

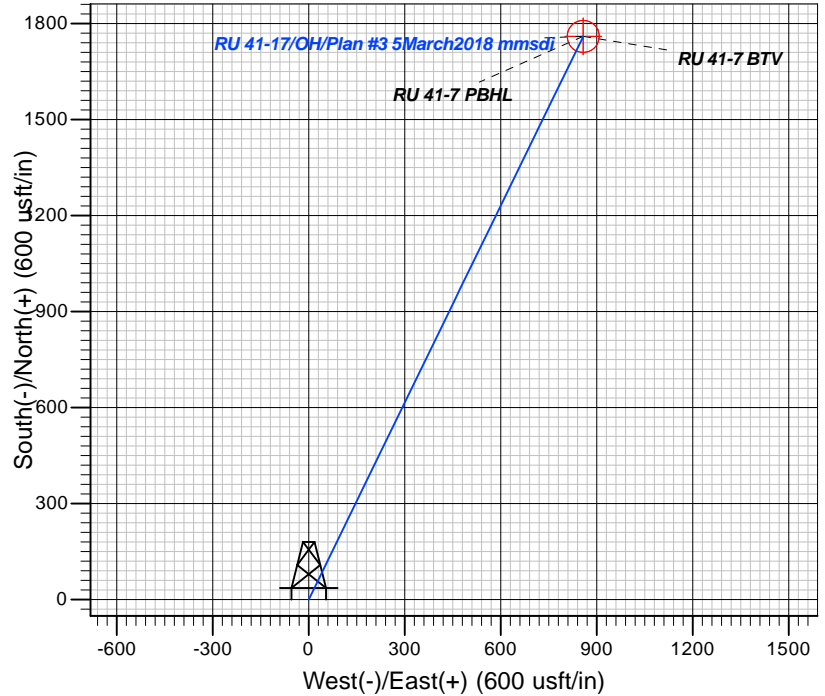
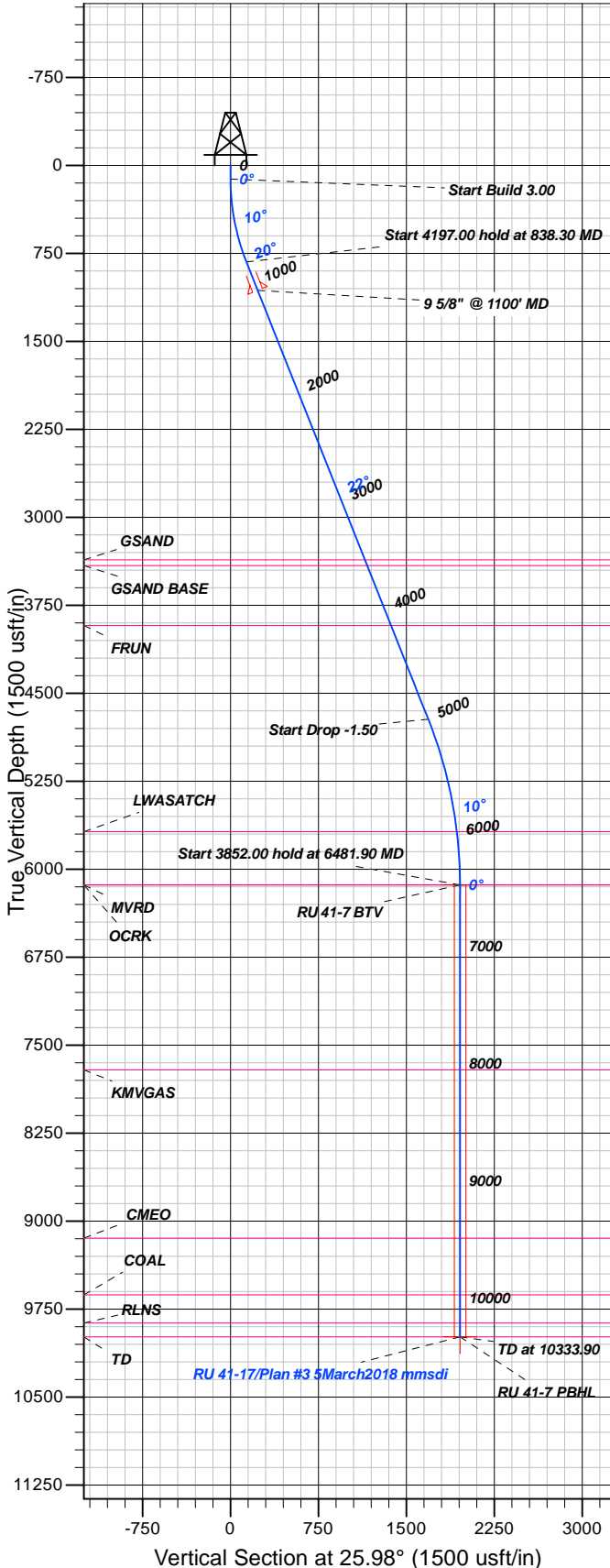


Azimuths to True North  
Magnetic North: 9.30°  
Magnetic Field  
Strength: 51715.6snT  
Dip Angle: 65.63°  
Date: 2/9/2017  
Model: HDGM

## Well Details: RU 41-17

GL 7859' & RKB 24' @ 7883.00usft (H&P 318)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1596998.90	2351747.60	39.4500417	-107.7958798	RU 41-17



## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3361.00	3571.87	GSAND
3410.00	3624.61	GSAND BASE
3920.00	4173.50	FRUN
5678.00	6025.82	LWASATCH
6133.00	6481.90	MVRD
6133.00	6481.90	OCRK
7709.00	8057.90	KMVGAS
9143.00	9491.90	CMEO
9628.00	9976.90	COAL
9868.00	10216.90	RLNS
9985.00	10333.90	TD

Plan: Plan #3 5March2018 mmsdi

13:24, March 06 2018  
Created By: Mel Mireles

PROJECT DETAILS: Garfield County, CO NAD83

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

System Datum: Mean Sea Level

## CASING DETAILS

TVD	MD	Name	Size
1064.29	1100.00	9 5/8" @ 1100' MD	9.62

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	115.00	0.00	0.00	115.00	0.00	0.00	0.00	0.00	0.00	
3	838.30	21.70	25.98	821.13	121.66	59.28	3.00	25.98	135.33	
4	5035.30	21.70	25.98	4720.73	1516.61	739.03	0.00	0.001687.10		
5	6481.90	0.00	0.00	6133.00	1759.93	857.60	1.50	180.001957.77		RU 41-7 BTV
6	10333.90	0.00	0.00	9985.00	1759.93	857.60	0.00	0.001957.77		RU 41-7 PBHL

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
RU 41-7 BTV	6133.00	1759.93	857.60	1598736.60	2352649.40	39.4548735	-107.7928426	Circle (Radius: 50.00)
- plan hits target center								
RU 41-7 PBHL	9985.00	1759.93	857.60	1598736.60	2352649.40	39.4548735	-107.7928426	Point
- plan hits target center								



# **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**RU 31-17 Pad**

**RU 41-17 - Slot RU 41-17**

**OH**

**Plan: Plan #3 5March2018 mmsdi**

## **Standard Planning Report**

**06 March, 2018**



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well RU 41-17 - Slot RU 41-17
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Site:</b>	RU 31-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 41-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #3 5March2018 mmsdi		

<b>Project</b>	Garfield County, CO NAD83		
<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>	RU 31-17 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,596,940.40 usft	<b>Latitude:</b> 39.4498852
<b>From:</b> Map		<b>Easting:</b>	2,351,805.70 usft	<b>Longitude:</b> -107.7956689
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.20 in	<b>Grid Convergence:</b> -1.45 °

<b>Well</b>	RU 41-17 - Slot RU 41-17			
<b>Well Position</b>	<b>+N/-S</b>	57.01 usft	<b>Northing:</b>	1,596,998.90 usft
	<b>+E/-W</b>	-59.56 usft	<b>Easting:</b>	2,351,747.60 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	7,859.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	2/9/2017	9.30	65.63	51,716

<b>Design</b>	Plan #3 5March2018 mmsdi			
<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	25.98

<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	
115.00	0.00	0.00	115.00	0.00	0.00	0.00	0.00	0.00	0.00	
838.30	21.70	25.98	821.13	121.66	59.28	3.00	3.00	0.00	25.98	
5,035.30	21.70	25.98	4,720.73	1,516.61	739.03	0.00	0.00	0.00	0.00	
6,481.90	0.00	0.00	6,133.00	1,759.93	857.60	1.50	-1.50	0.00	180.00	RU 41-7 BTV
10,333.90	0.00	0.00	9,985.00	1,759.93	857.60	0.00	0.00	0.00	0.00	RU 41-7 PBHL

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well RU 41-17 - Slot RU 41-17
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Site:</b>	RU 31-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 41-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #3 5March2018 mmsdi		

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
115.00	0.00	0.00	115.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.00</b>									
200.00	2.55	25.98	199.97	1.70	0.83	1.89	3.00	3.00	0.00
300.00	5.55	25.98	299.71	8.05	3.92	8.95	3.00	3.00	0.00
400.00	8.55	25.98	398.94	19.08	9.30	21.23	3.00	3.00	0.00
500.00	11.55	25.98	497.40	34.77	16.94	38.67	3.00	3.00	0.00
600.00	14.55	25.98	594.80	55.06	26.83	61.25	3.00	3.00	0.00
700.00	17.55	25.98	690.90	79.91	38.94	88.90	3.00	3.00	0.00
800.00	20.55	25.98	785.41	109.25	53.24	121.53	3.00	3.00	0.00
838.30	21.70	25.98	821.13	121.66	59.28	135.33	3.00	3.00	0.00
<b>Start 4197.00 hold at 838.30 MD</b>									
900.00	21.70	25.98	878.46	142.17	69.28	158.15	0.00	0.00	0.00
1,000.00	21.70	25.98	971.38	175.40	85.47	195.12	0.00	0.00	0.00
1,100.00	21.70	25.98	1,064.29	208.64	101.67	232.09	0.00	0.00	0.00
<b>9 5/8" @ 1100' MD</b>									
1,200.00	21.70	25.98	1,157.20	241.88	117.86	269.07	0.00	0.00	0.00
1,300.00	21.70	25.98	1,250.12	275.11	134.06	306.04	0.00	0.00	0.00
1,400.00	21.70	25.98	1,343.03	308.35	150.26	343.01	0.00	0.00	0.00
1,500.00	21.70	25.98	1,435.94	341.59	166.45	379.99	0.00	0.00	0.00
1,600.00	21.70	25.98	1,528.86	374.82	182.65	416.96	0.00	0.00	0.00
1,700.00	21.70	25.98	1,621.77	408.06	198.85	453.93	0.00	0.00	0.00
1,800.00	21.70	25.98	1,714.69	441.30	215.04	490.90	0.00	0.00	0.00
1,900.00	21.70	25.98	1,807.60	474.54	231.24	527.88	0.00	0.00	0.00
2,000.00	21.70	25.98	1,900.51	507.77	247.43	564.85	0.00	0.00	0.00
2,100.00	21.70	25.98	1,993.43	541.01	263.63	601.82	0.00	0.00	0.00
2,200.00	21.70	25.98	2,086.34	574.25	279.83	638.80	0.00	0.00	0.00
2,300.00	21.70	25.98	2,179.26	607.48	296.02	675.77	0.00	0.00	0.00
2,400.00	21.70	25.98	2,272.17	640.72	312.22	712.74	0.00	0.00	0.00
2,500.00	21.70	25.98	2,365.08	673.96	328.41	749.72	0.00	0.00	0.00
2,600.00	21.70	25.98	2,458.00	707.19	344.61	786.69	0.00	0.00	0.00
2,700.00	21.70	25.98	2,550.91	740.43	360.81	823.66	0.00	0.00	0.00
2,800.00	21.70	25.98	2,643.83	773.67	377.00	860.64	0.00	0.00	0.00
2,900.00	21.70	25.98	2,736.74	806.91	393.20	897.61	0.00	0.00	0.00
3,000.00	21.70	25.98	2,829.65	840.14	409.39	934.58	0.00	0.00	0.00
3,100.00	21.70	25.98	2,922.57	873.38	425.59	971.55	0.00	0.00	0.00
3,200.00	21.70	25.98	3,015.48	906.62	441.79	1,008.53	0.00	0.00	0.00
3,300.00	21.70	25.98	3,108.39	939.85	457.98	1,045.50	0.00	0.00	0.00
3,400.00	21.70	25.98	3,201.31	973.09	474.18	1,082.47	0.00	0.00	0.00
3,500.00	21.70	25.98	3,294.22	1,006.33	490.38	1,119.45	0.00	0.00	0.00
3,571.87	21.70	25.98	3,361.00	1,030.21	502.02	1,146.02	0.00	0.00	0.00
<b>GSAND</b>									
3,600.00	21.70	25.98	3,387.14	1,039.56	506.57	1,156.42	0.00	0.00	0.00
3,624.61	21.70	25.98	3,410.00	1,047.74	510.56	1,165.52	0.00	0.00	0.00
<b>GSAND BASE</b>									
3,700.00	21.70	25.98	3,480.05	1,072.80	522.77	1,193.39	0.00	0.00	0.00
3,800.00	21.70	25.98	3,572.96	1,106.04	538.96	1,230.37	0.00	0.00	0.00
3,900.00	21.70	25.98	3,665.88	1,139.27	555.16	1,267.34	0.00	0.00	0.00
4,000.00	21.70	25.98	3,758.79	1,172.51	571.36	1,304.31	0.00	0.00	0.00
4,100.00	21.70	25.98	3,851.71	1,205.75	587.55	1,341.29	0.00	0.00	0.00

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well RU 41-17 - Slot RU 41-17
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Site:</b>	RU 31-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 41-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #3 5March2018 mmsdi		

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)
4,173.50	21.70	25.98	3,920.00	1,230.18	599.46	1,368.46	0.00	0.00	0.00
<b>FRUN</b>									
4,200.00	21.70	25.98	3,944.62	1,238.99	603.75	1,378.26	0.00	0.00	0.00
4,300.00	21.70	25.98	4,037.53	1,272.22	619.94	1,415.23	0.00	0.00	0.00
4,400.00	21.70	25.98	4,130.45	1,305.46	636.14	1,452.20	0.00	0.00	0.00
4,500.00	21.70	25.98	4,223.36	1,338.70	652.34	1,489.18	0.00	0.00	0.00
4,600.00	21.70	25.98	4,316.28	1,371.93	668.53	1,526.15	0.00	0.00	0.00
4,700.00	21.70	25.98	4,409.19	1,405.17	684.73	1,563.12	0.00	0.00	0.00
4,800.00	21.70	25.98	4,502.10	1,438.41	700.92	1,600.10	0.00	0.00	0.00
4,900.00	21.70	25.98	4,595.02	1,471.64	717.12	1,637.07	0.00	0.00	0.00
5,000.00	21.70	25.98	4,687.93	1,504.88	733.32	1,674.04	0.00	0.00	0.00
5,035.30	21.70	25.98	4,720.73	1,516.61	739.03	1,687.10	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
5,100.00	20.73	25.98	4,781.04	1,537.66	749.29	1,710.51	1.50	-1.50	0.00
5,200.00	19.23	25.98	4,875.02	1,568.37	764.26	1,744.67	1.50	-1.50	0.00
5,300.00	17.73	25.98	4,969.87	1,596.86	778.14	1,776.37	1.50	-1.50	0.00
5,400.00	16.23	25.98	5,065.50	1,623.11	790.93	1,805.57	1.50	-1.50	0.00
5,500.00	14.73	25.98	5,161.87	1,647.10	802.62	1,832.25	1.50	-1.50	0.00
5,600.00	13.23	25.98	5,258.91	1,668.82	813.20	1,856.41	1.50	-1.50	0.00
5,700.00	11.73	25.98	5,356.55	1,688.24	822.67	1,878.02	1.50	-1.50	0.00
5,800.00	10.23	25.98	5,454.71	1,705.36	831.01	1,897.06	1.50	-1.50	0.00
5,900.00	8.73	25.98	5,553.34	1,720.16	838.22	1,913.53	1.50	-1.50	0.00
6,000.00	7.23	25.98	5,652.37	1,732.64	844.30	1,927.41	1.50	-1.50	0.00
6,025.82	6.84	25.98	5,678.00	1,735.49	845.69	1,930.57	1.50	-1.50	0.00
<b>LWASATCH</b>									
6,100.00	5.73	25.98	5,751.73	1,742.78	849.25	1,938.69	1.50	-1.50	0.00
6,200.00	4.23	25.98	5,851.35	1,750.59	853.05	1,947.37	1.50	-1.50	0.00
6,300.00	2.73	25.98	5,951.16	1,756.04	855.70	1,953.43	1.50	-1.50	0.00
6,400.00	1.23	25.98	6,051.10	1,759.14	857.22	1,956.89	1.50	-1.50	0.00
6,481.90	0.00	0.00	6,133.00	1,759.93	857.60	1,957.77	1.50	-1.50	-31.72
<b>Start 3852.00 hold at 6481.90 MD - OCRK - MVRD - RU 41-7 BTV</b>									
6,500.00	0.00	0.00	6,151.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
6,600.00	0.00	0.00	6,251.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
6,700.00	0.00	0.00	6,351.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
6,800.00	0.00	0.00	6,451.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
6,900.00	0.00	0.00	6,551.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,000.00	0.00	0.00	6,651.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,100.00	0.00	0.00	6,751.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,200.00	0.00	0.00	6,851.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,300.00	0.00	0.00	6,951.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,400.00	0.00	0.00	7,051.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,500.00	0.00	0.00	7,151.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,600.00	0.00	0.00	7,251.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,700.00	0.00	0.00	7,351.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,800.00	0.00	0.00	7,451.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
7,900.00	0.00	0.00	7,551.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
8,000.00	0.00	0.00	7,651.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
8,057.90	0.00	0.00	7,709.00	1,759.93	857.60	1,957.77	0.00	0.00	0.00
<b>KMVGAS</b>									
8,100.00	0.00	0.00	7,751.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00
8,200.00	0.00	0.00	7,851.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well RU 41-17 - Slot RU 41-17
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Site:</b>	RU 31-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 41-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #3 5March2018 mmsdi		

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)	
8,300.00	0.00	0.00	7,951.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,051.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,151.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,251.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,351.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,451.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,551.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,651.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,751.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,851.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,300.00	0.00	0.00	8,951.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,051.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,491.90	0.00	0.00	9,143.00	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
<b>CMEO</b>										
9,500.00	0.00	0.00	9,151.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,251.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,351.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,451.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,551.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
9,976.90	0.00	0.00	9,628.00	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
<b>COAL</b>										
10,000.00	0.00	0.00	9,651.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
10,100.00	0.00	0.00	9,751.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
10,200.00	0.00	0.00	9,851.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
10,216.90	0.00	0.00	9,868.00	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
<b>RLNS</b>										
10,300.00	0.00	0.00	9,951.10	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
10,333.90	0.00	0.00	9,985.00	1,759.93	857.60	1,957.77	0.00	0.00	0.00	
<b>TD at 10333.90 - TD - RU 41-7 PBHL</b>										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
RU 41-7 BTV	0.00	0.00	6,133.00	1,759.93	857.60	1,598,736.60	2,352,649.40	39.4548735	-107.7928426	
- plan hits target center										
- Circle (radius 50.00)										
RU 41-7 PBHL	0.00	0.00	9,985.00	1,759.93	857.60	1,598,736.60	2,352,649.40	39.4548735	-107.7928426	
- plan hits target center										
- Point										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,064.29	9 5/8" @ 1100' MD	9.62	9.62	

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well RU 41-17 - Slot RU 41-17
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7859' & RKB 24' @ 7883.00usft (H&P 318)
<b>Site:</b>	RU 31-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 41-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #3 5March2018 mmsdi		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,571.87	3,361.00	GSAND		0.00	0.00
3,624.61	3,410.00	GSAND BASE		0.00	0.00
4,173.50	3,920.00	FRUN		0.00	0.00
6,025.82	5,678.00	LWASATCH		0.00	0.00
6,481.90	6,133.00	OCRK		0.00	0.00
6,481.90	6,133.00	MVRD		0.00	0.00
8,057.90	7,709.00	KMVGAS		0.00	0.00
9,491.90	9,143.00	CMEO		0.00	0.00
9,976.90	9,628.00	COAL		0.00	0.00
10,216.90	9,868.00	RLNS		0.00	0.00
10,333.90	9,985.00	TD		0.00	0.00

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
115.00	115.00	0.00	0.00	Start Build 3.00
838.30	821.13	121.66	59.28	Start 4197.00 hold at 838.30 MD
5,035.30	4,720.73	1,516.61	739.03	Start Drop -1.50
6,481.90	6,133.00	1,759.93	857.60	Start 3852.00 hold at 6481.90 MD
10,333.90	9,985.00	1,759.93	857.60	TD at 10333.90