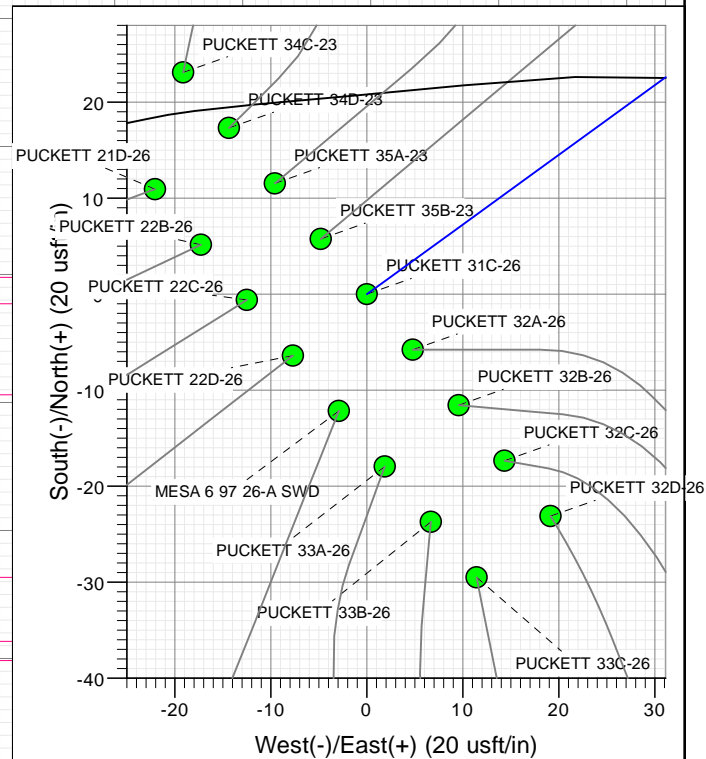
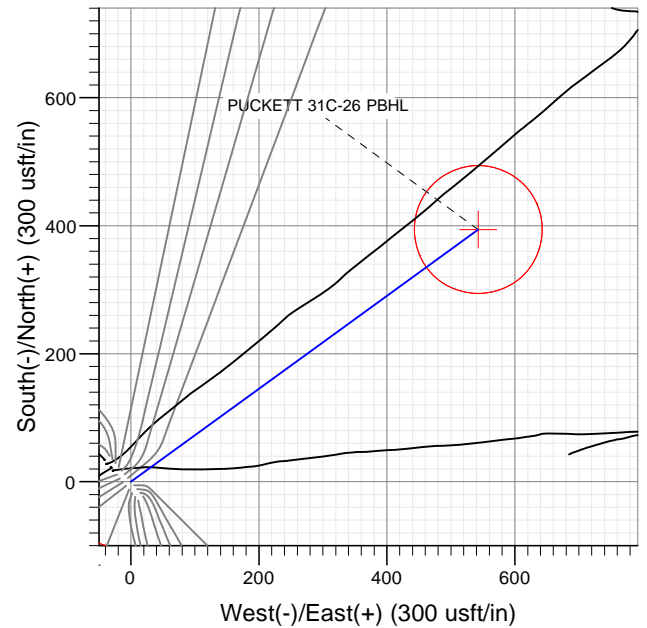
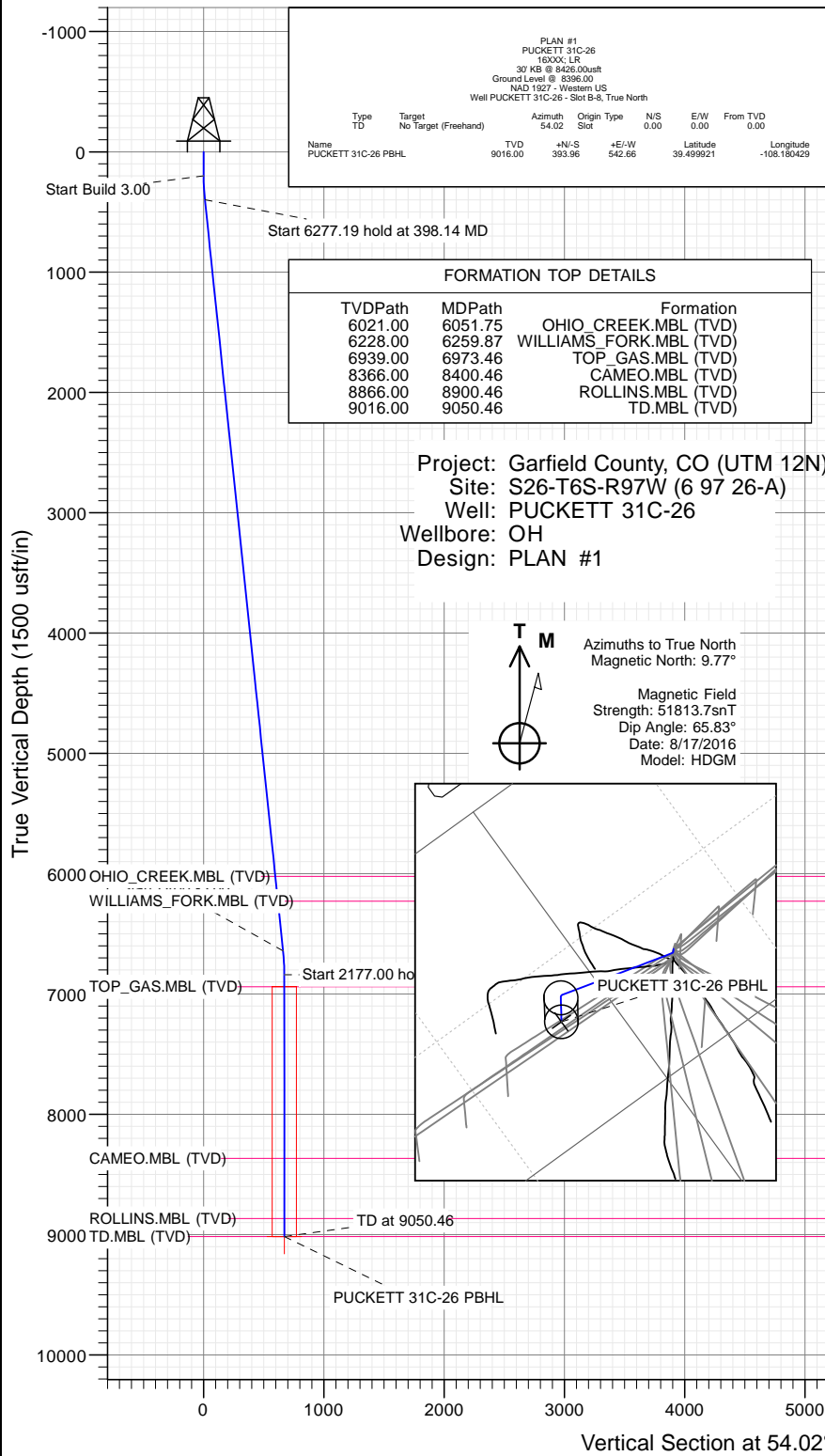




## SECTION DETAILS

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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	398.14	5.94	54.02	397.78	6.03	8.31	3.00	54.02	10.27	
4	6675.32	5.94	54.02	6641.22	387.93	534.35	0.00	0.00	660.32	
5	6873.46	0.00	0.00	6839.00	393.96	542.66	3.00	180.00	670.59	
6	9050.46	0.00	0.00	9016.00	393.96	542.66	0.00	0.00	670.59	PUCKETT 31C-26 PBHL



## WELL DETAILS: PUCKETT 31C-26

+N-/S	+E-/W	Northing	Ground Level:	8396.00	Latitude	Longitude
0.00	0.00	14356000.65	Easting	2435322.73	39.498840	-108.182351

B-8



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 31C-26 - Slot B-8
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8426.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8426.00usft
<b>Site:</b>	S26-T6S-R97W (6 97 26-A)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 31C-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

<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 (6 97 26-A)			
Site Position:		Northing:	14,356,905.20 usft	Latitude:	39.501458
From:	Map	Easting:	2,433,730.50 usft	Longitude:	-108.187888
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	1.79 °

Well	PUCKETT 31C-26 - Slot B-8					
Well Position	+N/-S	0.00 usft	Northing:	14,356,000.65 usft	Latitude:	39.498840
	+E/-W	0.00 usft	Easting:	2,435,322.73 usft	Longitude:	-108.182351
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,396.00 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	8/17/2016	9.77	65.83	51,814

<b>Design</b>	PLAN #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<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	54.02

<b>Plan Sections</b>										
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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
398.14	5.94	54.02	397.78	6.03	8.31	3.00	3.00	0.00	54.02	
6,675.32	5.94	54.02	6,641.22	387.93	534.35	0.00	0.00	0.00	0.00	
6,873.46	0.00	0.00	6,839.00	393.96	542.66	3.00	-3.00	0.00	180.00	
9,050.46	0.00	0.00	9,016.00	393.96	542.66	0.00	0.00	0.00	0.00	PUCKETT 31C-26 PE

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 31C-26 - Slot B-8
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8426.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8426.00usft
<b>Site:</b>	S26-T6S-R97W (6 97 26-A)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 31C-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
0.00	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	3.00	54.02	299.95	1.54	2.12	2.62	3.00	3.00	
398.14	5.94	54.02	397.78	6.03	8.31	10.27	3.00	3.00	
400.00	5.94	54.02	399.63	6.15	8.47	10.46	0.00	0.00	
500.00	5.94	54.02	499.10	12.23	16.85	20.82	0.00	0.00	
600.00	5.94	54.02	598.56	18.31	25.23	31.17	0.00	0.00	
700.00	5.94	54.02	698.02	24.40	33.61	41.53	0.00	0.00	
800.00	5.94	54.02	797.48	30.48	41.99	51.88	0.00	0.00	
900.00	5.94	54.02	896.95	36.57	50.37	62.24	0.00	0.00	
1,000.00	5.94	54.02	996.41	42.65	58.75	72.60	0.00	0.00	
1,100.00	5.94	54.02	1,095.87	48.73	67.13	82.95	0.00	0.00	
1,200.00	5.94	54.02	1,195.33	54.82	75.51	93.31	0.00	0.00	
1,300.00	5.94	54.02	1,294.80	60.90	83.89	103.66	0.00	0.00	
1,400.00	5.94	54.02	1,394.26	66.98	92.27	114.02	0.00	0.00	
1,500.00	5.94	54.02	1,493.72	73.07	100.65	124.38	0.00	0.00	
1,600.00	5.94	54.02	1,593.18	79.15	109.03	134.73	0.00	0.00	
1,700.00	5.94	54.02	1,692.65	85.24	117.41	145.09	0.00	0.00	
1,800.00	5.94	54.02	1,792.11	91.32	125.79	155.44	0.00	0.00	
1,900.00	5.94	54.02	1,891.57	97.40	134.17	165.80	0.00	0.00	
2,000.00	5.94	54.02	1,991.03	103.49	142.55	176.15	0.00	0.00	
2,100.00	5.94	54.02	2,090.49	109.57	150.93	186.51	0.00	0.00	
2,200.00	5.94	54.02	2,189.96	115.66	159.31	196.87	0.00	0.00	
2,300.00	5.94	54.02	2,289.42	121.74	167.69	207.22	0.00	0.00	
2,400.00	5.94	54.02	2,388.88	127.82	176.07	217.58	0.00	0.00	
2,500.00	5.94	54.02	2,488.34	133.91	184.45	227.93	0.00	0.00	
2,600.00	5.94	54.02	2,587.81	139.99	192.83	238.29	0.00	0.00	
2,700.00	5.94	54.02	2,687.27	146.08	201.21	248.64	0.00	0.00	
2,800.00	5.94	54.02	2,786.73	152.16	209.59	259.00	0.00	0.00	
2,900.00	5.94	54.02	2,886.19	158.24	217.97	269.36	0.00	0.00	
3,000.00	5.94	54.02	2,985.66	164.33	226.35	279.71	0.00	0.00	
3,100.00	5.94	54.02	3,085.12	170.41	234.73	290.07	0.00	0.00	
3,200.00	5.94	54.02	3,184.58	176.49	243.11	300.42	0.00	0.00	
3,300.00	5.94	54.02	3,284.04	182.58	251.49	310.78	0.00	0.00	
3,400.00	5.94	54.02	3,383.51	188.66	259.87	321.14	0.00	0.00	
3,500.00	5.94	54.02	3,482.97	194.75	268.25	331.49	0.00	0.00	
3,600.00	5.94	54.02	3,582.43	200.83	276.63	341.85	0.00	0.00	
3,700.00	5.94	54.02	3,681.89	206.91	285.01	352.20	0.00	0.00	
3,800.00	5.94	54.02	3,781.35	213.00	293.39	362.56	0.00	0.00	
3,900.00	5.94	54.02	3,880.82	219.08	301.77	372.91	0.00	0.00	
4,000.00	5.94	54.02	3,980.28	225.17	310.15	383.27	0.00	0.00	
4,100.00	5.94	54.02	4,079.74	231.25	318.54	393.63	0.00	0.00	
4,200.00	5.94	54.02	4,179.20	237.33	326.92	403.98	0.00	0.00	
4,300.00	5.94	54.02	4,278.67	243.42	335.30	414.34	0.00	0.00	
4,400.00	5.94	54.02	4,378.13	249.50	343.68	424.69	0.00	0.00	
4,500.00	5.94	54.02	4,477.59	255.59	352.06	435.05	0.00	0.00	
4,600.00	5.94	54.02	4,577.05	261.67	360.44	445.40	0.00	0.00	
4,700.00	5.94	54.02	4,676.52	267.75	368.82	455.76	0.00	0.00	
4,800.00	5.94	54.02	4,775.98	273.84	377.20	466.12	0.00	0.00	
4,900.00	5.94	54.02	4,875.44	279.92	385.58	476.47	0.00	0.00	
5,000.00	5.94	54.02	4,974.90	286.00	393.96	486.83	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 31C-26 - Slot B-8
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8426.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8426.00usft
<b>Site:</b>	S26-T6S-R97W (6 97 26-A)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 31C-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
5,100.00	5.94	54.02	5,074.36	292.09	402.34	497.18	0.00	0.00	
5,200.00	5.94	54.02	5,173.83	298.17	410.72	507.54	0.00	0.00	
5,300.00	5.94	54.02	5,273.29	304.26	419.10	517.90	0.00	0.00	
5,400.00	5.94	54.02	5,372.75	310.34	427.48	528.25	0.00	0.00	
5,500.00	5.94	54.02	5,472.21	316.42	435.86	538.61	0.00	0.00	
5,600.00	5.94	54.02	5,571.68	322.51	444.24	548.96	0.00	0.00	
5,700.00	5.94	54.02	5,671.14	328.59	452.62	559.32	0.00	0.00	
5,800.00	5.94	54.02	5,770.60	334.68	461.00	569.67	0.00	0.00	
5,900.00	5.94	54.02	5,870.06	340.76	469.38	580.03	0.00	0.00	
6,000.00	5.94	54.02	5,969.53	346.84	477.76	590.39	0.00	0.00	
6,051.75	5.94	54.02	6,021.00	349.99	482.10	595.74	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,100.00	5.94	54.02	6,068.99	352.93	486.14	600.74	0.00	0.00	
6,200.00	5.94	54.02	6,168.45	359.01	494.52	611.10	0.00	0.00	
6,259.87	5.94	54.02	6,228.00	362.65	499.54	617.30	0.00	0.00	WILLIAMS_FORK.MBL (TVD)
6,300.00	5.94	54.02	6,267.91	365.10	502.90	621.45	0.00	0.00	
6,400.00	5.94	54.02	6,367.38	371.18	511.28	631.81	0.00	0.00	
6,500.00	5.94	54.02	6,466.84	377.26	519.66	642.16	0.00	0.00	
6,600.00	5.94	54.02	6,566.30	383.35	528.04	652.52	0.00	0.00	
6,675.32	5.94	54.02	6,641.22	387.93	534.35	660.32	0.00	0.00	
6,700.00	5.20	54.02	6,665.78	389.34	536.29	662.72	3.00	-3.00	
6,800.00	2.20	54.02	6,765.56	393.13	541.52	669.18	3.00	-3.00	
6,873.46	0.00	0.00	6,839.00	393.96	542.66	670.59	3.00	-3.00	
6,900.00	0.00	0.00	6,865.54	393.96	542.66	670.59	0.00	0.00	
6,973.46	0.00	0.00	6,939.00	393.96	542.66	670.59	0.00	0.00	TOP_GAS.MBL (TVD)
7,000.00	0.00	0.00	6,965.54	393.96	542.66	670.59	0.00	0.00	
7,100.00	0.00	0.00	7,065.54	393.96	542.66	670.59	0.00	0.00	
7,200.00	0.00	0.00	7,165.54	393.96	542.66	670.59	0.00	0.00	
7,300.00	0.00	0.00	7,265.54	393.96	542.66	670.59	0.00	0.00	
7,400.00	0.00	0.00	7,365.54	393.96	542.66	670.59	0.00	0.00	
7,500.00	0.00	0.00	7,465.54	393.96	542.66	670.59	0.00	0.00	
7,600.00	0.00	0.00	7,565.54	393.96	542.66	670.59	0.00	0.00	
7,700.00	0.00	0.00	7,665.54	393.96	542.66	670.59	0.00	0.00	
7,800.00	0.00	0.00	7,765.54	393.96	542.66	670.59	0.00	0.00	
7,900.00	0.00	0.00	7,865.54	393.96	542.66	670.59	0.00	0.00	
8,000.00	0.00	0.00	7,965.54	393.96	542.66	670.59	0.00	0.00	
8,100.00	0.00	0.00	8,065.54	393.96	542.66	670.59	0.00	0.00	
8,200.00	0.00	0.00	8,165.54	393.96	542.66	670.59	0.00	0.00	
8,300.00	0.00	0.00	8,265.54	393.96	542.66	670.59	0.00	0.00	
8,400.00	0.00	0.00	8,365.54	393.96	542.66	670.59	0.00	0.00	
8,400.46	0.00	0.00	8,366.00	393.96	542.66	670.59	0.00	0.00	CAMEO.MBL (TVD)
8,500.00	0.00	0.00	8,465.54	393.96	542.66	670.59	0.00	0.00	
8,600.00	0.00	0.00	8,565.54	393.96	542.66	670.59	0.00	0.00	
8,700.00	0.00	0.00	8,665.54	393.96	542.66	670.59	0.00	0.00	
8,800.00	0.00	0.00	8,765.54	393.96	542.66	670.59	0.00	0.00	
8,900.00	0.00	0.00	8,865.54	393.96	542.66	670.59	0.00	0.00	
8,900.46	0.00	0.00	8,866.00	393.96	542.66	670.59	0.00	0.00	ROLLINS.MBL (TVD)
9,000.00	0.00	0.00	8,965.54	393.96	542.66	670.59	0.00	0.00	
9,050.46	0.00	0.00	9,016.00	393.96	542.66	670.59	0.00	0.00	TD.MBL (TVD)

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 31C-26 - Slot B-8
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8426.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8426.00usft
<b>Site:</b>	S26-T6S-R97W (6 97 26-A)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 31C-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

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 31C-26 PBHI	0.00	0.00	9,016.00	393.96	542.66	14,356,411.40	2,435,852.80	39.499921	-108.180429
- plan hits target center									
- Circle (radius 100.00)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,051.75	6,021.00	OHIO_CREEK.MBL (TVD)				
6,259.87	6,228.00	WILLIAMS_FORK.MBL (TVD)				
6,973.46	6,939.00	TOP_GAS.MBL (TVD)				
8,400.46	8,366.00	CAMEO.MBL (TVD)				
8,900.46	8,866.00	ROLLINS.MBL (TVD)				
9,050.46	9,016.00	TD.MBL (TVD)				