



Caerus Oil & Gas

**Rio Blanco County, CO (UTM 12N)
SEC 14-T4S-R96W ELU FED J14 496
ELU J14 FED 21D-14 496**

OH

Plan: Plan 1

Standard Planning Report

06 December, 2019



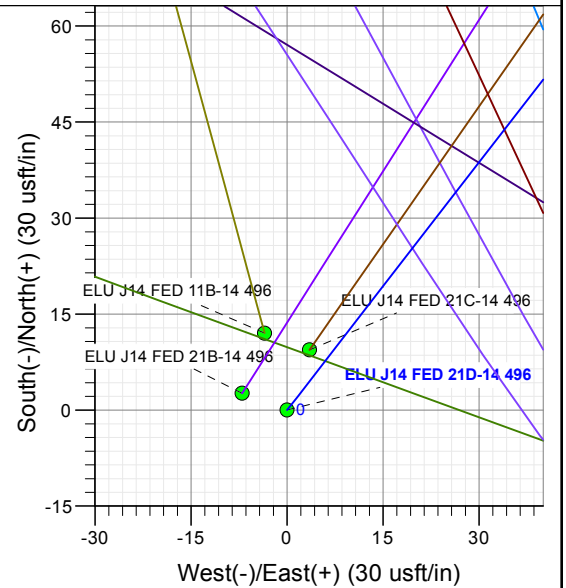
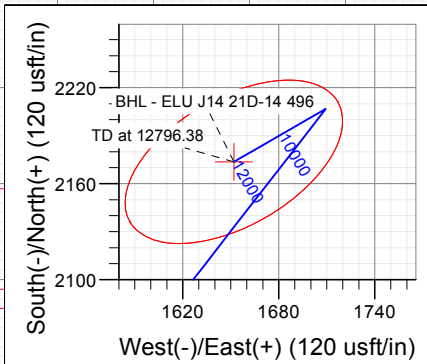
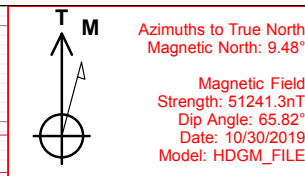
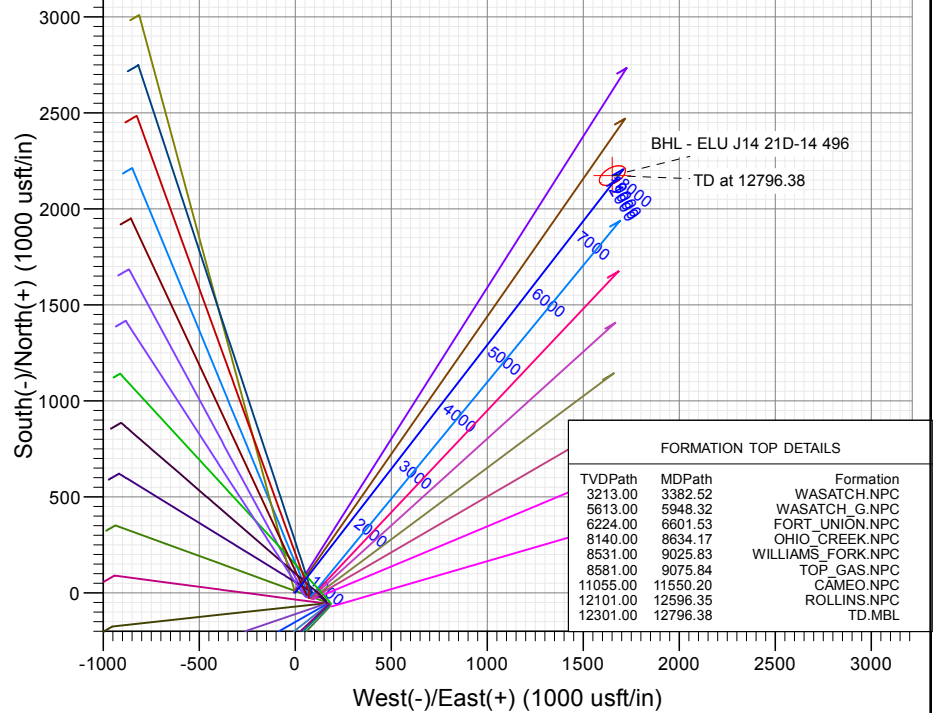
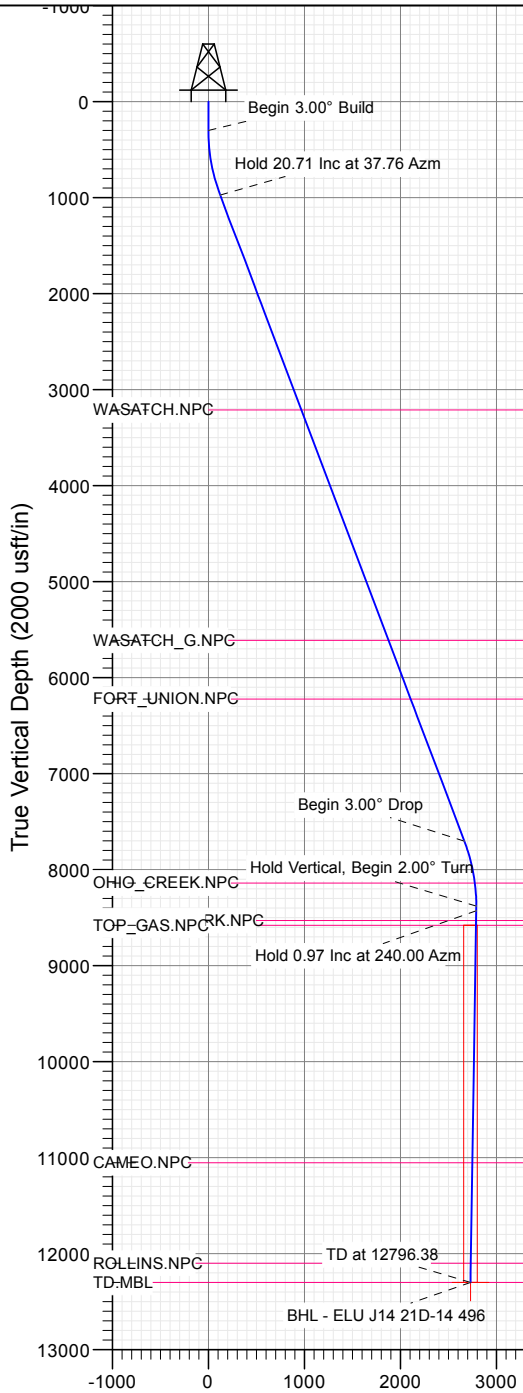
SECTION DETAILS

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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	990.34	20.71	37.76	975.41	97.57	75.57	3.00	37.76	123.41	
4	8185.47	20.71	37.76	7705.59	2109.19	1633.74	0.00	0.00	2667.80	
5	8875.81	0.00	0.00	8381.00	2206.76	1709.31	3.00	180.00	2791.21	
6	8924.51	0.97	240.01	8429.69	2206.55	1708.95	2.00	240.01	2790.83	
7	12796.38	0.97	240.01	12301.00	2173.66	1651.95	0.00	0.00	2730.16	BHL - ELU J14 21D-14 496

Project: Rio Blanco County, CO (UTM 12N)
Site: SEC 14-T4S-R96W ELU FED J14 496
Well: ELU J14 FED 21D-14 496
Wellbore: OH
Design: Plan 1

Plan 1
ELU J14 FED 21D-14 496
RKB @ 7932.00usft
Ground Level @ 7902.00
NAD 1927 - Western US
Well ELU J14 FED 21D-14 496, True North

Name	Type	Target	No Target (Freehand)	Azimuth	Origin	Type	N/S	E/W	From	TVD
BHL - ELU J14 21D-14 496	TD			37.23	Slot		0.00	0.00	0.00	
				TVD						
				+N/-S						
				+E/-W						
				Latitude						
				Longitude						



Vertical Section at 37.23° (2000 usft/in)

WELL DETAILS: ELU J14 FED 21D-14 496

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14430012.39	2445923.01	39.700938	-108.136466

CATHEDRAL



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well ELU J14 FED 21D-14 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.00usft
Project:	Rio Blanco County, CO (UTM 12N)	MD Reference:	RKB @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU FED J14 496	North Reference:	True
Well:	ELU J14 FED 21D-14 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project	Rio Blanco County, CO (UTM 12N)		
Map System:	Universal Transverse Mercator (US Survey Fee	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 FED J14 496											
Site Position:			Northing:			14,430,024.30 usft			Latitude:			39.700971					
From:			Map			Easting:			2,445,919.10 usft			Longitude:			-108.136478		
Position Uncertainty:			0.00 usft			Slot Radius:			13-3/16 "			Grid Convergence:			1.83		

Well	ELU J14 FED 21D-14 496					
Well Position	+N/-S	-12.03 usft	Northing:	14,430,012.39 usft	Latitude:	39.700938
	+E/-W	3.53 usft	Easting:	2,445,923.02 usft	Longitude:	-108.136466
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	7,902.00 usft

Wellbore	OH				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	10/30/2019	9.48	65.82	51,241.30000000

Design	Plan 1				
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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	37.23	

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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
990.34	20.71	37.76	975.41	97.57	75.57	3.00	3.00	0.00	37.76	
8,185.47	20.71	37.76	7,705.59	2,109.19	1,633.74	0.00	0.00	0.00	0.00	
8,875.81	0.00	0.00	8,381.00	2,206.76	1,709.31	3.00	-3.00	0.00	180.00	
8,924.51	0.97	240.01	8,429.69	2,206.55	1,708.95	2.00	2.00	-246.41	240.01	
12,796.38	0.97	240.01	12,301.00	2,173.66	1,651.95	0.00	0.00	0.00	0.00	BHL - ELU J14 21D



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well ELU J14 FED 21D-14 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.00usft
Project:	Rio Blanco County, CO (UTM 12N)	MD Reference:	RKB @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU FED J14 496	North Reference:	True
Well:	ELU J14 FED 21D-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 (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	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	0.00
Begin 3.00° Build									
400.00	3.00	37.76	399.95	2.07	1.60	2.62	3.00	3.00	0.00
500.00	6.00	37.76	499.63	8.27	6.41	10.46	3.00	3.00	0.00
600.00	9.00	37.76	598.77	18.59	14.40	23.51	3.00	3.00	0.00
700.00	12.00	37.76	697.08	32.99	25.56	41.73	3.00	3.00	0.00
800.00	15.00	37.76	794.31	51.45	39.85	65.07	3.00	3.00	0.00
900.00	18.00	37.76	890.18	73.90	57.24	93.47	3.00	3.00	0.00
990.34	20.71	37.76	975.41	97.57	75.57	123.41	3.00	3.00	0.00
Hold 20.71 Inc at 37.76 Azm									
1,000.00	20.71	37.76	984.44	100.27	77.67	126.82	0.00	0.00	0.00
1,100.00	20.71	37.76	1,077.98	128.23	99.32	162.19	0.00	0.00	0.00
1,200.00	20.71	37.76	1,171.52	156.18	120.98	197.55	0.00	0.00	0.00
1,300.00	20.71	37.76	1,265.06	184.14	142.63	232.91	0.00	0.00	0.00
1,400.00	20.71	37.76	1,358.59	212.10	164.29	268.27	0.00	0.00	0.00
1,500.00	20.71	37.76	1,452.13	240.06	185.94	303.64	0.00	0.00	0.00
1,600.00	20.71	37.76	1,545.67	268.02	207.60	339.00	0.00	0.00	0.00
1,700.00	20.71	37.76	1,639.21	295.98	229.26	374.36	0.00	0.00	0.00
1,800.00	20.71	37.76	1,732.75	323.93	250.91	409.73	0.00	0.00	0.00
1,900.00	20.71	37.76	1,826.28	351.89	272.57	445.09	0.00	0.00	0.00
2,000.00	20.71	37.76	1,919.82	379.85	294.22	480.45	0.00	0.00	0.00
2,100.00	20.71	37.76	2,013.36	407.81	315.88	515.81	0.00	0.00	0.00
2,200.00	20.71	37.76	2,106.90	435.77	337.54	551.18	0.00	0.00	0.00
2,300.00	20.71	37.76	2,200.44	463.72	359.19	586.54	0.00	0.00	0.00
2,400.00	20.71	37.76	2,293.97	491.68	380.85	621.90	0.00	0.00	0.00
2,500.00	20.71	37.76	2,387.51	519.64	402.50	657.27	0.00	0.00	0.00
2,600.00	20.71	37.76	2,481.05	547.60	424.16	692.63	0.00	0.00	0.00
2,700.00	20.71	37.76	2,574.59	575.56	445.81	727.99	0.00	0.00	0.00
2,800.00	20.71	37.76	2,668.13	603.51	467.47	763.35	0.00	0.00	0.00
2,900.00	20.71	37.76	2,761.66	631.47	489.13	798.72	0.00	0.00	0.00
3,000.00	20.71	37.76	2,855.20	659.43	510.78	834.08	0.00	0.00	0.00
3,100.00	20.71	37.76	2,948.74	687.39	532.44	869.44	0.00	0.00	0.00
3,200.00	20.71	37.76	3,042.28	715.35	554.09	904.80	0.00	0.00	0.00
3,300.00	20.71	37.76	3,135.82	743.31	575.75	940.17	0.00	0.00	0.00
3,382.52	20.71	37.76	3,213.00	766.38	593.62	969.35	0.00	0.00	0.00
WASATCH.NPC									
3,400.00	20.71	37.76	3,229.35	771.26	597.40	975.53	0.00	0.00	0.00
3,500.00	20.71	37.76	3,322.89	799.22	619.06	1,010.89	0.00	0.00	0.00
3,600.00	20.71	37.76	3,416.43	827.18	640.72	1,046.26	0.00	0.00	0.00
3,700.00	20.71	37.76	3,509.97	855.14	662.37	1,081.62	0.00	0.00	0.00
3,800.00	20.71	37.76	3,603.51	883.10	684.03	1,116.98	0.00	0.00	0.00
3,900.00	20.71	37.76	3,697.05	911.05	705.68	1,152.34	0.00	0.00	0.00
4,000.00	20.71	37.76	3,790.58	939.01	727.34	1,187.71	0.00	0.00	0.00
4,100.00	20.71	37.76	3,884.12	966.97	748.99	1,223.07	0.00	0.00	0.00
4,200.00	20.71	37.76	3,977.66	994.93	770.65	1,258.43	0.00	0.00	0.00
4,300.00	20.71	37.76	4,071.20	1,022.89	792.31	1,293.79	0.00	0.00	0.00
4,400.00	20.71	37.76	4,164.74	1,050.84	813.96	1,329.16	0.00	0.00	0.00
4,500.00	20.71	37.76	4,258.27	1,078.80	835.62	1,364.52	0.00	0.00	0.00
4,600.00	20.71	37.76	4,351.81	1,106.76	857.27	1,399.88	0.00	0.00	0.00
4,700.00	20.71	37.76	4,445.35	1,134.72	878.93	1,435.25	0.00	0.00	0.00
4,800.00	20.71	37.76	4,538.89	1,162.68	900.59	1,470.61	0.00	0.00	0.00
4,900.00	20.71	37.76	4,632.43	1,190.64	922.24	1,505.97	0.00	0.00	0.00



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well ELU J14 FED 21D-14 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.00usft
Project:	Rio Blanco County, CO (UTM 12N)	MD Reference:	RKB @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU FED J14 496	North Reference:	True
Well:	ELU J14 FED 21D-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 (°/100usft)	Turn Rate (°/100usft)
5,000.00	20.71	37.76	4,725.96	1,218.59	943.90	1,541.33	0.00	0.00	0.00
5,100.00	20.71	37.76	4,819.50	1,246.55	965.55	1,576.70	0.00	0.00	0.00
5,200.00	20.71	37.76	4,913.04	1,274.51	987.21	1,612.06	0.00	0.00	0.00
5,300.00	20.71	37.76	5,006.58	1,302.47	1,008.86	1,647.42	0.00	0.00	0.00
5,400.00	20.71	37.76	5,100.12	1,330.43	1,030.52	1,682.79	0.00	0.00	0.00
5,500.00	20.71	37.76	5,193.65	1,358.38	1,052.18	1,718.15	0.00	0.00	0.00
5,600.00	20.71	37.76	5,287.19	1,386.34	1,073.83	1,753.51	0.00	0.00	0.00
5,700.00	20.71	37.76	5,380.73	1,414.30	1,095.49	1,788.87	0.00	0.00	0.00
5,800.00	20.71	37.76	5,474.27	1,442.26	1,117.14	1,824.24	0.00	0.00	0.00
5,900.00	20.71	37.76	5,567.81	1,470.22	1,138.80	1,859.60	0.00	0.00	0.00
5,948.32	20.71	37.76	5,613.00	1,483.72	1,149.26	1,876.68	0.00	0.00	0.00
WASATCH_G.NPC									
6,000.00	20.71	37.76	5,661.34	1,498.17	1,160.45	1,894.96	0.00	0.00	0.00
6,100.00	20.71	37.76	5,754.88	1,526.13	1,182.11	1,930.32	0.00	0.00	0.00
6,200.00	20.71	37.76	5,848.42	1,554.09	1,203.77	1,965.69	0.00	0.00	0.00
6,300.00	20.71	37.76	5,941.96	1,582.05	1,225.42	2,001.05	0.00	0.00	0.00
6,400.00	20.71	37.76	6,035.50	1,610.01	1,247.08	2,036.41	0.00	0.00	0.00
6,500.00	20.71	37.76	6,129.03	1,637.97	1,268.73	2,071.78	0.00	0.00	0.00
6,600.00	20.71	37.76	6,222.57	1,665.92	1,290.39	2,107.14	0.00	0.00	0.00
6,601.53	20.71	37.76	6,224.00	1,666.35	1,290.72	2,107.68	0.00	0.00	0.00
FORT_UNION.NPC									
6,700.00	20.71	37.76	6,316.11	1,693.88	1,312.05	2,142.50	0.00	0.00	0.00
6,800.00	20.71	37.76	6,409.65	1,721.84	1,333.70	2,177.86	0.00	0.00	0.00
6,900.00	20.71	37.76	6,503.19	1,749.80	1,355.36	2,213.23	0.00	0.00	0.00
7,000.00	20.71	37.76	6,596.73	1,777.76	1,377.01	2,248.59	0.00	0.00	0.00
7,100.00	20.71	37.76	6,690.26	1,805.71	1,398.67	2,283.95	0.00	0.00	0.00
7,200.00	20.71	37.76	6,783.80	1,833.67	1,420.32	2,319.31	0.00	0.00	0.00
7,300.00	20.71	37.76	6,877.34	1,861.63	1,441.98	2,354.68	0.00	0.00	0.00
7,400.00	20.71	37.76	6,970.88	1,889.59	1,463.64	2,390.04	0.00	0.00	0.00
7,500.00	20.71	37.76	7,064.42	1,917.55	1,485.29	2,425.40	0.00	0.00	0.00
7,600.00	20.71	37.76	7,157.95	1,945.50	1,506.95	2,460.77	0.00	0.00	0.00
7,700.00	20.71	37.76	7,251.49	1,973.46	1,528.60	2,496.13	0.00	0.00	0.00
7,800.00	20.71	37.76	7,345.03	2,001.42	1,550.26	2,531.49	0.00	0.00	0.00
7,900.00	20.71	37.76	7,438.57	2,029.38	1,571.91	2,566.85	0.00	0.00	0.00
8,000.00	20.71	37.76	7,532.11	2,057.34	1,593.57	2,602.22	0.00	0.00	0.00
8,100.00	20.71	37.76	7,625.64	2,085.30	1,615.23	2,637.58	0.00	0.00	0.00
8,185.47	20.71	37.76	7,705.59	2,109.19	1,633.74	2,667.80	0.00	0.00	0.00
Begin 3.00° Drop									
8,200.00	20.27	37.76	7,719.20	2,113.21	1,636.85	2,672.89	3.00	-3.00	0.00
8,300.00	17.27	37.76	7,813.87	2,138.65	1,656.56	2,705.07	3.00	-3.00	0.00
8,400.00	14.27	37.76	7,910.09	2,160.14	1,673.20	2,732.25	3.00	-3.00	0.00
8,500.00	11.27	37.76	8,007.61	2,177.62	1,686.74	2,754.36	3.00	-3.00	0.00
8,600.00	8.27	37.76	8,106.14	2,191.04	1,697.14	2,771.33	3.00	-3.00	0.00
8,634.17	7.25	37.76	8,140.00	2,194.69	1,699.96	2,775.95	3.00	-3.00	0.00
OHIO_CREEK.NPC									
8,700.00	5.27	37.76	8,205.43	2,200.37	1,704.36	2,783.13	3.00	-3.00	0.00
8,800.00	2.27	37.76	8,305.21	2,205.57	1,708.39	2,789.71	3.00	-3.00	0.00
8,875.81	0.00	37.76	8,381.00	2,206.76	1,709.31	2,791.21	3.00	-3.00	0.00
Hold Vertical, Begin 2.00° Turn									
8,900.00	0.48	240.01	8,405.19	2,206.71	1,709.22	2,791.12	2.00	2.00	-652.11
8,924.51	0.97	240.01	8,429.69	2,206.55	1,708.95	2,790.83	2.00	2.00	0.00
Hold 0.97 Inc at 240.00 Azm									
9,000.00	0.97	240.01	8,505.17	2,205.91	1,707.84	2,789.65	0.00	0.00	0.00

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well ELU J14 FED 21D-14 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.00usft
Project:	Rio Blanco County, CO (UTM 12N)	MD Reference:	RKB @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU FED J14 496	North Reference:	True
Well:	ELU J14 FED 21D-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 (°/100usft)	Turn Rate (°/100usft)
9,025.83	0.97	240.01	8,531.00	2,205.69	1,707.46	2,789.24	0.00	0.00	0.00
WILLIAMS_FORK.NPC									
9,075.84	0.97	240.01	8,581.00	2,205.27	1,706.72	2,788.46	0.00	0.00	0.00
TOP_GAS.NPC									
9,100.00	0.97	240.01	8,605.16	2,205.06	1,706.37	2,788.08	0.00	0.00	0.00
9,200.00	0.97	240.01	8,705.14	2,204.21	1,704.90	2,786.51	0.00	0.00	0.00
9,300.00	0.97	240.01	8,805.13	2,203.36	1,703.42	2,784.95	0.00	0.00	0.00
9,400.00	0.97	240.01	8,905.11	2,202.51	1,701.95	2,783.38	0.00	0.00	0.00
9,500.00	0.97	240.01	9,005.10	2,201.66	1,700.48	2,781.81	0.00	0.00	0.00
9,600.00	0.97	240.01	9,105.09	2,200.82	1,699.01	2,780.25	0.00	0.00	0.00
9,700.00	0.97	240.01	9,205.07	2,199.97	1,697.54	2,778.68	0.00	0.00	0.00
9,800.00	0.97	240.01	9,305.06	2,199.12	1,696.06	2,777.11	0.00	0.00	0.00
9,900.00	0.97	240.01	9,405.04	2,198.27	1,694.59	2,775.55	0.00	0.00	0.00
10,000.00	0.97	240.01	9,505.03	2,197.42	1,693.12	2,773.98	0.00	0.00	0.00
10,100.00	0.97	240.01	9,605.01	2,196.57	1,691.65	2,772.41	0.00	0.00	0.00
10,200.00	0.97	240.01	9,705.00	2,195.72	1,690.17	2,770.84	0.00	0.00	0.00
10,300.00	0.97	240.01	9,804.98	2,194.87	1,688.70	2,769.28	0.00	0.00	0.00
10,400.00	0.97	240.01	9,904.97	2,194.02	1,687.23	2,767.71	0.00	0.00	0.00
10,500.00	0.97	240.01	10,004.96	2,193.17	1,685.76	2,766.14	0.00	0.00	0.00
10,600.00	0.97	240.01	10,104.94	2,192.32	1,684.29	2,764.58	0.00	0.00	0.00
10,700.00	0.97	240.01	10,204.93	2,191.47	1,682.81	2,763.01	0.00	0.00	0.00
10,800.00	0.97	240.01	10,304.91	2,190.62	1,681.34	2,761.44	0.00	0.00	0.00
10,900.00	0.97	240.01	10,404.90	2,189.77	1,679.87	2,759.88	0.00	0.00	0.00
11,000.00	0.97	240.01	10,504.88	2,188.92	1,678.40	2,758.31	0.00	0.00	0.00
11,100.00	0.97	240.01	10,604.87	2,188.07	1,676.93	2,756.74	0.00	0.00	0.00
11,200.00	0.97	240.01	10,704.85	2,187.22	1,675.45	2,755.17	0.00	0.00	0.00
11,300.00	0.97	240.01	10,804.84	2,186.37	1,673.98	2,753.61	0.00	0.00	0.00
11,400.00	0.97	240.01	10,904.83	2,185.53	1,672.51	2,752.04	0.00	0.00	0.00
11,500.00	0.97	240.01	11,004.81	2,184.68	1,671.04	2,750.47	0.00	0.00	0.00
11,550.20	0.97	240.01	11,055.00	2,184.25	1,670.30	2,749.69	0.00	0.00	0.00
CAMEO.NPC									
11,600.00	0.97	240.01	11,104.80	2,183.83	1,669.57	2,748.91	0.00	0.00	0.00
11,700.00	0.97	240.01	11,204.78	2,182.98	1,668.09	2,747.34	0.00	0.00	0.00
11,800.00	0.97	240.01	11,304.77	2,182.13	1,666.62	2,745.77	0.00	0.00	0.00
11,900.00	0.97	240.01	11,404.75	2,181.28	1,665.15	2,744.21	0.00	0.00	0.00
12,000.00	0.97	240.01	11,504.74	2,180.43	1,663.68	2,742.64	0.00	0.00	0.00
12,100.00	0.97	240.01	11,604.72	2,179.58	1,662.20	2,741.07	0.00	0.00	0.00
12,200.00	0.97	240.01	11,704.71	2,178.73	1,660.73	2,739.50	0.00	0.00	0.00
12,300.00	0.97	240.01	11,804.70	2,177.88	1,659.26	2,737.94	0.00	0.00	0.00
12,400.00	0.97	240.01	11,904.68	2,177.03	1,657.79	2,736.37	0.00	0.00	0.00
12,500.00	0.97	240.01	12,004.67	2,176.18	1,656.32	2,734.80	0.00	0.00	0.00
12,596.35	0.97	240.01	12,101.00	2,175.36	1,654.90	2,733.29	0.00	0.00	0.00
ROLLINS.NPC									
12,600.00	0.97	240.01	12,104.65	2,175.33	1,654.84	2,733.24	0.00	0.00	0.00
12,700.00	0.97	240.01	12,204.64	2,174.48	1,653.37	2,731.67	0.00	0.00	0.00
12,796.38	0.97	240.01	12,301.00	2,173.66	1,651.95	2,730.16	0.00	0.00	0.00
TD at 12796.38									

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well ELU J14 FED 21D-14 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.00usft
Project:	Rio Blanco County, CO (UTM 12N)	MD Reference:	RKB @ 7932.00usft
Site:	SEC 14-T4S-R96W ELU FED J14 496	North Reference:	True
Well:	ELU J14 FED 21D-14 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Design 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)		
BHL - ELU J14 21D-1	0.00	0.00	12,301.00	2,173.66	1,651.95	14,432,237.70	2,447,504.70	39.706903	-108.130597
- plan hits target center									
- Ellipse (radii L75.00 W40.00 on 240.00 azi)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
3,382.52	3,213.00	WASATCH.NPC				
5,948.32	5,613.00	WASATCH_G.NPC				
6,601.53	6,224.00	FORT_UNION.NPC				
8,634.17	8,140.00	OHIO_CREEK.NPC				
9,025.83	8,531.00	WILLIAMS_FORK.NPC				
9,075.84	8,581.00	TOP_GAS.NPC				
11,550.20	11,055.00	CAMEO.NPC				
12,596.35	12,101.00	ROLLINS.NPC		0.00		
12,796.38	12,301.00	TD.MBL		0.00		

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
300.00	300.00	0.00	0.00	Begin 3.00° Build
990.34	975.41	97.57	75.57	Hold 20.71 Inc at 37.76 Azm
8,185.47	7,705.59	2,109.19	1,633.74	Begin 3.00° Drop
8,875.81	8,381.00	2,206.76	1,709.31	Hold Vertical, Begin 2.00° Turn
8,924.51	8,429.69	2,206.55	1,708.95	Hold 0.97 Inc at 240.00 Azm
12,796.38	12,301.00	2,173.66	1,651.95	TD at 12796.38