



# **TEP Rocky Mountain LLC**

**Garfield Co., CO (NAD83)**

**WMC 24-17 Pad**

**WMC 12-20 - Slot WMC 12-20**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**07 October, 2020**





Project: Garfield Co., CO (NAD83)  
 Site: WMC 24-17 Pad  
 Well: WMC 12-20  
 Wellbore: OH  
 Design: Plan #1  
 Lat: 39.439087  
 Long: -107.799549  
 GL: 8868.00  
 KB: KB=24' @ 8892.00usft



## WELL DETAILS: WMC 12-20

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	WMC 12-20
0.00	0.00	1593036.30	2350610.90	39.439087	-107.799549	

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
WMC 12-20 KMW	8812.00	-1714.15	-1201.10	1591353.10	2349366.80	Circle (Radius: 50.00)
WMC 12-20 PBHL	10962.00	-1714.15	-1201.10	1591353.10	2349366.80	Point

## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSECT	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
825.03	15.15	215.02	819.16	-54.37	-38.09	3.00	215.02	66.38	Start 7246.39' hold at 825.03 MD
8071.42	15.15	215.02	7813.68	-1605.42	-1124.91	0.00	0.00	1960.30	Start Drop -1.50
9081.47	0.00	0.00	8812.00	-1714.15	-1201.10	1.50	180.00	2093.07	Start 2150.00' hold at 9081.47 MD
11231.47	0.00	0.00	10962.00	-1714.15	-1201.10	0.00	0.00	2093.07	TD at 11231.47

## CASING DETAILS

TVD	MD	Name	Size
1084.58	1100.00	9 5/8"	9-5/8

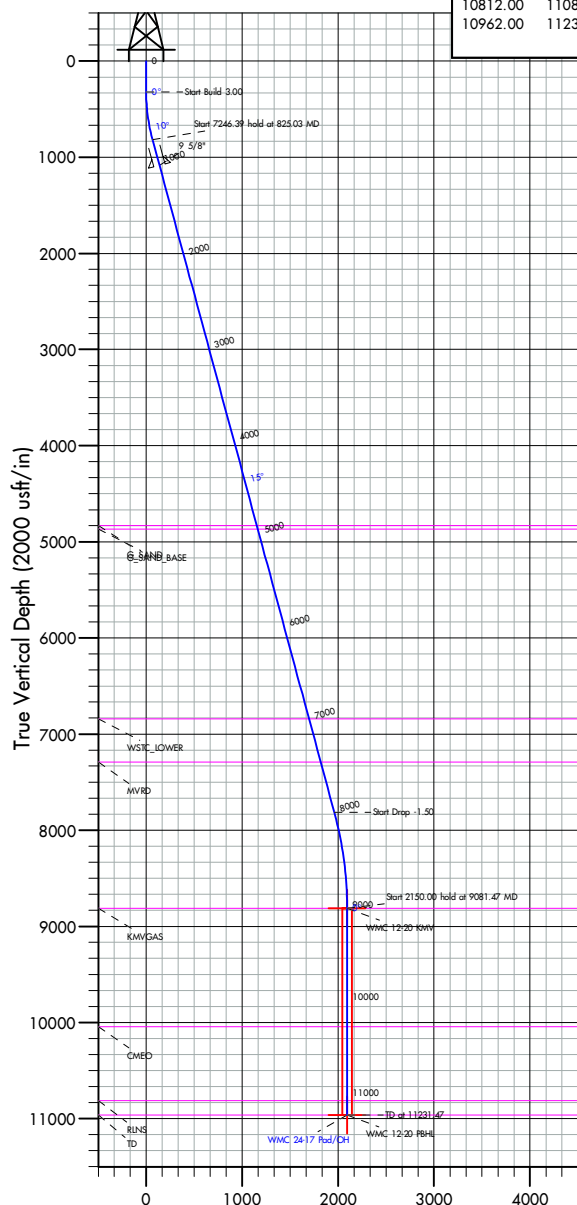
## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4832.00	4982.37	G_SAND
4868.00	5019.67	G_SAND_BASE
6842.00	7064.75	WSTC_LOWER
7292.00	7530.95	MVRD
8812.00	9081.47	KMVGAS
10042.00	10311.47	CMEQ
10812.00	11081.47	RLNS
10962.00	11231.47	TD

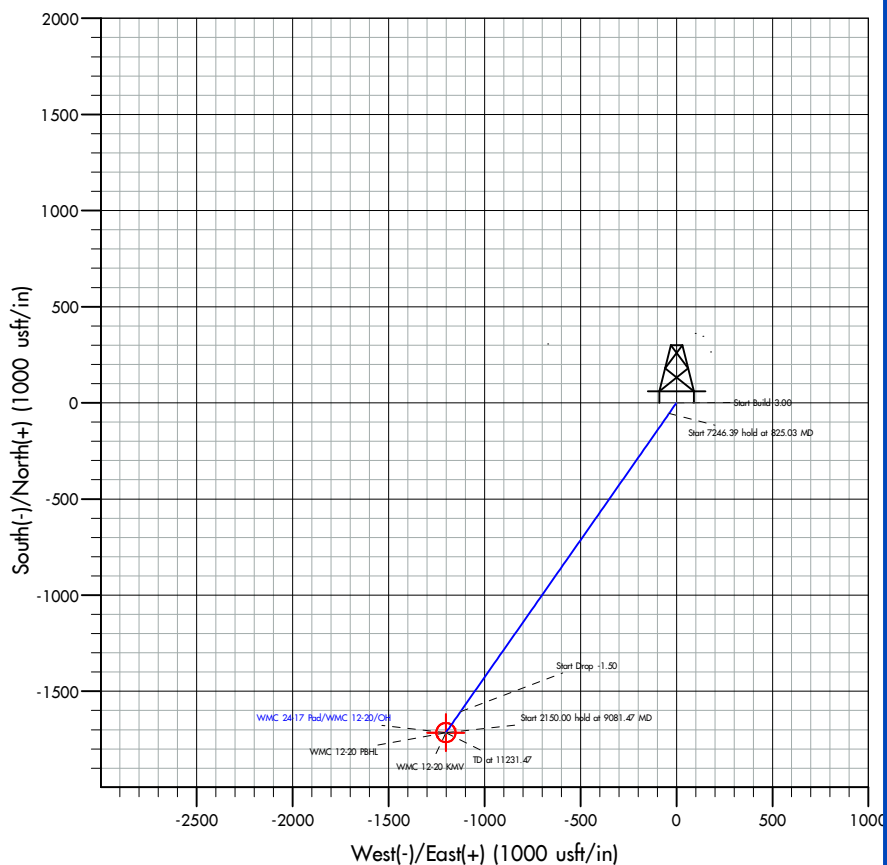


Azimuths to True North  
 Magnetic North: 8.93°

Magnetic Field  
 Strength: 51314.7nT  
 Dip Angle: 65.48°  
 Date: 9/2/2020  
 Model: HDGM2020



Vertical Section at 215.02° (2000 usft/in)



Plan: Plan #1 (WMC 12-20/OH)

Created By: Dusty Mayer

Date: 12-28, October 07 2020

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WMC 12-20 - Slot WMC 12-20
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	KB=24' @ 8892.00usft
<b>Project:</b>	Garfield Co., CO (NAD83)	<b>MD Reference:</b>	KB=24' @ 8892.00usft
<b>Site:</b>	WMC 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	WMC 12-20	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

<b>Project</b>	Garfield Co., 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		WMC 24-17 Pad				
Site Position:		Northing:	1,593,032.70	usft	Latitude:	39.439076
From:	Map	Easting:	2,350,593.20	usft	Longitude:	-107.799611
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16	"

Well		WMC 12-20 - Slot WMC 12-20				
Well Position	+N/-S	0.00 usft	Northing:	1,593,036.30 usft	Latitude:	39.439087
	+E/-W	0.00 usft	Easting:	2,350,610.90 usft	Longitude:	-107.799549
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	8,868.00 usft
Grid Convergence:	-1.45 °					

<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>
	HDGM2020	9/2/2020	8.93	65.48	51,314.70000000

<b>Design</b>	Plan #1				
<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	215.02	

<b>Plan Survey Tool Program</b>	<b>Date</b>	10/7/2020			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	11,231.47 Plan #1 (OH)	MWD+ HGDM		
			OWSG MWD + HGDM		

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00	
825.03	15.15	215.02	819.16	-54.37	-38.09	3.00	3.00	0.00	215.02	
8,071.42	15.15	215.02	7,813.68	-1,605.42	-1,124.91	0.00	0.00	0.00	0.00	
9,081.47	0.00	0.00	8,812.00	-1,714.15	-1,201.10	1.50	-1.50	0.00	180.00	WMC 12-20 KMV
11,231.47	0.00	0.00	10,962.00	-1,714.15	-1,201.10	0.00	0.00	0.00	0.00	WMC 12-20 PBHL

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WMC 12-20 - Slot WMC 12-20
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	KB=24' @ 8892.00usft
<b>Project:</b>	Garfield Co., CO (NAD83)	<b>MD Reference:</b>	KB=24' @ 8892.00usft
<b>Site:</b>	WMC 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	WMC 12-20	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 3.00									
400.00	2.40	215.02	399.98	-1.37	-0.96	1.68	3.00	3.00	0.00
500.00	5.40	215.02	499.73	-6.94	-4.86	8.48	3.00	3.00	0.00
600.00	8.40	215.02	599.00	-16.78	-11.76	20.49	3.00	3.00	0.00
700.00	11.40	215.02	697.50	-30.86	-21.62	37.68	3.00	3.00	0.00
800.00	14.40	215.02	794.96	-49.14	-34.43	60.00	3.00	3.00	0.00
825.03	15.15	215.02	819.16	-54.37	-38.09	66.38	3.00	3.00	0.00
Start 7246.39 hold at 825.03 MD									
900.00	15.15	215.02	891.53	-70.41	-49.34	85.98	0.00	0.00	0.00
1,000.00	15.15	215.02	988.05	-91.82	-64.34	112.12	0.00	0.00	0.00
1,100.00	15.15	215.02	1,084.58	-113.22	-79.33	138.25	0.00	0.00	0.00
9 5/8"									
1,200.00	15.15	215.02	1,181.10	-134.63	-94.33	164.39	0.00	0.00	0.00
1,300.00	15.15	215.02	1,277.63	-156.03	-109.33	190.52	0.00	0.00	0.00
1,400.00	15.15	215.02	1,374.15	-177.44	-124.33	216.66	0.00	0.00	0.00
1,500.00	15.15	215.02	1,470.67	-198.84	-139.33	242.80	0.00	0.00	0.00
1,600.00	15.15	215.02	1,567.20	-220.25	-154.33	268.93	0.00	0.00	0.00
1,700.00	15.15	215.02	1,663.72	-241.65	-169.32	295.07	0.00	0.00	0.00
1,800.00	15.15	215.02	1,760.25	-263.05	-184.32	321.20	0.00	0.00	0.00
1,900.00	15.15	215.02	1,856.77	-284.46	-199.32	347.34	0.00	0.00	0.00
2,000.00	15.15	215.02	1,953.29	-305.86	-214.32	373.48	0.00	0.00	0.00
2,100.00	15.15	215.02	2,049.82	-327.27	-229.32	399.61	0.00	0.00	0.00
2,200.00	15.15	215.02	2,146.34	-348.67	-244.31	425.75	0.00	0.00	0.00
2,300.00	15.15	215.02	2,242.87	-370.08	-259.31	451.88	0.00	0.00	0.00
2,400.00	15.15	215.02	2,339.39	-391.48	-274.31	478.02	0.00	0.00	0.00
2,500.00	15.15	215.02	2,435.92	-412.89	-289.31	504.16	0.00	0.00	0.00
2,600.00	15.15	215.02	2,532.44	-434.29	-304.31	530.29	0.00	0.00	0.00
2,700.00	15.15	215.02	2,628.96	-455.69	-319.30	556.43	0.00	0.00	0.00
2,800.00	15.15	215.02	2,725.49	-477.10	-334.30	582.56	0.00	0.00	0.00
2,900.00	15.15	215.02	2,822.01	-498.50	-349.30	608.70	0.00	0.00	0.00
3,000.00	15.15	215.02	2,918.54	-519.91	-364.30	634.84	0.00	0.00	0.00
3,100.00	15.15	215.02	3,015.06	-541.31	-379.30	660.97	0.00	0.00	0.00
3,200.00	15.15	215.02	3,111.58	-562.72	-394.29	687.11	0.00	0.00	0.00
3,300.00	15.15	215.02	3,208.11	-584.12	-409.29	713.24	0.00	0.00	0.00
3,400.00	15.15	215.02	3,304.63	-605.53	-424.29	739.38	0.00	0.00	0.00
3,500.00	15.15	215.02	3,401.16	-626.93	-439.29	765.52	0.00	0.00	0.00
3,600.00	15.15	215.02	3,497.68	-648.33	-454.29	791.65	0.00	0.00	0.00
3,700.00	15.15	215.02	3,594.20	-669.74	-469.28	817.79	0.00	0.00	0.00
3,800.00	15.15	215.02	3,690.73	-691.14	-484.28	843.92	0.00	0.00	0.00
3,900.00	15.15	215.02	3,787.25	-712.55	-499.28	870.06	0.00	0.00	0.00
4,000.00	15.15	215.02	3,883.78	-733.95	-514.28	896.20	0.00	0.00	0.00
4,100.00	15.15	215.02	3,980.30	-755.36	-529.28	922.33	0.00	0.00	0.00
4,200.00	15.15	215.02	4,076.83	-776.76	-544.27	948.47	0.00	0.00	0.00
4,300.00	15.15	215.02	4,173.35	-798.17	-559.27	974.60	0.00	0.00	0.00
4,400.00	15.15	215.02	4,269.87	-819.57	-574.27	1,000.74	0.00	0.00	0.00
4,500.00	15.15	215.02	4,366.40	-840.97	-589.27	1,026.88	0.00	0.00	0.00
4,600.00	15.15	215.02	4,462.92	-862.38	-604.27	1,053.01	0.00	0.00	0.00
4,700.00	15.15	215.02	4,559.45	-883.78	-619.26	1,079.15	0.00	0.00	0.00

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<b>Project:</b>	Garfield Co., CO (NAD83)	<b>MD Reference:</b>	KB=24' @ 8892.00usft
<b>Site:</b>	WMC 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	WMC 12-20	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
4,800.00	15.15	215.02	4,655.97	-905.19	-634.26	1,105.28	0.00	0.00	0.00
4,900.00	15.15	215.02	4,752.49	-926.59	-649.26	1,131.42	0.00	0.00	0.00
4,982.37	15.15	215.02	4,832.00	-944.22	-661.61	1,152.95	0.00	0.00	0.00
<b>G_SAND</b>									
5,000.00	15.15	215.02	4,849.02	-948.00	-664.26	1,157.56	0.00	0.00	0.00
5,019.67	15.15	215.02	4,868.00	-952.21	-667.21	1,162.70	0.00	0.00	0.00
<b>G_SAND_BASE</b>									
5,100.00	15.15	215.02	4,945.54	-969.40	-679.26	1,183.69	0.00	0.00	0.00
5,200.00	15.15	215.02	5,042.07	-990.81	-694.25	1,209.83	0.00	0.00	0.00
5,300.00	15.15	215.02	5,138.59	-1,012.21	-709.25	1,235.96	0.00	0.00	0.00
5,400.00	15.15	215.02	5,235.12	-1,033.61	-724.25	1,262.10	0.00	0.00	0.00
5,500.00	15.15	215.02	5,331.64	-1,055.02	-739.25	1,288.24	0.00	0.00	0.00
5,600.00	15.15	215.02	5,428.16	-1,076.42	-754.25	1,314.37	0.00	0.00	0.00
5,700.00	15.15	215.02	5,524.69	-1,097.83	-769.25	1,340.51	0.00	0.00	0.00
5,800.00	15.15	215.02	5,621.21	-1,119.23	-784.24	1,366.64	0.00	0.00	0.00
5,900.00	15.15	215.02	5,717.74	-1,140.64	-799.24	1,392.78	0.00	0.00	0.00
6,000.00	15.15	215.02	5,814.26	-1,162.04	-814.24	1,418.92	0.00	0.00	0.00
6,100.00	15.15	215.02	5,910.78	-1,183.45	-829.24	1,445.05	0.00	0.00	0.00
6,200.00	15.15	215.02	6,007.31	-1,204.85	-844.24	1,471.19	0.00	0.00	0.00
6,300.00	15.15	215.02	6,103.83	-1,226.25	-859.23	1,497.32	0.00	0.00	0.00
6,400.00	15.15	215.02	6,200.36	-1,247.66	-874.23	1,523.46	0.00	0.00	0.00
6,500.00	15.15	215.02	6,296.88	-1,269.06	-889.23	1,549.60	0.00	0.00	0.00
6,600.00	15.15	215.02	6,393.40	-1,290.47	-904.23	1,575.73	0.00	0.00	0.00
6,700.00	15.15	215.02	6,489.93	-1,311.87	-919.23	1,601.87	0.00	0.00	0.00
6,800.00	15.15	215.02	6,586.45	-1,333.28	-934.22	1,628.00	0.00	0.00	0.00
6,900.00	15.15	215.02	6,682.98	-1,354.68	-949.22	1,654.14	0.00	0.00	0.00
7,000.00	15.15	215.02	6,779.50	-1,376.09	-964.22	1,680.28	0.00	0.00	0.00
7,064.75	15.15	215.02	6,842.00	-1,389.94	-973.93	1,697.20	0.00	0.00	0.00
<b>WSTC_LOWER</b>									
7,100.00	15.15	215.02	6,876.03	-1,397.49	-979.22	1,706.41	0.00	0.00	0.00
7,200.00	15.15	215.02	6,972.55	-1,418.89	-994.22	1,732.55	0.00	0.00	0.00
7,300.00	15.15	215.02	7,069.07	-1,440.30	-1,009.21	1,758.69	0.00	0.00	0.00
7,400.00	15.15	215.02	7,165.60	-1,461.70	-1,024.21	1,784.82	0.00	0.00	0.00
7,500.00	15.15	215.02	7,262.12	-1,483.11	-1,039.21	1,810.96	0.00	0.00	0.00
7,530.95	15.15	215.02	7,292.00	-1,489.73	-1,043.85	1,819.05	0.00	0.00	0.00
<b>MVRD</b>									
7,600.00	15.15	215.02	7,358.65	-1,504.51	-1,054.21	1,837.09	0.00	0.00	0.00
7,700.00	15.15	215.02	7,455.17	-1,525.92	-1,069.21	1,863.23	0.00	0.00	0.00
7,800.00	15.15	215.02	7,551.69	-1,547.32	-1,084.20	1,889.37	0.00	0.00	0.00
7,900.00	15.15	215.02	7,648.22	-1,568.73	-1,099.20	1,915.50	0.00	0.00	0.00
8,000.00	15.15	215.02	7,744.74	-1,590.13	-1,114.20	1,941.64	0.00	0.00	0.00
8,071.42	15.15	215.02	7,813.68	-1,605.42	-1,124.91	1,960.30	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
8,100.00	14.72	215.02	7,841.29	-1,611.45	-1,129.14	1,967.67	1.50	-1.50	0.00
8,200.00	13.22	215.02	7,938.33	-1,631.22	-1,142.99	1,991.81	1.50	-1.50	0.00
8,300.00	11.72	215.02	8,035.97	-1,648.91	-1,155.39	2,013.41	1.50	-1.50	0.00
8,400.00	10.22	215.02	8,134.14	-1,664.50	-1,166.31	2,032.44	1.50	-1.50	0.00
8,500.00	8.72	215.02	8,232.77	-1,677.97	-1,175.75	2,048.90	1.50	-1.50	0.00
8,600.00	7.22	215.02	8,331.80	-1,689.33	-1,183.71	2,062.77	1.50	-1.50	0.00
8,700.00	5.72	215.02	8,431.16	-1,698.56	-1,190.18	2,074.04	1.50	-1.50	0.00
8,800.00	4.22	215.02	8,530.78	-1,705.66	-1,195.15	2,082.71	1.50	-1.50	0.00
8,900.00	2.72	215.02	8,630.60	-1,710.62	-1,198.63	2,088.76	1.50	-1.50	0.00
9,000.00	1.22	215.02	8,730.54	-1,713.44	-1,200.60	2,092.20	1.50	-1.50	0.00
9,081.47	0.00	0.00	8,812.00	-1,714.15	-1,201.10	2,093.07	1.50	-1.50	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WMC 12-20 - Slot WMC 12-20
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	KB=24' @ 8892.00usft
<b>Project:</b>	Garfield Co., CO (NAD83)	<b>MD Reference:</b>	KB=24' @ 8892.00usft
<b>Site:</b>	WMC 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	WMC 12-20	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
Start 2150.00 hold at 9081.47 MD - KMGAS									
9,100.00	0.00	0.00	8,830.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
9,200.00	0.00	0.00	8,930.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
9,300.00	0.00	0.00	9,030.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
9,400.00	0.00	0.00	9,130.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
9,500.00	0.00	0.00	9,230.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
9,600.00	0.00	0.00	9,330.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
9,700.00	0.00	0.00	9,430.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
9,800.00	0.00	0.00	9,530.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
9,900.00	0.00	0.00	9,630.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,000.00	0.00	0.00	9,730.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,100.00	0.00	0.00	9,830.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,200.00	0.00	0.00	9,930.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,300.00	0.00	0.00	10,030.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,311.47	0.00	0.00	10,042.00	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
CMEO									
10,400.00	0.00	0.00	10,130.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,500.00	0.00	0.00	10,230.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,600.00	0.00	0.00	10,330.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,700.00	0.00	0.00	10,430.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,800.00	0.00	0.00	10,530.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
10,900.00	0.00	0.00	10,630.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
11,000.00	0.00	0.00	10,730.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
11,081.47	0.00	0.00	10,812.00	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
RLNS									
11,100.00	0.00	0.00	10,830.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
11,200.00	0.00	0.00	10,930.53	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
11,231.47	0.00	0.00	10,962.00	-1,714.15	-1,201.10	2,093.07	0.00	0.00	0.00
TD at 11231.47 - TD									

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									
WMC 12-20 KMV	0.00	0.00	8,812.00	-1,714.15	-1,201.10	1,591,353.10	2,349,366.80	39.434381	-107.803801
- plan hits target center									
- Circle (radius 50.00)									
WMC 12-20 PBHL	0.00	0.00	10,962.00	-1,714.15	-1,201.10	1,591,353.10	2,349,366.80	39.434381	-107.803801
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,100.00	1,084.58	9 5/8"	9-5/8	13-1/2	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WMC 12-20 - Slot WMC 12-20
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	KB=24' @ 8892.00usft
<b>Project:</b>	Garfield Co., CO (NAD83)	<b>MD Reference:</b>	KB=24' @ 8892.00usft
<b>Site:</b>	WMC 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	WMC 12-20	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,982.37	4,832.00	G_SAND				
5,019.67	4,868.00	G_SAND_BASE				
7,064.75	6,842.00	WSTC_LOWER				
7,530.95	7,292.00	MVRD				
9,081.47	8,812.00	KMVGAS				
10,311.47	10,042.00	CME0				
11,081.47	10,812.00	RLNS				
11,231.47	10,962.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
320.00	320.00	0.00	0.00	Start Build 3.00	
825.03	819.16	-54.37	-38.09	Start 7246.39 hold at 825.03 MD	
8,071.42	7,813.68	-1,605.42	-1,124.91	Start Drop -1.50	
9,081.47	8,812.00	-1,714.15	-1,201.10	Start 2150.00 hold at 9081.47 MD	
11,231.47	10,962.00	-1,714.15	-1,201.10	TD at 11231.47	