



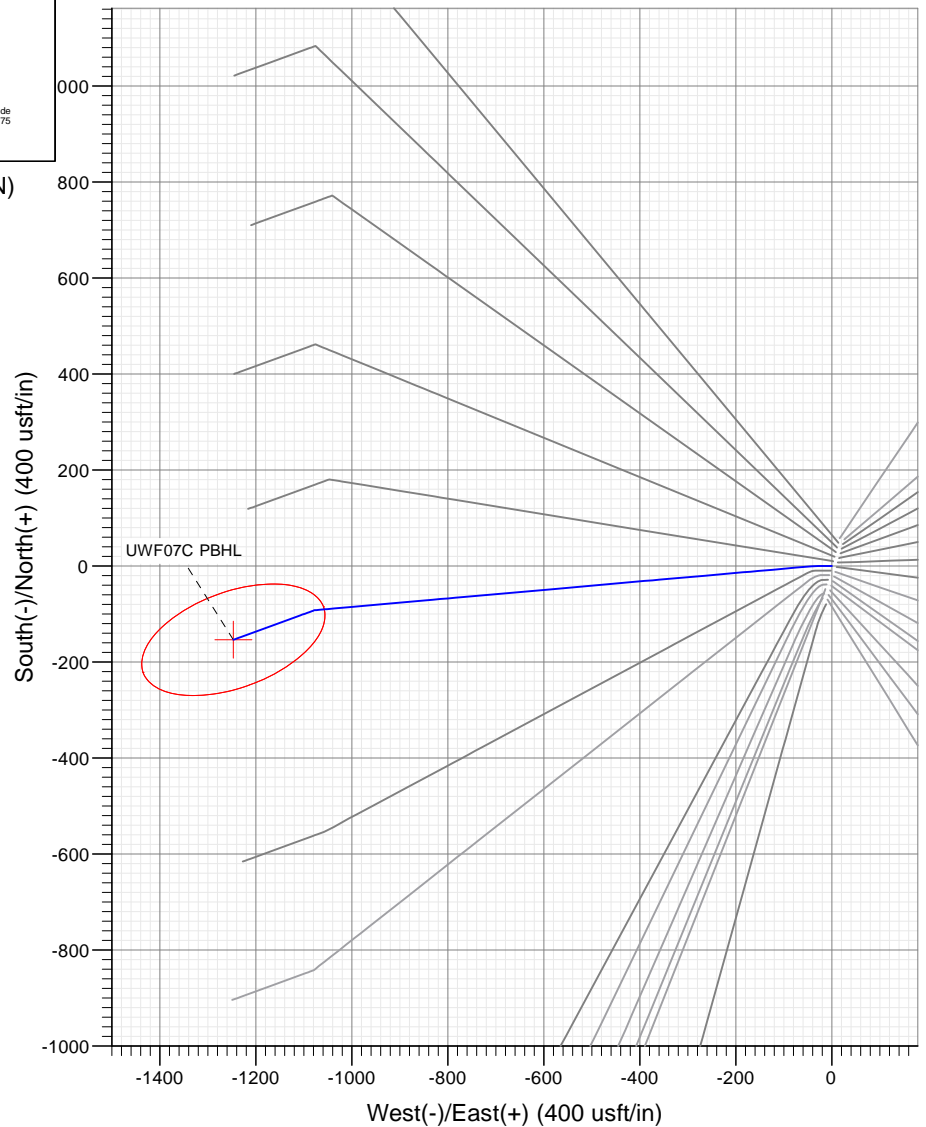
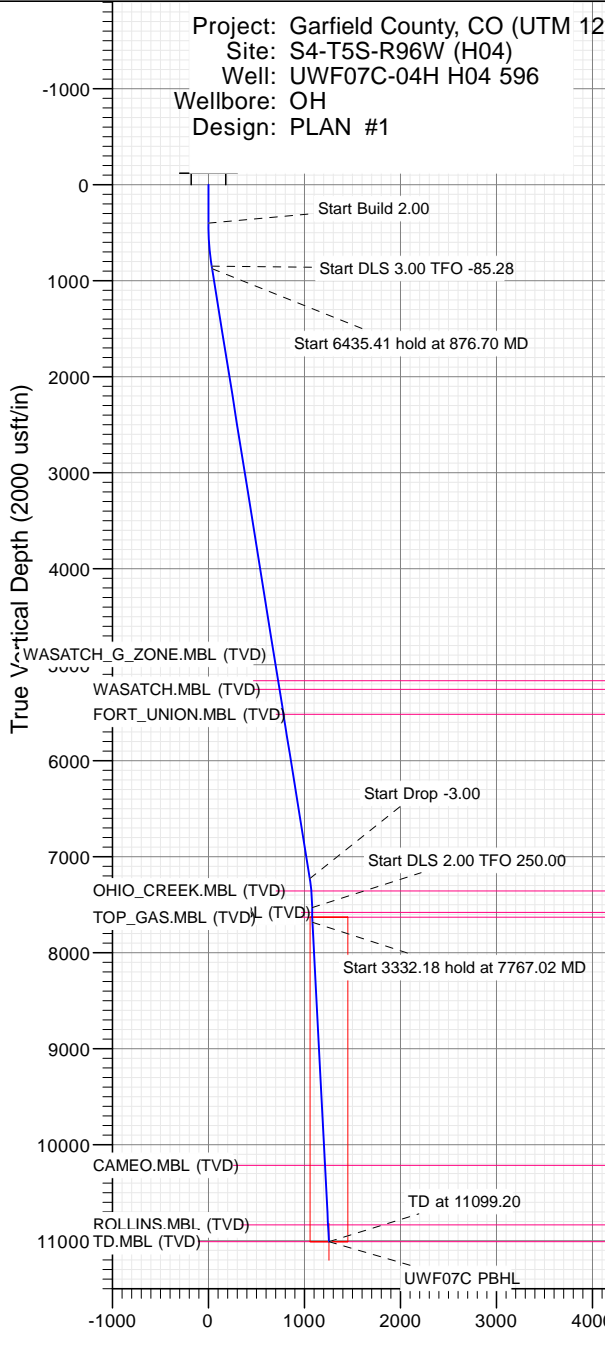
## SECTION DETAILS

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	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	850.00	9.00	270.00	848.15	0.00	-35.27	2.00	270.00	35.01	
4	876.70	9.10	264.95	874.52	-0.19	-39.46	3.00	-85.28	39.19	
5	7312.11	9.10	264.95	7228.92	-89.83	-1053.39	0.00	0.00	1056.47	
6	7615.46	0.00	0.00	7531.00	-91.95	-1077.34	3.00	180.00	1080.50	
7	7767.02	3.03	250.00	7682.48	-93.32	-1081.11	2.00	250.00	1084.40	
8	11099.20	3.03	250.00	11010.00	-153.59	-1246.67	0.00	0.00	1256.10	UWF07C PBHL

PLAN #1  
UWF07C-04H H04 596  
30' K/S @ 8300.00ust  
Ground Level @ 8270.00  
NAD 1987 - Western US  
Well UWF07C-04H H04 596, True North

Type	Target	Azimuth	Origin Type	N/S	E/W	From	TVD
TD	No Target (Freehand)	262.98	Slot	0.00	0.00		0.00
Name		TVD	+N/-S	+E/-W	Latitude		Longitude
UWF07C PBHL		11010.00	-153.59	-1246.67	39.645683		-108.168775

Project: Garfield County, CO (UTM 12N)  
Site: S4-T5S-R96W (H04)  
Well: UWF07C-04H H04 596  
Wellbore: OH  
Design: PLAN #1



## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
5166.00	5222.89	WASATCH_G_ZONE.MBL (TVD)
5257.00	5315.05	WASATCH.MBL (TVD)
5516.00	5577.35	FORT_UNION.MBL (TVD)
7357.00	7441.22	OHIO_CREEK.MBL (TVD)
7581.00	7665.47	WILLIAMS_FORK.MBL (TVD)
7631.00	7715.48	TOP_GAS.MBL (TVD)
10215.00	10303.08	CAMEO.MBL (TVD)
10835.00	10923.95	ROLLINS.MBL (TVD)
11010.00	11099.20	TD.MBL (TVD)



Azimuths to True North  
Magnetic North: 9.72°

Magnetic Field  
Strength: 51509.4snT  
Dip Angle: 65.93°  
Date: 8/31/2017  
Model: HDGM

Vertical Section at 262.98° (2000 usft/in)

WELL DETAILS: UWF07C-04H H04 596

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14409792.90	2438709.70	39.646105	-108.164349

CATHEDRAL



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well UWF07C-04H H04 596
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8300.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8300.00usft
<b>Site:</b>	S4-T5S-R96W (H04)	<b>North Reference:</b>	True
<b>Well:</b>	UWF07C-04H H04 596	<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		S4-T5S-R96W (H04)			
Site Position:		Northing:	14,409,713.20 usft	Latitude:	39.645887
From:	Map	Easting:	2,438,700.39 usft	Longitude:	-108.164391
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.81 °

Well	UWF07C-04H H04 596					
Well Position	+N/-S	0.00 usft	Northing:	14,409,792.90 usft	Latitude:	39.646105
	+E/-W	0.00 usft	Easting:	2,438,709.70 usft	Longitude:	-108.164349
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	8,270.00 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</b>
			(°)	(°)	(nT)
	HDGM	8/31/2017	9.72	65.93	51,509.40000000

<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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	262.98

<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	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
850.00	9.00	270.00	848.15	0.00	-35.27	2.00	2.00	0.00	270.00	
876.70	9.10	264.95	874.52	-0.19	-39.46	3.00	0.38	-18.93	-85.28	
7,312.11	9.10	264.95	7,228.92	-89.83	-1,053.39	0.00	0.00	0.00	0.00	
7,615.46	0.00	0.00	7,531.00	-91.95	-1,077.34	3.00	-3.00	0.00	180.00	
7,767.02	3.03	250.00	7,682.48	-93.32	-1,081.11	2.00	2.00	-72.58	250.00	
11,099.20	3.03	250.00	11,010.00	-153.59	-1,246.67	0.00	0.00	0.00	0.00	UWF07C PBHL

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well UWF07C-04H H04 596
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8300.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8300.00usft
<b>Site:</b>	S4-T5S-R96W (H04)	<b>North Reference:</b>	True
<b>Well:</b>	UWF07C-04H H04 596	<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	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
500.00	2.00	270.00	499.98	0.00	-1.75	1.73	2.00	2.00	
600.00	4.00	270.00	599.84	0.00	-6.98	6.93	2.00	2.00	
700.00	6.00	270.00	699.45	0.00	-15.69	15.58	2.00	2.00	
800.00	8.00	270.00	798.70	0.00	-27.88	27.67	2.00	2.00	
850.00	9.00	270.00	848.15	0.00	-35.27	35.01	2.00	2.00	
876.70	9.10	264.95	874.52	-0.19	-39.46	39.19	3.00	0.38	
900.00	9.10	264.95	897.53	-0.51	-43.13	42.87	0.00	0.00	
1,000.00	9.10	264.95	996.27	-1.90	-58.89	58.68	0.00	0.00	
1,100.00	9.10	264.95	1,095.01	-3.30	-74.64	74.49	0.00	0.00	
1,200.00	9.10	264.95	1,193.75	-4.69	-90.40	90.29	0.00	0.00	
1,300.00	9.10	264.95	1,292.49	-6.08	-106.16	106.10	0.00	0.00	
1,400.00	9.10	264.95	1,391.23	-7.48	-121.91	121.91	0.00	0.00	
1,500.00	9.10	264.95	1,489.97	-8.87	-137.67	137.72	0.00	0.00	
1,600.00	9.10	264.95	1,588.71	-10.26	-153.42	153.53	0.00	0.00	
1,700.00	9.10	264.95	1,687.46	-11.65	-169.18	169.33	0.00	0.00	
1,800.00	9.10	264.95	1,786.20	-13.05	-184.93	185.14	0.00	0.00	
1,900.00	9.10	264.95	1,884.94	-14.44	-200.69	200.95	0.00	0.00	
2,000.00	9.10	264.95	1,983.68	-15.83	-216.44	216.76	0.00	0.00	
2,100.00	9.10	264.95	2,082.42	-17.23	-232.20	232.56	0.00	0.00	
2,200.00	9.10	264.95	2,181.16	-18.62	-247.95	248.37	0.00	0.00	
2,300.00	9.10	264.95	2,279.90	-20.01	-263.71	264.18	0.00	0.00	
2,400.00	9.10	264.95	2,378.64	-21.41	-279.47	279.99	0.00	0.00	
2,500.00	9.10	264.95	2,477.39	-22.80	-295.22	295.79	0.00	0.00	
2,600.00	9.10	264.95	2,576.13	-24.19	-310.98	311.60	0.00	0.00	
2,700.00	9.10	264.95	2,674.87	-25.58	-326.73	327.41	0.00	0.00	
2,800.00	9.10	264.95	2,773.61	-26.98	-342.49	343.22	0.00	0.00	
2,900.00	9.10	264.95	2,872.35	-28.37	-358.24	359.02	0.00	0.00	
3,000.00	9.10	264.95	2,971.09	-29.76	-374.00	374.83	0.00	0.00	
3,100.00	9.10	264.95	3,069.83	-31.16	-389.75	390.64	0.00	0.00	
3,200.00	9.10	264.95	3,168.57	-32.55	-405.51	406.45	0.00	0.00	
3,300.00	9.10	264.95	3,267.32	-33.94	-421.26	422.25	0.00	0.00	
3,400.00	9.10	264.95	3,366.06	-35.34	-437.02	438.06	0.00	0.00	
3,500.00	9.10	264.95	3,464.80	-36.73	-452.78	453.87	0.00	0.00	
3,600.00	9.10	264.95	3,563.54	-38.12	-468.53	469.68	0.00	0.00	
3,700.00	9.10	264.95	3,662.28	-39.52	-484.29	485.48	0.00	0.00	
3,800.00	9.10	264.95	3,761.02	-40.91	-500.04	501.29	0.00	0.00	
3,900.00	9.10	264.95	3,859.76	-42.30	-515.80	517.10	0.00	0.00	
4,000.00	9.10	264.95	3,958.50	-43.69	-531.55	532.91	0.00	0.00	
4,100.00	9.10	264.95	4,057.24	-45.09	-547.31	548.71	0.00	0.00	
4,200.00	9.10	264.95	4,155.99	-46.48	-563.06	564.52	0.00	0.00	
4,300.00	9.10	264.95	4,254.73	-47.87	-578.82	580.33	0.00	0.00	
4,400.00	9.10	264.95	4,353.47	-49.27	-594.58	596.14	0.00	0.00	
4,500.00	9.10	264.95	4,452.21	-50.66	-610.33	611.95	0.00	0.00	
4,600.00	9.10	264.95	4,550.95	-52.05	-626.09	627.75	0.00	0.00	
4,700.00	9.10	264.95	4,649.69	-53.45	-641.84	643.56	0.00	0.00	
4,800.00	9.10	264.95	4,748.43	-54.84	-657.60	659.37	0.00	0.00	
4,900.00	9.10	264.95	4,847.17	-56.23	-673.35	675.18	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 UWF07C-04H H04 596
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8300.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8300.00usft
<b>Site:</b>	S4-T5S-R96W (H04)	<b>North Reference:</b>	True
<b>Well:</b>	UWF07C-04H H04 596	<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
5,000.00	9.10	264.95	4,945.92	-57.62	-689.11	690.98	0.00	0.00	
5,100.00	9.10	264.95	5,044.66	-59.02	-704.86	706.79	0.00	0.00	
5,200.00	9.10	264.95	5,143.40	-60.41	-720.62	722.60	0.00	0.00	
5,222.89	9.10	264.95	5,166.00	-60.73	-724.23	726.22	0.00	0.00	WASATCH_G_ZONE.MBL (TVD)
5,300.00	9.10	264.95	5,242.14	-61.80	-736.37	738.41	0.00	0.00	
5,315.05	9.10	264.95	5,257.00	-62.01	-738.75	740.79	0.00	0.00	WASATCH.MBL (TVD)
5,400.00	9.10	264.95	5,340.88	-63.20	-752.13	754.21	0.00	0.00	
5,500.00	9.10	264.95	5,439.62	-64.59	-767.89	770.02	0.00	0.00	
5,577.35	9.10	264.95	5,516.00	-65.67	-780.07	782.25	0.00	0.00	FORT_UNION.MBL (TVD)
5,600.00	9.10	264.95	5,538.36	-65.98	-783.64	785.83	0.00	0.00	
5,700.00	9.10	264.95	5,637.10	-67.38	-799.40	801.64	0.00	0.00	
5,800.00	9.10	264.95	5,735.85	-68.77	-815.15	817.44	0.00	0.00	
5,900.00	9.10	264.95	5,834.59	-70.16	-830.91	833.25	0.00	0.00	
6,000.00	9.10	264.95	5,933.33	-71.55	-846.66	849.06	0.00	0.00	
6,100.00	9.10	264.95	6,032.07	-72.95	-862.42	864.87	0.00	0.00	
6,200.00	9.10	264.95	6,130.81	-74.34	-878.17	880.67	0.00	0.00	
6,300.00	9.10	264.95	6,229.55	-75.73	-893.93	896.48	0.00	0.00	
6,400.00	9.10	264.95	6,328.29	-77.13	-909.69	912.29	0.00	0.00	
6,500.00	9.10	264.95	6,427.03	-78.52	-925.44	928.10	0.00	0.00	
6,600.00	9.10	264.95	6,525.77	-79.91	-941.20	943.90	0.00	0.00	
6,700.00	9.10	264.95	6,624.52	-81.31	-956.95	959.71	0.00	0.00	
6,800.00	9.10	264.95	6,723.26	-82.70	-972.71	975.52	0.00	0.00	
6,900.00	9.10	264.95	6,822.00	-84.09	-988.46	991.33	0.00	0.00	
7,000.00	9.10	264.95	6,920.74	-85.48	-1,004.22	1,007.14	0.00	0.00	
7,100.00	9.10	264.95	7,019.48	-86.88	-1,019.97	1,022.94	0.00	0.00	
7,200.00	9.10	264.95	7,118.22	-88.27	-1,035.73	1,038.75	0.00	0.00	
7,300.00	9.10	264.95	7,216.96	-89.66	-1,051.48	1,054.56	0.00	0.00	
7,312.11	9.10	264.95	7,228.92	-89.83	-1,053.39	1,056.47	0.00	0.00	
7,400.00	6.46	264.95	7,315.99	-90.88	-1,065.25	1,068.37	3.00	-3.00	
7,441.22	5.23	264.95	7,357.00	-91.25	-1,069.43	1,072.56	3.00	-3.00	OHIO_CREEK.MBL (TVD)
7,500.00	3.46	264.95	7,415.61	-91.64	-1,073.86	1,077.01	3.00	-3.00	
7,600.00	0.46	264.95	7,515.54	-91.94	-1,077.28	1,080.44	3.00	-3.00	
7,615.46	0.00	0.00	7,531.00	-91.95	-1,077.34	1,080.50	3.00	-3.00	
7,665.47	1.00	250.00	7,581.00	-92.10	-1,077.75	1,080.92	2.00	2.00	WILLIAMS_FORK.MBL (TVD)
7,700.00	1.69	250.00	7,615.52	-92.38	-1,078.51	1,081.71	2.00	2.00	
7,715.48	2.00	250.00	7,631.00	-92.55	-1,078.98	1,082.20	2.00	2.00	TOP_GAS.MBL (TVD)
7,767.02	3.03	250.00	7,682.48	-93.32	-1,081.11	1,084.40	2.00	2.00	
7,800.00	3.03	250.00	7,715.42	-93.92	-1,082.74	1,086.10	0.00	0.00	
7,900.00	3.03	250.00	7,815.28	-95.73	-1,087.71	1,091.26	0.00	0.00	
8,000.00	3.03	250.00	7,915.14	-97.54	-1,092.68	1,096.41	0.00	0.00	
8,100.00	3.03	250.00	8,015.00	-99.34	-1,097.65	1,101.56	0.00	0.00	
8,200.00	3.03	250.00	8,114.86	-101.15	-1,102.62	1,106.71	0.00	0.00	
8,300.00	3.03	250.00	8,214.72	-102.96	-1,107.59	1,111.87	0.00	0.00	
8,400.00	3.03	250.00	8,314.58	-104.77	-1,112.56	1,117.02	0.00	0.00	
8,500.00	3.03	250.00	8,414.44	-106.58	-1,117.53	1,122.17	0.00	0.00	
8,600.00	3.03	250.00	8,514.30	-108.39	-1,122.50	1,127.33	0.00	0.00	
8,700.00	3.03	250.00	8,614.16	-110.20	-1,127.46	1,132.48	0.00	0.00	
8,800.00	3.03	250.00	8,714.02	-112.01	-1,132.43	1,137.63	0.00	0.00	
8,900.00	3.03	250.00	8,813.88	-113.81	-1,137.40	1,142.78	0.00	0.00	
9,000.00	3.03	250.00	8,913.74	-115.62	-1,142.37	1,147.94	0.00	0.00	
9,100.00	3.03	250.00	9,013.60	-117.43	-1,147.34	1,153.09	0.00	0.00	
9,200.00	3.03	250.00	9,113.46	-119.24	-1,152.31	1,158.24	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 UWF07C-04H H04 596
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8300.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8300.00usft
<b>Site:</b>	S4-T5S-R96W (H04)	<b>North Reference:</b>	True
<b>Well:</b>	UWF07C-04H H04 596	<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
9,300.00	3.03	250.00	9,213.32	-121.05	-1,157.28	1,163.39	0.00	0.00	
9,400.00	3.03	250.00	9,313.18	-122.86	-1,162.25	1,168.55	0.00	0.00	
9,500.00	3.03	250.00	9,413.04	-124.67	-1,167.21	1,173.70	0.00	0.00	
9,600.00	3.03	250.00	9,512.90	-126.48	-1,172.18	1,178.85	0.00	0.00	
9,700.00	3.03	250.00	9,612.76	-128.29	-1,177.15	1,184.00	0.00	0.00	
9,800.00	3.03	250.00	9,712.62	-130.09	-1,182.12	1,189.16	0.00	0.00	
9,900.00	3.03	250.00	9,812.48	-131.90	-1,187.09	1,194.31	0.00	0.00	
10,000.00	3.03	250.00	9,912.34	-133.71	-1,192.06	1,199.46	0.00	0.00	
10,100.00	3.03	250.00	10,012.20	-135.52	-1,197.03	1,204.62	0.00	0.00	
10,200.00	3.03	250.00	10,112.06	-137.33	-1,202.00	1,209.77	0.00	0.00	
10,300.00	3.03	250.00	10,211.92	-139.14	-1,206.96	1,214.92	0.00	0.00	
10,303.08	3.03	250.00	10,215.00	-139.19	-1,207.12	1,215.08	0.00	0.00	CAMEO.MBL (TVD)
10,400.00	3.03	250.00	10,311.78	-140.95	-1,211.93	1,220.07	0.00	0.00	
10,500.00	3.03	250.00	10,411.64	-142.76	-1,216.90	1,225.23	0.00	0.00	
10,600.00	3.03	250.00	10,511.50	-144.56	-1,221.87	1,230.38	0.00	0.00	
10,700.00	3.03	250.00	10,611.36	-146.37	-1,226.84	1,235.53	0.00	0.00	
10,800.00	3.03	250.00	10,711.22	-148.18	-1,231.81	1,240.68	0.00	0.00	
10,900.00	3.03	250.00	10,811.08	-149.99	-1,236.78	1,245.84	0.00	0.00	
10,923.95	3.03	250.00	10,835.00	-150.42	-1,237.97	1,247.07	0.00	0.00	ROLLINS.MBL (TVD)
11,000.00	3.03	250.00	10,910.94	-151.80	-1,241.75	1,250.99	0.00	0.00	
11,099.20	3.03	250.00	11,010.00	-153.59	-1,246.67	1,256.10	0.00	0.00	TD.MBL (TVD)

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
UWF07C PBHL	0.00	0.00	11,010.00	-153.59	-1,246.67	14,409,600.00	2,437,468.50	39.645683	-108.168775
- plan hits target center									
- Ellipse (radii L200.00 W100.00 on 250.00 azi)									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,222.89	5,166.00	WASATCH_G_ZONE.MBL (TVD)				
5,315.05	5,257.00	WASATCH.MBL (TVD)				
5,577.35	5,516.00	FORT_UNION.MBL (TVD)				
7,441.22	7,357.00	OHIO_CREEK.MBL (TVD)				
7,665.47	7,581.00	WILLIAMS_FORK.MBL (TVD)				
7,715.48	7,631.00	TOP_GAS.MBL (TVD)				
10,303.08	10,215.00	CAMEO.MBL (TVD)				
10,923.95	10,835.00	ROLLINS.MBL (TVD)				
11,099.20	11,010.00	TD.MBL (TVD)				