



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 34B-24
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.0usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 34B-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

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		S24-T6N-R97W (MESA P24)			
Site Position:		Northing:	14,357,707.60 usft	Latitude:	39.503013
From:	Map	Easting:	2,441,222.80 usft	Longitude:	-108.161271
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.81 °

Well	PUCKETT 34B-24					
Well Position	+N/-S	0.0 usft	Northing:	14,357,713.00 usft	Latitude:	39.503029
	+E/-W	0.0 usft	Easting:	2,441,208.80 usft	Longitude:	-108.161320
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,151.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/16/2016	9.80	65.87	51,868

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	270.75

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
577.9	11.34	270.75	575.5	0.5	-37.3	3.00	3.00	0.00	270.75	
6,492.4	11.34	270.75	6,374.5	15.7	-1,199.9	0.00	0.00	0.00	0.00	
6,870.3	0.00	0.00	6,750.0	16.2	-1,237.2	3.00	-3.00	0.00	180.00	
9,121.3	0.00	0.00	9,001.0	16.2	-1,237.2	0.00	0.00	0.00	0.00	PUCKETT 34B-24 PE

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Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.0usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 34B-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

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
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
300.0	3.00	270.75	300.0	0.0	-2.6	2.6	3.00	3.00	
400.0	6.00	270.75	399.6	0.1	-10.5	10.5	3.00	3.00	
500.0	9.00	270.75	498.8	0.3	-23.5	23.5	3.00	3.00	
577.9	11.34	270.75	575.5	0.5	-37.3	37.3	3.00	3.00	Start 5914.5 hold at 577.9 MD
600.0	11.34	270.75	597.1	0.5	-41.6	41.6	0.00	0.00	
700.0	11.34	270.75	695.2	0.8	-61.3	61.3	0.00	0.00	
800.0	11.34	270.75	793.2	1.1	-80.9	80.9	0.00	0.00	
900.0	11.34	270.75	891.3	1.3	-100.6	100.6	0.00	0.00	
1,000.0	11.34	270.75	989.3	1.6	-120.2	120.2	0.00	0.00	
1,100.0	11.34	270.75	1,087.3	1.8	-139.9	139.9	0.00	0.00	
1,200.0	11.34	270.75	1,185.4	2.1	-159.6	159.6	0.00	0.00	
1,300.0	11.34	270.75	1,283.4	2.3	-179.2	179.2	0.00	0.00	
1,400.0	11.34	270.75	1,381.5	2.6	-198.9	198.9	0.00	0.00	
1,500.0	11.34	270.75	1,479.5	2.9	-218.5	218.5	0.00	0.00	
1,600.0	11.34	270.75	1,577.6	3.1	-238.2	238.2	0.00	0.00	
1,700.0	11.34	270.75	1,675.6	3.4	-257.8	257.9	0.00	0.00	
1,800.0	11.34	270.75	1,773.7	3.6	-277.5	277.5	0.00	0.00	
1,900.0	11.34	270.75	1,871.7	3.9	-297.2	297.2	0.00	0.00	
2,000.0	11.34	270.75	1,969.8	4.2	-316.8	316.8	0.00	0.00	
2,100.0	11.34	270.75	2,067.8	4.4	-336.5	336.5	0.00	0.00	
2,200.0	11.34	270.75	2,165.9	4.7	-356.1	356.2	0.00	0.00	
2,300.0	11.34	270.75	2,263.9	4.9	-375.8	375.8	0.00	0.00	
2,400.0	11.34	270.75	2,362.0	5.2	-395.4	395.5	0.00	0.00	
2,500.0	11.34	270.75	2,460.0	5.4	-415.1	415.1	0.00	0.00	
2,600.0	11.34	270.75	2,558.1	5.7	-434.8	434.8	0.00	0.00	
2,700.0	11.34	270.75	2,656.1	6.0	-454.4	454.5	0.00	0.00	
2,800.0	11.34	270.75	2,754.2	6.2	-474.1	474.1	0.00	0.00	
2,900.0	11.34	270.75	2,852.2	6.5	-493.7	493.8	0.00	0.00	
3,000.0	11.34	270.75	2,950.3	6.7	-513.4	513.4	0.00	0.00	
3,100.0	11.34	270.75	3,048.3	7.0	-533.1	533.1	0.00	0.00	
3,200.0	11.34	270.75	3,146.4	7.2	-552.7	552.8	0.00	0.00	
3,300.0	11.34	270.75	3,244.4	7.5	-572.4	572.4	0.00	0.00	
3,400.0	11.34	270.75	3,342.5	7.8	-592.0	592.1	0.00	0.00	
3,500.0	11.34	270.75	3,440.5	8.0	-611.7	611.7	0.00	0.00	
3,600.0	11.34	270.75	3,538.6	8.3	-631.3	631.4	0.00	0.00	
3,700.0	11.34	270.75	3,636.6	8.5	-651.0	651.1	0.00	0.00	
3,800.0	11.34	270.75	3,734.7	8.8	-670.7	670.7	0.00	0.00	
3,900.0	11.34	270.75	3,832.7	9.0	-690.3	690.4	0.00	0.00	
4,000.0	11.34	270.75	3,930.8	9.3	-710.0	710.0	0.00	0.00	
4,100.0	11.34	270.75	4,028.8	9.6	-729.6	729.7	0.00	0.00	
4,200.0	11.34	270.75	4,126.9	9.8	-749.3	749.4	0.00	0.00	
4,300.0	11.34	270.75	4,224.9	10.1	-769.0	769.0	0.00	0.00	
4,400.0	11.34	270.75	4,322.9	10.3	-788.6	788.7	0.00	0.00	
4,500.0	11.34	270.75	4,421.0	10.6	-808.3	808.3	0.00	0.00	
4,600.0	11.34	270.75	4,519.0	10.9	-827.9	828.0	0.00	0.00	
4,700.0	11.34	270.75	4,617.1	11.1	-847.6	847.7	0.00	0.00	
4,800.0	11.34	270.75	4,715.1	11.4	-867.2	867.3	0.00	0.00	
4,900.0	11.34	270.75	4,813.2	11.6	-886.9	887.0	0.00	0.00	
5,000.0	11.34	270.75	4,911.2	11.9	-906.6	906.6	0.00	0.00	

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Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 34B-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

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
5,100.0	11.34	270.75	5,009.3	12.1	-926.2	926.3	0.00	0.00	
5,200.0	11.34	270.75	5,107.3	12.4	-945.9	946.0	0.00	0.00	
5,300.0	11.34	270.75	5,205.4	12.7	-965.5	965.6	0.00	0.00	
5,400.0	11.34	270.75	5,303.4	12.9	-985.2	985.3	0.00	0.00	
5,500.0	11.34	270.75	5,401.5	13.2	-1,004.8	1,004.9	0.00	0.00	
5,600.0	11.34	270.75	5,499.5	13.4	-1,024.5	1,024.6	0.00	0.00	
5,700.0	11.34	270.75	5,597.6	13.7	-1,044.2	1,044.3	0.00	0.00	
5,800.0	11.34	270.75	5,695.6	13.9	-1,063.8	1,063.9	0.00	0.00	
5,900.0	11.34	270.75	5,793.7	14.2	-1,083.5	1,083.6	0.00	0.00	
5,963.6	11.34	270.75	5,856.0	14.4	-1,096.0	1,096.1	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,000.0	11.34	270.75	5,891.7	14.5	-1,103.1	1,103.2	0.00	0.00	
6,100.0	11.34	270.75	5,989.8	14.7	-1,122.8	1,122.9	0.00	0.00	
6,200.0	11.34	270.75	6,087.8	15.0	-1,142.5	1,142.6	0.00	0.00	
6,265.5	11.34	270.75	6,152.0	15.1	-1,155.3	1,155.4	0.00	0.00	WILLIAMS_FORK.MBL (TVD)
6,300.0	11.34	270.75	6,185.9	15.2	-1,162.1	1,162.2	0.00	0.00	
6,400.0	11.34	270.75	6,283.9	15.5	-1,181.8	1,181.9	0.00	0.00	
6,492.4	11.34	270.75	6,374.5	15.7	-1,199.9	1,200.0	0.00	0.00	Start Drop -3.00
6,500.0	11.11	270.75	6,382.0	15.7	-1,201.4	1,201.5	3.00	-3.00	
6,600.0	8.11	270.75	6,480.6	16.0	-1,218.1	1,218.2	3.00	-3.00	
6,700.0	5.11	270.75	6,579.9	16.1	-1,229.6	1,229.7	3.00	-3.00	
6,800.0	2.11	270.75	6,679.7	16.2	-1,235.9	1,236.0	3.00	-3.00	
6,870.3	0.00	0.00	6,750.0	16.2	-1,237.2	1,237.3	3.00	-3.00	Start 2251.0 hold at 6870.3 MD - TOP_GAS.ME
6,900.0	0.00	0.00	6,779.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,000.0	0.00	0.00	6,879.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,100.0	0.00	0.00	6,979.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,200.0	0.00	0.00	7,079.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,300.0	0.00	0.00	7,179.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,400.0	0.00	0.00	7,279.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,500.0	0.00	0.00	7,379.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,600.0	0.00	0.00	7,479.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,700.0	0.00	0.00	7,579.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,800.0	0.00	0.00	7,679.7	16.2	-1,237.2	1,237.3	0.00	0.00	
7,900.0	0.00	0.00	7,779.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,000.0	0.00	0.00	7,879.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,100.0	0.00	0.00	7,979.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,200.0	0.00	0.00	8,079.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,300.0	0.00	0.00	8,179.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,400.0	0.00	0.00	8,279.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,500.0	0.00	0.00	8,379.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,600.0	0.00	0.00	8,479.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,700.0	0.00	0.00	8,579.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,721.3	0.00	0.00	8,601.0	16.2	-1,237.2	1,237.3	0.00	0.00	CAMEO.MBL (TVD)
8,800.0	0.00	0.00	8,679.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,900.0	0.00	0.00	8,779.7	16.2	-1,237.2	1,237.3	0.00	0.00	
8,971.3	0.00	0.00	8,851.0	16.2	-1,237.2	1,237.3	0.00	0.00	ROLLINS.MBL (TVD)
9,000.0	0.00	0.00	8,879.7	16.2	-1,237.2	1,237.3	0.00	0.00	
9,100.0	0.00	0.00	8,979.7	16.2	-1,237.2	1,237.3	0.00	0.00	
9,121.3	0.00	0.00	9,001.0	16.2	-1,237.2	1,237.3	0.00	0.00	TD at 9121.3 - TD.MBL (TVD)

Planning Report

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Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.0usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 34B-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

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 34B-24 PBHL	0.00	0.00	9,001.0	16.2	-1,237.2	14,357,690.20	2,439,971.70	39.503074	-108.165702
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,963.6	5,856.0	OHIO_CREEK.MBL (TVD)				
6,265.5	6,152.0	WILLIAMS_FORK.MBL (TVD)				
6,870.3	6,750.0	TOP_GAS.MBL (TVD)				
8,721.3	8,601.0	CAMEO.MBL (TVD)				
8,971.3	8,851.0	ROLLINS.MBL (TVD)				
9,121.3	9,001.0	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.0	200.0	0.0	0.0	Start Build 3.00	
577.9	575.5	0.5	-37.3	Start 5914.5 hold at 577.9 MD	
6,492.4	6,374.5	15.7	-1,199.9	Start Drop -3.00	
6,870.3	6,750.0	16.2	-1,237.2	Start 2251.0 hold at 6870.3 MD	
9,121.3	9,001.0	16.2	-1,237.2	TD at 9121.3	