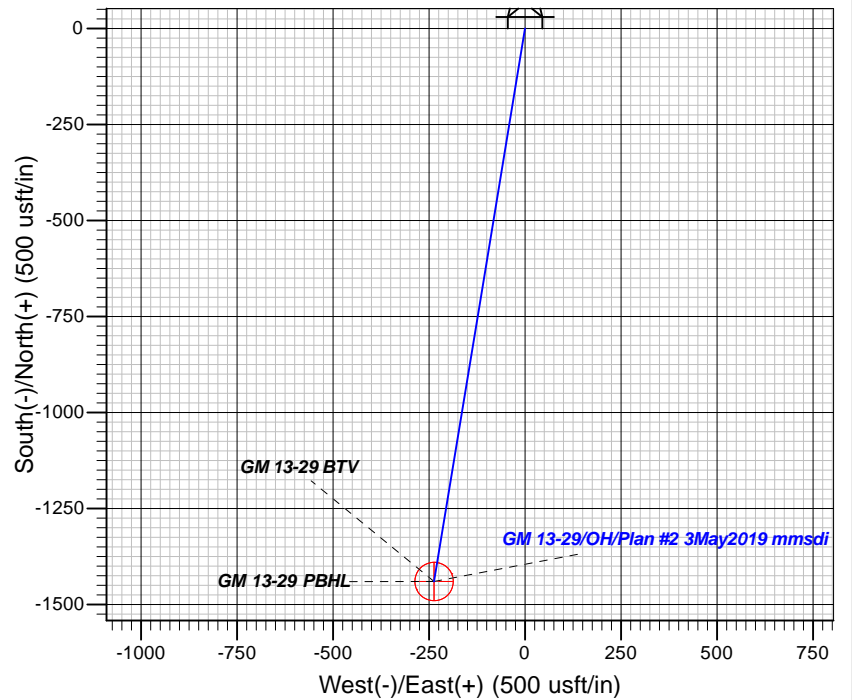
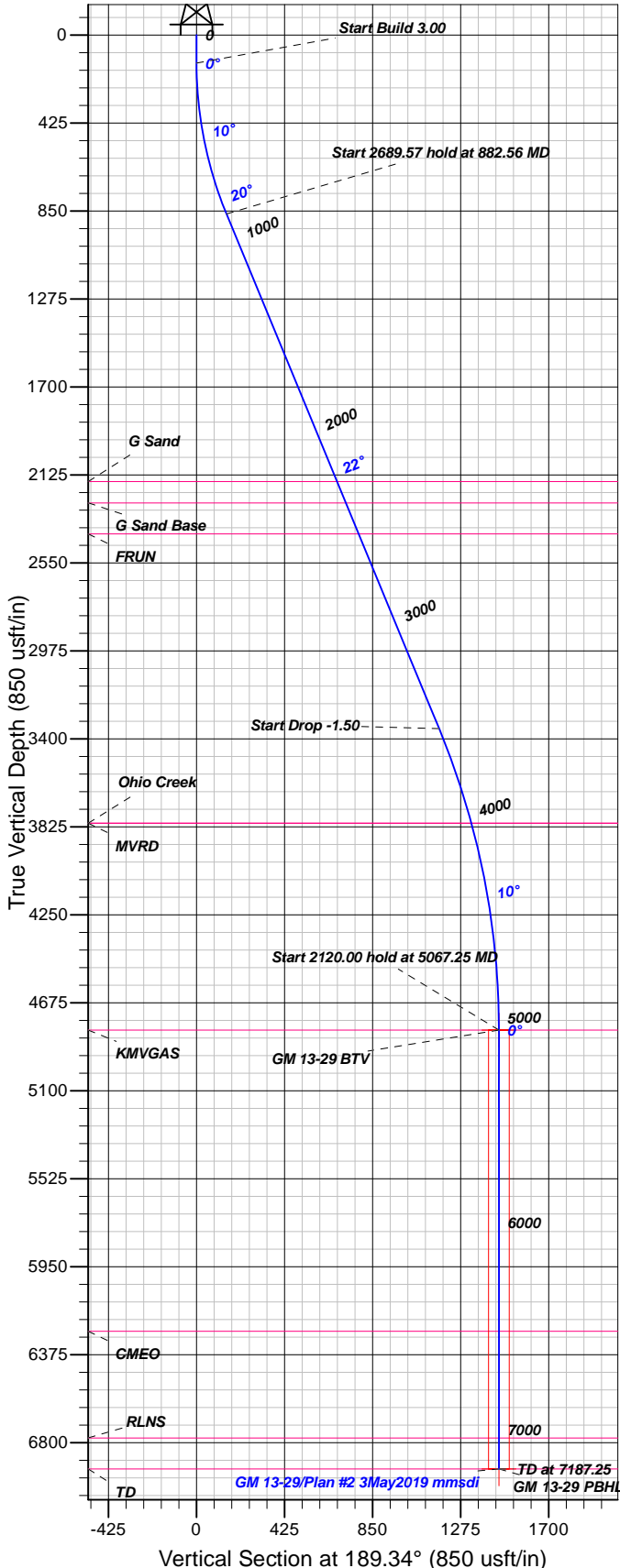


Well Details: GM 13-29

GL 5849' & RKB 24' @ 5873.00usft (H&P 318)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1617136.10	2255453.90	39.4981280	-108.1388096	GM 13-29 (A10)



FORMATION TOP DETAILS

TVDP	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
2157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2260.00	2281.77	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	
2410.00	2393.20	0.00	0.00	863.62	-142.53	-23.44	3.00	189.34	144.45	
3807.00	2555.47	0.00	0.00	3349.77	-1155.02	-189.91	0.00	0.00	1170.53	
3807.00	4055.46	0.00	0.00	4807.00	-1440.08	-236.78	1.50	180.00	1459.42	GM 13-29 BTM
4807.00	5067.25	0.00	0.00	6927.00	-1440.08	-236.78	0.00	0.00	1459.42	GM 13-29 PBHL
6261.00	6521.25	0.00	0.00							
6777.00	7037.25	0.00	0.00							
6927.00	7187.25	0.00	0.00							

Plan: Plan #2 3May2019 mmsdi

18:04, May 03 2019
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

No casing data is available

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	882.56	22.43	189.34	863.62	-142.53	-23.44	3.00	189.34	144.45	
4	3572.13	22.43	189.34	3349.77	-1155.02	-189.91	0.00	0.00	1170.53	
5	5067.25	0.00	0.00	4807.00	-1440.08	-236.78	1.50	180.00	1459.42	GM 13-29 BTM
6	7187.25	0.00	0.00	6927.00	-1440.08	-236.78	0.00	0.00	1459.42	GM 13-29 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GM 13-29 BTM	4807.00	-1440.08	-236.78	1615703.50	2255175.40	39.4941743	-108.1396487	Circle (Radius: 50.00)
- plan hits target center								
GM 13-29 PBHL	6927.00	-1440.08	-236.78	1615703.50	2255175.40	39.4941743	-108.1396487	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

GR 12-29 Pad

GM 13-29 - Slot GM 13-29 (A10)

OH

Plan: Plan #2 3May2019 mmsdi

Standard Planning Report

03 May, 2019



Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 13-29 - Slot GM 13-29 (A10)
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 13-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May2019 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 12-29 Pad			
Site Position:		Northing:	1,617,169.51 usft	Latitude:	39.4982149
From:	Map	Easting:	2,255,394.48 usft	Longitude:	-108.1390236
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.66 °

Well	GM 13-29 - Slot GM 13-29 (A10)					
Well Position	+N/-S	-31.67 usft	Northing:	1,617,136.10 usft	Latitude:	39.4981280
	+E/-W	60.37 usft	Easting:	2,255,453.90 usft	Longitude:	-108.1388097
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	3/20/2019	9.50	65.75	51,558

Design	Plan #2 3May2019 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	189.34

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	
882.56	22.43	189.34	863.62	-142.53	-23.44	3.00	3.00	0.00	189.34	
3,572.13	22.43	189.34	3,349.77	-1,155.02	-189.91	0.00	0.00	0.00	0.00	
5,067.25	0.00	0.00	4,807.00	-1,440.08	-236.78	1.50	-1.50	0.00	180.00	GM 13-29 BTV
7,187.25	0.00	0.00	6,927.00	-1,440.08	-236.78	0.00	0.00	0.00	0.00	GM 13-29 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 13-29 - Slot GM 13-29 (A10)
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 13-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May2019 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	
Start Build 3.00										
200.00	1.95	189.34	199.99	-1.09	-0.18	1.11	3.00	3.00	0.00	
300.00	4.95	189.34	299.79	-7.03	-1.16	7.12	3.00	3.00	0.00	
400.00	7.95	189.34	399.15	-18.11	-2.98	18.36	3.00	3.00	0.00	
500.00	10.95	189.34	497.78	-34.31	-5.64	34.77	3.00	3.00	0.00	
600.00	13.95	189.34	595.42	-55.58	-9.14	56.33	3.00	3.00	0.00	
700.00	16.95	189.34	691.79	-81.87	-13.46	82.97	3.00	3.00	0.00	
800.00	19.95	189.34	786.64	-113.09	-18.59	114.61	3.00	3.00	0.00	
882.56	22.43	189.34	863.62	-142.53	-23.44	144.45	3.00	3.00	0.00	
Start 2689.57 hold at 882.56 MD										
900.00	22.43	189.34	879.74	-149.10	-24.51	151.10	0.00	0.00	0.00	
1,000.00	22.43	189.34	972.17	-186.74	-30.70	189.25	0.00	0.00	0.00	
1,100.00	22.43	189.34	1,064.61	-224.39	-36.89	227.40	0.00	0.00	0.00	
1,200.00	22.43	189.34	1,157.05	-262.03	-43.08	265.55	0.00	0.00	0.00	
1,300.00	22.43	189.34	1,249.48	-299.68	-49.27	303.70	0.00	0.00	0.00	
1,400.00	22.43	189.34	1,341.92	-337.32	-55.46	341.85	0.00	0.00	0.00	
1,500.00	22.43	189.34	1,434.36	-374.97	-61.65	380.00	0.00	0.00	0.00	
1,600.00	22.43	189.34	1,526.80	-412.61	-67.84	418.15	0.00	0.00	0.00	
1,700.00	22.43	189.34	1,619.23	-450.26	-74.03	456.30	0.00	0.00	0.00	
1,800.00	22.43	189.34	1,711.67	-487.90	-80.22	494.45	0.00	0.00	0.00	
1,900.00	22.43	189.34	1,804.11	-525.55	-86.41	532.60	0.00	0.00	0.00	
2,000.00	22.43	189.34	1,896.54	-563.19	-92.60	570.75	0.00	0.00	0.00	
2,100.00	22.43	189.34	1,988.98	-600.84	-98.79	608.90	0.00	0.00	0.00	
2,200.00	22.43	189.34	2,081.42	-638.48	-104.98	647.05	0.00	0.00	0.00	
2,281.77	22.43	189.34	2,157.00	-669.26	-110.04	678.25	0.00	0.00	0.00	
G Sand										
2,300.00	22.43	189.34	2,173.85	-676.13	-111.17	685.20	0.00	0.00	0.00	
2,393.20	22.43	189.34	2,260.00	-711.21	-116.94	720.76	0.00	0.00	0.00	
G Sand Base										
2,400.00	22.43	189.34	2,266.29	-713.77	-117.36	723.35	0.00	0.00	0.00	
2,500.00	22.43	189.34	2,358.73	-751.42	-123.55	761.51	0.00	0.00	0.00	
2,555.47	22.43	189.34	2,410.00	-772.30	-126.98	782.67	0.00	0.00	0.00	
FRUN										
2,600.00	22.43	189.34	2,451.16	-789.06	-129.74	799.66	0.00	0.00	0.00	
2,700.00	22.43	189.34	2,543.60	-826.71	-135.93	837.81	0.00	0.00	0.00	
2,800.00	22.43	189.34	2,636.04	-864.35	-142.11	875.96	0.00	0.00	0.00	
2,900.00	22.43	189.34	2,728.47	-902.00	-148.30	914.11	0.00	0.00	0.00	
3,000.00	22.43	189.34	2,820.91	-939.64	-154.49	952.26	0.00	0.00	0.00	
3,100.00	22.43	189.34	2,913.35	-977.29	-160.68	990.41	0.00	0.00	0.00	
3,200.00	22.43	189.34	3,005.78	-1,014.93	-166.87	1,028.56	0.00	0.00	0.00	
3,300.00	22.43	189.34	3,098.22	-1,052.58	-173.06	1,066.71	0.00	0.00	0.00	
3,400.00	22.43	189.34	3,190.66	-1,090.22	-179.25	1,104.86	0.00	0.00	0.00	
3,500.00	22.43	189.34	3,283.09	-1,127.86	-185.44	1,143.01	0.00	0.00	0.00	
3,572.13	22.43	189.34	3,349.77	-1,155.02	-189.91	1,170.53	0.00	0.00	0.00	
Start Drop -1.50										
3,600.00	22.01	189.34	3,375.57	-1,165.42	-191.62	1,181.06	1.50	-1.50	0.00	
3,700.00	20.51	189.34	3,468.76	-1,201.19	-197.50	1,217.32	1.50	-1.50	0.00	
3,800.00	19.01	189.34	3,562.87	-1,234.55	-202.98	1,251.13	1.50	-1.50	0.00	

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 13-29 - Slot GM 13-29 (A10)
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 13-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May2019 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)
3,900.00	17.51	189.34	3,657.83	-1,265.47	-208.07	1,282.46	1.50	-1.50	0.00
4,000.00	16.01	189.34	3,753.58	-1,293.92	-212.74	1,311.29	1.50	-1.50	0.00
4,055.46	15.18	189.34	3,807.00	-1,308.63	-215.16	1,326.20	1.50	-1.50	0.00
Ohio Creek - MVRD									
4,100.00	14.51	189.34	3,850.06	-1,319.89	-217.01	1,337.61	1.50	-1.50	0.00
4,200.00	13.01	189.34	3,947.18	-1,343.35	-220.87	1,361.39	1.50	-1.50	0.00
4,300.00	11.51	189.34	4,044.90	-1,364.30	-224.32	1,382.62	1.50	-1.50	0.00
4,400.00	10.01	189.34	4,143.14	-1,382.72	-227.34	1,401.29	1.50	-1.50	0.00
4,500.00	8.51	189.34	4,241.83	-1,398.60	-229.95	1,417.38	1.50	-1.50	0.00
4,600.00	7.01	189.34	4,340.92	-1,411.92	-232.14	1,430.88	1.50	-1.50	0.00
4,700.00	5.51	189.34	4,440.32	-1,422.68	-233.91	1,441.78	1.50	-1.50	0.00
4,800.00	4.01	189.34	4,539.97	-1,430.86	-235.26	1,450.07	1.50	-1.50	0.00
4,900.00	2.51	189.34	4,639.81	-1,436.47	-236.18	1,455.76	1.50	-1.50	0.00
5,000.00	1.01	189.34	4,739.76	-1,439.50	-236.68	1,458.83	1.50	-1.50	0.00
5,067.25	0.00	0.00	4,807.00	-1,440.08	-236.78	1,459.42	1.50	-1.50	0.00
Start 2120.00 hold at 5067.25 MD - KMGAS - GM 13-29 BTV									
5,100.00	0.00	0.00	4,839.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
5,200.00	0.00	0.00	4,939.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
5,300.00	0.00	0.00	5,039.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
5,400.00	0.00	0.00	5,139.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
5,500.00	0.00	0.00	5,239.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
5,600.00	0.00	0.00	5,339.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
5,700.00	0.00	0.00	5,439.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
5,800.00	0.00	0.00	5,539.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
5,900.00	0.00	0.00	5,639.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,000.00	0.00	0.00	5,739.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,100.00	0.00	0.00	5,839.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,200.00	0.00	0.00	5,939.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,300.00	0.00	0.00	6,039.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,400.00	0.00	0.00	6,139.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,500.00	0.00	0.00	6,239.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,521.25	0.00	0.00	6,261.00	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
CMEO									
6,600.00	0.00	0.00	6,339.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,700.00	0.00	0.00	6,439.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,800.00	0.00	0.00	6,539.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
6,900.00	0.00	0.00	6,639.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
7,000.00	0.00	0.00	6,739.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
7,037.25	0.00	0.00	6,777.00	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
RLNS									
7,100.00	0.00	0.00	6,839.75	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
7,187.25	0.00	0.00	6,927.00	-1,440.08	-236.78	1,459.42	0.00	0.00	0.00
TD at 7187.25 - TD - GM 13-29 PBHL									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 13-29 - Slot GM 13-29 (A10)
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 13-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May2019 mmsdi		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
GM 13-29 BTV - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,807.00	-1,440.08	-236.78	1,615,703.50	2,255,175.40	39.4941743	-108.1396487
GM 13-29 PBHL - plan hits target center - Point	0.00	0.00	6,927.00	-1,440.08	-236.78	1,615,703.50	2,255,175.40	39.4941743	-108.1396487

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,281.77	2,157.00	G Sand		0.00	0.00	
2,393.20	2,260.00	G Sand Base		0.00	0.00	
2,555.47	2,410.00	FRUN		0.00	0.00	
4,055.46	3,807.00	Ohio Creek		0.00	0.00	
4,055.46	3,807.00	MVRD		0.00	0.00	
5,067.25	4,807.00	KMVGAS		0.00	0.00	
6,521.25	6,261.00	CMEO		0.00	0.00	
7,037.25	6,777.00	RLNS		0.00	0.00	
7,187.25	6,927.00	TD		0.00	0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
135.00	135.00	0.00	0.00	Start Build 3.00	
882.56	863.62	-142.53	-23.44	Start 2689.57 hold at 882.56 MD	
3,572.13	3,349.77	-1,155.02	-189.91	Start Drop -1.50	
5,067.25	4,807.00	-1,440.08	-236.78	Start 2120.00 hold at 5067.25 MD	
7,187.25	6,927.00	-1,440.08	-236.78	TD at 7187.25	