

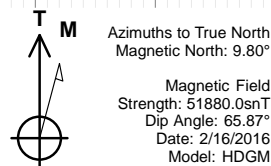
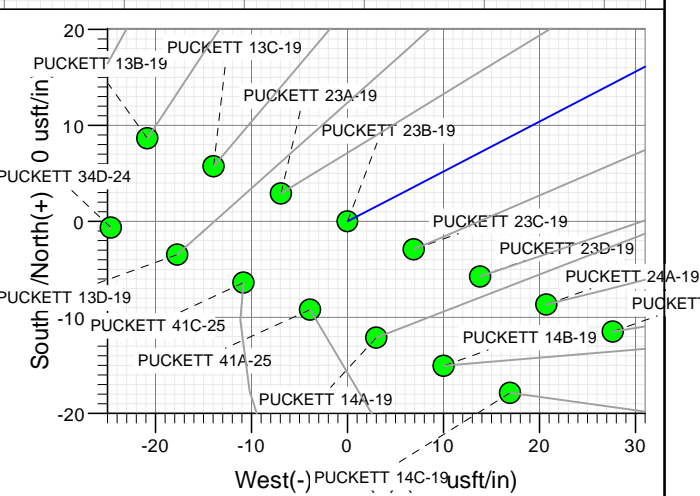
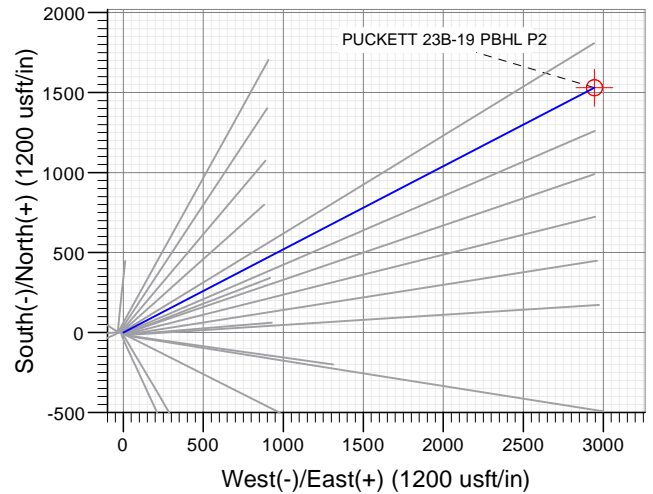
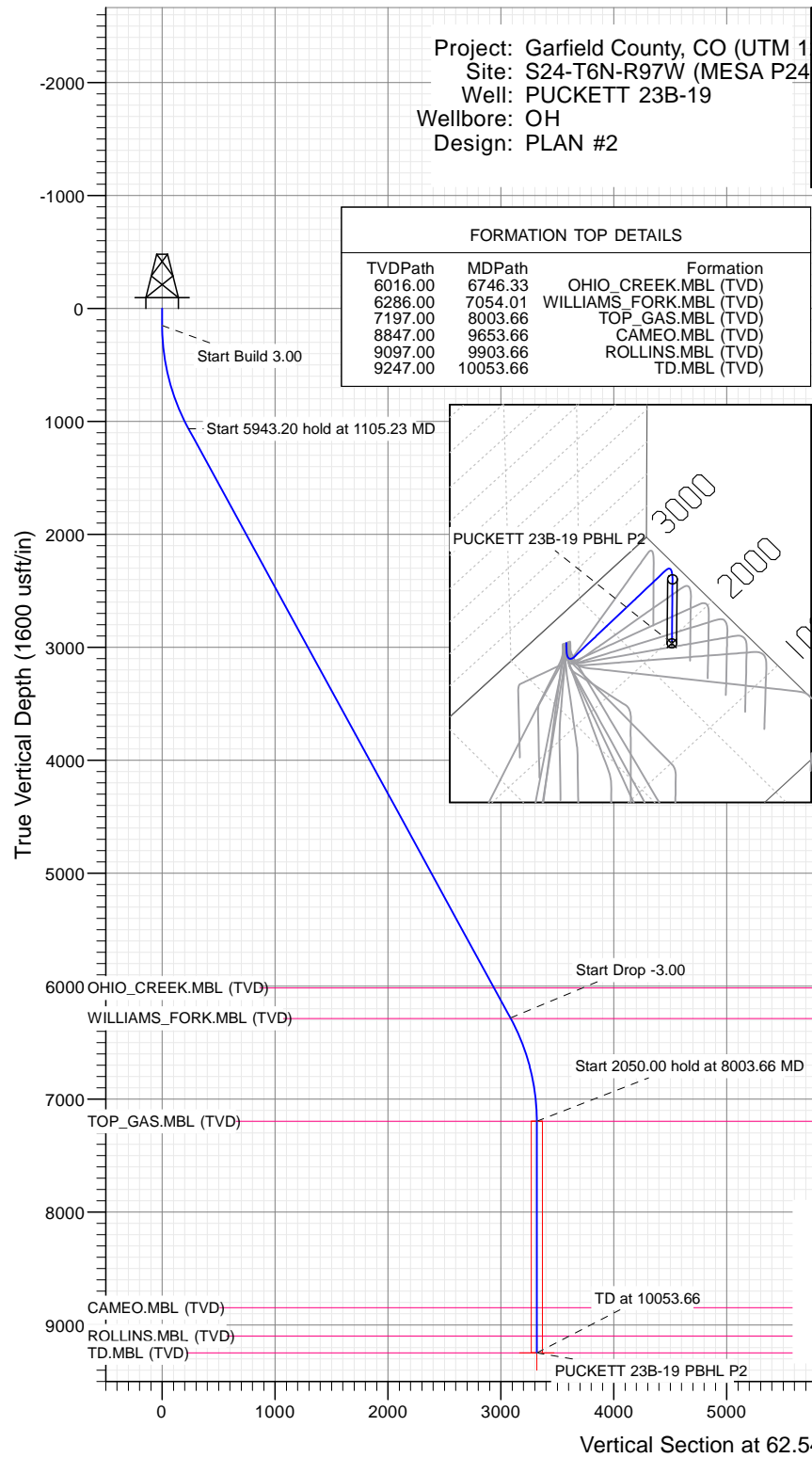


SECTION DETAILS

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	150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	
3	1105.23	28.66	62.54	1065.90	107.88	207.59	3.00	62.54	233.94	
4	7048.43	28.66	62.54	6281.10	1422.15	2736.62	0.00	0.00	3084.09	
5	8003.66	0.00	0.00	7197.00	1530.03	2944.21	3.00	180.00	3318.03	
6	10053.66	0.00	0.00	9247.00	1530.03	2944.21	0.00	0.00	3318.03	PUCKETT 23B-19 PBHL P2

Project: Garfield County, CO (UTM 1
Site: S24-T6N-R97W (MESA P24
Well: PUCKETT 23B-19
Wellbore: OH
Design: PLAN #2

PLAN #2 PUCKETT 23B-19 16X0X LR 30' KB @ 8151.00usft Ground Level @ 8151.00 NAD 1927 - Western US Well PUCKETT 23B-19 - Slot A6, True North									
Type	Target	No. Target	Freehand	Azimuth	Origin	Type	N/S	E/W	From
TD				62.54	Slot		0.00	0.00	TVD
Name	TVD	+N/-S	+E/-W	Latitude	Longitude				
PUCKETT 23B-19 PBHL	9247.00	1528.74	2985.09	39.507179	-108.150510				
PUCKETT 23B-19 PBHL P2	9247.00	1530.03	2944.21	39.507182	-108.150655				



WELL DETAILS: PUCKETT 23B-19

+N/-S	+E/-W	Northing	Ground Level:	8151.00	Latitude	Longitude
0.00	0.00	14357698.40	Easting	2441275.50	39.502984	-108.161085

A6

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23C-19 - Slot A5
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 23C-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.81 °

Well	PUCKETT 23C-19 - Slot A5					
Well Position	+N/-S	0.00 usft	Northing:	14,357,695.70 usft	Latitude:	39.502976
	+E/-W	0.00 usft	Easting:	2,441,282.50 usft	Longitude:	-108.161061
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,151.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/16/2016	9.80	65.87	51,880.00000000

Design	PLAN #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	66.76

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,245.69	28.37	66.76	1,207.52	90.53	210.77	3.00	3.00	0.00	66.76	
7,011.14	28.37	66.76	6,280.48	1,171.73	2,727.99	0.00	0.00	0.00	0.00	
7,956.83	0.00	0.00	7,188.00	1,262.27	2,938.76	3.00	-3.00	0.00	180.00	
10,008.83	0.00	0.00	9,240.00	1,262.27	2,938.76	0.00	0.00	0.00	0.00	PUCKETT 23C-19 PE

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23C-19 - Slot A5
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 23C-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
400.00	3.00	66.76	399.95	1.03	2.40	2.62	3.00	3.00	
500.00	6.00	66.76	499.63	4.13	9.61	10.46	3.00	3.00	
600.00	9.00	66.76	598.77	9.28	21.60	23.51	3.00	3.00	
700.00	12.00	66.76	697.08	16.47	38.35	41.74	3.00	3.00	
800.00	15.00	66.76	794.31	25.68	59.79	65.08	3.00	3.00	
900.00	18.00	66.76	890.18	36.89	85.89	93.48	3.00	3.00	
1,000.00	21.00	66.76	984.43	50.06	116.56	126.85	3.00	3.00	
1,100.00	24.00	66.76	1,076.81	65.16	151.71	165.12	3.00	3.00	
1,200.00	27.00	66.76	1,167.06	82.15	191.27	208.16	3.00	3.00	
1,245.69	28.37	66.76	1,207.52	90.53	210.77	229.39	3.00	3.00	Start 5765.44 hold at 1245.69 MD
1,300.00	28.37	66.76	1,255.30	100.72	234.48	255.20	0.00	0.00	
1,400.00	28.37	66.76	1,343.29	119.47	278.14	302.71	0.00	0.00	
1,500.00	28.37	66.76	1,431.28	138.22	321.80	350.23	0.00	0.00	
1,600.00	28.37	66.76	1,519.27	156.97	365.46	397.75	0.00	0.00	
1,700.00	28.37	66.76	1,607.26	175.73	409.12	445.27	0.00	0.00	
1,800.00	28.37	66.76	1,695.25	194.48	452.78	492.78	0.00	0.00	
1,900.00	28.37	66.76	1,783.24	213.23	496.44	540.30	0.00	0.00	
2,000.00	28.37	66.76	1,871.23	231.99	540.11	587.82	0.00	0.00	
2,100.00	28.37	66.76	1,959.22	250.74	583.77	635.34	0.00	0.00	
2,200.00	28.37	66.76	2,047.20	269.49	627.43	682.85	0.00	0.00	
2,300.00	28.37	66.76	2,135.19	288.25	671.09	730.37	0.00	0.00	
2,400.00	28.37	66.76	2,223.18	307.00	714.75	777.89	0.00	0.00	
2,500.00	28.37	66.76	2,311.17	325.75	758.41	825.41	0.00	0.00	
2,600.00	28.37	66.76	2,399.16	344.51	802.07	872.92	0.00	0.00	
2,700.00	28.37	66.76	2,487.15	363.26	845.73	920.44	0.00	0.00	
2,800.00	28.37	66.76	2,575.14	382.01	889.39	967.96	0.00	0.00	
2,900.00	28.37	66.76	2,663.13	400.77	933.05	1,015.48	0.00	0.00	
3,000.00	28.37	66.76	2,751.12	419.52	976.71	1,062.99	0.00	0.00	
3,100.00	28.37	66.76	2,839.11	438.27	1,020.37	1,110.51	0.00	0.00	
3,200.00	28.37	66.76	2,927.10	457.03	1,064.03	1,158.03	0.00	0.00	
3,300.00	28.37	66.76	3,015.09	475.78	1,107.69	1,205.55	0.00	0.00	
3,400.00	28.37	66.76	3,103.07	494.53	1,151.35	1,253.07	0.00	0.00	
3,500.00	28.37	66.76	3,191.06	513.28	1,195.01	1,300.58	0.00	0.00	
3,600.00	28.37	66.76	3,279.05	532.04	1,238.67	1,348.10	0.00	0.00	
3,700.00	28.37	66.76	3,367.04	550.79	1,282.33	1,395.62	0.00	0.00	
3,800.00	28.37	66.76	3,455.03	569.54	1,325.99	1,443.14	0.00	0.00	
3,900.00	28.37	66.76	3,543.02	588.30	1,369.65	1,490.65	0.00	0.00	
4,000.00	28.37	66.76	3,631.01	607.05	1,413.31	1,538.17	0.00	0.00	
4,100.00	28.37	66.76	3,719.00	625.80	1,456.97	1,585.69	0.00	0.00	
4,200.00	28.37	66.76	3,806.99	644.56	1,500.64	1,633.21	0.00	0.00	
4,300.00	28.37	66.76	3,894.98	663.31	1,544.30	1,680.72	0.00	0.00	
4,400.00	28.37	66.76	3,982.97	682.06	1,587.96	1,728.24	0.00	0.00	
4,500.00	28.37	66.76	4,070.95	700.82	1,631.62	1,775.76	0.00	0.00	
4,600.00	28.37	66.76	4,158.94	719.57	1,675.28	1,823.28	0.00	0.00	
4,700.00	28.37	66.76	4,246.93	738.32	1,718.94	1,870.79	0.00	0.00	
4,800.00	28.37	66.76	4,334.92	757.08	1,762.60	1,918.31	0.00	0.00	
4,900.00	28.37	66.76	4,422.91	775.83	1,806.26	1,965.83	0.00	0.00	
5,000.00	28.37	66.76	4,510.90	794.58	1,849.92	2,013.35	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23C-19 - Slot A5
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 23C-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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
5,100.00	28.37	66.76	4,598.89	813.34	1,893.58	2,060.86	0.00	0.00	
5,200.00	28.37	66.76	4,686.88	832.09	1,937.24	2,108.38	0.00	0.00	
5,300.00	28.37	66.76	4,774.87	850.84	1,980.90	2,155.90	0.00	0.00	
5,400.00	28.37	66.76	4,862.86	869.59	2,024.56	2,203.42	0.00	0.00	
5,500.00	28.37	66.76	4,950.85	888.35	2,068.22	2,250.93	0.00	0.00	
5,600.00	28.37	66.76	5,038.83	907.10	2,111.88	2,298.45	0.00	0.00	
5,700.00	28.37	66.76	5,126.82	925.85	2,155.54	2,345.97	0.00	0.00	
5,800.00	28.37	66.76	5,214.81	944.61	2,199.20	2,393.49	0.00	0.00	
5,900.00	28.37	66.76	5,302.80	963.36	2,242.86	2,441.00	0.00	0.00	
6,000.00	28.37	66.76	5,390.79	982.11	2,286.52	2,488.52	0.00	0.00	
6,100.00	28.37	66.76	5,478.78	1,000.87	2,330.18	2,536.04	0.00	0.00	
6,200.00	28.37	66.76	5,566.77	1,019.62	2,373.84	2,583.56	0.00	0.00	
6,300.00	28.37	66.76	5,654.76	1,038.37	2,417.51	2,631.07	0.00	0.00	
6,400.00	28.37	66.76	5,742.75	1,057.13	2,461.17	2,678.59	0.00	0.00	
6,500.00	28.37	66.76	5,830.74	1,075.88	2,504.83	2,726.11	0.00	0.00	
6,600.00	28.37	66.76	5,918.73	1,094.63	2,548.49	2,773.63	0.00	0.00	
6,700.00	28.37	66.76	6,006.71	1,113.39	2,592.15	2,821.14	0.00	0.00	
6,701.46	28.37	66.76	6,008.00	1,113.66	2,592.78	2,821.84	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,800.00	28.37	66.76	6,094.70	1,132.14	2,635.81	2,868.66	0.00	0.00	
6,900.00	28.37	66.76	6,182.69	1,150.89	2,679.47	2,916.18	0.00	0.00	
7,000.00	28.37	66.76	6,270.68	1,169.65	2,723.13	2,963.70	0.00	0.00	
7,011.14	28.37	66.76	6,280.48	1,171.73	2,727.99	2,968.99	0.00	0.00	Start Drop -3.00
7,019.67	28.11	66.76	6,288.00	1,173.33	2,731.70	2,973.03	3.00	-3.00	WILLIAMS_FORK.MBL (TVD)
7,100.00	25.70	66.76	6,359.63	1,187.67	2,765.10	3,009.38	3.00	-3.00	
7,200.00	22.70	66.76	6,450.82	1,203.85	2,802.77	3,050.38	3.00	-3.00	
7,300.00	19.70	66.76	6,544.04	1,218.13	2,836.00	3,086.54	3.00	-3.00	
7,400.00	16.70	66.76	6,639.03	1,230.46	2,864.70	3,117.78	3.00	-3.00	
7,500.00	13.70	66.76	6,735.51	1,240.81	2,888.80	3,144.00	3.00	-3.00	
7,600.00	10.70	66.76	6,833.24	1,249.15	2,908.22	3,165.14	3.00	-3.00	
7,700.00	7.70	66.76	6,931.94	1,255.46	2,922.92	3,181.14	3.00	-3.00	
7,800.00	4.70	66.76	7,031.35	1,259.73	2,932.85	3,191.94	3.00	-3.00	
7,900.00	1.70	66.76	7,131.18	1,261.93	2,937.99	3,197.53	3.00	-3.00	
7,956.83	0.00	0.00	7,188.00	1,262.27	2,938.76	3,198.38	3.00	-3.00	Start 2052.00 hold at 7956.83 MD - TOP_GAS.I
8,000.00	0.00	0.00	7,231.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,100.00	0.00	0.00	7,331.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,200.00	0.00	0.00	7,431.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,300.00	0.00	0.00	7,531.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,400.00	0.00	0.00	7,631.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,500.00	0.00	0.00	7,731.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,600.00	0.00	0.00	7,831.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,700.00	0.00	0.00	7,931.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,800.00	0.00	0.00	8,031.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,900.00	0.00	0.00	8,131.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,000.00	0.00	0.00	8,231.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,100.00	0.00	0.00	8,331.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,200.00	0.00	0.00	8,431.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,300.00	0.00	0.00	8,531.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,400.00	0.00	0.00	8,631.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,500.00	0.00	0.00	8,731.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,600.00	0.00	0.00	8,831.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,608.83	0.00	0.00	8,840.00	1,262.27	2,938.76	3,198.38	0.00	0.00	CAMEO.MBL (TVD)
9,700.00	0.00	0.00	8,931.17	1,262.27	2,938.76	3,198.38	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23C-19 - Slot A5
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 23C-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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
9,800.00	0.00	0.00	9,031.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,858.83	0.00	0.00	9,090.00	1,262.27	2,938.76	3,198.38	0.00	0.00	ROLLINS.MBL (TVD)
9,900.00	0.00	0.00	9,131.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
10,000.00	0.00	0.00	9,231.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
10,008.83	0.00	0.00	9,240.00	1,262.27	2,938.76	3,198.38	0.00	0.00	TD at 10008.83

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	
- Shape									Latitude Longitude
PUCKETT 23C-19 PBHI		0.00	0.00	9,240.00	1,250.65	2,986.62	14,359,039.90	2,444,228.20	39.506407 -108.150480
- plan misses target center by 49.25usft at 10008.83usft MD (9240.00 TVD, 1262.27 N, 2938.76 E)									
- Circle (radius 50.00)									
PUCKETT 23C-19 PBHI		0.00	0.00	9,240.00	1,262.27	2,938.76	14,359,050.00	2,444,180.00	39.506439 -108.150649
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,701.46	6,008.00	OHIO_CREEK.MBL (TVD)				
7,019.67	6,288.00	WILLIAMS_FORK.MBL (TVD)				
7,956.83	7,188.00	TOP_GAS.MBL (TVD)				
9,608.83	8,840.00	CAMEO.MBL (TVD)				
9,858.83	9,090.00	ROLLINS.MBL (TVD)				
10,008.83	9,240.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
300.00	300.00	0.00	0.00	Start Build 3.00	
1,245.69	1,207.52	90.53	210.77	Start 5765.44 hold at 1245.69 MD	
7,011.14	6,280.48	1,171.73	2,727.99	Start Drop -3.00	
7,956.83	7,188.00	1,262.27	2,938.76	Start 2052.00 hold at 7956.83 MD	
10,008.83	9,240.00	1,262.27	2,938.76	TD at 10008.83	