

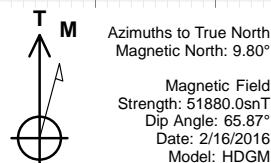
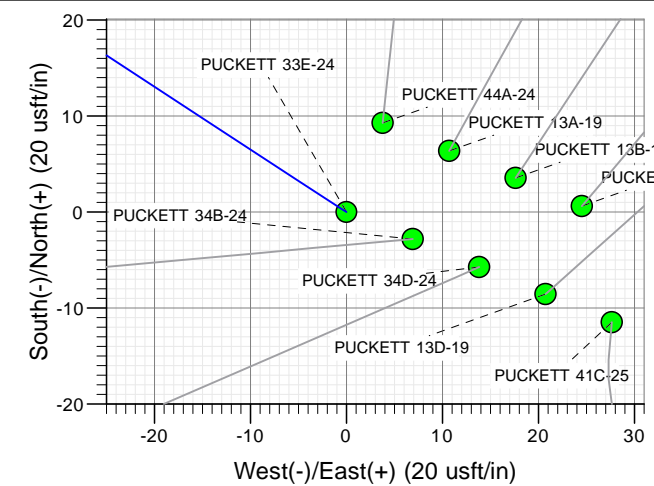
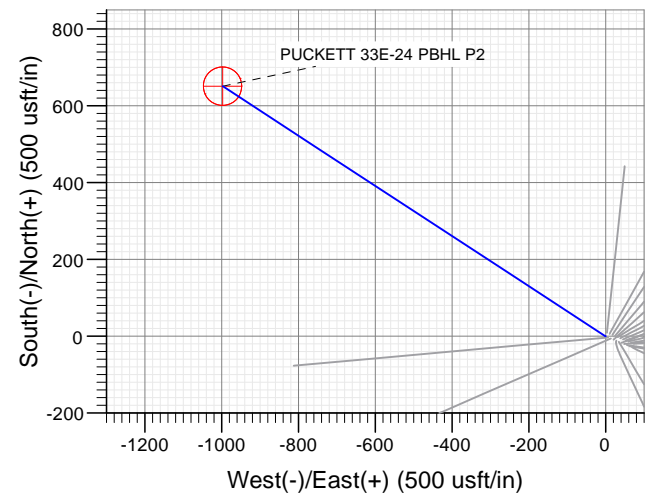
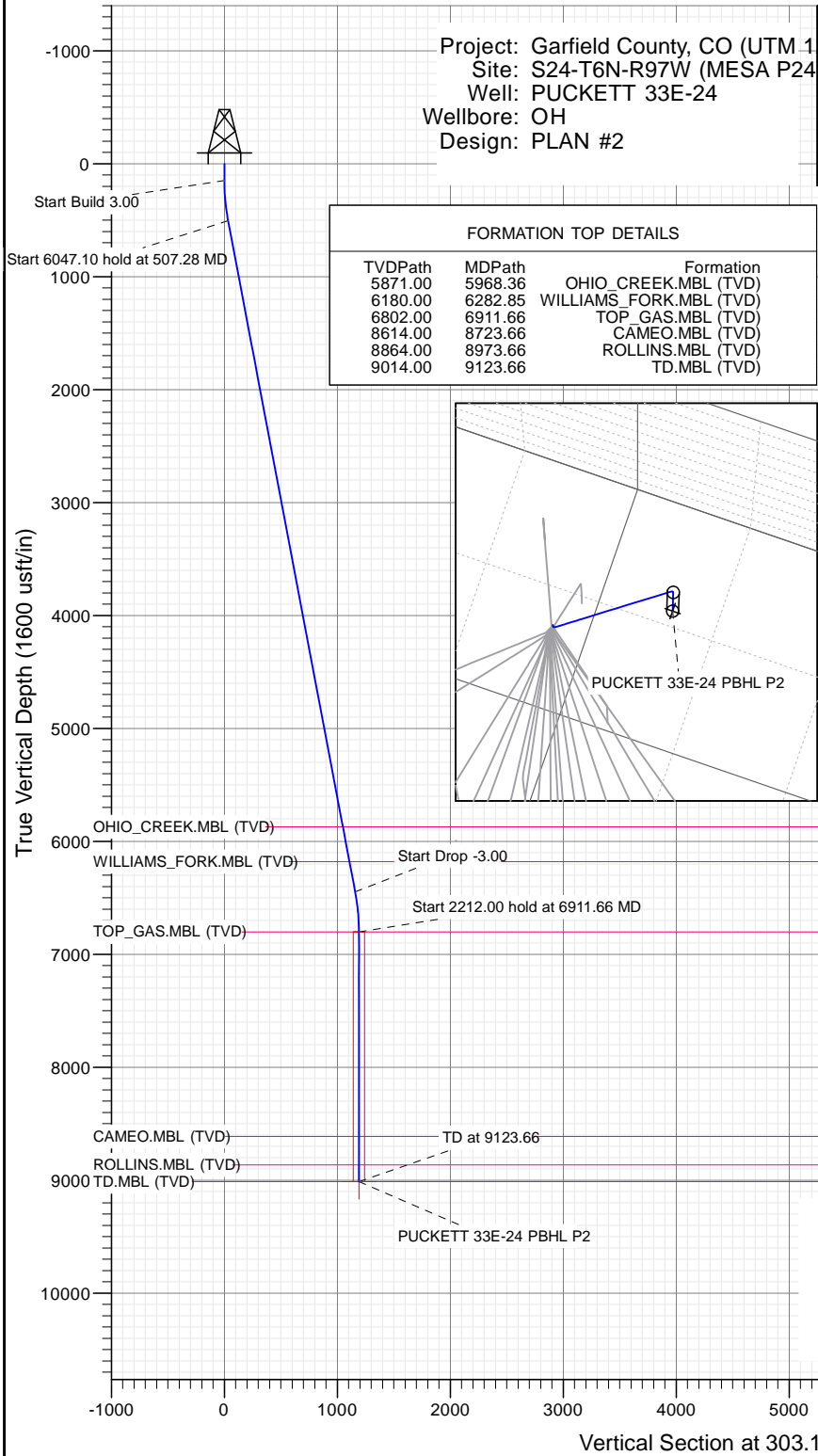


## SECTION DETAILS

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	150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	
3	507.28	10.72	303.15	505.20	18.22	-27.90	3.00	303.15	33.32	
4	6554.38	10.72	303.15	6446.80	633.15	-969.55	0.00	0.001157.98		
5	6911.66	0.00	0.00	6802.00	651.37	-997.45	3.00	180.001191.30		
6	9123.66	0.00	0.00	9014.00	651.37	-997.45	0.00	0.001191.30		PUCKETT 33E-24 PBHL P2

Project: Garfield County, CO (UTM 1  
Site: S24-T6N-R97W (MESA P24  
Well: PUCKETT 33E-24  
Wellbore: OH  
Design: PLAN #2

PLAN #2 PUCKETT 33E-24 16X0X LR 30' KB @ 8151.00ft Ground Level @ 8151.00 NAD 1927 - Western US Well PUCKETT 33E-24 - Slot B11, True North									
Type	Target	Target	Target	Target	Target	Target	Target	Target	Target
TD	No	Target	Freehand	Azimuth	Origin	Type	N/S	E/W	From
				Slot					TVD
Name	TVD	+N/-S	+E/-W	Latitude	Longitude				
PUCKETT 33E-24 PBHL	9014.00	652.29	-1343.60	39.504788	-108.165981				
PUCKETT 33E-24 PBHL P2	9014.00	651.37	-997.45	39.504785	-108.164755				



## WELL DETAILS: PUCKETT 33E-24

+N/-S	+E/-W	North	Ground Level:	8151.00	Latitude	Longitude
0.00	0.00	14357702.30	Easting	2441236.90	39.502998	-108.161221

B11



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 33E-24 - Slot B11
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8181.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8181.00usft
<b>Site:</b>	S24-T6N-R97W (MESA P24)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 33E-24	<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		S24-T6N-R97W (MESA P24)			
Site Position:		Northing:	14,357,707.60 usft	Latitude:	39.503013
From:	Map	Easting:	2,441,222.80 usft	Longitude:	-108.161271
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.81 °

Well	PUCKETT 33E-24 - Slot B11					
Well Position	+N/-S	0.00 usft	Northing:	14,357,702.30 usft	Latitude:	39.502998
	+E/-W	0.00 usft	Easting:	2,441,236.90 usft	Longitude:	-108.161221
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,151.00 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	2/16/2016	9.80	65.87	51,880.00000000

<b>Design</b>	PLAN #2			
<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	303.15

<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	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	
507.28	10.72	303.15	505.20	18.22	-27.90	3.00	3.00	0.00	303.15	
6,554.38	10.72	303.15	6,446.80	633.15	-969.55	0.00	0.00	0.00	0.00	
6,911.66	0.00	0.00	6,802.00	651.37	-997.45	3.00	-3.00	0.00	180.00	
9,123.66	0.00	0.00	9,014.00	651.37	-997.45	0.00	0.00	0.00	0.00	PUCKETT 33E-24 PE

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 33E-24 - Slot B11
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8181.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8181.00usft
<b>Site:</b>	S24-T6N-R97W (MESA P24)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 33E-24	<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
0.00	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	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
200.00	1.50	303.15	199.99	0.36	-0.55	0.65	3.00	3.00	
300.00	4.50	303.15	299.85	3.22	-4.93	5.89	3.00	3.00	
400.00	7.50	303.15	399.29	8.93	-13.68	16.34	3.00	3.00	
500.00	10.50	303.15	498.04	17.49	-26.78	31.98	3.00	3.00	
507.28	10.72	303.15	505.20	18.22	-27.90	33.32	3.00	3.00	Start 6047.10 hold at 507.28 MD
600.00	10.72	303.15	596.30	27.65	-42.34	50.57	0.00	0.00	
700.00	10.72	303.15	694.56	37.82	-57.91	69.16	0.00	0.00	
800.00	10.72	303.15	792.81	47.99	-73.48	87.76	0.00	0.00	
900.00	10.72	303.15	891.07	58.16	-89.05	106.36	0.00	0.00	
1,000.00	10.72	303.15	989.32	68.32	-104.63	124.96	0.00	0.00	
1,100.00	10.72	303.15	1,087.58	78.49	-120.20	143.56	0.00	0.00	
1,200.00	10.72	303.15	1,185.83	88.66	-135.77	162.15	0.00	0.00	
1,300.00	10.72	303.15	1,284.09	98.83	-151.34	180.75	0.00	0.00	
1,400.00	10.72	303.15	1,382.34	109.00	-166.91	199.35	0.00	0.00	
1,500.00	10.72	303.15	1,480.60	119.17	-182.48	217.95	0.00	0.00	
1,600.00	10.72	303.15	1,578.86	129.34	-198.06	236.55	0.00	0.00	
1,700.00	10.72	303.15	1,677.11	139.51	-213.63	255.15	0.00	0.00	
1,800.00	10.72	303.15	1,775.37	149.68	-229.20	273.74	0.00	0.00	
1,900.00	10.72	303.15	1,873.62	159.85	-244.77	292.34	0.00	0.00	
2,000.00	10.72	303.15	1,971.88	170.01	-260.34	310.94	0.00	0.00	
2,100.00	10.72	303.15	2,070.13	180.18	-275.92	329.54	0.00	0.00	
2,200.00	10.72	303.15	2,168.39	190.35	-291.49	348.14	0.00	0.00	
2,300.00	10.72	303.15	2,266.64	200.52	-307.06	366.74	0.00	0.00	
2,400.00	10.72	303.15	2,364.90	210.69	-322.63	385.33	0.00	0.00	
2,500.00	10.72	303.15	2,463.15	220.86	-338.20	403.93	0.00	0.00	
2,600.00	10.72	303.15	2,561.41	231.03	-353.78	422.53	0.00	0.00	
2,700.00	10.72	303.15	2,659.66	241.20	-369.35	441.13	0.00	0.00	
2,800.00	10.72	303.15	2,757.92	251.37	-384.92	459.73	0.00	0.00	
2,900.00	10.72	303.15	2,856.17	261.54	-400.49	478.33	0.00	0.00	
3,000.00	10.72	303.15	2,954.43	271.71	-416.06	496.92	0.00	0.00	
3,100.00	10.72	303.15	3,052.68	281.87	-431.64	515.52	0.00	0.00	
3,200.00	10.72	303.15	3,150.94	292.04	-447.21	534.12	0.00	0.00	
3,300.00	10.72	303.15	3,249.20	302.21	-462.78	552.72	0.00	0.00	
3,400.00	10.72	303.15	3,347.45	312.38	-478.35	571.32	0.00	0.00	
3,500.00	10.72	303.15	3,445.71	322.55	-493.92	589.91	0.00	0.00	
3,600.00	10.72	303.15	3,543.96	332.72	-509.50	608.51	0.00	0.00	
3,700.00	10.72	303.15	3,642.22	342.89	-525.07	627.11	0.00	0.00	
3,800.00	10.72	303.15	3,740.47	353.06	-540.64	645.71	0.00	0.00	
3,900.00	10.72	303.15	3,838.73	363.23	-556.21	664.31	0.00	0.00	
4,000.00	10.72	303.15	3,936.98	373.40	-571.78	682.91	0.00	0.00	
4,100.00	10.72	303.15	4,035.24	383.57	-587.35	701.50	0.00	0.00	
4,200.00	10.72	303.15	4,133.49	393.73	-602.93	720.10	0.00	0.00	
4,300.00	10.72	303.15	4,231.75	403.90	-618.50	738.70	0.00	0.00	
4,400.00	10.72	303.15	4,330.00	414.07	-634.07	757.30	0.00	0.00	
4,500.00	10.72	303.15	4,428.26	424.24	-649.64	775.90	0.00	0.00	
4,600.00	10.72	303.15	4,526.51	434.41	-665.21	794.50	0.00	0.00	
4,700.00	10.72	303.15	4,624.77	444.58	-680.79	813.09	0.00	0.00	
4,800.00	10.72	303.15	4,723.02	454.75	-696.36	831.69	0.00	0.00	
4,900.00	10.72	303.15	4,821.28	464.92	-711.93	850.29	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 33E-24 - Slot B11
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8181.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8181.00usft
<b>Site:</b>	S24-T6N-R97W (MESA P24)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 33E-24	<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
5,000.00	10.72	303.15	4,919.54	475.09	-727.50	868.89	0.00	0.00	
5,100.00	10.72	303.15	5,017.79	485.26	-743.07	887.49	0.00	0.00	
5,200.00	10.72	303.15	5,116.05	495.43	-758.65	906.08	0.00	0.00	
5,300.00	10.72	303.15	5,214.30	505.59	-774.22	924.68	0.00	0.00	
5,400.00	10.72	303.15	5,312.56	515.76	-789.79	943.28	0.00	0.00	
5,500.00	10.72	303.15	5,410.81	525.93	-805.36	961.88	0.00	0.00	
5,600.00	10.72	303.15	5,509.07	536.10	-820.93	980.48	0.00	0.00	
5,700.00	10.72	303.15	5,607.32	546.27	-836.51	999.08	0.00	0.00	
5,800.00	10.72	303.15	5,705.58	556.44	-852.08	1,017.67	0.00	0.00	
5,900.00	10.72	303.15	5,803.83	566.61	-867.65	1,036.27	0.00	0.00	
5,968.36	10.72	303.15	5,871.00	573.56	-878.29	1,048.99	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,000.00	10.72	303.15	5,902.09	576.78	-883.22	1,054.87	0.00	0.00	
6,100.00	10.72	303.15	6,000.34	586.95	-898.79	1,073.47	0.00	0.00	
6,200.00	10.72	303.15	6,098.60	597.12	-914.37	1,092.07	0.00	0.00	
6,282.85	10.72	303.15	6,180.00	605.54	-927.27	1,107.48	0.00	0.00	WILLIAMS_FORK.MBL (TVD)
6,300.00	10.72	303.15	6,196.85	607.29	-929.94	1,110.67	0.00	0.00	
6,400.00	10.72	303.15	6,295.11	617.45	-945.51	1,129.26	0.00	0.00	
6,500.00	10.72	303.15	6,393.37	627.62	-961.08	1,147.86	0.00	0.00	
6,554.38	10.72	303.15	6,446.80	633.15	-969.55	1,157.98	0.00	0.00	Start Drop -3.00
6,600.00	9.35	303.15	6,491.72	637.50	-976.20	1,165.92	3.00	-3.00	
6,700.00	6.35	303.15	6,590.77	644.97	-987.64	1,179.58	3.00	-3.00	
6,800.00	3.35	303.15	6,690.40	649.59	-994.72	1,188.03	3.00	-3.00	
6,900.00	0.35	303.15	6,790.34	651.35	-997.42	1,191.26	3.00	-3.00	
6,911.66	0.00	0.00	6,802.00	651.37	-997.45	1,191.30	3.00	-3.00	Start 2212.00 hold at 6911.66 MD - TOP_GAS.I
7,000.00	0.00	0.00	6,890.34	651.37	-997.45	1,191.30	0.00	0.00	
7,100.00	0.00	0.00	6,990.34	651.37	-997.45	1,191.30	0.00	0.00	
7,200.00	0.00	0.00	7,090.34	651.37	-997.45	1,191.30	0.00	0.00	
7,300.00	0.00	0.00	7,190.34	651.37	-997.45	1,191.30	0.00	0.00	
7,400.00	0.00	0.00	7,290.34	651.37	-997.45	1,191.30	0.00	0.00	
7,500.00	0.00	0.00	7,390.34	651.37	-997.45	1,191.30	0.00	0.00	
7,600.00	0.00	0.00	7,490.34	651.37	-997.45	1,191.30	0.00	0.00	
7,700.00	0.00	0.00	7,590.34	651.37	-997.45	1,191.30	0.00	0.00	
7,800.00	0.00	0.00	7,690.34	651.37	-997.45	1,191.30	0.00	0.00	
7,900.00	0.00	0.00	7,790.34	651.37	-997.45	1,191.30	0.00	0.00	
8,000.00	0.00	0.00	7,890.34	651.37	-997.45	1,191.30	0.00	0.00	
8,100.00	0.00	0.00	7,990.34	651.37	-997.45	1,191.30	0.00	0.00	
8,200.00	0.00	0.00	8,090.34	651.37	-997.45	1,191.30	0.00	0.00	
8,300.00	0.00	0.00	8,190.34	651.37	-997.45	1,191.30	0.00	0.00	
8,400.00	0.00	0.00	8,290.34	651.37	-997.45	1,191.30	0.00	0.00	
8,500.00	0.00	0.00	8,390.34	651.37	-997.45	1,191.30	0.00	0.00	
8,600.00	0.00	0.00	8,490.34	651.37	-997.45	1,191.30	0.00	0.00	
8,700.00	0.00	0.00	8,590.34	651.37	-997.45	1,191.30	0.00	0.00	
8,723.66	0.00	0.00	8,614.00	651.37	-997.45	1,191.30	0.00	0.00	CAMEO.MBL (TVD)
8,800.00	0.00	0.00	8,690.34	651.37	-997.45	1,191.30	0.00	0.00	
8,900.00	0.00	0.00	8,790.34	651.37	-997.45	1,191.30	0.00	0.00	
8,973.66	0.00	0.00	8,864.00	651.37	-997.45	1,191.30	0.00	0.00	ROLLINS.MBL (TVD)
9,000.00	0.00	0.00	8,890.34	651.37	-997.45	1,191.30	0.00	0.00	
9,100.00	0.00	0.00	8,990.34	651.37	-997.45	1,191.30	0.00	0.00	
9,123.66	0.00	0.00	9,014.00	651.37	-997.45	1,191.30	0.00	0.00	TD at 9123.66 - TD.MBL (TVD)

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 33E-24 - Slot B11
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8181.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8181.00usft
<b>Site:</b>	S24-T6N-R97W (MESA P24)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 33E-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

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)		
PUCKETT 33E-24 PBHL	0.00	0.00	9,014.00	652.29	-1,343.60	14,358,311.90	2,439,873.40	39.504788	-108.165981
- plan misses target center by 346.15usft at 9123.66usft MD (9014.00 TVD, 651.37 N, -997.45 E)									
- Circle (radius 50.00)									
PUCKETT 33E-24 PBHL	0.00	0.00	9,014.00	651.37	-997.45	14,358,321.90	2,440,219.41	39.504785	-108.164755
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,968.36	5,871.00	OHIO_CREEK.MBL (TVD)				
6,282.85	6,180.00	WILLIAMS_FORK.MBL (TVD)				
6,911.66	6,802.00	TOP_GAS.MBL (TVD)				
8,723.66	8,614.00	CAMEO.MBL (TVD)				
8,973.66	8,864.00	ROLLINS.MBL (TVD)				
9,123.66	9,014.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
150.00	150.00	0.00	0.00	Start Build 3.00	
507.28	505.20	18.22	-27.90	Start 6047.10 hold at 507.28 MD	
6,554.38	6,446.80	633.15	-969.55	Start Drop -3.00	
6,911.66	6,802.00	651.37	-997.45	Start 2212.00 hold at 6911.66 MD	
9,123.66	9,014.00	651.37	-997.45	TD at 9123.66	