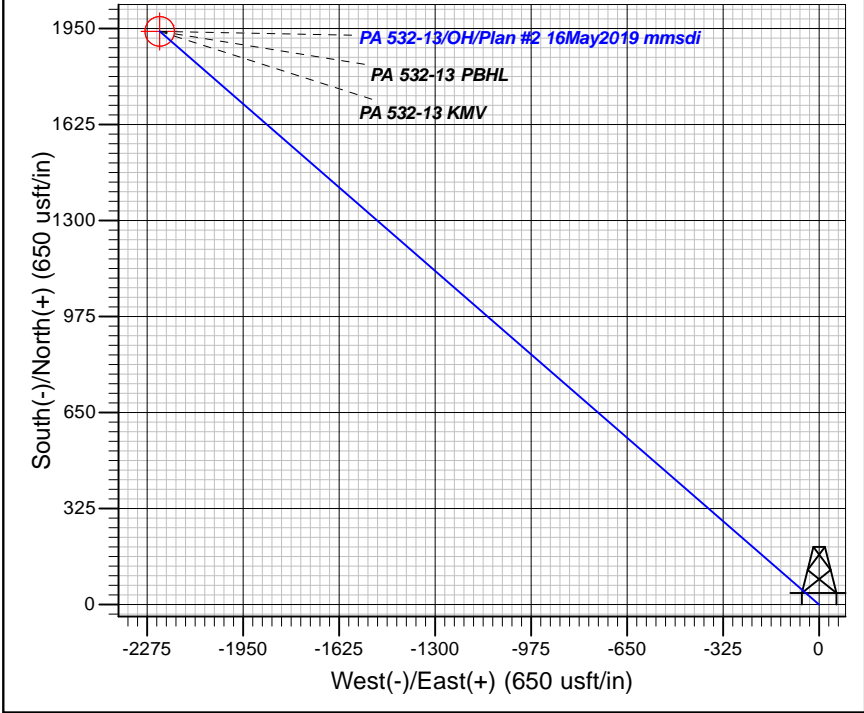
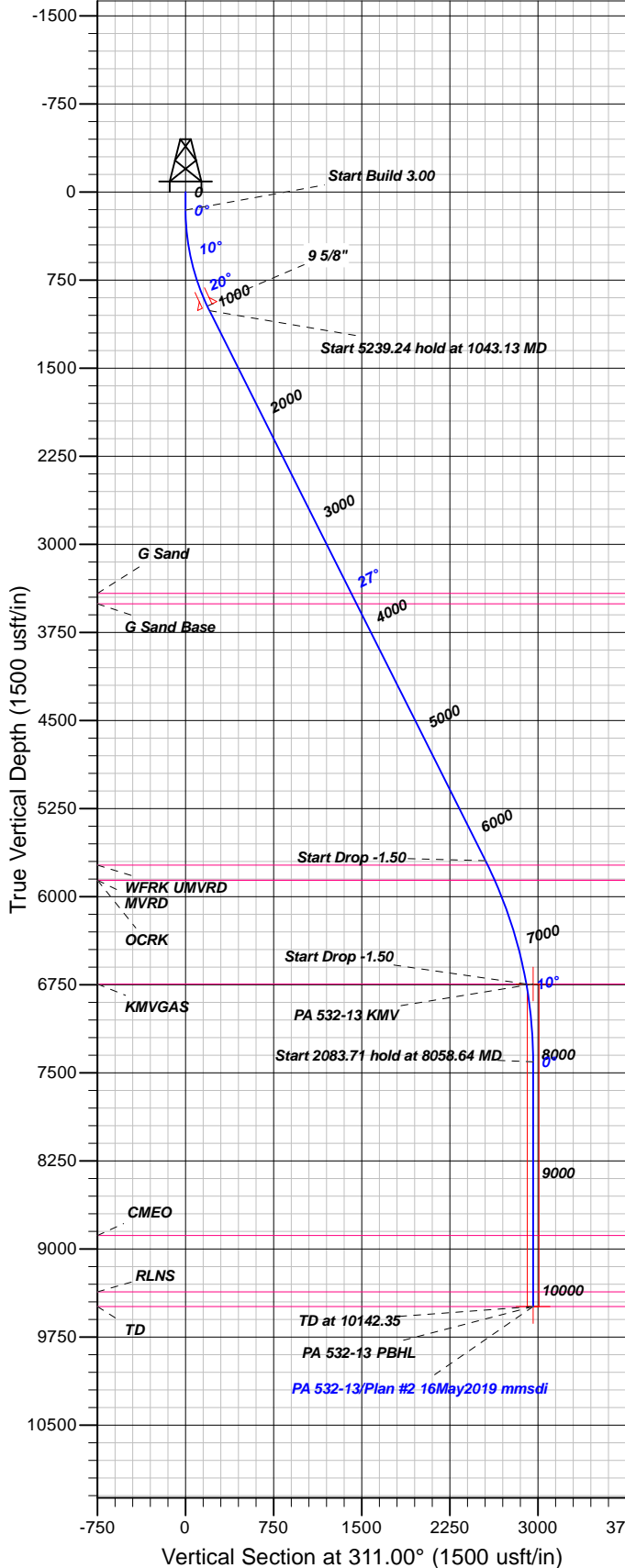


Well Details: PA 532-13

GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1623799.20	2311237.40	39.5206959	-107.9418362	PA 532-13 (A9)



FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
3418.00	3735.57	G Sand
3507.00	3835.15	G Sand Base
5732.00	6324.38	WFRK UMVRD
5860.00	6465.56	OCRK
5860.00	6465.56	MVRD
6744.00	7391.97	KMVGAS
8886.00	9537.35	CMEO
9366.00	10017.35	RLNS
9491.00	10142.35	TD

Plan: Plan #2 16May2019 mmsdi

13:17, May 20 2019  
 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
972.70	1000.00	9 5/8"	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	155.00	0.00	0.00	155.00	0.00	0.00	0.00	0.00	0.00	
3	1043.13	26.64	311.00	1011.47	133.06	-153.05	3.00	311.00	202.81	
4	6282.37	26.64	311.00	5694.35	1674.59	-1926.16	0.00	0.00	2552.32	
5	7391.97	10.00	311.00	6744.00	1902.64	-2188.47	1.50	180.00	2899.90	
6	8058.64	0.00	0.00	7407.29	1940.71	-2232.26	1.50	180.00	2957.93	
7	10142.35	0.00	0.00	9491.00	1940.71	-2232.26	0.00	0.00	2957.93	PA 532-13 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PA 532-13 KMV	6744.00	1940.71	-2232.26	1625799.20	2309058.10	39.5260237	-107.9497498	Circle (Radius: 50.00)
- plan misses target center by 57.16usft at 7401.18usft MD (6753.07 TVD, 1903.68 N, -2189.67 E)								
PA 532-13 PBHL	9491.00	1940.71	-2232.26	1625799.20	2309058.10	39.5260237	-107.9497498	Point
- plan misses target center by 0.01usft at 10142.35usft MD (9491.00 TVD, 1940.71 N, -2232.26 E)								



## **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**PA 44-13 Pad**

**PA 532-13 - Slot PA 532-13 (A9)**

**OH**

**Plan: Plan #2 16May2019 mmsdi**

## **Standard Planning Report**

**20 May, 2019**





**Scientific Drilling, Intl**  
Planning Report

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 532-13 - Slot PA 532-13 (A9)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 532-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 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>	PA 44-13 Pad				
<b>Site Position:</b>		<b>Northing:</b>	1,623,813.70 usft	<b>Latitude:</b>	39.5207354
<b>From:</b>	Map	<b>Easting:</b>	2,311,233.50 usft	<b>Longitude:</b>	-107.9418514
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.20 in	<b>Grid Convergence:</b>	-1.54 °

<b>Well</b>	PA 532-13 - Slot PA 532-13 (A9)					
<b>Well Position</b>	<b>+N/-S</b>	-14.39 usft	<b>Northing:</b>	1,623,799.20 usft	<b>Latitude:</b>	39.5206959
	<b>+E/-W</b>	4.29 usft	<b>Easting:</b>	2,311,237.40 usft	<b>Longitude:</b>	-107.9418362
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b>	6,571.10 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	5/2/2019	9.32	65.75	51,492

<b>Design</b>	Plan #2 16May2019 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	311.00

<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	
155.00	0.00	0.00	155.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,043.13	26.64	311.00	1,011.47	133.06	-153.05	3.00	3.00	0.00	311.00	
6,282.37	26.64	311.00	5,694.35	1,674.59	-1,926.16	0.00	0.00	0.00	0.00	
7,391.97	10.00	311.00	6,744.00	1,902.64	-2,188.47	1.50	-1.50	0.00	180.00	
8,058.64	0.00	0.00	7,407.29	1,940.71	-2,232.26	1.50	-1.50	0.00	180.00	
10,142.35	0.00	0.00	9,491.00	1,940.71	-2,232.26	0.00	0.00	0.00	0.00	PA 532-13 PBHL



## Scientific Drilling, Intl Planning Report

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 532-13 - Slot PA 532-13 (A9)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 532-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 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	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.00	0.00	0.00	155.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.00</b>										
200.00	1.35	311.00	200.00	0.35	-0.40	0.53	3.00	3.00	3.00	0.00
300.00	4.35	311.00	299.86	3.61	-4.15	5.50	3.00	3.00	3.00	0.00
400.00	7.35	311.00	399.33	10.30	-11.84	15.69	3.00	3.00	3.00	0.00
500.00	10.35	311.00	498.13	20.39	-23.45	31.08	3.00	3.00	3.00	0.00
600.00	13.35	311.00	595.98	33.86	-38.95	51.61	3.00	3.00	3.00	0.00
700.00	16.35	311.00	692.63	50.67	-58.29	77.23	3.00	3.00	3.00	0.00
800.00	19.35	311.00	787.81	70.78	-81.42	107.88	3.00	3.00	3.00	0.00
900.00	22.35	311.00	881.25	94.13	-108.27	143.47	3.00	3.00	3.00	0.00
1,000.00	25.35	311.00	972.70	120.66	-138.79	183.90	3.00	3.00	3.00	0.00
<b>9 5/8"</b>										
1,043.13	26.64	311.00	1,011.47	133.06	-153.05	202.81	3.00	3.00	3.00	0.00
<b>Start 5239.24 hold at 1043.13 MD</b>										
1,100.00	26.64	311.00	1,062.30	149.79	-172.30	228.31	0.00	0.00	0.00	0.00
1,200.00	26.64	311.00	1,151.68	179.22	-206.14	273.15	0.00	0.00	0.00	0.00
1,300.00	26.64	311.00	1,241.06	208.64	-239.98	318.00	0.00	0.00	0.00	0.00
1,400.00	26.64	311.00	1,330.44	238.06	-273.83	362.84	0.00	0.00	0.00	0.00
1,500.00	26.64	311.00	1,419.82	267.49	-307.67	407.69	0.00	0.00	0.00	0.00
1,600.00	26.64	311.00	1,509.20	296.91	-341.51	452.53	0.00	0.00	0.00	0.00
1,700.00	26.64	311.00	1,598.58	326.33	-375.36	497.38	0.00	0.00	0.00	0.00
1,800.00	26.64	311.00	1,687.96	355.75	-409.20	542.22	0.00	0.00	0.00	0.00
1,900.00	26.64	311.00	1,777.34	385.18	-443.04	587.07	0.00	0.00	0.00	0.00
2,000.00	26.64	311.00	1,866.73	414.60	-476.88	631.91	0.00	0.00	0.00	0.00
2,100.00	26.64	311.00	1,956.11	444.02	-510.73	676.75	0.00	0.00	0.00	0.00
2,200.00	26.64	311.00	2,045.49	473.44	-544.57	721.60	0.00	0.00	0.00	0.00
2,300.00	26.64	311.00	2,134.87	502.87	-578.41	766.44	0.00	0.00	0.00	0.00
2,400.00	26.64	311.00	2,224.25	532.29	-612.25	811.29	0.00	0.00	0.00	0.00
2,500.00	26.64	311.00	2,313.63	561.71	-646.10	856.13	0.00	0.00	0.00	0.00
2,600.00	26.64	311.00	2,403.01	591.14	-679.94	900.98	0.00	0.00	0.00	0.00
2,700.00	26.64	311.00	2,492.39	620.56	-713.78	945.82	0.00	0.00	0.00	0.00
2,800.00	26.64	311.00	2,581.77	649.98	-747.63	990.67	0.00	0.00	0.00	0.00
2,900.00	26.64	311.00	2,671.15	679.40	-781.47	1,035.51	0.00	0.00	0.00	0.00
3,000.00	26.64	311.00	2,760.54	708.83	-815.31	1,080.36	0.00	0.00	0.00	0.00
3,100.00	26.64	311.00	2,849.92	738.25	-849.15	1,125.20	0.00	0.00	0.00	0.00
3,200.00	26.64	311.00	2,939.30	767.67	-883.00	1,170.04	0.00	0.00	0.00	0.00
3,300.00	26.64	311.00	3,028.68	797.09	-916.84	1,214.89	0.00	0.00	0.00	0.00
3,400.00	26.64	311.00	3,118.06	826.52	-950.68	1,259.73	0.00	0.00	0.00	0.00
3,500.00	26.64	311.00	3,207.44	855.94	-984.53	1,304.58	0.00	0.00	0.00	0.00
3,600.00	26.64	311.00	3,296.82	885.36	-1,018.37	1,349.42	0.00	0.00	0.00	0.00
3,700.00	26.64	311.00	3,386.20	914.78	-1,052.21	1,394.27	0.00	0.00	0.00	0.00
3,735.57	26.64	311.00	3,418.00	925.25	-1,064.25	1,410.22	0.00	0.00	0.00	0.00
<b>G Sand</b>										
3,800.00	26.64	311.00	3,475.58	944.21	-1,086.05	1,439.11	0.00	0.00	0.00	0.00
3,835.15	26.64	311.00	3,507.00	954.55	-1,097.95	1,454.87	0.00	0.00	0.00	0.00
<b>G Sand Base</b>										
3,900.00	26.64	311.00	3,564.97	973.63	-1,119.90	1,483.96	0.00	0.00	0.00	0.00
4,000.00	26.64	311.00	3,654.35	1,003.05	-1,153.74	1,528.80	0.00	0.00	0.00	0.00
4,100.00	26.64	311.00	3,743.73	1,032.48	-1,187.58	1,573.65	0.00	0.00	0.00	0.00



**Scientific Drilling, Intl**  
Planning Report

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 532-13 - Slot PA 532-13 (A9)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 532-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 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)	
4,200.00	26.64	311.00	3,833.11	1,061.90	-1,221.43	1,618.49	0.00	0.00	0.00	
4,300.00	26.64	311.00	3,922.49	1,091.32	-1,255.27	1,663.33	0.00	0.00	0.00	
4,400.00	26.64	311.00	4,011.87	1,120.74	-1,289.11	1,708.18	0.00	0.00	0.00	
4,500.00	26.64	311.00	4,101.25	1,150.17	-1,322.95	1,753.02	0.00	0.00	0.00	
4,600.00	26.64	311.00	4,190.63	1,179.59	-1,356.80	1,797.87	0.00	0.00	0.00	
4,700.00	26.64	311.00	4,280.01	1,209.01	-1,390.64	1,842.71	0.00	0.00	0.00	
4,800.00	26.64	311.00	4,369.39	1,238.43	-1,424.48	1,887.56	0.00	0.00	0.00	
4,900.00	26.64	311.00	4,458.78	1,267.86	-1,458.33	1,932.40	0.00	0.00	0.00	
5,000.00	26.64	311.00	4,548.16	1,297.28	-1,492.17	1,977.25	0.00	0.00	0.00	
5,100.00	26.64	311.00	4,637.54	1,326.70	-1,526.01	2,022.09	0.00	0.00	0.00	
5,200.00	26.64	311.00	4,726.92	1,356.13	-1,559.85	2,066.93	0.00	0.00	0.00	
5,300.00	26.64	311.00	4,816.30	1,385.55	-1,593.70	2,111.78	0.00	0.00	0.00	
5,400.00	26.64	311.00	4,905.68	1,414.97	-1,627.54	2,156.62	0.00	0.00	0.00	
5,500.00	26.64	311.00	4,995.06	1,444.39	-1,661.38	2,201.47	0.00	0.00	0.00	
5,600.00	26.64	311.00	5,084.44	1,473.82	-1,695.22	2,246.31	0.00	0.00	0.00	
5,700.00	26.64	311.00	5,173.82	1,503.24	-1,729.07	2,291.16	0.00	0.00	0.00	
5,800.00	26.64	311.00	5,263.20	1,532.66	-1,762.91	2,336.00	0.00	0.00	0.00	
5,900.00	26.64	311.00	5,352.59	1,562.08	-1,796.75	2,380.85	0.00	0.00	0.00	
6,000.00	26.64	311.00	5,441.97	1,591.51	-1,830.60	2,425.69	0.00	0.00	0.00	
6,100.00	26.64	311.00	5,531.35	1,620.93	-1,864.44	2,470.54	0.00	0.00	0.00	
6,200.00	26.64	311.00	5,620.73	1,650.35	-1,898.28	2,515.38	0.00	0.00	0.00	
6,282.37	26.64	311.00	5,694.35	1,674.59	-1,926.16	2,552.32	0.00	0.00	0.00	
<b>Start Drop -1.50</b>										
6,300.00	26.38	311.00	5,710.13	1,679.75	-1,932.10	2,560.19	1.50	-1.50	0.00	
6,324.38	26.01	311.00	5,732.00	1,686.81	-1,940.22	2,570.95	1.50	-1.50	0.00	
<b>WFRK UMVRD</b>										
6,400.00	24.88	311.00	5,800.29	1,708.13	-1,964.74	2,603.44	1.50	-1.50	0.00	
6,465.56	23.90	311.00	5,860.00	1,725.89	-1,985.17	2,630.51	1.50	-1.50	0.00	
<b>OCRK - MVRD</b>										
6,500.00	23.38	311.00	5,891.55	1,734.95	-1,995.59	2,644.32	1.50	-1.50	0.00	
6,600.00	21.88	311.00	5,983.84	1,760.20	-2,024.63	2,682.80	1.50	-1.50	0.00	
6,700.00	20.38	311.00	6,077.12	1,783.85	-2,051.83	2,718.84	1.50	-1.50	0.00	
6,800.00	18.88	311.00	6,171.30	1,805.89	-2,077.18	2,752.44	1.50	-1.50	0.00	
6,900.00	17.38	311.00	6,266.34	1,826.30	-2,100.66	2,783.55	1.50	-1.50	0.00	
7,000.00	15.88	311.00	6,362.15	1,845.08	-2,122.26	2,812.17	1.50	-1.50	0.00	
7,100.00	14.38	311.00	6,458.68	1,862.20	-2,141.96	2,838.27	1.50	-1.50	0.00	
7,200.00	12.88	311.00	6,555.86	1,877.66	-2,159.74	2,861.83	1.50	-1.50	0.00	
7,300.00	11.38	311.00	6,653.63	1,891.45	-2,175.60	2,882.84	1.50	-1.50	0.00	
7,391.97	10.00	311.00	6,744.00	1,902.64	-2,188.47	2,899.90	1.50	-1.50	0.00	
<b>Start Drop -1.50 - KMGAS</b>										
7,400.00	9.88	311.00	6,751.91	1,903.55	-2,189.52	2,901.29	1.50	-1.50	0.00	
7,401.18	9.86	311.00	6,753.07	1,903.68	-2,189.67	2,901.49	1.50	-1.50	0.00	
<b>PA 532-13 KMV</b>										
7,500.00	8.38	311.00	6,850.64	1,913.96	-2,201.49	2,917.16	1.50	-1.50	0.00	
7,600.00	6.88	311.00	6,949.75	1,922.67	-2,211.51	2,930.43	1.50	-1.50	0.00	
7,700.00	5.38	311.00	7,049.18	1,929.68	-2,219.57	2,941.11	1.50	-1.50	0.00	
7,800.00	3.88	311.00	7,148.85	1,934.97	-2,225.66	2,949.18	1.50	-1.50	0.00	
7,900.00	2.38	311.00	7,248.70	1,938.55	-2,229.78	2,954.64	1.50	-1.50	0.00	
8,000.00	0.88	311.00	7,348.65	1,940.42	-2,231.92	2,957.48	1.50	-1.50	0.00	
8,058.64	0.00	0.00	7,407.29	1,940.71	-2,232.26	2,957.93	1.50	-1.50	0.00	
<b>Start 2083.71 hold at 8058.64 MD</b>										



**Scientific Drilling, Intl**  
Planning Report

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 532-13 - Slot PA 532-13 (A9)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 532-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 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)	
8,100.00	0.00	0.00	7,448.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,548.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
8,300.00	0.00	0.00	7,648.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
8,400.00	0.00	0.00	7,748.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
8,500.00	0.00	0.00	7,848.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
8,600.00	0.00	0.00	7,948.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,048.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,148.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,248.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,348.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,448.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,548.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,300.00	0.00	0.00	8,648.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,400.00	0.00	0.00	8,748.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,500.00	0.00	0.00	8,848.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,537.35	0.00	0.00	8,886.00	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
<b>CMEO</b>										
9,600.00	0.00	0.00	8,948.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,048.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,148.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,248.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,348.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
10,017.35	0.00	0.00	9,366.00	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
<b>RLNS</b>										
10,100.00	0.00	0.00	9,448.65	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
10,142.35	0.00	0.00	9,491.00	1,940.71	-2,232.26	2,957.93	0.00	0.00	0.00	
<b>TD at 10142.35 - TD - PA 532-13 PBHL</b>										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PA 532-13 KMV - hit/miss target - Shape	0.00	0.00	6,744.00	1,940.71	-2,232.26	1,625,799.20	2,309,058.10	39.5260237	-107.9497498
- plan misses target center by 57.16usft at 7401.18usft MD (6753.07 TVD, 1903.68 N, -2189.67 E)									
- Circle (radius 50.00)									
PA 532-13 PBHL - plan misses target center by 0.01usft at 10142.35usft MD (9491.00 TVD, 1940.71 N, -2232.26 E)	0.00	0.00	9,491.00	1,940.71	-2,232.26	1,625,799.20	2,309,058.10	39.5260237	-107.9497498
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	972.70	9 5/8"	9.62	12.25	



**Scientific Drilling, Intl**  
Planning Report

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 532-13 - Slot PA 532-13 (A9)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1' & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 532-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 mmsdi		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,735.57	3,418.00	G Sand		0.00	0.00
3,835.15	3,507.00	G Sand Base		0.00	0.00
6,324.38	5,732.00	WFRK UMVRD		0.00	0.00
6,465.56	5,860.00	OCRK		0.00	0.00
6,465.56	5,860.00	MVRD		0.00	0.00
7,391.97	6,744.00	KMVGAS		0.00	0.00
9,537.35	8,886.00	CMEO		0.00	0.00
10,017.35	9,366.00	RLNS		0.00	0.00
10,142.35	9,491.00	TD		0.00	0.00

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
155.00	155.00	0.00	0.00	Start Build 3.00	
1,043.13	1,011.47	133.06	-153.05	Start 5239.24 hold at 1043.13 MD	
6,282.37	5,694.35	1,674.59	-1,926.16	Start Drop -1.50	
7,391.97	6,744.00	1,902.64	-2,188.47	Start Drop -1.50	
8,058.64	7,407.29	1,940.71	-2,232.26	Start 2083.71 hold at 8058.64 MD	
10,142.35	9,491.00	1,940.71	-2,232.26	TD at 10142.35	