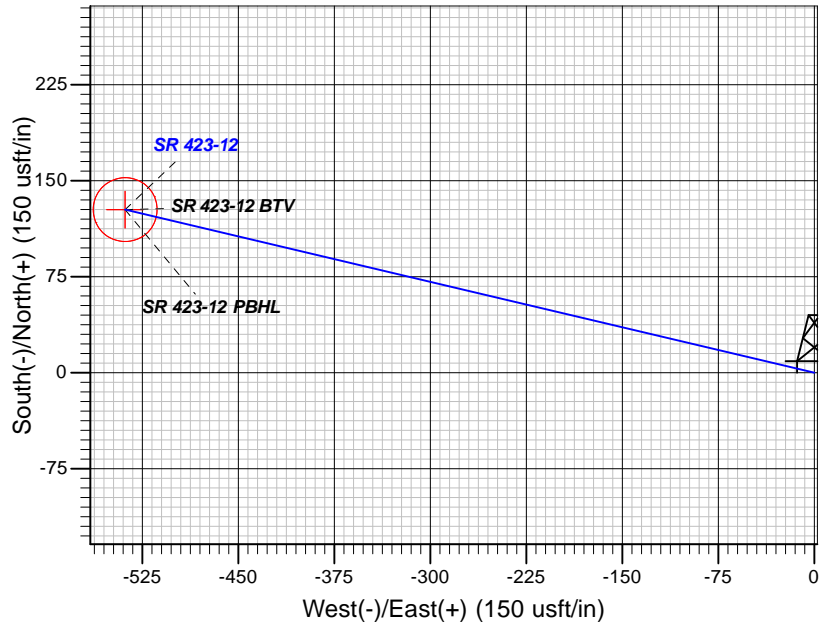
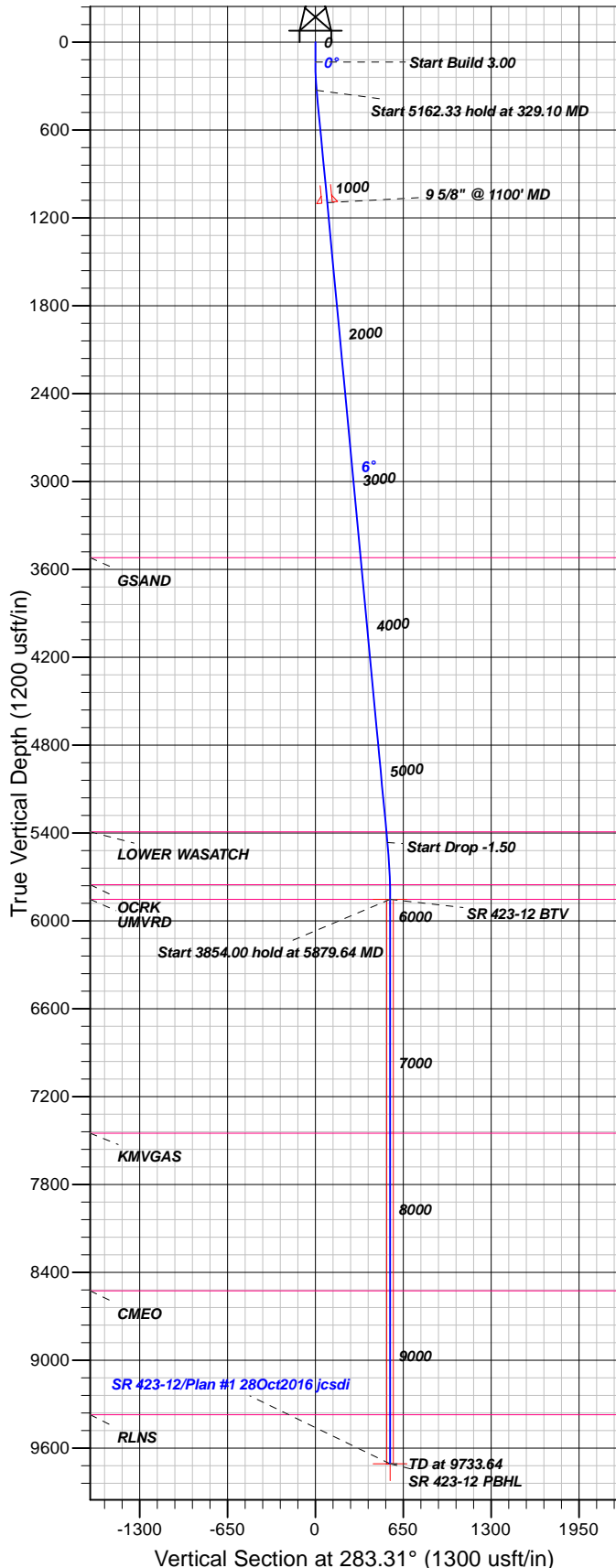


Well Details: SR 423-12

GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
 +N/-S 0.00 +E/-W 0.00 Northing 1597692.40 Easting 2340237.90 Latitude 39.4511394 Longitude -107.8366884 Slot SR 423-12 (A4)

T M Azimuths to True North
 Magnetic North: 9.33°
 Magnetic Field
 Strength: 51770.2snT
 Dip Angle: 65.68°
 Date: 10/28/2016
 Model: HDGM



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3519.00	3535.88	GSAND
5391.00	5417.59	LOWER WASATCH
5752.00	5779.63	OCRK
5852.00	5879.64	UMVRD
7449.00	7476.64	KMGAS
8526.00	8553.64	CMEQ
9371.00	9398.64	RLNS

Plan: Plan #1 28Oct2016 jcsdi

13:05, November 03 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
1095.69	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	135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	
3	329.10	5.82	283.31	328.77	2.27	-9.59	3.00	283.31	9.86	
4	5491.44	5.82	283.31	5464.46	122.86	-519.27	0.00	0.00	533.61	
5	5879.64	0.00	0.00	5852.00	127.39	-538.45	1.50	180.00	553.32	SR 423-12 BTV
6	9733.64	0.00	0.00	9706.00	127.39	-538.45	0.00	0.00	553.32	SR 423-12 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SR 423-12 BTV	5852.00	127.39	-538.45	1597833.60	2339702.90	39.4514892	-107.8385953	Circle (Radius: 25.00)
- plan hits target center								
SR 423-12 PBHL	9706.00	127.39	-538.45	1597833.60	2339702.90	39.4514892	-107.8385953	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

SR 23-12 Pad

SR 423-12 - Slot SR 423-12 (A4)

OH

Plan: Plan #1 28Oct2016 jcsdi

Standard Planning Report

03 November, 2016



www.scientificdrilling.com



Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 423-12 - Slot SR 423-12 (A4)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Site:	SR 23-12 Pad	North Reference:	True
Well:	SR 423-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 28Oct2016 jcsdi		

Project	Garfield County, CO NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	SR 23-12 Pad			
Site Position:		Northing:	1,597,713.40 usft	Latitude: 39.4511965
From: Map		Easting:	2,340,229.70 usft	Longitude: -107.8367194
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: -1.47 °

Well	SR 423-12 - Slot SR 423-12 (A4)			
Well Position	+N/-S	-20.78 usft	Northing:	1,597,692.40 usft
	+E/-W	8.74 usft	Easting:	2,340,237.90 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	7,478.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	10/28/2016	9.33	65.68	51,770

Design	Plan #1 28Oct2016 jcsdi			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	283.31

Plan Sections										
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	
329.10	5.82	283.31	328.77	2.27	-9.59	3.00	3.00	0.00	283.31	
5,491.44	5.82	283.31	5,464.46	122.86	-519.27	0.00	0.00	0.00	0.00	
5,879.64	0.00	0.00	5,852.00	127.39	-538.45	1.50	-1.50	0.00	180.00	SR 423-12 BTW
9,733.64	0.00	0.00	9,706.00	127.39	-538.45	0.00	0.00	0.00	0.00	SR 423-12 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 423-12 - Slot SR 423-12 (A4)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Site:	SR 23-12 Pad	North Reference:	True
Well:	SR 423-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 28Oct2016 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	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	1.95	283.31	199.99	0.25	-1.08	1.11	3.00	3.00	0.00	
300.00	4.95	283.31	299.79	1.64	-6.93	7.12	3.00	3.00	0.00	
329.10	5.82	283.31	328.77	2.27	-9.59	9.86	3.00	3.00	0.00	
400.00	5.82	283.31	399.30	3.93	-16.59	17.05	0.00	0.00	0.00	
500.00	5.82	283.31	498.78	6.26	-26.46	27.19	0.00	0.00	0.00	
600.00	5.82	283.31	598.27	8.60	-36.34	37.34	0.00	0.00	0.00	
700.00	5.82	283.31	697.75	10.93	-46.21	47.49	0.00	0.00	0.00	
800.00	5.82	283.31	797.24	13.27	-56.08	57.63	0.00	0.00	0.00	
900.00	5.82	283.31	896.72	15.60	-65.96	67.78	0.00	0.00	0.00	
1,000.00	5.82	283.31	996.20	17.94	-75.83	77.92	0.00	0.00	0.00	
1,100.00	5.82	283.31	1,095.69	20.28	-85.70	88.07	0.00	0.00	0.00	
9 5/8" @ 1100' MD										
1,200.00	5.82	283.31	1,195.17	22.61	-95.58	98.21	0.00	0.00	0.00	
1,300.00	5.82	283.31	1,294.66	24.95	-105.45	108.36	0.00	0.00	0.00	
1,400.00	5.82	283.31	1,394.14	27.28	-115.32	118.50	0.00	0.00	0.00	
1,500.00	5.82	283.31	1,493.62	29.62	-125.19	128.65	0.00	0.00	0.00	
1,600.00	5.82	283.31	1,593.11	31.96	-135.07	138.80	0.00	0.00	0.00	
1,700.00	5.82	283.31	1,692.59	34.29	-144.94	148.94	0.00	0.00	0.00	
1,800.00	5.82	283.31	1,792.08	36.63	-154.81	159.09	0.00	0.00	0.00	
1,900.00	5.82	283.31	1,891.56	38.96	-164.69	169.23	0.00	0.00	0.00	
2,000.00	5.82	283.31	1,991.04	41.30	-174.56	179.38	0.00	0.00	0.00	
2,100.00	5.82	283.31	2,090.53	43.64	-184.43	189.52	0.00	0.00	0.00	
2,200.00	5.82	283.31	2,190.01	45.97	-194.31	199.67	0.00	0.00	0.00	
2,300.00	5.82	283.31	2,289.50	48.31	-204.18	209.82	0.00	0.00	0.00	
2,400.00	5.82	283.31	2,388.98	50.64	-214.05	219.96	0.00	0.00	0.00	
2,500.00	5.82	283.31	2,488.46	52.98	-223.93	230.11	0.00	0.00	0.00	
2,600.00	5.82	283.31	2,587.95	55.31	-233.80	240.25	0.00	0.00	0.00	
2,700.00	5.82	283.31	2,687.43	57.65	-243.67	250.40	0.00	0.00	0.00	
2,800.00	5.82	283.31	2,786.92	59.99	-253.55	260.54	0.00	0.00	0.00	
2,900.00	5.82	283.31	2,886.40	62.32	-263.42	270.69	0.00	0.00	0.00	
3,000.00	5.82	283.31	2,985.88	64.66	-273.29	280.84	0.00	0.00	0.00	
3,100.00	5.82	283.31	3,085.37	66.99	-283.16	290.98	0.00	0.00	0.00	
3,200.00	5.82	283.31	3,184.85	69.33	-293.04	301.13	0.00	0.00	0.00	
3,300.00	5.82	283.31	3,284.34	71.67	-302.91	311.27	0.00	0.00	0.00	
3,400.00	5.82	283.31	3,383.82	74.00	-312.78	321.42	0.00	0.00	0.00	
3,500.00	5.82	283.31	3,483.30	76.34	-322.66	331.56	0.00	0.00	0.00	
3,535.88	5.82	283.31	3,519.00	77.18	-326.20	335.20	0.00	0.00	0.00	
GSAND										
3,600.00	5.82	283.31	3,582.79	78.67	-332.53	341.71	0.00	0.00	0.00	
3,700.00	5.82	283.31	3,682.27	81.01	-342.40	351.86	0.00	0.00	0.00	
3,800.00	5.82	283.31	3,781.76	83.35	-352.28	362.00	0.00	0.00	0.00	
3,900.00	5.82	283.31	3,881.24	85.68	-362.15	372.15	0.00	0.00	0.00	
4,000.00	5.82	283.31	3,980.72	88.02	-372.02	382.29	0.00	0.00	0.00	
4,100.00	5.82	283.31	4,080.21	90.35	-381.90	392.44	0.00	0.00	0.00	
4,200.00	5.82	283.31	4,179.69	92.69	-391.77	402.58	0.00	0.00	0.00	
4,300.00	5.82	283.31	4,279.18	95.03	-401.64	412.73	0.00	0.00	0.00	
4,400.00	5.82	283.31	4,378.66	97.36	-411.52	422.88	0.00	0.00	0.00	
4,500.00	5.82	283.31	4,478.14	99.70	-421.39	433.02	0.00	0.00	0.00	
4,600.00	5.82	283.31	4,577.63	102.03	-431.26	443.17	0.00	0.00	0.00	

Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 423-12 - Slot SR 423-12 (A4)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Site:	SR 23-12 Pad	North Reference:	True
Well:	SR 423-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 28Oct2016 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)
4,700.00	5.82	283.31	4,677.11	104.37	-441.13	453.31	0.00	0.00	0.00
4,800.00	5.82	283.31	4,776.60	106.70	-451.01	463.46	0.00	0.00	0.00
4,900.00	5.82	283.31	4,876.08	109.04	-460.88	473.60	0.00	0.00	0.00
5,000.00	5.82	283.31	4,975.56	111.38	-470.75	483.75	0.00	0.00	0.00
5,100.00	5.82	283.31	5,075.05	113.71	-480.63	493.90	0.00	0.00	0.00
5,200.00	5.82	283.31	5,174.53	116.05	-490.50	504.04	0.00	0.00	0.00
5,300.00	5.82	283.31	5,274.02	118.38	-500.37	514.19	0.00	0.00	0.00
5,400.00	5.82	283.31	5,373.50	120.72	-510.25	524.33	0.00	0.00	0.00
5,417.59	5.82	283.31	5,391.00	121.13	-511.98	526.12	0.00	0.00	0.00
LOWER WASATCH									
5,491.44	5.82	283.31	5,464.46	122.86	-519.27	533.61	0.00	0.00	0.00
5,500.00	5.69	283.31	5,472.98	123.05	-520.11	534.47	1.50	-1.50	0.00
5,600.00	4.19	283.31	5,572.61	125.04	-528.50	543.09	1.50	-1.50	0.00
5,700.00	2.69	283.31	5,672.43	126.42	-534.34	549.10	1.50	-1.50	0.00
5,779.63	1.50	283.31	5,752.00	127.09	-537.18	552.01	1.50	-1.50	0.00
OCRK									
5,800.00	1.19	283.31	5,772.37	127.20	-537.65	552.49	1.50	-1.50	0.00
5,879.64	0.00	0.00	5,852.00	127.39	-538.45	553.32	1.50	-1.50	0.00
UMVRD - SR 423-12 BTV									
5,900.00	0.00	0.00	5,872.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,000.00	0.00	0.00	5,972.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,100.00	0.00	0.00	6,072.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,200.00	0.00	0.00	6,172.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,300.00	0.00	0.00	6,272.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,400.00	0.00	0.00	6,372.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,500.00	0.00	0.00	6,472.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,600.00	0.00	0.00	6,572.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,700.00	0.00	0.00	6,672.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,800.00	0.00	0.00	6,772.36	127.39	-538.45	553.32	0.00	0.00	0.00
6,900.00	0.00	0.00	6,872.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,000.00	0.00	0.00	6,972.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,100.00	0.00	0.00	7,072.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,200.00	0.00	0.00	7,172.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,300.00	0.00	0.00	7,272.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,400.00	0.00	0.00	7,372.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,476.64	0.00	0.00	7,449.00	127.39	-538.45	553.32	0.00	0.00	0.00
KMVGAS									
7,500.00	0.00	0.00	7,472.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,600.00	0.00	0.00	7,572.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,700.00	0.00	0.00	7,672.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,800.00	0.00	0.00	7,772.36	127.39	-538.45	553.32	0.00	0.00	0.00
7,900.00	0.00	0.00	7,872.36	127.39	-538.45	553.32	0.00	0.00	0.00
8,000.00	0.00	0.00	7,972.36	127.39	-538.45	553.32	0.00	0.00	0.00
8,100.00	0.00	0.00	8,072.36	127.39	-538.45	553.32	0.00	0.00	0.00
8,200.00	0.00	0.00	8,172.36	127.39	-538.45	553.32	0.00	0.00	0.00
8,300.00	0.00	0.00	8,272.36	127.39	-538.45	553.32	0.00	0.00	0.00
8,400.00	0.00	0.00	8,372.36	127.39	-538.45	553.32	0.00	0.00	0.00
8,500.00	0.00	0.00	8,472.36	127.39	-538.45	553.32	0.00	0.00	0.00
8,553.64	0.00	0.00	8,526.00	127.39	-538.45	553.32	0.00	0.00	0.00
CME0									
8,600.00	0.00	0.00	8,572.36	127.39	-538.45	553.32	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 423-12 - Slot SR 423-12 (A4)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Site:	SR 23-12 Pad	North Reference:	True
Well:	SR 423-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 28Oct2016 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	8,672.36	127.39	-538.45	553.32	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,772.36	127.39	-538.45	553.32	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,872.36	127.39	-538.45	553.32	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,972.36	127.39	-538.45	553.32	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,072.36	127.39	-538.45	553.32	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,172.36	127.39	-538.45	553.32	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,272.36	127.39	-538.45	553.32	0.00	0.00	0.00	
9,398.64	0.00	0.00	9,371.00	127.39	-538.45	553.32	0.00	0.00	0.00	
RLNS										
9,400.00	0.00	0.00	9,372.36	127.39	-538.45	553.32	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,472.36	127.39	-538.45	553.32	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,572.36	127.39	-538.45	553.32	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,672.36	127.39	-538.45	553.32	0.00	0.00	0.00	
9,733.64	0.00	0.00	9,706.00	127.39	-538.45	553.32	0.00	0.00	0.00	
SR 423-12 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 423-12 BTV	0.00	0.00	5,852.00	127.39	-538.45	1,597,833.60	2,339,702.90	39.4514892	-107.8385953
- plan hits target center									
- Circle (radius 25.00)									
SR 423-12 PBHL	0.00	0.00	9,706.00	127.39	-538.45	1,597,833.60	2,339,702.90	39.4514892	-107.8385953
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,095.69	9 5/8" @ 1100' MD	9.62	9.62	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,535.88	3,519.00	GSAND		0.00	0.00
5,417.59	5,391.00	LOWER WASATCH		0.00	0.00
5,779.63	5,752.00	OCRK		0.00	0.00
5,879.64	5,852.00	UMVRD		0.00	0.00
7,476.64	7,449.00	KMVGAS		0.00	0.00
8,553.64	8,526.00	CMEQ		0.00	0.00
9,398.64	9,371.00	RLNS		0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 423-12 - Slot SR 423-12 (A4)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7478' & RKB 24' @ 7502.00usft (H&P 318)
Site:	SR 23-12 Pad	North Reference:	True
Well:	SR 423-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 28Oct2016 jcsdi		