



TEP Rocky Mountain LLC

Garfield County, CO

Sec 8, T6S, R94W

RWF 521-8

Wellbore #1

Plan: Plan #1

QES Well Planning Report

08 October, 2020



Project: Garfield County, CO
 Site: Sec 8, T6S, R94W
 Well: RWF 521-8
 Wellbore: Wellbore #1
 Design: Plan #1
 Latitude: 39.539231
 Longitude: -107.903828
 Ground Level: 5979.6
 KB=24' @ 6003.6usft (H&P #318)

PROJECT DETAILS: Garfield County, CO

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Central Zone
 System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well RWF 521-8, True North
 Vertical (TVD) Reference: KB=24' @ 6003.6usft (H&P #318)
 Section (VS) Reference: Slot - (0.0N, 0.0E)
 Measured Depth Reference: KB=24' @ 6003.6usft (H&P #318)
 Calculation Method: Minimum Curvature

WELL DETAILS: RWF 521-8

5979.6

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1630262.20	2322134.37	39.539231	-107.903828

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

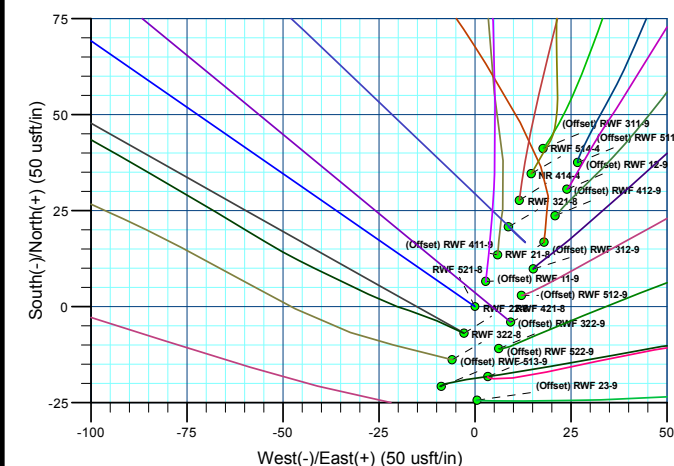
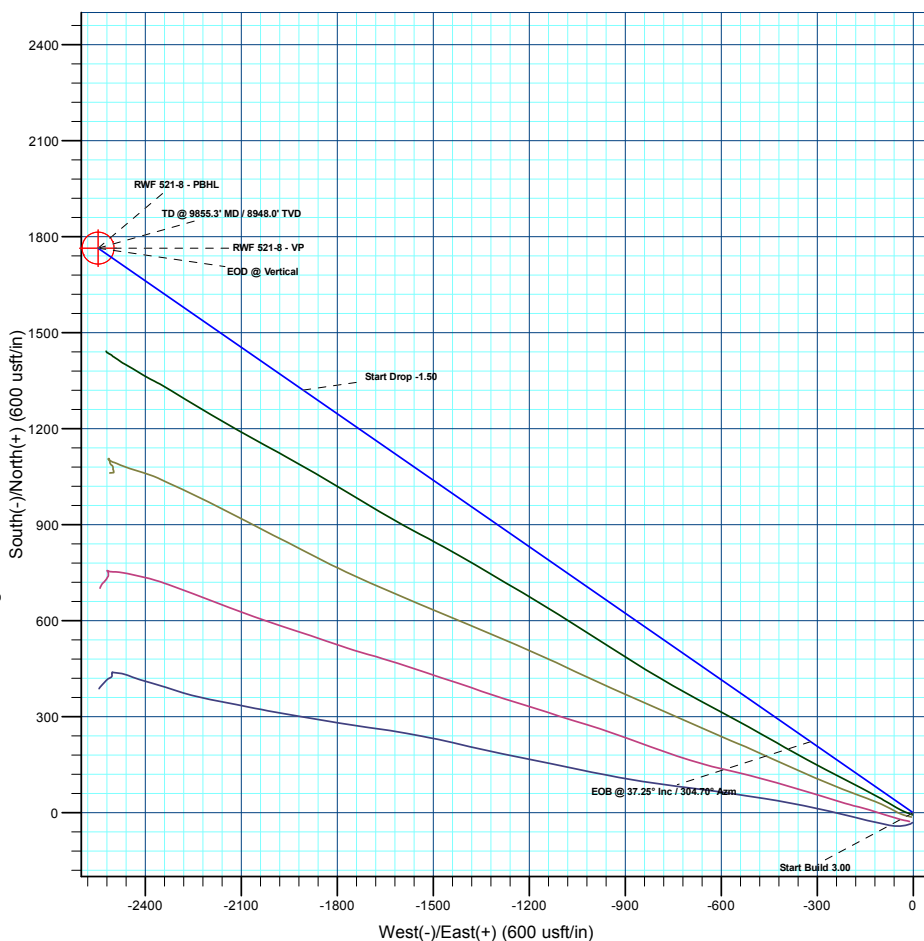
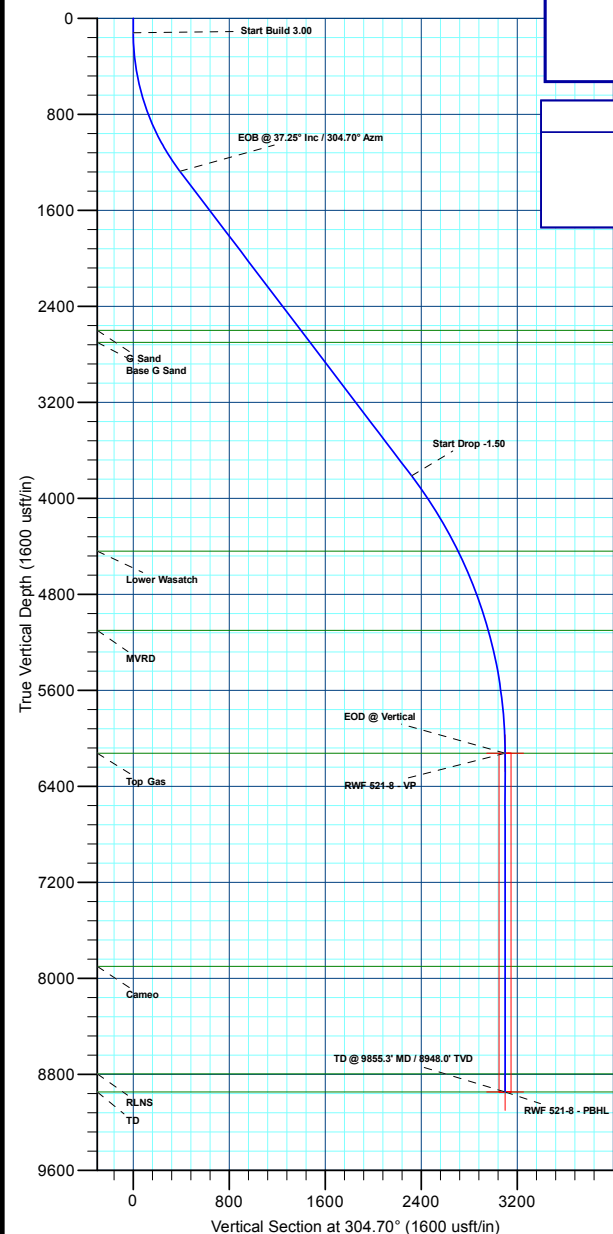
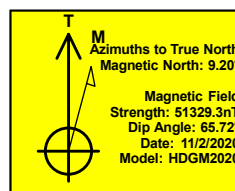
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
RWF 521-8 - VP	6126.0	1764.2	-2547.4	1632093.15	2319634.57	39.544074	-107.912861	Point
RWF 521-8 - PBHL	8948.0	1764.2	-2547.4	1632093.15	2319634.57	39.544074	-107.912861	Circle (Radius: 50.0)

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.0	Start Build 3.00
1361.6	37.25	304.70	1276.0	221.8	-320.3	389.6	389.6	EOB @ 37.25° Inc / 304.70° Azm
4550.0	37.25	304.70	3814.0	1320.6	-1906.8	2319.5	2319.5	Start Drop -1.50
7033.3	0.00	0.00	6126.0	1764.2	-2547.4	3098.6	3098.6	EOD @ Vertical
9855.3	0.00	0.00	8948.0	1764.2	-2547.4	3098.6	3098.6	TD @ 9855.3' MD / 8948.0' TVD

FORMATION TOP DETAILS

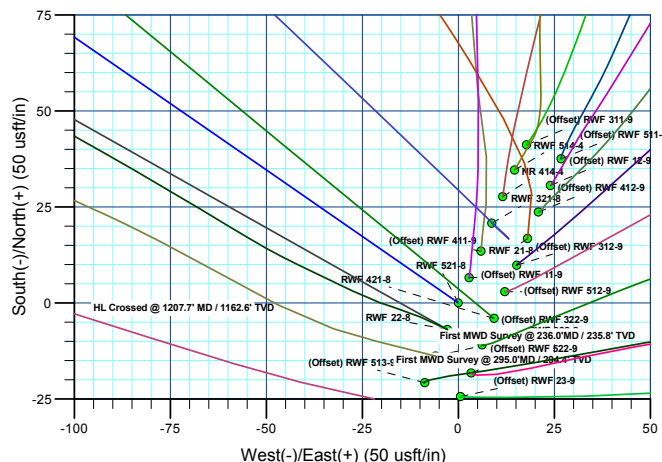
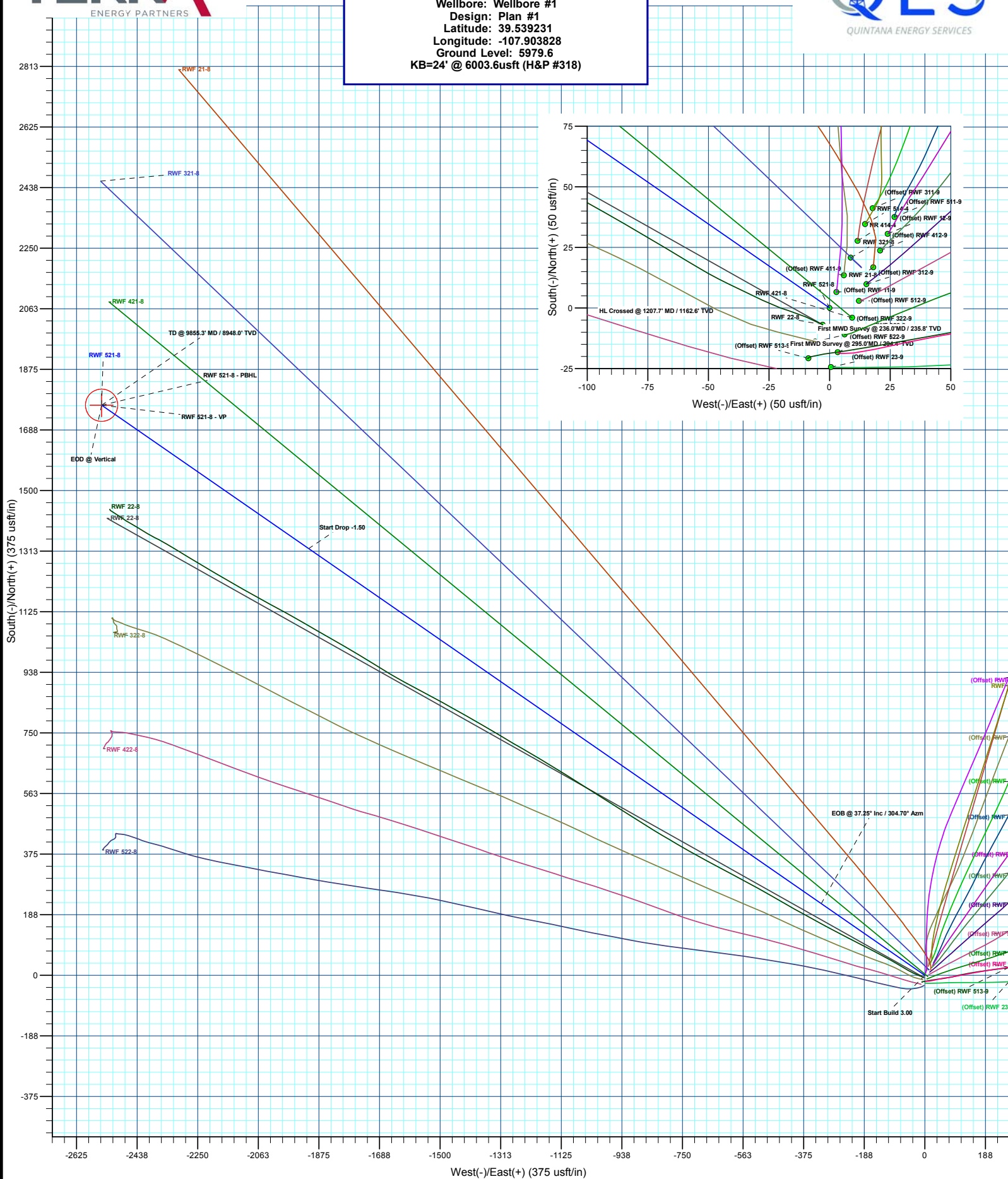
TVDPath	MDPath	Formation
2601.0	3026.2	G Sand
2701.0	3151.8	Base G Sand
4441.0	5288.2	Lower Wasatch
5101.0	5995.6	MVRD
6126.0	7033.3	Top Gas
7901.0	8808.3	Cameo
8798.0	9705.3	RLNS
8948.0	9855.3	TD



Plan: Plan #1 (RWF 521-8/Wellbore #1)

Created By: Chase Chambers Date: 9:47, November 02 2020

Project: Garfield County, CO
 Site: Sec 8, T6S, R94W
 Well: RWF 521-8
 Wellbore: Wellbore #1
 Design: Plan #1
 Latitude: 39.539231
 Longitude: -107.903828
 Ground Level: 5979.6
 KB=24' @ 6003.6usft (H&P #318)



Plan: Plan #1 (RWF 521-8/Wellbore #1)

Created By: Chase Chambers Date: 9:48, November 02 2020

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RWF 521-8
Company:	TEP Rocky Mountain LLC	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Project:	Garfield County, CO	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site:	Sec 8, T6S, R94W	North Reference:	True
Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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

Site		Sec 8, T6S, R94W			
Site Position:		Northing:	1,630,278.47 usft	Latitude:	39.539277
From:	Lat/Long	Easting:	2,322,152.86 usft	Longitude:	-107.903764
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.52 °

Well	RWF 521-8					
Well Position	+N/-S	-16.8 usft	Northing:	1,630,262.19 usft	Latitude:	39.539231
	+E/-W	-18.0 usft	Easting:	2,322,134.38 usft	Longitude:	-107.903828
Position Uncertainty	0.0 usft		Wellhead Elevation:		Ground Level:	5,979.6 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	9/30/2020	9.20	65.72	51,338.70000000

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	304.70

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	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	
1,361.6	37.25	304.70	1,276.0	221.8	-320.3	3.00	3.00	0.00	304.70	
4,550.0	37.25	304.70	3,814.0	1,320.6	-1,906.8	0.00	0.00	0.00	0.00	
7,033.3	0.00	0.00	6,126.0	1,764.2	-2,547.4	1.50	-1.50	0.00	180.00	RWF 521-8 - VP
9,855.3	0.00	0.00	8,948.0	1,764.2	-2,547.4	0.00	0.00	0.00	0.00	RWF 521-8 - PBHL

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RWF 521-8
Company:	TEP Rocky Mountain LLC	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Project:	Garfield County, CO	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site:	Sec 8, T6S, R94W	North Reference:	True
Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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)
0.0	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
Start Build 3.00									
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	2.40	304.70	200.0	1.0	-1.4	1.7	3.00	3.00	0.00
300.0	5.40	304.70	299.7	4.8	-7.0	8.5	3.00	3.00	0.00
400.0	8.40	304.70	399.0	11.7	-16.8	20.5	3.00	3.00	0.00
500.0	11.40	304.70	497.5	21.5	-31.0	37.7	3.00	3.00	0.00
600.0	14.40	304.70	595.0	34.2	-49.3	60.0	3.00	3.00	0.00
700.0	17.40	304.70	691.1	49.8	-71.8	87.4	3.00	3.00	0.00
800.0	20.40	304.70	785.7	68.2	-98.5	119.8	3.00	3.00	0.00
900.0	23.40	304.70	878.5	89.4	-129.1	157.1	3.00	3.00	0.00
9 5/8"									
1,000.0	26.40	304.70	969.2	113.4	-163.7	199.2	3.00	3.00	0.00
1,100.0	29.40	304.70	1,057.6	140.0	-202.2	246.0	3.00	3.00	0.00
1,200.0	32.40	304.70	1,143.4	169.3	-244.4	297.3	3.00	3.00	0.00
1,300.0	35.40	304.70	1,226.3	201.0	-290.3	353.1	3.00	3.00	0.00
EOB @ 37.25° Inc / 304.70° Azm									
1,361.6	37.25	304.70	1,276.0	221.8	-320.3	389.6	3.00	3.00	0.00
1,400.0	37.25	304.70	1,306.5	235.0	-339.4	412.8	0.00	0.00	0.00
1,500.0	37.25	304.70	1,386.1	269.5	-389.1	473.3	0.00	0.00	0.00
1,600.0	37.25	304.70	1,465.7	304.0	-438.9	533.9	0.00	0.00	0.00
1,700.0	37.25	304.70	1,545.3	338.4	-488.7	594.4	0.00	0.00	0.00
1,800.0	37.25	304.70	1,624.9	372.9	-538.4	654.9	0.00	0.00	0.00
1,900.0	37.25	304.70	1,704.5	407.3	-588.2	715.4	0.00	0.00	0.00
2,000.0	37.25	304.70	1,784.1	441.8	-637.9	776.0	0.00	0.00	0.00
2,100.0	37.25	304.70	1,863.8	476.3	-687.7	836.5	0.00	0.00	0.00
2,200.0	37.25	304.70	1,943.4	510.7	-737.5	897.0	0.00	0.00	0.00
2,300.0	37.25	304.70	2,023.0	545.2	-787.2	957.6	0.00	0.00	0.00
2,400.0	37.25	304.70	2,102.6	579.6	-837.0	1,018.1	0.00	0.00	0.00
2,500.0	37.25	304.70	2,182.2	614.1	-886.7	1,078.6	0.00	0.00	0.00
2,600.0	37.25	304.70	2,261.8	648.6	-936.5	1,139.1	0.00	0.00	0.00
2,700.0	37.25	304.70	2,341.4	683.0	-986.2	1,199.7	0.00	0.00	0.00
2,800.0	37.25	304.70	2,421.0	717.5	-1,036.0	1,260.2	0.00	0.00	0.00
2,900.0	37.25	304.70	2,500.6	751.9	-1,085.8	1,320.7	0.00	0.00	0.00
3,000.0	37.25	304.70	2,580.2	786.4	-1,135.5	1,381.3	0.00	0.00	0.00
G Sand									
3,026.2	37.25	304.70	2,601.0	795.4	-1,148.6	1,397.1	0.00	0.00	0.00
3,100.0	37.25	304.70	2,659.8	820.9	-1,185.3	1,441.8	0.00	0.00	0.00
Base G Sand									
3,151.8	37.25	304.70	2,701.0	838.7	-1,211.1	1,473.1	0.00	0.00	0.00
3,200.0	37.25	304.70	2,739.4	855.3	-1,235.0	1,502.3	0.00	0.00	0.00
3,300.0	37.25	304.70	2,819.0	889.8	-1,284.8	1,562.8	0.00	0.00	0.00
3,400.0	37.25	304.70	2,898.6	924.2	-1,334.6	1,623.4	0.00	0.00	0.00
3,500.0	37.25	304.70	2,978.2	958.7	-1,384.3	1,683.9	0.00	0.00	0.00
3,600.0	37.25	304.70	3,057.8	993.2	-1,434.1	1,744.4	0.00	0.00	0.00
3,700.0	37.25	304.70	3,137.4	1,027.6	-1,483.8	1,804.9	0.00	0.00	0.00
3,800.0	37.25	304.70	3,217.0	1,062.1	-1,533.6	1,865.5	0.00	0.00	0.00
3,900.0	37.25	304.70	3,296.6	1,096.6	-1,583.4	1,926.0	0.00	0.00	0.00
4,000.0	37.25	304.70	3,376.2	1,131.0	-1,633.1	1,986.5	0.00	0.00	0.00
4,100.0	37.25	304.70	3,455.8	1,165.5	-1,682.9	2,047.1	0.00	0.00	0.00
4,200.0	37.25	304.70	3,535.4	1,199.9	-1,732.6	2,107.6	0.00	0.00	0.00
4,300.0	37.25	304.70	3,615.0	1,234.4	-1,782.4	2,168.1	0.00	0.00	0.00
4,400.0	37.25	304.70	3,694.6	1,268.9	-1,832.2	2,228.6	0.00	0.00	0.00

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Design:	Plan #1		

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)	
4,500.0	37.25	304.70	3,774.2	1,303.3	-1,881.9	2,289.2	0.00	0.00	0.00	
Start Drop -1.50										
4,550.0	37.25	304.70	3,814.0	1,320.6	-1,906.8	2,319.5	0.00	0.00	0.00	
4,600.0	36.50	304.70	3,854.0	1,337.6	-1,931.5	2,349.4	1.50	-1.50	0.00	
4,700.0	35.00	304.70	3,935.1	1,370.9	-1,979.5	2,407.9	1.50	-1.50	0.00	
4,800.0	33.50	304.70	4,017.8	1,402.9	-2,025.8	2,464.1	1.50	-1.50	0.00	
4,900.0	32.00	304.70	4,101.9	1,433.7	-2,070.2	2,518.2	1.50	-1.50	0.00	
5,000.0	30.50	304.70	4,187.4	1,463.3	-2,112.9	2,570.1	1.50	-1.50	0.00	
5,100.0	29.00	304.70	4,274.2	1,491.5	-2,153.7	2,619.7	1.50	-1.50	0.00	
5,200.0	27.50	304.70	4,362.3	1,518.5	-2,192.6	2,667.1	1.50	-1.50	0.00	
Lower Wasatch										
5,288.2	26.18	304.70	4,441.0	1,541.1	-2,225.3	2,706.9	1.50	-1.50	0.00	
5,300.0	26.00	304.70	4,451.6	1,544.1	-2,229.6	2,712.1	1.50	-1.50	0.00	
5,400.0	24.50	304.70	4,542.0	1,568.4	-2,264.7	2,754.7	1.50	-1.50	0.00	
5,500.0	23.00	304.70	4,633.6	1,591.3	-2,297.8	2,795.0	1.50	-1.50	0.00	
5,600.0	21.50	304.70	4,726.1	1,612.9	-2,328.9	2,832.9	1.50	-1.50	0.00	
5,700.0	20.00	304.70	4,819.6	1,633.0	-2,358.0	2,868.3	1.50	-1.50	0.00	
5,800.0	18.50	304.70	4,914.0	1,651.8	-2,385.1	2,901.2	1.50	-1.50	0.00	
5,900.0	17.00	304.70	5,009.3	1,669.2	-2,410.2	2,931.7	1.50	-1.50	0.00	
MVRD										
5,995.6	15.57	304.70	5,101.0	1,684.4	-2,432.2	2,958.5	1.50	-1.50	0.00	
6,000.0	15.50	304.70	5,105.3	1,685.1	-2,433.2	2,959.7	1.50	-1.50	0.00	
6,100.0	14.00	304.70	5,202.0	1,699.6	-2,454.1	2,985.2	1.50	-1.50	0.00	
6,200.0	12.50	304.70	5,299.3	1,712.6	-2,472.9	3,008.1	1.50	-1.50	0.00	
6,300.0	11.00	304.70	5,397.2	1,724.2	-2,489.7	3,028.4	1.50	-1.50	0.00	
6,400.0	9.50	304.70	5,495.6	1,734.4	-2,504.3	3,046.2	1.50	-1.50	0.00	
6,500.0	8.00	304.70	5,594.4	1,743.0	-2,516.8	3,061.5	1.50	-1.50	0.00	
6,600.0	6.50	304.70	5,693.6	1,750.2	-2,527.2	3,074.1	1.50	-1.50	0.00	
6,700.0	5.00	304.70	5,793.1	1,755.9	-2,535.4	3,084.1	1.50	-1.50	0.00	
6,800.0	3.50	304.70	5,892.9	1,760.1	-2,541.5	3,091.5	1.50	-1.50	0.00	
6,900.0	2.00	304.70	5,992.7	1,762.8	-2,545.5	3,096.3	1.50	-1.50	0.00	
7,000.0	0.50	304.70	6,092.7	1,764.1	-2,547.3	3,098.5	1.50	-1.50	0.00	
EOD @ Vertical - Top Gas										
7,033.3	0.00	0.00	6,126.0	1,764.2	-2,547.4	3,098.6	1.50	-1.50	0.00	
7,100.0	0.00	0.00	6,192.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
7,200.0	0.00	0.00	6,292.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
7,300.0	0.00	0.00	6,392.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
7,400.0	0.00	0.00	6,492.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
7,500.0	0.00	0.00	6,592.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
7,600.0	0.00	0.00	6,692.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
7,700.0	0.00	0.00	6,792.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
7,800.0	0.00	0.00	6,892.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
7,900.0	0.00	0.00	6,992.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,092.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,192.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
8,200.0	0.00	0.00	7,292.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
8,300.0	0.00	0.00	7,392.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
8,400.0	0.00	0.00	7,492.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
8,500.0	0.00	0.00	7,592.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
8,600.0	0.00	0.00	7,692.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
8,700.0	0.00	0.00	7,792.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
8,800.0	0.00	0.00	7,892.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00	
Cameo										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RWF 521-8
Company:	TEP Rocky Mountain LLC	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Project:	Garfield County, CO	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site:	Sec 8, T6S, R94W	North Reference:	True
Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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)
8,808.3	0.00	0.00	7,901.0	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
8,900.0	0.00	0.00	7,992.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
9,000.0	0.00	0.00	8,092.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
9,100.0	0.00	0.00	8,192.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
9,200.0	0.00	0.00	8,292.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
9,300.0	0.00	0.00	8,392.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
9,400.0	0.00	0.00	8,492.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
9,500.0	0.00	0.00	8,592.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
9,600.0	0.00	0.00	8,692.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
9,700.0	0.00	0.00	8,792.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
RLNS									
9,705.3	0.00	0.00	8,798.0	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
9,800.0	0.00	0.00	8,892.7	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00
TD @ 9855.3' MD / 8948.0' TVD - TD									
9,855.3	0.00	0.00	8,948.0	1,764.2	-2,547.4	3,098.6	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RWF 521-8 - VP - hit/miss target - Shape - Point	0.00	0.00	6,126.0	1,764.2	-2,547.4	1,632,093.14	2,319,634.57	39.544074	-107.912861
RWF 521-8 - PBHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	8,948.0	1,764.2	-2,547.4	1,632,093.14	2,319,634.57	39.544074	-107.912861

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,000.0	969.2	9 5/8"	9-5/8	12-1/4	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,026.2	2,601.0	G Sand				
3,151.8	2,701.0	Base G Sand				
5,288.2	4,441.0	Lower Wasatch				
5,995.6	5,101.0	MVRD				
7,033.3	6,126.0	Top Gas				
8,808.3	7,901.0	Cameo				
9,705.3	8,798.0	RLNS				
9,855.3	8,948.0	TD				

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RWF 521-8
Company:	TEP Rocky Mountain LLC	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Project:	Garfield County, CO	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site:	Sec 8, T6S, R94W	North Reference:	True
Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.0	120.0	0.0	0.0	Start Build 3.00
1,361.6	1,276.0	221.8	-320.3	EOB @ 37.25° Inc / 304.70° Azm
4,550.0	3,814.0	1,320.6	-1,906.8	Start Drop -1.50
7,033.3	6,126.0	1,764.2	-2,547.4	EOD @ Vertical
9,855.3	8,948.0	1,764.2	-2,547.4	TD @ 9855.3' MD / 8948.0' TVD



Terra Energy Partners, LLP

Garfield County, CO

Sec 8, T6S, R94W

RWF 521-8

Wellbore #1

Plan #1

QES Anticollision Report

02 November, 2020



Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum separation factor of 6.00	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	11/2/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	9,855.3	Plan #1 (Wellbore #1)	OWSG (REV5) MWD HDGM	OWSG MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 8, T6S, R94W						
(Offset) RWF 11-9 - Wellbore #1 - Wellbore #1						Out of range
(Offset) RWF 12-9 - Wellbore #1 - Wellbore #1						Out of range
(Offset) RWF 23-9 - Wellbore #1 - Wellbore #1						Out of range
(Offset) RWF 311-9 - Wellbore #1 - Wellbore #1						Out of range
(Offset) RWF 312-9 - Wellbore #1 - Wellbore #1						Out of range
(Offset) RWF 322-9 - Wellbore #1 - Wellbore #1	200.0	200.0	16.1	12.5	4.394	CC, ES
(Offset) RWF 322-9 - Wellbore #1 - Wellbore #1	300.0	297.8	29.7	22.4	4.041	SF
(Offset) RWF 411-9 - Wellbore #1 - Wellbore #1						Out of range
(Offset) RWF 412-9 - Wellbore #1 - Wellbore #1						Out of range
(Offset) RWF 511-9 - Wellbore #1 - Wellbore #1						Out of range
(Offset) RWF 512-9 - Wellbore #1 - Wellbore #1						Out of range
(Offset) RWF 513-9 - Wellbore #1 - Wellbore #1	300.0	300.0	24.7	20.5	5.934	CC, ES, SF
(Offset) RWF 522-9 - Wellbore #1 - Wellbore #1						Out of range
NR 414-4 - Wellbore #1 - Plan #1						Out of range
RWF 21-8 - Wellbore #1 - Plan #1						Out of range
RWF 22-8 - Wellbore #1 - Plan #1	200.0	200.0	7.6	5.6	3.724	CC
RWF 22-8 - Wellbore #1 - Plan #1	300.0	300.1	8.3	5.0	2.503	ES
RWF 22-8 - Wellbore #1 - Plan #1	500.0	500.2	11.0	5.9	2.178	SF
RWF 22-8 - Wellbore #1 - Wellbore #1	200.0	199.9	8.5	6.0	3.385	CC, ES
RWF 22-8 - Wellbore #1 - Wellbore #1	3,000.0	2,995.2	137.6	81.4	2.448	SF
RWF 321-8 - Wellbore #1 - Plan #1	400.0	399.6	30.3	23.4	4.383	CC, ES
RWF 321-8 - Wellbore #1 - Plan #1	3,800.0	3,834.2	312.6	235.3	4.045	SF
RWF 322-8 - Wellbore #1 - Wellbore #1	300.0	299.2	20.8	16.5	4.797	CC, ES
RWF 322-8 - Wellbore #1 - Wellbore #1	600.0	598.3	31.0	23.5	4.115	SF
RWF 421-8 - Wellbore #1 - Plan #1	200.0	200.0	11.8	9.1	4.460	CC, ES
RWF 421-8 - Wellbore #1 - Plan #1	600.0	603.7	26.7	12.6	1.898	Collision Risk Procedures R
RWF 422-8 - Wellbore #1 - Wellbore #1						Out of range
RWF 514-4 - Wellbore #1 - Plan #1						Out of range
RWF 522-8 - Wellbore #1 - Wellbore #1						Out of range

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Sec 8, T6S, R94W - (Offset) RWF 322-9 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 78-OWSG (REV5) MWD HDGM Standard													Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning		
200.0	200.0	200.0	199.8	1.5	2.4	-173.46	-9.7	10.8	16.1	12.5	4.394	CC, ES		
300.0	299.7	297.8	297.1	3.7	4.6	165.38	-5.4	20.8	29.7	22.4	4.041	SF		
400.0	399.0	393.8	391.8	5.2	5.7	156.91	0.4	34.9	53.5	43.8	5.497			

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design	Sec 8, T6S, R94W - (Offset) RWF 513-9 - Wellbore #1 - Wellbore #1										Offset Site Error:	0.0 usft
Survey Program:	83-GYRO-NS, 612-OWSG (REV5) MWD HDGM Standard										Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
300.0	299.7	300.0	299.7	3.7	1.0	-144.17	-18.4	1.3	24.7	20.5	5.934	CC, ES, SF

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Sec 8, T6S, R94W - RWF 22-8 - Wellbore #1 - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
200.0	200.0	200.0	200.0	1.5	1.5	-102.32	-6.1	-4.3	7.6	5.6	3.724	CC	
300.0	299.7	300.1	299.8	3.7	3.7	-101.54	-2.8	-10.2	8.3	5.0	2.503	ES	
400.0	399.0	400.1	399.1	5.2	5.2	-100.42	3.1	-20.7	9.4	5.1	2.211		
500.0	497.5	500.2	497.6	6.4	6.4	-99.20	11.6	-35.7	11.0	5.9	2.178	SF	
600.0	595.0	600.2	595.1	7.5	7.5	-98.05	22.5	-55.2	13.0	7.2	2.241		
700.0	691.1	700.2	691.3	8.4	8.4	-97.05	35.9	-79.0	15.6	8.9	2.335		
800.0	785.7	800.1	785.9	9.2	9.2	-96.21	51.8	-107.3	18.6	10.9	2.428		
900.0	878.5	900.1	878.6	10.0	10.0	-95.51	70.1	-139.8	22.1	13.3	2.503		
1,000.0	969.2	1,000.0	969.2	10.7	10.7	-94.93	90.7	-176.4	26.0	15.8	2.555		
1,100.0	1,057.6	1,099.9	1,057.5	11.4	11.4	-94.44	113.6	-217.2	30.4	18.6	2.584		
1,200.0	1,143.4	1,199.8	1,143.2	12.0	12.0	-94.02	138.7	-261.9	35.2	21.6	2.592		
1,300.0	1,226.3	1,299.7	1,226.2	12.6	12.4	-93.91	166.0	-310.3	40.4	24.8	2.591		
1,400.0	1,306.5	1,399.4	1,308.3	13.0	12.7	-98.09	193.7	-359.7	46.1	28.2	2.573		
1,500.0	1,386.1	1,499.2	1,390.4	13.2	13.0	-102.48	221.5	-409.1	52.1	31.8	2.561		
1,600.0	1,465.7	1,598.9	1,472.5	13.5	13.3	-105.94	249.3	-458.5	58.5	35.7	2.566		
1,700.0	1,545.3	1,698.7	1,554.5	13.8	13.6	-108.72	277.0	-507.9	65.0	39.8	2.584		
1,800.0	1,624.9	1,798.4	1,636.6	14.2	13.9	-110.99	304.8	-557.3	71.6	44.1	2.610		
1,900.0	1,704.5	1,898.2	1,718.7	14.9	14.5	-112.87	332.6	-606.6	78.3	48.6	2.639		
2,000.0	1,784.1	1,997.9	1,800.8	16.2	15.7	-114.46	360.4	-656.0	85.1	53.2	2.670		
2,100.0	1,863.8	2,097.6	1,882.9	17.4	16.8	-115.81	388.1	-705.4	91.9	57.9	2.701		
2,200.0	1,943.4	2,197.4	1,965.0	18.7	18.0	-116.97	415.9	-754.8	98.8	62.6	2.731		
2,300.0	2,023.0	2,297.1	2,047.1	19.9	19.1	-117.98	443.7	-804.2	105.7	67.4	2.760		
2,400.0	2,102.6	2,396.9	2,129.2	21.2	20.3	-118.87	471.4	-853.6	112.7	72.3	2.789		
2,500.0	2,182.2	2,496.6	2,211.2	22.4	21.5	-119.65	499.2	-903.0	119.6	77.1	2.815		
2,600.0	2,261.8	2,596.4	2,293.3	23.7	22.6	-120.35	527.0	-952.4	126.6	82.0	2.840		
2,700.0	2,341.4	2,696.1	2,375.4	24.9	23.8	-120.97	554.7	-1,001.8	133.6	87.0	2.864		
2,800.0	2,421.0	2,795.9	2,457.5	26.2	25.0	-121.53	582.5	-1,051.2	140.6	91.9	2.886		
2,900.0	2,500.6	2,895.6	2,539.6	27.4	26.1	-122.04	610.3	-1,100.5	147.7	96.9	2.907		
3,000.0	2,580.2	2,995.3	2,621.7	28.7	27.3	-122.50	638.1	-1,149.9	154.7	101.9	2.927		
3,100.0	2,659.8	3,095.1	2,703.8	30.0	28.5	-122.92	665.8	-1,199.3	161.8	106.9	2.946		
3,200.0	2,739.4	3,194.8	2,785.9	31.2	29.7	-123.31	693.6	-1,248.7	168.8	111.9	2.963		
3,300.0	2,819.0	3,294.6	2,867.9	32.5	30.8	-123.67	721.4	-1,298.1	175.9	116.9	2.980		
3,400.0	2,898.6	3,394.3	2,950.0	33.7	32.0	-123.99	749.1	-1,347.5	183.0	121.9	2.996		
3,500.0	2,978.2	3,494.1	3,032.1	35.0	33.2	-124.30	776.9	-1,396.9	190.0	126.9	3.010		
3,600.0	3,057.8	3,593.8	3,114.2	36.3	34.3	-124.58	804.7	-1,446.3	197.1	131.9	3.024		
3,700.0	3,137.4	3,693.6	3,196.3	37.5	35.5	-124.84	832.5	-1,495.7	204.2	137.0	3.037		
3,800.0	3,217.0	3,793.3	3,278.4	38.8	36.7	-125.09	860.2	-1,545.1	211.3	142.0	3.050		
3,900.0	3,296.6	3,893.0	3,360.5	40.0	37.9	-125.32	888.0	-1,594.5	218.4	147.1	3.062		
4,000.0	3,376.2	3,992.8	3,442.6	41.3	39.0	-125.53	915.8	-1,643.8	225.5	152.1	3.073		
4,100.0	3,455.8	4,092.5	3,524.6	42.6	40.2	-125.73	943.5	-1,693.2	232.6	157.2	3.083		
4,200.0	3,535.4	4,192.3	3,606.7	43.8	41.4	-125.92	971.3	-1,742.6	239.7	162.2	3.093		
4,300.0	3,615.0	4,292.0	3,688.8	45.1	42.6	-126.10	999.1	-1,792.0	246.8	167.3	3.103		
4,400.0	3,694.6	4,391.8	3,770.9	46.4	43.7	-126.27	1,026.8	-1,841.4	253.9	172.3	3.112		
4,500.0	3,774.2	4,491.5	3,853.0	47.6	44.9	-126.43	1,054.6	-1,890.8	261.0	177.4	3.121		
4,600.0	3,854.0	4,591.3	3,935.1	48.9	46.1	-126.56	1,082.4	-1,940.2	268.0	182.3	3.127		
4,700.0	3,933.1	4,687.5	4,014.9	50.1	47.2	-126.56	1,108.7	-1,987.0	274.2	186.4	3.124		
4,800.0	4,017.8	4,783.6	4,096.0	51.2	48.2	-126.57	1,134.0	-2,032.0	280.2	190.4	3.122		
4,900.0	4,101.9	4,879.7	4,178.3	52.3	49.2	-126.58	1,158.3	-2,075.1	285.9	194.3	3.121		
5,000.0	4,187.4	4,975.7	4,261.8	53.4	50.2	-126.59	1,181.5	-2,116.4	291.5	198.1	3.121		
5,100.0	4,274.2	5,071.6	4,346.4	54.4	51.1	-126.61	1,203.7	-2,155.9	296.8	201.7	3.122		
5,200.0	4,362.3	5,167.5	4,432.1	55.3	51.9	-126.63	1,224.8	-2,193.5	301.8	205.2	3.123		
5,300.0	4,451.6	5,263.4	4,518.8	56.1	52.7	-126.66	1,244.9	-2,229.1	306.7	208.6	3.125		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Sec 8, T6S, R94W - RWF 22-8 - Wellbore #1 - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
5,400.0	4,542.0	5,359.2	4,606.4	57.0	53.4	-126.69	1,263.8	-2,262.9	311.3	211.8	3.128		
5,500.0	4,633.6	5,455.0	4,694.9	57.7	54.1	-126.72	1,281.7	-2,294.7	315.6	214.8	3.131		
5,600.0	4,726.1	5,550.7	4,784.3	58.4	54.8	-126.76	1,298.5	-2,324.5	319.7	217.7	3.135		
5,700.0	4,819.6	5,646.4	4,874.5	59.1	55.3	-126.79	1,314.2	-2,352.4	323.6	220.5	3.139		
5,800.0	4,914.0	5,742.0	4,965.4	59.7	55.9	-126.84	1,328.7	-2,378.3	327.2	223.1	3.143		
5,900.0	5,009.3	5,837.6	5,057.0	60.2	56.4	-126.88	1,342.2	-2,402.2	330.6	225.5	3.148		
6,000.0	5,105.3	5,933.2	5,149.3	60.7	56.8	-126.92	1,354.5	-2,424.1	333.7	227.8	3.153		
6,100.0	5,202.0	6,028.8	5,242.0	61.1	57.2	-126.97	1,365.6	-2,443.9	336.5	229.9	3.158		
6,200.0	5,299.3	6,124.3	5,335.3	61.5	57.6	-127.02	1,375.6	-2,461.7	339.1	231.9	3.163		
6,300.0	5,397.2	6,219.8	5,429.1	61.9	57.9	-127.07	1,384.5	-2,477.5	341.4	233.7	3.168		
6,400.0	5,495.6	6,315.2	5,523.3	62.2	58.1	-127.13	1,392.2	-2,491.2	343.5	235.3	3.173		
6,500.0	5,594.4	6,410.7	5,617.8	62.4	58.3	-127.18	1,398.8	-2,502.9	345.3	236.7	3.179		
6,600.0	5,693.6	6,506.1	5,712.5	62.6	58.5	-127.24	1,404.2	-2,512.5	346.9	237.9	3.184		
6,700.0	5,793.1	6,600.0	5,806.1	62.8	58.7	-127.30	1,408.4	-2,519.9	348.1	239.0	3.191		
6,800.0	5,892.9	6,696.9	5,902.7	62.9	58.8	-127.36	1,411.5	-2,525.5	349.1	239.9	3.195		
6,900.0	5,992.7	6,792.2	5,998.0	63.0	58.9	-127.43	1,413.4	-2,528.9	349.9	240.6	3.200		
7,000.0	6,092.7	6,887.6	6,093.3	63.0	58.9	-127.50	1,414.1	-2,530.2	350.4	241.1	3.206		
7,100.0	6,192.7	6,987.0	6,192.7	63.0	58.9	177.19	1,414.1	-2,530.2	350.5	241.2	3.206		
7,200.0	6,292.7	7,087.0	6,292.7	63.1	58.9	177.19	1,414.1	-2,530.2	350.5	241.1	3.205		
7,300.0	6,392.7	7,187.0	6,392.7	63.1	59.0	177.19	1,414.1	-2,530.2	350.5	241.1	3.204		
7,400.0	6,492.7	7,287.0	6,492.7	63.1	59.0	177.19	1,414.1	-2,530.2	350.5	241.0	3.202		
7,500.0	6,592.7	7,387.0	6,592.7	63.1	59.0	177.19	1,414.1	-2,530.2	350.5	241.0	3.201		
7,600.0	6,692.7	7,487.0	6,692.7	63.1	59.0	177.19	1,414.1	-2,530.2	350.5	240.9	3.200		
7,700.0	6,792.7	7,587.0	6,792.7	63.2	59.0	177.19	1,414.1	-2,530.2	350.5	240.9	3.198		
7,800.0	6,892.7	7,687.0	6,892.7	63.2	59.1	177.19	1,414.1	-2,530.2	350.5	240.8	3.197		
7,900.0	6,992.7	7,787.0	6,992.7	63.2	59.1	177.19	1,414.1	-2,530.2	350.5	240.8	3.196		
8,000.0	7,092.7	7,887.0	7,092.7	63.2	59.1	177.19	1,414.1	-2,530.2	350.5	240.7	3.194		
8,100.0	7,192.7	7,987.0	7,192.7	63.2	59.1	177.19	1,414.1	-2,530.2	350.5	240.7	3.193		
8,200.0	7,292.7	8,087.0	7,292.7	63.2	59.1	177.19	1,414.1	-2,530.2	350.5	240.7	3.192		
8,300.0	7,392.7	8,187.0	7,392.7	63.3	59.2	177.19	1,414.1	-2,530.2	350.5	240.6	3.190		
8,400.0	7,492.7	8,287.0	7,492.7	63.3	59.2	177.19	1,414.1	-2,530.2	350.5	240.6	3.189		
8,500.0	7,592.7	8,387.0	7,592.7	63.3	59.2	177.19	1,414.1	-2,530.2	350.5	240.5	3.187		
8,600.0	7,692.7	8,487.0	7,692.7	63.3	59.2	177.19	1,414.1	-2,530.2	350.5	240.5	3.186		
8,700.0	7,792.7	8,587.0	7,792.7	63.3	59.3	177.19	1,414.1	-2,530.2	350.5	240.4	3.185		
8,800.0	7,892.7	8,687.0	7,892.7	63.4	59.3	177.19	1,414.1	-2,530.2	350.5	240.4	3.183		
8,900.0	7,992.7	8,787.0	7,992.7	63.4	59.3	177.19	1,414.1	-2,530.2	350.5	240.3	3.182		
9,000.0	8,092.7	8,887.0	8,092.7	63.4	59.3	177.19	1,414.1	-2,530.2	350.5	240.3	3.180		
9,100.0	8,192.7	8,987.0	8,192.7	63.4	59.3	177.19	1,414.1	-2,530.2	350.5	240.2	3.179		
9,200.0	8,292.7	9,087.0	8,292.7	63.4	59.4	177.19	1,414.1	-2,530.2	350.5	240.2	3.178		
9,300.0	8,392.7	9,187.0	8,392.7	63.5	59.4	177.19	1,414.1	-2,530.2	350.5	240.1	3.176		
9,400.0	8,492.7	9,287.0	8,492.7	63.5	59.4	177.19	1,414.1	-2,530.2	350.5	240.1	3.175		
9,500.0	8,592.7	9,387.0	8,592.7	63.5	59.4	177.19	1,414.1	-2,530.2	350.5	240.0	3.173		
9,600.0	8,692.7	9,487.0	8,692.7	63.5	59.5	177.19	1,414.1	-2,530.2	350.5	240.0	3.172		
9,700.0	8,792.7	9,587.0	8,792.7	63.5	59.5	177.19	1,414.1	-2,530.2	350.5	239.9	3.171		
9,800.0	8,892.7	9,687.0	8,892.7	63.6	59.5	177.19	1,414.1	-2,530.2	350.5	239.9	3.169		
9,801.0	8,893.7	9,688.0	8,893.7	63.6	59.5	177.19	1,414.1	-2,530.2	350.5	239.9	3.169		
9,855.3	8,948.0	9,725.2	8,931.0	63.6	59.5	177.19	1,414.1	-2,530.2	350.9	241.1	3.195		

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 236-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
200.0	200.0	199.9	199.8	1.5	1.5	-75.10	-4.6	-7.9	8.5	6.0	3.385	CC, ES	
300.0	299.7	299.6	299.3	3.7	2.5	-75.74	-1.8	-14.6	10.1	6.2	2.584		
400.0	399.0	399.5	398.4	5.2	3.7	-81.92	2.2	-25.5	12.9	8.0	2.673		
500.0	497.5	499.3	496.9	6.4	4.9	-86.01	9.4	-40.5	15.4	9.9	2.790		
600.0	595.0	599.5	594.6	7.5	6.0	-87.92	20.0	-59.8	17.6	11.3	2.793		
700.0	691.1	699.3	690.4	8.4	7.1	-87.27	34.1	-83.6	19.6	12.3	2.707		
800.0	785.7	798.9	784.4	9.2	8.0	-85.82	50.3	-112.4	22.7	14.4	2.749		
900.0	878.5	898.3	876.1	10.0	8.7	-84.04	68.6	-146.0	26.9	17.5	2.844		
1,000.0	969.2	997.7	965.8	10.7	10.3	-83.69	88.0	-184.1	32.7	21.6	2.945		
1,100.0	1,057.6	1,097.5	1,054.4	11.4	13.2	-86.30	109.0	-225.0	38.6	25.4	2.932		
1,200.0	1,143.4	1,197.2	1,141.6	12.0	16.1	-91.09	131.6	-267.9	44.5	29.2	2.920		
1,300.0	1,226.3	1,297.1	1,227.3	12.6	18.9	-97.27	155.7	-313.0	50.7	33.0	2.869		
1,400.0	1,306.5	1,397.0	1,311.3	13.0	20.5	-103.37	181.5	-360.5	57.8	37.3	2.826		
1,500.0	1,386.1	1,497.9	1,393.2	13.2	20.9	-104.70	209.9	-412.1	64.3	41.6	2.839		
1,600.0	1,465.7	1,597.7	1,473.1	13.5	21.2	-104.35	239.7	-464.0	69.4	44.7	2.808		
1,700.0	1,545.3	1,696.4	1,552.8	13.8	21.4	-104.79	268.0	-514.9	75.5	48.6	2.806		
1,800.0	1,624.9	1,796.5	1,633.7	14.2	21.6	-105.27	296.0	-566.7	82.4	53.3	2.830		
1,900.0	1,704.5	1,896.5	1,714.3	14.9	21.8	-105.44	324.4	-618.6	88.9	57.5	2.834		
2,000.0	1,784.1	1,994.8	1,794.2	16.2	22.0	-106.17	351.6	-669.0	96.0	62.3	2.853		
2,100.0	1,863.8	2,096.3	1,876.7	17.4	22.3	-106.80	379.7	-721.1	103.0	67.1	2.869		
2,200.0	1,943.4	2,198.1	1,958.9	18.7	22.5	-107.16	409.8	-773.0	108.1	69.9	2.828		
2,300.0	2,023.0	2,297.3	2,039.3	19.9	22.8	-107.74	439.2	-823.1	113.1	72.6	2.790		
2,400.0	2,102.6	2,399.8	2,122.0	21.2	23.1	-108.12	471.0	-874.7	116.6	73.8	2.722		
2,500.0	2,182.2	2,499.0	2,202.3	22.4	23.4	-108.80	502.3	-923.9	119.6	74.4	2.646		
2,600.0	2,261.8	2,599.2	2,284.1	23.7	24.0	-110.00	533.0	-972.8	123.2	75.8	2.601		
2,700.0	2,341.4	2,700.0	2,365.6	24.9	25.2	-110.63	565.2	-1,022.7	125.7	76.1	2.533		
2,800.0	2,421.0	2,798.8	2,445.6	26.2	26.4	-111.20	596.3	-1,071.7	128.7	76.8	2.480		
2,900.0	2,500.6	2,897.6	2,526.2	27.4	27.5	-112.18	626.5	-1,120.0	132.5	78.4	2.450		
3,000.0	2,580.2	2,995.2	2,606.5	28.7	28.6	-113.37	655.2	-1,167.5	137.6	81.4	2.448	SF	
3,100.0	2,659.8	3,094.4	2,689.4	30.0	29.7	-115.29	682.8	-1,214.4	144.2	86.0	2.478		
3,200.0	2,739.4	3,195.6	2,773.3	31.2	30.8	-116.57	711.6	-1,263.3	150.3	90.1	2.496		
3,300.0	2,819.0	3,297.7	2,856.5	32.5	32.0	-117.06	742.0	-1,314.0	155.3	92.9	2.489		
3,400.0	2,898.6	3,396.1	2,935.7	33.7	33.2	-116.84	771.8	-1,364.4	159.8	95.1	2.470		
3,500.0	2,978.2	3,494.0	3,015.1	35.0	34.4	-116.95	800.2	-1,414.0	165.5	98.6	2.474		
3,600.0	3,057.8	3,594.8	3,097.0	36.3	35.6	-116.96	829.1	-1,465.3	171.6	102.4	2.481		
3,700.0	3,137.4	3,691.0	3,174.7	37.5	36.8	-116.72	856.3	-1,515.0	178.1	106.7	2.493		
3,800.0	3,217.0	3,789.8	3,255.5	38.8	37.9	-116.92	883.0	-1,565.1	185.9	112.3	2.526		
3,900.0	3,296.6	3,892.5	3,339.5	40.0	39.1	-117.13	910.9	-1,617.1	193.5	117.6	2.551		
4,000.0	3,376.2	3,996.6	3,424.4	41.3	40.4	-117.44	941.5	-1,669.1	198.8	120.7	2.546		
4,100.0	3,455.8	4,094.6	3,504.9	42.6	41.5	-118.08	970.7	-1,716.8	203.7	123.6	2.543		
4,200.0	3,535.4	4,191.3	3,585.5	43.8	42.6	-119.21	998.2	-1,762.5	210.0	128.1	2.564		
4,300.0	3,615.0	4,287.5	3,666.8	45.1	43.7	-120.64	1,024.3	-1,806.9	217.8	134.3	2.609		
4,400.0	3,694.6	4,384.3	3,749.6	46.4	44.7	-122.33	1,049.0	-1,850.4	227.4	142.5	2.679		
4,500.0	3,774.2	4,484.7	3,836.3	47.6	45.7	-124.29	1,074.4	-1,894.4	237.5	151.3	2.757		
4,600.0	3,854.0	4,584.3	3,921.3	48.9	46.7	-125.73	1,100.4	-1,939.3	246.8	159.2	2.818		
4,700.0	3,935.1	4,680.0	4,003.5	50.1	47.7	-126.79	1,124.4	-1,981.9	255.9	166.9	2.875		
4,800.0	4,017.8	4,777.0	4,087.6	51.2	48.6	-127.53	1,147.4	-2,024.4	264.9	174.4	2.927		
4,900.0	4,101.9	4,874.7	4,173.0	52.3	49.6	-128.07	1,170.3	-2,066.0	272.9	180.9	2.966		
5,000.0	4,187.4	4,972.6	4,259.6	53.4	50.5	-128.57	1,192.6	-2,106.0	280.3	186.8	2.998		
5,100.0	4,274.2	5,071.0	4,347.1	54.4	51.3	-128.88	1,214.7	-2,145.0	286.4	191.4	3.016		
5,200.0	4,362.3	5,168.5	4,434.9	55.3	52.1	-129.19	1,236.3	-2,181.6	291.6	195.2	3.026		
5,300.0	4,451.6	5,265.4	4,522.7	56.1	52.9	-129.34	1,257.0	-2,216.9	296.0	198.3	3.030		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Sec 8, T6S, R94W - RWF 22-8 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 236-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
5,400.0	4,542.0	5,363.6	4,612.5	57.0	53.7	-129.38	1,277.4	-2,251.2	299.7	200.6	3.024		
5,500.0	4,633.6	5,459.3	4,700.5	57.7	54.4	-129.31	1,296.7	-2,283.3	302.5	202.1	3.013		
5,600.0	4,726.1	5,554.4	4,789.2	58.4	55.0	-129.36	1,314.6	-2,312.6	305.3	203.8	3.007		
5,700.0	4,819.6	5,648.0	4,877.3	59.1	55.6	-129.39	1,330.8	-2,339.8	308.2	205.7	3.006		
5,800.0	4,914.0	5,739.6	4,964.5	59.7	56.1	-129.51	1,344.8	-2,364.0	311.9	208.6	3.019		
5,900.0	5,009.3	5,833.2	5,054.4	60.2	56.5	-129.61	1,356.9	-2,386.9	316.4	212.3	3.041		
6,000.0	5,105.3	5,932.8	5,150.8	60.7	57.0	-129.72	1,368.9	-2,409.2	320.4	215.4	3.053		
6,100.0	5,202.0	6,030.4	5,245.7	61.1	57.4	-129.94	1,380.9	-2,428.4	322.7	217.1	3.056		
6,200.0	5,299.3	6,127.9	5,340.8	61.5	57.7	-129.91	1,392.0	-2,446.9	324.3	218.0	3.050		
6,300.0	5,397.2	6,217.5	5,428.6	61.9	58.0	-129.87	1,400.9	-2,462.1	326.0	219.3	3.056		
6,400.0	5,495.6	6,313.4	5,523.4	62.2	58.3	-130.15	1,408.1	-2,474.5	328.7	221.7	3.073		
6,500.0	5,594.4	6,410.1	5,619.5	62.4	58.5	-130.61	1,415.0	-2,483.9	330.6	223.4	3.086		
6,600.0	5,693.6	6,505.0	5,713.8	62.6	58.6	-130.82	1,420.7	-2,492.6	332.0	224.7	3.095		
6,700.0	5,793.1	6,602.3	5,810.6	62.8	58.8	-130.88	1,425.3	-2,500.2	332.9	225.4	3.096		
6,800.0	5,892.9	6,698.5	5,906.7	62.9	58.9	-131.01	1,429.3	-2,505.3	333.1	225.4	3.094		
6,900.0	5,992.7	6,795.1	6,003.0	63.0	59.0	-130.93	1,432.4	-2,509.6	332.6	224.7	3.084		
7,000.0	6,092.7	6,894.3	6,102.1	63.0	59.1	-130.53	1,434.9	-2,513.7	331.1	222.7	3.056		
7,100.0	6,192.7	6,992.8	6,200.5	63.0	59.1	174.85	1,437.0	-2,517.9	328.6	219.7	3.018		
7,200.0	6,292.7	7,091.1	6,298.8	63.1	59.2	175.28	1,438.9	-2,520.5	326.4	217.2	2.989		
7,300.0	6,392.7	7,189.2	6,396.9	63.1	59.2	175.38	1,440.4	-2,521.2	324.9	215.5	2.972		
7,400.0	6,492.7	7,287.2	6,494.9	63.1	59.3	175.46	1,441.3	-2,521.8	323.9	214.5	2.961		
7,482.9	6,575.7	7,368.0	6,575.7	63.1	59.3	175.56	1,441.7	-2,522.4	323.4	214.0	2.956		
7,500.0	6,592.7	7,368.0	6,575.7	63.1	59.3	175.56	1,441.7	-2,522.4	323.9	215.5	2.988		
7,600.0	6,692.7	7,368.0	6,575.7	63.1	59.3	175.56	1,441.7	-2,522.4	344.0	245.8	3.504		
7,700.0	6,792.7	7,368.0	6,575.7	63.2	59.3	175.56	1,441.7	-2,522.4	389.5	304.7	4.592		

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program:												Offset Well Error:	0.0 usft
Sec 8, T6S, R94W - RWF 321-8 - Wellbore #1 - Plan #1													
0-OWSG (REV5) MWD HDGM Standard													
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
400.0	399.0	399.6	399.5	5.2	3.2	135.18	16.9	13.0	30.3	23.4	4.383	CC, ES	
500.0	497.5	500.2	499.9	6.4	4.7	146.20	20.7	9.0	40.1	30.6	4.209		
600.0	595.0	601.3	600.4	7.5	4.9	151.95	28.2	1.2	51.2	39.5	4.392		
700.0	691.1	703.1	700.9	8.4	6.1	154.92	39.5	-10.6	62.9	49.3	4.617		
800.0	785.7	805.4	800.9	9.2	7.2	156.34	54.5	-26.3	75.0	59.6	4.869		
900.0	878.5	908.4	900.1	10.0	8.1	156.83	73.4	-46.0	87.3	70.3	5.131		
1,000.0	969.2	1,011.9	998.3	10.7	9.0	156.71	96.0	-69.8	99.9	81.4	5.396		
1,100.0	1,057.6	1,116.0	1,095.1	11.4	9.7	156.18	122.4	-97.5	112.7	92.8	5.656		
1,200.0	1,143.4	1,220.7	1,190.2	12.0	10.5	155.36	152.6	-129.1	125.6	104.3	5.909		
1,900.0	1,704.5	1,948.5	1,775.4	14.9	13.9	135.98	447.7	-439.0	170.0	141.0	5.869		
2,000.0	1,784.1	2,047.8	1,849.8	16.2	14.8	132.02	493.0	-486.6	172.7	142.0	5.632		
2,100.0	1,863.8	2,147.0	1,924.2	17.4	16.1	128.20	538.3	-534.2	176.2	143.5	5.383		
2,200.0	1,943.4	2,246.3	1,998.5	18.7	17.4	124.54	583.6	-581.8	180.5	145.5	5.157		
2,300.0	2,023.0	2,345.5	2,072.9	19.9	18.7	121.06	628.9	-629.4	185.5	148.1	4.955		
2,400.0	2,102.6	2,444.7	2,147.3	21.2	20.1	117.78	674.2	-677.0	191.1	151.1	4.780		
2,500.0	2,182.2	2,544.0	2,221.7	22.4	21.4	114.69	719.5	-724.6	197.4	154.8	4.630		
2,600.0	2,261.8	2,643.2	2,296.1	23.7	22.7	111.79	764.8	-772.2	204.2	158.8	4.504		
2,700.0	2,341.4	2,742.5	2,370.5	24.9	24.0	109.09	810.1	-819.8	211.5	163.4	4.400		
2,800.0	2,421.0	2,841.7	2,444.8	26.2	25.4	106.57	855.4	-867.4	219.2	168.4	4.314		
2,900.0	2,500.6	2,941.0	2,519.2	27.4	26.7	104.22	900.7	-915.0	227.3	173.7	4.245		
3,000.0	2,580.2	3,040.2	2,593.6	28.7	28.1	102.04	946.0	-962.6	235.8	179.5	4.190		
3,100.0	2,659.8	3,139.5	2,668.0	30.0	29.4	100.01	991.3	-1,010.2	244.5	185.6	4.147		
3,200.0	2,739.4	3,238.7	2,742.4	31.2	30.8	98.12	1,036.6	-1,057.7	253.6	192.0	4.113		
3,300.0	2,819.0	3,338.0	2,816.8	32.5	32.1	96.36	1,082.0	-1,105.3	263.0	198.6	4.088		
3,400.0	2,898.6	3,437.2	2,891.1	33.7	33.5	94.73	1,127.3	-1,152.9	272.5	205.5	4.070		
3,500.0	2,978.2	3,536.5	2,965.5	35.0	34.8	93.21	1,172.6	-1,200.5	282.3	212.7	4.057		
3,600.0	3,057.8	3,635.7	3,039.9	36.3	36.2	91.78	1,217.9	-1,248.1	292.2	220.1	4.049		
3,700.0	3,137.4	3,735.0	3,114.3	37.5	37.5	90.46	1,263.2	-1,295.7	302.3	227.6	4.045		
3,800.0	3,217.0	3,834.2	3,188.7	38.8	38.9	89.22	1,308.5	-1,343.3	312.6	235.3	4.045	SF	
3,900.0	3,296.6	3,933.5	3,263.1	40.0	40.3	88.05	1,353.8	-1,390.9	323.0	243.2	4.047		
4,000.0	3,376.2	4,032.7	3,337.4	41.3	41.6	86.96	1,399.1	-1,438.5	333.5	251.2	4.052		
4,100.0	3,455.8	4,132.0	3,411.8	42.6	43.0	85.94	1,444.4	-1,486.1	344.2	259.4	4.058		
4,200.0	3,535.4	4,231.2	3,486.2	43.8	44.3	84.98	1,489.7	-1,533.7	354.9	267.6	4.066		
4,300.0	3,615.0	4,330.5	3,560.6	45.1	45.7	84.08	1,535.0	-1,581.3	365.8	276.0	4.076		
4,400.0	3,694.6	4,429.7	3,635.0	46.4	47.1	83.22	1,580.3	-1,628.8	376.7	284.5	4.086		
4,500.0	3,774.2	4,529.0	3,709.4	47.6	48.4	82.42	1,625.6	-1,676.4	387.7	293.1	4.097		
4,600.0	3,854.0	4,628.2	3,783.7	48.9	49.8	81.70	1,670.9	-1,724.0	398.8	301.8	4.111		
4,700.0	3,935.1	4,727.3	3,857.9	50.1	51.2	80.79	1,716.1	-1,771.5	410.4	311.1	4.134		
4,800.0	4,017.8	4,826.0	3,932.0	51.2	52.5	79.61	1,761.2	-1,818.9	422.5	321.2	4.169		
4,900.0	4,101.9	4,924.4	4,005.7	52.3	53.9	78.18	1,806.1	-1,866.1	435.5	332.2	4.217		
5,000.0	4,187.4	5,022.4	4,079.2	53.4	55.2	76.54	1,850.9	-1,913.1	449.3	344.4	4.283		
5,100.0	4,274.2	5,120.0	4,152.3	54.4	56.6	74.72	1,895.4	-1,959.8	464.3	357.9	4.366		
5,200.0	4,362.3	5,216.9	4,224.9	55.3	57.9	72.77	1,939.7	-2,006.3	480.6	373.1	4.470		
5,300.0	4,451.6	5,317.4	4,300.5	56.1	59.3	70.65	1,985.3	-2,054.3	498.2	389.7	4.590		
5,400.0	4,542.0	5,423.1	4,382.2	57.0	60.6	68.62	2,031.5	-2,102.8	516.0	406.4	4.709		
5,500.0	4,633.6	5,530.1	4,467.4	57.7	62.0	66.79	2,076.2	-2,149.8	533.5	423.0	4.828		
5,600.0	4,726.1	5,638.4	4,556.0	58.4	63.2	65.16	2,119.1	-2,194.9	550.7	439.3	4.944		
5,700.0	4,819.6	5,748.0	4,647.9	59.1	64.4	63.69	2,160.2	-2,238.0	567.3	455.1	5.057		
5,800.0	4,914.0	5,858.8	4,743.1	59.7	65.5	62.38	2,199.2	-2,279.0	583.2	470.3	5.166		
5,900.0	5,009.3	5,970.7	4,841.5	60.2	66.5	61.21	2,236.1	-2,317.7	598.4	484.9	5.270		
6,000.0	5,105.3	6,083.8	4,942.9	60.7	67.4	60.18	2,270.5	-2,353.9	612.7	498.6	5.369		
6,100.0	5,202.0	6,197.9	5,047.2	61.1	68.3	59.26	2,302.5	-2,387.5	626.0	511.4	5.463		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Sec 8, T6S, R94W - RWF 321-8 - Wellbore #1 - Plan #1											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
6,200.0	5,299.3	6,313.1	5,154.2	61.5	69.0	58.44	2,331.9	-2,418.3	638.3	523.3	5.550	
6,300.0	5,397.2	6,429.2	5,263.7	61.9	69.7	57.73	2,358.4	-2,446.2	649.5	534.2	5.631	
6,400.0	5,495.6	6,546.1	5,375.5	62.2	70.3	57.12	2,382.0	-2,471.0	659.6	544.0	5.706	
6,500.0	5,594.4	6,663.8	5,489.3	62.4	70.8	56.59	2,402.6	-2,492.6	668.4	552.6	5.775	
6,600.0	5,693.6	6,782.1	5,604.9	62.6	71.2	56.14	2,420.0	-2,510.9	675.9	560.1	5.836	
6,700.0	5,793.1	6,901.0	5,722.0	62.8	71.6	55.77	2,434.2	-2,525.8	682.1	566.3	5.891	
6,800.0	5,892.9	7,020.4	5,840.3	62.9	71.8	55.48	2,445.1	-2,537.3	687.0	571.3	5.938	
6,900.0	5,992.7	7,140.1	5,959.6	63.0	72.0	55.26	2,452.5	-2,545.1	690.5	575.0	5.979	
8,500.0	7,592.7	8,773.4	7,592.7	63.3	72.3	-0.23	2,457.3	-2,550.1	693.2	577.6	6.000	
8,600.0	7,692.7	8,873.4	7,692.7	63.3	72.3	-0.23	2,457.3	-2,550.1	693.2	577.6	5.997	
8,700.0	7,792.7	8,973.4	7,792.7	63.3	72.4	-0.23	2,457.3	-2,550.1	693.2	577.5	5.995	
8,800.0	7,892.7	9,073.4	7,892.7	63.4	72.4	-0.23	2,457.3	-2,550.1	693.2	577.5	5.992	
8,900.0	7,992.7	9,173.4	7,992.7	63.4	72.4	-0.23	2,457.3	-2,550.1	693.2	577.4	5.990	
9,000.0	8,092.7	9,273.4	8,092.7	63.4	72.4	-0.23	2,457.3	-2,550.1	693.2	577.4	5.988	
9,100.0	8,192.7	9,373.4	8,192.7	63.4	72.4	-0.23	2,457.3	-2,550.1	693.2	577.4	5.985	
9,200.0	8,292.7	9,473.4	8,292.7	63.4	72.4	-0.23	2,457.3	-2,550.1	693.2	577.3	5.983	
9,300.0	8,392.7	9,573.4	8,392.7	63.5	72.5	-0.23	2,457.3	-2,550.1	693.2	577.3	5.980	
9,400.0	8,492.7	9,673.4	8,492.7	63.5	72.5	-0.23	2,457.3	-2,550.1	693.2	577.2	5.978	
9,500.0	8,592.7	9,773.4	8,592.7	63.5	72.5	-0.23	2,457.3	-2,550.1	693.2	577.2	5.976	
9,600.0	8,692.7	9,873.4	8,692.7	63.5	72.5	-0.23	2,457.3	-2,550.1	693.2	577.1	5.973	
9,700.0	8,792.7	9,973.4	8,792.7	63.5	72.5	-0.23	2,457.3	-2,550.1	693.2	577.1	5.971	
9,800.0	8,892.7	10,073.4	8,892.7	63.6	72.5	-0.23	2,457.3	-2,550.1	693.2	577.0	5.968	
9,855.3	8,948.0	10,128.7	8,948.0	63.6	72.5	-0.23	2,457.3	-2,550.1	693.2	577.0	5.967	

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program:												Offset Well Error:	0.0 usft
Sec 8, T6S, R94W - RWF 322-8 - Wellbore #1 - Wellbore #1													
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
300.0	299.7	299.2	298.6	3.7	2.7	-79.44	-9.9	-21.7	20.8	16.5	4.797	CC, ES	
400.0	399.0	398.8	397.3	5.2	3.8	-79.34	-6.0	-34.5	25.0	19.6	4.624		
500.0	497.5	498.9	495.7	6.4	4.9	-78.76	1.7	-51.1	28.2	21.8	4.357		
600.0	595.0	598.3	592.2	7.5	6.0	-77.20	13.0	-71.8	31.0	23.5	4.115	SF	
700.0	691.1	697.0	686.7	8.4	7.0	-76.40	25.6	-97.5	35.5	27.0	4.172		
800.0	785.7	795.4	779.3	9.2	7.7	-77.56	38.3	-128.1	42.6	33.2	4.526		
900.0	878.5	893.6	870.1	10.0	8.4	-79.72	51.4	-163.2	51.8	41.4	5.019		
1,000.0	969.2	992.7	959.8	10.7	8.9	-81.91	66.1	-202.6	62.0	50.6	5.459		
1,100.0	1,057.6	1,092.0	1,048.0	11.4	9.3	-84.34	83.0	-245.0	72.0	59.3	5.691		
1,200.0	1,143.4	1,191.4	1,134.9	12.0	9.7	-87.63	101.9	-289.3	81.4	67.2	5.729		
1,300.0	1,226.3	1,290.1	1,219.9	12.6	10.1	-91.72	121.5	-335.6	91.8	75.7	5.713		
1,400.0	1,306.5	1,389.8	1,304.2	13.0	10.6	-96.12	142.7	-384.5	102.8	84.6	5.645		
1,500.0	1,386.1	1,489.8	1,387.5	13.2	11.0	-99.19	165.6	-434.8	113.5	93.0	5.543		
1,600.0	1,465.7	1,588.6	1,470.0	13.5	11.3	-101.86	188.3	-484.1	124.2	101.5	5.453		
1,700.0	1,545.3	1,685.6	1,551.2	13.8	12.3	-104.12	209.6	-532.9	136.3	111.3	5.451		
1,800.0	1,624.9	1,785.8	1,634.8	14.2	13.4	-105.93	230.8	-583.7	149.4	122.1	5.473		
1,900.0	1,704.5	1,885.0	1,717.2	14.9	14.5	-107.15	253.0	-634.5	161.6	132.1	5.469		
2,000.0	1,784.1	1,984.6	1,800.0	16.2	15.6	-108.31	275.0	-685.2	174.0	142.2	5.472		
2,100.0	1,863.8	2,083.5	1,882.5	17.4	16.7	-109.44	297.0	-735.1	186.4	152.4	5.478		
2,200.0	1,943.4	2,183.6	1,966.1	18.7	17.9	-110.51	319.2	-785.5	198.7	162.5	5.482		
2,300.0	2,023.0	2,282.3	2,048.4	19.9	18.9	-111.43	341.3	-835.1	210.9	172.5	5.487		
2,400.0	2,102.6	2,380.3	2,130.5	21.2	20.0	-112.32	362.8	-884.3	223.7	183.1	5.509		
2,500.0	2,182.2	2,462.4	2,215.5	22.4	21.2	-113.00	385.9	-935.8	235.8	193.0	5.505		
2,600.0	2,261.8	2,540.2	2,297.2	23.7	22.3	-113.66	407.8	-985.0	248.1	203.1	5.513		
2,700.0	2,341.4	2,623.0	2,383.0	24.9	23.4	-114.34	431.8	-1,036.3	259.6	212.3	5.498		
2,800.0	2,421.0	2,711.6	2,463.3	26.2	24.5	-114.98	455.1	-1,085.2	270.6	221.3	5.483		
2,900.0	2,500.6	2,878.0	2,545.5	27.4	25.6	-115.37	477.4	-1,134.0	282.4	230.9	5.484		
3,000.0	2,580.2	2,974.9	2,626.7	28.7	26.7	-115.93	498.5	-1,182.3	295.4	241.8	5.511		
3,100.0	2,659.8	3,075.0	2,710.6	30.0	27.8	-116.45	520.4	-1,232.3	308.3	252.6	5.531		
3,200.0	2,739.4	3,173.6	2,793.4	31.2	28.9	-116.98	542.0	-1,281.2	321.3	263.4	5.554		
3,300.0	2,819.0	3,271.3	2,875.2	32.5	30.0	-117.31	563.2	-1,330.6	334.5	274.5	5.577		
3,400.0	2,898.6	3,368.1	2,955.9	33.7	31.1	-117.53	583.7	-1,379.9	348.3	286.2	5.608		
3,500.0	2,978.2	3,467.5	3,039.4	35.0	32.2	-117.90	604.3	-1,429.7	362.5	298.3	5.643		
3,600.0	3,057.8	3,568.7	3,123.9	36.3	33.4	-118.15	625.8	-1,480.9	376.2	309.8	5.663		
3,700.0	3,137.4	3,664.7	3,204.3	37.5	34.5	-118.41	646.2	-1,529.3	389.9	321.4	5.691		
3,800.0	3,217.0	3,764.3	3,288.4	38.8	35.6	-118.83	666.7	-1,578.6	404.3	333.7	5.726		
3,900.0	3,296.6	3,864.6	3,372.6	40.0	36.7	-119.12	687.8	-1,628.7	418.2	345.5	5.749		
4,000.0	3,376.2	3,969.5	3,460.5	41.3	37.9	-119.40	710.7	-1,681.2	431.4	356.5	5.756		
4,100.0	3,455.8	4,063.1	3,539.8	42.6	38.9	-119.82	731.2	-1,726.8	444.5	367.6	5.780		
4,200.0	3,535.4	4,167.6	3,628.8	43.8	40.0	-120.44	754.0	-1,776.3	457.7	378.8	5.800		
4,300.0	3,615.0	4,276.6	3,720.9	45.1	41.2	-120.94	779.7	-1,828.7	469.2	388.1	5.789		
4,400.0	3,694.6	4,379.1	3,806.6	46.4	42.3	-121.25	805.3	-1,878.8	479.2	396.0	5.764		
4,500.0	3,774.2	4,474.7	3,886.8	47.6	43.4	-121.58	829.0	-1,925.2	489.4	404.3	5.750		
4,600.0	3,854.0	4,568.5	3,966.5	48.9	44.4	-122.13	851.4	-1,969.2	500.5	413.6	5.757		
4,700.0	3,935.1	4,665.0	4,049.7	50.1	45.4	-122.77	873.6	-2,012.6	511.4	422.7	5.765		
4,800.0	4,017.8	4,763.3	4,135.2	51.2	46.4	-123.29	896.2	-2,055.8	521.0	430.6	5.760		
4,900.0	4,101.9	4,856.5	4,216.8	52.3	47.2	-123.67	917.0	-2,095.7	530.0	437.9	5.754		
5,000.0	4,187.4	4,950.7	4,300.1	53.4	48.1	-123.95	936.7	-2,135.0	538.9	445.2	5.749		
5,100.0	4,274.2	5,047.1	4,385.6	54.4	49.0	-124.06	956.7	-2,174.6	546.7	451.3	5.730		
5,200.0	4,362.3	5,137.5	4,467.0	55.3	49.7	-124.19	974.1	-2,209.8	554.6	457.7	5.723		
5,300.0	4,451.6	5,231.3	4,552.5	56.1	50.5	-124.31	991.2	-2,244.6	562.2	463.9	5.717		
5,400.0	4,542.0	5,321.3	4,635.5	57.0	51.1	-124.48	1,006.6	-2,275.8	569.7	470.1	5.720		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Sec 8, T6S, R94W - RWF 322-8 - Wellbore #1 - Wellbore #1											
Survey Program: 295-OWSG (REV5) MWD HDGM Standard											
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor
5,500.0	4,633.6	5,407.8	4,716.4	57.7	51.7	-124.69	1,019.4	-2,303.5	577.9	477.3	5.743
5,600.0	4,726.1	5,501.5	4,805.1	58.4	52.3	-124.99	1,032.1	-2,331.0	586.1	484.4	5.766
5,700.0	4,819.6	5,591.2	4,890.8	59.1	52.7	-125.30	1,043.2	-2,355.1	594.1	491.7	5.798
5,800.0	4,914.0	5,672.0	4,968.6	59.7	53.1	-125.62	1,051.4	-2,374.9	602.9	500.0	5.854
5,900.0	5,009.3	5,767.0	5,060.9	60.2	53.5	-125.98	1,059.2	-2,396.2	612.3	508.6	5.904
6,000.0	5,105.3	5,861.0	5,152.6	60.7	53.9	-126.27	1,065.8	-2,415.7	621.4	517.0	5.955

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program:												Offset Well Error:	0.0 usft
Sec 8, T6S, R94W - RWF 421-8 - Wellbore #1 - Plan #1													
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
200.0	200.0	200.0	200.0	1.5	1.1	170.16	-4.0	9.3	11.8	9.1	4.460	CC, ES	
300.0	299.7	300.7	300.6	3.7	2.5	171.51	-2.0	6.8	15.4	9.3	2.524		
400.0	399.0	401.5	401.0	5.2	4.5	171.02	3.4	0.3	19.1	9.6	2.000		
500.0	497.5	502.5	501.1	6.4	5.8	169.58	12.2	-10.4	22.9	10.8	1.900	Collision Risk Procedures Req.	
600.0	595.0	603.7	600.4	7.5	7.0	167.59	24.4	-25.1	26.7	12.6	1.898	Collision Risk Procedures Req., SF	
700.0	691.1	705.0	698.8	8.4	7.9	165.27	39.9	-44.0	30.6	14.8	1.938	Collision Risk Procedures Req.	
800.0	785.7	806.6	795.9	9.2	8.8	162.76	58.7	-66.8	34.6	17.3	2.002		
900.0	878.5	908.3	891.4	10.0	9.6	160.12	80.9	-93.7	38.7	20.1	2.083		
1,000.0	969.2	1,010.1	985.1	10.7	10.4	157.43	106.3	-124.5	43.0	23.2	2.176		
1,100.0	1,057.6	1,112.1	1,076.7	11.4	11.1	154.71	134.8	-159.2	47.4	26.6	2.278		
1,200.0	1,143.4	1,214.3	1,165.9	12.0	11.8	152.01	166.5	-197.6	52.0	30.2	2.384		
1,300.0	1,226.3	1,316.5	1,252.3	12.6	12.4	149.35	201.2	-239.8	56.8	34.0	2.489		
1,400.0	1,306.5	1,419.0	1,335.9	13.0	13.0	146.56	238.9	-285.5	61.5	38.0	2.612		
1,500.0	1,386.1	1,520.1	1,415.6	13.2	13.3	142.07	278.5	-333.5	63.6	39.5	2.642		
1,600.0	1,465.7	1,620.0	1,493.9	13.5	13.6	137.52	317.9	-381.4	65.5	40.6	2.629		
1,700.0	1,545.3	1,719.8	1,572.1	13.8	13.9	133.26	357.4	-429.2	67.9	41.7	2.597		
1,800.0	1,624.9	1,819.7	1,650.4	14.2	14.2	129.31	396.8	-477.1	70.6	42.9	2.550		
1,900.0	1,704.5	1,919.5	1,728.7	14.9	14.5	125.66	436.2	-524.9	73.6	44.1	2.496		
2,000.0	1,784.1	2,019.4	1,806.9	16.2	15.6	122.32	475.7	-572.8	76.9	45.4	2.441		
2,100.0	1,863.8	2,119.2	1,885.2	17.4	16.9	119.25	515.1	-620.6	80.4	46.7	2.385		
2,200.0	1,943.4	2,219.1	1,963.5	18.7	18.2	116.45	554.5	-668.5	84.1	48.1	2.334		
2,300.0	2,023.0	2,318.9	2,041.7	19.9	19.4	113.90	593.9	-716.3	88.1	49.6	2.287		
2,400.0	2,102.6	2,418.8	2,120.0	21.2	20.7	111.56	633.4	-764.2	92.1	51.1	2.247		
2,500.0	2,182.2	2,518.6	2,198.3	22.4	22.0	109.43	672.8	-812.0	96.4	52.8	2.212		
2,600.0	2,261.8	2,618.5	2,276.5	23.7	23.2	107.47	712.2	-859.9	100.7	54.6	2.183		
2,700.0	2,341.4	2,718.3	2,354.8	24.9	24.5	105.68	751.7	-907.7	105.2	56.4	2.157		
2,800.0	2,421.0	2,818.2	2,433.0	26.2	25.8	104.04	791.1	-955.6	109.7	58.4	2.136		
2,900.0	2,500.6	2,918.0	2,511.3	27.4	27.1	102.53	830.5	-1,003.4	114.3	60.4	2.119		
3,000.0	2,580.2	3,017.9	2,589.6	28.7	28.4	101.14	870.0	-1,051.3	119.0	62.5	2.104		
3,100.0	2,659.8	3,117.7	2,667.8	30.0	29.6	99.85	909.4	-1,099.1	123.8	64.6	2.092		
3,200.0	2,739.4	3,217.6	2,746.1	31.2	30.9	98.66	948.8	-1,147.0	128.6	66.8	2.081		
3,300.0	2,819.0	3,317.4	2,824.4	32.5	32.2	97.56	988.3	-1,194.8	133.5	69.1	2.073		
3,400.0	2,898.6	3,417.3	2,902.6	33.7	33.5	96.53	1,027.7	-1,242.7	138.4	71.4	2.066		
3,500.0	2,978.2	3,517.1	2,980.9	35.0	34.8	95.58	1,067.1	-1,290.5	143.4	73.8	2.061		
3,600.0	3,057.8	3,617.0	3,059.2	36.3	36.0	94.69	1,106.5	-1,338.4	148.4	76.2	2.056		
3,700.0	3,137.4	3,716.8	3,137.4	37.5	37.3	93.85	1,146.0	-1,386.2	153.4	78.7	2.053		
3,800.0	3,217.0	3,816.7	3,215.7	38.8	38.6	93.07	1,185.4	-1,434.1	158.5	81.2	2.050		
3,900.0	3,296.6	3,916.5	3,294.0	40.0	39.9	92.34	1,224.8	-1,481.9	163.6	83.7	2.048		
4,000.0	3,376.2	4,016.4	3,372.2	41.3	41.2	91.65	1,264.3	-1,529.8	168.7	86.3	2.047		
4,100.0	3,455.8	4,116.2	3,450.5	42.6	42.5	91.01	1,303.7	-1,577.6	173.8	88.9	2.046		
4,200.0	3,535.4	4,216.1	3,528.8	43.8	43.8	90.40	1,343.1	-1,625.5	179.0	91.5	2.045		
4,300.0	3,615.0	4,315.9	3,607.0	45.1	45.0	89.82	1,382.6	-1,673.3	184.2	94.1	2.045		
4,400.0	3,694.6	4,415.8	3,685.3	46.4	46.3	89.28	1,422.0	-1,721.2	189.4	96.8	2.046		
4,500.0	3,774.2	4,515.6	3,763.6	47.6	47.6	88.76	1,461.4	-1,769.0	194.6	99.5	2.046		
4,600.0	3,854.0	4,615.4	3,841.8	48.9	48.9	88.22	1,500.8	-1,816.9	199.8	102.2	2.047		
4,700.0	3,933.1	4,715.2	3,920.0	50.1	50.2	87.11	1,540.2	-1,864.7	205.2	105.2	2.052		
4,800.0	4,012.8	4,814.8	3,998.1	51.2	51.5	85.36	1,579.6	-1,912.4	210.8	108.6	2.062		
4,900.0	4,101.9	4,914.2	4,076.0	52.3	52.7	83.03	1,618.8	-1,960.0	217.0	112.7	2.081		
5,000.0	4,187.4	5,014.3	4,154.9	53.4	54.0	80.32	1,658.1	-2,007.7	223.8	117.8	2.112		
5,100.0	4,274.2	5,115.4	4,236.2	54.4	55.2	77.80	1,696.2	-2,054.0	230.9	123.3	2.147		
5,200.0	4,362.3	5,216.9	4,319.7	55.3	56.4	75.52	1,732.9	-2,098.5	238.0	129.2	2.187		
5,300.0	4,451.6	5,318.8	4,405.3	56.1	57.5	73.47	1,768.1	-2,141.2	245.2	135.2	2.228		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
5,400.0	4,542.0	5,421.1	4,492.9	57.0	58.6	71.62	1,801.7	-2,181.9	252.4	141.2	2.271		
5,500.0	4,633.6	5,523.8	4,582.4	57.7	59.5	69.97	1,833.6	-2,220.7	259.4	147.3	2.314		
5,600.0	4,726.1	5,626.8	4,673.9	58.4	60.4	68.48	1,863.9	-2,257.4	266.2	153.3	2.357		
5,700.0	4,819.6	5,730.2	4,767.0	59.1	61.3	67.15	1,892.4	-2,292.0	272.7	159.1	2.400		
5,800.0	4,914.0	5,834.0	4,861.9	59.7	62.1	65.95	1,919.0	-2,324.4	279.0	164.7	2.441		
5,900.0	5,009.3	5,938.0	4,958.3	60.2	62.8	64.89	1,943.9	-2,354.5	284.9	170.0	2.480		
6,000.0	5,105.3	6,042.4	5,056.2	60.7	63.4	63.95	1,966.8	-2,382.3	290.5	175.1	2.517		
6,100.0	5,202.0	6,147.0	5,155.5	61.1	64.0	63.11	1,987.8	-2,407.8	295.6	179.8	2.552		
6,200.0	5,299.3	6,251.8	5,256.0	61.5	64.5	62.37	2,006.8	-2,430.9	300.3	184.1	2.585		
6,300.0	5,397.2	6,356.9	5,357.6	61.9	65.0	61.73	2,023.8	-2,451.5	304.6	188.1	2.615		
6,400.0	5,495.6	6,462.2	5,460.3	62.2	65.4	61.17	2,038.7	-2,469.6	308.4	191.7	2.642		
6,500.0	5,594.4	6,567.7	5,563.8	62.4	65.7	60.69	2,051.6	-2,485.2	311.7	194.8	2.667		
6,600.0	5,693.6	6,673.3	5,668.0	62.6	66.0	60.30	2,062.3	-2,498.2	314.5	197.5	2.688		
6,700.0	5,793.1	6,779.1	5,772.9	62.8	66.2	59.97	2,070.9	-2,508.7	316.8	199.8	2.707		
6,800.0	5,892.9	6,884.9	5,878.3	62.9	66.4	59.72	2,077.4	-2,516.5	318.6	201.5	2.722		
6,900.0	5,992.7	6,990.9	5,984.0	63.0	66.5	59.53	2,081.6	-2,521.7	319.8	202.8	2.734		
7,000.0	6,092.7	7,096.8	6,089.9	63.0	66.6	59.42	2,083.7	-2,524.2	320.5	203.7	2.743		
7,100.0	6,192.7	7,199.6	6,192.7	63.0	66.6	4.09	2,084.0	-2,524.5	320.6	203.9	2.746		
7,200.0	6,292.7	7,299.6	6,292.7	63.1	66.6	4.09	2,084.0	-2,524.5	320.6	203.8	2.745		
7,300.0	6,392.7	7,399.6	6,392.7	63.1	66.6	4.09	2,084.0	-2,524.5	320.6	203.8	2.744		
7,400.0	6,492.7	7,499.6	6,492.7	63.1	66.6	4.09	2,084.0	-2,524.5	320.6	203.7	2.743		
7,500.0	6,592.7	7,599.6	6,592.7	63.1	66.7	4.09	2,084.0	-2,524.5	320.6	203.7	2.742		
7,600.0	6,692.7	7,699.6	6,692.7	63.1	66.7	4.09	2,084.0	-2,524.5	320.6	203.7	2.741		
7,700.0	6,792.7	7,799.6	6,792.7	63.2	66.7	4.09	2,084.0	-2,524.5	320.6	203.6	2.740		
7,800.0	6,892.7	7,899.6	6,892.7	63.2	66.7	4.09	2,084.0	-2,524.5	320.6	203.6	2.739		
7,900.0	6,992.7	7,999.6	6,992.7	63.2	66.7	4.09	2,084.0	-2,524.5	320.6	203.5	2.738		
8,000.0	7,092.7	8,099.6	7,092.7	63.2	66.7	4.09	2,084.0	-2,524.5	320.6	203.5	2.737		
8,100.0	7,192.7	8,199.6	7,192.7	63.2	66.8	4.09	2,084.0	-2,524.5	320.6	203.4	2.736		
8,200.0	7,292.7	8,299.6	7,292.7	63.2	66.8	4.09	2,084.0	-2,524.5	320.6	203.4	2.735		
8,300.0	7,392.7	8,399.6	7,392.7	63.3	66.8	4.09	2,084.0	-2,524.5	320.6	203.4	2.734		
8,400.0	7,492.7	8,499.6	7,492.7	63.3	66.8	4.09	2,084.0	-2,524.5	320.6	203.3	2.733		
8,500.0	7,592.7	8,599.6	7,592.7	63.3	66.8	4.09	2,084.0	-2,524.5	320.6	203.3	2.732		
8,600.0	7,692.7	8,699.6	7,692.7	63.3	66.8	4.09	2,084.0	-2,524.5	320.6	203.2	2.731		
8,700.0	7,792.7	8,799.6	7,792.7	63.3	66.9	4.09	2,084.0	-2,524.5	320.6	203.2	2.730		
8,800.0	7,892.7	8,899.6	7,892.7	63.4	66.9	4.09	2,084.0	-2,524.5	320.6	203.1	2.729		
8,900.0	7,992.7	8,999.6	7,992.7	63.4	66.9	4.09	2,084.0	-2,524.5	320.6	203.1	2.728		
9,000.0	8,092.7	9,099.6	8,092.7	63.4	66.9	4.09	2,084.0	-2,524.5	320.6	203.0	2.727		
9,100.0	8,192.7	9,199.6	8,192.7	63.4	66.9	4.09	2,084.0	-2,524.5	320.6	203.0	2.726		
9,200.0	8,292.7	9,299.6	8,292.7	63.4	67.0	4.09	2,084.0	-2,524.5	320.6	202.9	2.725		
9,300.0	8,392.7	9,399.6	8,392.7	63.5	67.0	4.09	2,084.0	-2,524.5	320.6	202.9	2.723		
9,400.0	8,492.7	9,499.6	8,492.7	63.5	67.0	4.09	2,084.0	-2,524.5	320.6	202.8	2.722		
9,500.0	8,592.7	9,599.6	8,592.7	63.5	67.0	4.09	2,084.0	-2,524.5	320.6	202.8	2.721		
9,600.0	8,692.7	9,699.6	8,692.7	63.5	67.0	4.09	2,084.0	-2,524.5	320.6	202.8	2.720		
9,700.0	8,792.7	9,799.6	8,792.7	63.5	67.1	4.09	2,084.0	-2,524.5	320.6	202.7	2.719		
9,800.0	8,892.7	9,899.6	8,892.7	63.6	67.1	4.09	2,084.0	-2,524.5	320.6	202.7	2.718		
9,855.3	8,948.0	9,954.9	8,948.0	63.6	67.1	4.09	2,084.0	-2,524.5	320.6	202.6	2.718		

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=24' @ 6003.6usft (H&P #318)

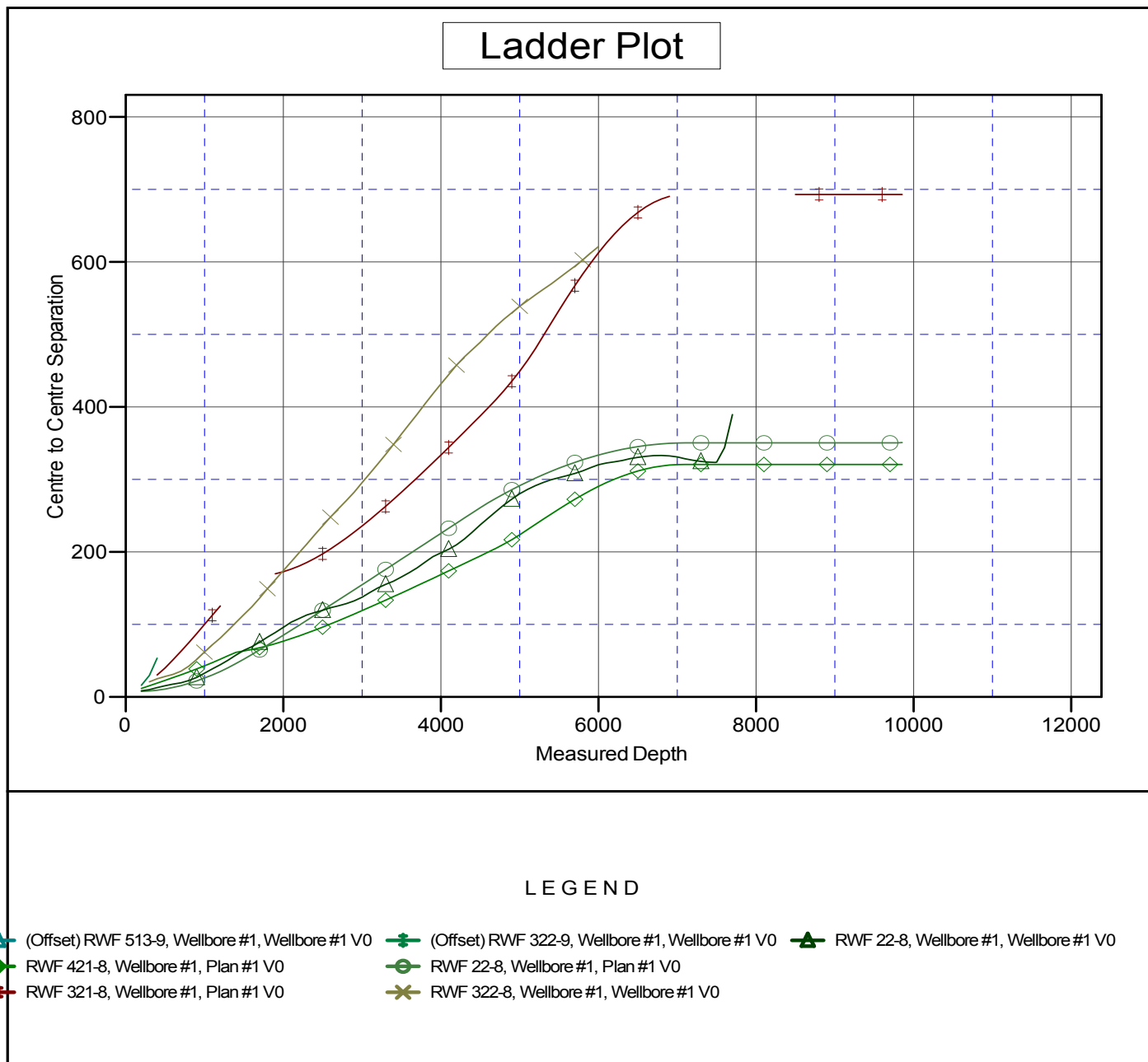
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: RWF 521-8

Coordinate System is US State Plane 1983, Colorado Central Zone

Grid Convergence at Surface is: -1.52°



Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 521-8
Project:	Garfield County, CO	TVD Reference:	KB=24' @ 6003.6usft (H&P #318)
Reference Site:	Sec 8, T6S, R94W	MD Reference:	KB=24' @ 6003.6usft (H&P #318)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	RWF 521-8	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=24' @ 6003.6usft (H&P #318)

Offset Depths are relative to Offset Datum

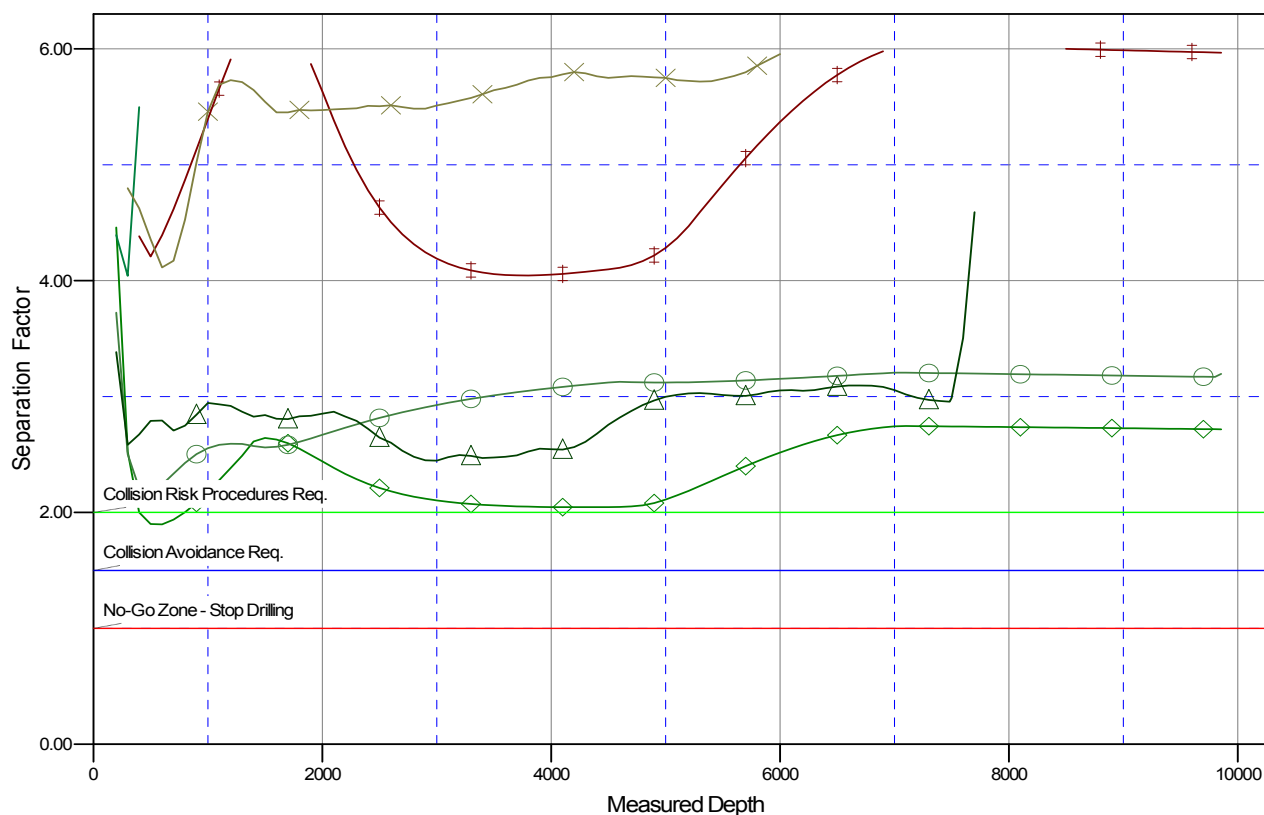
Central Meridian is -105.500000

Coordinates are relative to: RWF 521-8

Coordinate System is US State Plane 1983, Colorado Central Zone

Grid Convergence at Surface is: -1.52°

Separation Factor Plot



LEGEND

- (Offset) RWF 513-9, Wellbore #1, Wellbore #1 V0
- RWF 421-8, Wellbore #1, Plan #1 V0
- RWF 321-8, Wellbore #1, Plan #1 V0
- (Offset) RWF 322-9, Wellbore #1, Wellbore #1 V0
- RWF 22-8, Wellbore #1, Plan #1 V0
- RWF 322-8, Wellbore #1, Wellbore #1 V0