



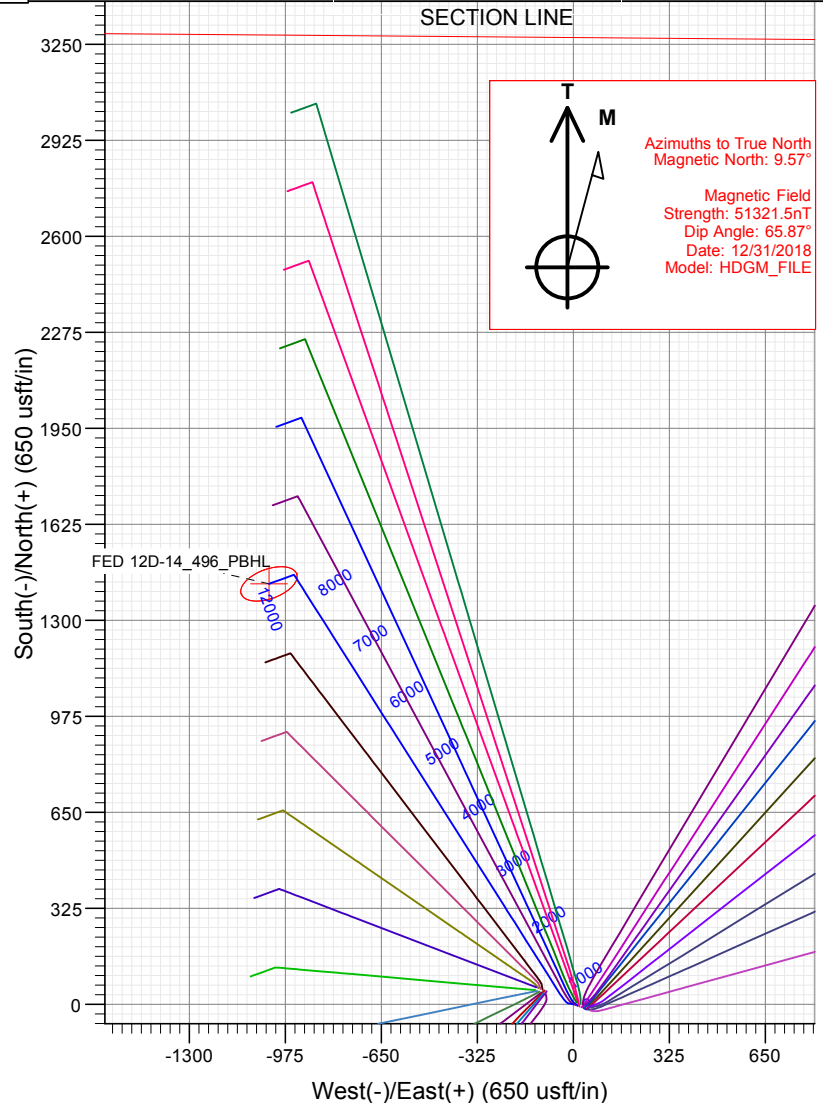
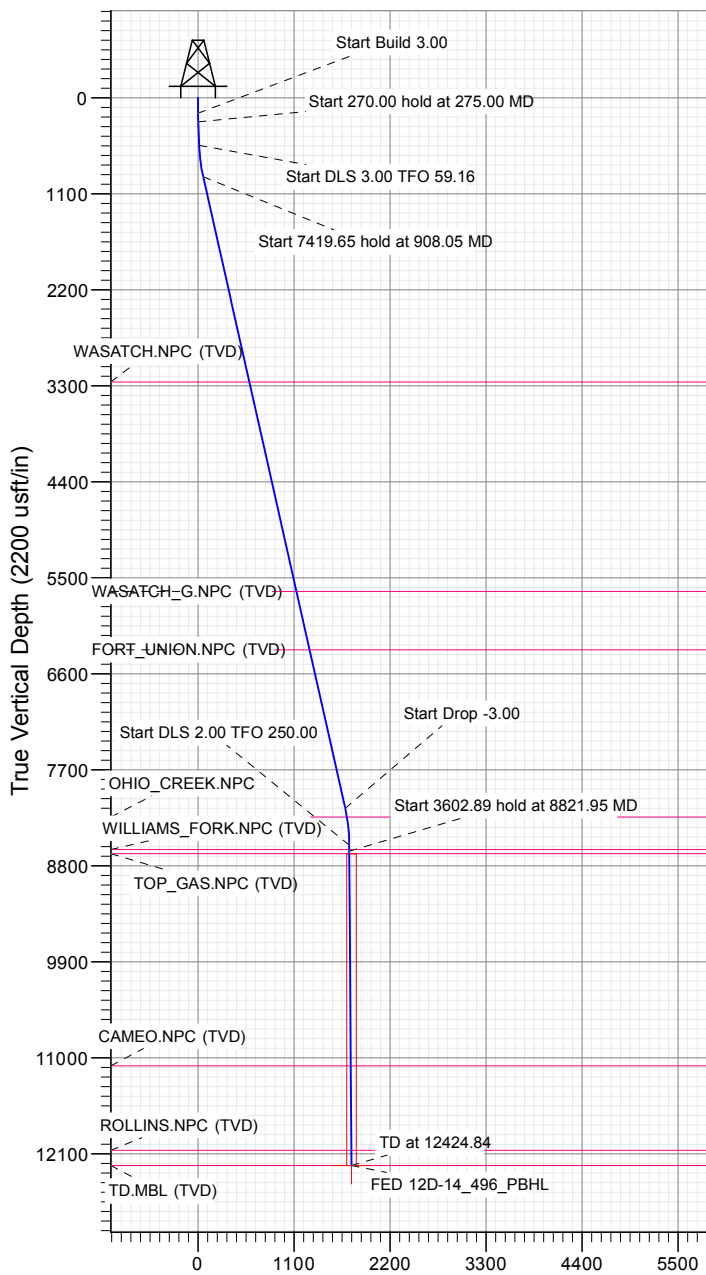
## SECTION DETAILS

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	175.00	0.00	0.00	175.00	0.00	0.00	0.00	0.00	0.00	
3	275.00	3.00	280.00	274.95	0.45	-2.58	3.00	280.00	1.88	
4	545.00	3.00	280.00	544.58	2.91	-16.49	0.00	0.00	12.03	
5	908.05	12.69	327.60	904.03	38.34	-47.31	3.00	59.16	58.80	
6	8327.70	12.69	327.60	8142.43	1414.59	-920.67	0.00	0.00	1685.71	
7	8750.72	0.00	0.00	8562.00	1453.98	-945.67	3.00	180.00	1732.28	
8	8821.95	1.42	250.00	8633.22	1453.68	-946.50	2.00	250.00	1732.52	
9	12424.84	1.42	250.00	12235.00	1423.05	-1030.67	0.00	0.00	1757.09	FED 12D-14_496_PBHL

PLAN #1  
FED 12D-14\_496  
GL +68 = 30' @ 7532.00usft  
Ground Level @ 7902.00  
NAD 1927 - Western US  
Well FED 12D-14\_496 - Slot ES\_1, True North

Type	Target	Origin	N/S	E/W	From
TD	No Target (Freehand)	324.09	0.00	0.00	TVD
Name	FED 12D-14_496_PBHL	TVD	N/S	+E/-W	Latitude
		12235.00	1423.05	-1030.67	39.704745
					Longitude
					-108.136786

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



## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3256.00	3318.91	WASATCH.NPC (TVD)
5656.00	5779.01	WASATCH_G.NPC (TVD)
6324.00	6463.74	FORT_UNION.NPC (TVD)
8242.00	8429.20	OHIO_CREEK.NPC
8612.00	8800.72	WILLIAMS_FORK.NPC (TVD)
8662.00	8850.74	TOP_GAS.NPC (TVD)
11093.00	11282.49	CAMEO.NPC (TVD)
12060.00	12249.79	ROLLINS.NPC (TVD)
12235.00	12424.84	TD.MBL (TVD)

## WELL DETAILS: FED 12D-14\_496

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14429979.80	2446020.20	39.700840	-108.136124

ES\_1



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 12D-14_496 - Slot ES_1
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Site:</b>	SEC 14-T4S-R96W ELU J14 496 PAD	<b>North Reference:</b>	True
<b>Well:</b>	FED 12D-14_496	<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		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 12D-14_496 - Slot ES_1					
Well Position	+N/-S	0.00 usft	Northing:	14,429,979.80 usft	Latitude:	39.700840
	+E/-W	0.00 usft	Easting:	2,446,020.20 usft	Longitude:	-108.136124
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	7,902.00 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_FILE	12/31/2018	9.57	65.87	51,321.50000000

<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	324.09

<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	
175.00	0.00	0.00	175.00	0.00	0.00	0.00	0.00	0.00	0.00	
275.00	3.00	280.00	274.95	0.45	-2.58	3.00	3.00	0.00	280.00	
545.00	3.00	280.00	544.58	2.91	-16.49	0.00	0.00	0.00	0.00	
908.05	12.69	327.60	904.03	38.34	-47.31	3.00	2.67	13.11	59.16	
8,327.70	12.69	327.60	8,142.43	1,414.59	-920.67	0.00	0.00	0.00	0.00	
8,750.72	0.00	0.00	8,562.00	1,453.98	-945.67	3.00	-3.00	0.00	180.00	
8,821.95	1.42	250.00	8,633.22	1,453.68	-946.50	2.00	2.00	-154.43	250.00	
12,424.84	1.42	250.00	12,235.00	1,423.05	-1,030.67	0.00	0.00	0.00	0.00	FED 12D-14_496_PB

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 12D-14_496 - Slot ES_1
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Site:</b>	SEC 14-T4S-R96W ELU J14 496 PAD	<b>North Reference:</b>	True
<b>Well:</b>	FED 12D-14_496	<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	
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	280.00	200.00	0.03	-0.16	0.12	3.00	3.00	
275.00	3.00	280.00	274.95	0.45	-2.58	1.88	3.00	3.00	Start 270.00 hold at 275.00 MD
300.00	3.00	280.00	299.92	0.68	-3.87	2.82	0.00	0.00	
400.00	3.00	280.00	399.78	1.59	-9.02	6.58	0.00	0.00	
500.00	3.00	280.00	499.65	2.50	-14.17	10.34	0.00	0.00	
545.00	3.00	280.00	544.58	2.91	-16.49	12.03	0.00	0.00	Start DLS 3.00 TFO 59.16
600.00	4.10	300.24	599.48	4.15	-19.61	14.86	3.00	2.00	
700.00	6.70	316.62	699.03	10.19	-26.71	23.92	3.00	2.60	
800.00	9.54	323.60	798.02	21.10	-35.63	37.99	3.00	2.84	
900.00	12.45	327.37	896.18	36.86	-46.37	57.05	3.00	2.91	
908.05	12.69	327.60	904.03	38.34	-47.31	58.80	3.00	2.94	Start 7419.65 hold at 908.05 MD
1,000.00	12.69	327.60	993.74	55.39	-58.13	78.96	0.00	0.00	
1,100.00	12.69	327.60	1,091.30	73.94	-69.90	100.89	0.00	0.00	
1,200.00	12.69	327.60	1,188.85	92.49	-81.67	122.81	0.00	0.00	
1,300.00	12.69	327.60	1,286.41	111.04	-93.45	144.74	0.00	0.00	
1,400.00	12.69	327.60	1,383.97	129.59	-105.22	166.67	0.00	0.00	
1,500.00	12.69	327.60	1,481.52	148.13	-116.99	188.60	0.00	0.00	
1,600.00	12.69	327.60	1,579.08	166.68	-128.76	210.52	0.00	0.00	
1,700.00	12.69	327.60	1,676.64	185.23	-140.53	232.45	0.00	0.00	
1,800.00	12.69	327.60	1,774.19	203.78	-152.30	254.38	0.00	0.00	
1,900.00	12.69	327.60	1,871.75	222.33	-164.07	276.30	0.00	0.00	
2,000.00	12.69	327.60	1,969.31	240.88	-175.84	298.23	0.00	0.00	
2,100.00	12.69	327.60	2,066.87	259.43	-187.61	320.16	0.00	0.00	
2,200.00	12.69	327.60	2,164.42	277.98	-199.38	342.08	0.00	0.00	
2,300.00	12.69	327.60	2,261.98	296.52	-211.15	364.01	0.00	0.00	
2,400.00	12.69	327.60	2,359.54	315.07	-222.93	385.94	0.00	0.00	
2,500.00	12.69	327.60	2,457.09	333.62	-234.70	407.87	0.00	0.00	
2,600.00	12.69	327.60	2,554.65	352.17	-246.47	429.79	0.00	0.00	
2,700.00	12.69	327.60	2,652.21	370.72	-258.24	451.72	0.00	0.00	
2,800.00	12.69	327.60	2,749.77	389.27	-270.01	473.65	0.00	0.00	
2,900.00	12.69	327.60	2,847.32	407.82	-281.78	495.57	0.00	0.00	
3,000.00	12.69	327.60	2,944.88	426.37	-293.55	517.50	0.00	0.00	
3,100.00	12.69	327.60	3,042.44	444.91	-305.32	539.43	0.00	0.00	
3,200.00	12.69	327.60	3,139.99	463.46	-317.09	561.36	0.00	0.00	
3,300.00	12.69	327.60	3,237.55	482.01	-328.86	583.28	0.00	0.00	
3,318.91	12.69	327.60	3,256.00	485.52	-331.09	587.43	0.00	0.00	WASATCH.NPC (TVD)
3,400.00	12.69	327.60	3,335.11	500.56	-340.64	605.21	0.00	0.00	
3,500.00	12.69	327.60	3,432.67	519.11	-352.41	627.14	0.00	0.00	
3,600.00	12.69	327.60	3,530.22	537.66	-364.18	649.06	0.00	0.00	
3,700.00	12.69	327.60	3,627.78	556.21	-375.95	670.99	0.00	0.00	
3,800.00	12.69	327.60	3,725.34	574.76	-387.72	692.92	0.00	0.00	
3,900.00	12.69	327.60	3,822.89	593.30	-399.49	714.84	0.00	0.00	
4,000.00	12.69	327.60	3,920.45	611.85	-411.26	736.77	0.00	0.00	
4,100.00	12.69	327.60	4,018.01	630.40	-423.03	758.70	0.00	0.00	
4,200.00	12.69	327.60	4,115.57	648.95	-434.80	780.63	0.00	0.00	
4,300.00	12.69	327.60	4,213.12	667.50	-446.57	802.55	0.00	0.00	
4,400.00	12.69	327.60	4,310.68	686.05	-458.34	824.48	0.00	0.00	
4,500.00	12.69	327.60	4,408.24	704.60	-470.12	846.41	0.00	0.00	
4,600.00	12.69	327.60	4,505.79	723.15	-481.89	868.33	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 12D-14_496 - Slot ES_1
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Site:</b>	SEC 14-T4S-R96W ELU J14 496 PAD	<b>North Reference:</b>	True
<b>Well:</b>	FED 12D-14_496	<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
4,700.00	12.69	327.60	4,603.35	741.69	-493.66	890.26	0.00	0.00	
4,800.00	12.69	327.60	4,700.91	760.24	-505.43	912.19	0.00	0.00	
4,900.00	12.69	327.60	4,798.47	778.79	-517.20	934.11	0.00	0.00	
5,000.00	12.69	327.60	4,896.02	797.34	-528.97	956.04	0.00	0.00	
5,100.00	12.69	327.60	4,993.58	815.89	-540.74	977.97	0.00	0.00	
5,200.00	12.69	327.60	5,091.14	834.44	-552.51	999.90	0.00	0.00	
5,300.00	12.69	327.60	5,188.69	852.99	-564.28	1,021.82	0.00	0.00	
5,400.00	12.69	327.60	5,286.25	871.53	-576.05	1,043.75	0.00	0.00	
5,500.00	12.69	327.60	5,383.81	890.08	-587.82	1,065.68	0.00	0.00	
5,600.00	12.69	327.60	5,481.37	908.63	-599.60	1,087.60	0.00	0.00	
5,700.00	12.69	327.60	5,578.92	927.18	-611.37	1,109.53	0.00	0.00	
5,779.01	12.69	327.60	5,656.00	941.84	-620.67	1,126.86	0.00	0.00	WASATCH_G.NPC (TVD)
5,800.00	12.69	327.60	5,676.48	945.73	-623.14	1,131.46	0.00	0.00	
5,900.00	12.69	327.60	5,774.04	964.28	-634.91	1,153.39	0.00	0.00	
6,000.00	12.69	327.60	5,871.59	982.83	-646.68	1,175.31	0.00	0.00	
6,100.00	12.69	327.60	5,969.15	1,001.38	-658.45	1,197.24	0.00	0.00	
6,200.00	12.69	327.60	6,066.71	1,019.92	-670.22	1,219.17	0.00	0.00	
6,300.00	12.69	327.60	6,164.26	1,038.47	-681.99	1,241.09	0.00	0.00	
6,400.00	12.69	327.60	6,261.82	1,057.02	-693.76	1,263.02	0.00	0.00	
6,463.74	12.69	327.60	6,324.00	1,068.84	-701.26	1,277.00	0.00	0.00	FORT_UNION.NPC (TVD)
6,500.00	12.69	327.60	6,359.38	1,075.57	-705.53	1,284.95	0.00	0.00	
6,600.00	12.69	327.60	6,456.94	1,094.12	-717.30	1,306.87	0.00	0.00	
6,700.00	12.69	327.60	6,554.49	1,112.67	-729.08	1,328.80	0.00	0.00	
6,800.00	12.69	327.60	6,652.05	1,131.22	-740.85	1,350.73	0.00	0.00	
6,900.00	12.69	327.60	6,749.61	1,149.77	-752.62	1,372.66	0.00	0.00	
7,000.00	12.69	327.60	6,847.16	1,168.31	-764.39	1,394.58	0.00	0.00	
7,100.00	12.69	327.60	6,944.72	1,186.86	-776.16	1,416.51	0.00	0.00	
7,200.00	12.69	327.60	7,042.28	1,205.41	-787.93	1,438.44	0.00	0.00	
7,300.00	12.69	327.60	7,139.84	1,223.96	-799.70	1,460.36	0.00	0.00	
7,400.00	12.69	327.60	7,237.39	1,242.51	-811.47	1,482.29	0.00	0.00	
7,500.00	12.69	327.60	7,334.95	1,261.06	-823.24	1,504.22	0.00	0.00	
7,600.00	12.69	327.60	7,432.51	1,279.61	-835.01	1,526.14	0.00	0.00	
7,700.00	12.69	327.60	7,530.06	1,298.16	-846.78	1,548.07	0.00	0.00	
7,800.00	12.69	327.60	7,627.62	1,316.70	-858.56	1,570.00	0.00	0.00	
7,900.00	12.69	327.60	7,725.18	1,335.25	-870.33	1,591.93	0.00	0.00	
8,000.00	12.69	327.60	7,822.74	1,353.80	-882.10	1,613.85	0.00	0.00	
8,100.00	12.69	327.60	7,920.29	1,372.35	-893.87	1,635.78	0.00	0.00	
8,200.00	12.69	327.60	8,017.85	1,390.90	-905.64	1,657.71	0.00	0.00	
8,300.00	12.69	327.60	8,115.41	1,409.45	-917.41	1,679.63	0.00	0.00	
8,327.70	12.69	327.60	8,142.43	1,414.59	-920.67	1,685.71	0.00	0.00	Start Drop -3.00
8,400.00	10.52	327.60	8,213.25	1,426.87	-928.46	1,700.23	3.00	-3.00	
8,429.20	9.65	327.60	8,242.00	1,431.18	-931.20	1,705.33	3.00	-3.00	OHIO_CREEK.NPC
8,500.00	7.52	327.60	8,312.00	1,440.10	-936.86	1,715.87	3.00	-3.00	
8,600.00	4.52	327.60	8,411.44	1,448.96	-942.49	1,726.34	3.00	-3.00	
8,700.00	1.52	327.60	8,511.29	1,453.41	-945.31	1,731.60	3.00	-3.00	
8,750.72	0.00	0.00	8,562.00	1,453.98	-945.67	1,732.28	3.00	-3.00	Start DLS 2.00 TFO 250.00
8,800.00	0.99	250.00	8,611.28	1,453.84	-946.07	1,732.39	2.00	2.00	
8,800.72	1.00	250.00	8,612.00	1,453.83	-946.08	1,732.40	2.00	2.00	WILLIAMS_FORK.NPC (TVD)
8,821.95	1.42	250.00	8,633.22	1,453.68	-946.50	1,732.52	2.00	2.00	Start 3602.89 hold at 8821.95 MD
8,850.74	1.42	250.00	8,662.00	1,453.43	-947.17	1,732.72	0.00	0.00	TOP_GAS.NPC (TVD)
8,900.00	1.42	250.00	8,711.25	1,453.01	-948.33	1,733.05	0.00	0.00	
9,000.00	1.42	250.00	8,811.22	1,452.16	-950.66	1,733.73	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 12D-14_496 - Slot ES_1
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Site:</b>	SEC 14-T4S-R96W ELU J14 496 PAD	<b>North Reference:</b>	True
<b>Well:</b>	FED 12D-14_496	<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
9,100.00	1.42	250.00	8,911.19	1,451.31	-953.00	1,734.42	0.00	0.00	
9,200.00	1.42	250.00	9,011.16	1,450.46	-955.33	1,735.10	0.00	0.00	
9,300.00	1.42	250.00	9,111.12	1,449.61	-957.67	1,735.78	0.00	0.00	
9,400.00	1.42	250.00	9,211.09	1,448.76	-960.01	1,736.46	0.00	0.00	
9,500.00	1.42	250.00	9,311.06	1,447.91	-962.34	1,737.14	0.00	0.00	
9,600.00	1.42	250.00	9,411.03	1,447.06	-964.68	1,737.82	0.00	0.00	
9,700.00	1.42	250.00	9,511.00	1,446.21	-967.01	1,738.51	0.00	0.00	
9,800.00	1.42	250.00	9,610.97	1,445.36	-969.35	1,739.19	0.00	0.00	
9,900.00	1.42	250.00	9,710.94	1,444.51	-971.69	1,739.87	0.00	0.00	
10,000.00	1.42	250.00	9,810.91	1,443.66	-974.02	1,740.55	0.00	0.00	
10,100.00	1.42	250.00	9,910.88	1,442.81	-976.36	1,741.23	0.00	0.00	
10,200.00	1.42	250.00	10,010.85	1,441.96	-978.70	1,741.92	0.00	0.00	
10,300.00	1.42	250.00	10,110.82	1,441.11	-981.03	1,742.60	0.00	0.00	
10,400.00	1.42	250.00	10,210.78	1,440.26	-983.37	1,743.28	0.00	0.00	
10,500.00	1.42	250.00	10,310.75	1,439.41	-985.70	1,743.96	0.00	0.00	
10,600.00	1.42	250.00	10,410.72	1,438.56	-988.04	1,744.64	0.00	0.00	
10,700.00	1.42	250.00	10,510.69	1,437.71	-990.38	1,745.32	0.00	0.00	
10,800.00	1.42	250.00	10,610.66	1,436.86	-992.71	1,746.01	0.00	0.00	
10,900.00	1.42	250.00	10,710.63	1,436.01	-995.05	1,746.69	0.00	0.00	
11,000.00	1.42	250.00	10,810.60	1,435.16	-997.39	1,747.37	0.00	0.00	
11,100.00	1.42	250.00	10,910.57	1,434.31	-999.72	1,748.05	0.00	0.00	
11,200.00	1.42	250.00	11,010.54	1,433.46	-1,002.06	1,748.73	0.00	0.00	
11,282.49	1.42	250.00	11,093.00	1,432.76	-1,003.98	1,749.30	0.00	0.00	CAMEO.NPC (TVD)
11,300.00	1.42	250.00	11,110.51	1,432.61	-1,004.39	1,749.42	0.00	0.00	
11,400.00	1.42	250.00	11,210.48	1,431.76	-1,006.73	1,750.10	0.00	0.00	
11,500.00	1.42	250.00	11,310.44	1,430.91	-1,009.07	1,750.78	0.00	0.00	
11,600.00	1.42	250.00	11,410.41	1,430.06	-1,011.40	1,751.46	0.00	0.00	
11,700.00	1.42	250.00	11,510.38	1,429.21	-1,013.74	1,752.14	0.00	0.00	
11,800.00	1.42	250.00	11,610.35	1,428.36	-1,016.07	1,752.82	0.00	0.00	
11,900.00	1.42	250.00	11,710.32	1,427.51	-1,018.41	1,753.51	0.00	0.00	
12,000.00	1.42	250.00	11,810.29	1,426.66	-1,020.75	1,754.19	0.00	0.00	
12,100.00	1.42	250.00	11,910.26	1,425.81	-1,023.08	1,754.87	0.00	0.00	
12,200.00	1.42	250.00	12,010.23	1,424.96	-1,025.42	1,755.55	0.00	0.00	
12,249.79	1.42	250.00	12,060.00	1,424.54	-1,026.58	1,755.89	0.00	0.00	ROLLINS.NPC (TVD)
12,300.00	1.42	250.00	12,110.20	1,424.11	-1,027.76	1,756.23	0.00	0.00	
12,400.00	1.42	250.00	12,210.17	1,423.26	-1,030.09	1,756.92	0.00	0.00	
12,424.84	1.42	250.00	12,235.00	1,423.05	-1,030.67	1,757.09	0.00	0.00	TD at 12424.84 - TD.MBL (TVD) - FED 12D-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 12D-14_496_PBHL	0.00	0.00	12,235.00	1,423.05	-1,030.67	14,431,369.20	2,444,944.60	39.704745	-108.139786
- plan hits target center									
- Ellipse (radii L100.00 W50.00 on 250.00 azi)									

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 12D-14_496 - Slot ES_1
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB = 30' @ 7932.00usft
<b>Site:</b>	SEC 14-T4S-R96W ELU J14 496 PAD	<b>North Reference:</b>	True
<b>Well:</b>	FED 12D-14_496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,318.91	3,256.00	WASATCH.NPC (TVD)				
5,779.01	5,656.00	WASATCH_G.NPC (TVD)				
6,463.74	6,324.00	FORT_UNION.NPC (TVD)				
8,429.20	8,242.00	OHIO_CREEK.NPC				
8,800.72	8,612.00	WILLIAMS_FORK.NPC (TVD)				
8,850.74	8,662.00	TOP_GAS.NPC (TVD)				
11,282.49	11,093.00	CAMEO.NPC (TVD)				
12,249.79	12,060.00	ROLLINS.NPC (TVD)				
12,424.84	12,235.00	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	
275.00	274.95	0.45	-2.58	Start 270.00 hold at 275.00 MD	
545.00	544.58	2.91	-16.49	Start DLS 3.00 TFO 59.16	
908.05	904.03	38.34	-47.31	Start 7419.65 hold at 908.05 MD	
8,327.70	8,142.43	1,414.59	-920.67	Start Drop -3.00	
8,750.72	8,562.00	1,453.98	-945.67	Start DLS 2.00 TFO 250.00	
8,821.95	8,633.22	1,453.68	-946.50	Start 3602.89 hold at 8821.95 MD	
12,424.84	12,235.00	1,423.05	-1,030.67	TD at 12424.84	