

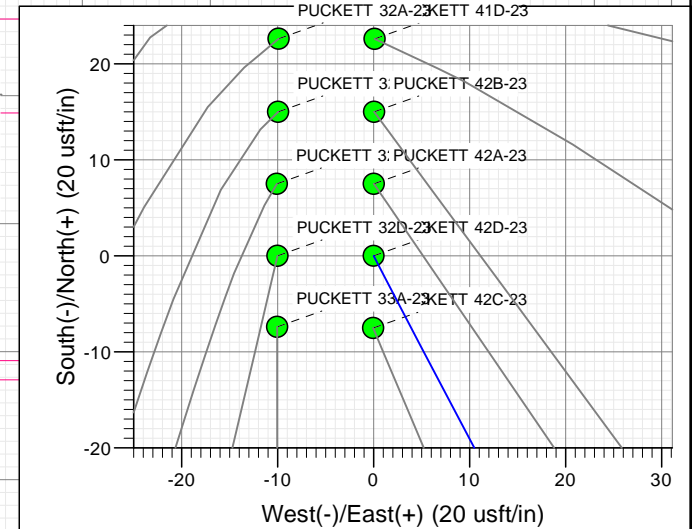
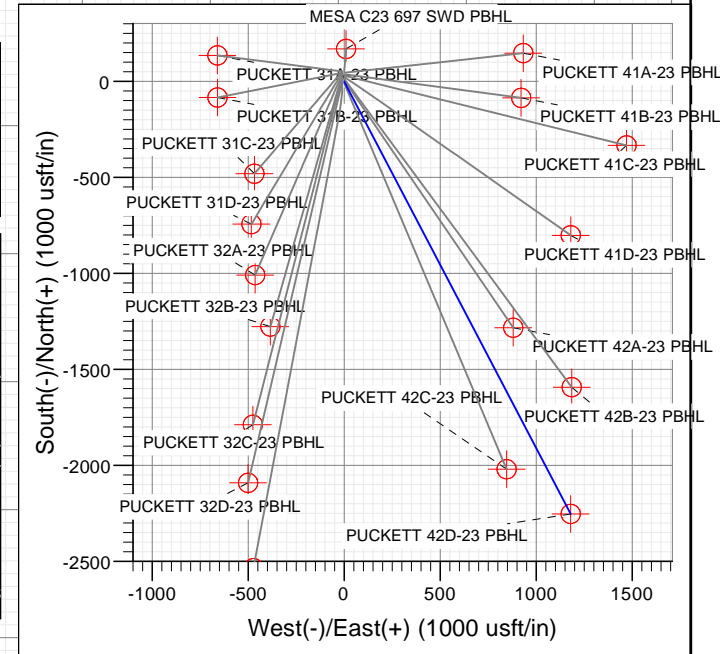
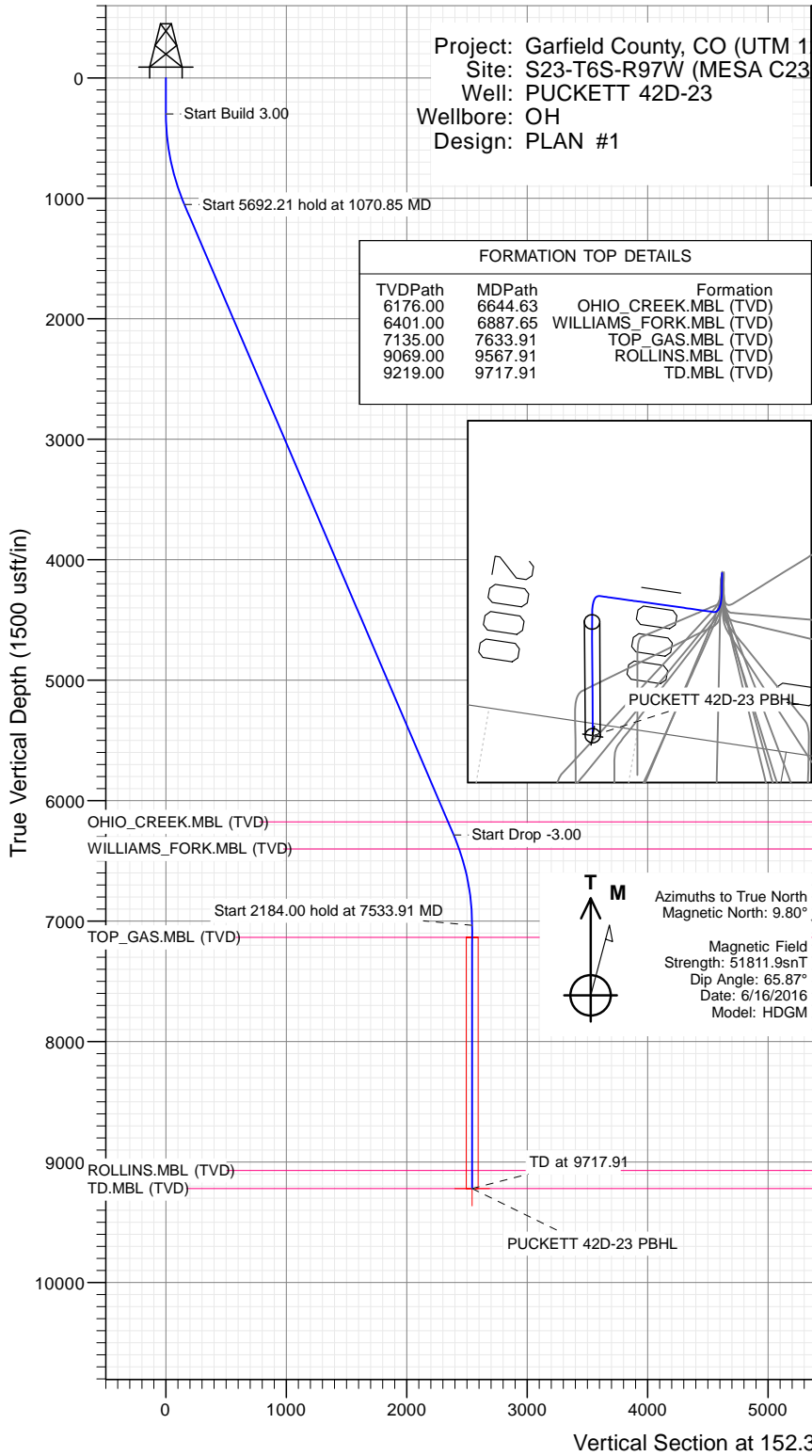


# SECTION DETAILS

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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1070.85	23.13	152.35	1050.09	-135.94	71.21	3.00	152.35	153.46	
4	6763.06	23.13	152.35	6284.91	-2116.27	1108.60	0.00	0.00	2389.06	
5	7533.91	0.00	0.00	7035.00	-2252.21	1179.82	3.00	180.00	2542.52	
6	9717.91	0.00	0.00	9219.00	-2252.21	1179.82	0.00	0.00	2542.52	PUCKETT 42D-23 PBHL

Project: Garfield County, CO (UTM 1  
Site: S23-T6S-R97W (MESA C23  
Well: PUCKETT 42D-23  
Wellbore: OH  
Design: PLAN #1

Type	Target	Azimuth	Origin	Type	N/S	E/W	From
TD	No Target (Freehand)	152.35	Slot	TD	0.00	0.00	TVD
PUCKETT 42D-23 PBHL		9219.00	+N/-S	+E/-W	Latitude	Longitude	
		-2252.21	1179.82	39.508742	-108.179697		



## WELL DETAILS: PUCKETT 42D-23

+N/-S	+E/-W	Northing	Ground Level:	8532.00	Latitude	Longitude
0.00	0.00	14361844.60	Easting	2434708.80	39.514923	-108.183877

CATHEDRAL



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42D-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 42D-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

<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 42D-23					
Well Position	+N/-S	0.00 usft	Northing:	14,361,844.60 usft	Latitude:	39.514923
	+E/-W	0.00 usft	Easting:	2,434,708.80 usft	Longitude:	-108.183877
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</b>
			(°)	(°)	(nT)
	HDGM	6/16/2016	9.80	65.87	51,812

<b>Design</b>	PLAN #1			
<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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	152.35

<b>Plan Sections</b>										
<b>Measured Depth</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical Depth</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Dogleg Rate</b>	<b>Build Rate</b>	<b>Turn Rate</b>	<b>TFO</b>	<b>Target</b>
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,070.85	23.13	152.35	1,050.09	-135.94	71.21	3.00	3.00	0.00	152.35	
6,763.06	23.13	152.35	6,284.91	-2,116.27	1,108.60	0.00	0.00	0.00	0.00	
7,533.91	0.00	0.00	7,035.00	-2,252.21	1,179.82	3.00	-3.00	0.00	180.00	
9,717.91	0.00	0.00	9,219.00	-2,252.21	1,179.82	0.00	0.00	0.00	0.00	PUCKETT 42D-23 PE

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42D-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 42D-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

### 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	
100.00	0.00	0.00	100.00	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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
400.00	3.00	152.35	399.95	-2.32	1.21	2.62	3.00	3.00	
500.00	6.00	152.35	499.63	-9.27	4.85	10.46	3.00	3.00	
600.00	9.00	152.35	598.77	-20.83	10.91	23.51	3.00	3.00	
700.00	12.00	152.35	697.08	-36.97	19.37	41.74	3.00	3.00	
800.00	15.00	152.35	794.31	-57.65	30.20	65.08	3.00	3.00	
900.00	18.00	152.35	890.18	-82.80	43.38	93.48	3.00	3.00	
1,000.00	21.00	152.35	984.43	-112.37	58.86	126.85	3.00	3.00	
1,070.85	23.13	152.35	1,050.09	-135.94	71.21	153.46	3.00	3.00	
1,100.00	23.13	152.35	1,076.90	-146.08	76.52	164.91	0.00	0.00	
1,200.00	23.13	152.35	1,168.86	-180.87	94.75	204.19	0.00	0.00	
1,300.00	23.13	152.35	1,260.83	-215.66	112.97	243.46	0.00	0.00	
1,400.00	23.13	152.35	1,352.79	-250.45	131.20	282.74	0.00	0.00	
1,500.00	23.13	152.35	1,444.76	-285.24	149.42	322.01	0.00	0.00	
1,600.00	23.13	152.35	1,536.72	-320.03	167.65	361.29	0.00	0.00	
1,700.00	23.13	152.35	1,628.69	-354.82	185.87	400.56	0.00	0.00	
1,800.00	23.13	152.35	1,720.65	-389.61	204.10	439.83	0.00	0.00	
1,900.00	23.13	152.35	1,812.62	-424.40	222.32	479.11	0.00	0.00	
2,000.00	23.13	152.35	1,904.58	-459.19	240.55	518.38	0.00	0.00	
2,100.00	23.13	152.35	1,996.54	-493.98	258.77	557.66	0.00	0.00	
2,200.00	23.13	152.35	2,088.51	-528.77	277.00	596.93	0.00	0.00	
2,300.00	23.13	152.35	2,180.47	-563.56	295.22	636.21	0.00	0.00	
2,400.00	23.13	152.35	2,272.44	-598.35	313.45	675.48	0.00	0.00	
2,500.00	23.13	152.35	2,364.40	-633.15	331.67	714.76	0.00	0.00	
2,600.00	23.13	152.35	2,456.37	-667.94	349.90	754.03	0.00	0.00	
2,700.00	23.13	152.35	2,548.33	-702.73	368.12	793.31	0.00	0.00	
2,800.00	23.13	152.35	2,640.30	-737.52	386.35	832.58	0.00	0.00	
2,900.00	23.13	152.35	2,732.26	-772.31	404.57	871.86	0.00	0.00	
3,000.00	23.13	152.35	2,824.23	-807.10	422.80	911.13	0.00	0.00	
3,100.00	23.13	152.35	2,916.19	-841.89	441.02	950.41	0.00	0.00	
3,200.00	23.13	152.35	3,008.16	-876.68	459.24	989.68	0.00	0.00	
3,300.00	23.13	152.35	3,100.12	-911.47	477.47	1,028.96	0.00	0.00	
3,400.00	23.13	152.35	3,192.09	-946.26	495.69	1,068.23	0.00	0.00	
3,500.00	23.13	152.35	3,284.05	-981.05	513.92	1,107.50	0.00	0.00	
3,600.00	23.13	152.35	3,376.01	-1,015.84	532.14	1,146.78	0.00	0.00	
3,700.00	23.13	152.35	3,467.98	-1,050.63	550.37	1,186.05	0.00	0.00	
3,800.00	23.13	152.35	3,559.94	-1,085.42	568.59	1,225.33	0.00	0.00	
3,900.00	23.13	152.35	3,651.91	-1,120.21	586.82	1,264.60	0.00	0.00	
4,000.00	23.13	152.35	3,743.87	-1,155.00	605.04	1,303.88	0.00	0.00	
4,100.00	23.13	152.35	3,835.84	-1,189.79	623.27	1,343.15	0.00	0.00	
4,200.00	23.13	152.35	3,927.80	-1,224.58	641.49	1,382.43	0.00	0.00	
4,300.00	23.13	152.35	4,019.77	-1,259.37	659.72	1,421.70	0.00	0.00	
4,400.00	23.13	152.35	4,111.73	-1,294.16	677.94	1,460.98	0.00	0.00	
4,500.00	23.13	152.35	4,203.70	-1,328.95	696.17	1,500.25	0.00	0.00	
4,600.00	23.13	152.35	4,295.66	-1,363.74	714.39	1,539.53	0.00	0.00	
4,700.00	23.13	152.35	4,387.63	-1,398.53	732.62	1,578.80	0.00	0.00	
4,800.00	23.13	152.35	4,479.59	-1,433.32	750.84	1,618.08	0.00	0.00	
4,900.00	23.13	152.35	4,571.55	-1,468.11	769.07	1,657.35	0.00	0.00	
5,000.00	23.13	152.35	4,663.52	-1,502.90	787.29	1,696.63	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42D-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 42D-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

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
5,100.00	23.13	152.35	4,755.48	-1,537.69	805.52	1,735.90	0.00	0.00	
5,200.00	23.13	152.35	4,847.45	-1,572.48	823.74	1,775.17	0.00	0.00	
5,300.00	23.13	152.35	4,939.41	-1,607.27	841.96	1,814.45	0.00	0.00	
5,400.00	23.13	152.35	5,031.38	-1,642.06	860.19	1,853.72	0.00	0.00	
5,500.00	23.13	152.35	5,123.34	-1,676.85	878.41	1,893.00	0.00	0.00	
5,600.00	23.13	152.35	5,215.31	-1,711.64	896.64	1,932.27	0.00	0.00	
5,700.00	23.13	152.35	5,307.27	-1,746.43	914.86	1,971.55	0.00	0.00	
5,800.00	23.13	152.35	5,399.24	-1,781.22	933.09	2,010.82	0.00	0.00	
5,900.00	23.13	152.35	5,491.20	-1,816.01	951.31	2,050.10	0.00	0.00	
6,000.00	23.13	152.35	5,583.17	-1,850.80	969.54	2,089.37	0.00	0.00	
6,100.00	23.13	152.35	5,675.13	-1,885.59	987.76	2,128.65	0.00	0.00	
6,200.00	23.13	152.35	5,767.10	-1,920.38	1,005.99	2,167.92	0.00	0.00	
6,300.00	23.13	152.35	5,859.06	-1,955.17	1,024.21	2,207.20	0.00	0.00	
6,400.00	23.13	152.35	5,951.02	-1,989.96	1,042.44	2,246.47	0.00	0.00	
6,500.00	23.13	152.35	6,042.99	-2,024.75	1,060.66	2,285.75	0.00	0.00	
6,600.00	23.13	152.35	6,134.95	-2,059.54	1,078.89	2,325.02	0.00	0.00	
6,644.63	23.13	152.35	6,176.00	-2,075.07	1,087.02	2,342.55	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,700.00	23.13	152.35	6,226.92	-2,094.34	1,097.11	2,364.30	0.00	0.00	
6,763.06	23.13	152.35	6,284.91	-2,116.27	1,108.60	2,389.06	0.00	0.00	
6,800.00	22.02	152.35	6,319.02	-2,128.83	1,115.18	2,403.24	3.00	-3.00	
6,887.65	19.39	152.35	6,401.00	-2,156.28	1,129.56	2,434.22	3.00	-3.00	WILLIAMS_FORK.MBL (TVD)
6,900.00	19.02	152.35	6,412.67	-2,159.88	1,131.45	2,438.29	3.00	-3.00	
7,000.00	16.02	152.35	6,508.02	-2,186.54	1,145.41	2,468.38	3.00	-3.00	
7,100.00	13.02	152.35	6,604.82	-2,208.74	1,157.04	2,493.45	3.00	-3.00	
7,200.00	10.02	152.35	6,702.79	-2,226.42	1,166.31	2,513.41	3.00	-3.00	
7,300.00	7.02	152.35	6,801.68	-2,239.54	1,173.18	2,528.22	3.00	-3.00	
7,400.00	4.02	152.35	6,901.20	-2,248.06	1,177.64	2,537.83	3.00	-3.00	
7,500.00	1.02	152.35	7,001.09	-2,251.95	1,179.68	2,542.22	3.00	-3.00	
7,533.91	0.00	0.00	7,035.00	-2,252.21	1,179.82	2,542.52	3.00	-3.00	
7,600.00	0.00	0.00	7,101.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
7,633.91	0.00	0.00	7,135.00	-2,252.21	1,179.82	2,542.52	0.00	0.00	TOP_GAS.MBL (TVD)
7,700.00	0.00	0.00	7,201.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
7,800.00	0.00	0.00	7,301.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
7,900.00	0.00	0.00	7,401.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,000.00	0.00	0.00	7,501.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,100.00	0.00	0.00	7,601.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,200.00	0.00	0.00	7,701.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,300.00	0.00	0.00	7,801.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,400.00	0.00	0.00	7,901.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,500.00	0.00	0.00	8,001.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,600.00	0.00	0.00	8,101.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,700.00	0.00	0.00	8,201.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,800.00	0.00	0.00	8,301.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
8,900.00	0.00	0.00	8,401.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
9,000.00	0.00	0.00	8,501.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
9,100.00	0.00	0.00	8,601.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
9,200.00	0.00	0.00	8,701.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
9,300.00	0.00	0.00	8,801.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
9,400.00	0.00	0.00	8,901.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
9,500.00	0.00	0.00	9,001.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
9,567.91	0.00	0.00	9,069.00	-2,252.21	1,179.82	2,542.52	0.00	0.00	ROLLINS.MBL (TVD)
9,600.00	0.00	0.00	9,101.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42D-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 42D-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

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
9,700.00	0.00	0.00	9,201.09	-2,252.21	1,179.82	2,542.52	0.00	0.00	
9,717.91	0.00	0.00	9,219.00	-2,252.21	1,179.82	2,542.52	0.00	0.00	TD.MBL (TVD)

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 42D-23 PBHI	0.00	0.00	9,219.00	-2,252.21	1,179.82	14,359,630.40	2,435,958.50	39.508742	-108.179697
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,644.63	6,176.00	OHIO_CREEK.MBL (TVD)				
6,887.65	6,401.00	WILLIAMS_FORK.MBL (TVD)				
7,633.91	7,135.00	TOP_GAS.MBL (TVD)				
9,567.91	9,069.00	ROLLINS.MBL (TVD)				
9,717.91	9,219.00	TD.MBL (TVD)				