



SECTION DETAILS

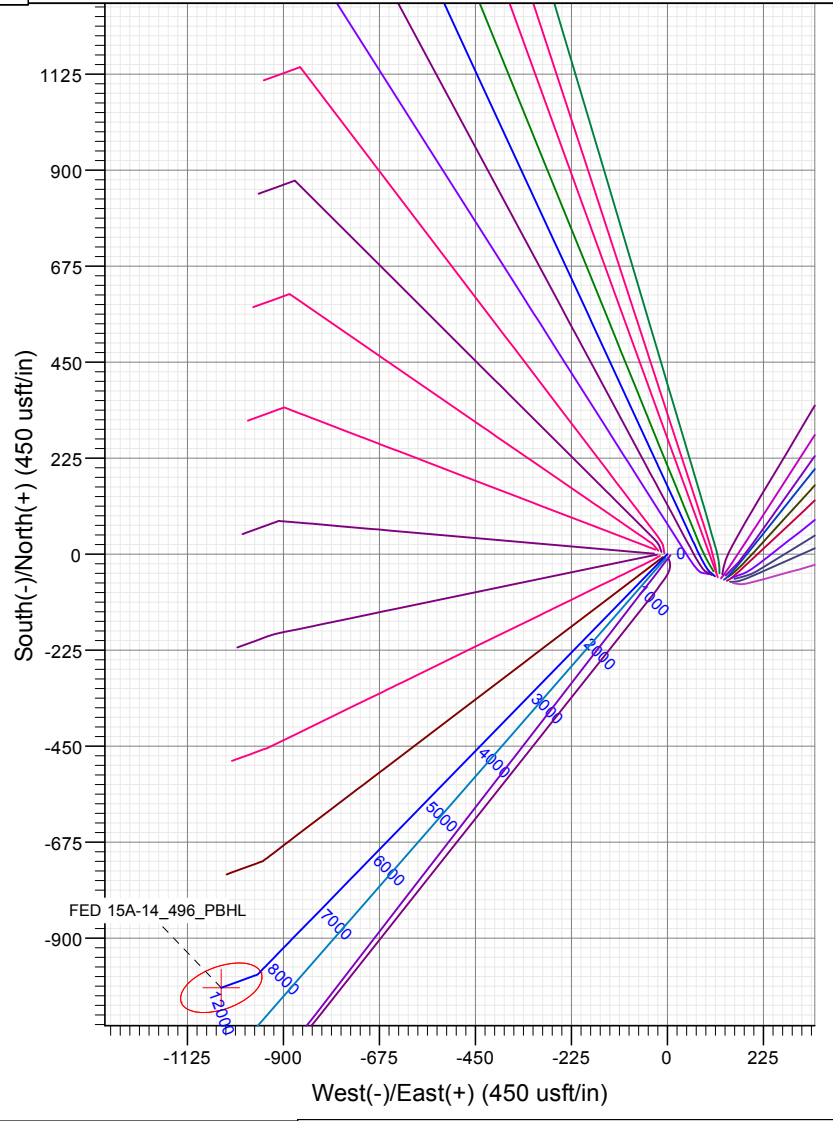
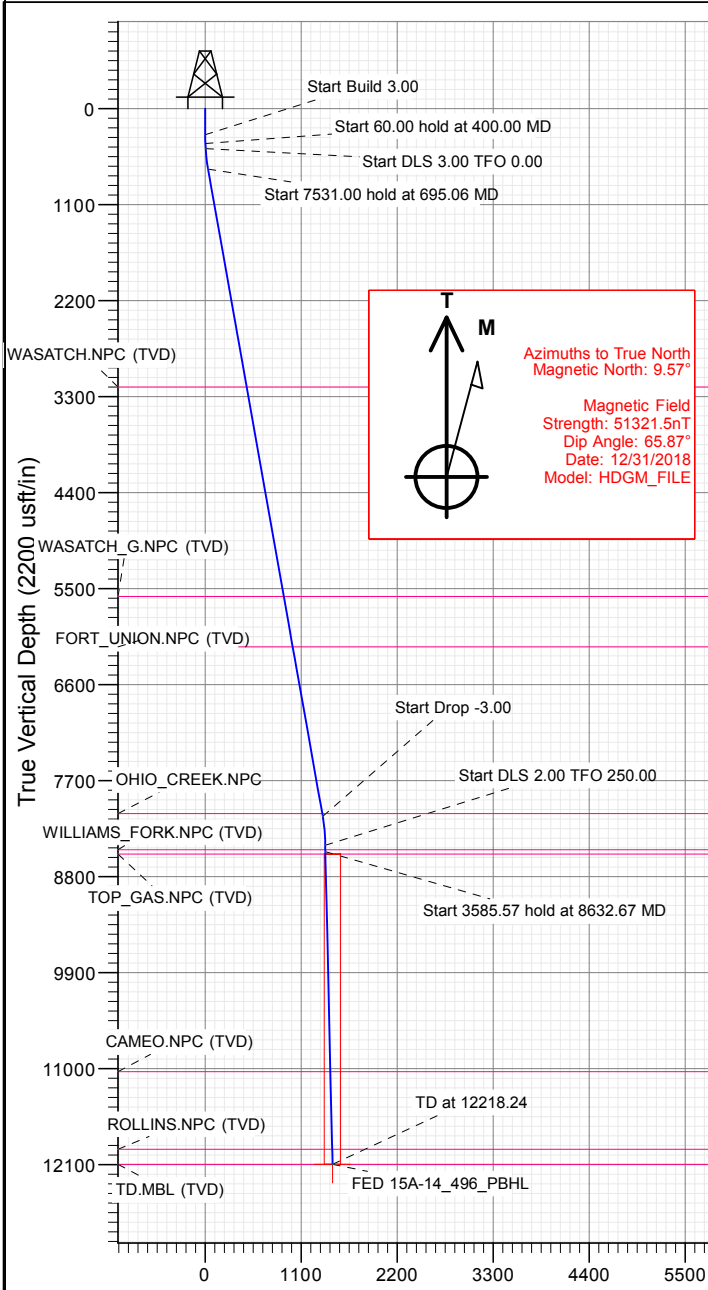
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	400.00	3.00	224.27	399.95	-1.87	-1.83	3.00	224.27	2.62	
4	460.00	3.00	224.27	459.87	-4.12	-4.02	0.00	0.00	5.76	
5	695.06	10.05	224.27	693.26	-23.24	-22.65	3.00	0.00	32.44	
6	8226.05	10.05	224.27	8108.66	-964.50	-940.14	0.00	0.00	1346.40	
7	8561.11	0.00	0.00	8442.00	-985.49	-960.60	3.00	180.00	1375.71	
8	8632.67	1.43	250.00	8513.55	-985.80	-961.44	2.00	250.00	1376.52	
9	12218.24	1.43	250.00	12098.00	-1016.42	-1045.60	0.00	0.00	1458.21	FED 15A-14_496_PBHL

Project: Garfield County, CO (UTM 12N)
 Site: SEC 14-T4S-R96W ELU J14 496 PAD
 Well: FED 15A-14_496
 Wellbore: OH
 Design: PLAN #1

PLAN #1
 FED 15A-14_496
 GL +FB = 30 @ 7532.00usft
 Ground Level @ 7902.00
 NAD 1927 - Western US
 Well FED 15A-14_496 - Slot WN_5, True North

Type	Target	No Target (Freehand)	Azimuth	Origin	Type	N/S	E/W	From	TVD
TD			225.81	Slot		0.00	0.00	0.00	0.00

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
FED 15A-14_496_PBHL	12098.00	-1016.42	-1045.60	39.698179	-108.140185



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3190.00	3230.72	WASATCH_NPC (TVD)
5590.00	5668.13	WASATCH_G_NPC (TVD)
6168.00	6255.14	FORT_UNION_NPC (TVD)
8079.00	8195.93	OHIO_CREEK_NPC
8492.00	8611.11	WILLIAMS_FORK_NPC (TVD)
8542.00	8661.13	TOP_GAS_NPC (TVD)
11036.00	11155.90	CAMEO_NPC (TVD)
11923.00	12043.18	ROLLINS_NPC (TVD)
12098.00	12218.24	TD.MBL (TVD)

WELL DETAILS: FED 15A-14_496

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14430023.50	2445921.40	39.700969	-108.136470



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FED 15A-14_496 - Slot WN_5
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 15A-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
From:	Map	Easting:	2,445,893.00 usft
Position Uncertainty:	3.28 usft	Slot Radius:	13-3/16"
		Latitude:	39.700997
		Longitude:	-108.136570
		Grid Convergence:	1.83 °

Well FED 15A-14_496 - Slot WN_5			
Well Position	+N/-S	0.00 usft	Northing: 14,430,023.50 usft
	+E/-W	0.00 usft	Easting: 2,445,921.40 usft
Position Uncertainty		3.28 usft	Wellhead Elevation: usft
			Latitude: 39.700969
			Longitude: -108.136470
			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	225.81

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	
400.00	3.00	224.27	399.95	-1.87	-1.83	3.00	3.00	0.00	224.27	
460.00	3.00	224.27	459.87	-4.12	-4.02	0.00	0.00	0.00	0.00	
695.06	10.05	224.27	693.26	-23.24	-22.65	3.00	3.00	0.00	0.00	
8,226.05	10.05	224.27	8,108.66	-964.50	-940.14	0.00	0.00	0.00	0.00	
8,561.11	0.00	0.00	8,442.00	-985.49	-960.60	3.00	-3.00	0.00	180.00	
8,632.67	1.43	250.00	8,513.55	-985.80	-961.44	2.00	2.00	-153.71	250.00	
12,218.24	1.43	250.00	12,098.00	-1,016.42	-1,045.60	0.00	0.00	0.00	0.00	FED 15A-14_496_PB

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FED 15A-14_496 - Slot WN_5
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 15A-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	
200.00	0.00	0.00	200.00	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	Start Build 3.00
400.00	3.00	224.27	399.95	-1.87	-1.83	2.62	3.00	3.00	Start 60.00 hold at 400.00 MD
460.00	3.00	224.27	459.87	-4.12	-4.02	5.76	0.00	0.00	Start DLS 3.00 TFO 0.00
500.00	4.20	224.27	499.79	-5.92	-5.77	8.27	3.00	3.00	
600.00	7.20	224.27	599.29	-13.03	-12.70	18.19	3.00	3.00	
695.06	10.05	224.27	693.26	-23.24	-22.65	32.44	3.00	3.00	Start 7531.00 hold at 695.06 MD
700.00	10.05	224.27	698.13	-23.86	-23.26	33.31	0.00	0.00	
800.00	10.05	224.27	796.59	-36.36	-35.44	50.75	0.00	0.00	
900.00	10.05	224.27	895.06	-48.86	-47.62	68.20	0.00	0.00	
1,000.00	10.05	224.27	993.52	-61.35	-59.80	85.65	0.00	0.00	
1,100.00	10.05	224.27	1,091.99	-73.85	-71.99	103.10	0.00	0.00	
1,200.00	10.05	224.27	1,190.45	-86.35	-84.17	120.54	0.00	0.00	
1,300.00	10.05	224.27	1,288.92	-98.85	-96.35	137.99	0.00	0.00	
1,400.00	10.05	224.27	1,387.38	-111.35	-108.54	155.44	0.00	0.00	
1,500.00	10.05	224.27	1,485.85	-123.85	-120.72	172.88	0.00	0.00	
1,600.00	10.05	224.27	1,584.31	-136.34	-132.90	190.33	0.00	0.00	
1,700.00	10.05	224.27	1,682.78	-148.84	-145.08	207.78	0.00	0.00	
1,800.00	10.05	224.27	1,781.24	-161.34	-157.27	225.23	0.00	0.00	
1,900.00	10.05	224.27	1,879.71	-173.84	-169.45	242.67	0.00	0.00	
2,000.00	10.05	224.27	1,978.17	-186.34	-181.63	260.12	0.00	0.00	
2,100.00	10.05	224.27	2,076.64	-198.84	-193.82	277.57	0.00	0.00	
2,200.00	10.05	224.27	2,175.10	-211.33	-206.00	295.02	0.00	0.00	
2,300.00	10.05	224.27	2,273.57	-223.83	-218.18	312.46	0.00	0.00	
2,400.00	10.05	224.27	2,372.03	-236.33	-230.36	329.91	0.00	0.00	
2,500.00	10.05	224.27	2,470.50	-248.83	-242.55	347.36	0.00	0.00	
2,600.00	10.05	224.27	2,568.96	-261.33	-254.73	364.81	0.00	0.00	
2,700.00	10.05	224.27	2,667.43	-273.83	-266.91	382.25	0.00	0.00	
2,800.00	10.05	224.27	2,765.89	-286.33	-279.09	399.70	0.00	0.00	
2,900.00	10.05	224.27	2,864.36	-298.82	-291.28	417.15	0.00	0.00	
3,000.00	10.05	224.27	2,962.82	-311.32	-303.46	434.59	0.00	0.00	
3,100.00	10.05	224.27	3,061.29	-323.82	-315.64	452.04	0.00	0.00	
3,200.00	10.05	224.27	3,159.75	-336.32	-327.83	469.49	0.00	0.00	
3,230.72	10.05	224.27	3,190.00	-340.16	-331.57	474.85	0.00	0.00	WASATCH.NPC (TVD)
3,300.00	10.05	224.27	3,258.22	-348.82	-340.01	486.94	0.00	0.00	
3,400.00	10.05	224.27	3,356.68	-361.32	-352.19	504.38	0.00	0.00	
3,500.00	10.05	224.27	3,455.15	-373.81	-364.37	521.83	0.00	0.00	
3,600.00	10.05	224.27	3,553.61	-386.31	-376.56	539.28	0.00	0.00	
3,700.00	10.05	224.27	3,652.08	-398.81	-388.74	556.73	0.00	0.00	
3,800.00	10.05	224.27	3,750.54	-411.31	-400.92	574.17	0.00	0.00	
3,900.00	10.05	224.27	3,849.01	-423.81	-413.11	591.62	0.00	0.00	
4,000.00	10.05	224.27	3,947.47	-436.31	-425.29	609.07	0.00	0.00	
4,100.00	10.05	224.27	4,045.94	-448.81	-437.47	626.52	0.00	0.00	
4,200.00	10.05	224.27	4,144.40	-461.30	-449.65	643.96	0.00	0.00	
4,300.00	10.05	224.27	4,242.87	-473.80	-461.84	661.41	0.00	0.00	
4,400.00	10.05	224.27	4,341.33	-486.30	-474.02	678.86	0.00	0.00	
4,500.00	10.05	224.27	4,439.80	-498.80	-486.20	696.31	0.00	0.00	
4,600.00	10.05	224.27	4,538.26	-511.30	-498.38	713.75	0.00	0.00	
4,700.00	10.05	224.27	4,636.73	-523.80	-510.57	731.20	0.00	0.00	
4,800.00	10.05	224.27	4,735.19	-536.29	-522.75	748.65	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FED 15A-14_496 - Slot WN_5
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 15A-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
4,900.00	10.05	224.27	4,833.66	-548.79	-534.93	766.09	0.00	0.00	
5,000.00	10.05	224.27	4,932.12	-561.29	-547.12	783.54	0.00	0.00	
5,100.00	10.05	224.27	5,030.59	-573.79	-559.30	800.99	0.00	0.00	
5,200.00	10.05	224.27	5,129.05	-586.29	-571.48	818.44	0.00	0.00	
5,300.00	10.05	224.27	5,227.52	-598.79	-583.66	835.88	0.00	0.00	
5,400.00	10.05	224.27	5,325.98	-611.29	-595.85	853.33	0.00	0.00	
5,500.00	10.05	224.27	5,424.45	-623.78	-608.03	870.78	0.00	0.00	
5,600.00	10.05	224.27	5,522.91	-636.28	-620.21	888.23	0.00	0.00	
5,668.13	10.05	224.27	5,590.00	-644.80	-628.51	900.11	0.00	0.00	WASATCH_G.NPC (TVD)
5,700.00	10.05	224.27	5,621.38	-648.78	-632.39	905.67	0.00	0.00	
5,800.00	10.05	224.27	5,719.84	-661.28	-644.58	923.12	0.00	0.00	
5,900.00	10.05	224.27	5,818.31	-673.78	-656.76	940.57	0.00	0.00	
6,000.00	10.05	224.27	5,916.77	-686.28	-668.94	958.02	0.00	0.00	
6,100.00	10.05	224.27	6,015.24	-698.77	-681.13	975.46	0.00	0.00	
6,200.00	10.05	224.27	6,113.70	-711.27	-693.31	992.91	0.00	0.00	
6,255.14	10.05	224.27	6,168.00	-718.16	-700.03	1,002.53	0.00	0.00	FORT_UNION.NPC (TVD)
6,300.00	10.05	224.27	6,212.17	-723.77	-705.49	1,010.36	0.00	0.00	
6,400.00	10.05	224.27	6,310.63	-736.27	-717.67	1,027.80	0.00	0.00	
6,500.00	10.05	224.27	6,409.10	-748.77	-729.86	1,045.25	0.00	0.00	
6,600.00	10.05	224.27	6,507.56	-761.27	-742.04	1,062.70	0.00	0.00	
6,700.00	10.05	224.27	6,606.03	-773.76	-754.22	1,080.15	0.00	0.00	
6,800.00	10.05	224.27	6,704.49	-786.26	-766.41	1,097.59	0.00	0.00	
6,900.00	10.05	224.27	6,802.96	-798.76	-778.59	1,115.04	0.00	0.00	
7,000.00	10.05	224.27	6,901.43	-811.26	-790.77	1,132.49	0.00	0.00	
7,100.00	10.05	224.27	6,999.89	-823.76	-802.95	1,149.94	0.00	0.00	
7,200.00	10.05	224.27	7,098.36	-836.26	-815.14	1,167.38	0.00	0.00	
7,300.00	10.05	224.27	7,196.82	-848.76	-827.32	1,184.83	0.00	0.00	
7,400.00	10.05	224.27	7,295.29	-861.25	-839.50	1,202.28	0.00	0.00	
7,500.00	10.05	224.27	7,393.75	-873.75	-851.68	1,219.73	0.00	0.00	
7,600.00	10.05	224.27	7,492.22	-886.25	-863.87	1,237.17	0.00	0.00	
7,700.00	10.05	224.27	7,590.68	-898.75	-876.05	1,254.62	0.00	0.00	
7,800.00	10.05	224.27	7,689.15	-911.25	-888.23	1,272.07	0.00	0.00	
7,900.00	10.05	224.27	7,787.61	-923.75	-900.42	1,289.51	0.00	0.00	
8,000.00	10.05	224.27	7,886.08	-936.24	-912.60	1,306.96	0.00	0.00	
8,100.00	10.05	224.27	7,984.54	-948.74	-924.78	1,324.41	0.00	0.00	
8,195.93	10.05	224.27	8,079.00	-960.73	-936.47	1,341.15	0.00	0.00	OHIO_CREEK.NPC
8,200.00	10.05	224.27	8,083.01	-961.24	-936.96	1,341.86	0.00	0.00	
8,226.05	10.05	224.27	8,108.66	-964.50	-940.14	1,346.40	0.00	0.00	Start Drop -3.00
8,300.00	7.83	224.27	8,181.70	-972.73	-948.16	1,357.89	3.00	-3.00	
8,400.00	4.83	224.27	8,281.08	-980.63	-955.86	1,368.92	3.00	-3.00	
8,500.00	1.83	224.27	8,380.90	-984.79	-959.92	1,374.73	3.00	-3.00	
8,561.11	0.00	0.00	8,442.00	-985.49	-960.60	1,375.71	3.00	-3.00	Start DLS 2.00 TFO 250.00
8,600.00	0.78	250.00	8,480.89	-985.58	-960.85	1,375.95	2.00	2.00	
8,611.11	1.00	250.00	8,492.00	-985.64	-961.01	1,376.10	2.00	2.00	WILLIAMS_FORK.NPC (TVD)
8,632.67	1.43	250.00	8,513.55	-985.80	-961.44	1,376.52	2.00	2.00	Start 3585.57 hold at 8632.67 MD
8,661.13	1.43	250.00	8,542.00	-986.04	-962.11	1,377.17	0.00	0.00	TOP_GAS.NPC (TVD)
8,700.00	1.43	250.00	8,580.86	-986.37	-963.02	1,378.06	0.00	0.00	
8,800.00	1.43	250.00	8,680.83	-987.23	-965.37	1,380.33	0.00	0.00	
8,900.00	1.43	250.00	8,780.80	-988.08	-967.71	1,382.61	0.00	0.00	
9,000.00	1.43	250.00	8,880.77	-988.93	-970.06	1,384.89	0.00	0.00	
9,100.00	1.43	250.00	8,980.74	-989.79	-972.41	1,387.17	0.00	0.00	
9,200.00	1.43	250.00	9,080.71	-990.64	-974.76	1,389.45	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well FED 15A-14_496 - Slot WN_5
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 15A-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
9,300.00	1.43	250.00	9,180.67	-991.50	-977.10	1,391.73	0.00	0.00	
9,400.00	1.43	250.00	9,280.64	-992.35	-979.45	1,394.00	0.00	0.00	
9,500.00	1.43	250.00	9,380.61	-993.20	-981.80	1,396.28	0.00	0.00	
9,600.00	1.43	250.00	9,480.58	-994.06	-984.14	1,398.56	0.00	0.00	
9,700.00	1.43	250.00	9,580.55	-994.91	-986.49	1,400.84	0.00	0.00	
9,800.00	1.43	250.00	9,680.52	-995.77	-988.84	1,403.12	0.00	0.00	
9,900.00	1.43	250.00	9,780.49	-996.62	-991.18	1,405.40	0.00	0.00	
10,000.00	1.43	250.00	9,880.46	-997.48	-993.53	1,407.67	0.00	0.00	
10,100.00	1.43	250.00	9,980.42	-998.33	-995.88	1,409.95	0.00	0.00	
10,200.00	1.43	250.00	10,080.39	-999.18	-998.23	1,412.23	0.00	0.00	
10,300.00	1.43	250.00	10,180.36	-1,000.04	-1,000.57	1,414.51	0.00	0.00	
10,400.00	1.43	250.00	10,280.33	-1,000.89	-1,002.92	1,416.79	0.00	0.00	
10,500.00	1.43	250.00	10,380.30	-1,001.75	-1,005.27	1,419.07	0.00	0.00	
10,600.00	1.43	250.00	10,480.27	-1,002.60	-1,007.61	1,421.35	0.00	0.00	
10,700.00	1.43	250.00	10,580.24	-1,003.46	-1,009.96	1,423.62	0.00	0.00	
10,800.00	1.43	250.00	10,680.21	-1,004.31	-1,012.31	1,425.90	0.00	0.00	
10,900.00	1.43	250.00	10,780.18	-1,005.16	-1,014.66	1,428.18	0.00	0.00	
11,000.00	1.43	250.00	10,880.14	-1,006.02	-1,017.00	1,430.46	0.00	0.00	
11,100.00	1.43	250.00	10,980.11	-1,006.87	-1,019.35	1,432.74	0.00	0.00	
11,155.90	1.43	250.00	11,036.00	-1,007.35	-1,020.66	1,434.01	0.00	0.00	CAMEO.NPC (TVD)
11,200.00	1.43	250.00	11,080.08	-1,007.73	-1,021.70	1,435.02	0.00	0.00	
11,300.00	1.43	250.00	11,180.05	-1,008.58	-1,024.04	1,437.29	0.00	0.00	
11,400.00	1.43	250.00	11,280.02	-1,009.44	-1,026.39	1,439.57	0.00	0.00	
11,500.00	1.43	250.00	11,379.99	-1,010.29	-1,028.74	1,441.85	0.00	0.00	
11,600.00	1.43	250.00	11,479.96	-1,011.14	-1,031.08	1,444.13	0.00	0.00	
11,700.00	1.43	250.00	11,579.93	-1,012.00	-1,033.43	1,446.41	0.00	0.00	
11,800.00	1.43	250.00	11,679.89	-1,012.85	-1,035.78	1,448.69	0.00	0.00	
11,900.00	1.43	250.00	11,779.86	-1,013.71	-1,038.13	1,450.96	0.00	0.00	
12,000.00	1.43	250.00	11,879.83	-1,014.56	-1,040.47	1,453.24	0.00	0.00	
12,043.18	1.43	250.00	11,923.00	-1,014.93	-1,041.49	1,454.23	0.00	0.00	ROLLINS.NPC (TVD)
12,100.00	1.43	250.00	11,979.80	-1,015.41	-1,042.82	1,455.52	0.00	0.00	
12,200.00	1.43	250.00	12,079.77	-1,016.27	-1,045.17	1,457.80	0.00	0.00	
12,218.24	1.43	250.00	12,098.00	-1,016.42	-1,045.60	1,458.21	0.00	0.00	TD at 12218.24 - TD.MBL (TVD) - FED 15A-14_

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FED 15A-14_496_PBHL	0.00	0.00	12,098.00	-1,016.42	-1,045.60	14,428,974.20	2,444,908.80	39.698179	-108.140185
- hit/miss target									
- 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 15A-14_496 - Slot WN_5
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 15A-14_496	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,230.72	3,190.00	WASATCH.NPC (TVD)				
5,668.13	5,590.00	WASATCH_G.NPC (TVD)				
6,255.14	6,168.00	FORT_UNION.NPC (TVD)				
8,195.93	8,079.00	OHIO_CREEK.NPC				
8,611.11	8,492.00	WILLIAMS_FORK.NPC (TVD)				
8,661.13	8,542.00	TOP_GAS.NPC (TVD)				
11,155.90	11,036.00	CAMEO.NPC (TVD)				
12,043.18	11,923.00	ROLLINS.NPC (TVD)				
12,218.24	12,098.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
300.00	300.00	0.00	0.00	Start Build 3.00	
400.00	399.95	-1.87	-1.83	Start 60.00 hold at 400.00 MD	
460.00	459.87	-4.12	-4.02	Start DLS 3.00 TFO 0.00	
695.06	693.26	-23.24	-22.65	Start 7531.00 hold at 695.06 MD	
8,226.05	8,108.66	-964.50	-940.14	Start Drop -3.00	
8,561.11	8,442.00	-985.49	-960.60	Start DLS 2.00 TFO 250.00	
8,632.67	8,513.55	-985.80	-961.44	Start 3585.57 hold at 8632.67 MD	
12,218.24	12,098.00	-1,016.42	-1,045.60	TD at 12218.24	