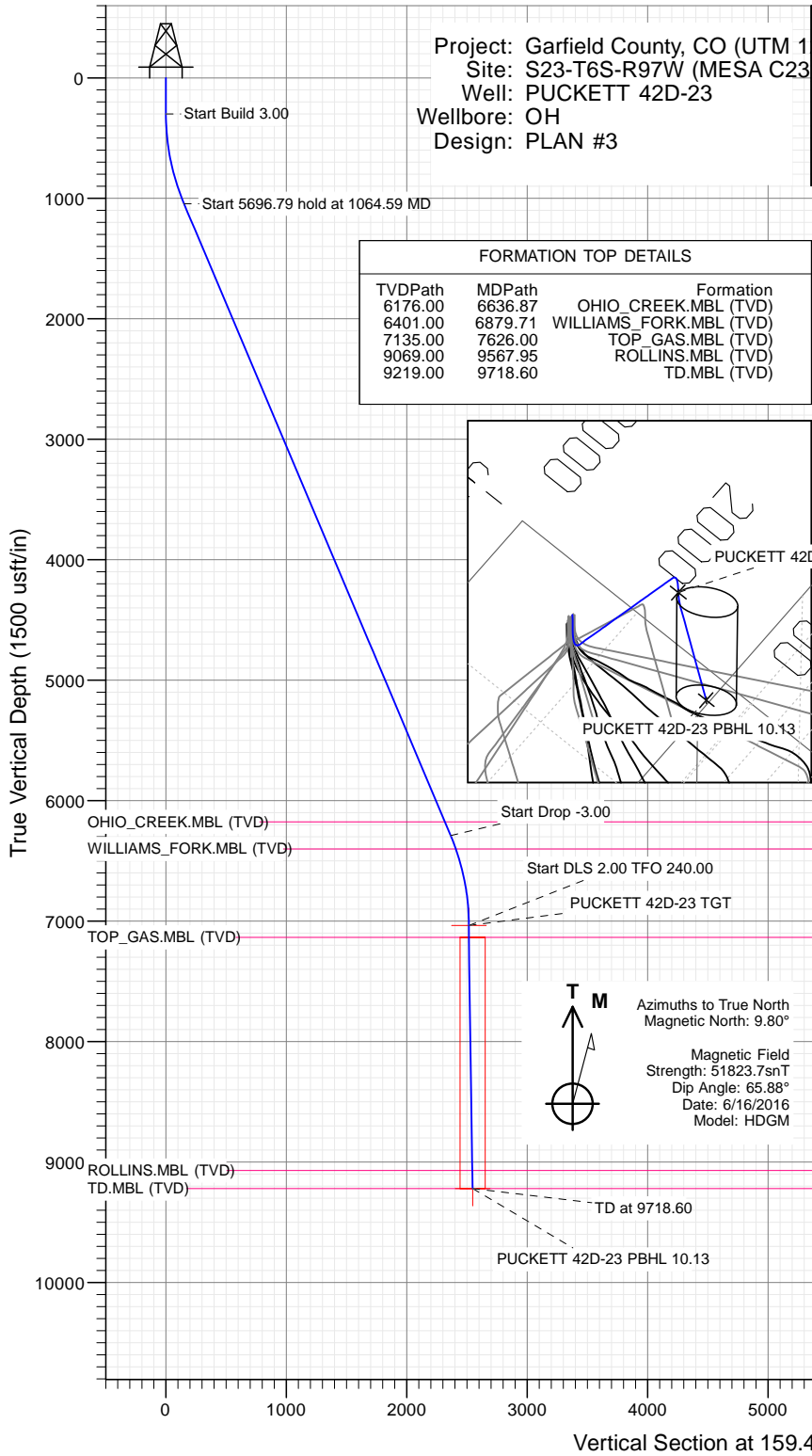




SECTION DETAILS

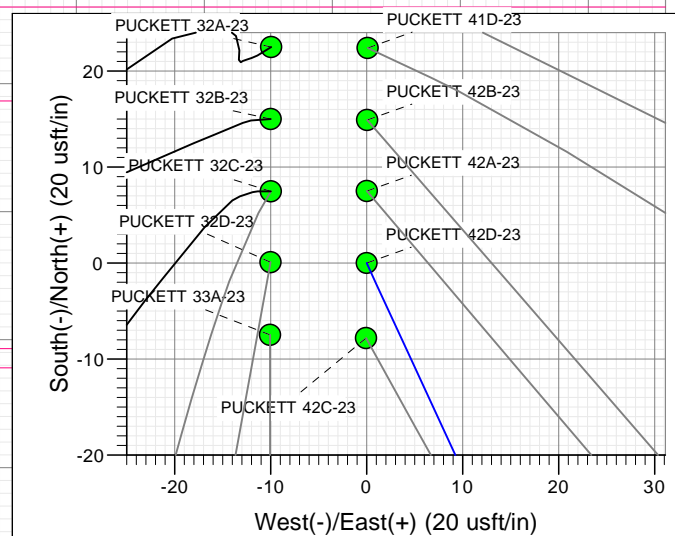
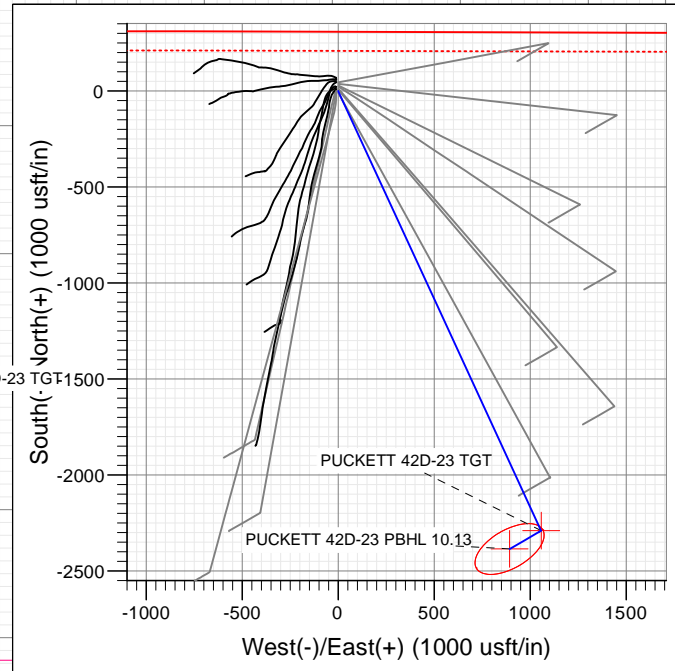
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1064.59	22.94	155.21	1044.33	-137.10	63.32	3.00	155.21	150.60	
4	6761.38	22.94	155.21	6290.67	-2152.72	994.25	0.00	0.00	2364.65	
5	7525.97	0.00	0.00	7035.00	-2289.82	1057.57	3.00	180.00	2515.25	PUCKETT 42D-23 TGT
6	7791.04	5.30	240.00	7299.69	-2295.95	1046.96	2.00	240.00	2517.27	
7	9718.60	5.30	240.00	9219.00	-2385.00	892.72	0.00	0.00	2546.60	PUCKETT 42D-23 PBHL 10.13

Project: Garfield County, CO (UTM 1
Site: S23-T6S-R97W (MESA C23)
Well: PUCKETT 42D-23
Wellbore: OH
Design: PLAN #3



PLAN #3
PUCKETT 42D-23
15XXX LR
30' KB @ 8532.00usft (H&P 330)
Ground Level @ 8532.00
NAD 1927 - Western US
Well PUCKETT 42D-23, True North

Name	Type	TD	Azimuth	Origin	Type	N/S	E/W	From	TVD	Latitude	Longitude
PUCKETT 42D-23 TGT	Target	7035.00	159.48	Slot	+	0.00	0.00	0.00		39.508618	-108.180130
PUCKETT 42D-23 PBHL	No Target (Freehand)	9219.00	-2244.71			1179.85	39.508742			-108.179697	
PUCKETT 42D-23 PBHL 10.13		9219.00	-2385.00			892.72	39.508357			-108.180714	



WELL DETAILS: PUCKETT 42D-23

+N/-S	+E/-W	Northing	Ground Level:	8532.00	Latitude	Longitude
0.00	0.00	14361837.10	Easting	2434709.00	39.514903	-108.183877



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42D-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 42D-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

Project	Garfield County, CO (UTM 12N)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	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:	14,361,837.10 usft	Latitude:	39.514903
	+E/-W	0.00 usft	Easting:	2,434,709.00 usft	Longitude:	-108.183877
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,532.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	6/16/2016	9.80	65.88	51,824

Design	PLAN #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	159.48

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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,064.59	22.94	155.21	1,044.33	-137.10	63.32	3.00	3.00	0.00	155.21	
6,761.38	22.94	155.21	6,290.67	-2,152.72	994.25	0.00	0.00	0.00	0.00	
7,525.97	0.00	0.00	7,035.00	-2,289.82	1,057.57	3.00	-3.00	0.00	180.00	PUCKETT 42D-23 TC
7,791.04	5.30	240.00	7,299.69	-2,295.95	1,046.96	2.00	2.00	-45.27	240.00	
9,718.60	5.30	240.00	9,219.00	-2,385.00	892.72	0.00	0.00	0.00	0.00	PUCKETT 42D-23 PE

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42D-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 42D-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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	
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	Start Build 3.00
400.00	3.00	155.21	399.95	-2.38	1.10	2.61	3.00	3.00	
500.00	6.00	155.21	499.63	-9.50	4.39	10.43	3.00	3.00	
600.00	9.00	155.21	598.77	-21.35	9.86	23.45	3.00	3.00	
700.00	12.00	155.21	697.08	-37.89	17.50	41.62	3.00	3.00	
800.00	15.00	155.21	794.31	-59.08	27.29	64.90	3.00	3.00	
900.00	18.00	155.21	890.18	-84.86	39.19	93.22	3.00	3.00	
1,000.00	21.00	155.21	984.43	-115.16	53.19	126.50	3.00	3.00	
1,064.59	22.94	155.21	1,044.33	-137.10	63.32	150.60	3.00	3.00	Start 5696.79 hold at 1064.59 MD
1,100.00	22.94	155.21	1,076.94	-149.63	69.11	164.36	0.00	0.00	
1,200.00	22.94	155.21	1,169.03	-185.01	85.45	203.22	0.00	0.00	
1,300.00	22.94	155.21	1,261.13	-220.39	101.79	242.09	0.00	0.00	
1,400.00	22.94	155.21	1,353.22	-255.77	118.13	280.95	0.00	0.00	
1,500.00	22.94	155.21	1,445.31	-291.15	134.47	319.82	0.00	0.00	
1,600.00	22.94	155.21	1,537.40	-326.54	150.81	358.68	0.00	0.00	
1,700.00	22.94	155.21	1,629.50	-361.92	167.15	397.55	0.00	0.00	
1,800.00	22.94	155.21	1,721.59	-397.30	183.49	436.41	0.00	0.00	
1,900.00	22.94	155.21	1,813.68	-432.68	199.84	475.28	0.00	0.00	
2,000.00	22.94	155.21	1,905.78	-468.06	216.18	514.14	0.00	0.00	
2,100.00	22.94	155.21	1,997.87	-503.44	232.52	553.01	0.00	0.00	
2,200.00	22.94	155.21	2,089.96	-538.83	248.86	591.87	0.00	0.00	
2,300.00	22.94	155.21	2,182.05	-574.21	265.20	630.74	0.00	0.00	
2,400.00	22.94	155.21	2,274.15	-609.59	281.54	669.60	0.00	0.00	
2,500.00	22.94	155.21	2,366.24	-644.97	297.88	708.47	0.00	0.00	
2,600.00	22.94	155.21	2,458.33	-680.35	314.23	747.33	0.00	0.00	
2,700.00	22.94	155.21	2,550.43	-715.74	330.57	786.20	0.00	0.00	
2,800.00	22.94	155.21	2,642.52	-751.12	346.91	825.06	0.00	0.00	
2,900.00	22.94	155.21	2,734.61	-786.50	363.25	863.93	0.00	0.00	
3,000.00	22.94	155.21	2,826.70	-821.88	379.59	902.79	0.00	0.00	
3,100.00	22.94	155.21	2,918.80	-857.26	395.93	941.66	0.00	0.00	
3,200.00	22.94	155.21	3,010.89	-892.64	412.27	980.52	0.00	0.00	
3,300.00	22.94	155.21	3,102.98	-928.03	428.61	1,019.39	0.00	0.00	
3,400.00	22.94	155.21	3,195.08	-963.41	444.96	1,058.25	0.00	0.00	
3,500.00	22.94	155.21	3,287.17	-998.79	461.30	1,097.12	0.00	0.00	
3,600.00	22.94	155.21	3,379.26	-1,034.17	477.64	1,135.98	0.00	0.00	
3,700.00	22.94	155.21	3,471.35	-1,069.55	493.98	1,174.85	0.00	0.00	
3,800.00	22.94	155.21	3,563.45	-1,104.93	510.32	1,213.71	0.00	0.00	
3,900.00	22.94	155.21	3,655.54	-1,140.32	526.66	1,252.58	0.00	0.00	
4,000.00	22.94	155.21	3,747.63	-1,175.70	543.00	1,291.44	0.00	0.00	
4,100.00	22.94	155.21	3,839.73	-1,211.08	559.34	1,330.31	0.00	0.00	
4,200.00	22.94	155.21	3,931.82	-1,246.46	575.69	1,369.17	0.00	0.00	
4,300.00	22.94	155.21	4,023.91	-1,281.84	592.03	1,408.04	0.00	0.00	
4,400.00	22.94	155.21	4,116.00	-1,317.22	608.37	1,446.90	0.00	0.00	
4,500.00	22.94	155.21	4,208.10	-1,352.61	624.71	1,485.77	0.00	0.00	
4,600.00	22.94	155.21	4,300.19	-1,387.99	641.05	1,524.63	0.00	0.00	
4,700.00	22.94	155.21	4,392.28	-1,423.37	657.39	1,563.50	0.00	0.00	
4,800.00	22.94	155.21	4,484.38	-1,458.75	673.73	1,602.36	0.00	0.00	
4,900.00	22.94	155.21	4,576.47	-1,494.13	690.07	1,641.23	0.00	0.00	
5,000.00	22.94	155.21	4,668.56	-1,529.52	706.42	1,680.09	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42D-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 42D-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
5,100.00	22.94	155.21	4,760.65	-1,564.90	722.76	1,718.96	0.00	0.00	
5,200.00	22.94	155.21	4,852.75	-1,600.28	739.10	1,757.82	0.00	0.00	
5,300.00	22.94	155.21	4,944.84	-1,635.66	755.44	1,796.69	0.00	0.00	
5,400.00	22.94	155.21	5,036.93	-1,671.04	771.78	1,835.55	0.00	0.00	
5,500.00	22.94	155.21	5,129.03	-1,706.42	788.12	1,874.42	0.00	0.00	
5,600.00	22.94	155.21	5,221.12	-1,741.81	804.46	1,913.28	0.00	0.00	
5,700.00	22.94	155.21	5,313.21	-1,777.19	820.80	1,952.15	0.00	0.00	
5,800.00	22.94	155.21	5,405.30	-1,812.57	837.15	1,991.01	0.00	0.00	
5,900.00	22.94	155.21	5,497.40	-1,847.95	853.49	2,029.88	0.00	0.00	
6,000.00	22.94	155.21	5,589.49	-1,883.33	869.83	2,068.74	0.00	0.00	
6,100.00	22.94	155.21	5,681.58	-1,918.71	886.17	2,107.61	0.00	0.00	
6,200.00	22.94	155.21	5,773.68	-1,954.10	902.51	2,146.47	0.00	0.00	
6,300.00	22.94	155.21	5,865.77	-1,989.48	918.85	2,185.34	0.00	0.00	
6,400.00	22.94	155.21	5,957.86	-2,024.86	935.19	2,224.20	0.00	0.00	
6,500.00	22.94	155.21	6,049.95	-2,060.24	951.53	2,263.07	0.00	0.00	
6,600.00	22.94	155.21	6,142.05	-2,095.62	967.88	2,301.93	0.00	0.00	
6,636.87	22.94	155.21	6,176.00	-2,108.67	973.90	2,316.26	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,700.00	22.94	155.21	6,234.14	-2,131.01	984.22	2,340.80	0.00	0.00	
6,761.38	22.94	155.21	6,290.67	-2,152.72	994.25	2,364.65	0.00	0.00	Start Drop -3.00
6,800.00	21.78	155.21	6,326.38	-2,166.06	1,000.41	2,379.30	3.00	-3.00	
6,879.71	19.39	155.21	6,401.00	-2,191.50	1,012.16	2,407.25	3.00	-3.00	WILLIAMS_FORK.MBL (TVD)
6,900.00	18.78	155.21	6,420.17	-2,197.52	1,014.94	2,413.86	3.00	-3.00	
7,000.00	15.78	155.21	6,515.65	-2,224.48	1,027.39	2,443.48	3.00	-3.00	
7,100.00	12.78	155.21	6,612.55	-2,246.87	1,037.73	2,468.07	3.00	-3.00	
7,200.00	9.78	155.21	6,710.61	-2,264.63	1,045.93	2,487.58	3.00	-3.00	
7,300.00	6.78	155.21	6,809.55	-2,277.70	1,051.97	2,501.93	3.00	-3.00	
7,400.00	3.78	155.21	6,909.12	-2,286.05	1,055.83	2,511.11	3.00	-3.00	
7,500.00	0.78	155.21	7,009.03	-2,289.66	1,057.49	2,515.07	3.00	-3.00	
7,525.97	0.00	0.00	7,035.00	-2,289.82	1,057.57	2,515.25	3.00	-3.00	Start DLS 2.00 TFO 240.00
7,600.00	1.48	240.00	7,109.02	-2,290.30	1,056.74	2,515.41	2.00	2.00	
7,626.00	2.00	240.00	7,135.00	-2,290.70	1,056.06	2,515.54	2.00	2.00	TOP_GAS.MBL (TVD)
7,700.00	3.48	240.00	7,208.92	-2,292.46	1,052.99	2,516.12	2.00	2.00	
7,791.04	5.30	240.00	7,299.69	-2,295.95	1,046.96	2,517.27	2.00	2.00	Start 1927.56 hold at 7791.04 MD
7,800.00	5.30	240.00	7,308.61	-2,296.36	1,046.24	2,517.41	0.00	0.00	
7,900.00	5.30	240.00	7,408.18	-2,300.98	1,038.24	2,518.93	0.00	0.00	
8,000.00	5.30	240.00	7,507.75	-2,305.60	1,030.24	2,520.45	0.00	0.00	
8,100.00	5.30	240.00	7,607.33	-2,310.22	1,022.23	2,521.97	0.00	0.00	
8,200.00	5.30	240.00	7,706.90	-2,314.84	1,014.23	2,523.49	0.00	0.00	
8,300.00	5.30	240.00	7,806.47	-2,319.46	1,006.23	2,525.01	0.00	0.00	
8,400.00	5.30	240.00	7,906.04	-2,324.08	998.23	2,526.53	0.00	0.00	
8,500.00	5.30	240.00	8,005.61	-2,328.70	990.23	2,528.06	0.00	0.00	
8,600.00	5.30	240.00	8,105.19	-2,333.32	982.23	2,529.58	0.00	0.00	
8,700.00	5.30	240.00	8,204.76	-2,337.94	974.22	2,531.10	0.00	0.00	
8,800.00	5.30	240.00	8,304.33	-2,342.56	966.22	2,532.62	0.00	0.00	
8,900.00	5.30	240.00	8,403.90	-2,347.18	958.22	2,534.14	0.00	0.00	
9,000.00	5.30	240.00	8,503.48	-2,351.80	950.22	2,535.66	0.00	0.00	
9,100.00	5.30	240.00	8,603.05	-2,356.42	942.22	2,537.19	0.00	0.00	
9,200.00	5.30	240.00	8,702.62	-2,361.04	934.22	2,538.71	0.00	0.00	
9,300.00	5.30	240.00	8,802.19	-2,365.66	926.22	2,540.23	0.00	0.00	
9,400.00	5.30	240.00	8,901.76	-2,370.28	918.21	2,541.75	0.00	0.00	
9,500.00	5.30	240.00	9,001.34	-2,374.90	910.21	2,543.27	0.00	0.00	
9,567.95	5.30	240.00	9,069.00	-2,378.04	904.78	2,544.31	0.00	0.00	ROLLINS.MBL (TVD)

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42D-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 42D-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
9,600.00	5.30	240.00	9,100.91	-2,379.52	902.21	2,544.79	0.00	0.00	
9,700.00	5.30	240.00	9,200.48	-2,384.14	894.21	2,546.31	0.00	0.00	
9,718.60	5.30	240.00	9,219.00	-2,385.00	892.72	2,546.60	0.00	0.00	TD at 9718.60 - TD.MBL (TVD)

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	
- Shape									Latitude Longitude
PUCKETT 42D-23 PBHI		0.00	0.00	9,219.00	-2,244.71	1,179.85	14,359,630.40	2,435,958.50	39.508742 -108.179697
- plan misses target center by 318.21usft at 9689.14usft MD (9189.67 TVD, -2383.64 N, 895.08 E)									
- Circle (radius 100.00)									
PUCKETT 42D-23 PBHI		0.00	0.00	9,219.00	-2,385.00	892.72	14,359,481.20	2,435,675.90	39.508357 -108.180714
- plan hits target center									
- Ellipse (radii L200.00 W100.00 on 240.00 azi)									
PUCKETT 42D-23 TGT		0.00	0.00	7,035.00	-2,289.82	1,057.57	14,359,581.48	2,435,837.69	39.508618 -108.180130
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,636.87	6,176.00	OHIO_CREEK.MBL (TVD)				
6,879.71	6,401.00	WILLIAMS_FORK.MBL (TVD)				
7,626.00	7,135.00	TOP_GAS.MBL (TVD)				
9,567.95	9,069.00	ROLLINS.MBL (TVD)				
9,718.60	9,219.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
300.00	300.00	0.00	0.00	Start Build 3.00	
1,064.59	1,044.33	-137.10	63.32	Start 5696.79 hold at 1064.59 MD	
6,761.38	6,290.67	-2,152.72	994.25	Start Drop -3.00	
7,525.97	7,035.00	-2,289.82	1,057.57	Start DLS 2.00 TFO 240.00	
7,791.04	7,299.69	-2,295.95	1,046.96	Start 1927.56 hold at 7791.04 MD	
9,718.60	9,219.00	-2,385.00	892.72	TD at 9718.60	