

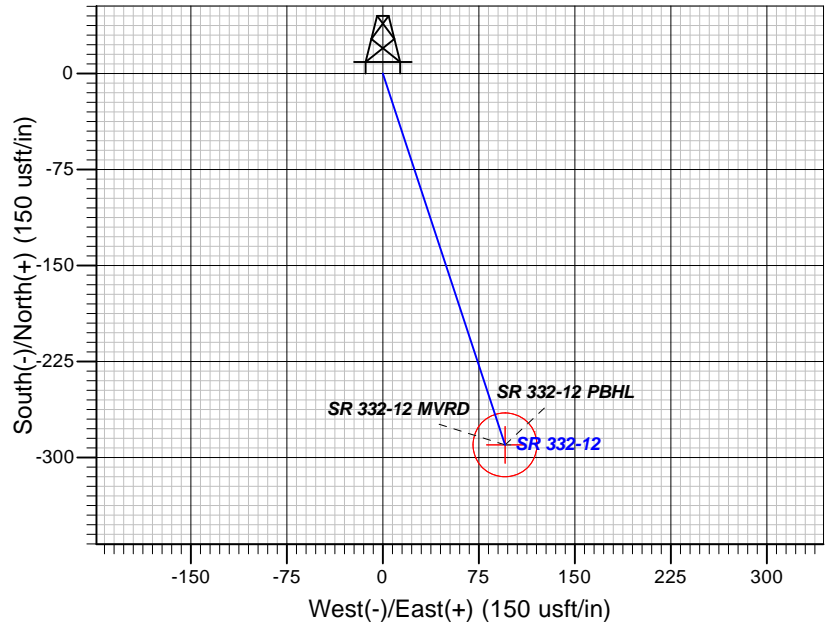
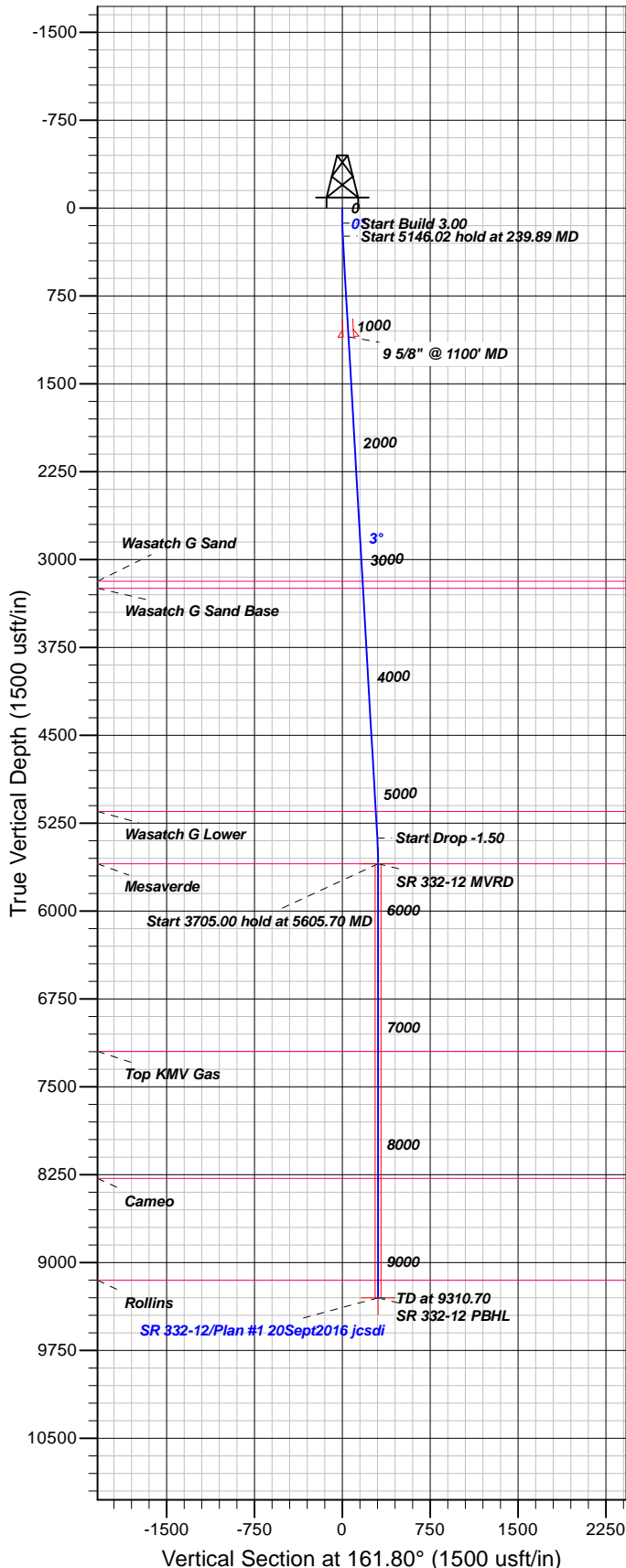
## Well Details: SR 332-12

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

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1599168.00	2341080.30	39.4552488	-107.8338404	B13

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
3185.00	3189.94	Wasatch G Sand
3245.00	3250.04	Wasatch G Sand Base
5150.00	5158.20	Wasatch G Lower
5597.00	5605.70	Mesaverde
7197.00	7205.70	Top KMV Gas
8282.00	8290.70	Cameo
9152.00	9160.70	Rollins

Plan: Plan #1 20Sept2016 jcsdi

10:54, 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
1098.52	1100.00	9 5/8" @ 1100' MD	9.62

### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	
3	239.89	3.30	161.80	239.83	-3.00	0.99	3.00	161.80	3.16	
4	5385.91	3.30	161.80	5377.33	-284.14	93.41	0.00	0.00	299.10	
5	5605.70	0.00	0.00	5597.00	-290.15	95.38	1.50	180.00	305.42	SR 332-12 MVRD
6	9310.70	0.00	0.00	9302.00	-290.15	95.38	0.00	0.00	305.42	SR 332-12 PBHL

### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SR 332-12 MVRD	5597.00	-290.15	95.38	1598875.50	2341168.20	39.4544522	-107.8335026	Circle (Radius: 25.00)
- plan hits target center								
SR 332-12 PBHL	9302.00	-290.15	95.38	1598875.50	2341168.20	39.4544522	-107.8335026	Point
- plan hits target center								



# **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**RU 32-12 Pad**

**SR 332-12 - Slot B13**

**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 332-12 - Slot B13
<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 332-12	<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 332-12 - Slot B13			
<b>Well Position</b>	<b>+N/-S</b>	-84.49 usft	<b>Northing:</b>	1,599,168.00 usft
	<b>+E/-W</b>	32.48 usft	<b>Easting:</b>	2,341,080.30 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	161.80

<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	
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	
239.89	3.30	161.80	239.83	-3.00	0.99	3.00	3.00	0.00	161.80	
5,385.91	3.30	161.80	5,377.33	-284.14	93.41	0.00	0.00	0.00	0.00	
5,605.70	0.00	0.00	5,597.00	-290.15	95.38	1.50	-1.50	0.00	180.00	SR 332-12 MVRD
9,310.70	0.00	0.00	9,302.00	-290.15	95.38	0.00	0.00	0.00	0.00	SR 332-12 PBHL

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 332-12 - Slot B13
<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 332-12	<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	
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	2.10	161.80	199.98	-1.22	0.40	1.28	3.00	3.00	0.00	
239.89	3.30	161.80	239.83	-3.00	0.99	3.16	3.00	3.00	0.00	
300.00	3.30	161.80	299.84	-6.29	2.07	6.62	0.00	0.00	0.00	
400.00	3.30	161.80	399.67	-11.75	3.86	12.37	0.00	0.00	0.00	
500.00	3.30	161.80	499.51	-17.21	5.66	18.12	0.00	0.00	0.00	
600.00	3.30	161.80	599.34	-22.68	7.45	23.87	0.00	0.00	0.00	
700.00	3.30	161.80	699.18	-28.14	9.25	29.62	0.00	0.00	0.00	
800.00	3.30	161.80	799.01	-33.60	11.05	35.37	0.00	0.00	0.00	
900.00	3.30	161.80	898.85	-39.07	12.84	41.12	0.00	0.00	0.00	
1,000.00	3.30	161.80	998.68	-44.53	14.64	46.87	0.00	0.00	0.00	
1,100.00	3.30	161.80	1,098.52	-49.99	16.43	52.62	0.00	0.00	0.00	
9 5/8" @ 1100' MD										
1,200.00	3.30	161.80	1,198.35	-55.46	18.23	58.38	0.00	0.00	0.00	
1,300.00	3.30	161.80	1,298.18	-60.92	20.03	64.13	0.00	0.00	0.00	
1,400.00	3.30	161.80	1,398.02	-66.38	21.82	69.88	0.00	0.00	0.00	
1,500.00	3.30	161.80	1,497.85	-71.84	23.62	75.63	0.00	0.00	0.00	
1,600.00	3.30	161.80	1,597.69	-77.31	25.41	81.38	0.00	0.00	0.00	
1,700.00	3.30	161.80	1,697.52	-82.77	27.21	87.13	0.00	0.00	0.00	
1,800.00	3.30	161.80	1,797.36	-88.23	29.01	92.88	0.00	0.00	0.00	
1,900.00	3.30	161.80	1,897.19	-93.70	30.80	98.63	0.00	0.00	0.00	
2,000.00	3.30	161.80	1,997.03	-99.16	32.60	104.38	0.00	0.00	0.00	
2,100.00	3.30	161.80	2,096.86	-104.62	34.39	110.13	0.00	0.00	0.00	
2,200.00	3.30	161.80	2,196.70	-110.09	36.19	115.88	0.00	0.00	0.00	
2,300.00	3.30	161.80	2,296.53	-115.55	37.99	121.63	0.00	0.00	0.00	
2,400.00	3.30	161.80	2,396.36	-121.01	39.78	127.39	0.00	0.00	0.00	
2,500.00	3.30	161.80	2,496.20	-126.48	41.58	133.14	0.00	0.00	0.00	
2,600.00	3.30	161.80	2,596.03	-131.94	43.37	138.89	0.00	0.00	0.00	
2,700.00	3.30	161.80	2,695.87	-137.40	45.17	144.64	0.00	0.00	0.00	
2,800.00	3.30	161.80	2,795.70	-142.87	46.97	150.39	0.00	0.00	0.00	
2,900.00	3.30	161.80	2,895.54	-148.33	48.76	156.14	0.00	0.00	0.00	
3,000.00	3.30	161.80	2,995.37	-153.79	50.56	161.89	0.00	0.00	0.00	
3,100.00	3.30	161.80	3,095.21	-159.26	52.35	167.64	0.00	0.00	0.00	
3,189.94	3.30	161.80	3,185.00	-164.17	53.97	172.81	0.00	0.00	0.00	
Wasatch G Sand										
3,200.00	3.30	161.80	3,195.04	-164.72	54.15	173.39	0.00	0.00	0.00	
3,250.04	3.30	161.80	3,245.00	-167.45	55.05	176.27	0.00	0.00	0.00	
Wasatch G Sand Base										
3,300.00	3.30	161.80	3,294.88	-170.18	55.95	179.14	0.00	0.00	0.00	
3,400.00	3.30	161.80	3,394.71	-175.65	57.74	184.89	0.00	0.00	0.00	
3,500.00	3.30	161.80	3,494.54	-181.11	59.54	190.64	0.00	0.00	0.00	
3,600.00	3.30	161.80	3,594.38	-186.57	61.34	196.40	0.00	0.00	0.00	
3,700.00	3.30	161.80	3,694.21	-192.04	63.13	202.15	0.00	0.00	0.00	
3,800.00	3.30	161.80	3,794.05	-197.50	64.93	207.90	0.00	0.00	0.00	
3,900.00	3.30	161.80	3,893.88	-202.96	66.72	213.65	0.00	0.00	0.00	
4,000.00	3.30	161.80	3,993.72	-208.43	68.52	219.40	0.00	0.00	0.00	
4,100.00	3.30	161.80	4,093.55	-213.89	70.32	225.15	0.00	0.00	0.00	
4,200.00	3.30	161.80	4,193.39	-219.35	72.11	230.90	0.00	0.00	0.00	
4,300.00	3.30	161.80	4,293.22	-224.81	73.91	236.65	0.00	0.00	0.00	
4,400.00	3.30	161.80	4,393.05	-230.28	75.70	242.40	0.00	0.00	0.00	

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 332-12 - Slot B13
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<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 332-12	<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	3.30	161.80	4,492.89	-235.74	77.50	248.15	0.00	0.00	0.00
4,600.00	3.30	161.80	4,592.72	-241.20	79.30	253.90	0.00	0.00	0.00
4,700.00	3.30	161.80	4,692.56	-246.67	81.09	259.65	0.00	0.00	0.00
4,800.00	3.30	161.80	4,792.39	-252.13	82.89	265.41	0.00	0.00	0.00
4,900.00	3.30	161.80	4,892.23	-257.59	84.68	271.16	0.00	0.00	0.00
5,000.00	3.30	161.80	4,992.06	-263.06	86.48	276.91	0.00	0.00	0.00
5,100.00	3.30	161.80	5,091.90	-268.52	88.28	282.66	0.00	0.00	0.00
5,158.20	3.30	161.80	5,150.00	-271.70	89.32	286.01	0.00	0.00	0.00
<b>Wasatch G Lower</b>									
5,200.00	3.30	161.80	5,191.73	-273.98	90.07	288.41	0.00	0.00	0.00
5,300.00	3.30	161.80	5,291.57	-279.45	91.87	294.16	0.00	0.00	0.00
5,385.91	3.30	161.80	5,377.33	-284.14	93.41	299.10	0.00	0.00	0.00
5,400.00	3.09	161.80	5,391.40	-284.89	93.66	299.88	1.50	-1.50	0.00
5,500.00	1.59	161.80	5,491.32	-288.76	94.93	303.96	1.50	-1.50	0.00
5,600.00	0.09	161.80	5,591.30	-290.14	95.38	305.42	1.50	-1.50	0.00
5,605.70	0.00	0.00	5,597.00	-290.15	95.38	305.42	1.50	-1.50	-2,839.39
<b>Mesaverde - SR 332-12 MVRD</b>									
5,700.00	0.00	0.00	5,691.30	-290.15	95.38	305.42	0.00	0.00	0.00
5,800.00	0.00	0.00	5,791.30	-290.15	95.38	305.42	0.00	0.00	0.00
5,900.00	0.00	0.00	5,891.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,000.00	0.00	0.00	5,991.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,100.00	0.00	0.00	6,091.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,200.00	0.00	0.00	6,191.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,300.00	0.00	0.00	6,291.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,400.00	0.00	0.00	6,391.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,500.00	0.00	0.00	6,491.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,600.00	0.00	0.00	6,591.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,700.00	0.00	0.00	6,691.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,800.00	0.00	0.00	6,791.30	-290.15	95.38	305.42	0.00	0.00	0.00
6,900.00	0.00	0.00	6,891.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,000.00	0.00	0.00	6,991.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,100.00	0.00	0.00	7,091.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,200.00	0.00	0.00	7,191.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,205.70	0.00	0.00	7,197.00	-290.15	95.38	305.42	0.00	0.00	0.00
<b>Top KMV Gas</b>									
7,300.00	0.00	0.00	7,291.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,400.00	0.00	0.00	7,391.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,500.00	0.00	0.00	7,491.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,600.00	0.00	0.00	7,591.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,700.00	0.00	0.00	7,691.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,800.00	0.00	0.00	7,791.30	-290.15	95.38	305.42	0.00	0.00	0.00
7,900.00	0.00	0.00	7,891.30	-290.15	95.38	305.42	0.00	0.00	0.00
8,000.00	0.00	0.00	7,991.30	-290.15	95.38	305.42	0.00	0.00	0.00
8,100.00	0.00	0.00	8,091.30	-290.15	95.38	305.42	0.00	0.00	0.00
8,200.00	0.00	0.00	8,191.30	-290.15	95.38	305.42	0.00	0.00	0.00
8,290.70	0.00	0.00	8,282.00	-290.15	95.38	305.42	0.00	0.00	0.00
<b>Cameo</b>									
8,300.00	0.00	0.00	8,291.30	-290.15	95.38	305.42	0.00	0.00	0.00
8,400.00	0.00	0.00	8,391.30	-290.15	95.38	305.42	0.00	0.00	0.00
8,500.00	0.00	0.00	8,491.30	-290.15	95.38	305.42	0.00	0.00	0.00
8,600.00	0.00	0.00	8,591.30	-290.15	95.38	305.42	0.00	0.00	0.00

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 332-12 - Slot B13
<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 332-12	<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	8,691.30	-290.15	95.38	305.42	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,791.30	-290.15	95.38	305.42	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,891.30	-290.15	95.38	305.42	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,991.30	-290.15	95.38	305.42	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,091.30	-290.15	95.38	305.42	0.00	0.00	0.00	
9,160.70	0.00	0.00	9,152.00	-290.15	95.38	305.42	0.00	0.00	0.00	
<b>Rollins</b>										
9,200.00	0.00	0.00	9,191.30	-290.15	95.38	305.42	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,291.30	-290.15	95.38	305.42	0.00	0.00	0.00	
9,310.70	0.00	0.00	9,302.00	-290.15	95.38	305.42	0.00	0.00	0.00	
<b>SR 332-12 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									
SR 332-12 MVRD	0.00	0.00	5,597.00	-290.15	95.38	1,598,875.50	2,341,168.20	39.4544522	-107.8335027
- plan hits target center									
- Circle (radius 25.00)									
SR 332-12 PBHL	0.00	0.00	9,302.00	-290.15	95.38	1,598,875.50	2,341,168.20	39.4544522	-107.8335027
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,098.52	9 5/8" @ 1100' MD	9.62	9.62	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,189.94	3,185.00	Wasatch G Sand		0.00	0.00	
3,250.04	3,245.00	Wasatch G Sand Base		0.00	0.00	
5,158.20	5,150.00	Wasatch G Lower		0.00	0.00	
5,605.70	5,597.00	Mesaverde		0.00	0.00	
7,205.70	7,197.00	Top KMV Gas		0.00	0.00	
8,290.70	8,282.00	Cameo		0.00	0.00	
9,160.70	9,152.00	Rollins		0.00	0.00	