

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

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well FED RGU 421-7-297 - Slot FED RGU 421-7-297, True North
 Vertical (TVD) Reference: KB=30' @ 6308.00usft (H&P #329)
 Section (VS) Reference: Slot - FED RGU 421-7-297(0.00N, 0.00E)
 Measured Depth Reference: KB=30' @ 6308.00usft (H&P #329)
 Calculation Method: Minimum Curvature

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
FED RGU 421-7-297 - VP	8356.00	-1794.76	2539.53	1763620.73	2206903.69	39.896076	-108.326924	Circle (Radius: 100.00)
FED RGU 421-7-297 - PBHL	12136.00	-1794.76	2539.53	1763620.73	2206903.69	39.896076	-108.326924	Point

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	119.00	369.68	-5.29	9.53	10.84	10.90	Start DLS 2.00 TFO 7.88
1354.92	24.66	125.36	1317.17	-146.40	216.69	261.45	261.61	Start 5991.54 hold at 1354.92 MD
7346.47	24.66	125.36	6762.26	-1593.15	2255.42	2761.35	2761.52	Start Drop -1.50
8990.49	0.00	0.00	8356.00	-1794.76	2539.53	3109.72	3109.89	Start 3780.00 hold at 8990.49 MD
12770.49	0.00	0.00	12136.00	-1794.76	2539.53	3109.72	3109.89	TD at 12770.49

WELL DETAILS: FED RGU 421-7-297

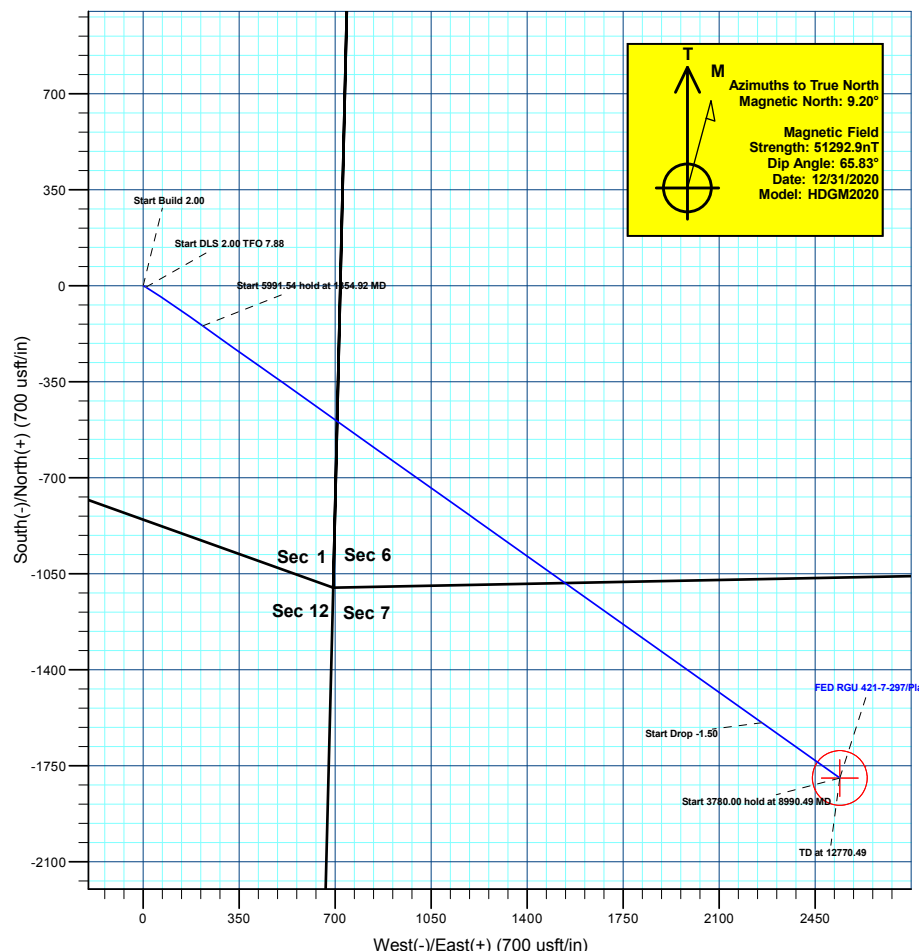
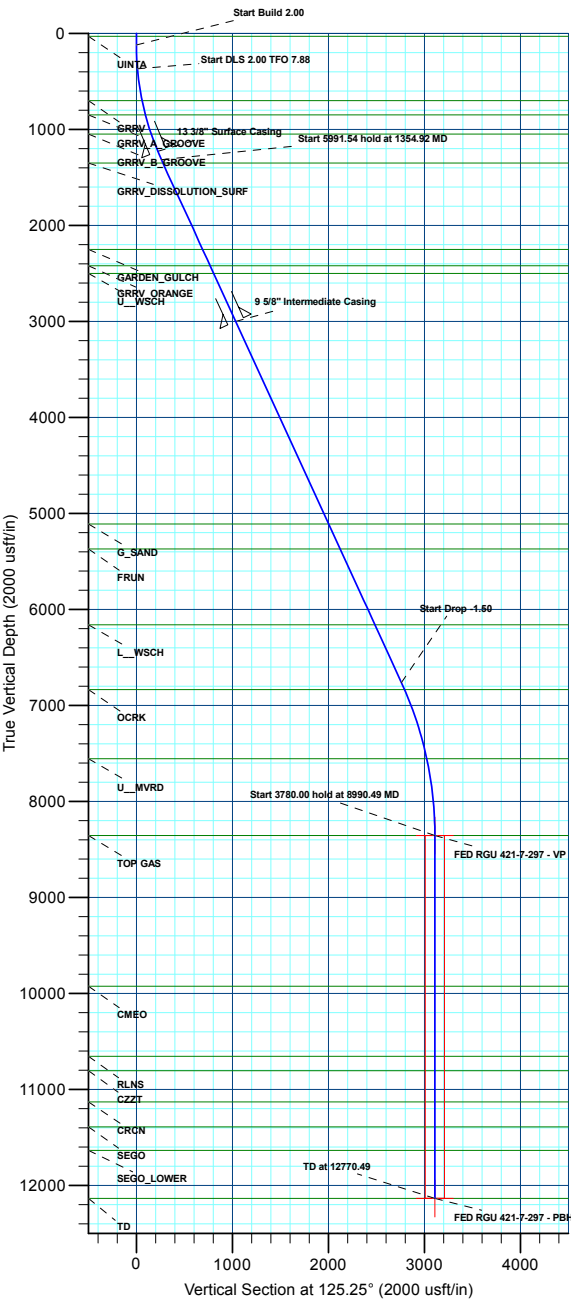
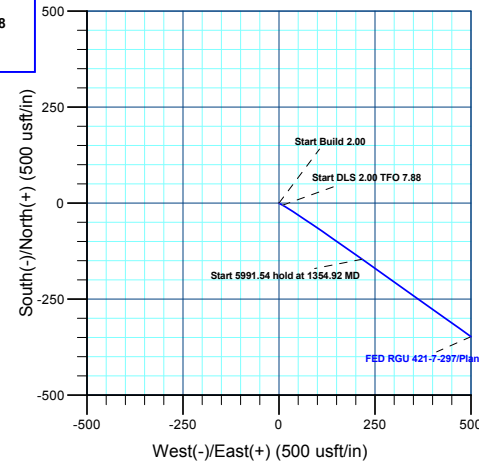
+N/-S	+E/-W	Northing	Ground Elev.	Latitude	Longitude	Slot
0.00	0.00	1765493.88	6278.00	39.901003	-108.335974	FED RGU 421-7-297

CASING DETAILS

TVD	MD	Name	Size
1230.00	1259.71	13 3/8" Surface Casing	13-3/8
3000.00	3206.64	5/8" Intermediate Casing	9-5/8

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
30.00	30.00	UINTA
700.00	704.02	GRRV
850.00	858.10	GRRV_A_GROOVE
1050.00	1067.09	GRRV_B_GROOVE
1350.00	1391.05	GRRV DISSOLUTION_SURF
2250.00	2381.37	GARDEN_GULCH
2420.00	2568.43	GRRV_ORANGE
2500.00	2656.46	U_WSCH
5110.00	5528.39	G_SAND
5370.00	5814.48	FRUN
6160.00	6683.76	L_WSCH
6836.00	7427.22	OCRK
7556.00	8184.53	U_MVRD
8356.00	8990.49	TOP GAS
9926.00	10560.49	CMEO
10656.00	11290.49	RLNS
10806.00	11440.49	CZZT
11131.00	11765.49	CRGN
11391.00	12025.49	SEGO
11636.00	12270.49	SEGO_LOWER
12136.00	12770.49	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 421-7-297 - Slot FED RGU 421-7-297

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 421-7-297 - Slot FED RGU 421-7-297
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 421-7-297	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 421-7-297 - Slot FED RGU 421-7-297					
Well Position	+N/-S	-10.10 usft	Northing:	1,765,493.88 usft	Latitude:	39.901003
	+E/-W	-7.35 usft	Easting:	2,204,421.42 usft	Longitude:	-108.335974
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	125.25

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	
370.00	5.00	119.00	369.68	-5.29	9.53	2.00	2.00	0.00	119.00	
1,354.92	24.66	125.36	1,317.17	-146.40	216.69	2.00	2.00	0.65	7.88	
7,346.47	24.66	125.36	6,762.26	-1,593.15	2,255.42	0.00	0.00	0.00	0.00	
8,990.49	0.00	0.00	8,356.00	-1,794.76	2,539.53	1.50	-1.50	0.00	180.00	FED RGU 421-7-297
12,770.49	0.00	0.00	12,136.00	-1,794.76	2,539.53	0.00	0.00	0.00	0.00	FED RGU 421-7-297

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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 421-7-297	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	119.00	199.99	-0.54	0.98	1.11	2.00	2.00	0.00
300.00	3.60	119.00	299.88	-2.74	4.94	5.62	2.00	2.00	0.00
Start DLS 2.00 TFO 7.88									
370.00	5.00	119.00	369.68	-5.29	9.53	10.84	2.00	2.00	0.00
400.00	5.59	119.84	399.55	-6.65	11.95	13.59	2.00	1.98	2.81
500.00	7.58	121.70	498.89	-12.54	21.79	25.03	2.00	1.99	1.86
600.00	9.58	122.79	597.76	-20.51	34.40	39.93	2.00	1.99	1.09
700.00	11.57	123.51	696.06	-30.56	49.76	58.27	2.00	2.00	0.72
GRRV									
704.02	11.65	123.53	700.00	-31.01	50.43	59.08	2.00	2.00	0.59
800.00	13.57	124.01	793.66	-42.66	67.85	80.03	2.00	2.00	0.50
GRRV_A_GROOVE									
858.10	14.73	124.25	850.00	-50.63	79.61	94.23	2.00	2.00	0.40
900.00	15.57	124.39	890.44	-56.80	88.65	105.18	2.00	2.00	0.35
1,000.00	17.57	124.69	986.28	-72.97	112.13	133.69	2.00	2.00	0.30
GRRV_B_GROOVE									
1,067.09	18.91	124.85	1,050.00	-84.95	129.38	154.68	2.00	2.00	0.24
1,100.00	19.56	124.93	1,081.07	-91.15	138.27	165.52	2.00	2.00	0.22
1,200.00	21.56	125.12	1,174.70	-111.31	167.03	200.65	2.00	2.00	0.19
13 3/8" Surface Casing									
1,259.71	22.76	125.22	1,230.00	-124.28	185.44	223.17	2.00	2.00	0.17
1,300.00	23.56	125.28	1,267.04	-133.43	198.38	239.01	2.00	2.00	0.15
Start 5991.54 hold at 1354.92 MD									
1,354.92	24.66	125.36	1,317.17	-146.40	216.69	261.45	2.00	2.00	0.14
GRRV DISSOLUTION SURF									
1,391.05	24.66	125.36	1,350.00	-155.12	228.98	276.52	0.00	0.00	0.00
1,400.00	24.66	125.36	1,358.13	-157.28	232.03	280.26	0.00	0.00	0.00
1,500.00	24.66	125.36	1,449.01	-181.43	266.05	321.98	0.00	0.00	0.00
1,600.00	24.66	125.36	1,539.89	-205.58	300.08	363.70	0.00	0.00	0.00
1,700.00	24.66	125.36	1,630.77	-229.72	334.11	405.43	0.00	0.00	0.00
1,800.00	24.66	125.36	1,721.65	-253.87	368.13	447.15	0.00	0.00	0.00
1,900.00	24.66	125.36	1,812.53	-278.02	402.16	488.88	0.00	0.00	0.00
2,000.00	24.66	125.36	1,903.41	-302.16	436.19	530.60	0.00	0.00	0.00
2,100.00	24.66	125.36	1,994.29	-326.31	470.21	572.32	0.00	0.00	0.00
2,200.00	24.66	125.36	2,085.17	-350.46	504.24	614.05	0.00	0.00	0.00
2,300.00	24.66	125.36	2,176.05	-374.60	538.27	655.77	0.00	0.00	0.00
GARDEN_GULCH									
2,381.37	24.66	125.36	2,250.00	-394.25	565.95	689.72	0.00	0.00	0.00
2,400.00	24.66	125.36	2,266.93	-398.75	572.29	697.50	0.00	0.00	0.00
2,500.00	24.66	125.36	2,357.81	-422.90	606.32	739.22	0.00	0.00	0.00
GRRV_ORANGE									
2,568.43	24.66	125.36	2,420.00	-439.42	629.61	767.77	0.00	0.00	0.00
2,600.00	24.66	125.36	2,448.69	-447.04	640.35	780.94	0.00	0.00	0.00
U_WSCH									
2,656.46	24.66	125.36	2,500.00	-460.67	659.56	804.50	0.00	0.00	0.00
2,700.00	24.66	125.36	2,539.57	-471.19	674.37	822.67	0.00	0.00	0.00

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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 421-7-297	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)
2,800.00	24.66	125.36	2,630.45	-495.34	708.40	864.39	0.00	0.00	0.00
2,900.00	24.66	125.36	2,721.33	-519.48	742.43	906.11	0.00	0.00	0.00
3,000.00	24.66	125.36	2,812.21	-543.63	776.46	947.84	0.00	0.00	0.00
3,100.00	24.66	125.36	2,903.09	-567.77	810.48	989.56	0.00	0.00	0.00
3,200.00	24.66	125.36	2,993.97	-591.92	844.51	1,031.29	0.00	0.00	0.00
9 5/8" Intermediate Casing									
3,206.64	24.66	125.36	3,000.00	-593.52	846.77	1,034.05	0.00	0.00	0.00
3,300.00	24.66	125.36	3,084.85	-616.07	878.54	1,073.01	0.00	0.00	0.00
3,400.00	24.66	125.36	3,175.73	-640.21	912.56	1,114.73	0.00	0.00	0.00
3,500.00	24.66	125.36	3,266.61	-664.36	946.59	1,156.46	0.00	0.00	0.00
3,600.00	24.66	125.36	3,357.49	-688.51	980.62	1,198.18	0.00	0.00	0.00
3,700.00	24.66	125.36	3,448.37	-712.65	1,014.64	1,239.90	0.00	0.00	0.00
3,800.00	24.66	125.36	3,539.25	-736.80	1,048.67	1,281.63	0.00	0.00	0.00
3,900.00	24.66	125.36	3,630.13	-760.95	1,082.70	1,323.35	0.00	0.00	0.00
4,000.00	24.66	125.36	3,721.01	-785.09	1,116.72	1,365.08	0.00	0.00	0.00
4,100.00	24.66	125.36	3,811.89	-809.24	1,150.75	1,406.80	0.00	0.00	0.00
4,200.00	24.66	125.36	3,902.77	-833.39	1,184.78	1,448.52	0.00	0.00	0.00
4,300.00	24.66	125.36	3,993.65	-857.53	1,218.80	1,490.25	0.00	0.00	0.00
4,400.00	24.66	125.36	4,084.53	-881.68	1,252.83	1,531.97	0.00	0.00	0.00
4,500.00	24.66	125.36	4,175.41	-905.83	1,286.86	1,573.70	0.00	0.00	0.00
4,600.00	24.66	125.36	4,266.28	-929.97	1,320.89	1,615.42	0.00	0.00	0.00
4,700.00	24.66	125.36	4,357.16	-954.12	1,354.91	1,657.14	0.00	0.00	0.00
4,800.00	24.66	125.36	4,448.04	-978.27	1,388.94	1,698.87	0.00	0.00	0.00
4,900.00	24.66	125.36	4,538.92	-1,002.41	1,422.97	1,740.59	0.00	0.00	0.00
5,000.00	24.66	125.36	4,629.80	-1,026.56	1,456.99	1,782.31	0.00	0.00	0.00
5,100.00	24.66	125.36	4,720.68	-1,050.71	1,491.02	1,824.04	0.00	0.00	0.00
5,200.00	24.66	125.36	4,811.56	-1,074.85	1,525.05	1,865.76	0.00	0.00	0.00
5,300.00	24.66	125.36	4,902.44	-1,099.00	1,559.07	1,907.49	0.00	0.00	0.00
5,400.00	24.66	125.36	4,993.32	-1,123.15	1,593.10	1,949.21	0.00	0.00	0.00
5,500.00	24.66	125.36	5,084.20	-1,147.29	1,627.13	1,990.93	0.00	0.00	0.00
G_SAND									
5,528.39	24.66	125.36	5,110.00	-1,154.15	1,636.79	2,002.78	0.00	0.00	0.00
5,600.00	24.66	125.36	5,175.08	-1,171.44	1,661.15	2,032.66	0.00	0.00	0.00
5,700.00	24.66	125.36	5,265.96	-1,195.59	1,695.18	2,074.38	0.00	0.00	0.00
5,800.00	24.66	125.36	5,356.84	-1,219.73	1,729.21	2,116.11	0.00	0.00	0.00
FRUN									
5,814.48	24.66	125.36	5,370.00	-1,223.23	1,734.13	2,122.15	0.00	0.00	0.00
5,900.00	24.66	125.36	5,447.72	-1,243.88	1,763.23	2,157.83	0.00	0.00	0.00
6,000.00	24.66	125.36	5,538.60	-1,268.03	1,797.26	2,199.55	0.00	0.00	0.00
6,100.00	24.66	125.36	5,629.48	-1,292.17	1,831.29	2,241.28	0.00	0.00	0.00
6,200.00	24.66	125.36	5,720.36	-1,316.32	1,865.31	2,283.00	0.00	0.00	0.00
6,300.00	24.66	125.36	5,811.24	-1,340.46	1,899.34	2,324.72	0.00	0.00	0.00
6,400.00	24.66	125.36	5,902.12	-1,364.61	1,933.37	2,366.45	0.00	0.00	0.00
6,500.00	24.66	125.36	5,993.00	-1,388.76	1,967.40	2,408.17	0.00	0.00	0.00
6,600.00	24.66	125.36	6,083.88	-1,412.90	2,001.42	2,449.90	0.00	0.00	0.00
L_WSCH									
6,683.76	24.66	125.36	6,160.00	-1,433.13	2,029.92	2,484.84	0.00	0.00	0.00
6,700.00	24.66	125.36	6,174.76	-1,437.05	2,035.45	2,491.62	0.00	0.00	0.00
6,800.00	24.66	125.36	6,265.64	-1,461.20	2,069.48	2,533.34	0.00	0.00	0.00
6,900.00	24.66	125.36	6,356.52	-1,485.34	2,103.50	2,575.07	0.00	0.00	0.00
7,000.00	24.66	125.36	6,447.40	-1,509.49	2,137.53	2,616.79	0.00	0.00	0.00
7,100.00	24.66	125.36	6,538.28	-1,533.64	2,171.56	2,658.51	0.00	0.00	0.00

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Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6308.00usft (H&P #329)
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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)
7,200.00	24.66	125.36	6,629.16	-1,557.78	2,205.58	2,700.24	0.00	0.00	0.00
7,300.00	24.66	125.36	6,720.04	-1,581.93	2,239.61	2,741.96	0.00	0.00	0.00
Start Drop -1.50									
7,346.47	24.66	125.36	6,762.26	-1,593.15	2,255.42	2,761.35	0.00	0.00	0.00
7,400.00	23.86	125.36	6,811.07	-1,605.88	2,273.36	2,783.34	1.50	-1.50	0.00
OCRK									
7,427.22	23.45	125.36	6,836.00	-1,612.20	2,282.26	2,794.26	1.50	-1.50	0.00
7,500.00	22.36	125.36	6,903.05	-1,628.59	2,305.36	2,822.59	1.50	-1.50	0.00
7,600.00	20.86	125.36	6,996.02	-1,649.90	2,335.39	2,859.41	1.50	-1.50	0.00
7,700.00	19.36	125.36	7,089.92	-1,669.80	2,363.43	2,893.79	1.50	-1.50	0.00
7,800.00	17.86	125.36	7,184.69	-1,688.26	2,389.45	2,925.70	1.50	-1.50	0.00
7,900.00	16.36	125.36	7,280.26	-1,705.29	2,413.44	2,955.11	1.50	-1.50	0.00
8,000.00	14.86	125.36	7,376.57	-1,720.85	2,435.38	2,982.02	1.50	-1.50	0.00
8,100.00	13.36	125.36	7,473.55	-1,734.96	2,455.26	3,006.39	1.50	-1.50	0.00
U_MVRD									
8,184.53	12.09	125.36	7,556.00	-1,745.73	2,470.44	3,025.00	1.50	-1.50	0.00
8,200.00	11.86	125.36	7,571.14	-1,747.59	2,473.06	3,028.21	1.50	-1.50	0.00
8,300.00	10.36	125.36	7,669.26	-1,758.74	2,488.77	3,047.48	1.50	-1.50	0.00
8,400.00	8.86	125.36	7,767.86	-1,768.40	2,502.38	3,064.17	1.50	-1.50	0.00
8,500.00	7.36	125.36	7,866.85	-1,776.56	2,513.88	3,078.27	1.50	-1.50	0.00
8,600.00	5.86	125.36	7,966.19	-1,783.22	2,523.26	3,089.78	1.50	-1.50	0.00
8,700.00	4.36	125.36	8,065.79	-1,788.37	2,530.52	3,098.68	1.50	-1.50	0.00
8,800.00	2.86	125.36	8,165.59	-1,792.01	2,535.65	3,104.97	1.50	-1.50	0.00
8,900.00	1.36	125.36	8,265.52	-1,794.14	2,538.65	3,108.65	1.50	-1.50	0.00
Start 3780.00 hold at 8990.49 MD - TOP GAS									
8,990.49	0.00	0.00	8,356.00	-1,794.76	2,539.53	3,109.72	1.50	-1.50	0.00
9,000.00	0.00	0.00	8,365.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
9,100.00	0.00	0.00	8,465.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
9,200.00	0.00	0.00	8,565.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
9,300.00	0.00	0.00	8,665.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
9,400.00	0.00	0.00	8,765.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
9,500.00	0.00	0.00	8,865.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
9,600.00	0.00	0.00	8,965.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
9,700.00	0.00	0.00	9,065.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
9,800.00	0.00	0.00	9,165.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
9,900.00	0.00	0.00	9,265.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,000.00	0.00	0.00	9,365.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,100.00	0.00	0.00	9,465.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,200.00	0.00	0.00	9,565.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,300.00	0.00	0.00	9,665.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,400.00	0.00	0.00	9,765.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,500.00	0.00	0.00	9,865.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
CMEO									
10,560.49	0.00	0.00	9,926.00	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,600.00	0.00	0.00	9,965.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,700.00	0.00	0.00	10,065.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,800.00	0.00	0.00	10,165.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
10,900.00	0.00	0.00	10,265.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
11,000.00	0.00	0.00	10,365.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
11,100.00	0.00	0.00	10,465.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
11,200.00	0.00	0.00	10,565.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00
RLNS									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well FED RGU 421-7-297 - Slot FED RGU 421-7-297
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 421-7-297	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)	
11,290.49	0.00	0.00	10,656.00	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
11,300.00	0.00	0.00	10,665.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
11,400.00	0.00	0.00	10,765.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
CZZT										
11,440.49	0.00	0.00	10,806.00	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
11,500.00	0.00	0.00	10,865.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
11,600.00	0.00	0.00	10,965.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
11,700.00	0.00	0.00	11,065.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
CRCN										
11,765.49	0.00	0.00	11,131.00	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
11,800.00	0.00	0.00	11,165.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
11,900.00	0.00	0.00	11,265.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
12,000.00	0.00	0.00	11,365.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
SEGO										
12,025.49	0.00	0.00	11,391.00	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
12,100.00	0.00	0.00	11,465.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
12,200.00	0.00	0.00	11,565.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
SEGO_LOWER										
12,270.49	0.00	0.00	11,636.00	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
12,300.00	0.00	0.00	11,665.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
12,400.00	0.00	0.00	11,765.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
12,500.00	0.00	0.00	11,865.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
12,600.00	0.00	0.00	11,965.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
12,700.00	0.00	0.00	12,065.51	-1,794.76	2,539.53	3,109.72	0.00	0.00	0.00	
TD at 12770.49 - TD										
12,770.49	0.00	0.00	12,136.00	-1,794.76	2,539.53	3,109.72	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 421-7-297 - V - hit/miss target - Shape - Circle (radius 100.00)	0.00	0.00	8,356.00	-1,794.76	2,539.53	1,763,620.73	2,206,903.69	39.896076	-108.326924
FED RGU 421-7-297 - P - plan hits target center - Point	0.00	0.00	12,136.00	-1,794.76	2,539.53	1,763,620.73	2,206,903.69	39.896076	-108.326924

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,259.71	1,230.00	13 3/8" Surface Casing	13-3/8	17-1/2	
3,206.64	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 421-7-297 - Slot FED RGU 421-7-297
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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 421-7-297	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				
704.02	700.00	GRRV				
858.10	850.00	GRRV_A_GROOVE				
1,067.09	1,050.00	GRRV_B_GROOVE				
1,391.05	1,350.00	GRRV DISSOLUTION_SURF				
2,381.37	2,250.00	GARDEN_GULCH				
2,568.43	2,420.00	GRRV_ORANGE				
2,656.46	2,500.00	U_WSCH				
5,528.39	5,110.00	G_SAND				
5,814.48	5,370.00	FRUN				
6,683.76	6,160.00	L_WSCH				
7,427.22	6,836.00	OCRK				
8,184.53	7,556.00	U_MVRD				
8,990.49	8,356.00	TOP GAS				
10,560.49	9,926.00	CMEO				
11,290.49	10,656.00	RLNS				
11,440.49	10,806.00	CZZT				
11,765.49	11,131.00	CRCN				
12,025.49	11,391.00	SEGO				
12,270.49	11,636.00	SEGO_LOWER				
12,770.49	12,136.00	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	-5.29	9.53	Start DLS 2.00 TFO 7.88	
1,354.92	1,317.17	-146.40	216.69	Start 5991.54 hold at 1354.92 MD	
7,346.47	6,762.26	-1,593.15	2,255.42	Start Drop -1.50	
8,990.49	8,356.00	-1,794.76	2,539.53	Start 3780.00 hold at 8990.49 MD	
12,770.49	12,136.00	-1,794.76	2,539.53	TD at 12770.49	