

**PROJECT DETAILS: Rio Blanco 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

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
FED RGU 321-7-297 - VP	8376.00	-1436.26	2520.82	1763979.52	2206903.68	39.897060	-108.326964	Circle (Radius: 100.00)
FED RGU 321-7-297 - PBHL	12156.00	-1436.26	2520.82	1763979.52	2206903.68	39.897060	-108.326964	Point

**REFERENCE INFORMATION**

Co-ordinate (N/E) Reference: Well FED RGU 321-7-297 - Slot FED RGU 321-7-297, True North  
 Vertical (TVD) Reference: KB=30' @ 6308.00usft (H&P #329)  
 Section (VS) Reference: Slot - FED RGU 321-7-297(0.00N, 0.00E)  
 Measured Depth Reference: KB=30' @ 6308.00usft (H&P #329)  
 Calculation Method: Minimum Curvature

**ANNOTATIONS**

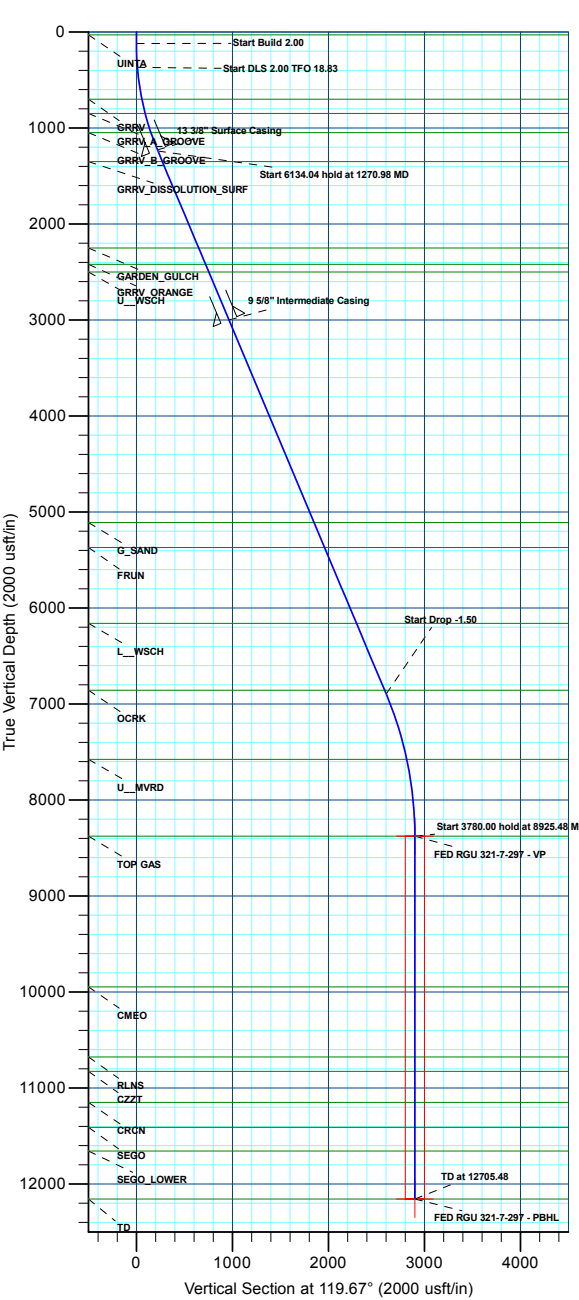
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	Start Build 2.00
370.00	5.00	105.00	369.68	-2.82	10.53	10.55	10.90	Start DLS 2.00 TFO 18.83
1270.98	22.81	119.93	1240.92	-100.92	201.36	224.92	225.77	Start 6134.04 hold at 1270.98 MD
7405.01	22.81	119.93	6895.36	-1287.26	2262.00	2602.63	2603.51	Start Drop -1.50
8925.48	0.00	0.00	8376.00	-1436.26	2520.82	2901.27	2902.15	Start 3780.00 hold at 8925.48 MD
12705.48	0.00	0.00	12156.00	-1436.26	2520.82	2901.27	2902.15	TD at 12705.48

**WELL DETAILS: FED RGU 321-7-297**

+N/-S	+E/-W	Northing	Ground Elev.	Latitude	Longitude	Slot
0.00	0.00	1765493.76	6278.00	39.901003	-108.335947	FED RGU 321-7-297

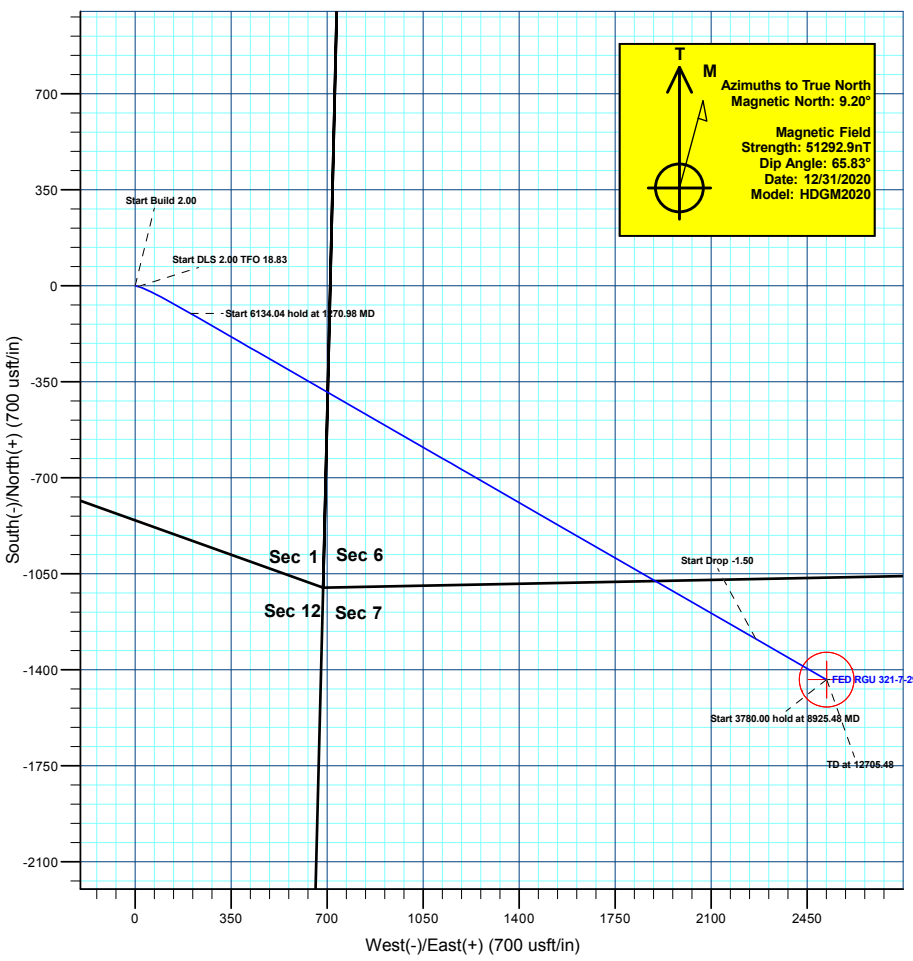
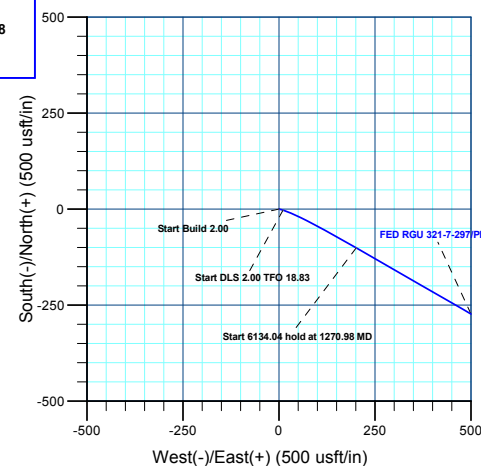
**CASING DETAILS**

TVD	MD	Name	Size
1230.00	1259.14	13 3/8" Surface Casing	13-3/8
3000.00	3179.26	5/8" Intermediate Casing	9-5/8



**FORMATION TOP DETAILS**

TVDPath	MDPath	Formation
30.00	30.00	UINTA
700.00	703.94	GRRV
850.00	857.94	GRRV_A_GROOVE
1050.00	1066.75	GRRV_B_GROOVE
1350.00	1389.31	GRRV_DISSOLUTION_SURF
2250.00	2365.65	GARDEN_GULCH
2420.00	2550.06	GRRV_ORANGE
2500.00	2636.85	U_WSCH
5110.00	5468.22	G_SAND
5370.00	5750.27	FRUN
6160.00	6607.28	L_WSCH
6856.00	7362.31	OCRK
7576.00	8119.52	U_MVRD
8376.00	8925.48	TOP GAS
9946.00	10495.48	CMEO
10676.00	11225.48	RLNS
10826.00	11375.48	CZZT
11151.00	11700.48	CRCN
11411.00	11960.48	SEGO
11656.00	12205.48	SEGO_LOWER
12156.00	12705.48	TD



**Compass Rose**

Azimuths to True North  
 Magnetic North: 9.20°

Magnetic Field  
 Strength: 51292.9nT  
 Dip Angle: 65.83°  
 Date: 12/31/2020  
 Model: HDGM2020



# **Terra Energy Partners, LLP**

**Rio Blanco County, CO**

**RGU 44-1-298**

**FED RGU 321-7-297 - Slot FED RGU 321-7-297**

**Wellbore #1**

**Plan: Plan 1**

## **KLX Well Planning Report**

**05 May, 2022**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well FED RGU 321-7-297 - Slot FED RGU 321-7-297
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-7-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan 1		

<b>Project</b>	Rio Blanco County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

<b>Site</b>	RGU 44-1-298				
<b>Site Position:</b>	<b>Northing:</b>	1,765,503.75 usft	<b>Latitude:</b>	39.901031	
<b>From:</b> Map	<b>Easting:</b>	2,204,429.08 usft	<b>Longitude:</b>	-108.335948	
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-1.79 °

<b>Well</b>	FED RGU 321-7-297 - Slot FED RGU 321-7-297					
<b>Well Position</b>	<b>+N/-S</b>	-9.99 usft	<b>Northing:</b>	1,765,493.76 usft	<b>Latitude:</b>	39.901003
	<b>+E/-W</b>	0.15 usft	<b>Easting:</b>	2,204,428.92 usft	<b>Longitude:</b>	-108.335948
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	6,278.00 usft

<b>Wellbore</b>	Wellbore #1					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>	
	HDGM2020	12/31/2020	9.20	65.83	51,292.90000000	

<b>Design</b>	Plan 1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	119.67	

<b>Plan Sections</b>										
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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
370.00	5.00	105.00	369.68	-2.82	10.53	2.00	2.00	0.00	105.00	
1,270.98	22.81	119.93	1,240.92	-100.92	201.36	2.00	1.98	1.66	18.83	
7,405.01	22.81	119.93	6,895.36	-1,287.26	2,262.00	0.00	0.00	0.00	0.00	
8,925.48	0.00	0.00	8,376.00	-1,436.26	2,520.82	1.50	-1.50	0.00	180.00	FED RGU 321-7-297
12,705.48	0.00	0.00	12,156.00	-1,436.26	2,520.82	0.00	0.00	0.00	0.00	FED RGU 321-7-297

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<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-7-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>UINTA</b>									
30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	1.60	105.00	199.99	-0.29	1.08	1.08	2.00	2.00	0.00
300.00	3.60	105.00	299.88	-1.46	5.46	5.47	2.00	2.00	0.00
<b>Start DLS 2.00 TFO 18.83</b>									
370.00	5.00	105.00	369.68	-2.82	10.53	10.55	2.00	2.00	0.00
400.00	5.57	107.00	399.56	-3.59	13.19	13.23	2.00	1.90	6.65
500.00	7.51	111.44	498.90	-7.39	23.91	24.43	2.00	1.94	4.44
600.00	9.47	114.05	597.80	-13.13	37.50	39.09	2.00	1.96	2.62
700.00	11.45	115.78	696.13	-20.80	53.95	57.18	2.00	1.98	1.72
<b>GRRV</b>									
703.94	11.52	115.83	700.00	-21.14	54.66	57.96	2.00	1.98	1.42
800.00	13.43	117.00	793.78	-30.39	73.24	78.68	2.00	1.98	1.21
<b>GRRV_A_GROOVE</b>									
857.94	14.58	117.56	850.00	-36.82	85.70	92.69	2.00	1.99	0.96
900.00	15.42	117.91	890.63	-41.88	95.33	103.56	2.00	1.99	0.84
1,000.00	17.41	118.62	986.55	-55.27	120.21	131.81	2.00	1.99	0.71
<b>GRRV_B_GROOVE</b>									
1,066.75	18.74	119.01	1,050.00	-65.25	138.35	152.51	2.00	1.99	0.59
1,100.00	19.40	119.18	1,081.43	-70.53	147.84	163.37	2.00	1.99	0.53
1,200.00	21.39	119.65	1,175.16	-87.65	178.19	198.22	2.00	1.99	0.46
<b>13 3/8" Surface Casing</b>									
1,259.14	22.57	119.88	1,230.00	-98.64	197.41	220.35	2.00	1.99	0.40
<b>Start 6134.04 hold at 1270.98 MD</b>									
1,270.98	22.81	119.93	1,240.92	-100.92	201.36	224.92	2.00	1.99	0.38
1,300.00	22.81	119.93	1,267.67	-106.53	211.11	236.17	0.00	0.00	0.00
<b>GRRV DISSOLUTION SURF</b>									
1,389.31	22.81	119.93	1,350.00	-123.81	241.12	270.79	0.00	0.00	0.00
1,400.00	22.81	119.93	1,359.85	-125.87	244.71	274.93	0.00	0.00	0.00
1,500.00	22.81	119.93	1,452.03	-145.21	278.30	313.69	0.00	0.00	0.00
1,600.00	22.81	119.93	1,544.22	-164.55	311.90	352.46	0.00	0.00	0.00
1,700.00	22.81	119.93	1,636.40	-183.89	345.49	391.22	0.00	0.00	0.00
1,800.00	22.81	119.93	1,728.58	-203.23	379.08	429.98	0.00	0.00	0.00
1,900.00	22.81	119.93	1,820.76	-222.57	412.68	468.74	0.00	0.00	0.00
2,000.00	22.81	119.93	1,912.94	-241.91	446.27	507.51	0.00	0.00	0.00
2,100.00	22.81	119.93	2,005.12	-261.25	479.86	546.27	0.00	0.00	0.00
2,200.00	22.81	119.93	2,097.30	-280.59	513.46	585.03	0.00	0.00	0.00
2,300.00	22.81	119.93	2,189.49	-299.93	547.05	623.79	0.00	0.00	0.00
<b>GARDEN_GULCH</b>									
2,365.65	22.81	119.93	2,250.00	-312.63	569.10	649.24	0.00	0.00	0.00
2,400.00	22.81	119.93	2,281.67	-319.27	580.64	662.56	0.00	0.00	0.00
2,500.00	22.81	119.93	2,373.85	-338.61	614.24	701.32	0.00	0.00	0.00
<b>GRRV_ORANGE</b>									
2,550.06	22.81	119.93	2,420.00	-348.30	631.06	720.73	0.00	0.00	0.00
2,600.00	22.81	119.93	2,466.03	-357.96	647.83	740.08	0.00	0.00	0.00
<b>U_WSCH</b>									
2,636.85	22.81	119.93	2,500.00	-365.08	660.21	754.37	0.00	0.00	0.00
2,700.00	22.81	119.93	2,558.21	-377.30	681.42	778.84	0.00	0.00	0.00

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<b>Well:</b>	FED RGU 321-7-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
2,800.00	22.81	119.93	2,650.39	-396.64	715.02	817.61	0.00	0.00	0.00
2,900.00	22.81	119.93	2,742.58	-415.98	748.61	856.37	0.00	0.00	0.00
3,000.00	22.81	119.93	2,834.76	-435.32	782.20	895.13	0.00	0.00	0.00
3,100.00	22.81	119.93	2,926.94	-454.66	815.80	933.90	0.00	0.00	0.00
<b>9 5/8" Intermediate Casing</b>									
3,179.26	22.81	119.93	3,000.00	-469.99	842.42	964.62	0.00	0.00	0.00
3,200.00	22.81	119.93	3,019.12	-474.00	849.39	972.66	0.00	0.00	0.00
3,300.00	22.81	119.93	3,111.30	-493.34	882.98	1,011.42	0.00	0.00	0.00
3,400.00	22.81	119.93	3,203.48	-512.68	916.58	1,050.18	0.00	0.00	0.00
3,500.00	22.81	119.93	3,295.66	-532.02	950.17	1,088.95	0.00	0.00	0.00
3,600.00	22.81	119.93	3,387.85	-551.36	983.76	1,127.71	0.00	0.00	0.00
3,700.00	22.81	119.93	3,480.03	-570.70	1,017.36	1,166.47	0.00	0.00	0.00
3,800.00	22.81	119.93	3,572.21	-590.04	1,050.95	1,205.23	0.00	0.00	0.00
3,900.00	22.81	119.93	3,664.39	-609.38	1,084.55	1,244.00	0.00	0.00	0.00
4,000.00	22.81	119.93	3,756.57	-628.72	1,118.14	1,282.76	0.00	0.00	0.00
4,100.00	22.81	119.93	3,848.75	-648.06	1,151.73	1,321.52	0.00	0.00	0.00
4,200.00	22.81	119.93	3,940.94	-667.40	1,185.33	1,360.28	0.00	0.00	0.00
4,300.00	22.81	119.93	4,033.12	-686.74	1,218.92	1,399.05	0.00	0.00	0.00
4,400.00	22.81	119.93	4,125.30	-706.08	1,252.51	1,437.81	0.00	0.00	0.00
4,500.00	22.81	119.93	4,217.48	-725.42	1,286.11	1,476.57	0.00	0.00	0.00
4,600.00	22.81	119.93	4,309.66	-744.76	1,319.70	1,515.33	0.00	0.00	0.00
4,700.00	22.81	119.93	4,401.84	-764.10	1,353.29	1,554.10	0.00	0.00	0.00
4,800.00	22.81	119.93	4,494.02	-783.44	1,386.89	1,592.86	0.00	0.00	0.00
4,900.00	22.81	119.93	4,586.21	-802.78	1,420.48	1,631.62	0.00	0.00	0.00
5,000.00	22.81	119.93	4,678.39	-822.12	1,454.07	1,670.38	0.00	0.00	0.00
5,100.00	22.81	119.93	4,770.57	-841.46	1,487.67	1,709.15	0.00	0.00	0.00
5,200.00	22.81	119.93	4,862.75	-860.80	1,521.26	1,747.91	0.00	0.00	0.00
5,300.00	22.81	119.93	4,954.93	-880.14	1,554.85	1,786.67	0.00	0.00	0.00
5,400.00	22.81	119.93	5,047.11	-899.48	1,588.45	1,825.43	0.00	0.00	0.00
<b>G_SAND</b>									
5,468.22	22.81	119.93	5,110.00	-912.68	1,611.36	1,851.88	0.00	0.00	0.00
5,500.00	22.81	119.93	5,139.30	-918.82	1,622.04	1,864.20	0.00	0.00	0.00
5,600.00	22.81	119.93	5,231.48	-938.16	1,655.63	1,902.96	0.00	0.00	0.00
5,700.00	22.81	119.93	5,323.66	-957.50	1,689.23	1,941.72	0.00	0.00	0.00
<b>FRUN</b>									
5,750.27	22.81	119.93	5,370.00	-967.23	1,706.12	1,961.21	0.00	0.00	0.00
5,800.00	22.81	119.93	5,415.84	-976.84	1,722.82	1,980.48	0.00	0.00	0.00
5,900.00	22.81	119.93	5,508.02	-996.18	1,756.41	2,019.25	0.00	0.00	0.00
6,000.00	22.81	119.93	5,600.20	-1,015.52	1,790.01	2,058.01	0.00	0.00	0.00
6,100.00	22.81	119.93	5,692.38	-1,034.86	1,823.60	2,096.77	0.00	0.00	0.00
6,200.00	22.81	119.93	5,784.57	-1,054.20	1,857.20	2,135.53	0.00	0.00	0.00
6,300.00	22.81	119.93	5,876.75	-1,073.54	1,890.79	2,174.30	0.00	0.00	0.00
6,400.00	22.81	119.93	5,968.93	-1,092.88	1,924.38	2,213.06	0.00	0.00	0.00
6,500.00	22.81	119.93	6,061.11	-1,112.22	1,957.98	2,251.82	0.00	0.00	0.00
6,600.00	22.81	119.93	6,153.29	-1,131.56	1,991.57	2,290.58	0.00	0.00	0.00
<b>L_WSCH</b>									
6,607.28	22.81	119.93	6,160.00	-1,132.97	1,994.01	2,293.41	0.00	0.00	0.00
6,700.00	22.81	119.93	6,245.47	-1,150.91	2,025.16	2,329.35	0.00	0.00	0.00
6,800.00	22.81	119.93	6,337.66	-1,170.25	2,058.76	2,368.11	0.00	0.00	0.00
6,900.00	22.81	119.93	6,429.84	-1,189.59	2,092.35	2,406.87	0.00	0.00	0.00
7,000.00	22.81	119.93	6,522.02	-1,208.93	2,125.94	2,445.63	0.00	0.00	0.00
7,100.00	22.81	119.93	6,614.20	-1,228.27	2,159.54	2,484.40	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well FED RGU 321-7-297 - Slot FED RGU 321-7-297
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-7-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
7,200.00	22.81	119.93	6,706.38	-1,247.61	2,193.13	2,523.16	0.00	0.00	0.00	
7,300.00	22.81	119.93	6,798.56	-1,266.95	2,226.72	2,561.92	0.00	0.00	0.00	
<b>OCRK</b>										
7,362.31	22.81	119.93	6,856.00	-1,279.00	2,247.66	2,586.08	0.00	0.00	0.00	
<b>Start Drop -1.50</b>										
7,405.01	22.81	119.93	6,895.36	-1,287.26	2,262.00	2,602.63	0.00	0.00	0.00	
7,500.00	21.38	119.93	6,983.37	-1,305.08	2,292.96	2,638.36	1.50	-1.50	0.00	
7,600.00	19.88	119.93	7,076.96	-1,322.66	2,323.50	2,673.59	1.50	-1.50	0.00	
7,700.00	18.38	119.93	7,171.43	-1,339.01	2,351.90	2,706.36	1.50	-1.50	0.00	
7,800.00	16.88	119.93	7,266.73	-1,354.13	2,378.15	2,736.65	1.50	-1.50	0.00	
7,900.00	15.38	119.93	7,362.79	-1,367.99	2,402.23	2,764.44	1.50	-1.50	0.00	
8,000.00	13.88	119.93	7,459.54	-1,380.59	2,424.13	2,789.70	1.50	-1.50	0.00	
8,100.00	12.38	119.93	7,556.93	-1,391.93	2,443.81	2,812.42	1.50	-1.50	0.00	
<b>U_MVRD</b>										
8,119.52	12.09	119.93	7,576.00	-1,393.99	2,447.40	2,816.55	1.50	-1.50	0.00	
8,200.00	10.88	119.93	7,654.87	-1,401.99	2,461.29	2,832.58	1.50	-1.50	0.00	
8,300.00	9.38	119.93	7,753.31	-1,410.77	2,476.53	2,850.17	1.50	-1.50	0.00	
8,400.00	7.88	119.93	7,852.17	-1,418.25	2,489.54	2,865.18	1.50	-1.50	0.00	
8,500.00	6.38	119.93	7,951.40	-1,424.45	2,500.30	2,877.60	1.50	-1.50	0.00	
8,600.00	4.88	119.93	8,050.91	-1,429.35	2,508.81	2,887.41	1.50	-1.50	0.00	
8,700.00	3.38	119.93	8,150.65	-1,432.94	2,515.05	2,894.62	1.50	-1.50	0.00	
8,800.00	1.88	119.93	8,250.54	-1,435.23	2,519.03	2,899.21	1.50	-1.50	0.00	
8,900.00	0.38	119.93	8,350.52	-1,436.22	2,520.74	2,901.18	1.50	-1.50	0.00	
<b>Start 3780.00 hold at 8925.48 MD - TOP GAS</b>										
8,925.48	0.00	0.00	8,376.00	-1,436.26	2,520.82	2,901.27	1.50	-1.50	0.00	
9,000.00	0.00	0.00	8,450.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,550.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,650.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
9,300.00	0.00	0.00	8,750.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
9,400.00	0.00	0.00	8,850.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
9,500.00	0.00	0.00	8,950.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,050.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,150.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,250.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,350.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,450.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,100.00	0.00	0.00	9,550.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,200.00	0.00	0.00	9,650.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,300.00	0.00	0.00	9,750.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,400.00	0.00	0.00	9,850.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
<b>CME0</b>										
10,495.48	0.00	0.00	9,946.00	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,500.00	0.00	0.00	9,950.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,050.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,700.00	0.00	0.00	10,150.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,800.00	0.00	0.00	10,250.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
10,900.00	0.00	0.00	10,350.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
11,000.00	0.00	0.00	10,450.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
11,100.00	0.00	0.00	10,550.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
11,200.00	0.00	0.00	10,650.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
<b>RLNS</b>										
11,225.48	0.00	0.00	10,676.00	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well FED RGU 321-7-297 - Slot FED RGU 321-7-297
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-7-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
11,300.00	0.00	0.00	10,750.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
<b>CZZT</b>										
11,375.48	0.00	0.00	10,826.00	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
11,400.00	0.00	0.00	10,850.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
11,500.00	0.00	0.00	10,950.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
11,600.00	0.00	0.00	11,050.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
11,700.00	0.00	0.00	11,150.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
<b>CRCN</b>										
11,700.48	0.00	0.00	11,151.00	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
11,800.00	0.00	0.00	11,250.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
11,900.00	0.00	0.00	11,350.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
<b>SEGO</b>										
11,960.48	0.00	0.00	11,411.00	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
12,000.00	0.00	0.00	11,450.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
12,100.00	0.00	0.00	11,550.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
12,200.00	0.00	0.00	11,650.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
<b>SEGO_LOWER</b>										
12,205.48	0.00	0.00	11,656.00	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
12,300.00	0.00	0.00	11,750.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
12,400.00	0.00	0.00	11,850.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
12,500.00	0.00	0.00	11,950.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
12,600.00	0.00	0.00	12,050.52	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	
<b>TD at 12705.48 - TD</b>										
12,705.48	0.00	0.00	12,156.00	-1,436.26	2,520.82	2,901.27	0.00	0.00	0.00	

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FED RGU 321-7-297 - V - plan hits target center - Circle (radius 100.00)	0.00	0.00	8,376.00	-1,436.26	2,520.82	1,763,979.52	2,206,903.68	39.897060	-108.326964
FED RGU 321-7-297 - P - plan hits target center - Point	0.00	0.00	12,156.00	-1,436.26	2,520.82	1,763,979.52	2,206,903.68	39.897060	-108.326964

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,259.14	1,230.00	13 3/8" Surface Casing	13-3/8	17-1/2	
3,179.26	3,000.00	9 5/8" Intermediate Casing	9-5/8	12-1/4	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well FED RGU 321-7-297 - Slot FED RGU 321-7-297
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-7-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
30.00	30.00	UINTA				
703.94	700.00	GRRV				
857.94	850.00	GRRV_A_GROOVE				
1,066.75	1,050.00	GRRV_B_GROOVE				
1,389.31	1,350.00	GRRV DISSOLUTION_SURF				
2,365.65	2,250.00	GARDEN_GULCH				
2,550.06	2,420.00	GRRV_ORANGE				
2,636.85	2,500.00	U_WSCH				
5,468.22	5,110.00	G_SAND				
5,750.27	5,370.00	FRUN				
6,607.28	6,160.00	L_WSCH				
7,362.31	6,856.00	OCRK				
8,119.52	7,576.00	U_MVRD				
8,925.48	8,376.00	TOP GAS				
10,495.48	9,946.00	CMEO				
11,225.48	10,676.00	RLNS				
11,375.48	10,826.00	CZZT				
11,700.48	11,151.00	CRCN				
11,960.48	11,411.00	SEGO				
12,205.48	11,656.00	SEGO_LOWER				
12,705.48	12,156.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
120.00	120.00	0.00	0.00	Start Build 2.00	
370.00	369.68	-2.82	10.53	Start DLS 2.00 TFO 18.83	
1,270.98	1,240.92	-100.92	201.36	Start 6134.04 hold at 1270.98 MD	
7,405.01	6,895.36	-1,287.26	2,262.00	Start Drop -1.50	
8,925.48	8,376.00	-1,436.26	2,520.82	Start 3780.00 hold at 8925.48 MD	
12,705.48	12,156.00	-1,436.26	2,520.82	TD at 12705.48	