



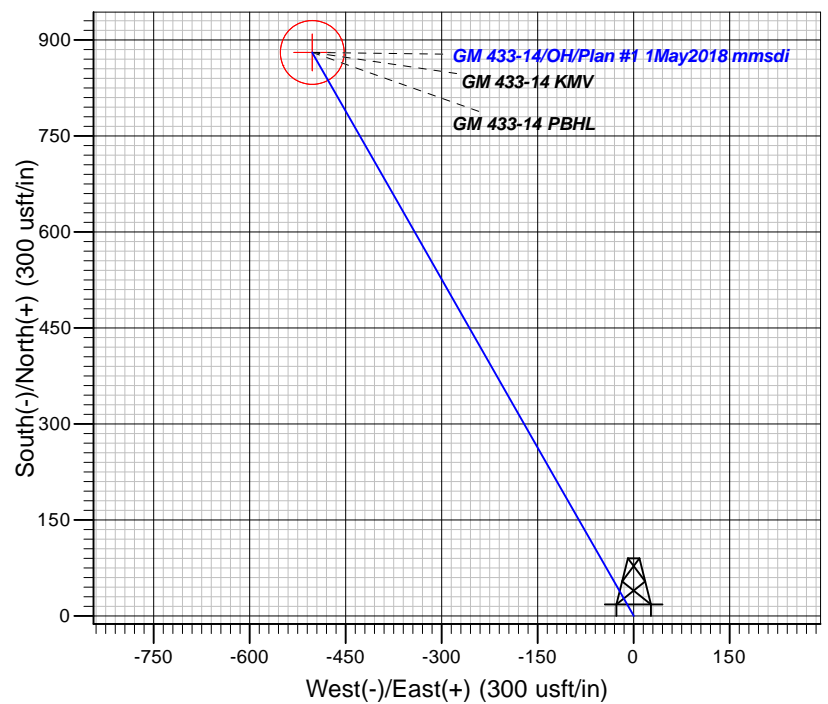
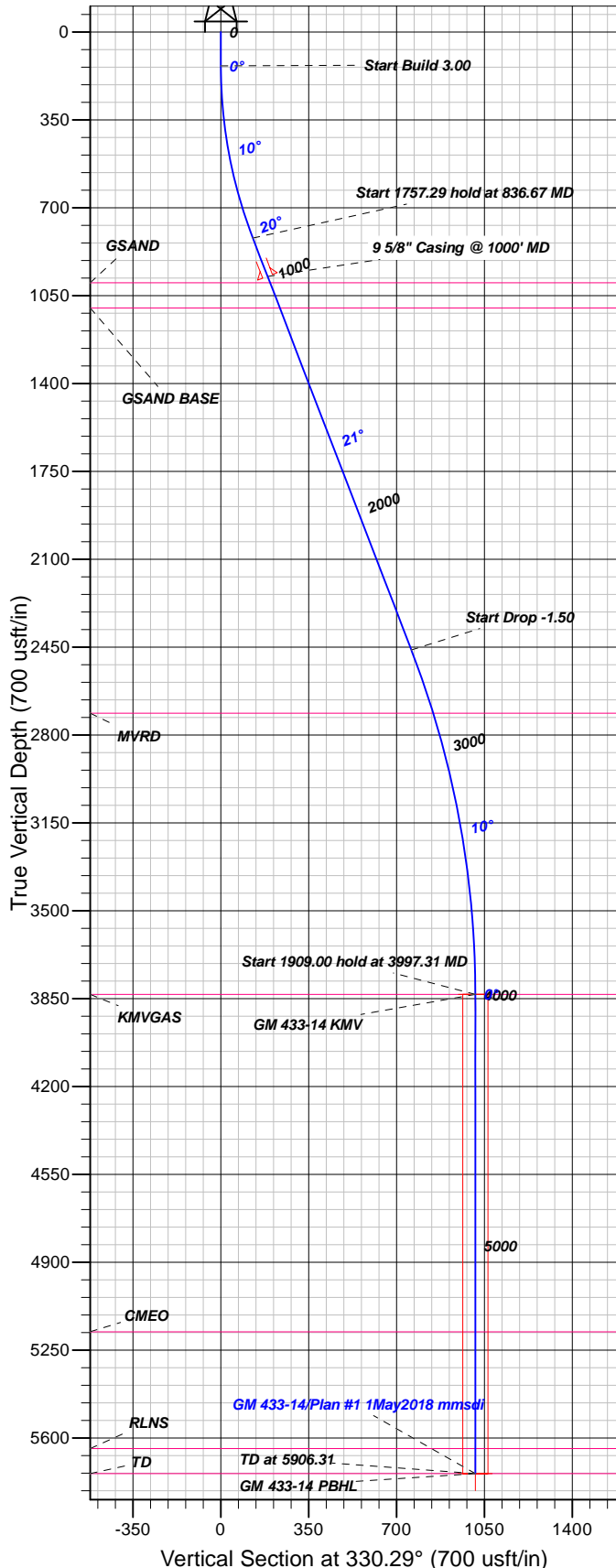
Azimuths to True North
 Magnetic North: 9.42°

Magnetic Field
 Strength: 51710.5snT
 Dip Angle: 65.65°
 Date: 5/3/2018
 Model: HDGM

Well Details: GM 433-14

GL 5172' & RKB 24' @ 5196.00usft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1592879.70	2272806.10	39.4329270	-108.0749076	GM 433-14 (A8)



FORMATION TOP DETAILS

TVDP	MD	Formation
999.00	1027.41	GSAND
1099.00	1134.56	GSAND BASE
2713.00	2860.60	MYRD
3833.00	3997.31	KMVGAS
5177.00	5341.31	CMEO
5642.00	5806.31	RLNS
5742.00	5906.31	TD

Plan: Plan #1 1May2018 mmsdi

14:22, May 07 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
973.42	1000.00	5/8" Casing @ 1000' 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	135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	
3	836.67	21.05	330.29	820.99	110.70	-63.16	3.00	330.29	127.45	
4	2593.96	21.05	330.29	2461.01	658.94	-375.96	0.00	0.00	758.65	
5	3997.31	0.00	0.00	3833.00	880.34	-502.28	1.50	180.00	1013.55	GM 433-14 KMV
6	5906.31	0.00	0.00	5742.00	880.34	-502.28	0.00	0.00	1013.55	GM 433-14 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GM 433-14 KMV	3833.00	880.34	-502.28	1593773.92	2272328.97	39.4353440	-108.0766859	Circle (Radius: 50.00)
- plan hits target center								
GM 433-14 PBHL	5742.00	880.34	-502.28	1593773.92	2272328.97	39.4353440	-108.0766859	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

GM 34-14 Pad

GM 433-14 - Slot GM 433-14 (A8)

OH

Plan: Plan #1 1May2018 mmsdi

Standard Planning Report

07 May, 2018



Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 433-14 - Slot GM 433-14 (A8)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5172' & RKB 24' @ 5196.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5172' & RKB 24' @ 5196.00usft
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 433-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 1May2018 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		GM 34-14 Pad			
Site Position:		Northing:	1,592,890.50 usft	Latitude:	39.4329552
From:	Map	Easting:	2,272,786.40 usft	Longitude:	-108.0749784
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.62 °

Well	GM 433-14 - Slot GM 433-14 (A8)					
Well Position	+N/-S	-10.24 usft	Northing:	1,592,879.70 usft	Latitude:	39.4329271
	+E/-W	20.00 usft	Easting:	2,272,806.10 usft	Longitude:	-108.0749076
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,172.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/3/2018	9.42	65.65	51,711

Design	Plan #1 1May2018 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	330.29

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	
836.67	21.05	330.29	820.99	110.70	-63.16	3.00	3.00	0.00	330.29	
2,593.96	21.05	330.29	2,461.01	658.94	-375.96	0.00	0.00	0.00	0.00	
3,997.31	0.00	0.00	3,833.00	880.34	-502.28	1.50	-1.50	0.00	180.00	GM 433-14 KMV
5,906.31	0.00	0.00	5,742.00	880.34	-502.28	0.00	0.00	0.00	0.00	GM 433-14 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 433-14 - Slot GM 433-14 (A8)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5172' & RKB 24' @ 5196.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5172' & RKB 24' @ 5196.00usft
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 433-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 1May2018 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
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	1.95	330.29	199.99	0.96	-0.55	1.11	3.00	3.00	0.00
300.00	4.95	330.29	299.79	6.19	-3.53	7.12	3.00	3.00	0.00
400.00	7.95	330.29	399.15	15.94	-9.10	18.36	3.00	3.00	0.00
500.00	10.95	330.29	497.78	30.20	-17.23	34.77	3.00	3.00	0.00
600.00	13.95	330.29	595.42	48.93	-27.91	56.33	3.00	3.00	0.00
700.00	16.95	330.29	691.79	72.06	-41.11	82.97	3.00	3.00	0.00
800.00	19.95	330.29	786.64	99.55	-56.80	114.61	3.00	3.00	0.00
836.67	21.05	330.29	820.99	110.70	-63.16	127.45	3.00	3.00	0.00
900.00	21.05	330.29	880.09	130.46	-74.43	150.20	0.00	0.00	0.00
1,000.00	21.05	330.29	973.42	161.66	-92.23	186.12	0.00	0.00	0.00
9 5/8" Casing @ 1000' MD									
1,027.41	21.05	330.29	999.00	170.21	-97.11	195.96	0.00	0.00	0.00
GSAND									
1,100.00	21.05	330.29	1,066.75	192.85	-110.03	222.04	0.00	0.00	0.00
1,134.56	21.05	330.29	1,099.00	203.63	-116.18	234.45	0.00	0.00	0.00
GSAND BASE									
1,200.00	21.05	330.29	1,160.07	224.05	-127.83	257.95	0.00	0.00	0.00
1,300.00	21.05	330.29	1,253.40	255.25	-145.63	293.87	0.00	0.00	0.00
1,400.00	21.05	330.29	1,346.73	286.45	-163.43	329.79	0.00	0.00	0.00
1,500.00	21.05	330.29	1,440.05	317.64	-181.23	365.71	0.00	0.00	0.00
1,600.00	21.05	330.29	1,533.38	348.84	-199.03	401.63	0.00	0.00	0.00
1,700.00	21.05	330.29	1,626.71	380.04	-216.83	437.55	0.00	0.00	0.00
1,800.00	21.05	330.29	1,720.03	411.24	-234.63	473.47	0.00	0.00	0.00
1,900.00	21.05	330.29	1,813.36	442.44	-252.43	509.38	0.00	0.00	0.00
2,000.00	21.05	330.29	1,906.69	473.63	-270.23	545.30	0.00	0.00	0.00
2,100.00	21.05	330.29	2,000.01	504.83	-288.03	581.22	0.00	0.00	0.00
2,200.00	21.05	330.29	2,093.34	536.03	-305.83	617.14	0.00	0.00	0.00
2,300.00	21.05	330.29	2,186.67	567.23	-323.63	653.06	0.00	0.00	0.00
2,400.00	21.05	330.29	2,279.99	598.42	-341.43	688.98	0.00	0.00	0.00
2,500.00	21.05	330.29	2,373.32	629.62	-359.23	724.90	0.00	0.00	0.00
2,593.96	21.05	330.29	2,461.01	658.94	-375.96	758.65	0.00	0.00	0.00
2,600.00	20.96	330.29	2,466.65	660.82	-377.03	760.81	1.50	-1.50	0.00
2,700.00	19.46	330.29	2,560.49	690.82	-394.15	795.35	1.50	-1.50	0.00
2,800.00	17.96	330.29	2,655.20	718.68	-410.05	827.43	1.50	-1.50	0.00
2,860.60	17.05	330.29	2,713.00	734.51	-419.08	845.66	1.50	-1.50	0.00
MVRD									
2,900.00	16.46	330.29	2,750.72	744.38	-424.71	857.02	1.50	-1.50	0.00
3,000.00	14.96	330.29	2,846.99	767.90	-438.13	884.09	1.50	-1.50	0.00
3,100.00	13.46	330.29	2,943.92	789.22	-450.29	908.64	1.50	-1.50	0.00
3,200.00	11.96	330.29	3,041.47	808.32	-461.19	930.64	1.50	-1.50	0.00
3,300.00	10.46	330.29	3,139.56	825.21	-470.83	950.08	1.50	-1.50	0.00
3,400.00	8.96	330.29	3,238.12	839.86	-479.18	966.94	1.50	-1.50	0.00
3,500.00	7.46	330.29	3,337.10	852.26	-486.26	981.22	1.50	-1.50	0.00
3,600.00	5.96	330.29	3,436.41	862.41	-492.05	992.91	1.50	-1.50	0.00
3,700.00	4.46	330.29	3,535.99	870.29	-496.55	1,001.98	1.50	-1.50	0.00
3,800.00	2.96	330.29	3,635.78	875.91	-499.76	1,008.45	1.50	-1.50	0.00
3,900.00	1.46	330.29	3,735.70	879.26	-501.67	1,012.31	1.50	-1.50	0.00
3,997.31	0.00	0.00	3,833.00	880.34	-502.28	1,013.55	1.50	-1.50	30.53
KMVGAS - GM 433-14 KMW									
4,000.00	0.00	0.00	3,835.69	880.34	-502.28	1,013.55	0.00	0.00	0.00
4,100.00	0.00	0.00	3,935.69	880.34	-502.28	1,013.55	0.00	0.00	0.00

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Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5172' & RKB 24' @ 5196.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5172' & RKB 24' @ 5196.00usft
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 433-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 1May2018 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	0.00	0.00	4,035.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
4,300.00	0.00	0.00	4,135.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,235.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,335.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,435.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,535.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,635.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,735.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,000.00	0.00	0.00	4,835.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,100.00	0.00	0.00	4,935.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,035.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,135.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,341.31	0.00	0.00	5,177.00	880.34	-502.28	1,013.55	0.00	0.00	0.00	
CMEO										
5,400.00	0.00	0.00	5,235.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,335.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,435.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,535.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,635.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,806.31	0.00	0.00	5,642.00	880.34	-502.28	1,013.55	0.00	0.00	0.00	
RLNS										
5,900.00	0.00	0.00	5,735.69	880.34	-502.28	1,013.55	0.00	0.00	0.00	
5,906.31	0.00	0.00	5,742.00	880.34	-502.28	1,013.55	0.00	0.00	0.00	
TD - GM 433-14 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 433-14 KMV	0.00	0.00	3,833.00	880.34	-502.28	1,593,773.92	2,272,328.97	39.4353440	-108.0766859
- plan hits target center									
- Circle (radius 50.00)									
GM 433-14 PBHL	0.00	0.00	5,742.00	880.34	-502.28	1,593,773.92	2,272,328.97	39.4353440	-108.0766859
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	973.42	9 5/8" Casing @ 1000' MD	9.62	13.50	



Scientific Drilling, Intl

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 433-14 - Slot GM 433-14 (A8)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5172' & RKB 24' @ 5196.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5172' & RKB 24' @ 5196.00usft
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 433-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 1May2018 mmsdi		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,027.41	999.00	GSAND		0.00	0.00	
1,134.56	1,099.00	GSAND BASE		0.00	0.00	
2,860.60	2,713.00	MVRD		0.00	0.00	
3,997.31	3,833.00	KMVGAS		0.00	0.00	
5,341.31	5,177.00	CMEO		0.00	0.00	
5,806.31	5,642.00	RLNS		0.00	0.00	
5,906.31	5,742.00	TD		0.00	0.00	