



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	350.00	3.00	110.00	349.93	-1.34	3.69	2.00	110.00	3.78	
4	530.00	3.00	110.00	529.68	-4.56	12.54	0.00	0.00	12.84	
5	1326.38	26.74	92.67	1294.04	-20.27	214.02	3.00	-19.32	214.92	
6	7368.50	26.74	92.67	6690.02	-147.02	2929.64	0.00	0.00	2932.58	
7	8705.49	0.00	0.00	7979.00	-161.30	3235.67	2.00	180.00	3238.84	
8	8850.56	2.90	250.00	8124.01	-162.56	3232.22	2.00	250.00	3235.49	
9	12352.04	2.90	250.00	11621.00	-223.17	3065.67	0.00	0.00	3073.78	SG 24C-27_PBHL

Project: Garfield County, CO (UTM 12N)
Site: S27-T4S-R96W(NPR L27)
Well: SG 24C-27
Wellbore: OH
Design: PLAN #1

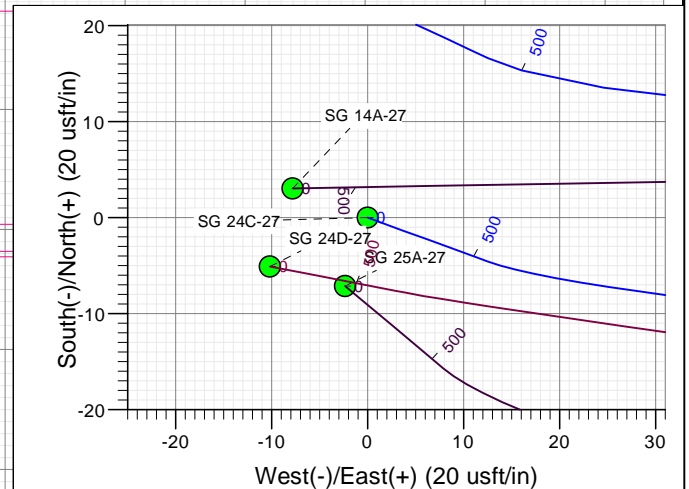
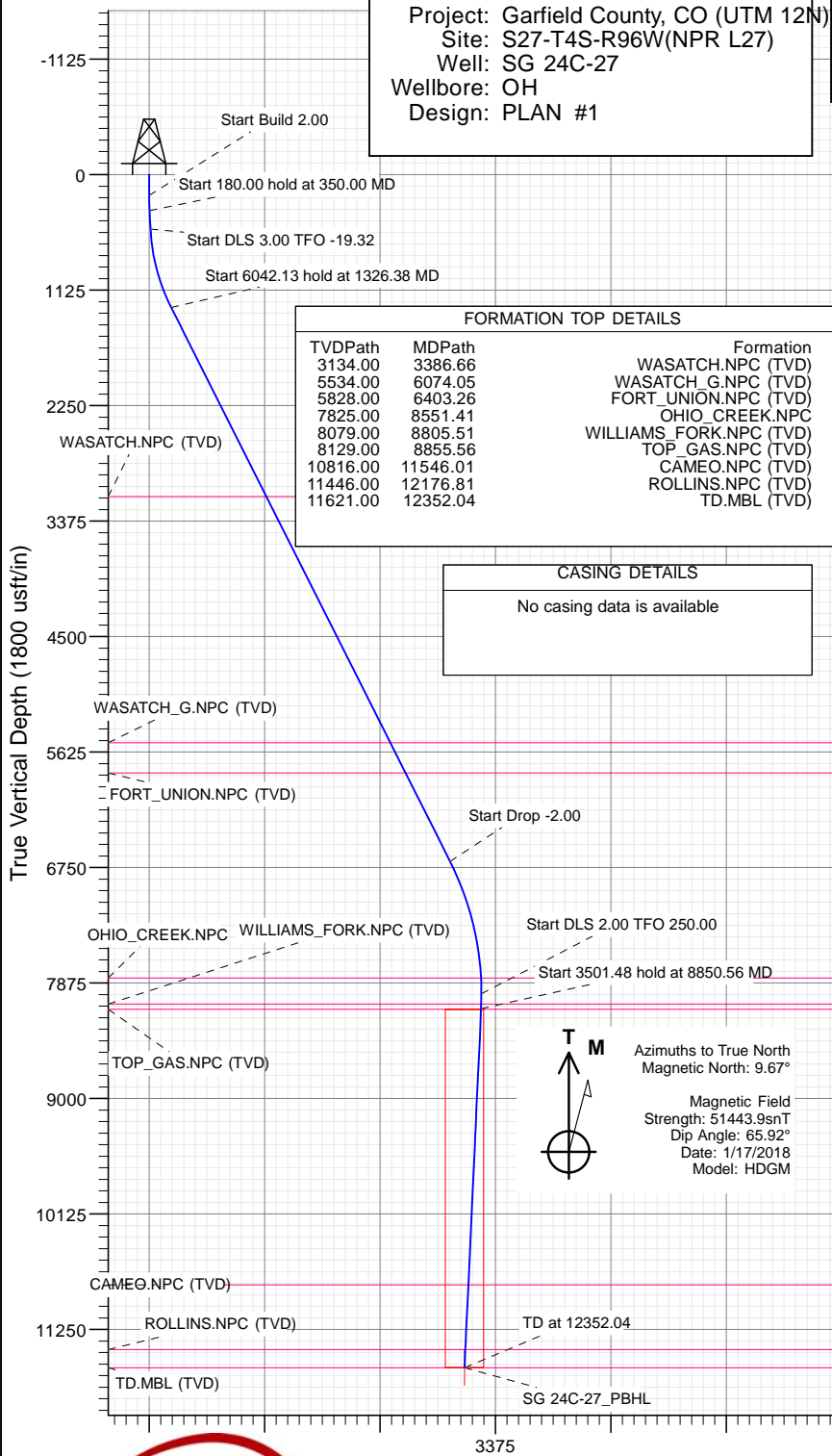
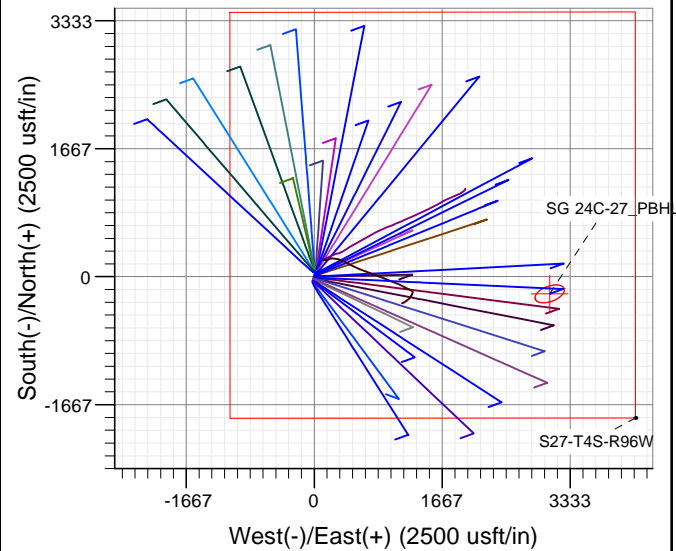
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3134.00	3386.66	WASATCH.NPC (TVD)
5534.00	6074.05	WASATCH_G.NPC (TVD)
5828.00	6403.26	FORT_UNION.NPC (TVD)
7825.00	8551.41	OHIO_CREEK.NPC
8079.00	8805.51	WILLIAMS_FORK.NPC (TVD)
8129.00	8855.56	TOP_GAS.NPC (TVD)
10816.00	11546.01	CAMEO.NPC (TVD)
11446.00	12176.81	ROLLINS.NPC (TVD)
11621.00	12352.04	TD.MBL (TVD)

CASING DETAILS

No casing data is available

Type	Target	Target No	Target (Freehand)	Asimuth	Origin	Type	N/S	E/W	From	TVD
TD				94.16	Slot		0.00	0.00	0.00	
Name	SG 24C-27_PBHL			11621.00			+N/-S	+E/-W	Latitude	Longitude
							-223.17	3065.67	39.670534	-108.148711



WELL DETAILS: SG 24C-27

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14418955.40	2439759.00	39.671147	-108.159597

8106.00

SG 24C-27



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well SG 24C-27 - Slot SG 24C-27
Company:	Caerus Oil & Gas	TVD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Site:	S27-T4S-R96W(NPR L27)	North Reference:	True
Well:	SG 24C-27	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		S27-T4S-R96W(NPR L27)			
Site Position:		Northing:	14,419,012.30 usft	Latitude:	39.671302
From:	Map	Easting:	2,439,764.30 usft	Longitude:	-108.159572
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	1.81 °

Well	SG 24C-27 - Slot SG 24C-27					
Well Position	+N/-S	0.00 usft	Northing:	14,418,955.40 usft	Latitude:	39.671147
	+E/-W	0.00 usft	Easting:	2,439,759.00 usft	Longitude:	-108.159597
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	8,106.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/17/2018	9.67	65.92	51,443.90000000

Design	PLAN #1			
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	94.16

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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
350.00	3.00	110.00	349.93	-1.34	3.69	2.00	2.00	0.00	110.00	
530.00	3.00	110.00	529.68	-4.56	12.54	0.00	0.00	0.00	0.00	
1,326.38	26.74	92.67	1,294.04	-20.27	214.02	3.00	2.98	-2.18	-19.32	
7,368.50	26.74	92.67	6,690.02	-147.02	2,929.64	0.00	0.00	0.00	0.00	
8,705.49	0.00	0.00	7,979.00	-161.30	3,235.67	2.00	-2.00	0.00	180.00	
8,850.56	2.90	250.00	8,124.01	-162.56	3,232.22	2.00	2.00	-75.82	250.00	
12,352.04	2.90	250.00	11,621.00	-223.17	3,065.67	0.00	0.00	0.00	0.00	SG 24C-27_PBHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well SG 24C-27 - Slot SG 24C-27
Company:	Caerus Oil & Gas	TVD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Site:	S27-T4S-R96W(NPR L27)	North Reference:	True
Well:	SG 24C-27	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
0.00	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	Start Build 2.00
300.00	2.00	110.00	299.98	-0.60	1.64	1.68	2.00	2.00	
350.00	3.00	110.00	349.93	-1.34	3.69	3.78	2.00	2.00	Start 180.00 hold at 350.00 MD
400.00	3.00	110.00	399.86	-2.24	6.15	6.29	0.00	0.00	
500.00	3.00	110.00	499.73	-4.03	11.07	11.33	0.00	0.00	
530.00	3.00	110.00	529.68	-4.56	12.54	12.84	0.00	0.00	Start DLS 3.00 TFO -19.32
600.00	5.03	102.05	599.51	-5.83	17.26	17.64	3.00	2.90	
700.00	7.99	97.79	698.85	-7.69	28.44	28.93	3.00	2.96	
800.00	10.98	95.83	797.48	-9.60	44.80	45.38	3.00	2.98	
900.00	13.97	94.70	895.11	-11.55	66.31	66.97	3.00	2.99	
1,000.00	16.96	93.96	991.48	-13.55	92.89	93.63	3.00	2.99	
1,100.00	19.95	93.44	1,086.32	-15.58	124.48	125.28	3.00	3.00	
1,200.00	22.95	93.05	1,179.38	-17.64	160.99	161.85	3.00	3.00	
1,300.00	25.95	92.74	1,270.40	-19.72	202.33	203.22	3.00	3.00	
1,326.38	26.74	92.67	1,294.04	-20.27	214.02	214.92	3.00	3.00	Start 6042.13 hold at 1326.38 MD
1,400.00	26.74	92.67	1,359.79	-21.82	247.11	248.04	0.00	0.00	
1,500.00	26.74	92.67	1,449.10	-23.92	292.05	293.02	0.00	0.00	
1,600.00	26.74	92.67	1,538.40	-26.01	337.00	338.00	0.00	0.00	
1,700.00	26.74	92.67	1,627.71	-28.11	381.94	382.97	0.00	0.00	
1,800.00	26.74	92.67	1,717.01	-30.21	426.89	427.95	0.00	0.00	
1,900.00	26.74	92.67	1,806.32	-32.31	471.83	472.93	0.00	0.00	
2,000.00	26.74	92.67	1,895.63	-34.40	516.78	517.91	0.00	0.00	
2,100.00	26.74	92.67	1,984.93	-36.50	561.72	562.89	0.00	0.00	
2,200.00	26.74	92.67	2,074.24	-38.60	606.67	607.87	0.00	0.00	
2,300.00	26.74	92.67	2,163.54	-40.70	651.61	652.85	0.00	0.00	
2,400.00	26.74	92.67	2,252.85	-42.79	696.56	697.82	0.00	0.00	
2,500.00	26.74	92.67	2,342.16	-44.89	741.50	742.80	0.00	0.00	
2,600.00	26.74	92.67	2,431.46	-46.99	786.45	787.78	0.00	0.00	
2,700.00	26.74	92.67	2,520.77	-49.09	831.39	832.76	0.00	0.00	
2,800.00	26.74	92.67	2,610.07	-51.19	876.33	877.74	0.00	0.00	
2,900.00	26.74	92.67	2,699.38	-53.28	921.28	922.72	0.00	0.00	
3,000.00	26.74	92.67	2,788.69	-55.38	966.22	967.70	0.00	0.00	
3,100.00	26.74	92.67	2,877.99	-57.48	1,011.17	1,012.67	0.00	0.00	
3,200.00	26.74	92.67	2,967.30	-59.58	1,056.11	1,057.65	0.00	0.00	
3,300.00	26.74	92.67	3,056.60	-61.67	1,101.06	1,102.63	0.00	0.00	
3,386.66	26.74	92.67	3,134.00	-63.49	1,140.01	1,141.61	0.00	0.00	WASATCH.NPC (TVD)
3,400.00	26.74	92.67	3,145.91	-63.77	1,146.00	1,147.61	0.00	0.00	
3,500.00	26.74	92.67	3,235.22	-65.87	1,190.95	1,192.59	0.00	0.00	
3,600.00	26.74	92.67	3,324.52	-67.97	1,235.89	1,237.57	0.00	0.00	
3,700.00	26.74	92.67	3,413.83	-70.06	1,280.84	1,282.55	0.00	0.00	
3,800.00	26.74	92.67	3,503.13	-72.16	1,325.78	1,327.52	0.00	0.00	
3,900.00	26.74	92.67	3,592.44	-74.26	1,370.73	1,372.50	0.00	0.00	
4,000.00	26.74	92.67	3,681.75	-76.36	1,415.67	1,417.48	0.00	0.00	
4,100.00	26.74	92.67	3,771.05	-78.45	1,460.62	1,462.46	0.00	0.00	
4,200.00	26.74	92.67	3,860.36	-80.55	1,505.56	1,507.44	0.00	0.00	
4,300.00	26.74	92.67	3,949.66	-82.65	1,550.51	1,552.42	0.00	0.00	
4,400.00	26.74	92.67	4,038.97	-84.75	1,595.45	1,597.39	0.00	0.00	
4,500.00	26.74	92.67	4,128.28	-86.85	1,640.40	1,642.37	0.00	0.00	
4,600.00	26.74	92.67	4,217.58	-88.94	1,685.34	1,687.35	0.00	0.00	
4,700.00	26.74	92.67	4,306.89	-91.04	1,730.29	1,732.33	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well SG 24C-27 - Slot SG 24C-27
Company:	Caerus Oil & Gas	TVD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Site:	S27-T4S-R96W(NPR L27)	North Reference:	True
Well:	SG 24C-27	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
4,800.00	26.74	92.67	4,396.19	-93.14	1,775.23	1,777.31	0.00	0.00	
4,900.00	26.74	92.67	4,485.50	-95.24	1,820.18	1,822.29	0.00	0.00	
5,000.00	26.74	92.67	4,574.81	-97.33	1,865.12	1,867.27	0.00	0.00	
5,100.00	26.74	92.67	4,664.11	-99.43	1,910.07	1,912.24	0.00	0.00	
5,200.00	26.74	92.67	4,753.42	-101.53	1,955.01	1,957.22	0.00	0.00	
5,300.00	26.74	92.67	4,842.72	-103.63	1,999.96	2,002.20	0.00	0.00	
5,400.00	26.74	92.67	4,932.03	-105.72	2,044.90	2,047.18	0.00	0.00	
5,500.00	26.74	92.67	5,021.34	-107.82	2,089.85	2,092.16	0.00	0.00	
5,600.00	26.74	92.67	5,110.64	-109.92	2,134.79	2,137.14	0.00	0.00	
5,700.00	26.74	92.67	5,199.95	-112.02	2,179.74	2,182.12	0.00	0.00	
5,800.00	26.74	92.67	5,289.25	-114.12	2,224.68	2,227.09	0.00	0.00	
5,900.00	26.74	92.67	5,378.56	-116.21	2,269.63	2,272.07	0.00	0.00	
6,000.00	26.74	92.67	5,467.87	-118.31	2,314.57	2,317.05	0.00	0.00	
6,074.05	26.74	92.67	5,534.00	-119.86	2,347.85	2,350.36	0.00	0.00	WASATCH_G.NPC (TVD)
6,100.00	26.74	92.67	5,557.17	-120.41	2,359.51	2,362.03	0.00	0.00	
6,200.00	26.74	92.67	5,646.48	-122.51	2,404.46	2,407.01	0.00	0.00	
6,300.00	26.74	92.67	5,735.78	-124.60	2,449.40	2,451.99	0.00	0.00	
6,400.00	26.74	92.67	5,825.09	-126.70	2,494.35	2,496.97	0.00	0.00	
6,403.26	26.74	92.67	5,828.00	-126.77	2,495.81	2,498.43	0.00	0.00	FORT_UNION.NPC (TVD)
6,500.00	26.74	92.67	5,914.40	-128.80	2,539.29	2,541.94	0.00	0.00	
6,600.00	26.74	92.67	6,003.70	-130.90	2,584.24	2,586.92	0.00	0.00	
6,700.00	26.74	92.67	6,093.01	-132.99	2,629.18	2,631.90	0.00	0.00	
6,800.00	26.74	92.67	6,182.31	-135.09	2,674.13	2,676.88	0.00	0.00	
6,900.00	26.74	92.67	6,271.62	-137.19	2,719.07	2,721.86	0.00	0.00	
7,000.00	26.74	92.67	6,360.93	-139.29	2,764.02	2,766.84	0.00	0.00	
7,100.00	26.74	92.67	6,450.23	-141.38	2,808.96	2,811.82	0.00	0.00	
7,200.00	26.74	92.67	6,539.54	-143.48	2,853.91	2,856.79	0.00	0.00	
7,300.00	26.74	92.67	6,628.84	-145.58	2,898.85	2,901.77	0.00	0.00	
7,368.50	26.74	92.67	6,690.02	-147.02	2,929.64	2,932.58	0.00	0.00	Start Drop -2.00
7,400.00	26.11	92.67	6,718.23	-147.67	2,943.64	2,946.60	2.00	-2.00	
7,500.00	24.11	92.67	6,808.77	-149.65	2,986.03	2,989.01	2.00	-2.00	
7,600.00	22.11	92.67	6,900.74	-151.48	3,025.24	3,028.25	2.00	-2.00	
7,700.00	20.11	92.67	6,994.03	-153.16	3,061.21	3,064.25	2.00	-2.00	
7,800.00	18.11	92.67	7,088.51	-154.68	3,093.91	3,096.98	2.00	-2.00	
7,900.00	16.11	92.67	7,184.08	-156.06	3,123.30	3,126.38	2.00	-2.00	
8,000.00	14.11	92.67	7,280.62	-157.27	3,149.33	3,152.44	2.00	-2.00	
8,100.00	12.11	92.67	7,378.01	-158.33	3,171.99	3,175.11	2.00	-2.00	
8,200.00	10.11	92.67	7,476.13	-159.23	3,191.24	3,194.38	2.00	-2.00	
8,300.00	8.11	92.67	7,574.86	-159.96	3,207.05	3,210.20	2.00	-2.00	
8,400.00	6.11	92.67	7,674.09	-160.54	3,219.42	3,222.57	2.00	-2.00	
8,500.00	4.11	92.67	7,773.69	-160.96	3,228.31	3,231.48	2.00	-2.00	
8,551.41	3.08	92.67	7,825.00	-161.11	3,231.53	3,234.70	2.00	-2.00	OHIO_CREEK.NPC
8,600.00	2.11	92.67	7,873.53	-161.21	3,233.73	3,236.90	2.00	-2.00	
8,700.00	0.11	92.67	7,973.51	-161.30	3,235.66	3,238.84	2.00	-2.00	
8,705.49	0.00	0.00	7,979.00	-161.30	3,235.67	3,238.84	2.00	-2.00	Start DLS 2.00 TFO 250.00
8,800.00	1.89	250.00	8,073.49	-161.83	3,234.21	3,237.42	2.00	2.00	
8,805.51	2.00	250.00	8,079.00	-161.90	3,234.03	3,237.25	2.00	2.00	WILLIAMS_FORK.NPC (TVD)
8,850.56	2.90	250.00	8,124.01	-162.56	3,232.22	3,235.49	2.00	2.00	Start 3501.48 hold at 8850.56 MD
8,855.56	2.90	250.00	8,129.00	-162.64	3,231.98	3,235.26	0.00	0.00	TOP_GAS.NPC (TVD)
8,900.00	2.90	250.00	8,173.39	-163.41	3,229.87	3,233.21	0.00	0.00	
9,000.00	2.90	250.00	8,273.26	-165.14	3,225.11	3,228.59	0.00	0.00	
9,100.00	2.90	250.00	8,373.13	-166.87	3,220.35	3,223.97	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well SG 24C-27 - Slot SG 24C-27
Company:	Caerus Oil & Gas	TVD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Site:	S27-T4S-R96W(NPR L27)	North Reference:	True
Well:	SG 24C-27	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
9,200.00	2.90	250.00	8,473.00	-168.61	3,215.60	3,219.35	0.00	0.00	
9,300.00	2.90	250.00	8,572.87	-170.34	3,210.84	3,214.73	0.00	0.00	
9,400.00	2.90	250.00	8,672.74	-172.07	3,206.08	3,210.12	0.00	0.00	
9,500.00	2.90	250.00	8,772.62	-173.80	3,201.33	3,205.50	0.00	0.00	
9,600.00	2.90	250.00	8,872.49	-175.53	3,196.57	3,200.88	0.00	0.00	
9,700.00	2.90	250.00	8,972.36	-177.26	3,191.82	3,196.26	0.00	0.00	
9,800.00	2.90	250.00	9,072.23	-178.99	3,187.06	3,191.64	0.00	0.00	
9,900.00	2.90	250.00	9,172.10	-180.72	3,182.30	3,187.03	0.00	0.00	
10,000.00	2.90	250.00	9,271.98	-182.45	3,177.55	3,182.41	0.00	0.00	
10,100.00	2.90	250.00	9,371.85	-184.18	3,172.79	3,177.79	0.00	0.00	
10,200.00	2.90	250.00	9,471.72	-185.92	3,168.03	3,173.17	0.00	0.00	
10,300.00	2.90	250.00	9,571.59	-187.65	3,163.28	3,168.55	0.00	0.00	
10,400.00	2.90	250.00	9,671.46	-189.38	3,158.52	3,163.93	0.00	0.00	
10,500.00	2.90	250.00	9,771.33	-191.11	3,153.76	3,159.32	0.00	0.00	
10,600.00	2.90	250.00	9,871.21	-192.84	3,149.01	3,154.70	0.00	0.00	
10,700.00	2.90	250.00	9,971.08	-194.57	3,144.25	3,150.08	0.00	0.00	
10,800.00	2.90	250.00	10,070.95	-196.30	3,139.49	3,145.46	0.00	0.00	
10,900.00	2.90	250.00	10,170.82	-198.03	3,134.74	3,140.84	0.00	0.00	
11,000.00	2.90	250.00	10,270.69	-199.76	3,129.98	3,136.22	0.00	0.00	
11,100.00	2.90	250.00	10,370.57	-201.50	3,125.22	3,131.61	0.00	0.00	
11,200.00	2.90	250.00	10,470.44	-203.23	3,120.47	3,126.99	0.00	0.00	
11,300.00	2.90	250.00	10,570.31	-204.96	3,115.71	3,122.37	0.00	0.00	
11,400.00	2.90	250.00	10,670.18	-206.69	3,110.96	3,117.75	0.00	0.00	
11,500.00	2.90	250.00	10,770.05	-208.42	3,106.20	3,113.13	0.00	0.00	
11,546.01	2.90	250.00	10,816.00	-209.22	3,104.01	3,111.01	0.00	0.00	CAMEO.NPC (TVD)
11,600.00	2.90	250.00	10,869.92	-210.15	3,101.44	3,108.51	0.00	0.00	
11,700.00	2.90	250.00	10,969.80	-211.88	3,096.69	3,103.90	0.00	0.00	
11,800.00	2.90	250.00	11,069.67	-213.61	3,091.93	3,099.28	0.00	0.00	
11,900.00	2.90	250.00	11,169.54	-215.34	3,087.17	3,094.66	0.00	0.00	
12,000.00	2.90	250.00	11,269.41	-217.08	3,082.42	3,090.04	0.00	0.00	
12,100.00	2.90	250.00	11,369.28	-218.81	3,077.66	3,085.42	0.00	0.00	
12,176.81	2.90	250.00	11,446.00	-220.14	3,074.01	3,081.88	0.00	0.00	ROLLINS.NPC (TVD)
12,200.00	2.90	250.00	11,469.16	-220.54	3,072.90	3,080.81	0.00	0.00	
12,300.00	2.90	250.00	11,569.03	-222.27	3,068.15	3,076.19	0.00	0.00	
12,352.04	2.90	250.00	11,621.00	-223.17	3,065.67	3,073.78	0.00	0.00	TD at 12352.04 - TD.MBL (TVD) - SG 24C-27_I

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SG 24C-27_PBHL	0.00	0.00	11,621.00	-223.17	3,065.67	14,418,829.40	2,442,830.20	39.670534	-108.148711
- hit/miss target									
- Shape									
- plan hits target center									
- Ellipse (radii L200.00 W100.00 on 250.00 azi)									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well SG 24C-27 - Slot SG 24C-27
Company:	Caerus Oil & Gas	TVD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB=30' @ 8136.00usft (Original Well Elev)
Site:	S27-T4S-R96W(NPR L27)	North Reference:	True
Well:	SG 24C-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,386.66	3,134.00	WASATCH.NPC (TVD)				
6,074.05	5,534.00	WASATCH_G.NPC (TVD)				
6,403.26	5,828.00	FORT_UNION.NPC (TVD)				
8,551.41	7,825.00	OHIO_CREEK.NPC				
8,805.51	8,079.00	WILLIAMS_FORK.NPC (TVD)				
8,855.56	8,129.00	TOP_GAS.NPC (TVD)				
11,546.01	10,816.00	CAMEO.NPC (TVD)				
12,176.81	11,446.00	ROLLINS.NPC (TVD)				
12,352.04	11,621.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.00	200.00	0.00	0.00	Start Build 2.00	
350.00	349.93	-1.34	3.69	Start 180.00 hold at 350.00 MD	
530.00	529.68	-4.56	12.54	Start DLS 3.00 TFO -19.32	
1,326.38	1,294.04	-20.27	214.02	Start 6042.13 hold at 1326.38 MD	
7,368.50	6,690.02	-147.02	2,929.64	Start Drop -2.00	
8,705.49	7,979.00	-161.30	3,235.67	Start DLS 2.00 TFO 250.00	
8,850.56	8,124.01	-162.56	3,232.22	Start 3501.48 hold at 8850.56 MD	
12,352.04	11,621.00	-223.17	3,065.67	TD at 12352.04	