



Project: Rio Blanco County, CO
 Site: RGU 44-1-298
 Well: FED RGU 521-7-297
 Wellbore: Wellbore #1
 Design: Plan 1
 Latitude: 39.901003
 Longitude: -108.336001
 Ground Level: 6278.00
 KB=30' @ 6308.00usft (H&P #329)



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 521-7-297 - VP	8336.00	-2154.52	2558.24	1763260.68	2206903.68	39.895088	-108.326884	Circle (Radius: 100.00)
FED RGU 521-7-297 - PBHL	12116.00	-2154.52	2558.24	1763260.68	2206903.68	39.895088	-108.326884	Point

REFERENCE INFORMATION
 Co-ordinate (N/E) Reference: Well FED RGU 521-7-297 - Slot FED RGU 521-7-297, True North
 Vertical (TVD) Reference: KB=30' @ 6308.00usft (H&P #329)
 Section (VS) Reference: Slot - FED RGU 521-7-297(0.00N, 0.00E)
 Measured Depth Reference: KB=30' @ 6308.00usft (H&P #329)
 Calculation Method: Minimum Curvature

ANNOTATIONS

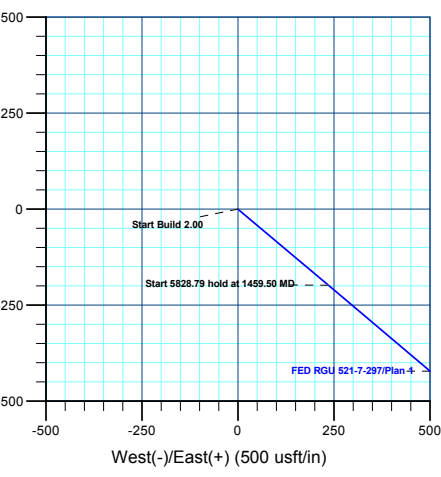
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	Start Build 2.00
1459.50	26.79	130.10	1411.22	-198.08	235.19	307.49	307.49	Start 5828.79 hold at 1459.50 MD
7288.28	26.79	130.10	6614.38	-1890.42	2244.65	2934.64	2934.64	Start Drop -1.50
9074.28	0.00	0.00	8336.00	-2154.52	2558.24	3344.63	3344.63	Start 3780.00 hold at 9074.28 MD
12854.28	0.00	0.00	12116.00	-2154.52	2558.24	3344.63	3344.63	TD at 12854.28

WELL DETAILS: FED RGU 521-7-297

+N/-S	+E/-W	Northing	Ground Elev.	Latitude	Longitude	Slot
0.00	0.00	1765494.00	6278.00	39.901003	-108.336001	FED RGU 521-7-297

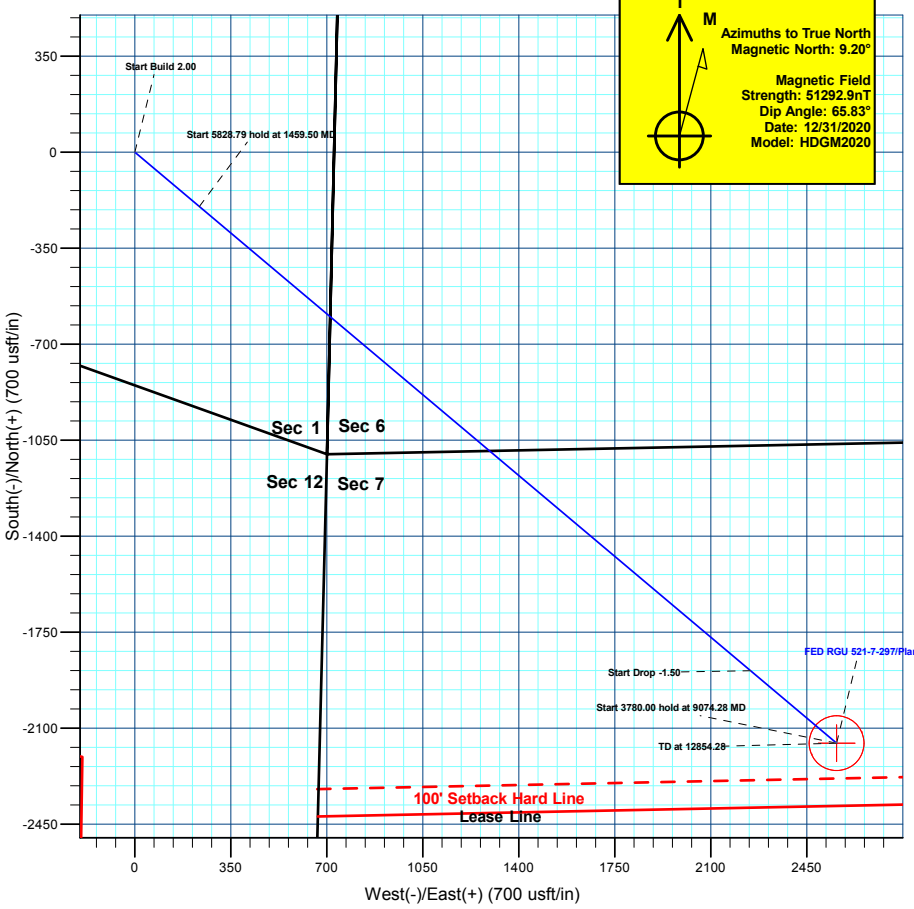
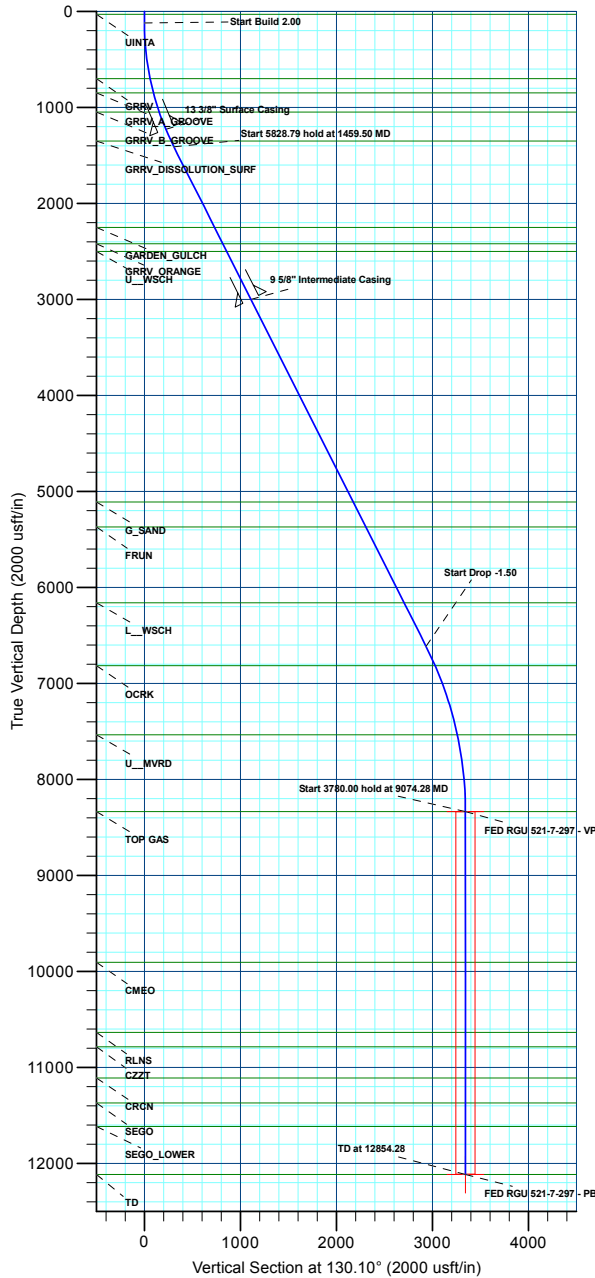
CASING DETAILS

TVD	MD	Name	Size
1230.00	1259.84	13 3/8" Surface Casing	13-3/8
3000.00	3239.319	5/8" Intermediate Casing	9-5/8



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
30.00	30.00	UINTA
700.00	704.04	GRRV
850.00	858.14	GRRV_A_GROOVE
1050.00	1067.16	GRRV_B_GROOVE
1350.00	1391.32	GRRV_DISSOLUTION_SURF
2250.00	2399.13	GARDEN_GULCH
2420.00	2589.57	GRRV_ORANGE
2500.00	2679.19	U_WSCH
5110.00	5603.02	G_SAND
5370.00	5894.28	FRUN
6160.00	6779.27	L_WSCH
6816.00	7511.00	OCRK
7536.00	8268.31	U_MVRD
8336.00	9074.28	TOP GAS
9906.00	10644.28	CMEO
10636.00	11374.28	RLNS
10786.00	11524.28	CZZT
11111.00	11849.28	CRGN
11371.00	12109.28	SEGO
11616.00	12354.28	SEGO_LOWER
12116.00	12854.28	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 521-7-297 - Slot FED RGU 521-7-297

Wellbore #1

Plan: Plan 1

KLX Well Planning Report

05 May, 2022



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well FED RGU 521-7-297 - Slot FED RGU 521-7-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	North Reference:	True
Well:	FED RGU 521-7-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

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

Well	FED RGU 521-7-297 - Slot FED RGU 521-7-297					
Well Position	+N/-S	-10.22 usft	Northing:	1,765,494.00 usft	Latitude:	39.901003
	+E/-W	-14.84 usft	Easting:	2,204,413.93 usft	Longitude:	-108.336001
Position Uncertainty	0.00 usft	Wellhead Elevation:		Ground Level:	6,278.00 usft	

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

Design	Plan 1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	130.10	

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
0.00	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	
1,459.50	26.79	130.10	1,411.22	-198.08	235.19	2.00	2.00	0.00	130.10	
7,288.28	26.79	130.10	6,614.38	-1,890.42	2,244.65	0.00	0.00	0.00	0.00	
9,074.28	0.00	0.00	8,336.00	-2,154.52	2,558.24	1.50	-1.50	0.00	180.00	FED RGU 521-7-297
12,854.28	0.00	0.00	12,116.00	-2,154.52	2,558.24	0.00	0.00	0.00	0.00	FED RGU 521-7-297

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Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	North Reference:	True
Well:	FED RGU 521-7-297	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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
UINTA										
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	
Start Build 2.00										
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	1.60	130.10	199.99	-0.72	0.85	1.12	2.00	2.00	0.00	
300.00	3.60	130.10	299.88	-3.64	4.32	5.65	2.00	2.00	0.00	
400.00	5.60	130.10	399.55	-8.81	10.46	13.67	2.00	2.00	0.00	
500.00	7.60	130.10	498.89	-16.21	19.25	25.17	2.00	2.00	0.00	
600.00	9.60	130.10	597.76	-25.84	30.69	40.12	2.00	2.00	0.00	
700.00	11.60	130.10	696.05	-37.69	44.76	58.51	2.00	2.00	0.00	
GRRV										
704.04	11.68	130.10	700.00	-38.22	45.38	59.33	2.00	2.00	0.00	
800.00	13.60	130.10	793.63	-51.74	61.44	80.33	2.00	2.00	0.00	
GRRV_A_GROOVE										
858.14	14.76	130.10	850.00	-60.92	72.33	94.57	2.00	2.00	0.00	
900.00	15.60	130.10	890.40	-67.98	80.72	105.53	2.00	2.00	0.00	
1,000.00	17.60	130.10	986.23	-86.38	102.57	134.10	2.00	2.00	0.00	
GRRV_B_GROOVE										
1,067.16	18.94	130.10	1,050.00	-99.95	118.68	155.16	2.00	2.00	0.00	
1,100.00	19.60	130.10	1,081.00	-106.93	126.96	165.99	2.00	2.00	0.00	
1,200.00	21.60	130.10	1,174.60	-129.59	153.88	201.18	2.00	2.00	0.00	
13 3/8" Surface Casing										
1,259.84	22.80	130.10	1,230.00	-144.15	171.17	223.78	2.00	2.00	0.00	
1,300.00	23.60	130.10	1,266.92	-154.35	183.27	239.60	2.00	2.00	0.00	
GRRV DISSOLUTION_SURF										
1,391.32	25.43	130.10	1,350.00	-178.75	212.25	277.49	2.00	2.00	0.00	
1,400.00	25.60	130.10	1,357.83	-181.16	215.11	281.23	2.00	2.00	0.00	
Start 5828.79 hold at 1459.50 MD										
1,459.50	26.79	130.10	1,411.22	-198.08	235.19	307.49	2.00	2.00	0.00	
1,500.00	26.79	130.10	1,447.38	-209.84	249.16	325.75	0.00	0.00	0.00	
1,600.00	26.79	130.10	1,536.64	-238.87	283.63	370.82	0.00	0.00	0.00	
1,700.00	26.79	130.10	1,625.91	-267.91	318.11	415.89	0.00	0.00	0.00	
1,800.00	26.79	130.10	1,715.18	-296.94	352.58	460.96	0.00	0.00	0.00	
1,900.00	26.79	130.10	1,804.44	-325.97	387.06	506.04	0.00	0.00	0.00	
2,000.00	26.79	130.10	1,893.71	-355.01	421.53	551.11	0.00	0.00	0.00	
2,100.00	26.79	130.10	1,982.97	-384.04	456.01	596.18	0.00	0.00	0.00	
2,200.00	26.79	130.10	2,072.24	-413.08	490.48	641.25	0.00	0.00	0.00	
2,300.00	26.79	130.10	2,161.51	-442.11	524.96	686.32	0.00	0.00	0.00	
GARDEN_GULCH										
2,399.13	26.79	130.10	2,250.00	-470.89	559.13	731.01	0.00	0.00	0.00	
2,400.00	26.79	130.10	2,250.77	-471.15	559.43	731.40	0.00	0.00	0.00	
2,500.00	26.79	130.10	2,340.04	-500.18	593.91	776.47	0.00	0.00	0.00	
GRRV_ORANGE										
2,589.57	26.79	130.10	2,420.00	-526.19	624.79	816.84	0.00	0.00	0.00	
2,600.00	26.79	130.10	2,429.31	-529.21	628.38	821.54	0.00	0.00	0.00	
U_WSCH										
2,679.19	26.79	130.10	2,500.00	-552.21	655.68	857.23	0.00	0.00	0.00	
2,700.00	26.79	130.10	2,518.57	-558.25	662.85	866.61	0.00	0.00	0.00	
2,800.00	26.79	130.10	2,607.84	-587.28	697.33	911.68	0.00	0.00	0.00	
2,900.00	26.79	130.10	2,697.11	-616.32	731.80	956.76	0.00	0.00	0.00	

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Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	North Reference:	True
Well:	FED RGU 521-7-297	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)	
3,000.00	26.79	130.10	2,786.37	-645.35	766.28	1,001.83	0.00	0.00	0.00	
3,100.00	26.79	130.10	2,875.64	-674.38	800.75	1,046.90	0.00	0.00	0.00	
3,200.00	26.79	130.10	2,964.91	-703.42	835.23	1,091.97	0.00	0.00	0.00	
9 5/8" Intermediate Casing										
3,239.31	26.79	130.10	3,000.00	-714.83	848.78	1,109.69	0.00	0.00	0.00	
3,300.00	26.79	130.10	3,054.17	-732.45	869.70	1,137.04	0.00	0.00	0.00	
3,400.00	26.79	130.10	3,143.44	-761.49	904.18	1,182.12	0.00	0.00	0.00	
3,500.00	26.79	130.10	3,232.71	-790.52	938.65	1,227.19	0.00	0.00	0.00	
3,600.00	26.79	130.10	3,321.97	-819.56	973.13	1,272.26	0.00	0.00	0.00	
3,700.00	26.79	130.10	3,411.24	-848.59	1,007.60	1,317.33	0.00	0.00	0.00	
3,800.00	26.79	130.10	3,500.51	-877.62	1,042.08	1,362.40	0.00	0.00	0.00	
3,900.00	26.79	130.10	3,589.77	-906.66	1,076.55	1,407.48	0.00	0.00	0.00	
4,000.00	26.79	130.10	3,679.04	-935.69	1,111.03	1,452.55	0.00	0.00	0.00	
4,100.00	26.79	130.10	3,768.31	-964.73	1,145.50	1,497.62	0.00	0.00	0.00	
4,200.00	26.79	130.10	3,857.57	-993.76	1,179.98	1,542.69	0.00	0.00	0.00	
4,300.00	26.79	130.10	3,946.84	-1,022.79	1,214.45	1,587.76	0.00	0.00	0.00	
4,400.00	26.79	130.10	4,036.10	-1,051.83	1,248.92	1,632.84	0.00	0.00	0.00	
4,500.00	26.79	130.10	4,125.37	-1,080.86	1,283.40	1,677.91	0.00	0.00	0.00	
4,600.00	26.79	130.10	4,214.64	-1,109.90	1,317.87	1,722.98	0.00	0.00	0.00	
4,700.00	26.79	130.10	4,303.90	-1,138.93	1,352.35	1,768.05	0.00	0.00	0.00	
4,800.00	26.79	130.10	4,393.17	-1,167.96	1,386.82	1,813.12	0.00	0.00	0.00	
4,900.00	26.79	130.10	4,482.44	-1,197.00	1,421.30	1,858.20	0.00	0.00	0.00	
5,000.00	26.79	130.10	4,571.70	-1,226.03	1,455.77	1,903.27	0.00	0.00	0.00	
5,100.00	26.79	130.10	4,660.97	-1,255.07	1,490.25	1,948.34	0.00	0.00	0.00	
5,200.00	26.79	130.10	4,750.24	-1,284.10	1,524.72	1,993.41	0.00	0.00	0.00	
5,300.00	26.79	130.10	4,839.50	-1,313.14	1,559.20	2,038.48	0.00	0.00	0.00	
5,400.00	26.79	130.10	4,928.77	-1,342.17	1,593.67	2,083.56	0.00	0.00	0.00	
5,500.00	26.79	130.10	5,018.04	-1,371.20	1,628.15	2,128.63	0.00	0.00	0.00	
5,600.00	26.79	130.10	5,107.30	-1,400.24	1,662.62	2,173.70	0.00	0.00	0.00	
G_SAND										
5,603.02	26.79	130.10	5,110.00	-1,401.12	1,663.66	2,175.06	0.00	0.00	0.00	
5,700.00	26.79	130.10	5,196.57	-1,429.27	1,697.10	2,218.77	0.00	0.00	0.00	
5,800.00	26.79	130.10	5,285.84	-1,458.31	1,731.57	2,263.85	0.00	0.00	0.00	
FRUN										
5,894.28	26.79	130.10	5,370.00	-1,485.68	1,764.07	2,306.34	0.00	0.00	0.00	
5,900.00	26.79	130.10	5,375.10	-1,487.34	1,766.05	2,308.92	0.00	0.00	0.00	
6,000.00	26.79	130.10	5,464.37	-1,516.37	1,800.52	2,353.99	0.00	0.00	0.00	
6,100.00	26.79	130.10	5,553.64	-1,545.41	1,834.99	2,399.06	0.00	0.00	0.00	
6,200.00	26.79	130.10	5,642.90	-1,574.44	1,869.47	2,444.13	0.00	0.00	0.00	
6,300.00	26.79	130.10	5,732.17	-1,603.48	1,903.94	2,489.21	0.00	0.00	0.00	
6,400.00	26.79	130.10	5,821.44	-1,632.51	1,938.42	2,534.28	0.00	0.00	0.00	
6,500.00	26.79	130.10	5,910.70	-1,661.55	1,972.89	2,579.35	0.00	0.00	0.00	
6,600.00	26.79	130.10	5,999.97	-1,690.58	2,007.37	2,624.42	0.00	0.00	0.00	
6,700.00	26.79	130.10	6,089.23	-1,719.61	2,041.84	2,669.49	0.00	0.00	0.00	
L_WSCH										
6,779.27	26.79	130.10	6,160.00	-1,742.63	2,069.17	2,705.22	0.00	0.00	0.00	
6,800.00	26.79	130.10	6,178.50	-1,748.65	2,076.32	2,714.57	0.00	0.00	0.00	
6,900.00	26.79	130.10	6,267.77	-1,777.68	2,110.79	2,759.64	0.00	0.00	0.00	
7,000.00	26.79	130.10	6,357.03	-1,806.72	2,145.27	2,804.71	0.00	0.00	0.00	
7,100.00	26.79	130.10	6,446.30	-1,835.75	2,179.74	2,849.78	0.00	0.00	0.00	
7,200.00	26.79	130.10	6,535.57	-1,864.78	2,214.22	2,894.85	0.00	0.00	0.00	
Start Drop -1.50										

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Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	North Reference:	True
Well:	FED RGU 521-7-297	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)
7,288.28	26.79	130.10	6,614.38	-1,890.42	2,244.65	2,934.64	0.00	0.00	0.00
7,300.00	26.61	130.10	6,624.84	-1,893.81	2,248.68	2,939.91	1.50	-1.50	0.00
7,400.00	25.11	130.10	6,714.82	-1,921.91	2,282.05	2,983.53	1.50	-1.50	0.00
7,500.00	23.61	130.10	6,805.91	-1,948.48	2,313.60	3,024.78	1.50	-1.50	0.00
OCRK									
7,511.00	23.45	130.10	6,816.00	-1,951.31	2,316.96	3,029.18	1.50	-1.50	0.00
7,600.00	22.11	130.10	6,898.05	-1,973.51	2,343.32	3,063.64	1.50	-1.50	0.00
7,700.00	20.61	130.10	6,991.18	-1,996.98	2,371.18	3,100.07	1.50	-1.50	0.00
7,800.00	19.11	130.10	7,085.23	-2,018.87	2,397.17	3,134.04	1.50	-1.50	0.00
7,900.00	17.61	130.10	7,180.13	-2,039.16	2,421.27	3,165.55	1.50	-1.50	0.00
8,000.00	16.11	130.10	7,275.83	-2,057.85	2,443.46	3,194.56	1.50	-1.50	0.00
8,100.00	14.61	130.10	7,372.25	-2,074.91	2,463.72	3,221.05	1.50	-1.50	0.00
8,200.00	13.11	130.10	7,469.34	-2,090.35	2,482.05	3,245.01	1.50	-1.50	0.00
U_MVRD									
8,268.31	12.09	130.10	7,536.00	-2,099.95	2,493.45	3,259.92	1.50	-1.50	0.00
8,300.00	11.61	130.10	7,567.01	-2,104.14	2,498.43	3,266.43	1.50	-1.50	0.00
8,400.00	10.11	130.10	7,665.22	-2,116.28	2,512.84	3,285.27	1.50	-1.50	0.00
8,500.00	8.61	130.10	7,763.88	-2,126.76	2,525.29	3,301.54	1.50	-1.50	0.00
8,600.00	7.11	130.10	7,862.94	-2,135.58	2,535.75	3,315.23	1.50	-1.50	0.00
8,700.00	5.61	130.10	7,962.32	-2,142.72	2,544.23	3,326.31	1.50	-1.50	0.00
8,800.00	4.11	130.10	8,061.96	-2,148.18	2,550.72	3,334.79	1.50	-1.50	0.00
8,900.00	2.61	130.10	8,161.78	-2,151.96	2,555.20	3,340.66	1.50	-1.50	0.00
9,000.00	1.11	130.10	8,261.73	-2,154.06	2,557.69	3,343.91	1.50	-1.50	0.00
Start 3780.00 hold at 9074.28 MD - TOP GAS									
9,074.28	0.00	0.00	8,336.00	-2,154.52	2,558.24	3,344.63	1.50	-1.50	0.00
9,100.00	0.00	0.00	8,361.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
9,200.00	0.00	0.00	8,461.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
9,300.00	0.00	0.00	8,561.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
9,400.00	0.00	0.00	8,661.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
9,500.00	0.00	0.00	8,761.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
9,600.00	0.00	0.00	8,861.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
9,700.00	0.00	0.00	8,961.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
9,800.00	0.00	0.00	9,061.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
9,900.00	0.00	0.00	9,161.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,000.00	0.00	0.00	9,261.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,100.00	0.00	0.00	9,361.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,200.00	0.00	0.00	9,461.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,300.00	0.00	0.00	9,561.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,400.00	0.00	0.00	9,661.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,500.00	0.00	0.00	9,761.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,600.00	0.00	0.00	9,861.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
CME0									
10,644.28	0.00	0.00	9,906.00	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,700.00	0.00	0.00	9,961.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,800.00	0.00	0.00	10,061.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
10,900.00	0.00	0.00	10,161.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
11,000.00	0.00	0.00	10,261.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
11,100.00	0.00	0.00	10,361.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
11,200.00	0.00	0.00	10,461.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
11,300.00	0.00	0.00	10,561.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00
RLNS									
11,374.28	0.00	0.00	10,636.00	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well FED RGU 521-7-297 - Slot FED RGU 521-7-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	North Reference:	True
Well:	FED RGU 521-7-297	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)	
11,400.00	0.00	0.00	10,661.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
11,500.00	0.00	0.00	10,761.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
CZZT										
11,524.28	0.00	0.00	10,786.00	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
11,600.00	0.00	0.00	10,861.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
11,700.00	0.00	0.00	10,961.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
11,800.00	0.00	0.00	11,061.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
CRCN										
11,849.28	0.00	0.00	11,111.00	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
11,900.00	0.00	0.00	11,161.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
12,000.00	0.00	0.00	11,261.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
12,100.00	0.00	0.00	11,361.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
SEGO										
12,109.28	0.00	0.00	11,371.00	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
12,200.00	0.00	0.00	11,461.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
12,300.00	0.00	0.00	11,561.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
SEGO_LOWER										
12,354.28	0.00	0.00	11,616.00	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
12,400.00	0.00	0.00	11,661.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
12,500.00	0.00	0.00	11,761.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
12,600.00	0.00	0.00	11,861.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
12,700.00	0.00	0.00	11,961.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
12,800.00	0.00	0.00	12,061.72	-2,154.52	2,558.24	3,344.63	0.00	0.00	0.00	
TD at 12854.28 - TD										
12,854.28	0.00	0.00	12,116.00	-2,154.52	2,558.24	3,344.63	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	
FED RGU 521-7-297 - V - hit/miss target - Shape - Circle (radius 100.00)	0.00	0.00	8,336.00	-2,154.52	2,558.24	1,763,260.68	2,206,903.68	39.895088	-108.326884	
FED RGU 521-7-297 - P - plan hits target center - Point	0.00	0.00	12,116.00	-2,154.52	2,558.24	1,763,260.68	2,206,903.68	39.895088	-108.326884	

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,259.84	1,230.00	13 3/8" Surface Casing	13-3/8	17-1/2	
3,239.31	3,000.00	9 5/8" Intermediate Casing	9-5/8	12-1/4	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well FED RGU 521-7-297 - Slot FED RGU 521-7-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	North Reference:	True
Well:	FED RGU 521-7-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
30.00	30.00	UINTA				
704.04	700.00	GRRV				
858.14	850.00	GRRV_A_GROOVE				
1,067.16	1,050.00	GRRV_B_GROOVE				
1,391.32	1,350.00	GRRV DISSOLUTION_SURF				
2,399.13	2,250.00	GARDEN_GULCH				
2,589.57	2,420.00	GRRV_ORANGE				
2,679.19	2,500.00	U_WSCH				
5,603.02	5,110.00	G_SAND				
5,894.28	5,370.00	FRUN				
6,779.27	6,160.00	L_WSCH				
7,511.00	6,816.00	OCRK				
8,268.31	7,536.00	U_MVRD				
9,074.28	8,336.00	TOP GAS				
10,644.28	9,906.00	CMEO				
11,374.28	10,636.00	RLNS				
11,524.28	10,786.00	CZZT				
11,849.28	11,111.00	CRCN				
12,109.28	11,371.00	SEGO				
12,354.28	11,616.00	SEGO_LOWER				
12,854.28	12,116.00	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	
1,459.50	1,411.22	-198.08	235.19	Start 5828.79 hold at 1459.50 MD	
7,288.28	6,614.38	-1,890.42	2,244.65	Start Drop -1.50	
9,074.28	8,336.00	-2,154.52	2,558.24	Start 3780.00 hold at 9074.28 MD	
12,854.28	12,116.00	-2,154.52	2,558.24	TD at 12854.28	