	1.50	-1.50	0.00	
7,000.0	7.35	330.60	6,378.3	2,389.5	-1,346.6	2,742.9	1.50	-1.50	0.00	
7,100.0	5.85	330.60	6,477.6	2,399.6	-1,352.3	2,754.4	1.50	-1.50	0.00	
7,200.0	4.35	330.60	6,577.2	2,407.3	-1,356.6	2,763.2	1.50	-1.50	0.00	
7,300.0	2.85	330.60	6,677.0	2,412.8	-1,359.7	2,769.5	1.50	-1.50	0.00	
7,400.0	1.35	330.60	6,777.0	2,416.0	-1,361.5	2,773.2	1.50	-1.50	0.00	
7,490.1	0.00	0.00	6,867.0	2,416.9	-1,362.0	2,774.3	1.50	-1.50	0.00	
Start 1875.0 hold at 7490.1 MD										
7,500.0	0.00	0.00	6,876.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
7,600.0	0.00	0.00	6,976.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,076.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,176.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,276.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,376.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,476.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,200.0	0.00	0.00	7,576.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,300.0	0.00	0.00	7,676.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,400.0	0.00	0.00	7,776.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,500.0	0.00	0.00	7,876.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,600.0	0.00	0.00	7,976.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,076.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,176.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,276.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,376.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
9,100.0	0.00	0.00	8,476.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
9,200.0	0.00	0.00	8,576.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
9,300.0	0.00	0.00	8,676.9	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
9,365.1	0.00	0.00	8,742.0	2,416.9	-1,362.0	2,774.3	0.00	0.00	0.00	
TD at 9365.1										

Database:	NN	Local Co-ordinate Reference:	Well WGV 411-27-697 - Slot WGV 411-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 411-27-697	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
WGV 411-27-697 BHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	8,742.0	2,416.9	-1,362.0	1,618,137.200	2,234,652.600	39.499194	-108.212596

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,757.7	1,642.0	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		
864.7	846.0	GRRV MGNV		0.00		
1,311.7	1,246.0	ANVIL POINTS		0.00		
1,757.7	1,642.0	GARDEN GULCH		0.00		
2,202.7	2,037.0	DOUGLAS CREEK		0.00		
2,622.9	2,410.0	ORANGE MARKER		0.00		
2,943.9	2,695.0	WSTC		0.00		
4,838.6	4,377.0	G SAND		0.00		
5,063.9	4,577.0	FRUN		0.00		
5,627.2	5,077.0	L WASATCH		0.00		
6,452.3	5,842.0	OCRK		0.00		
6,912.9	6,292.0	U MESAVERDE		0.00		
7,189.7	6,567.0	PERFMIN		0.00		
7,490.1	6,867.0	KMVGAS		0.00		
8,610.1	7,987.0	CMEO		0.00		
9,165.1	8,542.0	RLNS		0.00		
9,365.1	8,742.0	TD		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	
1,033.7	999.2	186.8	-105.3	Start 4629.0 hold at 1033.7 MD	
5,662.7	5,108.6	2,043.3	-1,151.5	Start Drop -1.50	
7,490.1	6,867.0	2,416.9	-1,362.0	Start 1875.0 hold at 7490.1 MD	
9,365.1	8,742.0	2,416.9	-1,362.0	TD at 9365.1	