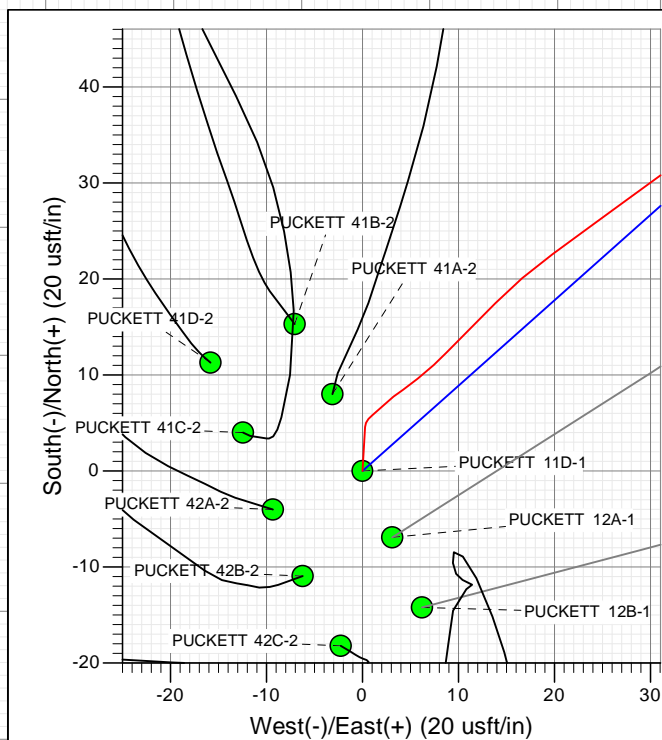
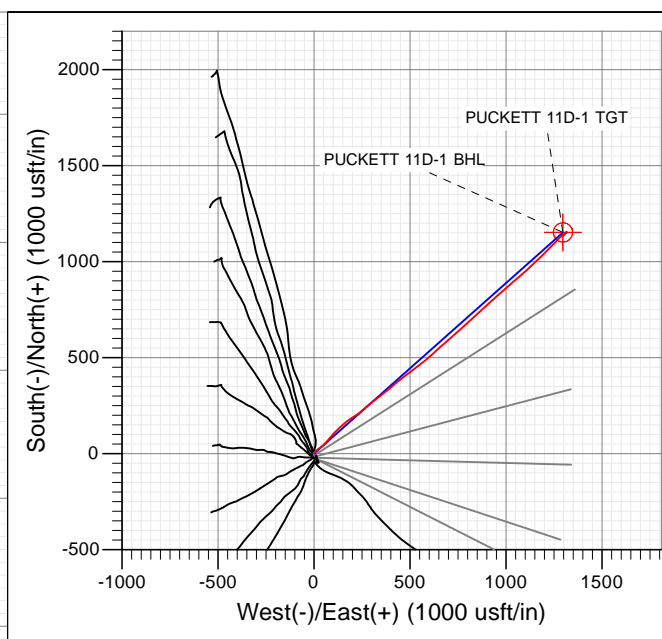
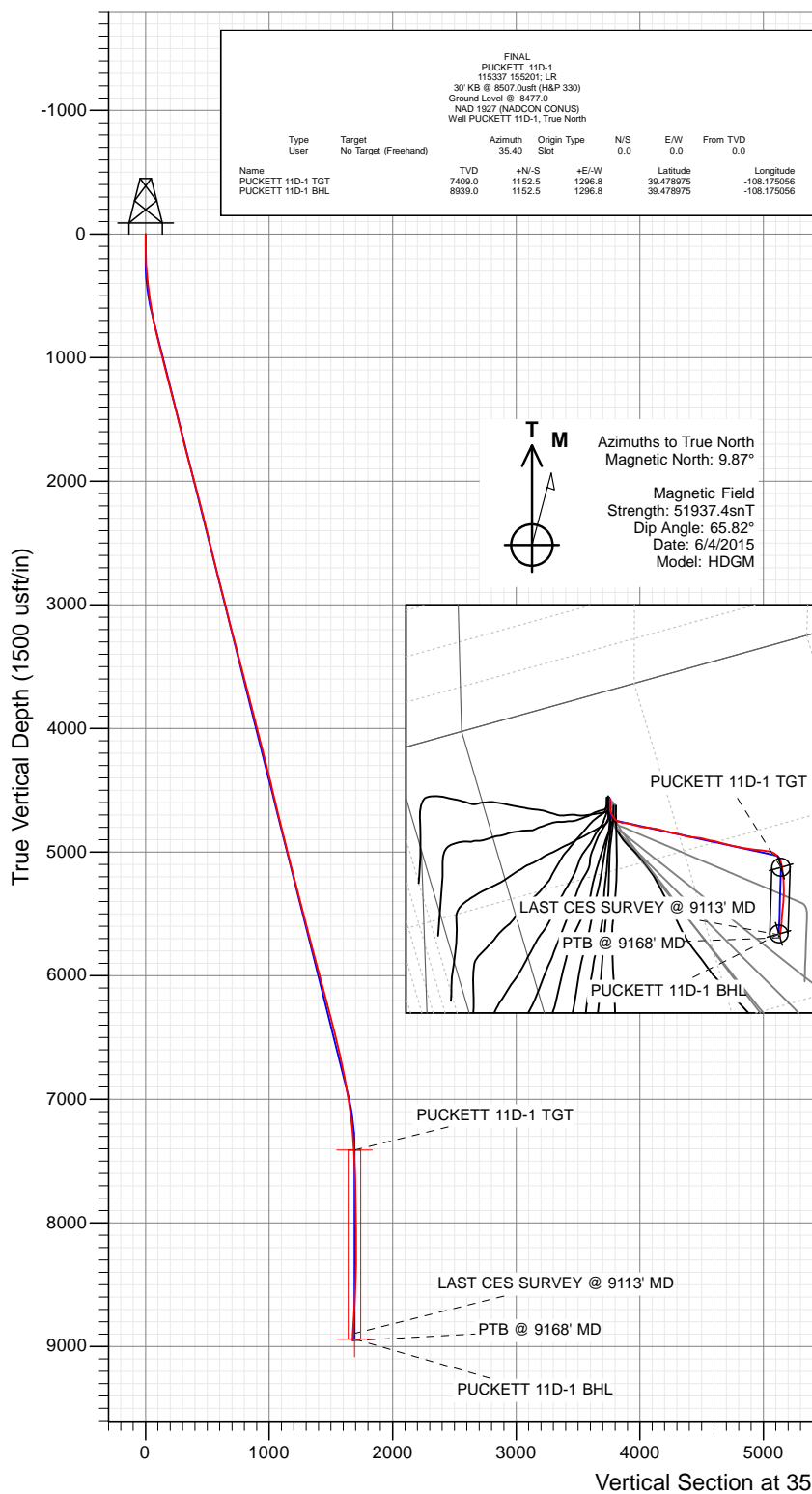




Project: Garfield County, CO
 Site: S2-T7S-R97W (Mesa H2)
 Well: PUCKETT 11D-1
 Wellbore: DD
 Design: FINAL



WELL DETAILS: PUCKETT 11D-1

Ground Level: 8477.0
 Northing: 609336.35
 Easting: 1243674.67
 Latitude: 39.475811
 Longitude: -108.179650



Survey Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11D-1
Project:	Garfield County, CO	TVD Reference:	30' KB @ 8507.0usft (H&P 330)
Site:	S2-T7S-R97W (Mesa H2)	MD Reference:	30' KB @ 8507.0usft (H&P 330)
Well:	PUCKETT 11D-1	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	Garfield County, CO		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado Central 502		

Site		S2-T7S-R97W (Mesa H2)			
Site Position:		Northing:	609,295.74 usft	Latitude:	39.475700
From:	Lat/Long	Easting:	1,243,680.53 usft	Longitude:	-108.179625
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.69 °

Well	PUCKETT 11D-1					
Well Position	+N/-S	0.0 usft	Northing:	609,336.35 usft	Latitude:	39.475811
	+E/-W	0.0 usft	Easting:	1,243,674.67 usft	Longitude:	-108.179650
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,477.0 usft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/4/2015	9.87	65.82	51,937

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	35.40	

Survey Program	Date	6/15/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
211.0	9,168.0	Survey #1 (DD)	ISCWSA MWD	MWD - Standard	

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	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
211.0	2.50	3.70	210.9	4.6	0.3	3.9	1.18	1.18		
242.0	3.20	51.80	241.9	5.8	1.0	5.3	7.77	2.26		
273.0	3.80	45.70	272.8	7.1	2.4	7.2	2.28	1.94		
304.0	4.70	56.30	303.8	8.5	4.2	9.4	3.84	2.90		
348.0	6.05	47.28	347.6	11.1	7.4	13.3	3.61	3.07		
365.0	6.60	44.80	364.5	12.4	8.8	15.2	3.61	3.24		
426.0	7.00	44.70	425.0	17.5	13.9	22.3	0.66	0.66		
487.0	7.80	53.40	485.5	22.6	19.8	29.9	2.25	1.31		
579.0	10.00	54.40	576.4	31.0	31.3	43.4	2.40	2.39		
673.0	10.90	50.30	668.9	41.4	44.8	59.7	1.24	0.96		
768.0	12.50	41.50	761.9	54.8	58.5	78.6	2.52	1.68		
862.0	13.50	40.90	853.5	70.7	72.4	99.6	1.07	1.06		

Survey Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11D-1
Project:	Garfield County, CO	TVD Reference:	30' KB @ 8507.0usft (H&P 330)
Site:	S2-T7S-R97W (Mesa H2)	MD Reference:	30' KB @ 8507.0usft (H&P 330)
Well:	PUCKETT 11D-1	North Reference:	True
Wellbore:	DD	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
957.0	14.70	44.50	945.6	87.7	88.1	122.6	1.56	1.26	
1,051.0	15.40	41.40	1,036.4	105.6	104.8	146.8	1.13	0.74	
1,146.0	13.90	41.90	1,128.3	123.6	120.7	170.6	1.58	-1.58	
1,240.0	14.40	51.40	1,219.5	139.2	137.4	193.1	2.52	0.53	
1,334.0	14.60	51.60	1,310.5	153.9	155.8	215.7	0.22	0.21	
1,429.0	14.70	47.60	1,402.4	169.5	174.1	239.0	1.07	0.11	
1,523.0	14.20	56.50	1,493.4	183.9	192.5	261.4	2.42	-0.53	
1,618.0	15.00	57.10	1,585.3	197.0	212.6	283.7	0.86	0.84	
1,712.0	15.80	55.40	1,676.0	210.9	233.3	307.0	0.98	0.85	
1,807.0	15.30	51.50	1,767.5	226.0	253.8	331.2	1.22	-0.53	
1,901.0	15.40	47.20	1,858.1	242.2	272.6	355.4	1.22	0.11	
1,996.0	15.10	51.00	1,949.8	258.6	291.5	379.6	1.10	-0.32	
2,090.0	16.00	52.10	2,040.4	274.2	311.2	403.8	1.01	0.96	
2,185.0	14.90	51.00	2,131.9	290.0	331.1	428.1	1.20	-1.16	
2,280.0	14.90	52.00	2,223.7	305.2	350.2	451.6	0.27	0.00	
2,374.0	14.30	52.20	2,314.7	319.7	368.9	474.3	0.64	-0.64	
2,497.0	14.50	51.50	2,433.8	338.6	392.9	503.6	0.22	0.16	
2,591.0	14.00	50.00	2,524.9	353.2	410.9	525.9	0.66	-0.53	
2,685.0	13.90	48.60	2,616.2	368.0	428.0	547.9	0.37	-0.11	
2,780.0	15.50	52.70	2,708.1	383.3	446.7	571.2	2.01	1.68	
2,875.0	15.10	52.80	2,799.7	398.4	466.6	595.1	0.42	-0.42	
2,969.0	15.00	52.20	2,890.5	413.3	486.0	618.4	0.20	-0.11	
3,064.0	14.10	51.70	2,982.4	428.0	504.8	641.3	0.96	-0.95	
3,158.0	14.70	52.40	3,073.5	442.4	523.2	663.7	0.66	0.64	
3,253.0	14.20	52.50	3,165.5	456.8	542.0	686.4	0.53	-0.53	
3,347.0	14.90	51.50	3,256.4	471.4	560.6	709.0	0.79	0.74	
3,442.0	15.30	53.00	3,348.2	486.5	580.2	732.7	0.59	0.42	
3,537.0	15.50	48.20	3,439.8	502.5	599.7	757.0	1.36	0.21	
3,631.0	15.80	46.90	3,530.3	519.6	618.4	781.8	0.49	0.32	
3,726.0	15.50	47.10	3,621.7	537.1	637.1	806.9	0.32	-0.32	
3,821.0	14.50	49.00	3,713.5	553.6	655.4	830.9	1.17	-1.05	
3,915.0	13.80	48.10	3,804.7	568.8	672.6	853.3	0.78	-0.74	
4,010.0	14.60	50.20	3,896.8	584.0	690.3	875.9	1.00	0.84	
4,104.0	14.10	50.20	3,987.8	598.9	708.2	898.4	0.53	-0.53	
4,198.0	15.20	47.40	4,078.8	614.6	726.0	921.5	1.39	1.17	
4,293.0	14.20	48.60	4,170.7	630.7	743.9	945.1	1.10	-1.05	
4,388.0	14.70	46.90	4,262.7	646.7	761.5	968.2	0.69	0.53	
4,482.0	14.40	47.90	4,353.6	662.6	778.9	991.3	0.42	-0.32	
4,577.0	14.10	46.20	4,445.7	678.6	796.0	1,014.2	0.54	-0.32	
4,672.0	12.90	47.70	4,538.1	693.7	812.2	1,035.9	1.32	-1.26	
4,766.0	13.80	47.30	4,629.5	708.4	828.2	1,057.2	0.96	0.96	
4,861.0	15.30	48.50	4,721.5	724.4	845.9	1,080.5	1.61	1.58	
4,955.0	13.60	49.30	4,812.5	739.8	863.6	1,103.3	1.82	-1.81	
5,050.0	14.60	48.20	4,904.7	755.1	881.0	1,125.8	1.09	1.05	
5,144.0	13.10	47.40	4,995.9	770.2	897.6	1,147.8	1.61	-1.60	
5,239.0	14.10	47.30	5,088.3	785.3	914.1	1,169.6	1.05	1.05	
5,333.0	15.60	49.80	5,179.1	801.2	932.1	1,193.1	1.73	1.60	
5,428.0	15.50	48.30	5,270.6	817.9	951.4	1,217.8	0.44	-0.11	
5,522.0	14.90	47.60	5,361.3	834.4	969.7	1,241.9	0.67	-0.64	
5,617.0	14.00	46.90	5,453.3	850.5	987.1	1,265.1	0.97	-0.95	
5,712.0	15.30	48.40	5,545.3	866.7	1,004.8	1,288.5	1.43	1.37	
5,806.0	15.20	49.60	5,635.9	882.9	1,023.5	1,312.6	0.35	-0.11	
5,901.0	14.10	50.50	5,727.9	898.3	1,041.9	1,335.8	1.18	-1.16	

Survey Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11D-1
Project:	Garfield County, CO	TVD Reference:	30' KB @ 8507.0usft (H&P 330)
Site:	S2-T7S-R97W (Mesa H2)	MD Reference:	30' KB @ 8507.0usft (H&P 330)
Well:	PUCKETT 11D-1	North Reference:	True
Wellbore:	DD	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
5,995.0	15.90	48.40	5,818.6	914.2	1,060.4	1,359.4	2.00	1.91	
6,090.0	16.30	47.90	5,909.9	931.7	1,080.0	1,385.1	0.45	0.42	
6,184.0	15.00	49.00	6,000.4	948.6	1,099.0	1,409.8	1.42	-1.38	
6,279.0	14.90	49.60	6,092.2	964.6	1,117.5	1,433.6	0.19	-0.11	
6,373.0	15.20	45.70	6,183.0	981.0	1,135.6	1,457.4	1.12	0.32	
6,468.0	14.20	45.60	6,274.9	997.8	1,152.8	1,481.2	1.05	-1.05	
6,562.0	15.20	45.50	6,365.8	1,014.6	1,169.8	1,504.6	1.06	1.06	
6,656.0	14.50	45.40	6,456.7	1,031.5	1,187.0	1,528.4	0.75	-0.74	
6,751.0	14.20	45.50	6,548.7	1,048.0	1,203.8	1,551.6	0.32	-0.32	
6,845.0	12.70	45.20	6,640.1	1,063.3	1,219.3	1,573.1	1.60	-1.60	
6,940.0	11.50	46.30	6,733.0	1,077.2	1,233.6	1,592.7	1.29	-1.26	
7,035.0	10.80	45.60	6,826.2	1,090.0	1,246.8	1,610.7	0.75	-0.74	
7,130.0	10.60	42.20	6,919.6	1,102.7	1,259.0	1,628.2	0.70	-0.21	
7,224.0	8.90	42.00	7,012.2	1,114.5	1,269.7	1,644.0	1.81	-1.81	
7,318.0	7.60	42.80	7,105.2	1,124.5	1,278.8	1,657.4	1.39	-1.38	
7,413.0	6.70	48.60	7,199.5	1,132.8	1,287.2	1,669.0	1.21	-0.95	
7,507.0	4.50	55.30	7,293.0	1,138.5	1,294.4	1,677.8	2.44	-2.34	
7,602.0	4.00	56.60	7,387.8	1,142.4	1,300.2	1,684.4	0.54	-0.53	
7,696.0	3.30	51.60	7,481.6	1,145.9	1,305.1	1,690.0	0.82	-0.74	
7,791.0	2.30	48.80	7,576.5	1,148.9	1,308.6	1,694.5	1.06	-1.05	
7,885.0	2.10	73.40	7,670.4	1,150.6	1,311.7	1,697.7	1.02	-0.21	
7,980.0	1.50	84.10	7,765.4	1,151.2	1,314.6	1,699.9	0.72	-0.63	
8,074.0	0.40	101.50	7,859.3	1,151.3	1,316.2	1,700.9	1.20	-1.17	
8,169.0	0.40	86.00	7,954.3	1,151.2	1,316.8	1,701.2	0.11	0.00	
8,358.0	1.10	20.80	8,143.3	1,153.0	1,318.1	1,703.4	0.53	0.37	
8,547.0	1.90	260.10	8,332.3	1,154.1	1,315.7	1,702.9	1.40	0.42	
8,735.0	2.50	209.20	8,520.2	1,150.0	1,310.6	1,696.6	1.05	0.32	
8,924.0	3.00	218.70	8,709.0	1,142.6	1,305.5	1,687.6	0.36	0.26	
9,113.0	3.10	229.80	8,897.7	1,135.4	1,298.5	1,677.7	0.32	0.05	LAST CES SURVEY @ 9113' MD
9,168.0	3.10	229.80	8,952.6	1,133.5	1,296.2	1,674.8	0.00	0.00	PTB @ 9168' MD

Survey Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 11D-1
Project:	Garfield County, CO	TVD Reference:	30' KB @ 8507.0usft (H&P 330)
Site:	S2-T7S-R97W (Mesa H2)	MD Reference:	30' KB @ 8507.0usft (H&P 330)
Well:	PUCKETT 11D-1	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PUCKETT 11D-1 BHL	0.00	0.00	8,939.0	1,152.5	1,296.8	610,450.08	1,245,004.87	39.478975	-108.175056
- actual wellpath misses target center by 18.5usft at 9153.7usft MD (8938.4 TVD, 1134.0 N, 1296.8 E)									
- Circle (radius 50.0)									
PUCKETT 11D-1 TGT	0.00	0.00	7,409.0	1,152.5	1,296.8	610,450.08	1,245,004.87	39.478975	-108.175056
- actual wellpath misses target center by 10.3usft at 7623.4usft MD (7409.1 TVD, 1143.2 N, 1301.4 E)									
- Point									

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W		
		(usft)	(usft)	Comment	
9,113.0	8,897.7	1,135.4	1,298.5	LAST CES SURVEY @ 9113' MD	
9,168.0	8,952.6	1,133.5	1,296.2	PTB @ 9168' MD	

Checked By: _____ Approved By: _____ Date: _____