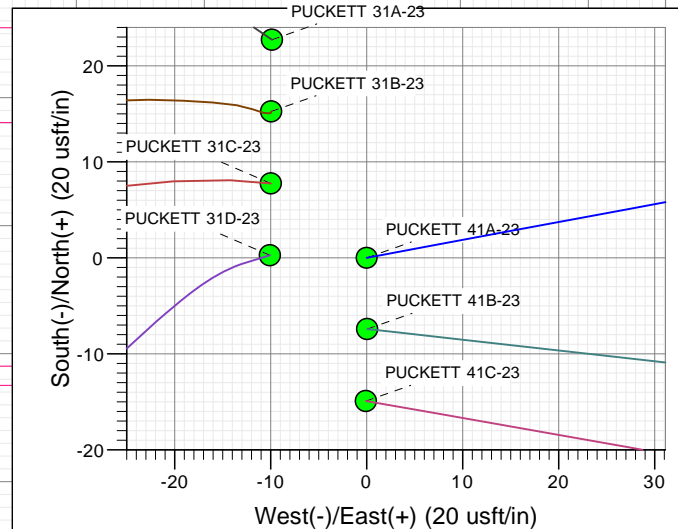
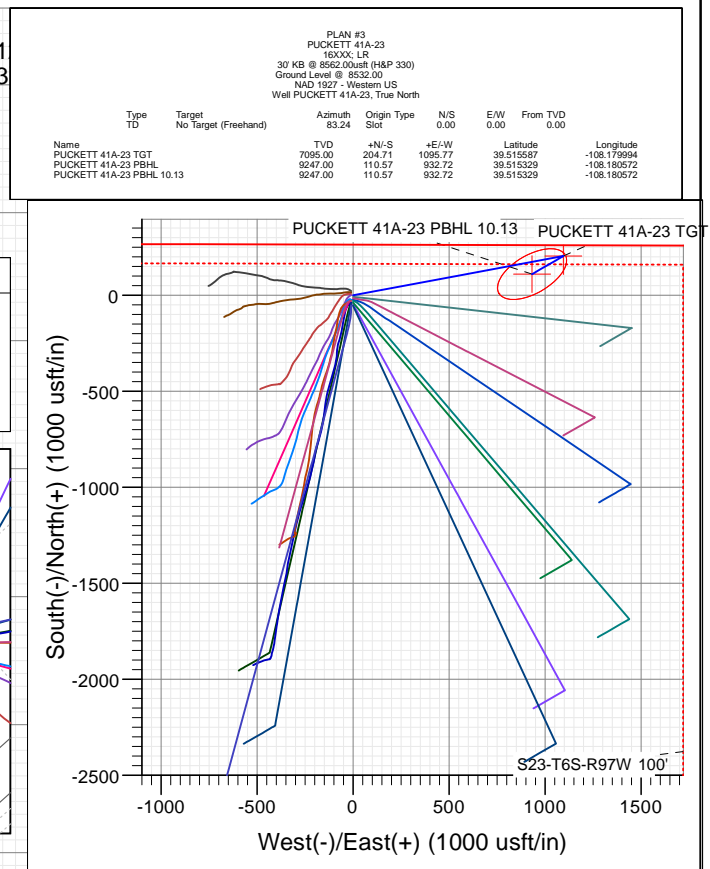
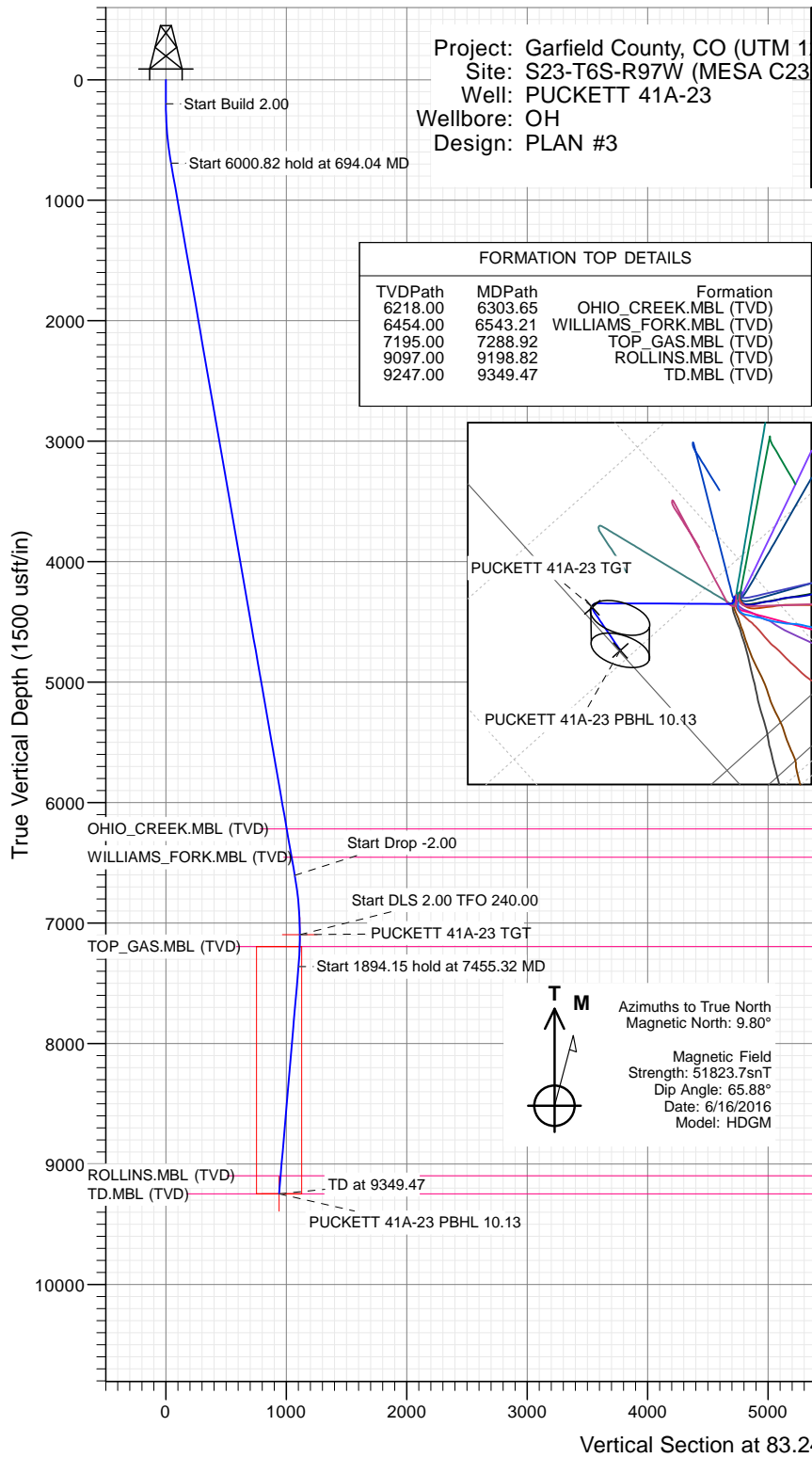




## SECTION DETAILS

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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	694.04	9.88	79.42	691.60	7.80	41.77	2.00	79.42	42.40	
4	6694.86	9.88	79.42	6603.40	196.91	1054.00	0.00	0.00	1069.85	
5	7188.90	0.00	0.00	7095.00	204.71	1095.77	2.00	180.00	1112.25	PUCKETT 41A-23 TGT
6	7455.32	5.33	240.00	7361.03	198.52	1085.05	2.00	240.00	1100.87	
7	9349.47	5.33	240.00	9247.00	110.57	932.72	0.00	0.00	939.25	PUCKETT 41A-23 PBHL 10.13



## WELL DETAILS: PUCKETT 41A-23

+N/-S	+E/-W	Northing	Ground Level:	8532.00	Latitude	Longitude
0.00	0.00	14361881.90	Easting	2434707.80	39.515026	-108.183876





# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 41A-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Site:</b>	S23-T6S-R97W (MESA C23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 41A-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

<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		S23-T6S-R97W (MESA C23)			
Site Position:		Northing:	14,361,896.90 usft	Latitude:	39.515068
From:	Map	Easting:	2,434,697.40 usft	Longitude:	-108.183912
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.79 °

Well	PUCKETT 41A-23					
Well Position	+N/-S	0.00 usft	Northing:	14,361,881.90 usft	Latitude:	39.515026
	+E/-W	0.00 usft	Easting:	2,434,707.80 usft	Longitude:	-108.183876
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,532.00 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	6/16/2016	9.80	65.88	51,824

<b>Design</b>	PLAN #3				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	83.24	

<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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
694.04	9.88	79.42	691.60	7.80	41.77	2.00	2.00	0.00	79.42	
6,694.86	9.88	79.42	6,603.40	196.91	1,054.00	0.00	0.00	0.00	0.00	
7,188.90	0.00	0.00	7,095.00	204.71	1,095.77	2.00	-2.00	0.00	180.00	PUCKETT 41A-23 TC
7,455.32	5.33	240.00	7,361.03	198.52	1,085.05	2.00	2.00	-45.04	240.00	
9,349.47	5.33	240.00	9,247.00	110.57	932.72	0.00	0.00	0.00	0.00	PUCKETT 41A-23 PE



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 41A-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Site:</b>	S23-T6S-R97W (MESA C23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 41A-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
694.04	9.88	79.42	691.60	7.80	41.77	42.40	2.00	2.00	
6,303.65	9.88	79.42	6,218.00	184.58	988.01	1,002.87	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,543.21	9.88	79.42	6,454.00	192.13	1,028.42	1,043.88	0.00	0.00	WILLIAMS_FORK.MBL (TVD)
6,694.86	9.88	79.42	6,603.40	196.91	1,054.00	1,069.85	0.00	0.00	
7,188.90	0.00	0.00	7,095.00	204.71	1,095.77	1,112.25	2.00	-2.00	
7,288.92	2.00	240.00	7,195.00	203.84	1,094.26	1,110.64	2.00	2.00	TOP_GAS.MBL (TVD)
7,455.32	5.33	240.00	7,361.03	198.52	1,085.05	1,100.87	2.00	2.00	
9,198.82	5.33	240.00	9,097.00	117.57	944.83	952.10	0.00	0.00	ROLLINS.MBL (TVD)
9,349.47	5.33	240.00	9,247.00	110.57	932.72	939.25	0.00	0.00	TD.MBL (TVD)

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
PUCKETT 41A-23 PBHL - plan hits target center - Circle (radius 100.00)	0.00	0.00	9,247.00	110.57	932.72	14,362,021.60	2,435,636.60	39.515329	-108.180572
PUCKETT 41A-23 TGT - plan hits target center - Point	0.00	0.00	7,095.00	204.71	1,095.77	14,362,120.79	2,435,796.63	39.515587	-108.179994
PUCKETT 41A-23 PBHL - plan hits target center - Ellipse (radii L200.00 W100.00 on 240.00 azi)	0.00	0.00	9,247.00	110.57	932.72	14,362,021.60	2,435,636.60	39.515329	-108.180572

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,303.65	6,218.00	OHIO_CREEK.MBL (TVD)				
6,543.21	6,454.00	WILLIAMS_FORK.MBL (TVD)				
7,288.92	7,195.00	TOP_GAS.MBL (TVD)				
9,198.82	9,097.00	ROLLINS.MBL (TVD)				
9,349.47	9,247.00	TD.MBL (TVD)				