



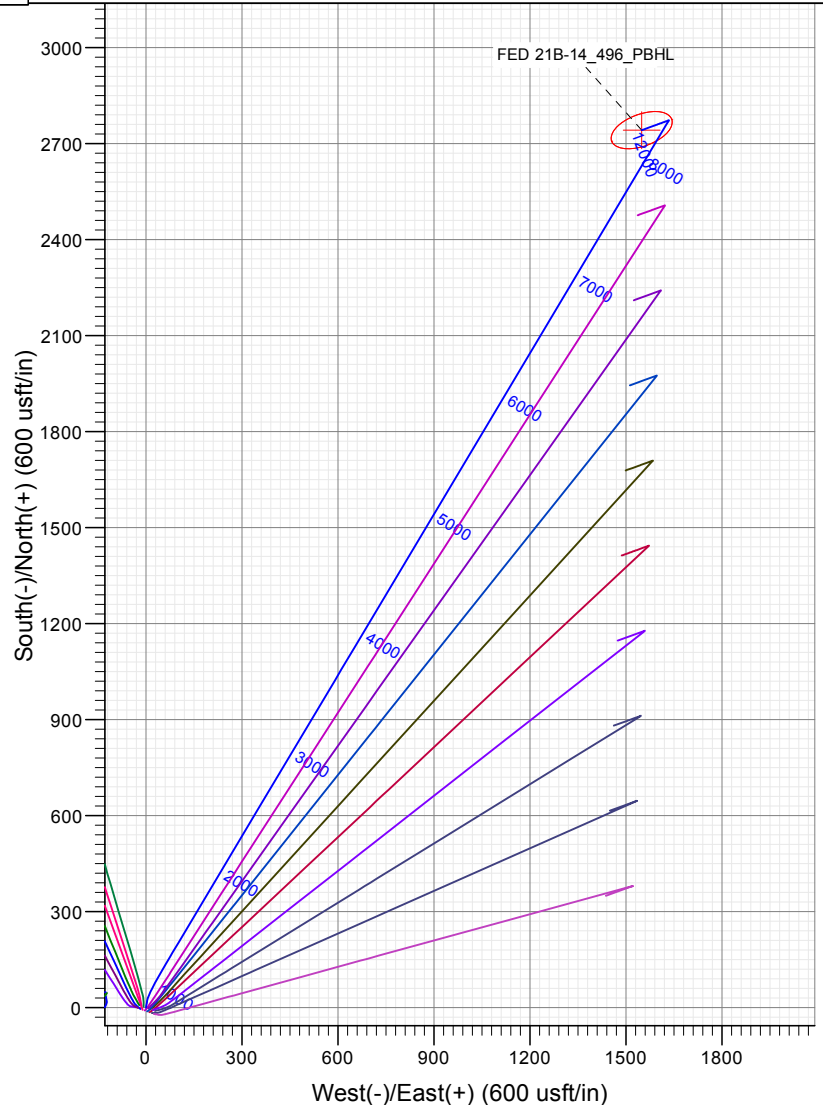
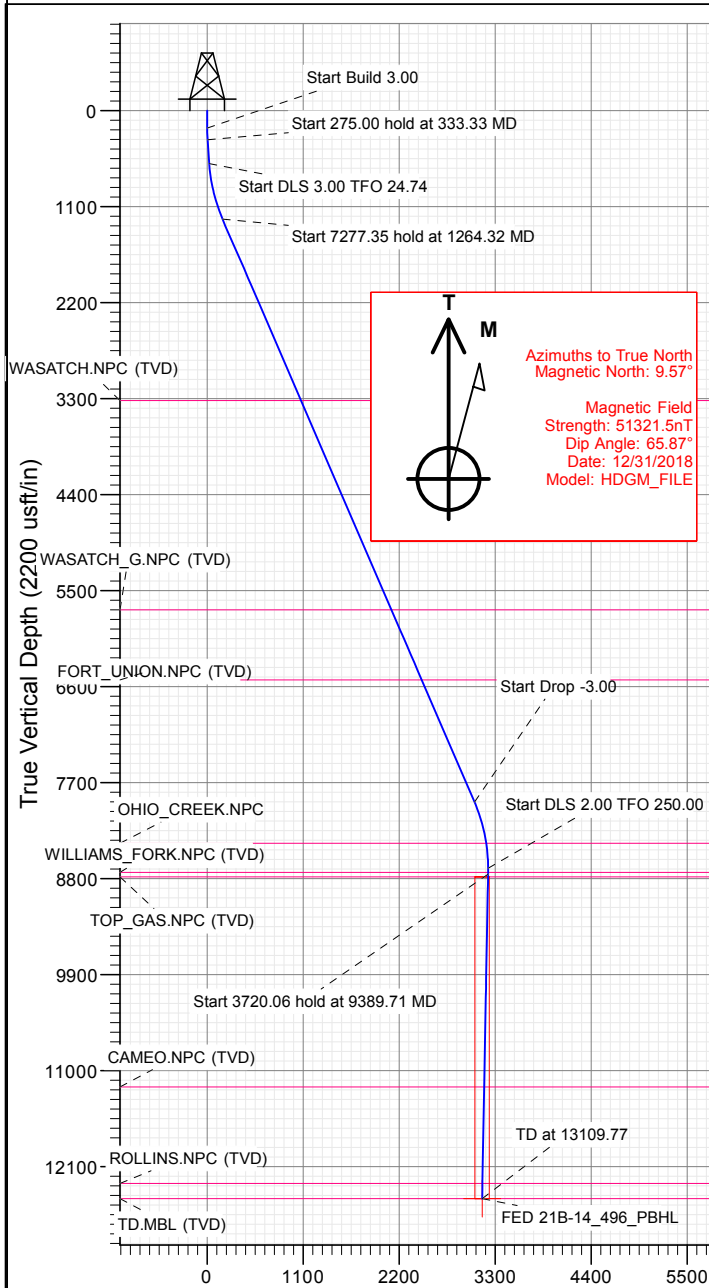
## SECTION DETAILS

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	333.33	4.00	10.00	333.23	4.58	0.81	3.00	10.00	4.39	
4	608.33	4.00	10.00	607.56	23.47	4.14	0.00	0.00	22.47	
5	1264.32	23.37	30.81	1242.09	159.08	75.45	3.00	24.74	175.62	
6	8541.68	23.37	30.81	7922.42	2638.39	1554.03	0.00	0.00	3061.54	
7	9320.68	0.00	0.00	8680.00	2772.95	1634.28	3.00	180.00	3218.18	
8	9389.71	1.38	250.00	8749.02	2772.67	1633.50	2.00	250.00	3217.55	
9	13109.77	1.38	250.00	12468.00	2742.01	1549.28	0.00	0.00	3149.43	FED 21B-14_496_PBHL

PLAN #1  
FED 21B-14\_496  
GL +FB = 30' @ 7532.00usft  
Ground Level @ 7902.00  
NAD 1927 - Western US  
Well FED 21B-14\_496 - Slot EN\_4, True North

Type	Target	Origin	Slot	N/S	E/W	From	TVD	+N/-S	+E/-W	Latitude	Longitude
TD	No Target (Freehand)	29.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Name	FED 21B-14_496_PBHL	12468.00	2742.01	1549.28	39.708362	-108.130508					

Project: Garfield County, CO (UTM 12N)  
Site: SEC 14-T4S-R96W ELU J14 496 PAD  
Well: FED 21B-14\_496  
Wellbore: OH  
Design: PLAN #1



## FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3321.00	3529.03	WASATCH.NPC (TVD)
5721.00	6143.52	WASATCH.G.NPC (TVD)
6523.00	7017.19	FORT UNION.NPC (TVD)
8394.00	9033.60	OHIO_CREEK.NPC
8730.00	9370.69	WILLIAMS_FORK.NPC (TVD)
8780.00	9420.70	TOP_GAS.NPC (TVD)
11187.00	11828.40	CAMEO.NPC (TVD)
12293.00	12934.72	ROLLINS.NPC (TVD)
12468.00	13109.77	TD.MBL (TVD)

## WELL DETAILS: FED 21B-14\_496

7902.00  
+N/-S 0.00 +E/-W 0.00 Northing 14429979.80 Easting 2446051.80

Latitude 39.70837 Longitude -108.136012

EN\_4



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 21B-14_496 - Slot EN_4
<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 21B-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 21B-14_496 - Slot EN_4					
Well Position	+N/-S	0.00 usft	Northing:	14,429,979.80 usft	Latitude:	39.700837
	+E/-W	0.00 usft	Easting:	2,446,051.80 usft	Longitude:	-108.136012
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	29.47	

<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	
333.33	4.00	10.00	333.23	4.58	0.81	3.00	3.00	0.00	10.00	
608.33	4.00	10.00	607.56	23.47	4.14	0.00	0.00	0.00	0.00	
1,264.32	23.37	30.81	1,242.09	159.08	75.45	3.00	2.95	3.17	24.74	
8,541.68	23.37	30.81	7,922.42	2,638.39	1,554.03	0.00	0.00	0.00	0.00	
9,320.68	0.00	0.00	8,680.00	2,772.95	1,634.28	3.00	-3.00	0.00	180.00	
9,389.71	1.38	250.00	8,749.02	2,772.67	1,633.50	2.00	2.00	-159.36	250.00	
13,109.77	1.38	250.00	12,468.00	2,742.01	1,549.28	0.00	0.00	0.00	0.00	FED 21B-14_496_PB

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 21B-14_496 - Slot EN_4
<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 21B-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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
300.00	3.00	10.00	299.95	2.58	0.45	2.47	3.00	3.00	
333.33	4.00	10.00	333.23	4.58	0.81	4.39	3.00	3.00	Start 275.00 hold at 333.33 MD
400.00	4.00	10.00	399.73	9.16	1.62	8.77	0.00	0.00	
500.00	4.00	10.00	499.49	16.03	2.83	15.35	0.00	0.00	
600.00	4.00	10.00	599.24	22.90	4.04	21.92	0.00	0.00	
608.33	4.00	10.00	607.56	23.47	4.14	22.47	0.00	0.00	Start DLS 3.00 TFO 24.74
700.00	6.60	20.06	698.82	31.57	6.50	30.68	3.00	2.83	
800.00	9.53	24.67	797.83	44.49	11.93	44.61	3.00	2.93	
900.00	12.49	27.11	895.97	61.65	20.32	63.67	3.00	2.96	
1,000.00	15.47	28.63	993.00	82.99	31.64	87.82	3.00	2.98	
1,100.00	18.46	29.67	1,088.64	108.46	45.87	116.99	3.00	2.98	
1,200.00	21.45	30.42	1,182.62	137.99	62.96	151.11	3.00	2.99	
1,264.32	23.37	30.81	1,242.09	159.08	75.45	175.62	3.00	2.99	Start 7277.35 hold at 1264.32 MD
1,300.00	23.37	30.81	1,274.84	171.24	82.70	189.77	0.00	0.00	
1,400.00	23.37	30.81	1,366.63	205.31	103.02	229.43	0.00	0.00	
1,500.00	23.37	30.81	1,458.43	239.38	123.34	269.08	0.00	0.00	
1,600.00	23.37	30.81	1,550.23	273.45	143.66	308.74	0.00	0.00	
1,700.00	23.37	30.81	1,642.02	307.51	163.97	348.40	0.00	0.00	
1,800.00	23.37	30.81	1,733.82	341.58	184.29	388.05	0.00	0.00	
1,900.00	23.37	30.81	1,825.61	375.65	204.61	427.71	0.00	0.00	
2,000.00	23.37	30.81	1,917.41	409.72	224.93	467.36	0.00	0.00	
2,100.00	23.37	30.81	2,009.21	443.79	245.24	507.02	0.00	0.00	
2,200.00	23.37	30.81	2,101.00	477.86	265.56	546.68	0.00	0.00	
2,300.00	23.37	30.81	2,192.80	511.93	285.88	586.33	0.00	0.00	
2,400.00	23.37	30.81	2,284.60	546.00	306.20	625.99	0.00	0.00	
2,500.00	23.37	30.81	2,376.39	580.06	326.51	665.65	0.00	0.00	
2,600.00	23.37	30.81	2,468.19	614.13	346.83	705.30	0.00	0.00	
2,700.00	23.37	30.81	2,559.98	648.20	367.15	744.96	0.00	0.00	
2,800.00	23.37	30.81	2,651.78	682.27	387.47	784.61	0.00	0.00	
2,900.00	23.37	30.81	2,743.58	716.34	407.78	824.27	0.00	0.00	
3,000.00	23.37	30.81	2,835.37	750.41	428.10	863.93	0.00	0.00	
3,100.00	23.37	30.81	2,927.17	784.48	448.42	903.58	0.00	0.00	
3,200.00	23.37	30.81	3,018.96	818.55	468.73	943.24	0.00	0.00	
3,300.00	23.37	30.81	3,110.76	852.61	489.05	982.89	0.00	0.00	
3,400.00	23.37	30.81	3,202.56	886.68	509.37	1,022.55	0.00	0.00	
3,500.00	23.37	30.81	3,294.35	920.75	529.69	1,062.21	0.00	0.00	
3,529.03	23.37	30.81	3,321.00	930.64	535.59	1,073.72	0.00	0.00	WASATCH.NPC (TVD)
3,600.00	23.37	30.81	3,386.15	954.82	550.00	1,101.86	0.00	0.00	
3,700.00	23.37	30.81	3,477.94	988.89	570.32	1,141.52	0.00	0.00	
3,800.00	23.37	30.81	3,569.74	1,022.96	590.64	1,181.18	0.00	0.00	
3,900.00	23.37	30.81	3,661.54	1,057.03	610.96	1,220.83	0.00	0.00	
4,000.00	23.37	30.81	3,753.33	1,091.09	631.27	1,260.49	0.00	0.00	
4,100.00	23.37	30.81	3,845.13	1,125.16	651.59	1,300.14	0.00	0.00	
4,200.00	23.37	30.81	3,936.93	1,159.23	671.91	1,339.80	0.00	0.00	
4,300.00	23.37	30.81	4,028.72	1,193.30	692.23	1,379.46	0.00	0.00	
4,400.00	23.37	30.81	4,120.52	1,227.37	712.54	1,419.11	0.00	0.00	
4,500.00	23.37	30.81	4,212.31	1,261.44	732.86	1,458.77	0.00	0.00	
4,600.00	23.37	30.81	4,304.11	1,295.51	753.18	1,498.42	0.00	0.00	
4,700.00	23.37	30.81	4,395.91	1,329.58	773.50	1,538.08	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 21B-14_496 - Slot EN_4
<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 21B-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
4,800.00	23.37	30.81	4,487.70	1,363.64	793.81	1,577.74	0.00	0.00	
4,900.00	23.37	30.81	4,579.50	1,397.71	814.13	1,617.39	0.00	0.00	
5,000.00	23.37	30.81	4,671.29	1,431.78	834.45	1,657.05	0.00	0.00	
5,100.00	23.37	30.81	4,763.09	1,465.85	854.77	1,696.71	0.00	0.00	
5,200.00	23.37	30.81	4,854.89	1,499.92	875.08	1,736.36	0.00	0.00	
5,300.00	23.37	30.81	4,946.68	1,533.99	895.40	1,776.02	0.00	0.00	
5,400.00	23.37	30.81	5,038.48	1,568.06	915.72	1,815.67	0.00	0.00	
5,500.00	23.37	30.81	5,130.27	1,602.13	936.04	1,855.33	0.00	0.00	
5,600.00	23.37	30.81	5,222.07	1,636.19	956.35	1,894.99	0.00	0.00	
5,700.00	23.37	30.81	5,313.87	1,670.26	976.67	1,934.64	0.00	0.00	
5,800.00	23.37	30.81	5,405.66	1,704.33	996.99	1,974.30	0.00	0.00	
5,900.00	23.37	30.81	5,497.46	1,738.40	1,017.31	2,013.95	0.00	0.00	
6,000.00	23.37	30.81	5,589.25	1,772.47	1,037.62	2,053.61	0.00	0.00	
6,100.00	23.37	30.81	5,681.05	1,806.54	1,057.94	2,093.27	0.00	0.00	
6,143.52	23.37	30.81	5,721.00	1,821.36	1,066.78	2,110.53	0.00	0.00	WASATCH_G.NPC (TVD)
6,200.00	23.37	30.81	5,772.85	1,840.61	1,078.26	2,132.92	0.00	0.00	
6,300.00	23.37	30.81	5,864.64	1,874.68	1,098.58	2,172.58	0.00	0.00	
6,400.00	23.37	30.81	5,956.44	1,908.74	1,118.89	2,212.24	0.00	0.00	
6,500.00	23.37	30.81	6,048.24	1,942.81	1,139.21	2,251.89	0.00	0.00	
6,600.00	23.37	30.81	6,140.03	1,976.88	1,159.53	2,291.55	0.00	0.00	
6,700.00	23.37	30.81	6,231.83	2,010.95	1,179.85	2,331.20	0.00	0.00	
6,800.00	23.37	30.81	6,323.62	2,045.02	1,200.16	2,370.86	0.00	0.00	
6,900.00	23.37	30.81	6,415.42	2,079.09	1,220.48	2,410.52	0.00	0.00	
7,000.00	23.37	30.81	6,507.22	2,113.16	1,240.80	2,450.17	0.00	0.00	
7,017.19	23.37	30.81	6,523.00	2,119.01	1,244.29	2,456.99	0.00	0.00	FORT_UNION.NPC (TVD)
7,100.00	23.37	30.81	6,599.01	2,147.22	1,261.12	2,489.83	0.00	0.00	
7,200.00	23.37	30.81	6,690.81	2,181.29	1,281.43	2,529.48	0.00	0.00	
7,300.00	23.37	30.81	6,782.60	2,215.36	1,301.75	2,569.14	0.00	0.00	
7,400.00	23.37	30.81	6,874.40	2,249.43	1,322.07	2,608.80	0.00	0.00	
7,500.00	23.37	30.81	6,966.20	2,283.50	1,342.39	2,648.45	0.00	0.00	
7,600.00	23.37	30.81	7,057.99	2,317.57	1,362.70	2,688.11	0.00	0.00	
7,700.00	23.37	30.81	7,149.79	2,351.64	1,383.02	2,727.77	0.00	0.00	
7,800.00	23.37	30.81	7,241.58	2,385.71	1,403.34	2,767.42	0.00	0.00	
7,900.00	23.37	30.81	7,333.38	2,419.77	1,423.65	2,807.08	0.00	0.00	
8,000.00	23.37	30.81	7,425.18	2,453.84	1,443.97	2,846.73	0.00	0.00	
8,100.00	23.37	30.81	7,516.97	2,487.91	1,464.29	2,886.39	0.00	0.00	
8,200.00	23.37	30.81	7,608.77	2,521.98	1,484.61	2,926.05	0.00	0.00	
8,300.00	23.37	30.81	7,700.57	2,556.05	1,504.92	2,965.70	0.00	0.00	
8,400.00	23.37	30.81	7,792.36	2,590.12	1,525.24	3,005.36	0.00	0.00	
8,500.00	23.37	30.81	7,884.16	2,624.19	1,545.56	3,045.01	0.00	0.00	
8,541.68	23.37	30.81	7,922.42	2,638.39	1,554.03	3,061.54	0.00	0.00	Start Drop -3.00
8,600.00	21.62	30.81	7,976.30	2,657.55	1,565.46	3,083.85	3.00	-3.00	
8,700.00	18.62	30.81	8,070.18	2,687.09	1,583.07	3,118.24	3.00	-3.00	
8,800.00	15.62	30.81	8,165.74	2,712.37	1,598.15	3,147.66	3.00	-3.00	
8,900.00	12.62	30.81	8,262.71	2,733.32	1,610.64	3,172.05	3.00	-3.00	
9,000.00	9.62	30.81	8,360.82	2,749.89	1,620.52	3,191.33	3.00	-3.00	
9,033.60	8.61	30.81	8,394.00	2,754.46	1,623.25	3,196.65	3.00	-3.00	OHIO_CREEK.NPC
9,100.00	6.62	30.81	8,459.81	2,762.02	1,627.76	3,205.45	3.00	-3.00	
9,200.00	3.62	30.81	8,559.40	2,769.68	1,632.33	3,214.37	3.00	-3.00	
9,300.00	0.62	30.81	8,659.32	2,772.86	1,634.22	3,218.07	3.00	-3.00	
9,320.68	0.00	0.00	8,680.00	2,772.95	1,634.28	3,218.18	3.00	-3.00	Start DLS 2.00 TFO 250.00
9,370.69	1.00	250.00	8,730.00	2,772.81	1,633.87	3,217.85	2.00	2.00	WILLIAMS_FORK.NPC (TVD)

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 21B-14_496 - Slot EN_4
<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 21B-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
9,389.71	1.38	250.00	8,749.02	2,772.67	1,633.50	3,217.55	2.00	2.00	Start 3720.06 hold at 9389.71 MD
9,400.00	1.38	250.00	8,759.31	2,772.59	1,633.27	3,217.36	0.00	0.00	
9,420.70	1.38	250.00	8,780.00	2,772.42	1,632.80	3,216.98	0.00	0.00	TOP_GAS.NPC (TVD)
9,500.00	1.38	250.00	8,859.28	2,771.76	1,631.00	3,215.53	0.00	0.00	
9,600.00	1.38	250.00	8,959.25	2,770.94	1,628.74	3,213.70	0.00	0.00	
9,700.00	1.38	250.00	9,059.22	2,770.11	1,626.47	3,211.87	0.00	0.00	
9,800.00	1.38	250.00	9,159.19	2,769.29	1,624.21	3,210.04	0.00	0.00	
9,900.00	1.38	250.00	9,259.16	2,768.46	1,621.95	3,208.21	0.00	0.00	
10,000.00	1.38	250.00	9,359.13	2,767.64	1,619.68	3,206.37	0.00	0.00	
10,100.00	1.38	250.00	9,459.10	2,766.82	1,617.42	3,204.54	0.00	0.00	
10,200.00	1.38	250.00	9,559.07	2,765.99	1,615.15	3,202.71	0.00	0.00	
10,300.00	1.38	250.00	9,659.05	2,765.17	1,612.89	3,200.88	0.00	0.00	
10,400.00	1.38	250.00	9,759.02	2,764.34	1,610.63	3,199.05	0.00	0.00	
10,500.00	1.38	250.00	9,858.99	2,763.52	1,608.36	3,197.22	0.00	0.00	
10,600.00	1.38	250.00	9,958.96	2,762.70	1,606.10	3,195.39	0.00	0.00	
10,700.00	1.38	250.00	10,058.93	2,761.87	1,603.83	3,193.56	0.00	0.00	
10,800.00	1.38	250.00	10,158.90	2,761.05	1,601.57	3,191.72	0.00	0.00	
10,900.00	1.38	250.00	10,258.87	2,760.22	1,599.31	3,189.89	0.00	0.00	
11,000.00	1.38	250.00	10,358.84	2,759.40	1,597.04	3,188.06	0.00	0.00	
11,100.00	1.38	250.00	10,458.81	2,758.58	1,594.78	3,186.23	0.00	0.00	
11,200.00	1.38	250.00	10,558.78	2,757.75	1,592.51	3,184.40	0.00	0.00	
11,300.00	1.38	250.00	10,658.76	2,756.93	1,590.25	3,182.57	0.00	0.00	
11,400.00	1.38	250.00	10,758.73	2,756.10	1,587.99	3,180.74	0.00	0.00	
11,500.00	1.38	250.00	10,858.70	2,755.28	1,585.72	3,178.91	0.00	0.00	
11,600.00	1.38	250.00	10,958.67	2,754.45	1,583.46	3,177.07	0.00	0.00	
11,700.00	1.38	250.00	11,058.64	2,753.63	1,581.19	3,175.24	0.00	0.00	
11,800.00	1.38	250.00	11,158.61	2,752.81	1,578.93	3,173.41	0.00	0.00	
11,828.40	1.38	250.00	11,187.00	2,752.57	1,578.29	3,172.89	0.00	0.00	CAMEO.NPC (TVD)
11,900.00	1.38	250.00	11,258.58	2,751.98	1,576.67	3,171.58	0.00	0.00	
12,000.00	1.38	250.00	11,358.55	2,751.16	1,574.40	3,169.75	0.00	0.00	
12,100.00	1.38	250.00	11,458.52	2,750.33	1,572.14	3,167.92	0.00	0.00	
12,200.00	1.38	250.00	11,558.49	2,749.51	1,569.87	3,166.09	0.00	0.00	
12,300.00	1.38	250.00	11,658.47	2,748.69	1,567.61	3,164.26	0.00	0.00	
12,400.00	1.38	250.00	11,758.44	2,747.86	1,565.35	3,162.42	0.00	0.00	
12,500.00	1.38	250.00	11,858.41	2,747.04	1,563.08	3,160.59	0.00	0.00	
12,600.00	1.38	250.00	11,958.38	2,746.21	1,560.82	3,158.76	0.00	0.00	
12,700.00	1.38	250.00	12,058.35	2,745.39	1,558.55	3,156.93	0.00	0.00	
12,800.00	1.38	250.00	12,158.32	2,744.56	1,556.29	3,155.10	0.00	0.00	
12,900.00	1.38	250.00	12,258.29	2,743.74	1,554.03	3,153.27	0.00	0.00	
12,934.72	1.38	250.00	12,293.00	2,743.45	1,553.24	3,152.63	0.00	0.00	ROLLINS.NPC (TVD)
13,000.00	1.38	250.00	12,358.26	2,742.92	1,551.76	3,151.44	0.00	0.00	
13,100.00	1.38	250.00	12,458.23	2,742.09	1,549.50	3,149.61	0.00	0.00	
13,109.77	1.38	250.00	12,468.00	2,742.01	1,549.28	3,149.43	0.00	0.00	TD at 13109.77 - TD.MBL (TVD) - FED 21B-14_

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 21B-14_496 - Slot EN_4
<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 21B-14_496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
FED 21B-14_496_PBHL	0.00	0.00	12,468.00	2,742.01	1,549.28	14,432,769.90	2,447,512.70	39.708362	-108.130508
- plan hits target center									
- Ellipse (radii L100.00 W50.00 on 250.00 azi)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
3,529.03	3,321.00	WASATCH.NPC (TVD)				
6,143.52	5,721.00	WASATCH_G.NPC (TVD)				
7,017.19	6,523.00	FORT_UNION.NPC (TVD)				
9,033.60	8,394.00	OHIO_CREEK.NPC				
9,370.69	8,730.00	WILLIAMS_FORK.NPC (TVD)				
9,420.70	8,780.00	TOP_GAS.NPC (TVD)				
11,828.40	11,187.00	CAMEO.NPC (TVD)				
12,934.72	12,293.00	ROLLINS.NPC (TVD)				
13,109.77	12,468.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
200.00	200.00	0.00	0.00	Start Build 3.00	
333.33	333.23	4.58	0.81	Start 275.00 hold at 333.33 MD	
608.33	607.56	23.47	4.14	Start DLS 3.00 TFO 24.74	
1,264.32	1,242.09	159.08	75.45	Start 7277.35 hold at 1264.32 MD	
8,541.68	7,922.42	2,638.39	1,554.03	Start Drop -3.00	
9,320.68	8,680.00	2,772.95	1,634.28	Start DLS 2.00 TFO 250.00	
9,389.71	8,749.02	2,772.67	1,633.50	Start 3720.06 hold at 9389.71 MD	
13,109.77	12,468.00	2,742.01	1,549.28	TD at 13109.77	