



Company: TEP Rocky Mountain LLC
Project: Garfield County, CO NAD83
Site: GR 12-29 Pad
Well: GM 441-30

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

Plan: Plan #3 2June2020 sbsdi

Well Details: GM 441-30

+N/-S +E/-W Northing Easting Longitude
0.00 0.00 1617154.8103 2255404.9227 39.4981754 -108.1389851 GM 441-30 (A3)

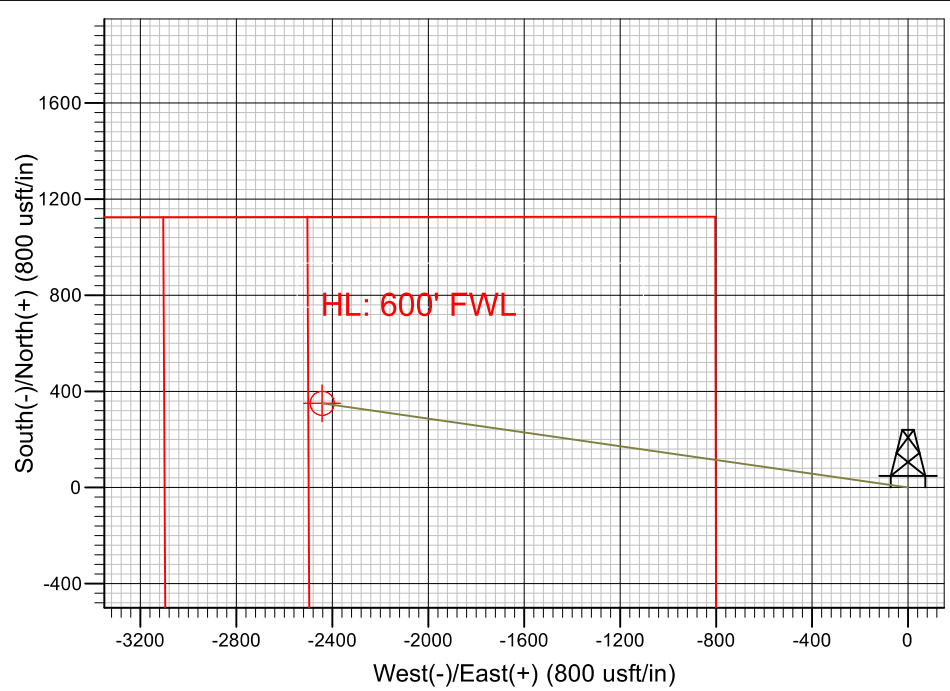
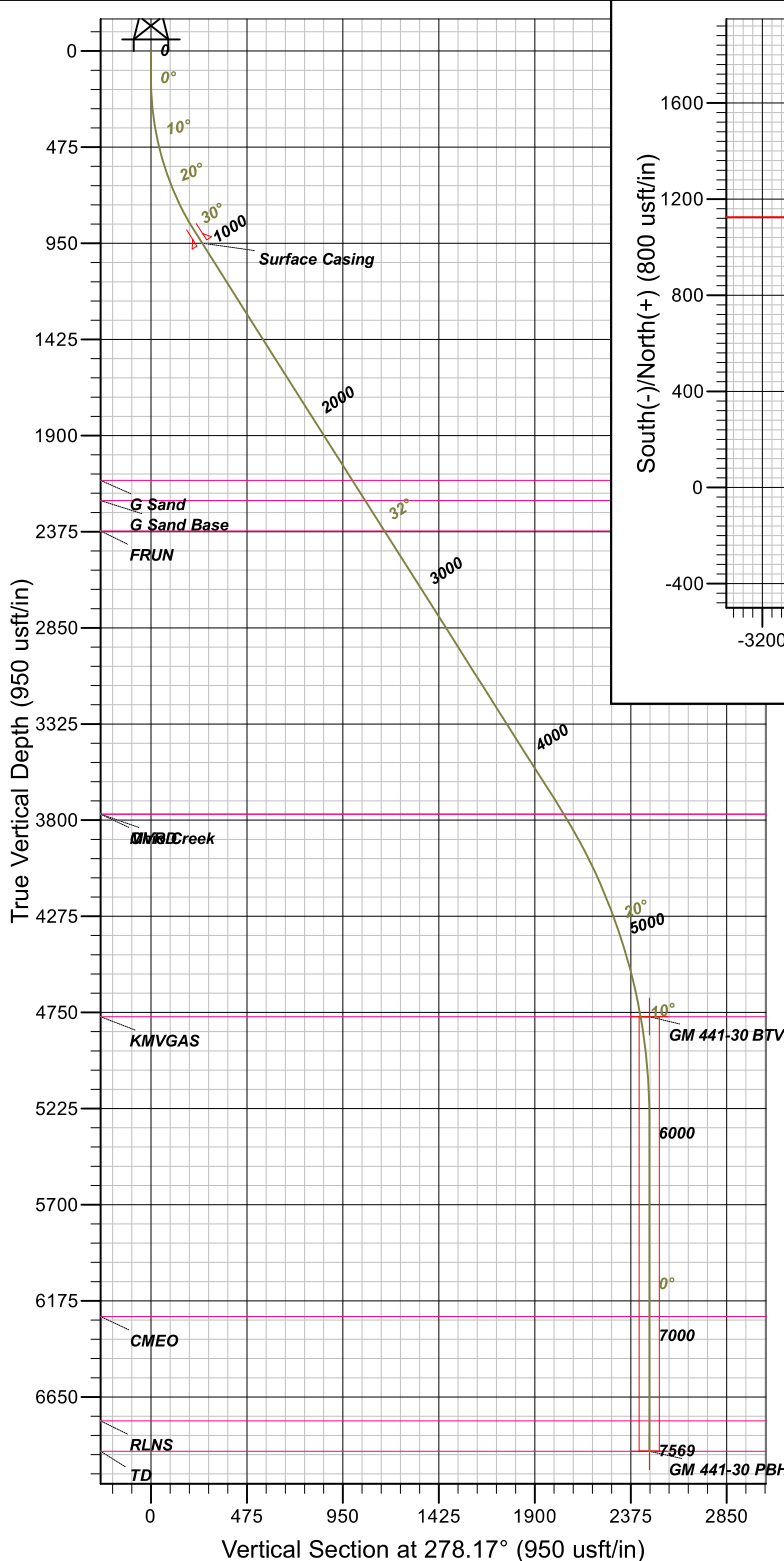


Azimuths to True North
Magnetic North: 9.37°

Magnetic Field
Strength: 51432.2nT
Dip Angle: 65.72°
Date: 6/2/2020
Model: HDGM_FILE

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GM 441-30 BTV	4771.00	350.59	-2442.24	1617576.1900	2252973.9000	39.4991376	-108.1476397	Circle (Radius: 50.00)
plan misses target center by 42.87usft at 5425.76usft MD (4777.84 TVD, 344.58 N, -2400.35 E)								
GM 441-30 PBHL	6918.00	350.59	-2442.24	1617576.1900	2252973.9000	39.4991376	-108.1476397	Point



FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
2121.00	2388.55	G Sand
2221.00	2507.02	G Sand Base
2371.00	2684.73	FRUN
3771.00	4343.09	MVRD
3771.00	4343.09	Ohio Creek
4771.00	5418.82	KMVGAS
6253.00	6903.35	CMEO
6768.00	7418.35	RLNS
6918.00	7568.35	TD

CASING DETAILS

TVD	MD	NAME
948.94	1000.00	Surface Casing

SECTION DETAILS

MD	INC	AZI	TVD	+N/-S	+E/-W	DLEG	TFACE	VSECT
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
945.64	32.43	278.17	903.05	31.73	-221.06	4.00	278.17	223.33
4297.54	32.43	278.17	3732.36	287.13	-2000.12	0.00	0.00	2020.63
5418.82	10.00	278.17	4771.00	344.41	-2399.16	2.00	180.00	2423.75
5918.82	0.00	0.00	5268.47	350.59	-2442.24	2.00	180.00	2467.28
7568.35	0.00	0.00	6918.00	350.59	-2442.24	0.00	0.00	2467.28



TEP Rocky Mountain LLC

Garfield County, CO NAD83

GR 12-29 Pad

GM 441-30 - Slot GM 441-30 (A3)

OH

Plan: Plan #3 2June2020 sbsdi

Standard Planning Report

03 June, 2020



Database:	Grand Junction	Local Co-ordinate Reference:	Well GM 441-30 - Slot GM 441-30 (A3)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Site:	GR 12-29 Pad	North Reference:	True
Well:	GM 441-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 2June2020 sbsdi		

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 12-29 Pad			
Site Position:		Northing:	1,617,169.5100 usft	Latitude: 39.4982149
From: Map		Easting:	2,255,394.4800 usft	Longitude: -108.1390236
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: -1.66 °

Well	GM 441-30 - Slot GM 441-30 (A3), 1536' FNL 802' FWL Sec 29 T6S R96W			
Well Position	+N/-S	-14.39 usft	Northing:	1,617,154.8103 usft
	+E/-W	10.87 usft	Easting:	2,255,404.9227 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	5,849.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	6/2/2020	9.37	65.72	51,432.20000000

Design	Plan #3 2June2020 sbsdi			
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	278.17

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	
945.64	32.43	278.17	903.05	31.73	-221.06	4.00	4.00	0.00	278.17	
4,297.54	32.43	278.17	3,732.36	287.13	-2,000.12	0.00	0.00	0.00	0.00	
5,418.82	10.00	278.17	4,771.00	344.41	-2,399.16	2.00	-2.00	0.00	180.00	
5,918.82	0.00	0.00	5,268.47	350.59	-2,442.24	2.00	-2.00	16.37	180.00	
7,568.35	0.00	0.00	6,918.00	350.59	-2,442.24	0.00	0.00	0.00	0.00	GM 441-30 PBHL

Database:	Grand Junction	Local Co-ordinate Reference:	Well GM 441-30 - Slot GM 441-30 (A3)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Site:	GR 12-29 Pad	North Reference:	True
Well:	GM 441-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 2June2020 sbsdi		

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
Start Build 4.00									
200.00	2.60	278.17	199.98	0.21	-1.46	1.47	4.00	4.00	0.00
300.00	6.60	278.17	299.64	1.35	-9.40	9.49	4.00	4.00	0.00
400.00	10.60	278.17	398.49	3.47	-24.20	24.44	4.00	4.00	0.00
500.00	14.60	278.17	496.06	6.57	-45.78	46.25	4.00	4.00	0.00
600.00	18.60	278.17	591.88	10.63	-74.06	74.82	4.00	4.00	0.00
700.00	22.60	278.17	685.46	15.63	-108.88	109.99	4.00	4.00	0.00
800.00	26.60	278.17	776.37	21.54	-150.07	151.61	4.00	4.00	0.00
900.00	30.60	278.17	864.15	28.34	-197.45	199.47	4.00	4.00	0.00
945.64	32.43	278.17	903.05	31.73	-221.06	223.33	4.00	4.00	0.00
Start 3351.90 hold at 945.64 MD									
1,000.00	32.43	278.17	948.94	35.88	-249.91	252.47	0.00	0.00	0.00
Surface Casing									
1,100.00	32.43	278.17	1,033.35	43.50	-302.99	306.10	0.00	0.00	0.00
1,200.00	32.43	278.17	1,117.76	51.11	-356.07	359.72	0.00	0.00	0.00
1,300.00	32.43	278.17	1,202.17	58.73	-409.14	413.34	0.00	0.00	0.00
1,400.00	32.43	278.17	1,286.58	66.35	-462.22	466.96	0.00	0.00	0.00
1,500.00	32.43	278.17	1,370.98	73.97	-515.29	520.58	0.00	0.00	0.00
1,600.00	32.43	278.17	1,455.39	81.59	-568.37	574.20	0.00	0.00	0.00
1,700.00	32.43	278.17	1,539.80	89.21	-621.45	627.82	0.00	0.00	0.00
1,800.00	32.43	278.17	1,624.21	96.83	-674.52	681.44	0.00	0.00	0.00
1,900.00	32.43	278.17	1,708.62	104.45	-727.60	735.06	0.00	0.00	0.00
2,000.00	32.43	278.17	1,793.03	112.07	-780.67	788.68	0.00	0.00	0.00
2,100.00	32.43	278.17	1,877.44	119.69	-833.75	842.30	0.00	0.00	0.00
2,200.00	32.43	278.17	1,961.85	127.31	-886.83	895.92	0.00	0.00	0.00
2,300.00	32.43	278.17	2,046.26	134.93	-939.90	949.54	0.00	0.00	0.00
2,388.55	32.43	278.17	2,121.00	141.67	-986.90	997.02	0.00	0.00	0.00
G Sand									
2,400.00	32.43	278.17	2,130.67	142.55	-992.98	1,003.16	0.00	0.00	0.00
2,500.00	32.43	278.17	2,215.07	150.17	-1,046.06	1,056.78	0.00	0.00	0.00
2,507.02	32.43	278.17	2,221.00	150.70	-1,049.78	1,060.54	0.00	0.00	0.00
G Sand Base									
2,600.00	32.43	278.17	2,299.48	157.79	-1,099.13	1,110.40	0.00	0.00	0.00
2,684.73	32.43	278.17	2,371.00	164.24	-1,144.10	1,155.83	0.00	0.00	0.00
FRUN									
2,700.00	32.43	278.17	2,383.89	165.40	-1,152.21	1,164.02	0.00	0.00	0.00
2,800.00	32.43	278.17	2,468.30	173.02	-1,205.28	1,217.64	0.00	0.00	0.00
2,900.00	32.43	278.17	2,552.71	180.64	-1,258.36	1,271.26	0.00	0.00	0.00
3,000.00	32.43	278.17	2,637.12	188.26	-1,311.44	1,324.88	0.00	0.00	0.00
3,100.00	32.43	278.17	2,721.53	195.88	-1,364.51	1,378.50	0.00	0.00	0.00
3,200.00	32.43	278.17	2,805.94	203.50	-1,417.59	1,432.12	0.00	0.00	0.00
3,300.00	32.43	278.17	2,890.35	211.12	-1,470.67	1,485.74	0.00	0.00	0.00
3,400.00	32.43	278.17	2,974.75	218.74	-1,523.74	1,539.36	0.00	0.00	0.00
3,500.00	32.43	278.17	3,059.16	226.36	-1,576.82	1,592.98	0.00	0.00	0.00
3,600.00	32.43	278.17	3,143.57	233.98	-1,629.89	1,646.60	0.00	0.00	0.00
3,700.00	32.43	278.17	3,227.98	241.60	-1,682.97	1,700.22	0.00	0.00	0.00
3,800.00	32.43	278.17	3,312.39	249.22	-1,736.05	1,753.84	0.00	0.00	0.00
3,900.00	32.43	278.17	3,396.80	256.84	-1,789.12	1,807.46	0.00	0.00	0.00

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Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Site:	GR 12-29 Pad	North Reference:	True
Well:	GM 441-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 2June2020 sbsdi		

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)
4,000.00	32.43	278.17	3,481.21	264.46	-1,842.20	1,861.08	0.00	0.00	0.00
4,100.00	32.43	278.17	3,565.62	272.08	-1,895.28	1,914.70	0.00	0.00	0.00
4,200.00	32.43	278.17	3,650.03	279.69	-1,948.35	1,968.32	0.00	0.00	0.00
4,297.54	32.43	278.17	3,732.36	287.13	-2,000.12	2,020.63	0.00	0.00	0.00
Start Drop -2.00									
4,300.00	32.38	278.17	3,734.43	287.31	-2,001.43	2,021.94	2.00	-2.00	0.00
4,343.09	31.51	278.17	3,771.00	290.55	-2,024.00	2,044.74	2.00	-2.00	0.00
Ohio Creek - MVRD									
4,400.00	30.38	278.17	3,819.81	294.71	-2,052.96	2,074.01	2.00	-2.00	0.00
4,500.00	28.38	278.17	3,906.94	301.68	-2,101.52	2,123.06	2.00	-2.00	0.00
4,600.00	26.38	278.17	3,995.74	308.22	-2,147.03	2,169.04	2.00	-2.00	0.00
4,700.00	24.38	278.17	4,086.09	314.31	-2,189.45	2,211.89	2.00	-2.00	0.00
4,800.00	22.38	278.17	4,177.87	319.94	-2,228.72	2,251.57	2.00	-2.00	0.00
4,900.00	20.38	278.17	4,270.99	325.12	-2,264.80	2,288.02	2.00	-2.00	0.00
5,000.00	18.38	278.17	4,365.32	329.84	-2,297.64	2,321.19	2.00	-2.00	0.00
5,100.00	16.38	278.17	4,460.75	334.08	-2,327.20	2,351.05	2.00	-2.00	0.00
5,200.00	14.38	278.17	4,557.17	337.85	-2,353.44	2,377.57	2.00	-2.00	0.00
5,300.00	12.38	278.17	4,654.45	341.13	-2,376.34	2,400.70	2.00	-2.00	0.00
5,400.00	10.38	278.17	4,752.48	343.94	-2,395.87	2,420.43	2.00	-2.00	0.00
5,418.82	10.00	278.17	4,771.00	344.41	-2,399.16	2,423.75	2.00	-2.00	0.00
Start DLS 2.00 TFO 180.00 - KMGAS									
5,500.00	8.38	278.17	4,851.14	346.25	-2,411.99	2,436.72	2.00	-2.00	0.00
5,600.00	6.38	278.17	4,950.31	348.08	-2,424.70	2,449.56	2.00	-2.00	0.00
5,700.00	4.38	278.17	5,049.86	349.41	-2,433.97	2,458.92	2.00	-2.00	0.00
5,800.00	2.38	278.17	5,149.68	350.24	-2,439.80	2,464.81	2.00	-2.00	0.00
5,900.00	0.38	278.17	5,249.65	350.59	-2,442.18	2,467.22	2.00	-2.00	0.00
5,918.82	0.00	0.00	5,268.47	350.59	-2,442.24	2,467.28	2.00	-2.00	434.90
Start 1649.53 hold at 5918.82 MD									
6,000.00	0.00	0.00	5,349.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,100.00	0.00	0.00	5,449.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,200.00	0.00	0.00	5,549.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,300.00	0.00	0.00	5,649.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,400.00	0.00	0.00	5,749.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,500.00	0.00	0.00	5,849.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,600.00	0.00	0.00	5,949.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,700.00	0.00	0.00	6,049.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,800.00	0.00	0.00	6,149.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,900.00	0.00	0.00	6,249.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
6,903.35	0.00	0.00	6,253.00	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
CMEQ									
7,000.00	0.00	0.00	6,349.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
7,100.00	0.00	0.00	6,449.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
7,200.00	0.00	0.00	6,549.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
7,300.00	0.00	0.00	6,649.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
7,400.00	0.00	0.00	6,749.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
7,418.35	0.00	0.00	6,768.00	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
RLNS									
7,500.00	0.00	0.00	6,849.65	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
7,568.35	0.00	0.00	6,918.00	350.59	-2,442.24	2,467.28	0.00	0.00	0.00
TD at 7568.35 - TD									

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Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Site:	GR 12-29 Pad	North Reference:	True
Well:	GM 441-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 2June2020 sbsdi		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
GM 441-30 BTV	0.00	0.00	4,771.00	350.59	-2,442.24	1,617,576.1900	2,252,973.9000	39.4991377	-108.1476397
- plan misses target center by 42.87usft at 5425.76usft MD (4777.84 TVD, 344.58 N, -2400.35 E)									
- Circle (radius 50.00)									
GM 441-30 PBHL	0.00	0.00	6,918.00	350.59	-2,442.24	1,617,576.1900	2,252,973.9000	39.4991377	-108.1476397
- plan misses target center by 0.01usft at 7568.35usft MD (6918.00 TVD, 350.59 N, -2442.24 E)									
- Point									

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.00	948.94	Surface Casing	9.62	13.50

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,388.55	2,121.00	G Sand		0.00	0.00
2,507.02	2,221.00	G Sand Base		0.00	0.00
2,684.73	2,371.00	FRUN		0.00	0.00
4,343.09	3,771.00	Ohio Creek		0.00	0.00
4,343.09	3,771.00	MVRD		0.00	0.00
5,418.82	4,771.00	KMVGAS		0.00	0.00
6,903.35	6,253.00	CMEO		0.00	0.00
7,418.35	6,768.00	RLNS		0.00	0.00
7,568.35	6,918.00	TD		0.00	0.00

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
135.00	135.00	0.00	0.00	Start Build 4.00
945.64	903.05	31.73	-221.06	Start 3351.90 hold at 945.64 MD
4,297.54	3,732.36	287.13	-2,000.12	Start Drop -2.00
5,418.82	4,771.00	344.41	-2,399.16	Start DLS 2.00 TFO 180.00
5,918.82	5,268.47	350.59	-2,442.24	Start 1649.53 hold at 5918.82 MD
7,568.35	6,918.00	350.59	-2,442.24	TD at 7568.35