

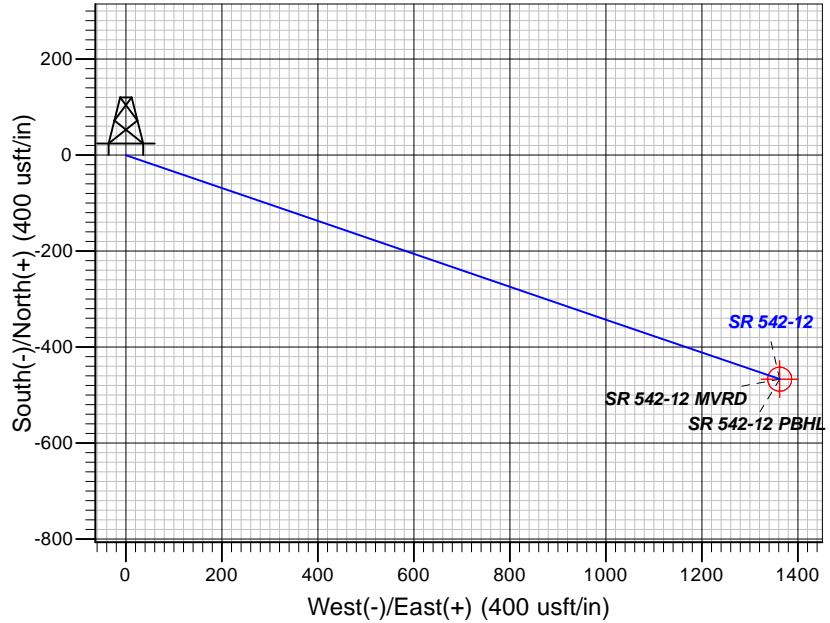
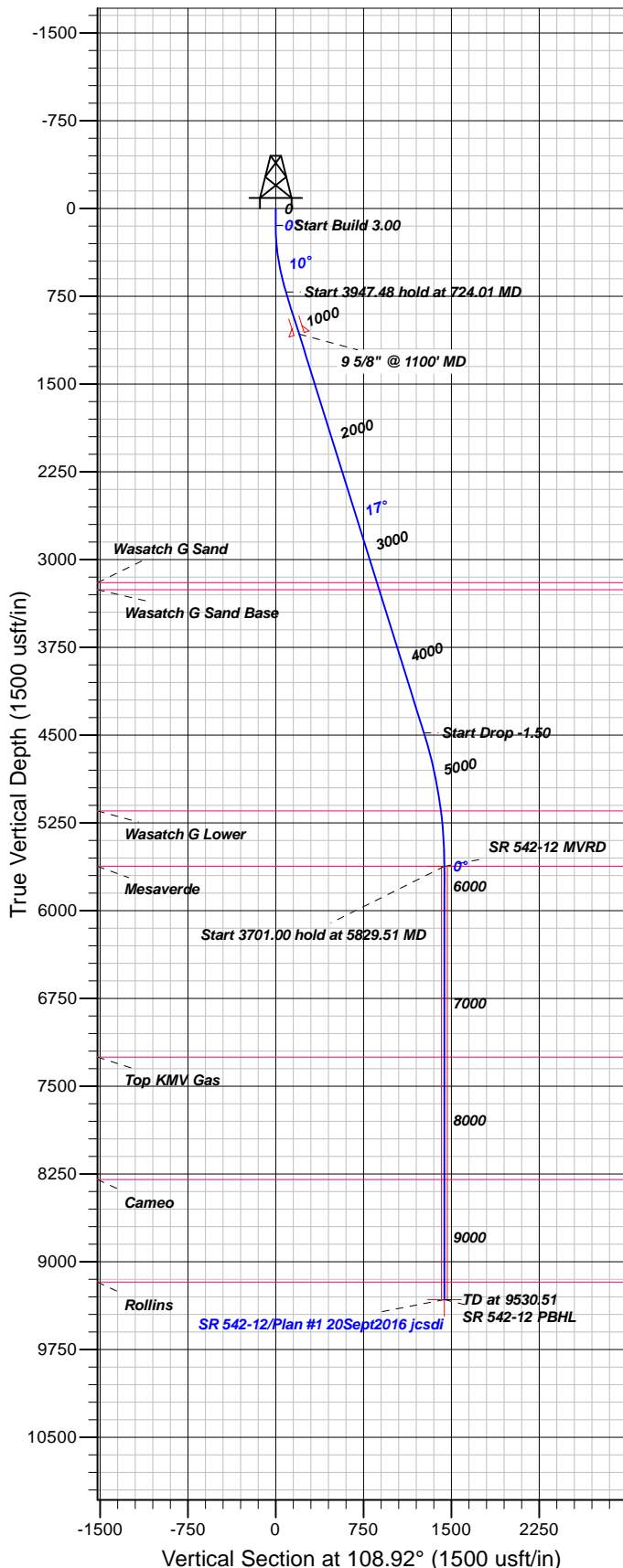
## Well Details: SR 542-12

GL 7254' & RKB 24' @ 7278.00usft (H&P 318)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1599175.30	2341078.50	39.4552687	-107.8338475	B12

**T M** Azimuths to True North  
Magnetic North: 9.60°

Magnetic Field  
Strength: 51598.3snT  
Dip Angle: 65.62°  
Date: 9/19/2016  
Model: BGGM2016



### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3198.00	3325.47	Wasatch G Sand
3258.00	3388.33	Wasatch G Sand Base
5148.00	5353.28	Wasatch G Lower
5623.00	5829.51	Mesaverde
7252.00	7458.51	Top KMV Gas
8298.00	8504.51	Cameo
9174.00	9380.51	Rollins

Plan: Plan #1 20Sept2016 jcsdi

11:41, September 30 2016  
Created By: Janie Collins

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
1074.02	1100.00	9 5/8" @ 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	145.00	0.00	0.00	145.00	0.00	0.00	0.00	0.00	0.00	
3	724.01	17.37	108.92	715.18	-28.24	82.39	3.00	108.92	87.10	
4	4671.49	17.37	108.92	4482.64	-410.29	1197.25	0.00	0.001265.60		
5	5829.51	0.00	0.00	5623.00	-466.77	1362.04	1.50	180.001439.80		SR 542-12 MVRD
6	9530.51	0.00	0.00	9324.00	-466.77	1362.04	0.00	0.001439.80		SR 542-12 PBHL

### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SR 542-12 MVRD	5623.00	-466.77	1362.04	1598673.70	2342428.10	39.4539871	-107.8290238	Circle (Radius: 25.00)
- plan hits target center								
SR 542-12 PBHL	9324.00	-466.77	1362.04	1598673.70	2342428.10	39.4539871	-107.8290238	Point
- plan hits target center								



## **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**RU 32-12 Pad**

**SR 542-12 - Slot B12**

**OH**

**Plan: Plan #1 20Sept2016 jcsdi**

## **Standard Planning Report**

**30 September, 2016**



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 542-12 - Slot B12
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 542-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 20Sept2016 jcsdi		

<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 32-12 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,599,253.30 usft	<b>Latitude:</b> 39.4554808
<b>From:</b> Map		<b>Easting:</b>	2,341,050.00 usft	<b>Longitude:</b> -107.8339555
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.20 in	<b>Grid Convergence:</b> -1.47 °

<b>Well</b>	SR 542-12 - Slot B12			
<b>Well Position</b>	<b>+N/-S</b>	-77.24 usft	<b>Northing:</b>	1,599,175.30 usft
	<b>+E/-W</b>	30.49 usft	<b>Easting:</b>	2,341,078.50 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	7,254.00 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>
	BGGM2016	9/19/2016	9.60	65.62	51,598

<b>Design</b>	Plan #1 20Sept2016 jcsdi			
<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	108.92

<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	
145.00	0.00	0.00	145.00	0.00	0.00	0.00	0.00	0.00	0.00	
724.01	17.37	108.92	715.18	-28.24	82.39	3.00	3.00	0.00	108.92	
4,671.49	17.37	108.92	4,482.64	-410.29	1,197.25	0.00	0.00	0.00	0.00	
5,829.51	0.00	0.00	5,623.00	-466.77	1,362.04	1.50	-1.50	0.00	180.00	SR 542-12 MVRD
9,530.51	0.00	0.00	9,324.00	-466.77	1,362.04	0.00	0.00	0.00	0.00	SR 542-12 PBHL

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 542-12 - Slot B12
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 542-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 20Sept2016 jcsdi		

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	
145.00	0.00	0.00	145.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	1.65	108.92	199.99	-0.26	0.75	0.79	3.00	3.00	0.00	
300.00	4.65	108.92	299.83	-2.04	5.95	6.29	3.00	3.00	0.00	
400.00	7.65	108.92	399.24	-5.51	16.08	17.00	3.00	3.00	0.00	
500.00	10.65	108.92	497.96	-10.67	31.12	32.90	3.00	3.00	0.00	
600.00	13.65	108.92	595.71	-17.49	51.03	53.94	3.00	3.00	0.00	
700.00	16.65	108.92	692.22	-25.96	75.75	80.07	3.00	3.00	0.00	
724.01	17.37	108.92	715.18	-28.24	82.39	87.10	3.00	3.00	0.00	
800.00	17.37	108.92	787.71	-35.59	103.86	109.79	0.00	0.00	0.00	
900.00	17.37	108.92	883.15	-45.27	132.10	139.64	0.00	0.00	0.00	
1,000.00	17.37	108.92	978.58	-54.95	160.34	169.49	0.00	0.00	0.00	
1,100.00	17.37	108.92	1,074.02	-64.63	188.58	199.35	0.00	0.00	0.00	
9 5/8" @ 1100' MD										
1,200.00	17.37	108.92	1,169.46	-74.31	216.82	229.20	0.00	0.00	0.00	
1,300.00	17.37	108.92	1,264.90	-83.98	245.07	259.06	0.00	0.00	0.00	
1,400.00	17.37	108.92	1,360.34	-93.66	273.31	288.91	0.00	0.00	0.00	
1,500.00	17.37	108.92	1,455.78	-103.34	301.55	318.77	0.00	0.00	0.00	
1,600.00	17.37	108.92	1,551.22	-113.02	329.79	348.62	0.00	0.00	0.00	
1,700.00	17.37	108.92	1,646.66	-122.70	358.04	378.48	0.00	0.00	0.00	
1,800.00	17.37	108.92	1,742.10	-132.38	386.28	408.33	0.00	0.00	0.00	
1,900.00	17.37	108.92	1,837.54	-142.05	414.52	438.19	0.00	0.00	0.00	
2,000.00	17.37	108.92	1,932.98	-151.73	442.76	468.04	0.00	0.00	0.00	
2,100.00	17.37	108.92	2,028.42	-161.41	471.00	497.89	0.00	0.00	0.00	
2,200.00	17.37	108.92	2,123.86	-171.09	499.25	527.75	0.00	0.00	0.00	
2,300.00	17.37	108.92	2,219.30	-180.77	527.49	557.60	0.00	0.00	0.00	
2,400.00	17.37	108.92	2,314.74	-190.45	555.73	587.46	0.00	0.00	0.00	
2,500.00	17.37	108.92	2,410.18	-200.13	583.97	617.31	0.00	0.00	0.00	
2,600.00	17.37	108.92	2,505.62	-209.80	612.22	647.17	0.00	0.00	0.00	
2,700.00	17.37	108.92	2,601.06	-219.48	640.46	677.02	0.00	0.00	0.00	
2,800.00	17.37	108.92	2,696.50	-229.16	668.70	706.88	0.00	0.00	0.00	
2,900.00	17.37	108.92	2,791.94	-238.84	696.94	736.73	0.00	0.00	0.00	
3,000.00	17.37	108.92	2,887.38	-248.52	725.18	766.59	0.00	0.00	0.00	
3,100.00	17.37	108.92	2,982.81	-258.20	753.43	796.44	0.00	0.00	0.00	
3,200.00	17.37	108.92	3,078.25	-267.88	781.67	826.29	0.00	0.00	0.00	
3,300.00	17.37	108.92	3,173.69	-277.55	809.91	856.15	0.00	0.00	0.00	
3,325.47	17.37	108.92	3,198.00	-280.02	817.10	863.75	0.00	0.00	0.00	
Wasatch G Sand										
3,388.33	17.37	108.92	3,258.00	-286.10	834.86	882.52	0.00	0.00	0.00	
Wasatch G Sand Base										
3,400.00	17.37	108.92	3,269.13	-287.23	838.15	886.00	0.00	0.00	0.00	
3,500.00	17.37	108.92	3,364.57	-296.91	866.40	915.86	0.00	0.00	0.00	
3,600.00	17.37	108.92	3,460.01	-306.59	894.64	945.71	0.00	0.00	0.00	
3,700.00	17.37	108.92	3,555.45	-316.27	922.88	975.57	0.00	0.00	0.00	
3,800.00	17.37	108.92	3,650.89	-325.95	951.12	1,005.42	0.00	0.00	0.00	
3,900.00	17.37	108.92	3,746.33	-335.63	979.36	1,035.28	0.00	0.00	0.00	
4,000.00	17.37	108.92	3,841.77	-345.30	1,007.61	1,065.13	0.00	0.00	0.00	
4,100.00	17.37	108.92	3,937.21	-354.98	1,035.85	1,094.99	0.00	0.00	0.00	
4,200.00	17.37	108.92	4,032.65	-364.66	1,064.09	1,124.84	0.00	0.00	0.00	
4,300.00	17.37	108.92	4,128.09	-374.34	1,092.33	1,154.70	0.00	0.00	0.00	
4,400.00	17.37	108.92	4,223.53	-384.02	1,120.58	1,184.55	0.00	0.00	0.00	

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 542-12 - Slot B12
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 542-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 20Sept2016 jcsdi		

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)
4,500.00	17.37	108.92	4,318.97	-393.70	1,148.82	1,214.40	0.00	0.00	0.00
4,600.00	17.37	108.92	4,414.41	-403.37	1,177.06	1,244.26	0.00	0.00	0.00
4,671.49	17.37	108.92	4,482.64	-410.29	1,197.25	1,265.60	0.00	0.00	0.00
4,700.00	16.94	108.92	4,509.88	-413.02	1,205.21	1,274.01	1.50	-1.50	0.00
4,800.00	15.44	108.92	4,605.91	-422.06	1,231.59	1,301.90	1.50	-1.50	0.00
4,900.00	13.94	108.92	4,702.64	-430.28	1,255.58	1,327.26	1.50	-1.50	0.00
5,000.00	12.44	108.92	4,799.99	-437.68	1,277.17	1,350.08	1.50	-1.50	0.00
5,100.00	10.94	108.92	4,897.92	-444.25	1,296.34	1,370.35	1.50	-1.50	0.00
5,200.00	9.44	108.92	4,996.34	-449.99	1,313.08	1,388.04	1.50	-1.50	0.00
5,300.00	7.94	108.92	5,095.18	-454.89	1,327.38	1,403.16	1.50	-1.50	0.00
5,353.28	7.14	108.92	5,148.00	-457.15	1,333.99	1,410.15	1.50	-1.50	0.00
Wasatch G Lower									
5,400.00	6.44	108.92	5,194.39	-458.95	1,339.22	1,415.68	1.50	-1.50	0.00
5,500.00	4.94	108.92	5,293.90	-462.16	1,348.60	1,425.60	1.50	-1.50	0.00
5,600.00	3.44	108.92	5,393.63	-464.53	1,355.52	1,432.91	1.50	-1.50	0.00
5,700.00	1.94	108.92	5,493.51	-466.06	1,359.96	1,437.60	1.50	-1.50	0.00
5,800.00	0.44	108.92	5,593.49	-466.73	1,361.93	1,439.69	1.50	-1.50	0.00
5,829.51	0.00	0.00	5,623.00	-466.77	1,362.04	1,439.80	1.50	-1.50	-369.08
Mesaverde - SR 542-12 MVRD									
5,900.00	0.00	0.00	5,693.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,000.00	0.00	0.00	5,793.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,100.00	0.00	0.00	5,893.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,200.00	0.00	0.00	5,993.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,300.00	0.00	0.00	6,093.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,400.00	0.00	0.00	6,193.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,500.00	0.00	0.00	6,293.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,600.00	0.00	0.00	6,393.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,700.00	0.00	0.00	6,493.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,800.00	0.00	0.00	6,593.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
6,900.00	0.00	0.00	6,693.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,000.00	0.00	0.00	6,793.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,100.00	0.00	0.00	6,893.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,200.00	0.00	0.00	6,993.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,300.00	0.00	0.00	7,093.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,400.00	0.00	0.00	7,193.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,458.51	0.00	0.00	7,252.00	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
Top KMV Gas									
7,500.00	0.00	0.00	7,293.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,600.00	0.00	0.00	7,393.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,700.00	0.00	0.00	7,493.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,800.00	0.00	0.00	7,593.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
7,900.00	0.00	0.00	7,693.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
8,000.00	0.00	0.00	7,793.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
8,100.00	0.00	0.00	7,893.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
8,200.00	0.00	0.00	7,993.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
8,300.00	0.00	0.00	8,093.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
8,400.00	0.00	0.00	8,193.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
8,500.00	0.00	0.00	8,293.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
8,504.51	0.00	0.00	8,298.00	-466.77	1,362.04	1,439.80	0.00	0.00	0.00
Cameo									
8,600.00	0.00	0.00	8,393.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 542-12 - Slot B12
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 542-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 20Sept2016 jcsdi		

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)	
8,700.00	0.00	0.00	8,493.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,593.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,693.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,793.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,893.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,993.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,093.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
9,380.51	0.00	0.00	9,174.00	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
Rollins										
9,400.00	0.00	0.00	9,193.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,293.49	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
9,530.51	0.00	0.00	9,324.00	-466.77	1,362.04	1,439.80	0.00	0.00	0.00	
SR 542-12 PBHL										

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									
SR 542-12 MVRD	0.00	0.00	5,623.00	-466.77	1,362.04	1,598,673.70	2,342,428.10	39.4539871	-107.8290239
- plan hits target center									
- Circle (radius 25.00)									
SR 542-12 PBHL	0.00	0.00	9,324.00	-466.77	1,362.04	1,598,673.70	2,342,428.10	39.4539871	-107.8290239
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (in)	Hole Diameter (in)
1,100.00	1,074.02	9 5/8" @ 1100' MD		9.62	9.62

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,325.47	3,198.00	Wasatch G Sand		0.00	0.00	
3,388.33	3,258.00	Wasatch G Sand Base		0.00	0.00	
5,353.28	5,148.00	Wasatch G Lower		0.00	0.00	
5,829.51	5,623.00	Mesaverde		0.00	0.00	
7,458.51	7,252.00	Top KMV Gas		0.00	0.00	
8,504.51	8,298.00	Cameo		0.00	0.00	
9,380.51	9,174.00	Rollins		0.00	0.00	