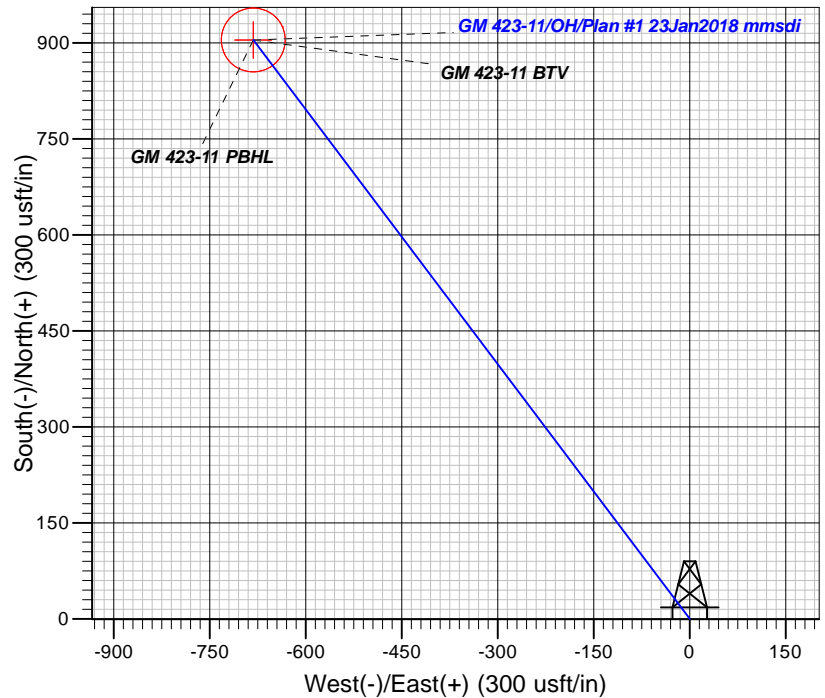
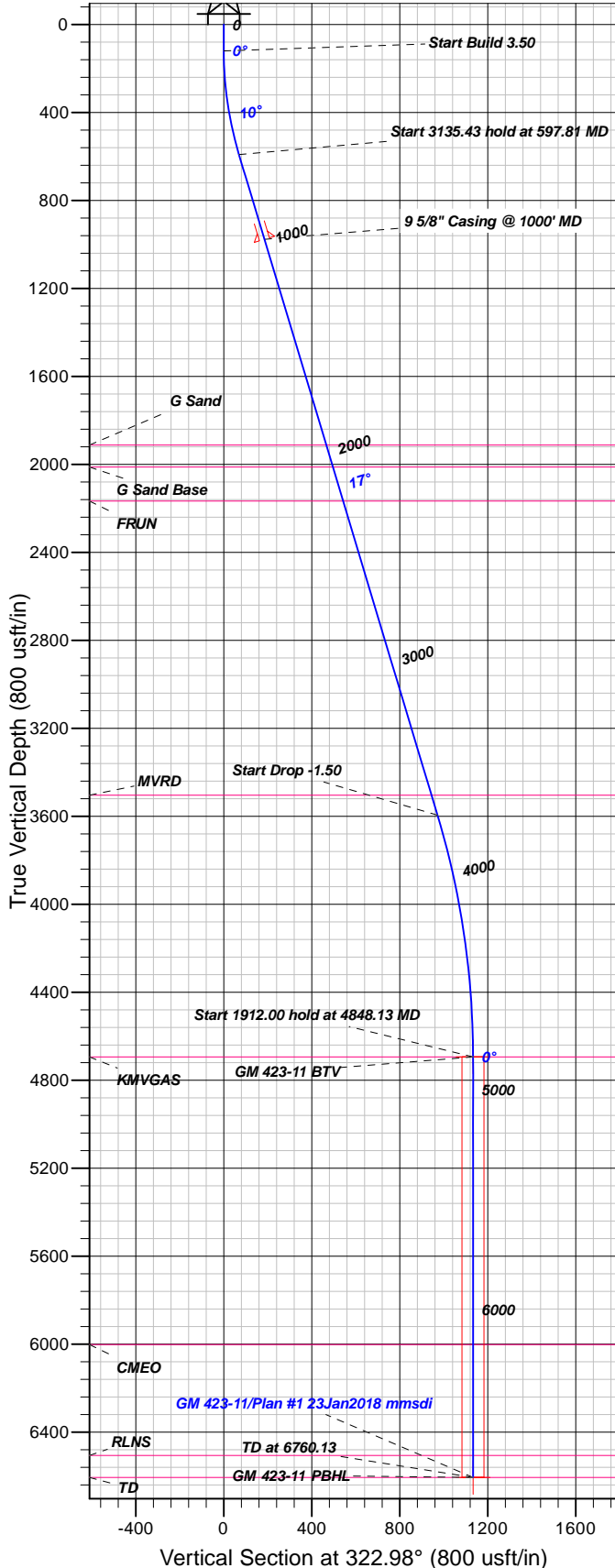




Azimuths to True North
 Magnetic North: 9.47°
 Magnetic Field
 Strength: 51724.2snT
 Dip Angle: 65.70°
 Date: 1/23/2018
 Model: HDGM

Well Details: GM 423-11

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1599246.51	2271906.78	39.4503300	-108.0787300	GM 423-11



FORMATION TOP DETAILS

TVDP	MD	Formation
1912.00	1977.09	G Sand
2012.00	2081.51	G Sand Base
2166.00	2242.31	FRUN
3504.00	3639.40	MVRD
4693.00	4848.13	KMVGAS
6001.00	6156.13	CMEO
6505.00	6660.13	RLNS
6605.00	6760.13	TD

Plan: Plan #1 23Jan2018 mmsdi

10:23, January 30 2018
 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
976.23	1000.00	5/8" Casing @ 1000' 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	120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	
3	597.81	16.72	322.98	591.05	55.28	-41.69	3.50	322.98	69.24	
4	3733.24	16.72	322.98	3593.87	775.61	-584.95	0.00	0.00	971.46	
5	4848.13	0.00	0.00	4693.00	904.59	-682.23	1.50	180.00	133.01	GM 423-11 BTV
6	6760.13	0.00	0.00	6605.00	904.59	-682.23	0.00	0.00	133.01	GM 423-11 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GM 423-11 BTV	4693.00	904.59	-682.23	1600170.10	2271250.50	39.4528135	-108.0811460	Circle (Radius: 50.00)
- plan hits target center								
GM 423-11 PBHL	6605.00	904.59	-682.23	1600170.10	2271250.50	39.4528135	-108.0811460	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

GR 23-11V Pad

GM 423-11 - Slot GM 423-11

OH

Plan: Plan #1 23Jan2018 mmsdi

Standard Planning Report

30 January, 2018



Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 423-11 - Slot GM 423-11
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 423-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 23Jan2018 mmsdi		

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		GR 23-11V Pad			
Site Position:		Northing:	1,599,230.76 usft	Latitude:	39.4502880
From:	Map	Easting:	2,271,922.71 usft	Longitude:	-108.0786721
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.63 °

Well	GM 423-11 - Slot GM 423-11					
Well Position	+N/-S	15.29 usft	Northing:	1,599,246.51 usft	Latitude:	39.4503300
	+E/-W	-16.37 usft	Easting:	2,271,906.78 usft	Longitude:	-108.0787300
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,793.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/23/2018	9.47	65.70	51,724

Design	Plan #1 23Jan2018 mmsdi			
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	322.98

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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
597.81	16.72	322.98	591.05	55.28	-41.69	3.50	3.50	0.00	322.98	
3,733.24	16.72	322.98	3,593.87	775.61	-584.95	0.00	0.00	0.00	0.00	
4,848.13	0.00	0.00	4,693.00	904.59	-682.23	1.50	-1.50	0.00	180.00	GM 423-11 BTV
6,760.13	0.00	0.00	6,605.00	904.59	-682.23	0.00	0.00	0.00	0.00	GM 423-11 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 423-11 - Slot GM 423-11
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 423-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 23Jan2018 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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 3.50									
200.00	2.80	322.98	199.97	1.56	-1.18	1.95	3.50	3.50	0.00
300.00	6.30	322.98	299.64	7.89	-5.95	9.89	3.50	3.50	0.00
400.00	9.80	322.98	398.64	19.07	-14.38	23.89	3.50	3.50	0.00
500.00	13.30	322.98	496.60	35.05	-26.44	43.91	3.50	3.50	0.00
597.81	16.72	322.98	591.05	55.28	-41.69	69.24	3.50	3.50	0.00
Start 3135.43 hold at 597.81 MD									
600.00	16.72	322.98	593.15	55.78	-42.07	69.87	0.00	0.00	0.00
700.00	16.72	322.98	688.92	78.76	-59.40	98.64	0.00	0.00	0.00
800.00	16.72	322.98	784.69	101.73	-76.72	127.42	0.00	0.00	0.00
900.00	16.72	322.98	880.46	124.70	-94.05	156.19	0.00	0.00	0.00
1,000.00	16.72	322.98	976.23	147.68	-111.38	184.97	0.00	0.00	0.00
9 5/8" Casing @ 1000' MD									
1,100.00	16.72	322.98	1,072.00	170.65	-128.70	213.74	0.00	0.00	0.00
1,200.00	16.72	322.98	1,167.78	193.62	-146.03	242.52	0.00	0.00	0.00
1,300.00	16.72	322.98	1,263.55	216.60	-163.36	271.29	0.00	0.00	0.00
1,400.00	16.72	322.98	1,359.32	239.57	-180.68	300.07	0.00	0.00	0.00
1,500.00	16.72	322.98	1,455.09	262.55	-198.01	328.84	0.00	0.00	0.00
1,600.00	16.72	322.98	1,550.86	285.52	-215.34	357.62	0.00	0.00	0.00
1,700.00	16.72	322.98	1,646.63	308.49	-232.66	386.39	0.00	0.00	0.00
1,800.00	16.72	322.98	1,742.40	331.47	-249.99	415.17	0.00	0.00	0.00
1,900.00	16.72	322.98	1,838.17	354.44	-267.31	443.94	0.00	0.00	0.00
1,977.09	16.72	322.98	1,912.00	372.15	-280.67	466.13	0.00	0.00	0.00
G Sand									
2,000.00	16.72	322.98	1,933.94	377.42	-284.64	472.72	0.00	0.00	0.00
2,081.51	16.72	322.98	2,012.00	396.14	-298.76	496.17	0.00	0.00	0.00
G Sand Base									
2,100.00	16.72	322.98	2,029.71	400.39	-301.97	501.49	0.00	0.00	0.00
2,200.00	16.72	322.98	2,125.48	423.36	-319.29	530.27	0.00	0.00	0.00
2,242.31	16.72	322.98	2,166.00	433.08	-326.62	542.44	0.00	0.00	0.00
FRUN									
2,300.00	16.72	322.98	2,221.25	446.34	-336.62	559.04	0.00	0.00	0.00
2,400.00	16.72	322.98	2,317.02	469.31	-353.95	587.82	0.00	0.00	0.00
2,500.00	16.72	322.98	2,412.79	492.29	-371.27	616.59	0.00	0.00	0.00
2,600.00	16.72	322.98	2,508.56	515.26	-388.60	645.37	0.00	0.00	0.00
2,700.00	16.72	322.98	2,604.33	538.23	-405.93	674.14	0.00	0.00	0.00
2,800.00	16.72	322.98	2,700.10	561.21	-423.25	702.92	0.00	0.00	0.00
2,900.00	16.72	322.98	2,795.87	584.18	-440.58	731.69	0.00	0.00	0.00
3,000.00	16.72	322.98	2,891.64	607.15	-457.91	760.47	0.00	0.00	0.00
3,100.00	16.72	322.98	2,987.42	630.13	-475.23	789.25	0.00	0.00	0.00
3,200.00	16.72	322.98	3,083.19	653.10	-492.56	818.02	0.00	0.00	0.00
3,300.00	16.72	322.98	3,178.96	676.08	-509.89	846.80	0.00	0.00	0.00
3,400.00	16.72	322.98	3,274.73	699.05	-527.21	875.57	0.00	0.00	0.00
3,500.00	16.72	322.98	3,370.50	722.02	-544.54	904.35	0.00	0.00	0.00
3,600.00	16.72	322.98	3,466.27	745.00	-561.87	933.12	0.00	0.00	0.00
3,639.40	16.72	322.98	3,504.00	754.05	-568.69	944.46	0.00	0.00	0.00
MVRD									
3,700.00	16.72	322.98	3,562.04	767.97	-579.19	961.90	0.00	0.00	0.00
3,733.24	16.72	322.98	3,593.87	775.61	-584.95	971.46	0.00	0.00	0.00
Start Drop -1.50									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 423-11 - Slot GM 423-11
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 423-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 23Jan2018 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)
3,800.00	15.72	322.98	3,657.97	790.50	-596.18	990.11	1.50	-1.50	0.00
3,900.00	14.22	322.98	3,754.58	811.12	-611.74	1,015.95	1.50	-1.50	0.00
4,000.00	12.72	322.98	3,851.82	829.72	-625.76	1,039.24	1.50	-1.50	0.00
4,100.00	11.22	322.98	3,949.64	846.28	-638.25	1,059.98	1.50	-1.50	0.00
4,200.00	9.72	322.98	4,047.98	860.80	-649.20	1,078.16	1.50	-1.50	0.00
4,300.00	8.22	322.98	4,146.75	873.25	-658.59	1,093.75	1.50	-1.50	0.00
4,400.00	6.72	322.98	4,245.90	883.63	-666.42	1,106.76	1.50	-1.50	0.00
4,500.00	5.22	322.98	4,345.35	891.93	-672.68	1,117.16	1.50	-1.50	0.00
4,600.00	3.72	322.98	4,445.04	898.16	-677.38	1,124.96	1.50	-1.50	0.00
4,700.00	2.22	322.98	4,544.91	902.30	-680.50	1,130.14	1.50	-1.50	0.00
4,800.00	0.72	322.98	4,644.87	904.35	-682.05	1,132.71	1.50	-1.50	0.00
4,848.13	0.00	0.00	4,693.00	904.59	-682.23	1,133.01	1.50	-1.50	76.92
Start 1912.00 hold at 4848.13 MD - KMGAS - GM 423-11 BTV									
4,900.00	0.00	0.00	4,744.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,000.00	0.00	0.00	4,844.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,100.00	0.00	0.00	4,944.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,200.00	0.00	0.00	5,044.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,300.00	0.00	0.00	5,144.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,400.00	0.00	0.00	5,244.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,500.00	0.00	0.00	5,344.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,600.00	0.00	0.00	5,444.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,700.00	0.00	0.00	5,544.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,800.00	0.00	0.00	5,644.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
5,900.00	0.00	0.00	5,744.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
6,000.00	0.00	0.00	5,844.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
6,100.00	0.00	0.00	5,944.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
6,156.13	0.00	0.00	6,001.00	904.59	-682.23	1,133.01	0.00	0.00	0.00
CME0									
6,200.00	0.00	0.00	6,044.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
6,300.00	0.00	0.00	6,144.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
6,400.00	0.00	0.00	6,244.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
6,500.00	0.00	0.00	6,344.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
6,600.00	0.00	0.00	6,444.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
6,660.13	0.00	0.00	6,505.00	904.59	-682.23	1,133.01	0.00	0.00	0.00
RLNS									
6,700.00	0.00	0.00	6,544.87	904.59	-682.23	1,133.01	0.00	0.00	0.00
6,760.13	0.00	0.00	6,605.00	904.59	-682.23	1,133.01	0.00	0.00	0.00
TD at 6760.13 - TD - GM 423-11 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									
GM 423-11 BTV	0.00	0.00	4,693.00	904.59	-682.23	1,600,170.10	2,271,250.50	39.4528135	-108.0811461
- plan hits target center									
- Circle (radius 50.00)									
GM 423-11 PBHL	0.00	0.00	6,605.00	904.59	-682.23	1,600,170.10	2,271,250.50	39.4528135	-108.0811461
- plan hits target center									
- Point									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 423-11 - Slot GM 423-11
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 423-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 23Jan2018 mmsdi		

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.00	976.23	9 5/8" Casing @ 1000' MD	9.62	13.50

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,977.09	1,912.00	G Sand		0.00	0.00
2,081.51	2,012.00	G Sand Base		0.00	0.00
2,242.31	2,166.00	FRUN		0.00	0.00
3,639.40	3,504.00	MVRD		0.00	0.00
4,848.13	4,693.00	KMVGAS		0.00	0.00
6,156.13	6,001.00	CMEO		0.00	0.00
6,660.13	6,505.00	RLNS		0.00	0.00
6,760.13	6,605.00	TD		0.00	0.00

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.00	120.00	0.00	0.00	Start Build 3.50
597.81	591.05	55.28	-41.69	Start 3135.43 hold at 597.81 MD
3,733.24	3,593.87	775.61	-584.95	Start Drop -1.50
4,848.13	4,693.00	904.59	-682.23	Start 1912.00 hold at 4848.13 MD
6,760.13	6,605.00	904.59	-682.23	TD at 6760.13