

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 RG 12-18-297 - Slot RG 12-18-298, True North
Vertical (TVD) Reference: KB=30' @ 6633.00usft (H&P #329)
Section (VS) Reference: Slot - RG 12-18-298(0.00N, 0.00E)
Measured Depth Reference: KB=30' @ 6633.00usft (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
RG 12-18-297 - KMW Gas	7843.00	-3399.78	-412.05	1757485.70	2205737.40	39.879143	-108.330397	Circle (Radius: 50.00)
RG 12-18-297 - PBHL	11503.00	-3399.78	-412.05	1757485.70	2205737.40	39.879143	-108.330397	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
1456.97	26.74	186.91	1408.96	-304.13	-36.86	306.35	306.35	Start 6022.77 hold at 1456.97 MD
7479.74	26.74	186.91	6787.67	-2994.28	-362.91	3016.19	3016.19	Start DLS 1.50 TFO -180.00
8595.69	10.00	186.91	7843.00	-3342.17	-405.07	3366.63	3366.63	Start Drop -1.50
9262.36	0.00	0.00	8506.29	-3399.78	-412.05	3424.66	3424.66	Start 2996.71 hold at 9262.36 MD
12259.07	0.00	0.00	11503.00	-3399.78	-412.05	3424.66	3424.66	TD at 12259.07

WELL DETAILS: RG 12-18-297

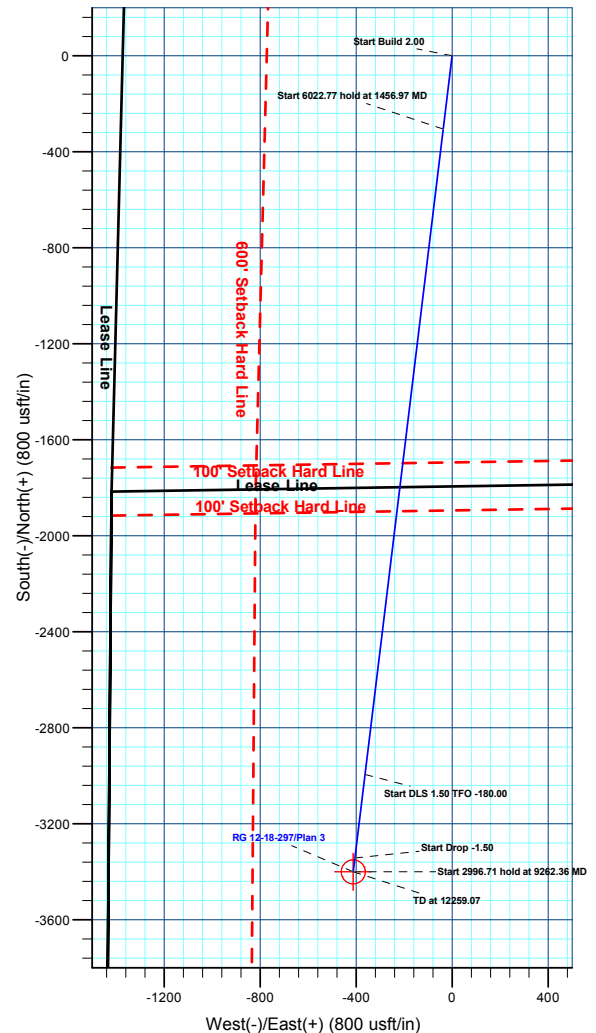
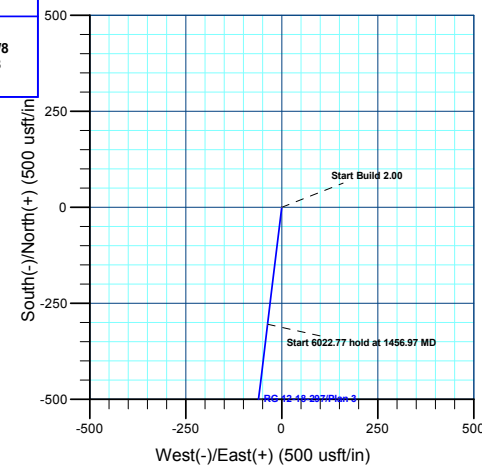
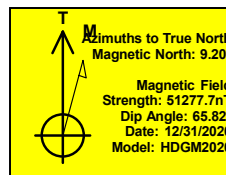
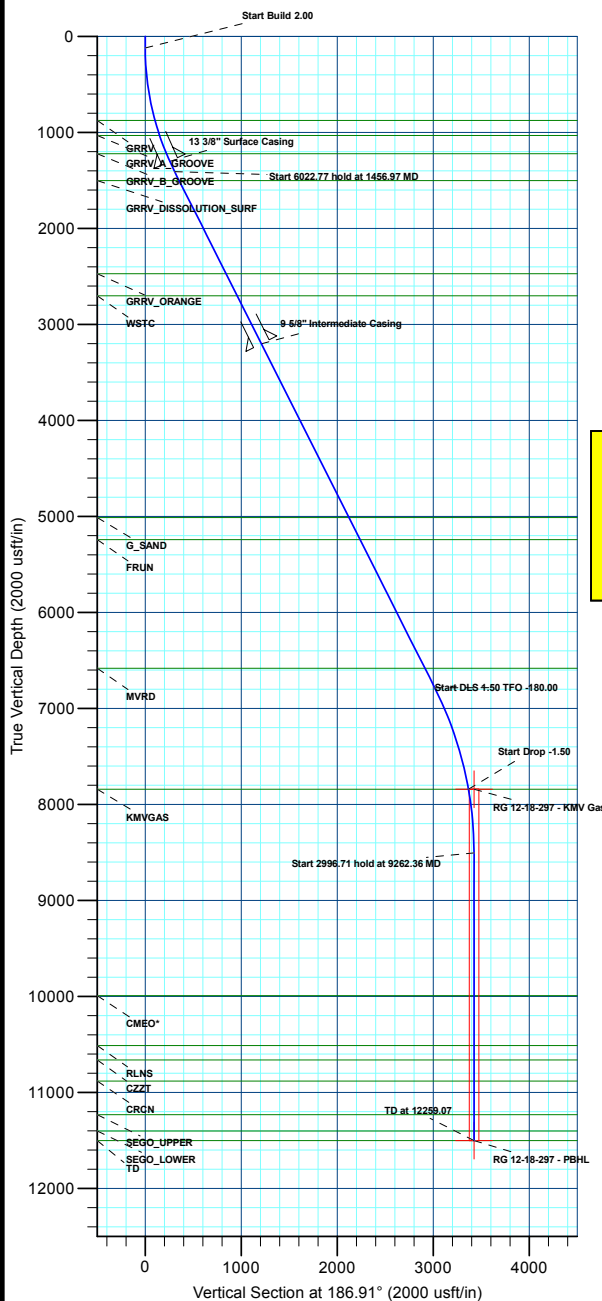
+N/-S	+E/-W	Northing	Ground Elev:	Latitude	Longitude	Slot
0.00	0.00	1760871.00	6603.00	39.888476	-108.328929	RG 12-18-298
			2206255.10			

CASING DETAILS

TVD	MD	Name	Size
1303.00	1339.50	13 3/8" Surface Casing	13-3/8
3203.00	3465.83	5/8" Intermediate Casing	9-5/8

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
878.00	887.14	GRRV
1033.00	1049.21	GRRV_A_GROOVE
1223.00	1252.25	GRRV_B_GROOVE
1503.00	1562.27	GRRV DISSOLUTION_SURF
2473.00	2648.42	GRRV_ORANGE
2703.00	2905.96	WSTC
5013.00	5492.56	G_SAND
5243.00	5750.10	FRUN
6583.00	7250.56	MVRD
7843.00	8595.69	KMW GAS
9993.00	10749.07	CMEO*
10513.00	11269.07	RLNS
10663.00	11419.07	CZT
10883.00	11639.07	CRCN
11233.00	11989.07	SEGO_UPPER
11403.00	12159.07	SEGO_LOWER
11503.00	12259.07	TD



Plan: Plan 3 (RG 12-18-297/Wellbore #1)

Created By: Chase Chambers Date: 14:47, April 06 2022



Terra Energy Partners, LLP

Rio Blanco County, CO

RGU 23-7-297 Pad

RG 12-18-297 - Slot RG 12-18-298

Wellbore #1

Plan: Plan 3

KLX Well Planning Report

30 March, 2022



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 12-18-297 - Slot RG 12-18-298
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6633.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 12-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

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 23-7-297 Pad			
Site Position:		Northing:	1,760,880.90 usft	Latitude:	39.888499
From:	Map	Easting:	2,206,203.50 usft	Longitude:	-108.329114
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.78 °

Well	RG 12-18-297 - Slot RG 12-18-298					
Well Position	+N/-S	-8.29 usft	Northing:	1,760,871.00 usft	Latitude:	39.888476
	+E/-W	51.88 usft	Easting:	2,206,255.10 usft	Longitude:	-108.328929
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	6,603.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	12/31/2020	9.20	65.82	51,277.70000000

Design	Plan 3			
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	186.91

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	
1,456.97	26.74	186.91	1,408.96	-304.13	-36.86	2.00	2.00	0.00	186.91	
7,479.74	26.74	186.91	6,787.67	-2,994.28	-362.91	0.00	0.00	0.00	0.00	
8,595.69	10.00	186.91	7,843.00	-3,342.17	-405.07	1.50	-1.50	0.00	-180.00	
9,262.36	0.00	0.00	8,506.29	-3,399.78	-412.05	1.50	-1.50	0.00	180.00	
12,259.07	0.00	0.00	11,503.00	-3,399.78	-412.05	0.00	0.00	0.00	0.00	RG 12-18-297 - PBHL

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Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 12-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

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
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	186.91	199.99	-1.11	-0.13	1.12	2.00	2.00	0.00
300.00	3.60	186.91	299.88	-5.61	-0.68	5.65	2.00	2.00	0.00
400.00	5.60	186.91	399.55	-13.57	-1.65	13.67	2.00	2.00	0.00
500.00	7.60	186.91	498.89	-24.98	-3.03	25.17	2.00	2.00	0.00
600.00	9.60	186.91	597.76	-39.83	-4.83	40.12	2.00	2.00	0.00
700.00	11.60	186.91	696.05	-58.09	-7.04	58.51	2.00	2.00	0.00
800.00	13.60	186.91	793.63	-79.74	-9.66	80.33	2.00	2.00	0.00
GRRV									
887.14	15.34	186.91	878.00	-101.36	-12.28	102.10	2.00	2.00	0.00
900.00	15.60	186.91	890.40	-104.76	-12.70	105.53	2.00	2.00	0.00
1,000.00	17.60	186.91	986.23	-133.12	-16.13	134.10	2.00	2.00	0.00
GRRV_A_GROOVE									
1,049.21	18.58	186.91	1,033.00	-148.29	-17.97	149.38	2.00	2.00	0.00
1,100.00	19.60	186.91	1,081.00	-164.79	-19.97	165.99	2.00	2.00	0.00
1,200.00	21.60	186.91	1,174.60	-199.71	-24.21	201.18	2.00	2.00	0.00
GRRV_B_GROOVE									
1,252.25	22.64	186.91	1,223.00	-219.25	-26.57	220.85	2.00	2.00	0.00
1,300.00	23.60	186.91	1,266.92	-237.86	-28.83	239.60	2.00	2.00	0.00
13 3/8" Surface Casing									
1,339.50	24.39	186.91	1,303.00	-253.81	-30.76	255.67	2.00	2.00	0.00
1,400.00	25.60	186.91	1,357.83	-279.19	-33.84	281.23	2.00	2.00	0.00
Start 6022.77 hold at 1456.97 MD									
1,456.97	26.74	186.91	1,408.96	-304.13	-36.86	306.35	2.00	2.00	0.00
1,500.00	26.74	186.91	1,447.39	-323.35	-39.19	325.71	0.00	0.00	0.00
GRRV DISSOLUTION_SURF									
1,562.27	26.74	186.91	1,503.00	-351.16	-42.56	353.73	0.00	0.00	0.00
1,600.00	26.74	186.91	1,536.70	-368.01	-44.60	370.71	0.00	0.00	0.00
1,700.00	26.74	186.91	1,626.00	-412.68	-50.02	415.70	0.00	0.00	0.00
1,800.00	26.74	186.91	1,715.31	-457.35	-55.43	460.69	0.00	0.00	0.00
1,900.00	26.74	186.91	1,804.62	-502.01	-60.84	505.69	0.00	0.00	0.00
2,000.00	26.74	186.91	1,893.92	-546.68	-66.26	550.68	0.00	0.00	0.00
2,100.00	26.74	186.91	1,983.23	-591.35	-71.67	595.67	0.00	0.00	0.00
2,200.00	26.74	186.91	2,072.54	-636.01	-77.09	640.67	0.00	0.00	0.00
2,300.00	26.74	186.91	2,161.84	-680.68	-82.50	685.66	0.00	0.00	0.00
2,400.00	26.74	186.91	2,251.15	-725.35	-87.91	730.65	0.00	0.00	0.00
2,500.00	26.74	186.91	2,340.46	-770.01	-93.33	775.65	0.00	0.00	0.00
2,600.00	26.74	186.91	2,429.76	-814.68	-98.74	820.64	0.00	0.00	0.00
GRRV_ORANGE									
2,648.42	26.74	186.91	2,473.00	-836.30	-101.36	842.42	0.00	0.00	0.00
2,700.00	26.74	186.91	2,519.07	-859.34	-104.15	865.63	0.00	0.00	0.00
2,800.00	26.74	186.91	2,608.37	-904.01	-109.57	910.63	0.00	0.00	0.00
2,900.00	26.74	186.91	2,697.68	-948.68	-114.98	955.62	0.00	0.00	0.00
WSTC									
2,905.96	26.74	186.91	2,703.00	-951.34	-115.30	958.30	0.00	0.00	0.00
3,000.00	26.74	186.91	2,786.99	-993.34	-120.39	1,000.61	0.00	0.00	0.00
3,100.00	26.74	186.91	2,876.29	-1,038.01	-125.81	1,045.61	0.00	0.00	0.00
3,200.00	26.74	186.91	2,965.60	-1,082.68	-131.22	1,090.60	0.00	0.00	0.00
3,300.00	26.74	186.91	3,054.91	-1,127.34	-136.64	1,135.59	0.00	0.00	0.00
3,400.00	26.74	186.91	3,144.21	-1,172.01	-142.05	1,180.59	0.00	0.00	0.00

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Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 12-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

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)
9 5/8" Intermediate Casing									
3,465.83	26.74	186.91	3,203.00	-1,201.41	-145.61	1,210.20	0.00	0.00	0.00
3,500.00	26.74	186.91	3,233.52	-1,216.67	-147.46	1,225.58	0.00	0.00	0.00
3,600.00	26.74	186.91	3,322.82	-1,261.34	-152.88	1,270.57	0.00	0.00	0.00
3,700.00	26.74	186.91	3,412.13	-1,306.01	-158.29	1,315.56	0.00	0.00	0.00
3,800.00	26.74	186.91	3,501.44	-1,350.67	-163.70	1,360.56	0.00	0.00	0.00
3,900.00	26.74	186.91	3,590.74	-1,395.34	-169.12	1,405.55	0.00	0.00	0.00
4,000.00	26.74	186.91	3,680.05	-1,440.01	-174.53	1,450.54	0.00	0.00	0.00
4,100.00	26.74	186.91	3,769.36	-1,484.67	-179.94	1,495.54	0.00	0.00	0.00
4,200.00	26.74	186.91	3,858.66	-1,529.34	-185.36	1,540.53	0.00	0.00	0.00
4,300.00	26.74	186.91	3,947.97	-1,574.00	-190.77	1,585.52	0.00	0.00	0.00
4,400.00	26.74	186.91	4,037.27	-1,618.67	-196.19	1,630.52	0.00	0.00	0.00
4,500.00	26.74	186.91	4,126.58	-1,663.34	-201.60	1,675.51	0.00	0.00	0.00
4,600.00	26.74	186.91	4,215.89	-1,708.00	-207.01	1,720.50	0.00	0.00	0.00
4,700.00	26.74	186.91	4,305.19	-1,752.67	-212.43	1,765.50	0.00	0.00	0.00
4,800.00	26.74	186.91	4,394.50	-1,797.34	-217.84	1,810.49	0.00	0.00	0.00
4,900.00	26.74	186.91	4,483.81	-1,842.00	-223.25	1,855.48	0.00	0.00	0.00
5,000.00	26.74	186.91	4,573.11	-1,886.67	-228.67	1,900.48	0.00	0.00	0.00
5,100.00	26.74	186.91	4,662.42	-1,931.34	-234.08	1,945.47	0.00	0.00	0.00
5,200.00	26.74	186.91	4,751.73	-1,976.00	-239.49	1,990.46	0.00	0.00	0.00
5,300.00	26.74	186.91	4,841.03	-2,020.67	-244.91	2,035.46	0.00	0.00	0.00
5,400.00	26.74	186.91	4,930.34	-2,065.33	-250.32	2,080.45	0.00	0.00	0.00
G_SAND									
5,492.56	26.74	186.91	5,013.00	-2,106.68	-255.33	2,122.09	0.00	0.00	0.00
5,500.00	26.74	186.91	5,019.64	-2,110.00	-255.74	2,125.44	0.00	0.00	0.00
5,600.00	26.74	186.91	5,108.95	-2,154.67	-261.15	2,170.43	0.00	0.00	0.00
5,700.00	26.74	186.91	5,198.26	-2,199.33	-266.56	2,215.43	0.00	0.00	0.00
FRUN									
5,750.10	26.74	186.91	5,243.00	-2,221.71	-269.27	2,237.97	0.00	0.00	0.00
5,800.00	26.74	186.91	5,287.56	-2,244.00	-271.98	2,260.42	0.00	0.00	0.00
5,900.00	26.74	186.91	5,376.87	-2,288.67	-277.39	2,305.41	0.00	0.00	0.00
6,000.00	26.74	186.91	5,466.18	-2,333.33	-282.80	2,350.41	0.00	0.00	0.00
6,100.00	26.74	186.91	5,555.48	-2,378.00	-288.22	2,395.40	0.00	0.00	0.00
6,200.00	26.74	186.91	5,644.79	-2,422.66	-293.63	2,440.39	0.00	0.00	0.00
6,300.00	26.74	186.91	5,734.09	-2,467.33	-299.04	2,485.39	0.00	0.00	0.00
6,400.00	26.74	186.91	5,823.40	-2,512.00	-304.46	2,530.38	0.00	0.00	0.00
6,500.00	26.74	186.91	5,912.71	-2,556.66	-309.87	2,575.37	0.00	0.00	0.00
6,600.00	26.74	186.91	6,002.01	-2,601.33	-315.28	2,620.37	0.00	0.00	0.00
6,700.00	26.74	186.91	6,091.32	-2,646.00	-320.70	2,665.36	0.00	0.00	0.00
6,800.00	26.74	186.91	6,180.63	-2,690.66	-326.11	2,710.35	0.00	0.00	0.00
6,900.00	26.74	186.91	6,269.93	-2,735.33	-331.53	2,755.35	0.00	0.00	0.00
7,000.00	26.74	186.91	6,359.24	-2,779.99	-336.94	2,800.34	0.00	0.00	0.00
7,100.00	26.74	186.91	6,448.55	-2,824.66	-342.35	2,845.33	0.00	0.00	0.00
7,200.00	26.74	186.91	6,537.85	-2,869.33	-347.77	2,890.33	0.00	0.00	0.00
MVRD									
7,250.56	26.74	186.91	6,583.00	-2,891.91	-350.50	2,913.07	0.00	0.00	0.00
7,300.00	26.74	186.91	6,627.16	-2,913.99	-353.18	2,935.32	0.00	0.00	0.00
7,400.00	26.74	186.91	6,716.46	-2,958.66	-358.59	2,980.31	0.00	0.00	0.00
Start DLS 1.50 TFO -180.00									
7,479.74	26.74	186.91	6,787.67	-2,994.28	-362.91	3,016.19	0.00	0.00	0.00
7,500.00	26.44	186.91	6,805.79	-3,003.28	-364.00	3,025.26	1.50	-1.50	0.00
7,600.00	24.94	186.91	6,895.91	-3,046.31	-369.22	3,068.60	1.50	-1.50	0.00
7,700.00	23.44	186.91	6,987.13	-3,086.98	-374.15	3,109.57	1.50	-1.50	0.00

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Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
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Wellbore:	Wellbore #1		
Design:	Plan 3		

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)
7,800.00	21.94	186.91	7,079.39	-3,125.26	-378.79	3,148.13	1.50	-1.50	0.00
7,900.00	20.44	186.91	7,172.63	-3,161.14	-383.13	3,184.27	1.50	-1.50	0.00
8,000.00	18.94	186.91	7,266.78	-3,194.58	-387.19	3,217.95	1.50	-1.50	0.00
8,100.00	17.44	186.91	7,361.79	-3,225.56	-390.94	3,249.16	1.50	-1.50	0.00
8,200.00	15.94	186.91	7,457.57	-3,254.06	-394.39	3,277.87	1.50	-1.50	0.00
8,300.00	14.44	186.91	7,554.08	-3,280.06	-397.55	3,304.07	1.50	-1.50	0.00
8,400.00	12.94	186.91	7,651.24	-3,303.55	-400.39	3,327.73	1.50	-1.50	0.00
8,500.00	11.44	186.91	7,748.98	-3,324.50	-402.93	3,348.83	1.50	-1.50	0.00
Start Drop -1.50 - KMGAS									
8,595.69	10.00	186.91	7,843.00	-3,342.17	-405.07	3,366.63	1.50	-1.50	0.00
8,600.00	9.94	186.91	7,847.24	-3,342.91	-405.16	3,367.37	1.50	-1.50	0.00
8,700.00	8.44	186.91	7,945.96	-3,358.76	-407.08	3,383.34	1.50	-1.50	0.00
8,800.00	6.94	186.91	8,045.06	-3,372.03	-408.69	3,396.71	1.50	-1.50	0.00
8,900.00	5.44	186.91	8,144.47	-3,382.73	-409.98	3,407.48	1.50	-1.50	0.00
9,000.00	3.94	186.91	8,244.14	-3,390.84	-410.97	3,415.65	1.50	-1.50	0.00
9,100.00	2.44	186.91	8,343.98	-3,396.35	-411.63	3,421.21	1.50	-1.50	0.00
9,200.00	0.94	186.91	8,443.93	-3,399.27	-411.99	3,424.15	1.50	-1.50	0.00
Start 2996.71 hold at 9262.36 MD									
9,262.36	0.00	0.00	8,506.29	-3,399.78	-412.05	3,424.66	1.50	-1.50	0.00
9,300.00	0.00	0.00	8,543.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
9,400.00	0.00	0.00	8,643.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
9,500.00	0.00	0.00	8,743.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
9,600.00	0.00	0.00	8,843.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
9,700.00	0.00	0.00	8,943.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
9,800.00	0.00	0.00	9,043.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
9,900.00	0.00	0.00	9,143.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,000.00	0.00	0.00	9,243.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,100.00	0.00	0.00	9,343.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,200.00	0.00	0.00	9,443.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,300.00	0.00	0.00	9,543.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,400.00	0.00	0.00	9,643.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,500.00	0.00	0.00	9,743.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,600.00	0.00	0.00	9,843.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,700.00	0.00	0.00	9,943.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
CMEQ*									
10,749.07	0.00	0.00	9,993.00	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,800.00	0.00	0.00	10,043.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
10,900.00	0.00	0.00	10,143.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
11,000.00	0.00	0.00	10,243.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
11,100.00	0.00	0.00	10,343.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
11,200.00	0.00	0.00	10,443.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
RLNS									
11,269.07	0.00	0.00	10,513.00	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
11,300.00	0.00	0.00	10,543.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
11,400.00	0.00	0.00	10,643.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
CZZT									
11,419.07	0.00	0.00	10,663.00	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
11,500.00	0.00	0.00	10,743.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
11,600.00	0.00	0.00	10,843.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
CRCN									
11,639.07	0.00	0.00	10,883.00	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
11,700.00	0.00	0.00	10,943.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
11,800.00	0.00	0.00	11,043.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 12-18-297 - Slot RG 12-18-298
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6633.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 12-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

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)
11,900.00	0.00	0.00	11,143.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
SEGO_UPPER									
11,989.07	0.00	0.00	11,233.00	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
12,000.00	0.00	0.00	11,243.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
12,100.00	0.00	0.00	11,343.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
SEGO_LOWER									
12,159.07	0.00	0.00	11,403.00	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
12,200.00	0.00	0.00	11,443.93	-3,399.78	-412.05	3,424.66	0.00	0.00	0.00
TD at 12259.07 - TD									
12,259.07	0.00	0.00	11,503.00	-3,399.78	-412.05	3,424.66	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
RG 12-18-297 - KMV Gc - plan misses target center by 57.16usft at 8604.95usft MD (7852.12 TVD, -3343.76 N, -405.26 E) - Circle (radius 50.00)	0.00	0.00	7,843.00	-3,399.78	-412.05	1,757,485.70	2,205,737.40	39.879143	-108.330397
RG 12-18-297 - PBHL - plan hits target center - Point	0.00	0.00	11,503.00	-3,399.78	-412.05	1,757,485.70	2,205,737.40	39.879143	-108.330397

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,339.50	1,303.00	13 3/8" Surface Casing	13-3/8	17-1/2	
3,465.83	3,203.00	9 5/8" Intermediate Casing	9-5/8	12-1/4	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 12-18-297 - Slot RG 12-18-298
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6633.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 12-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
887.14	878.00	GRRV				
1,049.21	1,033.00	GRRV_A_GROOVE				
1,252.25	1,223.00	GRRV_B_GROOVE				
1,562.27	1,503.00	GRRV DISSOLUTION_SURF				
2,648.42	2,473.00	GRRV_ORANGE				
2,905.96	2,703.00	WSTC				
5,492.56	5,013.00	G_SAND				
5,750.10	5,243.00	FRUN				
7,250.56	6,583.00	MVRD				
8,595.69	7,843.00	KMVGAS				
10,749.07	9,993.00	CMEQ*				
11,269.07	10,513.00	RLNS				
11,419.07	10,663.00	CZZT				
11,639.07	10,883.00	CRCN				
11,989.07	11,233.00	SEGO_UPPER				
12,159.07	11,403.00	SEGO_LOWER				
12,259.07	11,503.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.00	120.00	0.00	0.00	Start Build 2.00	
1,456.97	1,408.96	-304.13	-36.86	Start 6022.77 hold at 1456.97 MD	
7,479.74	6,787.67	-2,994.28	-362.91	Start DLS 1.50 TFO -180.00	
8,595.69	7,843.00	-3,342.17	-405.07	Start Drop -1.50	
9,262.36	8,506.29	-3,399.78	-412.05	Start 2996.71 hold at 9262.36 MD	
12,259.07	11,503.00	-3,399.78	-412.05	TD at 12259.07	