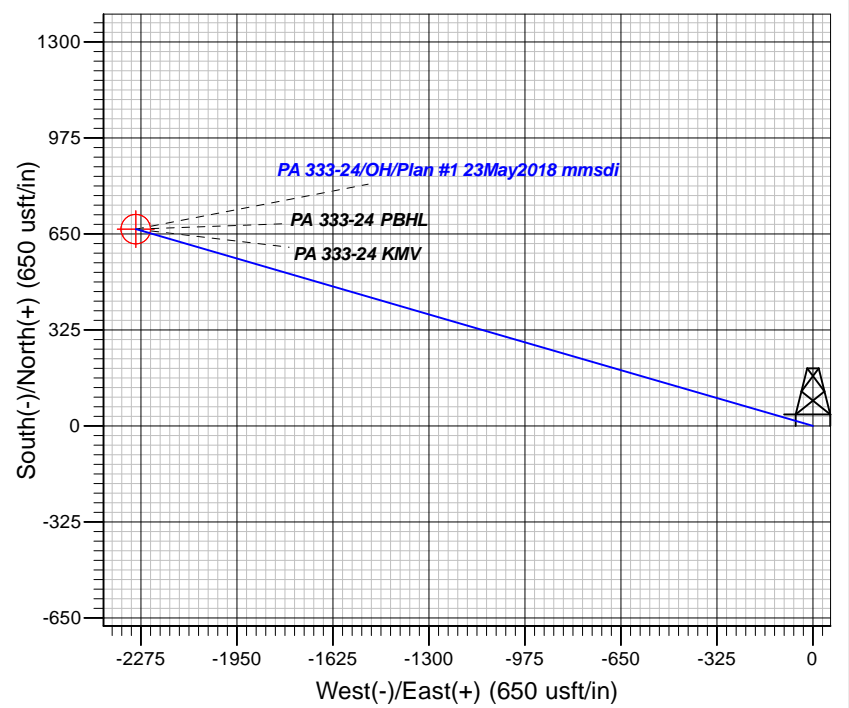
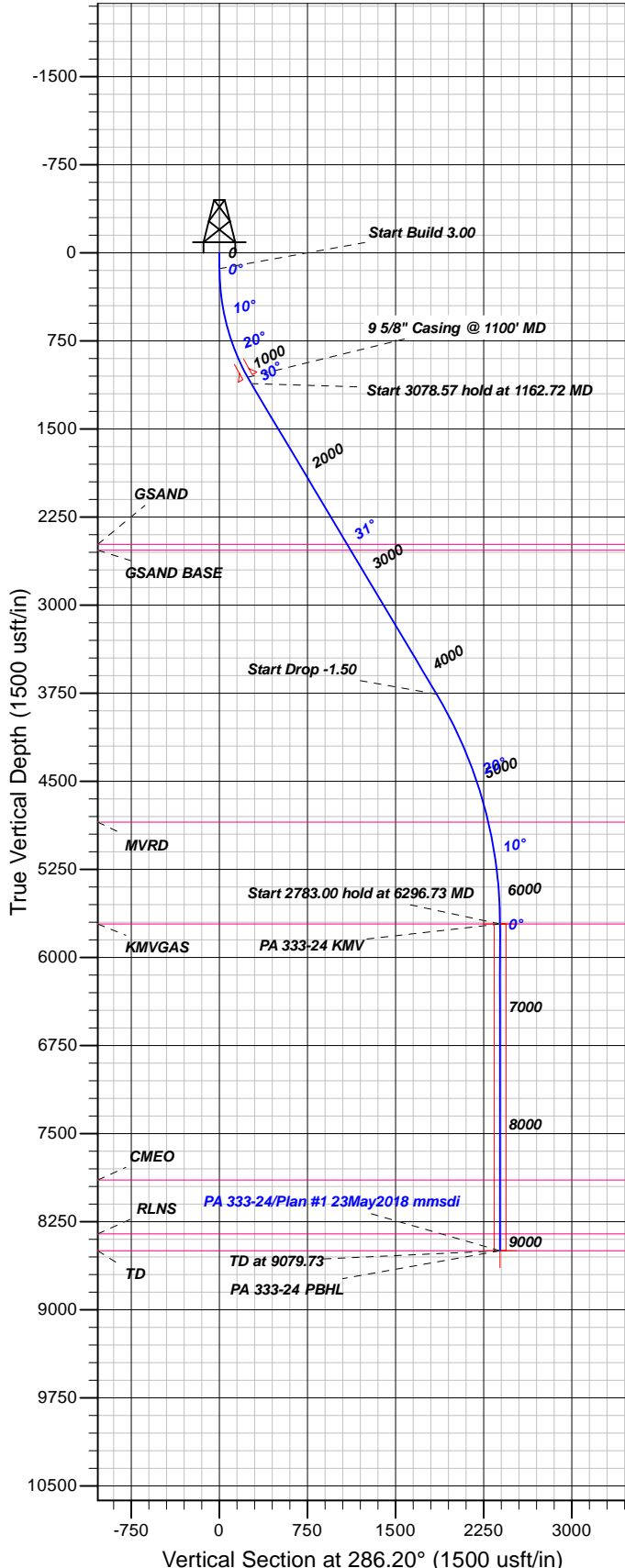


## Well Details: PA 333-24

+N/-S	+E/-W	Northing	GL 5733' & RKB 24' @ 5757.00usft	Easting	Latitude	Longitude	Slot
0.00	0.00	1618793.40		2312496.80	39.5070506	-107.9368975	PA 333-24 (A1)



## FORMATION TOP DETAILS

TVDP	MD	Formation
2482.00	2756.06	GSAND
2532.00	2814.29	GSAND BASE
4847.00	5421.08	MVRD
5715.00	6296.73	KMGAS
7895.00	8476.73	CMEO
8353.00	8934.73	RLNS
8498.00	9079.73	TD

Plan: Plan #1 23May2018 mmsdi

17:16, June 04 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
1059.46	1100.00	5/8" Casing @ 1100' MD	9.62

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	
3	1162.72	30.83	286.20	1113.83	75.32	-259.18	3.00	286.20	269.91	
4	4241.29	30.83	286.20	3757.33	515.61	-1774.32	0.00	0.00	0.00	
5	6296.73	0.00	0.00	5715.00	666.25	-2292.69	1.50	180.00	2387.54	PA 333-24 KMGAS
6	9079.73	0.00	0.00	8498.00	666.25	-2292.69	0.00	0.00	2387.54	PA 333-24 PBHL

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PA 333-24 KMGAS	5715.00	666.25	-2292.69	1619520.90	2310222.80	39.5088794	-107.9450233	Circle (Radius: 50.00)
- plan hits target center								
PA 333-24 PBHL	8498.00	666.25	-2292.69	1619520.90	2310222.80	39.5088794	-107.9450233	Point
- plan hits target center								



# **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**RWF 13-19 Pad**

**PA 333-24 - Slot PA 333-24 (A1)**

**OH**

**Plan: Plan #1 23May2018 mmsdi**

## **Standard Planning Report**

**04 June, 2018**



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 333-24 - Slot PA 333-24 (A1)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 5733' & RKB 24' @ 5757.00usft
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 5733' & RKB 24' @ 5757.00usft
<b>Site:</b>	RWF 13-19 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 333-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 23May2018 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		

Site	RWF 13-19 Pad				
Site Position:		Northing:	1,618,792.50 usft	Latitude:	39.5070510
From:	Map	Easting:	2,312,535.60 usft	Longitude:	-107.9367600
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.54

Well	PA 333-24 - Slot PA 333-24 (A1)					
Well Position	+N/-S	-0.14 usft	Northing:	1,618,793.40 usft	Latitude:	39.5070506
	+E/-W	-38.81 usft	Easting:	2,312,496.80 usft	Longitude:	-107.9368976
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,733.00 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	5/23/2018	9.38	65.77	51,610

<b>Design</b>	Plan #1 23May2018 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	286.20

<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	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,162.72	30.83	286.20	1,113.83	75.32	-259.18	3.00	3.00	0.00	286.20	
4,241.29	30.83	286.20	3,757.33	515.61	-1,774.32	0.00	0.00	0.00	0.00	
6,296.73	0.00	0.00	5,715.00	666.25	-2,292.69	1.50	-1.50	0.00	180.00	PA 333-24 KMV
9,079.73	0.00	0.00	8,498.00	666.25	-2,292.69	0.00	0.00	0.00	0.00	PA 333-24 PBHL

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 333-24 - Slot PA 333-24 (A1)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 5733' & RKB 24' @ 5757.00usft
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 5733' & RKB 24' @ 5757.00usft
<b>Site:</b>	RWF 13-19 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 333-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 23May2018 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
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.00</b>									
200.00	1.95	286.20	199.99	0.31	-1.06	1.11	3.00	3.00	0.00
300.00	4.95	286.20	299.79	1.99	-6.84	7.12	3.00	3.00	0.00
400.00	7.95	286.20	399.15	5.12	-17.63	18.36	3.00	3.00	0.00
500.00	10.95	286.20	497.78	9.70	-33.39	34.77	3.00	3.00	0.00
600.00	13.95	286.20	595.42	15.72	-54.09	56.33	3.00	3.00	0.00
700.00	16.95	286.20	691.79	23.15	-79.67	82.97	3.00	3.00	0.00
800.00	19.95	286.20	786.64	31.98	-110.06	114.61	3.00	3.00	0.00
900.00	22.95	286.20	879.71	42.19	-145.17	151.17	3.00	3.00	0.00
1,000.00	25.95	286.20	970.73	53.73	-184.91	192.56	3.00	3.00	0.00
1,100.00	28.95	286.20	1,059.46	66.60	-229.17	238.65	3.00	3.00	0.00
<b>9 5/8" Casing @ 1100' MD</b>									
1,162.72	30.83	286.20	1,113.83	75.32	-259.18	269.91	3.00	3.00	0.00
<b>Start 3078.57 hold at 1162.72 MD</b>									
1,200.00	30.83	286.20	1,145.85	80.65	-277.53	289.01	0.00	0.00	0.00
1,300.00	30.83	286.20	1,231.71	94.95	-326.75	340.26	0.00	0.00	0.00
1,400.00	30.83	286.20	1,317.58	109.25	-375.96	391.52	0.00	0.00	0.00
1,500.00	30.83	286.20	1,403.45	123.56	-425.18	442.77	0.00	0.00	0.00
1,600.00	30.83	286.20	1,489.32	137.86	-474.40	494.02	0.00	0.00	0.00
1,700.00	30.83	286.20	1,575.18	152.16	-523.61	545.27	0.00	0.00	0.00
1,800.00	30.83	286.20	1,661.05	166.46	-572.83	596.52	0.00	0.00	0.00
1,900.00	30.83	286.20	1,746.92	180.76	-622.04	647.77	0.00	0.00	0.00
2,000.00	30.83	286.20	1,832.79	195.06	-671.26	699.03	0.00	0.00	0.00
2,100.00	30.83	286.20	1,918.66	209.37	-720.47	750.28	0.00	0.00	0.00
2,200.00	30.83	286.20	2,004.52	223.67	-769.69	801.53	0.00	0.00	0.00
2,300.00	30.83	286.20	2,090.39	237.97	-818.91	852.78	0.00	0.00	0.00
2,400.00	30.83	286.20	2,176.26	252.27	-868.12	904.03	0.00	0.00	0.00
2,500.00	30.83	286.20	2,262.13	266.57	-917.34	955.28	0.00	0.00	0.00
2,600.00	30.83	286.20	2,347.99	280.88	-966.55	1,006.54	0.00	0.00	0.00
2,700.00	30.83	286.20	2,433.86	295.18	-1,015.77	1,057.79	0.00	0.00	0.00
2,756.06	30.83	286.20	2,482.00	303.20	-1,043.36	1,086.52	0.00	0.00	0.00
<b>GSAND</b>									
2,800.00	30.83	286.20	2,519.73	309.48	-1,064.98	1,109.04	0.00	0.00	0.00
2,814.29	30.83	286.20	2,532.00	311.52	-1,072.02	1,116.36	0.00	0.00	0.00
<b>GSAND BASE</b>									
2,900.00	30.83	286.20	2,605.60	323.78	-1,114.20	1,160.29	0.00	0.00	0.00
3,000.00	30.83	286.20	2,691.47	338.08	-1,163.42	1,211.54	0.00	0.00	0.00
3,100.00	30.83	286.20	2,777.33	352.39	-1,212.63	1,262.79	0.00	0.00	0.00
3,200.00	30.83	286.20	2,863.20	366.69	-1,261.85	1,314.05	0.00	0.00	0.00
3,300.00	30.83	286.20	2,949.07	380.99	-1,311.06	1,365.30	0.00	0.00	0.00
3,400.00	30.83	286.20	3,034.94	395.29	-1,360.28	1,416.55	0.00	0.00	0.00
3,500.00	30.83	286.20	3,120.80	409.59	-1,409.49	1,467.80	0.00	0.00	0.00
3,600.00	30.83	286.20	3,206.67	423.89	-1,458.71	1,519.05	0.00	0.00	0.00
3,700.00	30.83	286.20	3,292.54	438.20	-1,507.93	1,570.30	0.00	0.00	0.00
3,800.00	30.83	286.20	3,378.41	452.50	-1,557.14	1,621.56	0.00	0.00	0.00
3,900.00	30.83	286.20	3,464.27	466.80	-1,606.36	1,672.81	0.00	0.00	0.00
4,000.00	30.83	286.20	3,550.14	481.10	-1,655.57	1,724.06	0.00	0.00	0.00
4,100.00	30.83	286.20	3,636.01	495.40	-1,704.79	1,775.31	0.00	0.00	0.00
4,200.00	30.83	286.20	3,721.88	509.71	-1,754.00	1,826.56	0.00	0.00	0.00
4,241.29	30.83	286.20	3,757.33	515.61	-1,774.32	1,847.72	0.00	0.00	0.00

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 333-24 - Slot PA 333-24 (A1)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 5733' & RKB 24' @ 5757.00usft
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 5733' & RKB 24' @ 5757.00usft
<b>Site:</b>	RWF 13-19 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 333-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 23May2018 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)
<b>Start Drop -1.50</b>									
4,300.00	29.95	286.20	3,807.97	523.90	-1,802.85	1,877.43	1.50	-1.50	0.00
4,400.00	28.45	286.20	3,895.26	537.51	-1,849.70	1,926.21	1.50	-1.50	0.00
4,500.00	26.95	286.20	3,983.80	550.48	-1,894.33	1,972.70	1.50	-1.50	0.00
4,600.00	25.45	286.20	4,073.52	562.81	-1,936.73	2,016.85	1.50	-1.50	0.00
4,700.00	23.95	286.20	4,164.37	574.47	-1,976.86	2,058.63	1.50	-1.50	0.00
4,800.00	22.45	286.20	4,256.28	585.46	-2,014.69	2,098.03	1.50	-1.50	0.00
4,900.00	20.95	286.20	4,349.19	595.78	-2,050.19	2,135.00	1.50	-1.50	0.00
5,000.00	19.45	286.20	4,443.04	605.41	-2,083.35	2,169.53	1.50	-1.50	0.00
5,100.00	17.95	286.20	4,537.75	614.36	-2,114.14	2,201.60	1.50	-1.50	0.00
5,200.00	16.45	286.20	4,633.28	622.61	-2,142.54	2,231.17	1.50	-1.50	0.00
5,300.00	14.95	286.20	4,729.54	630.16	-2,168.52	2,258.23	1.50	-1.50	0.00
5,400.00	13.45	286.20	4,826.49	637.01	-2,192.08	2,282.76	1.50	-1.50	0.00
5,421.08	13.13	286.20	4,847.00	638.36	-2,196.73	2,287.61	1.50	-1.50	0.00
<b>MVRD</b>									
5,500.00	11.95	286.20	4,924.04	643.14	-2,213.19	2,304.75	1.50	-1.50	0.00
5,600.00	10.45	286.20	5,022.13	648.56	-2,231.84	2,324.17	1.50	-1.50	0.00
5,700.00	8.95	286.20	5,120.70	653.27	-2,248.03	2,341.02	1.50	-1.50	0.00
5,800.00	7.45	286.20	5,219.67	657.25	-2,261.72	2,355.28	1.50	-1.50	0.00
5,900.00	5.95	286.20	5,318.98	660.50	-2,272.93	2,366.95	1.50	-1.50	0.00
6,000.00	4.45	286.20	5,418.57	663.03	-2,281.63	2,376.02	1.50	-1.50	0.00
6,100.00	2.95	286.20	5,518.36	664.83	-2,287.83	2,382.47	1.50	-1.50	0.00
6,200.00	1.45	286.20	5,618.28	665.91	-2,291.52	2,386.31	1.50	-1.50	0.00
6,296.73	0.00	0.00	5,715.00	666.25	-2,292.69	2,387.54	1.50	-1.50	76.29
<b>Start 2783.00 hold at 6296.73 MD - KMGAS - PA 333-24 KMV</b>									
6,300.00	0.00	0.00	5,718.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
6,400.00	0.00	0.00	5,818.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
6,500.00	0.00	0.00	5,918.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
6,600.00	0.00	0.00	6,018.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
6,700.00	0.00	0.00	6,118.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
6,800.00	0.00	0.00	6,218.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
6,900.00	0.00	0.00	6,318.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,000.00	0.00	0.00	6,418.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,100.00	0.00	0.00	6,518.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,200.00	0.00	0.00	6,618.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,300.00	0.00	0.00	6,718.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,400.00	0.00	0.00	6,818.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,500.00	0.00	0.00	6,918.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,600.00	0.00	0.00	7,018.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,700.00	0.00	0.00	7,118.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,800.00	0.00	0.00	7,218.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
7,900.00	0.00	0.00	7,318.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,000.00	0.00	0.00	7,418.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,100.00	0.00	0.00	7,518.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,200.00	0.00	0.00	7,618.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,300.00	0.00	0.00	7,718.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,400.00	0.00	0.00	7,818.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,476.73	0.00	0.00	7,895.00	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
<b>CME0</b>									
8,500.00	0.00	0.00	7,918.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,600.00	0.00	0.00	8,018.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,700.00	0.00	0.00	8,118.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,800.00	0.00	0.00	8,218.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 333-24 - Slot PA 333-24 (A1)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 5733' & RKB 24' @ 5757.00usft
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 5733' & RKB 24' @ 5757.00usft
<b>Site:</b>	RWF 13-19 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 333-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 23May2018 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)
8,900.00	0.00	0.00	8,318.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
8,934.73	0.00	0.00	8,353.00	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
<b>RLNS</b>									
9,000.00	0.00	0.00	8,418.27	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
9,079.73	0.00	0.00	8,498.00	666.25	-2,292.69	2,387.54	0.00	0.00	0.00
<b>TD at 9079.73 - TD - PA 333-24 PBHL</b>									

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
PA 333-24 KMV - plan hits target center - Circle (radius 50.00)	0.00	0.00	5,715.00	666.25	-2,292.69	1,619,520.90	2,310,222.80	39.5088795	-107.9450234
PA 333-24 PBHL - plan hits target center - Point	0.00	0.00	8,498.00	666.25	-2,292.69	1,619,520.90	2,310,222.80	39.5088795	-107.9450234

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,059.46	9 5/8" Casing @ 1100' MD	9.62	13.50	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,756.06	2,482.00	GSAND		0.00	0.00
2,814.29	2,532.00	GSAND BASE		0.00	0.00
5,421.08	4,847.00	MVRD		0.00	0.00
6,296.73	5,715.00	KMVGAS		0.00	0.00
8,476.73	7,895.00	CMEO		0.00	0.00
8,934.73	8,353.00	RLNS		0.00	0.00
9,079.73	8,498.00	TD		0.00	0.00

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
135.00	135.00	0.00	0.00	Start Build 3.00
1,162.72	1,113.83	75.32	-259.18	Start 3078.57 hold at 1162.72 MD
4,241.29	3,757.33	515.61	-1,774.32	Start Drop -1.50
6,296.73	5,715.00	666.25	-2,292.69	Start 2783.00 hold at 6296.73 MD
9,079.73	8,498.00	666.25	-2,292.69	TD at 9079.73