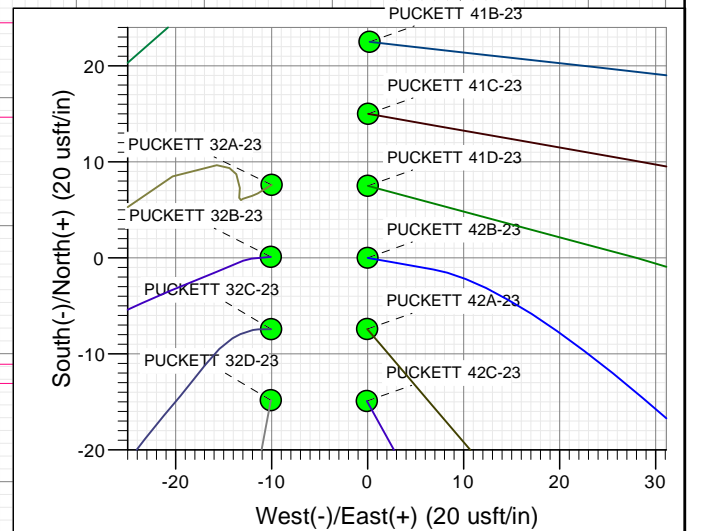
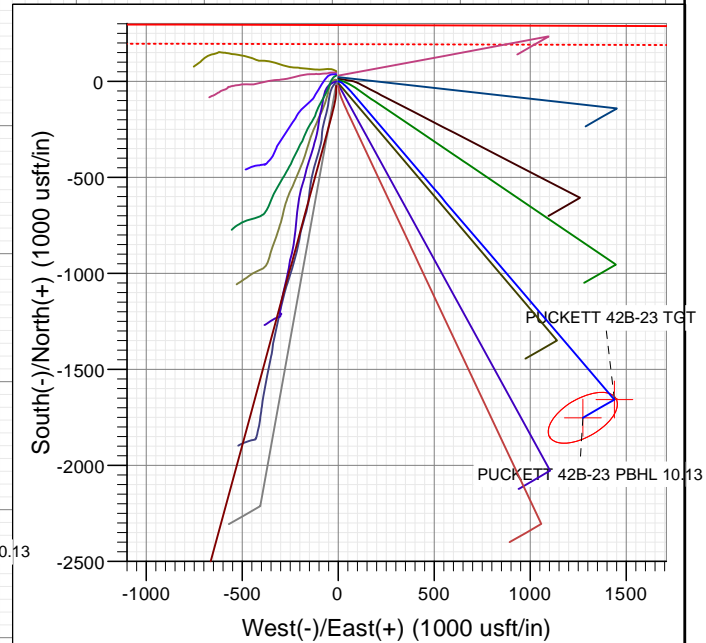
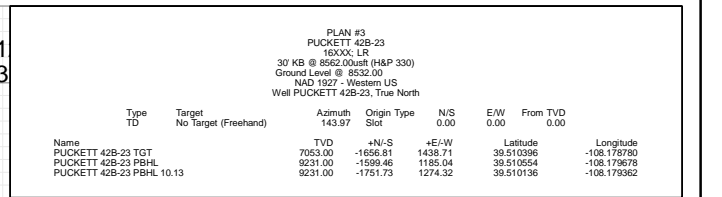
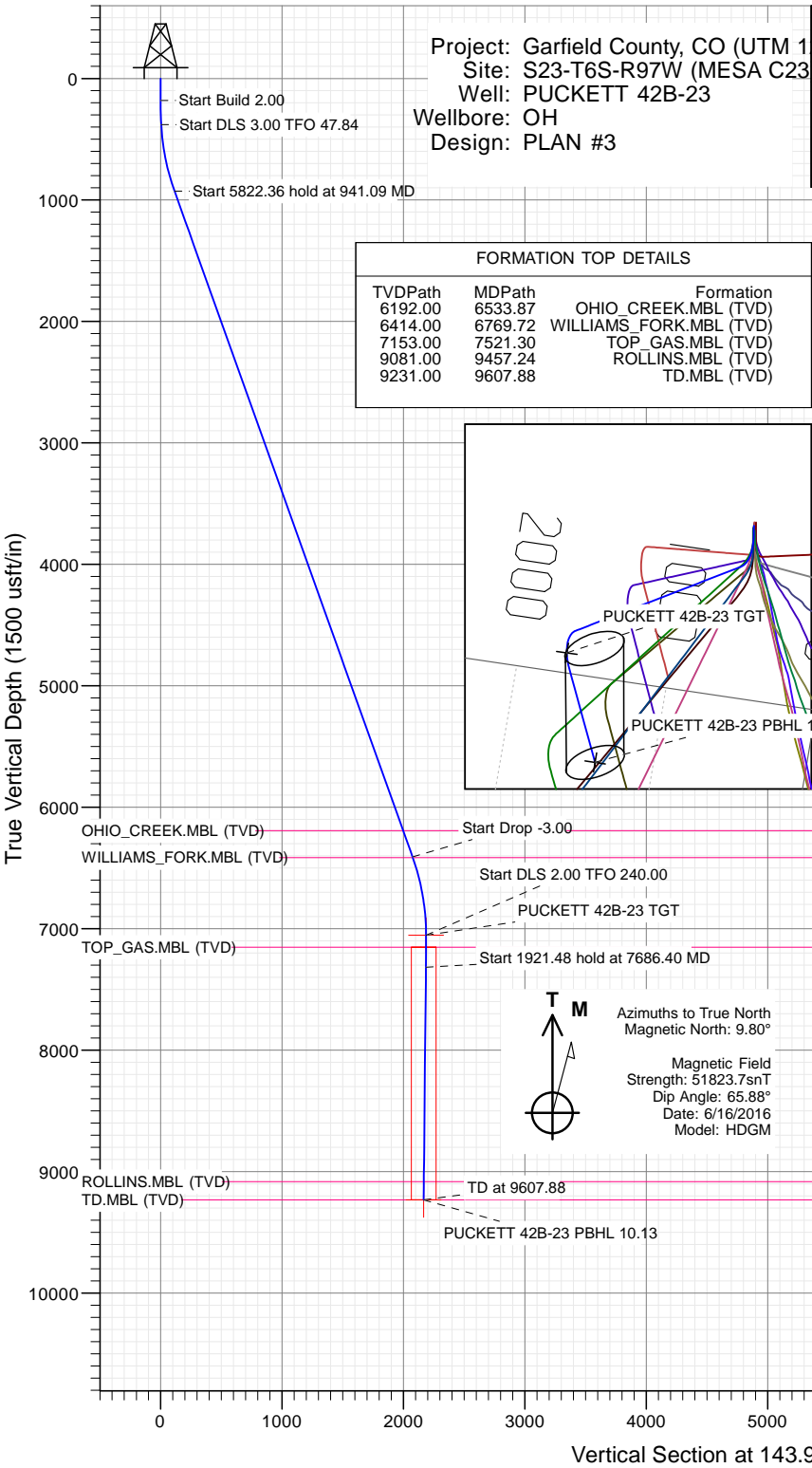




SECTION DETAILS

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	180.00	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	
3	380.00	4.00	100.00	379.84	-1.21	6.87	2.00	100.00	5.02	
4	941.09	19.73	139.47	927.71	-77.16	88.29	3.00	47.84	114.34	
5	6763.45	19.73	139.47	6408.10	-1571.55	1365.82	0.00	0.00	2074.33	
6	7421.28	0.00	0.00	7053.00	-1656.81	1438.71	3.00	180.00	2186.16	PUCKETT 42B-23 TGT
7	7686.40	5.30	240.00	7317.74	-1662.94	1428.10	2.00	240.00	2184.87	
8	9607.88	5.30	240.00	9231.00	-1751.73	1274.32	0.00	0.00	2166.20	PUCKETT 42B-23 PBHL 10.13



WELL DETAILS: PUCKETT 42B-23

+N/-S	+E/-W	Northing	Ground Level:	8532.00	Latitude	Longitude
0.00	0.00	14361852.00	Easting	2434708.60	39.514943	-108.183877





Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42B-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 42B-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 42B-23					
Well Position	+N/-S	0.00 usft	Northing:	14,361,852.00 usft	Latitude:	39.514943
	+E/-W	0.00 usft	Easting:	2,434,708.60 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) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	143.97

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	
180.00	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.00	
380.00	4.00	100.00	379.84	-1.21	6.87	2.00	2.00	0.00	100.00	
941.09	19.73	139.47	927.71	-77.16	88.29	3.00	2.80	7.04	47.84	
6,763.45	19.73	139.47	6,408.10	-1,571.55	1,365.82	0.00	0.00	0.00	0.00	
7,421.28	0.00	0.00	7,053.00	-1,656.81	1,438.71	3.00	-3.00	0.00	180.00	PUCKETT 42B-23 TC
7,686.40	5.30	240.00	7,317.74	-1,662.94	1,428.10	2.00	2.00	-45.26	240.00	
9,607.88	5.30	240.00	9,231.00	-1,751.73	1,274.32	0.00	0.00	0.00	0.00	PUCKETT 42B-23 PE



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42B-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 42B-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	
180.00	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
200.00	0.40	100.00	200.00	-0.01	0.07	0.05	2.00	2.00	
300.00	2.40	100.00	299.96	-0.44	2.47	1.81	2.00	2.00	
380.00	4.00	100.00	379.84	-1.21	6.87	5.02	2.00	2.00	Start DLS 3.00 TFO 47.84
400.00	4.43	105.77	399.78	-1.54	8.30	6.13	3.00	2.13	
500.00	6.95	122.63	499.29	-5.85	17.11	14.80	3.00	2.52	
600.00	9.74	130.22	598.22	-14.58	28.67	28.66	3.00	2.80	
700.00	12.63	134.42	696.31	-27.70	42.95	47.67	3.00	2.89	
800.00	15.57	137.06	793.29	-45.18	59.90	71.78	3.00	2.93	
900.00	18.52	138.88	888.89	-66.97	79.49	100.92	3.00	2.95	
941.09	19.73	139.47	927.71	-77.16	88.29	114.34	3.00	2.96	Start 5822.36 hold at 941.09 MD
1,000.00	19.73	139.47	983.16	-92.28	101.21	134.17	0.00	0.00	
1,100.00	19.73	139.47	1,077.29	-117.95	123.16	167.83	0.00	0.00	
1,200.00	19.73	139.47	1,171.42	-143.62	145.10	201.49	0.00	0.00	
1,300.00	19.73	139.47	1,265.54	-169.28	167.04	235.16	0.00	0.00	
1,400.00	19.73	139.47	1,359.67	-194.95	188.98	268.82	0.00	0.00	
1,500.00	19.73	139.47	1,453.80	-220.61	210.92	302.48	0.00	0.00	
1,600.00	19.73	139.47	1,547.92	-246.28	232.87	336.15	0.00	0.00	
1,700.00	19.73	139.47	1,642.05	-271.95	254.81	369.81	0.00	0.00	
1,800.00	19.73	139.47	1,736.17	-297.61	276.75	403.47	0.00	0.00	
1,900.00	19.73	139.47	1,830.30	-323.28	298.69	437.14	0.00	0.00	
2,000.00	19.73	139.47	1,924.43	-348.95	320.63	470.80	0.00	0.00	
2,100.00	19.73	139.47	2,018.55	-374.61	342.57	504.46	0.00	0.00	
2,200.00	19.73	139.47	2,112.68	-400.28	364.52	538.12	0.00	0.00	
2,300.00	19.73	139.47	2,206.81	-425.94	386.46	571.79	0.00	0.00	
2,400.00	19.73	139.47	2,300.93	-451.61	408.40	605.45	0.00	0.00	
2,500.00	19.73	139.47	2,395.06	-477.28	430.34	639.11	0.00	0.00	
2,600.00	19.73	139.47	2,489.19	-502.94	452.28	672.78	0.00	0.00	
2,700.00	19.73	139.47	2,583.31	-528.61	474.23	706.44	0.00	0.00	
2,800.00	19.73	139.47	2,677.44	-554.28	496.17	740.10	0.00	0.00	
2,900.00	19.73	139.47	2,771.57	-579.94	518.11	773.77	0.00	0.00	
3,000.00	19.73	139.47	2,865.69	-605.61	540.05	807.43	0.00	0.00	
3,100.00	19.73	139.47	2,959.82	-631.27	561.99	841.09	0.00	0.00	
3,200.00	19.73	139.47	3,053.95	-656.94	583.93	874.76	0.00	0.00	
3,300.00	19.73	139.47	3,148.07	-682.61	605.88	908.42	0.00	0.00	
3,400.00	19.73	139.47	3,242.20	-708.27	627.82	942.08	0.00	0.00	
3,500.00	19.73	139.47	3,336.32	-733.94	649.76	975.75	0.00	0.00	
3,600.00	19.73	139.47	3,430.45	-759.61	671.70	1,009.41	0.00	0.00	
3,700.00	19.73	139.47	3,524.58	-785.27	693.64	1,043.07	0.00	0.00	
3,800.00	19.73	139.47	3,618.70	-810.94	715.59	1,076.74	0.00	0.00	
3,900.00	19.73	139.47	3,712.83	-836.61	737.53	1,110.40	0.00	0.00	
4,000.00	19.73	139.47	3,806.96	-862.27	759.47	1,144.06	0.00	0.00	
4,100.00	19.73	139.47	3,901.08	-887.94	781.41	1,177.72	0.00	0.00	
4,200.00	19.73	139.47	3,995.21	-913.60	803.35	1,211.39	0.00	0.00	
4,300.00	19.73	139.47	4,089.34	-939.27	825.29	1,245.05	0.00	0.00	
4,400.00	19.73	139.47	4,183.46	-964.94	847.24	1,278.71	0.00	0.00	
4,500.00	19.73	139.47	4,277.59	-990.60	869.18	1,312.38	0.00	0.00	
4,600.00	19.73	139.47	4,371.72	-1,016.27	891.12	1,346.04	0.00	0.00	
4,700.00	19.73	139.47	4,465.84	-1,041.94	913.06	1,379.70	0.00	0.00	
4,800.00	19.73	139.47	4,559.97	-1,067.60	935.00	1,413.37	0.00	0.00	



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42B-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 42B-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
4,900.00	19.73	139.47	4,654.10	-1,093.27	956.95	1,447.03	0.00	0.00	
5,000.00	19.73	139.47	4,748.22	-1,118.93	978.89	1,480.69	0.00	0.00	
5,100.00	19.73	139.47	4,842.35	-1,144.60	1,000.83	1,514.36	0.00	0.00	
5,200.00	19.73	139.47	4,936.48	-1,170.27	1,022.77	1,548.02	0.00	0.00	
5,300.00	19.73	139.47	5,030.60	-1,195.93	1,044.71	1,581.68	0.00	0.00	
5,400.00	19.73	139.47	5,124.73	-1,221.60	1,066.65	1,615.35	0.00	0.00	
5,500.00	19.73	139.47	5,218.85	-1,247.27	1,088.60	1,649.01	0.00	0.00	
5,600.00	19.73	139.47	5,312.98	-1,272.93	1,110.54	1,682.67	0.00	0.00	
5,700.00	19.73	139.47	5,407.11	-1,298.60	1,132.48	1,716.34	0.00	0.00	
5,800.00	19.73	139.47	5,501.23	-1,324.26	1,154.42	1,750.00	0.00	0.00	
5,900.00	19.73	139.47	5,595.36	-1,349.93	1,176.36	1,783.66	0.00	0.00	
6,000.00	19.73	139.47	5,689.49	-1,375.60	1,198.31	1,817.32	0.00	0.00	
6,100.00	19.73	139.47	5,783.61	-1,401.26	1,220.25	1,850.99	0.00	0.00	
6,200.00	19.73	139.47	5,877.74	-1,426.93	1,242.19	1,884.65	0.00	0.00	
6,300.00	19.73	139.47	5,971.87	-1,452.60	1,264.13	1,918.31	0.00	0.00	
6,400.00	19.73	139.47	6,065.99	-1,478.26	1,286.07	1,951.98	0.00	0.00	
6,500.00	19.73	139.47	6,160.12	-1,503.93	1,308.01	1,985.64	0.00	0.00	
6,533.87	19.73	139.47	6,192.00	-1,512.62	1,315.45	1,997.04	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,600.00	19.73	139.47	6,254.25	-1,529.60	1,329.96	2,019.30	0.00	0.00	
6,700.00	19.73	139.47	6,348.37	-1,555.26	1,351.90	2,052.97	0.00	0.00	
6,763.45	19.73	139.47	6,408.10	-1,571.55	1,365.82	2,074.33	0.00	0.00	Start Drop -3.00
6,769.72	19.55	139.47	6,414.00	-1,573.15	1,367.19	2,076.43	3.00	-3.00	WILLIAMS_FORK.MBL (TVD)
6,800.00	18.64	139.47	6,442.62	-1,580.68	1,373.63	2,086.30	3.00	-3.00	
6,900.00	15.64	139.47	6,538.16	-1,603.07	1,392.77	2,115.68	3.00	-3.00	
7,000.00	12.64	139.47	6,635.12	-1,621.64	1,408.64	2,140.02	3.00	-3.00	
7,100.00	9.64	139.47	6,733.23	-1,636.32	1,421.19	2,159.28	3.00	-3.00	
7,200.00	6.64	139.47	6,832.21	-1,647.08	1,430.39	2,173.39	3.00	-3.00	
7,300.00	3.64	139.47	6,931.80	-1,653.89	1,436.21	2,182.32	3.00	-3.00	
7,400.00	0.64	139.47	7,031.72	-1,656.72	1,438.64	2,186.04	3.00	-3.00	
7,421.28	0.00	0.00	7,053.00	-1,656.81	1,438.71	2,186.16	3.00	-3.00	Start DLS 2.00 TFO 240.00
7,500.00	1.57	240.00	7,131.71	-1,657.35	1,437.78	2,186.04	2.00	2.00	
7,521.30	2.00	240.00	7,153.00	-1,657.69	1,437.20	2,185.98	2.00	2.00	TOP_GAS.MBL (TVD)
7,600.00	3.57	240.00	7,231.60	-1,659.60	1,433.89	2,185.57	2.00	2.00	
7,686.40	5.30	240.00	7,317.74	-1,662.94	1,428.10	2,184.87	2.00	2.00	Start 1921.48 hold at 7686.40 MD
7,700.00	5.30	240.00	7,331.28	-1,663.57	1,427.01	2,184.74	0.00	0.00	
7,800.00	5.30	240.00	7,430.85	-1,668.19	1,419.01	2,183.77	0.00	0.00	
7,900.00	5.30	240.00	7,530.42	-1,672.81	1,411.00	2,182.79	0.00	0.00	
8,000.00	5.30	240.00	7,630.00	-1,677.43	1,403.00	2,181.82	0.00	0.00	
8,100.00	5.30	240.00	7,729.57	-1,682.05	1,395.00	2,180.85	0.00	0.00	
8,200.00	5.30	240.00	7,829.14	-1,686.67	1,386.99	2,179.88	0.00	0.00	
8,300.00	5.30	240.00	7,928.71	-1,691.29	1,378.99	2,178.91	0.00	0.00	
8,400.00	5.30	240.00	8,028.28	-1,695.91	1,370.99	2,177.94	0.00	0.00	
8,500.00	5.30	240.00	8,127.86	-1,700.53	1,362.98	2,176.97	0.00	0.00	
8,600.00	5.30	240.00	8,227.43	-1,705.16	1,354.98	2,175.99	0.00	0.00	
8,700.00	5.30	240.00	8,327.00	-1,709.78	1,346.98	2,175.02	0.00	0.00	
8,800.00	5.30	240.00	8,426.57	-1,714.40	1,338.98	2,174.05	0.00	0.00	
8,900.00	5.30	240.00	8,526.14	-1,719.02	1,330.97	2,173.08	0.00	0.00	
9,000.00	5.30	240.00	8,625.72	-1,723.64	1,322.97	2,172.11	0.00	0.00	
9,100.00	5.30	240.00	8,725.29	-1,728.26	1,314.97	2,171.14	0.00	0.00	
9,200.00	5.30	240.00	8,824.86	-1,732.88	1,306.96	2,170.17	0.00	0.00	
9,300.00	5.30	240.00	8,924.43	-1,737.50	1,298.96	2,169.19	0.00	0.00	
9,400.00	5.30	240.00	9,024.00	-1,742.12	1,290.96	2,168.22	0.00	0.00	



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42B-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 42B-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
9,457.24	5.30	240.00	9,081.00	-1,744.76	1,286.38	2,167.67	0.00	0.00	ROLLINS.MBL (TVD)
9,500.00	5.30	240.00	9,123.58	-1,746.74	1,282.95	2,167.25	0.00	0.00	
9,607.88	5.30	240.00	9,231.00	-1,751.73	1,274.32	2,166.20	0.00	0.00	TD at 9607.88 - 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 42B-23 PBHL - plan hits target center - Ellipse (radii L200.00 W100.00 on 240.00 azi)	0.00	0.00	9,231.00	-1,751.73	1,274.32	14,360,141.00	2,436,037.10	39.510136	-108.179362
PUCKETT 42B-23 PBHL - plan misses target center by 176.51usft at 9607.88usft MD (9231.00 TVD, -1751.73 N, 1274.32 E) - Circle (radius 100.00)	0.00	0.00	9,231.00	-1,599.46	1,185.04	14,360,290.40	2,435,943.10	39.510554	-108.179678
PUCKETT 42B-23 TGT - plan hits target center - Point	0.00	0.00	7,053.00	-1,656.81	1,438.71	14,360,241.01	2,436,198.44	39.510396	-108.178780

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,533.87	6,192.00	OHIO_CREEK.MBL (TVD)			
6,769.72	6,414.00	WILLIAMS_FORK.MBL (TVD)			
7,521.30	7,153.00	TOP_GAS.MBL (TVD)			
9,457.24	9,081.00	ROLLINS.MBL (TVD)			
9,607.88	9,231.00	TD.MBL (TVD)			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
180.00	180.00	0.00	0.00	Start Build 2.00
380.00	379.84	-1.21	6.87	Start DLS 3.00 TFO 47.84
941.09	927.71	-77.16	88.29	Start 5822.36 hold at 941.09 MD
6,763.45	6,408.10	-1,571.55	1,365.82	Start Drop -3.00
7,421.28	7,053.00	-1,656.81	1,438.71	Start DLS 2.00 TFO 240.00
7,686.40	7,317.74	-1,662.94	1,428.10	Start 1921.48 hold at 7686.40 MD
9,607.88	9,231.00	-1,751.73	1,274.32	TD at 9607.88