



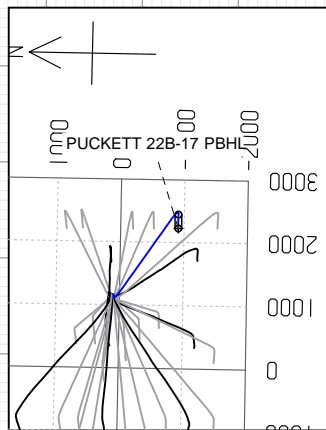
# SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	1108.7	27.26	115.18	1074.8	-90.2	192.0	3.00	115.18	212.1	
4	4858.6	27.26	115.18	4408.2	-821.0	1746.5	0.00	0.00	1929.8	
5	5767.3	0.00	0.00	5283.0	-911.2	1938.4	3.00	180.00	2141.9	PUCKETT 22B-17 PBHL
6	7431.3	0.00	0.00	6947.0	-911.2	1938.4	0.00	0.00	2141.9	

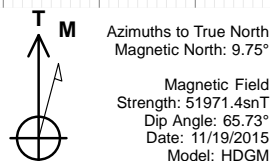
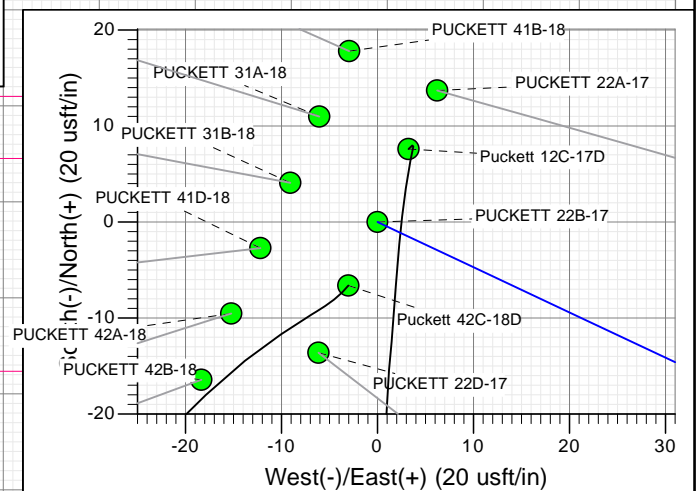
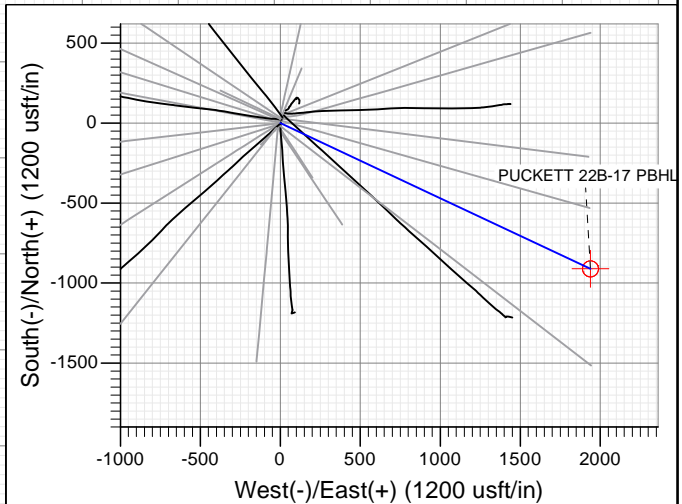
Project: Garfield County, CO (UTM 12  
Site: S17-T7S-R96W (RILEY 1)  
Well: PUCKETT 22B-17  
Wellbore: OH  
Design: PLAN #2

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3951.0	4344.3	OHIO_CREEK.MBL (SSTVD)
4274.0	4707.7	WILLIAMS_FORK.MBL (SSTVD)
5383.0	5867.3	TOP_GAS.MBL (SSTVD)
6357.0	6841.3	CAMEO.MBL (SSTVD)
6797.0	7281.3	ROLLINS.MBL (SSTVD)
6947.0	7431.3	TD.MBL (SSTVD)



Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	115.18	Slot	0.0	0.0	0.0
Name	PUCKETT 22B-17 PBHL	TVD	+N/-S	+E/-W	Latitude	Longitude
		6947.0	-911.2	1938.4	39.439400	-108.131119



## CASING DETAILS

No casing data is available

## Vertical Section at 115.18° (1000 usft/in)

## WELL DETAILS: PUCKETT 22B-17

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14335659.30	2448501.50	39.441901	-108.137980



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 22B-17
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	KB @ 6764.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	KB @ 6764.0usft
<b>Site:</b>	S17-T7S-R96W (RILEY 1)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 22B-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

<b>Project</b>	Garfield County, CO (UTM 12N)		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

Site		S17-T7S-R96W (RILEY 1)			
Site Position:		Northing:	14,335,697.50 usft	Latitude:	39.442005
From:	Map	Easting:	2,448,508.30 usft	Longitude:	-108.137952
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.82 °

Well	PUCKETT 22B-17					
Well Position	+N/-S	0.0 usft	Northing:	14,335,659.30 usft	Latitude:	39.441901
	+E/-W	0.0 usft	Easting:	2,448,501.50 usft	Longitude:	-108.137980
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	6,734.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	11/19/2015	9.75	65.73	51,971

<b>Design</b>	PLAN #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	115.18

<b>Plan Sections</b>										
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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,108.7	27.26	115.18	1,074.8	-90.2	192.0	3.00	3.00	0.00	115.18	
4,858.6	27.26	115.18	4,408.2	-821.0	1,746.5	0.00	0.00	0.00	0.00	
5,767.3	0.00	0.00	5,283.0	-911.2	1,938.4	3.00	-3.00	0.00	180.00	
7,431.3	0.00	0.00	6,947.0	-911.2	1,938.4	0.00	0.00	0.00	0.00	PUCKETT 22B-17 PE

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 22B-17
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	KB @ 6764.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	KB @ 6764.0usft
<b>Site:</b>	S17-T7S-R96W (RILEY 1)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 22B-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
300.0	3.00	115.18	300.0	-1.1	2.4	2.6	3.00	3.00	
400.0	6.00	115.18	399.6	-4.5	9.5	10.5	3.00	3.00	
500.0	9.00	115.18	498.8	-10.0	21.3	23.5	3.00	3.00	
600.0	12.00	115.18	597.1	-17.8	37.8	41.7	3.00	3.00	
700.0	15.00	115.18	694.3	-27.7	58.9	65.1	3.00	3.00	
800.0	18.00	115.18	790.2	-39.8	84.6	93.5	3.00	3.00	
900.0	21.00	115.18	884.4	-54.0	114.8	126.9	3.00	3.00	
1,000.0	24.00	115.18	976.8	-70.2	149.4	165.1	3.00	3.00	
1,100.0	27.00	115.18	1,067.1	-88.6	188.4	208.2	3.00	3.00	
1,108.7	27.26	115.18	1,074.8	-90.2	192.0	212.1	3.00	3.00	Start 3749.9 hold at 1108.7 MD
1,200.0	27.26	115.18	1,156.0	-108.0	229.8	253.9	0.00	0.00	
1,300.0	27.26	115.18	1,244.9	-127.5	271.3	299.8	0.00	0.00	
1,400.0	27.26	115.18	1,333.7	-147.0	312.7	345.6	0.00	0.00	
1,500.0	27.26	115.18	1,422.6	-166.5	354.2	391.4	0.00	0.00	
1,600.0	27.26	115.18	1,511.5	-186.0	395.6	437.2	0.00	0.00	
1,700.0	27.26	115.18	1,600.4	-205.5	437.1	483.0	0.00	0.00	
1,800.0	27.26	115.18	1,689.3	-224.9	478.5	528.8	0.00	0.00	
1,900.0	27.26	115.18	1,778.2	-244.4	520.0	574.6	0.00	0.00	
2,000.0	27.26	115.18	1,867.1	-263.9	561.5	620.4	0.00	0.00	
2,100.0	27.26	115.18	1,956.0	-283.4	602.9	666.2	0.00	0.00	
2,200.0	27.26	115.18	2,044.9	-302.9	644.4	712.0	0.00	0.00	
2,300.0	27.26	115.18	2,133.8	-322.4	685.8	757.8	0.00	0.00	
2,400.0	27.26	115.18	2,222.7	-341.9	727.3	803.6	0.00	0.00	
2,500.0	27.26	115.18	2,311.6	-361.4	768.7	849.4	0.00	0.00	
2,600.0	27.26	115.18	2,400.5	-380.8	810.2	895.2	0.00	0.00	
2,700.0	27.26	115.18	2,489.3	-400.3	851.6	941.0	0.00	0.00	
2,800.0	27.26	115.18	2,578.2	-419.8	893.1	986.8	0.00	0.00	
2,900.0	27.26	115.18	2,667.1	-439.3	934.5	1,032.6	0.00	0.00	
3,000.0	27.26	115.18	2,756.0	-458.8	976.0	1,078.4	0.00	0.00	
3,100.0	27.26	115.18	2,844.9	-478.3	1,017.5	1,124.3	0.00	0.00	
3,200.0	27.26	115.18	2,933.8	-497.8	1,058.9	1,170.1	0.00	0.00	
3,300.0	27.26	115.18	3,022.7	-517.2	1,100.4	1,215.9	0.00	0.00	
3,400.0	27.26	115.18	3,111.6	-536.7	1,141.8	1,261.7	0.00	0.00	
3,500.0	27.26	115.18	3,200.5	-556.2	1,183.3	1,307.5	0.00	0.00	
3,600.0	27.26	115.18	3,289.4	-575.7	1,224.7	1,353.3	0.00	0.00	
3,700.0	27.26	115.18	3,378.3	-595.2	1,266.2	1,399.1	0.00	0.00	
3,800.0	27.26	115.18	3,467.2	-614.7	1,307.6	1,444.9	0.00	0.00	
3,900.0	27.26	115.18	3,556.1	-634.2	1,349.1	1,490.7	0.00	0.00	
4,000.0	27.26	115.18	3,644.9	-653.6	1,390.5	1,536.5	0.00	0.00	
4,100.0	27.26	115.18	3,733.8	-673.1	1,432.0	1,582.3	0.00	0.00	
4,200.0	27.26	115.18	3,822.7	-692.6	1,473.4	1,628.1	0.00	0.00	
4,300.0	27.26	115.18	3,911.6	-712.1	1,514.9	1,673.9	0.00	0.00	
4,344.3	27.26	115.18	3,951.0	-720.7	1,533.3	1,694.2	0.00	0.00	OHIO_CREEK.MBL (SSTVD)
4,400.0	27.26	115.18	4,000.5	-731.6	1,556.4	1,719.7	0.00	0.00	
4,500.0	27.26	115.18	4,089.4	-751.1	1,597.8	1,765.5	0.00	0.00	
4,600.0	27.26	115.18	4,178.3	-770.6	1,639.3	1,811.3	0.00	0.00	
4,700.0	27.26	115.18	4,267.2	-790.0	1,680.7	1,857.1	0.00	0.00	
4,707.7	27.26	115.18	4,274.0	-791.5	1,683.9	1,860.6	0.00	0.00	WILLIAMS_FORK.MBL (SSTVD)
4,800.0	27.26	115.18	4,356.1	-809.5	1,722.2	1,902.9	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 22B-17
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	KB @ 6764.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	KB @ 6764.0usft
<b>Site:</b>	S17-T7S-R96W (RILEY 1)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 22B-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,858.6	27.26	115.18	4,408.2	-821.0	1,746.5	1,929.8	0.00	0.00	Start Drop -3.00
4,900.0	26.02	115.18	4,445.2	-828.8	1,763.3	1,948.4	3.00	-3.00	
5,000.0	23.02	115.18	4,536.2	-846.5	1,800.8	1,989.8	3.00	-3.00	
5,100.0	20.02	115.18	4,629.2	-862.1	1,834.0	2,026.5	3.00	-3.00	
5,200.0	17.02	115.18	4,724.0	-875.6	1,862.8	2,058.3	3.00	-3.00	
5,300.0	14.02	115.18	4,820.3	-887.0	1,887.0	2,085.0	3.00	-3.00	
5,400.0	11.02	115.18	4,917.9	-896.2	1,906.6	2,106.7	3.00	-3.00	
5,500.0	8.02	115.18	5,016.5	-903.3	1,921.5	2,123.3	3.00	-3.00	
5,600.0	5.02	115.18	5,115.9	-908.1	1,931.8	2,134.6	3.00	-3.00	
5,700.0	2.02	115.18	5,215.7	-910.7	1,937.4	2,140.7	3.00	-3.00	
5,767.3	0.00	0.00	5,283.0	-911.2	1,938.4	2,141.9	3.00	-3.00	Start 1664.0 hold at 5767.3 MD
5,800.0	0.00	0.00	5,315.7	-911.2	1,938.4	2,141.9	0.00	0.00	
5,867.3	0.00	0.00	5,383.0	-911.2	1,938.4	2,141.9	0.00	0.00	TOP_GAS.MBL (SSTVD)
5,900.0	0.00	0.00	5,415.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,000.0	0.00	0.00	5,515.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,100.0	0.00	0.00	5,615.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,200.0	0.00	0.00	5,715.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,300.0	0.00	0.00	5,815.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,400.0	0.00	0.00	5,915.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,500.0	0.00	0.00	6,015.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,600.0	0.00	0.00	6,115.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,700.0	0.00	0.00	6,215.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,800.0	0.00	0.00	6,315.7	-911.2	1,938.4	2,141.9	0.00	0.00	
6,841.3	0.00	0.00	6,357.0	-911.2	1,938.4	2,141.9	0.00	0.00	CAMEO.MBL (SSTVD)
6,900.0	0.00	0.00	6,415.7	-911.2	1,938.4	2,141.9	0.00	0.00	
7,000.0	0.00	0.00	6,515.7	-911.2	1,938.4	2,141.9	0.00	0.00	
7,100.0	0.00	0.00	6,615.7	-911.2	1,938.4	2,141.9	0.00	0.00	
7,200.0	0.00	0.00	6,715.7	-911.2	1,938.4	2,141.9	0.00	0.00	
7,281.3	0.00	0.00	6,797.0	-911.2	1,938.4	2,141.9	0.00	0.00	ROLLINS.MBL (SSTVD)
7,300.0	0.00	0.00	6,815.7	-911.2	1,938.4	2,141.9	0.00	0.00	
7,400.0	0.00	0.00	6,915.7	-911.2	1,938.4	2,141.9	0.00	0.00	
7,431.3	0.00	0.00	6,947.0	-911.2	1,938.4	2,141.9	0.00	0.00	TD at 7431.3 - TD.MBL (SSTVD)

### 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									
PUCKETT 22B-17 PBHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	6,947.0	-911.2	1,938.4	14,334,810.10	2,450,467.90	39.439400	-108.131119

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 22B-17
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	KB @ 6764.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	KB @ 6764.0usft
<b>Site:</b>	S17-T7S-R96W (RILEY 1)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 22B-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,344.3	3,951.0	OHIO_CREEK.MBL (SSTVD)		0.00		
4,707.7	4,274.0	WILLIAMS_FORK.MBL (SSTVD)		0.00		
5,867.3	5,383.0	TOP_GAS.MBL (SSTVD)		0.00		
6,841.3	6,357.0	CAMEO.MBL (SSTVD)		0.00		
7,281.3	6,797.0	ROLLINS.MBL (SSTVD)		0.00		
7,431.3	6,947.0	TD.MBL (SSTVD)		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.0	200.0	0.0	0.0	Start Build 3.00	
1,108.7	1,074.8	-90.2	192.0	Start 3749.9 hold at 1108.7 MD	
4,858.6	4,408.2	-821.0	1,746.5	Start Drop -3.00	
5,767.3	5,283.0	-911.2	1,938.4	Start 1664.0 hold at 5767.3 MD	
7,431.3	6,947.0	-911.2	1,938.4	TD at 7431.3	