



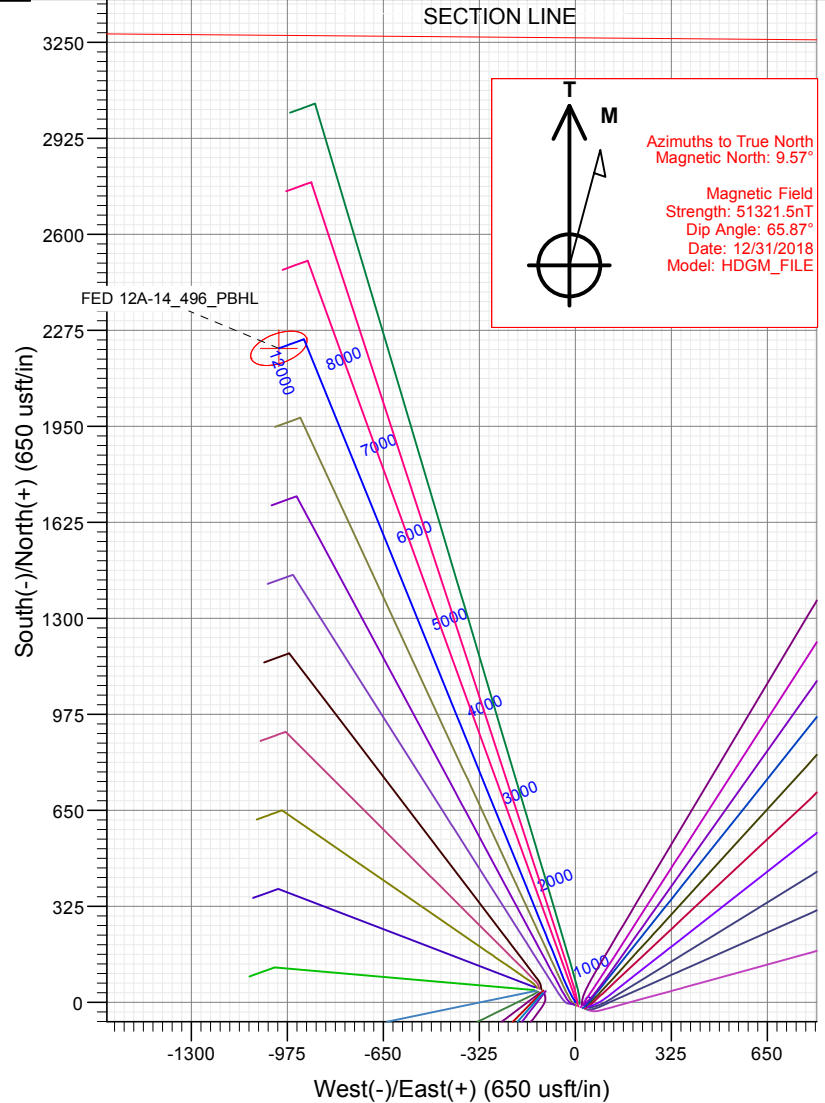
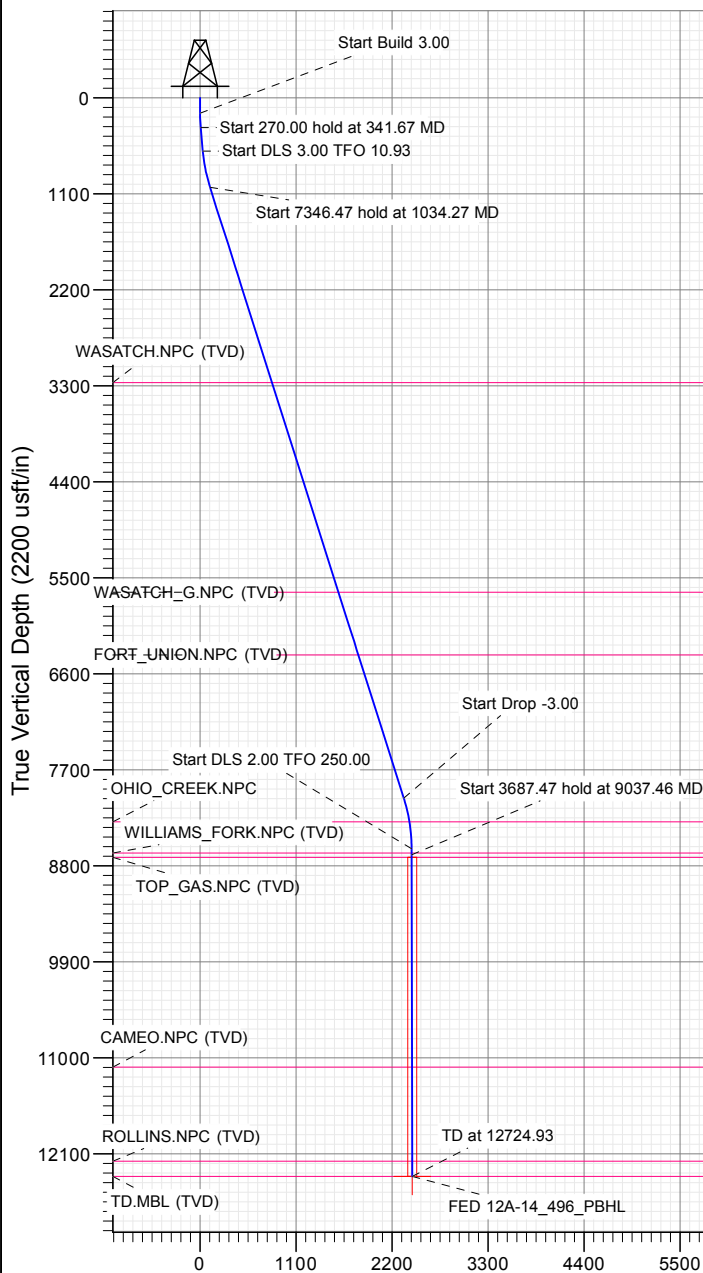
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	175.00	0.00	0.00	175.00	0.00	0.00	0.00	0.00	0.00	
3	341.67	5.00	330.00	341.46	6.29	-3.63	3.00	330.00	7.23	
4	611.67	5.00	330.00	610.43	26.67	-15.40	0.00	0.00	30.65	
5	1034.27	17.61	337.90	1024.01	102.17	-48.80	3.00	10.93	113.20	
6	8380.75	17.61	337.90	8026.11	2161.78	-885.02	0.00	0.00	2334.32	
7	8967.84	0.00	0.00	8604.00	2244.74	-918.70	3.00	180.00	2423.78	
8	9037.46	1.39	250.00	8673.62	2244.45	-919.50	2.00	250.00	2423.84	
9	12724.93	1.39	250.00	12360.00	2213.79	-1003.70	0.00	0.00	2430.69	FED 12A-14_496_PBHL

PLAN #1
FED 12A-14_496
GL +68 = 30' @ 7532.00usft
Ground Level @ 7902.00
NAD 1927 - Western US
Well FED 12A-14_496 - Slot EN_1, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From	TVD
TD	No Target (Freehand)	335.61	Slot		0.00	0.00	TVD	0.00
Name								
FED 12A-14_496_PBHL		12360.00	+N/-S	+E/-W	Latitude	Longitude		
		2213.79	-1003.70	39.708594	-108.136087			

Project: Garfield County, CO (UTM 12N)
Site: SEC 14-T4S-R96W ELU J14 496 PAD
Well: FED 12A-14_496
Wellbore: OH
Design: PLAN #1



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3265.00	3385.47	WASATCH.NPC (TVD)
5665.00	5903.51	WASATCH.G.NPC (TVD)
6384.00	6657.87	FORT UNION.NPC (TVD)
8297.00	8659.50	OHIO_CREEK.NPC
8654.00	9017.84	WILLIAMS_FORK.NPC (TVD)
8704.00	9067.85	TOP_GAS.NPC (TVD)
11107.00	11471.56	CAMEO.NPC (TVD)
12185.00	12549.88	ROLLINS.NPC (TVD)
12360.00	12724.93	TD.MBL (TVD)

WELL DETAILS: FED 12A-14_496

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14429986.90	2446030.50	39.70859	-108.136087

EN_1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FED 12A-14_496 - Slot EN_1
Company:	Caerus Oil & Gas	TVD Reference:	GL + KB = 30' @ 7932.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	GL + KB = 30' @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU J14 496 PAD	North Reference:	True
Well:	FED 12A-14_496	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		SEC 14-T4S-R96W ELU J14 496 PAD			
Site Position:		Northing:	14,430,033.00 usft	Latitude:	39.700997
From:	Map	Easting:	2,445,893.00 usft	Longitude:	-108.136570
Position Uncertainty:	3.28 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.83 °

Well	FED 12A-14_496 - Slot EN_1					
Well Position	+N/-S	0.00 usft	Northing:	14,429,986.90 usft	Latitude:	39.700859
	+E/-W	0.00 usft	Easting:	2,446,030.50 usft	Longitude:	-108.136087
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	7,902.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	12/31/2018	9.57	65.87	51,321.50000000

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	335.61

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	
175.00	0.00	0.00	175.00	0.00	0.00	0.00	0.00	0.00	0.00	
341.67	5.00	330.00	341.46	6.29	-3.63	3.00	3.00	0.00	330.00	
611.67	5.00	330.00	610.43	26.67	-15.40	0.00	0.00	0.00	0.00	
1,034.27	17.61	337.90	1,024.01	102.17	-48.80	3.00	2.98	1.87	10.93	
8,380.75	17.61	337.90	8,026.11	2,161.78	-885.02	0.00	0.00	0.00	0.00	
8,967.84	0.00	0.00	8,604.00	2,244.74	-918.70	3.00	-3.00	0.00	180.00	
9,037.46	1.39	250.00	8,673.62	2,244.45	-919.50	2.00	2.00	-157.99	250.00	
12,724.93	1.39	250.00	12,360.00	2,213.79	-1,003.70	0.00	0.00	0.00	0.00	FED 12A-14_496_PB

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FED 12A-14_496 - Slot EN_1
Company:	Caerus Oil & Gas	TVD Reference:	GL + KB = 30' @ 7932.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	GL + KB = 30' @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU J14 496 PAD	North Reference:	True
Well:	FED 12A-14_496	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	
175.00	0.00	0.00	175.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
200.00	0.75	330.00	200.00	0.14	-0.08	0.16	3.00	3.00	
300.00	3.75	330.00	299.91	3.54	-2.04	4.07	3.00	3.00	
341.67	5.00	330.00	341.46	6.29	-3.63	7.23	3.00	3.00	Start 270.00 hold at 341.67 MD
400.00	5.00	330.00	399.57	10.70	-6.18	12.29	0.00	0.00	
500.00	5.00	330.00	499.19	18.24	-10.53	20.97	0.00	0.00	
600.00	5.00	330.00	598.81	25.79	-14.89	29.64	0.00	0.00	
611.67	5.00	330.00	610.43	26.67	-15.40	30.65	0.00	0.00	Start DLS 3.00 TFO 10.93
700.00	7.62	333.79	698.22	35.26	-19.91	40.34	3.00	2.96	
800.00	10.60	335.82	796.95	49.60	-26.61	56.17	3.00	2.98	
900.00	13.59	336.97	894.72	68.81	-34.98	77.12	3.00	2.99	
1,000.00	16.59	337.71	991.26	92.84	-44.99	103.13	3.00	2.99	
1,034.27	17.61	337.90	1,024.01	102.17	-48.80	113.20	3.00	3.00	Start 7346.47 hold at 1034.27 MD
1,100.00	17.61	337.90	1,086.66	120.60	-56.28	133.07	0.00	0.00	
1,200.00	17.61	337.90	1,181.97	148.63	-67.66	163.31	0.00	0.00	
1,300.00	17.61	337.90	1,277.28	176.67	-79.04	193.54	0.00	0.00	
1,400.00	17.61	337.90	1,372.60	204.70	-90.43	223.78	0.00	0.00	
1,500.00	17.61	337.90	1,467.91	232.74	-101.81	254.01	0.00	0.00	
1,600.00	17.61	337.90	1,563.22	260.77	-113.19	284.24	0.00	0.00	
1,700.00	17.61	337.90	1,658.53	288.81	-124.57	314.48	0.00	0.00	
1,800.00	17.61	337.90	1,753.85	316.84	-135.96	344.71	0.00	0.00	
1,900.00	17.61	337.90	1,849.16	344.88	-147.34	374.94	0.00	0.00	
2,000.00	17.61	337.90	1,944.47	372.92	-158.72	405.18	0.00	0.00	
2,100.00	17.61	337.90	2,039.78	400.95	-170.10	435.41	0.00	0.00	
2,200.00	17.61	337.90	2,135.10	428.99	-181.49	465.65	0.00	0.00	
2,300.00	17.61	337.90	2,230.41	457.02	-192.87	495.88	0.00	0.00	
2,400.00	17.61	337.90	2,325.72	485.06	-204.25	526.11	0.00	0.00	
2,500.00	17.61	337.90	2,421.03	513.09	-215.64	556.35	0.00	0.00	
2,600.00	17.61	337.90	2,516.35	541.13	-227.02	586.58	0.00	0.00	
2,700.00	17.61	337.90	2,611.66	569.16	-238.40	616.82	0.00	0.00	
2,800.00	17.61	337.90	2,706.97	597.20	-249.78	647.05	0.00	0.00	
2,900.00	17.61	337.90	2,802.28	625.23	-261.17	677.28	0.00	0.00	
3,000.00	17.61	337.90	2,897.60	653.27	-272.55	707.52	0.00	0.00	
3,100.00	17.61	337.90	2,992.91	681.31	-283.93	737.75	0.00	0.00	
3,200.00	17.61	337.90	3,088.22	709.34	-295.31	767.98	0.00	0.00	
3,300.00	17.61	337.90	3,183.53	737.38	-306.70	798.22	0.00	0.00	
3,385.47	17.61	337.90	3,265.00	761.34	-316.43	824.06	0.00	0.00	WASATCH.NPC (TVD)
3,400.00	17.61	337.90	3,278.84	765.41	-318.08	828.45	0.00	0.00	
3,500.00	17.61	337.90	3,374.16	793.45	-329.46	858.69	0.00	0.00	
3,600.00	17.61	337.90	3,469.47	821.48	-340.84	888.92	0.00	0.00	
3,700.00	17.61	337.90	3,564.78	849.52	-352.23	919.15	0.00	0.00	
3,800.00	17.61	337.90	3,660.09	877.55	-363.61	949.39	0.00	0.00	
3,900.00	17.61	337.90	3,755.41	905.59	-374.99	979.62	0.00	0.00	
4,000.00	17.61	337.90	3,850.72	933.62	-386.38	1,009.86	0.00	0.00	
4,100.00	17.61	337.90	3,946.03	961.66	-397.76	1,040.09	0.00	0.00	
4,200.00	17.61	337.90	4,041.34	989.69	-409.14	1,070.32	0.00	0.00	
4,300.00	17.61	337.90	4,136.66	1,017.73	-420.52	1,100.56	0.00	0.00	
4,400.00	17.61	337.90	4,231.97	1,045.77	-431.91	1,130.79	0.00	0.00	
4,500.00	17.61	337.90	4,327.28	1,073.80	-443.29	1,161.02	0.00	0.00	
4,600.00	17.61	337.90	4,422.59	1,101.84	-454.67	1,191.26	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FED 12A-14_496 - Slot EN_1
Company:	Caerus Oil & Gas	TVD Reference:	GL + KB = 30' @ 7932.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	GL + KB = 30' @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU J14 496 PAD	North Reference:	True
Well:	FED 12A-14_496	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
4,700.00	17.61	337.90	4,517.91	1,129.87	-466.05	1,221.49	0.00	0.00	
4,800.00	17.61	337.90	4,613.22	1,157.91	-477.44	1,251.73	0.00	0.00	
4,900.00	17.61	337.90	4,708.53	1,185.94	-488.82	1,281.96	0.00	0.00	
5,000.00	17.61	337.90	4,803.84	1,213.98	-500.20	1,312.19	0.00	0.00	
5,100.00	17.61	337.90	4,899.16	1,242.01	-511.58	1,342.43	0.00	0.00	
5,200.00	17.61	337.90	4,994.47	1,270.05	-522.97	1,372.66	0.00	0.00	
5,300.00	17.61	337.90	5,089.78	1,298.08	-534.35	1,402.90	0.00	0.00	
5,400.00	17.61	337.90	5,185.09	1,326.12	-545.73	1,433.13	0.00	0.00	
5,500.00	17.61	337.90	5,280.40	1,354.16	-557.12	1,463.36	0.00	0.00	
5,600.00	17.61	337.90	5,375.72	1,382.19	-568.50	1,493.60	0.00	0.00	
5,700.00	17.61	337.90	5,471.03	1,410.23	-579.88	1,523.83	0.00	0.00	
5,800.00	17.61	337.90	5,566.34	1,438.26	-591.26	1,554.07	0.00	0.00	
5,900.00	17.61	337.90	5,661.65	1,466.30	-602.65	1,584.30	0.00	0.00	
5,903.51	17.61	337.90	5,665.00	1,467.28	-603.05	1,585.36	0.00	0.00	WASATCH_G.NPC (TVD)
6,000.00	17.61	337.90	5,756.97	1,494.33	-614.03	1,614.53	0.00	0.00	
6,100.00	17.61	337.90	5,852.28	1,522.37	-625.41	1,644.77	0.00	0.00	
6,200.00	17.61	337.90	5,947.59	1,550.40	-636.79	1,675.00	0.00	0.00	
6,300.00	17.61	337.90	6,042.90	1,578.44	-648.18	1,705.23	0.00	0.00	
6,400.00	17.61	337.90	6,138.22	1,606.47	-659.56	1,735.47	0.00	0.00	
6,500.00	17.61	337.90	6,233.53	1,634.51	-670.94	1,765.70	0.00	0.00	
6,600.00	17.61	337.90	6,328.84	1,662.54	-682.32	1,795.94	0.00	0.00	
6,657.87	17.61	337.90	6,384.00	1,678.77	-688.91	1,813.43	0.00	0.00	FORT_UNION.NPC (TVD)
6,700.00	17.61	337.90	6,424.15	1,690.58	-693.71	1,826.17	0.00	0.00	
6,800.00	17.61	337.90	6,519.47	1,718.62	-705.09	1,856.40	0.00	0.00	
6,900.00	17.61	337.90	6,614.78	1,746.65	-716.47	1,886.64	0.00	0.00	
7,000.00	17.61	337.90	6,710.09	1,774.69	-727.86	1,916.87	0.00	0.00	
7,100.00	17.61	337.90	6,805.40	1,802.72	-739.24	1,947.11	0.00	0.00	
7,200.00	17.61	337.90	6,900.72	1,830.76	-750.62	1,977.34	0.00	0.00	
7,300.00	17.61	337.90	6,996.03	1,858.79	-762.00	2,007.57	0.00	0.00	
7,400.00	17.61	337.90	7,091.34	1,886.83	-773.39	2,037.81	0.00	0.00	
7,500.00	17.61	337.90	7,186.65	1,914.86	-784.77	2,068.04	0.00	0.00	
7,600.00	17.61	337.90	7,281.96	1,942.90	-796.15	2,098.27	0.00	0.00	
7,700.00	17.61	337.90	7,377.28	1,970.93	-807.53	2,128.51	0.00	0.00	
7,800.00	17.61	337.90	7,472.59	1,998.97	-818.92	2,158.74	0.00	0.00	
7,900.00	17.61	337.90	7,567.90	2,027.00	-830.30	2,188.98	0.00	0.00	
8,000.00	17.61	337.90	7,663.21	2,055.04	-841.68	2,219.21	0.00	0.00	
8,100.00	17.61	337.90	7,758.53	2,083.08	-853.06	2,249.44	0.00	0.00	
8,200.00	17.61	337.90	7,853.84	2,111.11	-864.45	2,279.68	0.00	0.00	
8,300.00	17.61	337.90	7,949.15	2,139.15	-875.83	2,309.91	0.00	0.00	
8,380.75	17.61	337.90	8,026.11	2,161.78	-885.02	2,334.32	0.00	0.00	Start Drop -3.00
8,400.00	17.04	337.90	8,044.49	2,167.10	-887.18	2,340.05	3.00	-3.00	
8,500.00	14.04	337.90	8,140.83	2,191.91	-897.25	2,366.81	3.00	-3.00	
8,600.00	11.04	337.90	8,238.43	2,212.02	-905.42	2,388.49	3.00	-3.00	
8,659.50	9.25	337.90	8,297.00	2,221.72	-909.36	2,398.96	3.00	-3.00	OHIO_CREEK.NPC
8,700.00	8.04	337.90	8,337.04	2,227.36	-911.65	2,405.04	3.00	-3.00	
8,800.00	5.04	337.90	8,436.38	2,237.91	-915.93	2,416.42	3.00	-3.00	
8,900.00	2.04	337.90	8,536.18	2,243.62	-918.25	2,422.58	3.00	-3.00	
8,967.84	0.00	0.00	8,604.00	2,244.74	-918.70	2,423.78	3.00	-3.00	Start DLS 2.00 TFO 250.00
9,000.00	0.64	250.00	8,636.16	2,244.67	-918.87	2,423.79	2.00	2.00	
9,017.84	1.00	250.00	8,654.00	2,244.59	-919.11	2,423.81	2.00	2.00	WILLIAMS_FORK.NPC (TVD)
9,037.46	1.39	250.00	8,673.62	2,244.45	-919.50	2,423.84	2.00	2.00	Start 3687.47 hold at 9037.46 MD
9,067.85	1.39	250.00	8,704.00	2,244.19	-920.19	2,423.90	0.00	0.00	TOP_GAS.NPC (TVD)

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FED 12A-14_496 - Slot EN_1
Company:	Caerus Oil & Gas	TVD Reference:	GL + KB = 30' @ 7932.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	GL + KB = 30' @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU J14 496 PAD	North Reference:	True
Well:	FED 12A-14_496	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
9,100.00	1.39	250.00	8,736.14	2,243.93	-920.92	2,423.96	0.00	0.00	
9,200.00	1.39	250.00	8,836.11	2,243.09	-923.21	2,424.15	0.00	0.00	
9,300.00	1.39	250.00	8,936.08	2,242.26	-925.49	2,424.33	0.00	0.00	
9,400.00	1.39	250.00	9,036.05	2,241.43	-927.77	2,424.52	0.00	0.00	
9,500.00	1.39	250.00	9,136.02	2,240.60	-930.06	2,424.70	0.00	0.00	
9,600.00	1.39	250.00	9,235.99	2,239.77	-932.34	2,424.89	0.00	0.00	
9,700.00	1.39	250.00	9,335.96	2,238.94	-934.62	2,425.08	0.00	0.00	
9,800.00	1.39	250.00	9,435.93	2,238.11	-936.91	2,425.26	0.00	0.00	
9,900.00	1.39	250.00	9,535.90	2,237.27	-939.19	2,425.45	0.00	0.00	
10,000.00	1.39	250.00	9,635.87	2,236.44	-941.48	2,425.63	0.00	0.00	
10,100.00	1.39	250.00	9,735.84	2,235.61	-943.76	2,425.82	0.00	0.00	
10,200.00	1.39	250.00	9,835.81	2,234.78	-946.04	2,426.00	0.00	0.00	
10,300.00	1.39	250.00	9,935.78	2,233.95	-948.33	2,426.19	0.00	0.00	
10,400.00	1.39	250.00	10,035.75	2,233.12	-950.61	2,426.38	0.00	0.00	
10,500.00	1.39	250.00	10,135.73	2,232.29	-952.89	2,426.56	0.00	0.00	
10,600.00	1.39	250.00	10,235.70	2,231.46	-955.18	2,426.75	0.00	0.00	
10,700.00	1.39	250.00	10,335.67	2,230.62	-957.46	2,426.93	0.00	0.00	
10,800.00	1.39	250.00	10,435.64	2,229.79	-959.74	2,427.12	0.00	0.00	
10,900.00	1.39	250.00	10,535.61	2,228.96	-962.03	2,427.30	0.00	0.00	
11,000.00	1.39	250.00	10,635.58	2,228.13	-964.31	2,427.49	0.00	0.00	
11,100.00	1.39	250.00	10,735.55	2,227.30	-966.59	2,427.68	0.00	0.00	
11,200.00	1.39	250.00	10,835.52	2,226.47	-968.88	2,427.86	0.00	0.00	
11,300.00	1.39	250.00	10,935.49	2,225.64	-971.16	2,428.05	0.00	0.00	
11,400.00	1.39	250.00	11,035.46	2,224.80	-973.44	2,428.23	0.00	0.00	
11,471.56	1.39	250.00	11,107.00	2,224.21	-975.08	2,428.37	0.00	0.00	CAMEO.NPC (TVD)
11,500.00	1.39	250.00	11,135.43	2,223.97	-975.73	2,428.42	0.00	0.00	
11,600.00	1.39	250.00	11,235.40	2,223.14	-978.01	2,428.60	0.00	0.00	
11,700.00	1.39	250.00	11,335.37	2,222.31	-980.30	2,428.79	0.00	0.00	
11,800.00	1.39	250.00	11,435.34	2,221.48	-982.58	2,428.98	0.00	0.00	
11,900.00	1.39	250.00	11,535.31	2,220.65	-984.86	2,429.16	0.00	0.00	
12,000.00	1.39	250.00	11,635.28	2,219.82	-987.15	2,429.35	0.00	0.00	
12,100.00	1.39	250.00	11,735.25	2,218.98	-989.43	2,429.53	0.00	0.00	
12,200.00	1.39	250.00	11,835.22	2,218.15	-991.71	2,429.72	0.00	0.00	
12,300.00	1.39	250.00	11,935.19	2,217.32	-994.00	2,429.91	0.00	0.00	
12,400.00	1.39	250.00	12,035.16	2,216.49	-996.28	2,430.09	0.00	0.00	
12,500.00	1.39	250.00	12,135.13	2,215.66	-998.56	2,430.28	0.00	0.00	
12,549.88	1.39	250.00	12,185.00	2,215.24	-999.70	2,430.37	0.00	0.00	ROLLINS.NPC (TVD)
12,600.00	1.39	250.00	12,235.10	2,214.83	-1,000.85	2,430.46	0.00	0.00	
12,700.00	1.39	250.00	12,335.08	2,214.00	-1,003.13	2,430.65	0.00	0.00	
12,724.93	1.39	250.00	12,360.00	2,213.79	-1,003.70	2,430.69	0.00	0.00	TD at 12724.93 - TD.MBL (TVD) - FED 12A-14_

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FED 12A-14_496_PBHL	0.00	0.00	12,360.00	2,213.79	-1,003.70	14,432,167.50	2,444,956.60	39.706934	-108.139653
- plan hits target center									
- Ellipse (radii L100.00 W50.00 on 250.00 azi)									

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FED 12A-14_496 - Slot EN_1
Company:	Caerus Oil & Gas	TVD Reference:	GL + KB = 30' @ 7932.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	GL + KB = 30' @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU J14 496 PAD	North Reference:	True
Well:	FED 12A-14_496	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,385.47	3,265.00	WASATCH.NPC (TVD)				
5,903.51	5,665.00	WASATCH_G.NPC (TVD)				
6,657.87	6,384.00	FORT_UNION.NPC (TVD)				
8,659.50	8,297.00	OHIO_CREEK.NPC				
9,017.84	8,654.00	WILLIAMS_FORK.NPC (TVD)				
9,067.85	8,704.00	TOP_GAS.NPC (TVD)				
11,471.56	11,107.00	CAMEO.NPC (TVD)				
12,549.88	12,185.00	ROLLINS.NPC (TVD)				
12,724.93	12,360.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
175.00	175.00	0.00	0.00	Start Build 3.00	
341.67	341.46	6.29	-3.63	Start 270.00 hold at 341.67 MD	
611.67	610.43	26.67	-15.40	Start DLS 3.00 TFO 10.93	
1,034.27	1,024.01	102.17	-48.80	Start 7346.47 hold at 1034.27 MD	
8,380.75	8,026.11	2,161.78	-885.02	Start Drop -3.00	
8,967.84	8,604.00	2,244.74	-918.70	Start DLS 2.00 TFO 250.00	
9,037.46	8,673.62	2,244.45	-919.50	Start 3687.47 hold at 9037.46 MD	
12,724.93	12,360.00	2,213.79	-1,003.70	TD at 12724.93	