



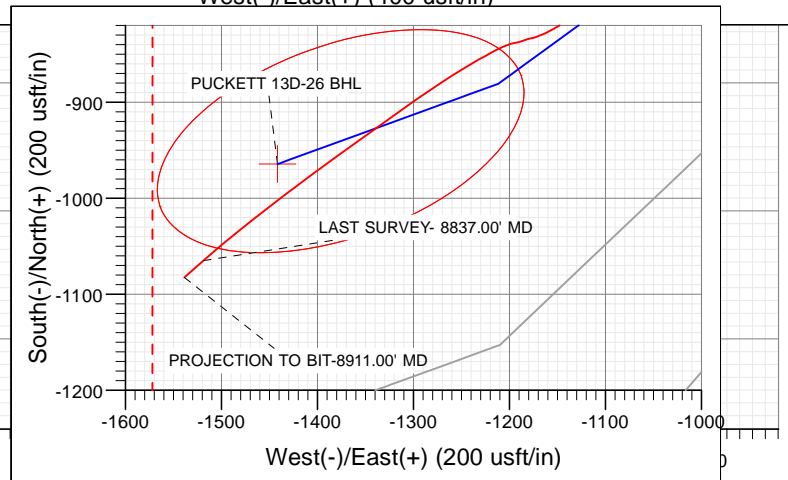
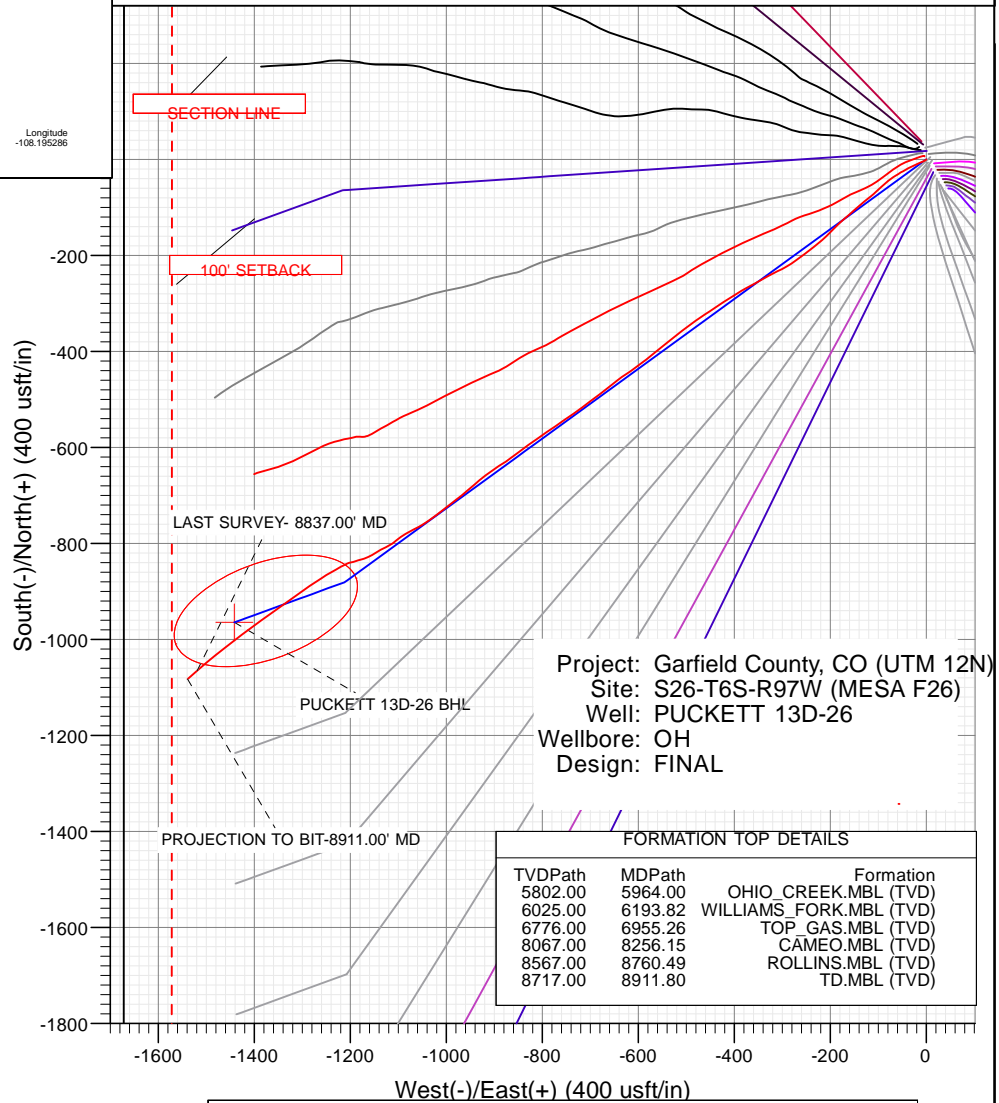
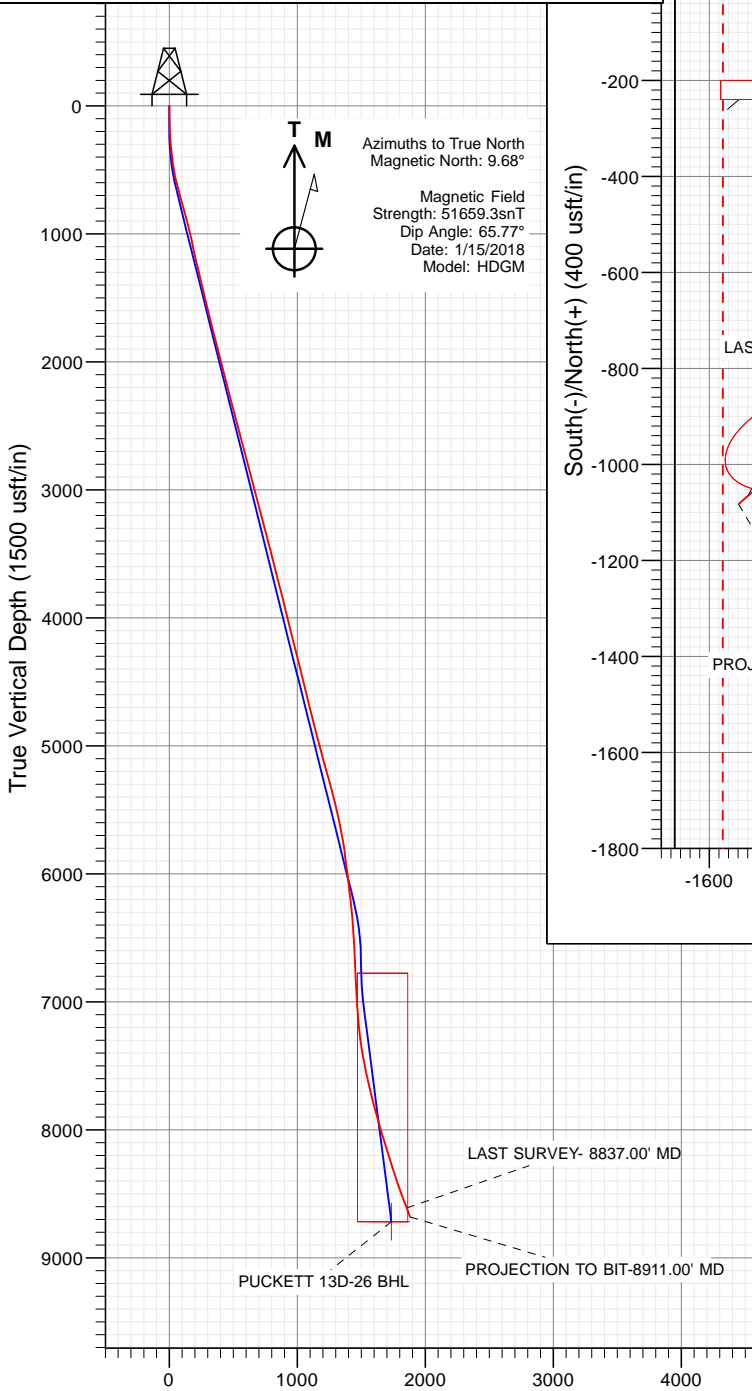
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	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	666.69	14.00	233.98	662.06	-33.36	-45.89	3.00	233.98	56.69	
4	6388.55	14.00	233.98	6213.94	-847.33	-1165.60	0.00	0.00	1439.94	
5	6855.24	0.00	0.00	6676.00	-880.69	-1211.49	3.00	180.00	1496.64	
6	7231.55	7.53	250.00	7051.23	-889.13	-1234.68	2.00	250.00	1520.61	
7	8911.80	7.53	250.00	8717.00	-964.39	-1441.49	0.00	0.00	1734.35	PUCKETT 13D-26 BHL

FINAL
PUCKETT 13D-26
00X16 LR
30' KB @ 8322.00usft
Ground Level @ 8322.00
NAD 1927 - Western US
Well PUCKETT 13D-26 True North

Type	Target	Asimuth	Origin Type	N/S	E/W	From TVD
User	No Target (Freehand)	236.22	Slot	0.00	0.00	0.00

Name: PUCKETT 13D-26 BHL
TVD: 8717.00
+N/-S: -964.39
+E/-W: -1441.49
Latitude: 39.492349
Longitude: -108.195286



Vertical Section at 236.22° (4500 usft/in)

WELL DETAILS: PUCKETT 13D-26

+N/-S	+E/-W	Northing	Ground Level:	8322.00	Latitude	Longitude
0.00	0.00	14354531.90	Easting	2433157.40	39.494996	-108.190180

CATHEDRAL



Cathedral Energy Services

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 13D-26
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8352.00usft
Site:	S26-T6S-R97W (MESA F26)	MD Reference:	30' KB @ 8352.00usft
Well:	PUCKETT 13D-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), GRAVITY = 0.9987g			
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 13D-26					
Well Position	+N/-S	0.00 usft	Northing:	14,354,531.90 usft	Latitude:	39.494996
	+E/-W	0.00 usft	Easting:	2,433,157.40 usft	Longitude:	-108.190180
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	1/15/2018	9.68	65.77	51,659.30000000

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	236.22	

Survey Program	Date	1/22/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
145.00	666.00	Survey #1 (OH)	INC+TREND	Inclinometer + known azi trend	
761.00	8,911.00	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	
145.00	1.45	226.92	144.98	-1.25	-1.34	1.81	1.00	1.00	
176.00	2.02	225.33	175.97	-1.91	-2.02	2.73	1.85	1.84	
206.00	2.86	238.78	205.94	-2.66	-3.03	4.00	3.37	2.80	
237.00	3.96	245.90	236.89	-3.50	-4.67	5.83	3.80	3.55	
298.00	4.97	247.92	297.70	-5.36	-9.04	10.49	1.68	1.66	
390.00	6.81	248.10	389.21	-8.89	-17.80	19.73	2.00	2.00	
481.00	9.01	243.62	479.34	-14.07	-29.19	32.08	2.51	2.42	
572.00	12.04	240.71	568.80	-21.88	-43.85	48.61	3.38	3.33	
666.00	15.73	237.99	660.04	-33.43	-63.21	71.13	3.99	3.93	
761.00	16.61	229.20	751.29	-49.13	-84.42	97.48	2.74	0.93	
855.00	15.21	226.74	841.69	-66.37	-103.57	122.98	1.65	-1.49	

Cathedral Energy Services

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 13D-26
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8352.00usft
Site:	S26-T6S-R97W (MESA F26)	MD Reference:	30' KB @ 8352.00usft
Well:	PUCKETT 13D-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
950.00	13.49	232.28	933.73	-81.69	-121.41	146.33	2.31	-1.81	
1,044.00	12.52	229.38	1,025.32	-95.03	-137.82	167.39	1.24	-1.03	
1,139.00	12.83	227.36	1,118.00	-108.88	-153.39	188.03	0.57	0.33	
1,233.00	13.71	231.13	1,209.49	-122.94	-169.74	209.44	1.31	0.94	
1,328.00	13.36	224.10	1,301.86	-137.89	-186.15	231.39	1.77	-0.37	
1,422.00	12.79	224.02	1,393.42	-153.17	-200.94	252.17	0.61	-0.61	
1,517.00	13.18	230.26	1,486.00	-167.65	-216.57	273.23	1.53	0.41	
1,611.00	14.37	230.96	1,577.29	-181.85	-233.87	295.50	1.28	1.27	
1,706.00	14.59	232.72	1,669.28	-196.52	-252.55	319.18	0.52	0.23	
1,800.00	14.15	234.39	1,760.34	-210.39	-271.31	342.48	0.64	-0.47	
1,894.00	13.84	239.40	1,851.55	-222.80	-290.33	365.19	1.33	-0.33	
1,989.00	14.50	245.37	1,943.66	-233.54	-310.92	388.28	1.69	0.69	
2,083.00	14.37	240.54	2,034.70	-244.18	-331.78	411.53	1.29	-0.14	
2,178.00	15.21	239.92	2,126.55	-256.23	-352.83	435.72	0.90	0.88	
2,272.00	15.21	243.35	2,217.26	-267.94	-374.52	460.27	0.96	0.00	
2,367.00	14.41	236.50	2,309.11	-280.05	-395.51	484.45	2.02	-0.84	
2,496.00	14.77	238.17	2,433.95	-297.59	-422.87	516.94	0.43	0.28	
2,628.00	14.63	234.65	2,561.63	-316.10	-450.76	550.42	0.68	-0.11	
2,722.00	14.99	237.46	2,652.51	-329.51	-470.69	574.44	0.85	0.38	
2,816.00	14.50	233.24	2,743.42	-343.09	-490.37	598.35	1.26	-0.52	
2,911.00	14.06	231.84	2,835.48	-357.34	-508.97	621.73	0.59	-0.46	
3,005.00	15.12	231.75	2,926.45	-371.99	-527.58	645.34	1.13	1.13	
3,099.00	15.34	231.05	3,017.15	-387.39	-546.88	669.94	0.31	0.23	
3,194.00	14.77	231.05	3,108.89	-402.90	-566.07	694.52	0.60	-0.60	
3,288.00	14.33	230.87	3,199.87	-417.78	-584.41	718.03	0.47	-0.47	
3,383.00	14.90	234.56	3,291.80	-432.28	-603.48	741.95	1.15	0.60	
3,477.00	15.29	236.50	3,382.56	-446.13	-623.66	766.42	0.68	0.41	
3,572.00	14.06	232.72	3,474.46	-460.03	-643.29	790.47	1.64	-1.29	
3,666.00	14.06	230.17	3,565.64	-474.26	-661.14	813.22	0.66	0.00	
3,761.00	14.33	233.16	3,657.74	-488.70	-679.41	836.44	0.82	0.28	
3,855.00	14.94	233.07	3,748.69	-502.96	-698.41	860.15	0.65	0.65	
3,950.00	13.45	232.72	3,840.79	-517.01	-716.99	883.41	1.57	-1.57	
4,044.00	13.93	235.88	3,932.12	-529.98	-735.06	905.63	0.95	0.51	
4,139.00	13.76	235.71	4,024.36	-542.76	-753.86	928.37	0.18	-0.18	
4,233.00	13.76	235.00	4,115.66	-555.47	-772.25	950.72	0.18	0.00	
4,328.00	13.80	235.97	4,207.93	-568.29	-790.90	973.35	0.25	0.04	
4,422.00	14.55	235.79	4,299.07	-581.20	-809.95	996.37	0.80	0.80	
4,516.00	14.24	232.72	4,390.12	-594.84	-828.92	1,019.71	0.88	-0.33	
4,611.00	14.81	233.68	4,482.08	-609.11	-848.00	1,043.51	0.65	0.60	
4,705.00	13.84	233.60	4,573.16	-622.90	-866.73	1,066.74	1.03	-1.03	
4,800.00	13.58	238.52	4,665.45	-635.47	-885.38	1,089.24	1.26	-0.27	
4,894.00	13.05	233.60	4,756.93	-647.53	-903.34	1,110.86	1.33	-0.56	
4,989.00	14.33	232.72	4,849.23	-661.01	-921.33	1,133.31	1.37	1.35	
5,083.00	14.99	228.85	4,940.17	-676.06	-939.74	1,156.98	1.26	0.70	
5,178.00	15.38	229.46	5,031.85	-692.33	-958.56	1,181.68	0.44	0.41	
5,272.00	15.47	233.24	5,122.47	-707.94	-978.08	1,206.58	1.07	0.10	
5,367.00	15.34	231.57	5,214.06	-723.33	-998.07	1,231.75	0.49	-0.14	
5,461.00	15.56	232.63	5,304.66	-738.71	-1,017.83	1,256.73	0.38	0.23	
5,556.00	14.99	235.79	5,396.30	-753.35	-1,038.12	1,281.73	1.06	-0.60	
5,650.00	13.01	241.15	5,487.51	-765.30	-1,057.44	1,304.43	2.52	-2.11	
5,745.00	11.73	243.00	5,580.30	-774.84	-1,075.42	1,324.68	1.41	-1.35	
5,839.00	11.07	235.53	5,672.45	-784.29	-1,091.37	1,343.19	1.72	-0.70	
5,933.00	9.36	229.73	5,764.96	-794.34	-1,104.64	1,359.81	2.12	-1.82	

Cathedral Energy Services

Survey Report

Company:	Caerus Oil & Gas	Local Co-ordinate Reference:	Well PUCKETT 13D-26
Project:	Garfield County, CO (UTM 12N)	TVD Reference:	30' KB @ 8352.00usft
Site:	S26-T6S-R97W (MESA F26)	MD Reference:	30' KB @ 8352.00usft
Well:	PUCKETT 13D-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
6,028.00	7.21	240.10	5,858.97	-802.30	-1,115.71	1,373.44	2.75	-2.26	
6,122.00	6.99	243.79	5,952.25	-807.77	-1,125.95	1,384.99	0.54	-0.23	
6,217.00	6.86	239.92	6,046.56	-813.17	-1,136.05	1,396.38	0.51	-0.14	
6,311.00	6.37	240.36	6,139.93	-818.56	-1,145.44	1,407.19	0.52	-0.52	
6,406.00	5.93	239.57	6,234.39	-823.65	-1,154.25	1,417.34	0.47	-0.46	
6,500.00	5.58	245.37	6,327.91	-828.01	-1,162.59	1,426.70	0.72	-0.37	
6,594.00	5.10	248.27	6,421.50	-831.47	-1,170.63	1,435.30	0.59	-0.51	
6,689.00	3.82	261.55	6,516.22	-833.49	-1,177.68	1,442.29	1.72	-1.35	
6,783.00	3.16	247.83	6,610.04	-834.93	-1,183.18	1,447.66	1.13	-0.70	
7,067.00	2.24	263.04	6,893.73	-838.56	-1,195.94	1,460.28	0.41	-0.32	
7,350.00	5.54	242.82	7,176.05	-845.47	-1,213.58	1,478.79	1.25	1.17	
7,634.00	10.50	239.13	7,457.19	-865.02	-1,248.01	1,518.28	1.75	1.75	
7,917.00	14.37	234.74	7,733.50	-898.54	-1,298.84	1,579.16	1.41	1.37	
8,201.00	16.30	234.30	8,007.38	-942.15	-1,359.99	1,654.23	0.68	0.68	
8,484.00	17.75	233.24	8,277.97	-991.14	-1,426.80	1,737.01	0.52	0.51	
8,765.00	20.61	230.34	8,543.35	-1,048.35	-1,499.21	1,829.00	1.07	1.02	
8,837.00	21.01	228.50	8,610.65	-1,064.99	-1,518.63	1,854.40	1.06	0.56	LAST SURVEY- 8837.00' MD
8,911.00	21.01	228.50	8,679.73	-1,082.57	-1,538.50	1,880.69	0.00	0.00	PROJECTION TO BIT-8911.00' 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 13D-26 BHL	0.00	0.00	8,717.00	-964.39	-1,441.49	14,353,523.00	2,431,746.70	39.492349	-108.195286
- actual wellpath misses target center by 156.18usft at 8891.66usft MD (8661.68 TVD, -1077.98 N, -1533.31 E)									
- Ellipse (radii L200.00 W100.00 on 250.00 azi)									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	Comment
		+N/-S (usft)	+E/-W (usft)
8,837.00	8,610.65	-1,064.99	-1,518.63
8,911.00	8,679.73	-1,082.57	-1,538.50
			LAST SURVEY- 8837.00' MD
			PROJECTION TO BIT-8911.00' MD

Checked By: _____ Approved By: _____ Date: _____