



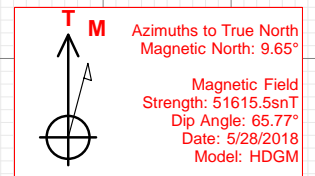
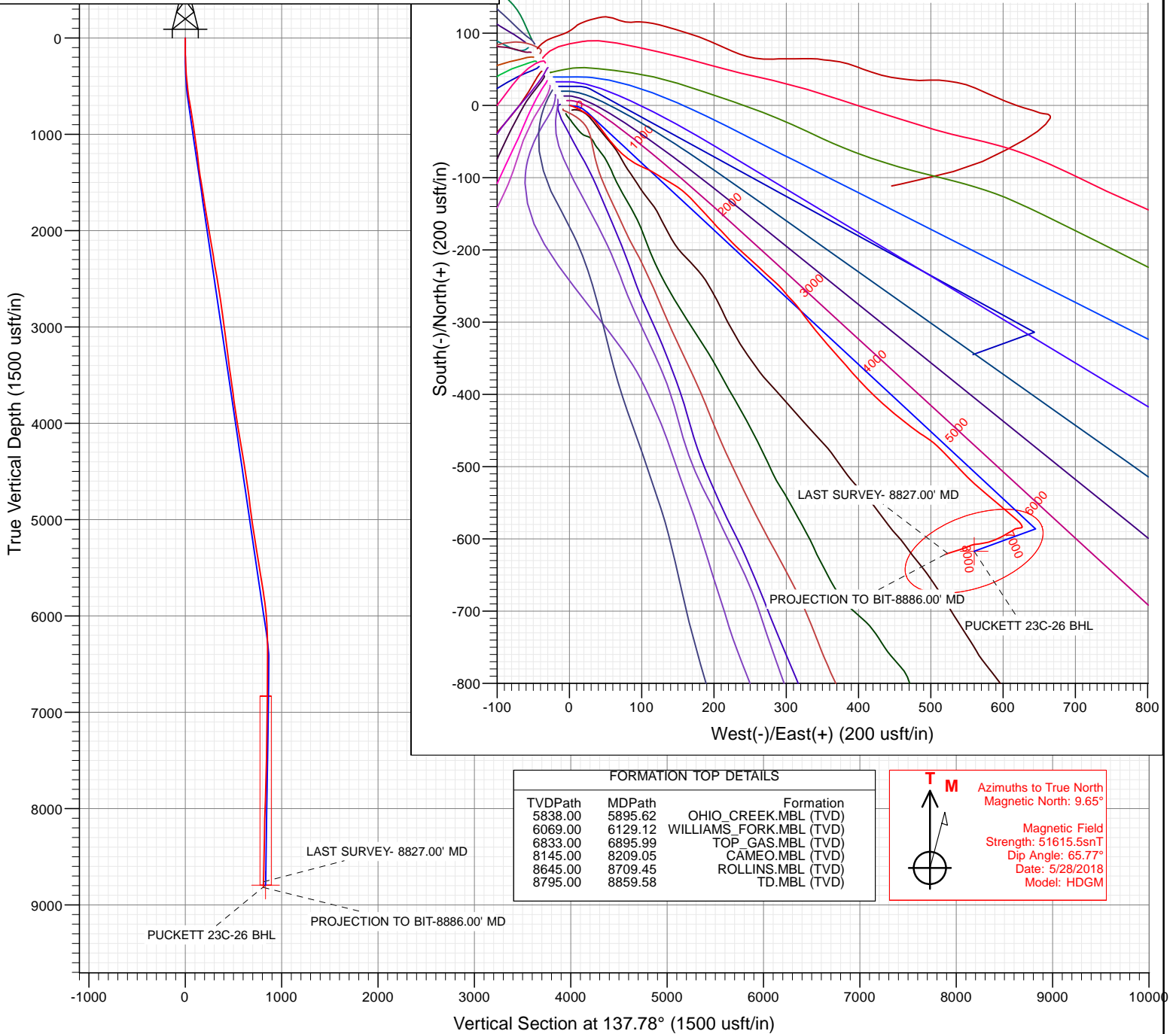
SECTION DETAILS

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	400.00	4.00	97.00	399.84	-0.85	6.93	2.00	97.00	5.28	
4	410.46	4.00	100.00	410.27	-0.96	7.65	2.00	91.50	5.85	
5	460.46	4.00	100.00	460.15	-1.56	11.08	0.00	0.00	8.61	
6	643.15	8.39	132.91	641.78	-11.76	27.13	3.00	56.13	26.94	
7	6283.01	8.39	132.91	6221.24	-572.22	630.04	0.00	0.00	847.15	
8	6562.77	0.00	0.00	6500.00	-586.14	645.02	3.00	180.00	867.53	
9	6658.34	2.31	250.00	6595.54	-586.80	643.21	2.41	250.00	866.80	
10	8859.58	2.31	250.00	8795.00	-617.08	560.02	0.00	0.00	833.31	PUCKETT 23C-26 BHL

FINAL
PUCKETT 23C-26
XXX16.LR
30' KB @ 8322.00usft
Ground Level @ 8322.00
NAD 1927 - Western US
Well PUCKETT 23C-26, True North

Name	Type	Target	Azimuth	Origin	N/S	E/W	From	TVD	+N/-S	+E/-W	Latitude	Longitude
PUCKETT 23C-26 BHL	User	No Target (Freehand)	137.78	Spot	0.00	0.00	0.00	8795.00	-617.08	560.02	39.493155	-108.186048

Project: Garfield County, CO (UTM 12N)
Site: S26-T6S-R97W (MESA F26) (RIG: HP 330)
Well: PUCKETT 23C-26
Wellbore: OH
Design: FINAL



WELL DETAILS: PUCKETT 23C-26

+N/-S	+E/-W	Northing	Ground Level:	8322.00	Latitude	Longitude
0.00	0.00	14354479.30	Easting	2433201.00	39.494848	-108.190031

CATHEDRAL



Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 23B-26
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8352.00usft
Site:	S26-T6S-R97W (MESA F26) (RIG: HP 330)	MD Reference:	30' KB @ 8352.00usft
Well:	PUCKETT 23B-26	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

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		S26-T6S-R97W (MESA F26) (RIG: HP 330), Gravity = 0.9975g			
Site Position:		Northing:	14,354,512.70 usft	Latitude:	39.494943
From:	Map	Easting:	2,433,169.20 usft	Longitude:	-108.190140
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.79 °

Well	PUCKETT 23B-26					
Well Position	+N/-S	0.00 usft	Northing:	14,354,505.10 usft	Latitude:	39.494920
	+E/-W	0.00 usft	Easting:	2,433,185.50 usft	Longitude:	-108.190083
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,322.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	6/21/2018	9.65	65.77	51,607.60000000

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	122.92	

Survey Program	Date	6/25/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
142.00	2,452.00	Survey #1 (OH)	INC+TREND	Inclinometer + known azi trend	
2,618.00	8,869.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HDGM	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
142.00	0.57	303.64	142.00	0.39	-0.59	-0.71	0.40	0.40	
202.00	0.57	335.64	201.99	0.83	-0.96	-1.26	0.52	0.00	
232.00	0.57	15.63	231.99	1.11	-0.98	-1.43	1.30	0.00	
292.00	0.44	25.12	291.99	1.60	-0.80	-1.55	0.26	-0.22	
383.00	2.07	88.66	382.97	1.96	0.99	-0.23	2.10	1.79	
473.00	4.57	96.57	472.81	1.59	6.18	4.32	2.82	2.78	
565.00	5.63	90.07	564.45	1.16	14.33	11.40	1.31	1.15	
659.00	6.11	84.45	657.95	1.64	23.92	19.19	0.80	0.51	
754.00	4.40	94.20	752.55	1.86	32.59	26.34	2.02	-1.80	
848.00	4.26	124.88	846.30	-0.40	39.05	32.99	2.44	-0.15	
943.00	6.24	131.55	940.89	-5.84	45.81	41.63	2.18	2.08	

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 23B-26
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8352.00usft
Site:	S26-T6S-R97W (MESA F26) (RIG: HP 330)	MD Reference:	30' KB @ 8352.00usft
Well:	PUCKETT 23B-26	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
1,037.00	7.03	121.54	1,034.27	-12.24	54.53	52.43	1.49	0.84	
1,131.00	7.78	128.74	1,127.48	-19.23	64.40	64.51	1.27	0.80	
1,226.00	8.00	125.05	1,221.59	-27.05	74.83	77.51	0.58	0.23	
1,320.00	8.57	118.02	1,314.61	-34.10	86.37	91.03	1.24	0.61	
1,414.00	8.75	116.00	1,407.54	-40.52	98.97	105.10	0.38	0.19	
1,508.00	7.82	113.63	1,500.55	-46.22	111.26	118.51	1.05	-0.99	
1,603.00	6.59	113.45	1,594.80	-50.98	122.18	130.27	1.29	-1.29	
1,697.00	5.36	120.92	1,688.29	-55.38	130.90	139.98	1.55	-1.31	
1,792.00	6.15	135.25	1,782.82	-61.28	138.29	149.38	1.72	0.83	
1,886.00	6.94	148.61	1,876.21	-69.70	144.79	159.42	1.82	0.84	
1,982.00	6.90	141.93	1,971.51	-79.19	151.37	170.10	0.84	-0.04	
2,074.00	8.17	127.69	2,062.72	-87.54	159.95	181.84	2.44	1.38	
2,169.00	8.61	112.22	2,156.72	-94.36	171.88	195.56	2.41	0.46	
2,263.00	8.44	108.26	2,249.68	-99.18	184.94	209.14	0.65	-0.18	
2,357.00	8.58	118.02	2,342.65	-104.64	197.68	222.80	1.54	0.15	
2,452.00	8.79	123.91	2,436.56	-112.01	209.96	237.12	0.96	0.22	
2,618.00	9.14	124.52	2,600.53	-126.56	231.35	262.98	0.22	0.21	
2,712.00	8.04	122.06	2,693.48	-134.28	243.07	277.02	1.23	-1.17	
2,806.00	6.64	110.29	2,786.71	-139.66	253.74	288.90	2.18	-1.49	
2,901.00	5.67	113.19	2,881.16	-143.41	263.21	298.88	1.07	-1.02	
2,995.00	5.63	110.37	2,974.71	-146.84	271.80	307.96	0.30	-0.04	
3,090.00	4.92	118.99	3,069.30	-150.44	279.73	316.57	1.12	-0.75	
3,184.00	5.98	117.67	3,162.88	-154.67	287.60	325.47	1.14	1.13	
3,278.00	7.34	116.61	3,256.24	-159.63	297.30	336.32	1.45	1.45	
3,373.00	8.00	116.44	3,350.39	-165.29	308.65	348.92	0.70	0.69	
3,467.00	8.88	114.42	3,443.37	-171.20	321.11	362.59	0.99	0.94	
3,562.00	7.12	114.50	3,537.44	-176.68	333.14	375.67	1.85	-1.85	
3,656.00	7.25	118.63	3,630.71	-181.94	343.65	387.34	0.57	0.14	
3,750.00	7.69	119.87	3,723.91	-187.91	354.31	399.54	0.50	0.47	
3,844.00	7.43	116.70	3,817.09	-193.77	365.19	411.86	0.52	-0.28	
3,939.00	8.44	119.60	3,911.18	-199.98	376.74	424.93	1.14	1.06	
4,033.00	6.90	119.07	4,004.34	-206.13	387.68	437.45	1.64	-1.64	
4,127.00	7.34	121.27	4,097.61	-211.99	397.75	449.09	0.55	0.47	
4,222.00	7.78	125.40	4,191.79	-218.86	408.17	461.58	0.74	0.46	
4,316.00	7.87	118.99	4,284.91	-225.67	418.99	474.35	0.93	0.10	
4,410.00	7.30	123.56	4,378.09	-232.09	429.60	486.75	0.88	-0.61	
4,505.00	6.46	119.34	4,472.41	-238.04	439.28	498.11	1.03	-0.88	
4,599.00	6.50	114.50	4,565.81	-242.84	448.74	508.66	0.58	0.04	
4,694.00	6.59	102.11	4,660.19	-246.22	458.96	519.07	1.49	0.09	
4,788.00	6.59	85.32	4,753.58	-246.91	469.61	528.39	2.04	0.00	
4,883.00	5.71	96.93	4,848.04	-247.03	479.73	536.95	1.60	-0.93	
4,977.00	4.75	104.92	4,941.65	-248.60	488.14	544.86	1.28	-1.02	
5,072.00	6.02	109.49	5,036.23	-251.27	496.63	553.44	1.41	1.34	
5,166.00	7.87	113.45	5,129.53	-255.48	507.19	564.59	2.03	1.97	
5,260.00	7.16	123.12	5,222.73	-261.24	518.00	576.79	1.54	-0.76	
5,355.00	7.87	128.92	5,316.91	-268.56	528.02	589.18	1.09	0.75	
5,449.00	8.26	124.08	5,409.98	-276.39	538.62	602.33	0.83	0.41	
5,544.00	7.82	124.08	5,504.05	-283.83	549.62	615.62	0.46	-0.46	
5,638.00	7.73	117.58	5,597.19	-290.35	560.52	628.31	0.94	-0.10	
5,732.00	6.02	118.72	5,690.51	-295.64	570.45	639.52	1.82	-1.82	
5,827.00	6.15	122.24	5,784.97	-300.75	579.12	649.57	0.42	0.14	
5,921.00	7.12	127.60	5,878.34	-306.99	588.00	660.42	1.22	1.03	
6,016.00	7.52	128.04	5,972.57	-314.41	597.56	672.48	0.43	0.42	

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 23B-26
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8352.00usft
Site:	S26-T6S-R97W (MESA F26) (RIG: HP 330)	MD Reference:	30' KB @ 8352.00usft
Well:	PUCKETT 23B-26	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,110.00	6.37	128.92	6,065.88	-321.48	606.46	683.79	1.23	-1.22	
6,204.00	5.89	136.74	6,159.34	-328.27	613.82	693.66	1.02	-0.51	
6,299.00	5.01	144.30	6,253.91	-335.19	619.58	702.26	1.19	-0.93	
6,393.00	3.60	151.42	6,347.65	-341.11	623.39	708.67	1.60	-1.50	
6,488.00	2.20	170.49	6,442.52	-345.53	625.12	712.52	1.77	-1.47	
6,582.00	1.06	196.33	6,536.49	-348.14	625.17	713.99	1.41	-1.21	
6,771.00	2.55	217.42	6,725.39	-353.16	622.12	714.16	0.85	0.79	
6,959.00	2.86	251.61	6,913.19	-357.96	615.13	710.90	0.86	0.16	
7,149.00	3.30	250.30	7,102.92	-361.30	605.49	704.62	0.23	0.23	
7,337.00	4.00	254.69	7,290.53	-364.86	594.07	696.96	0.40	0.37	
7,526.00	5.19	254.69	7,478.92	-368.85	579.46	686.88	0.63	0.63	
7,714.00	4.92	249.68	7,666.19	-373.90	563.70	676.39	0.28	-0.14	
7,809.00	4.26	254.78	7,760.89	-376.24	556.48	671.60	0.82	-0.69	
7,903.00	5.67	251.61	7,854.53	-378.62	548.70	666.37	1.53	1.50	
7,997.00	5.14	256.10	7,948.11	-381.10	540.21	660.58	0.72	-0.56	
8,091.00	3.74	253.81	8,041.83	-382.97	533.18	655.69	1.50	-1.49	
8,186.00	2.42	252.67	8,136.69	-384.43	528.28	652.38	1.39	-1.39	
8,375.00	3.08	256.01	8,325.47	-386.84	519.55	646.36	0.36	0.35	
8,563.00	3.56	247.39	8,513.16	-390.31	509.26	639.61	0.37	0.26	
8,750.00	4.00	258.12	8,699.75	-393.88	497.52	631.70	0.44	0.24	
8,807.00	3.82	250.30	8,756.62	-394.93	493.78	629.13	0.99	-0.32	LAST SURVEY- 8807.00' MD
8,869.00	3.82	250.30	8,818.48	-396.32	489.90	626.63	0.00	0.00	PROJECTION TO BIT-8869.00' MD

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 23B-26 BHL	0.00	0.00	8,800.00	-371.17	573.20	14,354,152.00	2,433,770.00	39.493902	-108.188053
- actual wellpath misses target center by 85.60usft at 8844.77usft MD (8794.30 TVD, -395.78 N, 491.42 E)									
- Ellipse (radii L100.00 W50.00 on 250.00 azi)									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
8,807.00	8,756.62	-394.93	493.78	LAST SURVEY- 8807.00' MD	
8,869.00	8,818.48	-396.32	489.90	PROJECTION TO BIT-8869.00' MD	

Checked By: _____ Approved By: _____ Date: _____