



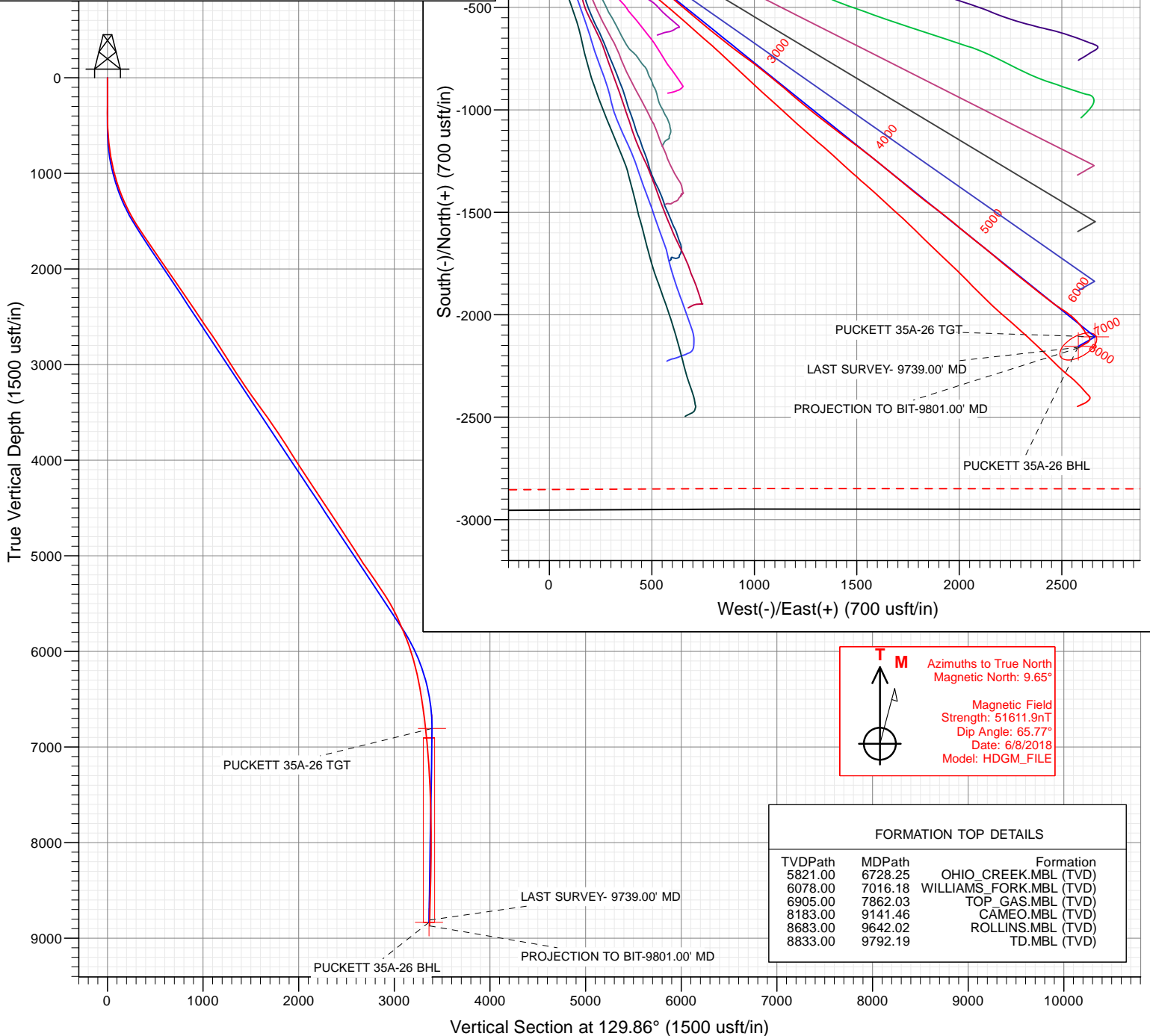
## SECTION DETAILS

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	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
3	633.33	4.00	88.00	633.23	0.16	4.65	3.00	88.00	3.46	
4	1653.69	33.54	128.83	1590.27	-179.61	266.05	3.00	45.18	319.34	
5	6644.04	33.54	128.83	5749.81	-1908.25	2414.01	0.00	0.00	3076.05	
6	7761.99	0.00	0.00	6805.00	-2107.60	2661.72	3.00	180.00	3393.96	
7	7852.21	2.71	239.78	6895.18	-2108.67	2659.88	3.00	239.78	3393.23	
8	9792.19	2.71	239.78	8833.00	-2154.78	2580.72	0.00	0.00	3362.02	PUCKETT 35A-26 BHL

FINAL  
PUCKETT 35A-26  
XXX16 LR  
30' KB @ 8352.00usft  
Ground Level @ 8322.00  
NAD 1927 - Western US  
Well PUCKETT 35A-26, True North

Type	Target	No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD
Name	PUCKETT 35A-26 TGT		TVD	+N/-S	+E/-W	Latitude	Longitude
	PUCKETT 35A-26 BHL		6805.00	-2107.60	2661.72	39.489100	-108.180630
			8833.00	-2154.78	2580.72	39.489970	-108.180917

Project: Garfield County, CO (UTM 12N)  
Site: S26-T6S-R97W (MESA F26) (RIG: HP 330)  
Well: PUCKETT 35A-26  
Wellbore: OH  
Design: FINAL



CATHEDRAL

WELL DETAILS: PUCKETT 35A-26

+N/-S +E/-W Northina Ground Level: 8322.00 Latitude Longitude



## Survey Report

<b>Company:</b>	Caerus Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 35A-26
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>TVD Reference:</b>	30' KB @ 8352.00usft
<b>Site:</b>	S26-T6S-R97W (MESA F26) (RIG: HP 330)	<b>MD Reference:</b>	30' KB @ 8352.00usft
<b>Well:</b>	PUCKETT 35A-26	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

<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	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 35A-26					
Well Position	+N/-S	0.00 usft	Northing:	14,354,492.20 usft	Latitude:	39.494884
	+E/-W	0.00 usft	Easting:	2,433,193.30 usft	Longitude:	-108.190057
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,322.00 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 (nT)</b>
	HDGM_FILE	6/8/2018	9.65	65.77	51,611.90000000

<b>Design</b>	FINAL				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	129.86	

<b>Survey Program</b>	<b>Date</b>	6/14/2018			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
173.00	2,453.00	Survey #1 (OH)	INC+TREND	Inclinometer + known azi trend	
2,618.00	9,801.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HDGM	

<b>Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usf)</b>	<b>Build Rate (°/100u)</b>	<b>Formations / Comments</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
173.00	0.44	196.59	173.00	-0.64	-0.19	0.26	0.25	0.25	
233.00	0.26	197.91	233.00	-0.99	-0.30	0.40	0.30	-0.30	
293.00	0.26	134.81	293.00	-1.21	-0.24	0.59	0.45	0.00	
384.00	0.04	238.25	384.00	-1.37	-0.12	0.79	0.30	-0.24	
474.00	1.63	90.33	473.98	-1.40	1.13	1.76	1.85	1.77	
566.00	4.22	93.76	565.86	-1.63	5.82	5.51	2.82	2.82	
660.00	6.77	104.57	659.42	-3.25	14.63	13.31	2.92	2.71	
755.00	8.61	107.12	753.56	-6.75	26.85	24.94	1.97	1.94	
849.00	9.84	118.37	846.35	-12.64	40.64	39.30	2.32	1.31	
944.00	12.61	121.97	939.53	-21.99	56.59	57.53	3.01	2.92	
1,038.00	15.73	127.51	1,030.66	-35.18	75.40	80.43	3.62	3.32	
1,132.00	18.59	128.65	1,120.47	-52.30	97.22	108.15	3.06	3.04	

## Survey Report

<b>Company:</b>	Caerus Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 35A-26
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>TVD Reference:</b>	30' KB @ 8352.00usft
<b>Site:</b>	S26-T6S-R97W (MESA F26) (RIG: HP 330)	<b>MD Reference:</b>	30' KB @ 8352.00usft
<b>Well:</b>	PUCKETT 35A-26	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
1,227.00	21.09	128.39	1,209.82	-72.38	122.44	140.38	2.63	2.63	
1,321.00	23.82	126.63	1,296.69	-94.21	150.94	176.24	2.99	2.90	
1,415.00	26.76	127.25	1,381.67	-118.35	183.02	216.34	3.14	3.13	
1,510.00	29.62	127.78	1,465.39	-145.69	218.61	261.18	3.02	3.01	
1,604.00	33.14	126.72	1,545.63	-175.29	257.58	310.07	3.79	3.74	
1,698.00	33.40	129.09	1,624.23	-206.97	298.26	361.59	1.41	0.28	
1,793.00	34.32	129.27	1,703.11	-240.41	339.29	414.52	0.97	0.97	
1,887.00	34.54	128.04	1,780.65	-273.60	380.79	467.65	0.78	0.23	
1,981.00	35.02	128.13	1,857.85	-306.68	422.99	521.25	0.51	0.51	
2,075.00	34.19	129.71	1,935.22	-340.21	464.53	574.62	1.30	-0.88	
2,170.00	34.76	128.74	2,013.54	-374.21	506.19	628.39	0.83	0.60	
2,264.00	34.81	130.94	2,090.74	-408.56	547.36	682.01	1.34	0.05	
2,358.00	35.02	131.64	2,167.83	-444.06	587.78	735.79	0.48	0.22	
2,453.00	34.23	131.64	2,246.00	-479.93	628.12	789.75	0.83	-0.83	
2,618.00	33.05	128.30	2,383.38	-538.66	698.12	881.12	1.33	-0.72	
2,712.00	34.63	129.97	2,461.45	-571.70	738.71	933.45	1.95	1.68	
2,806.00	34.37	129.80	2,538.92	-605.84	779.56	986.70	0.29	-0.28	
2,901.00	34.72	128.57	2,617.17	-639.88	821.32	1,040.56	0.82	0.37	
2,995.00	34.28	127.95	2,694.64	-672.85	863.12	1,093.78	0.60	-0.47	
3,090.00	33.49	128.21	2,773.50	-705.51	904.82	1,146.72	0.85	-0.83	
3,184.00	32.56	125.05	2,852.32	-736.08	945.90	1,197.85	2.08	-0.99	
3,279.00	33.27	127.78	2,932.07	-766.73	987.43	1,249.37	1.73	0.75	
3,373.00	31.38	127.69	3,011.50	-797.49	1,027.18	1,299.60	2.01	-2.01	
3,467.00	33.00	129.18	3,091.05	-828.63	1,066.39	1,349.65	1.92	1.72	
3,562.00	34.19	129.27	3,170.18	-861.87	1,107.11	1,402.22	1.25	1.25	
3,656.00	33.57	130.41	3,248.22	-895.43	1,147.35	1,454.61	0.94	-0.66	
3,751.00	36.08	130.50	3,326.20	-930.63	1,188.62	1,508.86	2.64	2.64	
3,845.00	36.30	129.62	3,402.07	-966.35	1,231.10	1,564.36	0.60	0.23	
3,939.00	35.73	129.45	3,478.10	-1,001.54	1,273.73	1,619.63	0.62	-0.61	
4,033.00	35.02	127.95	3,554.75	-1,035.56	1,316.19	1,674.04	1.19	-0.76	
4,128.00	34.63	127.69	3,632.73	-1,068.83	1,359.05	1,728.25	0.44	-0.41	
4,222.00	33.79	127.51	3,710.47	-1,101.08	1,400.92	1,781.06	0.90	-0.89	
4,316.00	33.53	126.63	3,788.71	-1,132.48	1,442.49	1,833.10	0.59	-0.28	
4,411.00	32.52	127.34	3,868.36	-1,163.63	1,483.85	1,884.81	1.14	-1.06	
4,505.00	31.86	126.11	3,947.91	-1,193.57	1,523.98	1,934.81	0.99	-0.70	
4,600.00	32.74	128.48	4,028.21	-1,224.34	1,564.35	1,985.51	1.62	0.93	
4,694.00	33.35	128.74	4,107.01	-1,256.32	1,604.40	2,036.76	0.67	0.65	
4,789.00	34.10	130.24	4,186.02	-1,289.87	1,645.10	2,089.50	1.18	0.79	
4,883.00	33.49	128.92	4,264.14	-1,323.18	1,685.39	2,141.78	1.02	-0.65	
4,978.00	32.70	129.80	4,343.73	-1,356.08	1,725.50	2,193.65	0.97	-0.83	
5,072.00	34.76	128.92	4,421.90	-1,389.17	1,765.86	2,245.84	2.25	2.19	
5,166.00	34.06	129.45	4,499.45	-1,422.73	1,807.04	2,298.95	0.81	-0.74	
5,261.00	33.49	127.07	4,578.42	-1,455.43	1,848.49	2,351.74	1.52	-0.60	
5,355.00	32.78	126.81	4,657.13	-1,486.31	1,889.56	2,403.05	0.77	-0.76	
5,450.00	32.74	127.95	4,737.02	-1,517.52	1,930.41	2,454.41	0.65	-0.04	
5,544.00	32.21	129.45	4,816.33	-1,549.07	1,969.80	2,504.86	1.03	-0.56	
5,638.00	33.22	130.85	4,895.41	-1,581.83	2,008.62	2,555.66	1.34	1.07	
5,733.00	33.05	128.57	4,974.97	-1,615.01	2,048.56	2,607.58	1.32	-0.18	
5,827.00	32.56	128.65	5,053.98	-1,646.79	2,088.36	2,658.50	0.52	-0.52	
5,921.00	34.76	128.83	5,132.21	-1,679.39	2,128.99	2,710.59	2.34	2.34	
6,016.00	34.72	130.06	5,210.28	-1,713.78	2,170.80	2,764.72	0.74	-0.04	
6,110.00	34.98	129.80	5,287.42	-1,748.26	2,211.99	2,818.43	0.32	0.28	
6,205.00	34.06	128.48	5,365.69	-1,782.25	2,253.73	2,872.26	1.25	-0.97	
6,299.00	30.94	130.24	5,444.97	-1,814.24	2,292.80	2,922.75	3.47	-3.32	

## Survey Report

<b>Company:</b>	Caerus Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 35A-26
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>TVD Reference:</b>	30' KB @ 8352.00usft
<b>Site:</b>	S26-T6S-R97W (MESA F26) (RIG: HP 330)	<b>MD Reference:</b>	30' KB @ 8352.00usft
<b>Well:</b>	PUCKETT 35A-26	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
6,394.00	29.05	127.34	5,527.24	-1,844.01	2,329.78	2,970.22	2.51	-1.99	
6,488.00	26.28	129.27	5,610.49	-1,871.03	2,364.04	3,013.84	3.10	-2.95	
6,582.00	24.17	128.30	5,695.52	-1,896.14	2,395.26	3,053.89	2.29	-2.24	
6,677.00	22.32	128.30	5,782.81	-1,919.37	2,424.68	3,091.37	1.95	-1.95	
6,771.00	21.31	126.19	5,870.08	-1,940.52	2,452.48	3,126.26	1.36	-1.07	
6,866.00	19.29	124.00	5,959.17	-1,959.49	2,479.42	3,159.10	2.27	-2.13	
6,960.00	16.61	123.29	6,048.59	-1,975.55	2,503.53	3,187.90	2.86	-2.85	
7,054.00	14.68	124.61	6,139.10	-1,989.69	2,524.56	3,213.11	2.09	-2.05	
7,149.00	13.05	129.71	6,231.33	-2,003.38	2,542.72	3,235.82	2.14	-1.72	
7,243.00	10.94	132.43	6,323.28	-2,016.18	2,557.47	3,255.35	2.32	-2.24	
7,337.00	9.98	137.00	6,415.72	-2,028.16	2,569.61	3,272.34	1.35	-1.02	
7,431.00	8.79	138.94	6,508.46	-2,039.53	2,579.88	3,287.52	1.31	-1.27	
7,526.00	7.91	138.85	6,602.45	-2,049.93	2,588.95	3,301.14	0.93	-0.93	
7,620.00	7.43	141.84	6,695.61	-2,059.58	2,596.97	3,313.47	0.66	-0.51	
7,714.00	6.90	144.12	6,788.87	-2,068.93	2,604.03	3,324.89	0.64	-0.56	
7,809.00	6.33	149.40	6,883.24	-2,078.06	2,610.04	3,335.36	0.88	-0.60	
7,902.00	5.27	157.22	6,975.76	-2,086.41	2,614.30	3,343.98	1.42	-1.14	
7,996.00	4.97	141.66	7,069.39	-2,093.59	2,618.50	3,351.80	1.51	-0.32	
8,091.00	3.60	122.94	7,164.13	-2,098.44	2,623.56	3,358.79	2.04	-1.44	
8,185.00	3.08	132.26	7,257.97	-2,101.74	2,627.90	3,364.25	0.80	-0.55	
8,279.00	2.51	139.29	7,351.86	-2,105.00	2,631.12	3,368.80	0.71	-0.61	
8,373.00	2.07	136.04	7,445.78	-2,107.78	2,633.64	3,372.52	0.49	-0.47	
8,466.00	2.33	165.83	7,538.72	-2,110.82	2,635.27	3,375.72	1.25	0.28	
8,654.00	1.93	170.49	7,726.59	-2,117.65	2,636.72	3,381.21	0.23	-0.21	
8,843.00	1.93	198.26	7,915.49	-2,123.81	2,636.25	3,384.80	0.49	0.00	
9,032.00	3.38	225.42	8,104.28	-2,130.75	2,631.29	3,385.43	1.00	0.77	
9,220.00	3.69	239.57	8,291.93	-2,137.70	2,622.12	3,382.86	0.49	0.16	
9,409.00	5.14	240.19	8,480.36	-2,144.99	2,609.53	3,377.86	0.77	0.77	
9,503.00	5.23	242.03	8,573.98	-2,149.09	2,602.09	3,374.78	0.20	0.10	
9,598.00	4.18	234.65	8,668.66	-2,153.13	2,595.45	3,372.27	1.27	-1.11	
9,739.00	3.96	238.69	8,809.30	-2,158.63	2,587.10	3,369.38	0.26	-0.16	LAST SURVEY- 9739.00' MD
9,801.00	3.96	238.69	8,871.16	-2,160.85	2,583.44	3,368.00	0.00	0.00	PROJECTION TO BIT-9801.00' MD

## Survey Report

<b>Company:</b>	Caerus Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 35A-26
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>TVD Reference:</b>	30' KB @ 8352.00usft
<b>Site:</b>	S26-T6S-R97W (MESA F26) (RIG: HP 330)	<b>MD Reference:</b>	30' KB @ 8352.00usft
<b>Well:</b>	PUCKETT 35A-26	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

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 35A-26 BHL	0.00	0.00	8,833.00	-2,154.78	2,580.72	14,352,419.00	2,435,840.00	39.488970	-108.180917
- actual wellpath misses target center by 24.84usft at 9739.00usft MD (8809.30 TVD, -2158.63 N, 2587.10 E)									
- Ellipse (radii L100.00 W50.00 on 240.00 azi)									
PUCKETT 35A-26 TGT	0.00	0.00	6,805.00	-2,107.60	2,661.72	14,352,468.68	2,435,919.49	39.489100	-108.180630
- actual wellpath misses target center by 67.24usft at 7737.39usft MD (6812.09 TVD, -2071.20 N, 2605.64 E)									
- Point									

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
9,739.00	8,809.30	-2,158.63	2,587.10	LAST SURVEY- 9739.00' MD
9,801.00	8,871.16	-2,160.85	2,583.44	PROJECTION TO BIT-9801.00' MD

Checked By: _____	Approved By: _____	Date: _____
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