



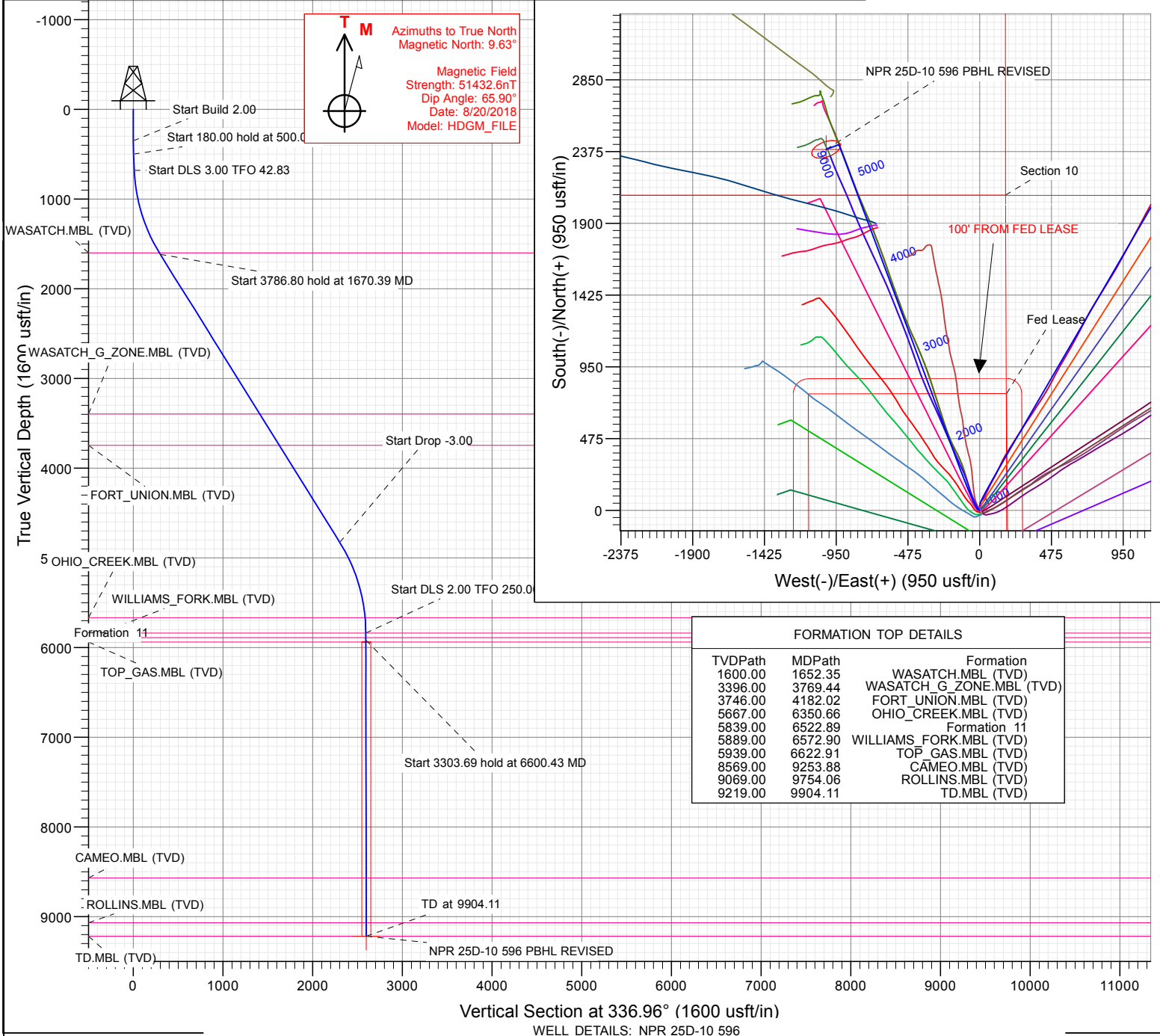
SECTION DETAILS

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	350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	
3	500.00	3.00	300.00	499.93	1.96	-3.40	2.00	300.00	3.14	
4	680.00	3.00	300.00	679.68	6.67	-11.56	0.00	0.00	10.66	
5	1670.39	31.97	339.52	1615.34	271.21	-128.39	3.00	42.83	299.82	
6	5457.19	31.97	339.52	4827.75	2149.51	-830.03	0.00	0.002302.91		
7	6522.89	0.00	0.00	5839.00	2420.89	-931.41	3.00	180.002592.32		
8	6600.43	1.55	250.00	5916.52	2420.54	-932.40	2.00	250.002592.37		
9	9904.11	1.55	250.00	9219.00	2389.96	-1016.41	0.00	0.002597.12		NPR 25D-10 596 PBHL REVISED

PLAN #2
NPR 25D-10 596
GL + KB @ 6459.00usft
Ground Level @ 6429.00
NAD 1927 - Western US
Well NPR 25D-10 596 - Slot NPR 25D-10 596, True North

Project: Garfield County, CO (UTM 12N)
Site: S15-T5S-R96W NPR H15 596 (POD 1) (H&P 330)
Well: NPR 25D-10 596
Wellbore: OH
Design: PLAN #2

Type	Target	Azimuth	Origin	Type	N/S	E/W	From TVD
TD	No Target (Freehand)	336.96	Slot		0.00	0.00	0.00
Name	TVD	+N/-S	+E/-W	Latitude	Longitude		
NPR 25D-10 596 PBHL REVISED	9219.00	2389.96	-1016.41	39.623191	-108.149700		



+N/-S 0.00 +E/-W 0.00 Northing 14399222.07 Easting 2444191.23 Latitude 39.616632 Longitude -108.146093 NPR 25D-10 596

CATHEDRAL

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well NPR 25D-10 596 - Slot NPR 25D-10 596
Company:	Caerus Oil & Gas	TVD Reference:	GL + KB @ 6459.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	GL + KB @ 6459.00usft
Site:	S15-T5S-R96W NPR H15 596 (POD 1) (H&P 330)	North Reference:	True
Well:	NPR 25D-10 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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		S15-T5S-R96W NPR H15 596 (POD 1) (H&P 330)			
Site Position:		Northing:	14,399,246.77 usft	Latitude:	39.616700
From:	Map	Easting:	2,444,190.72 usft	Longitude:	-108.146092
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.82 °

Well	NPR 25D-10 596 - Slot NPR 25D-10 596					
Well Position	+N/-S	0.00 usft	Northing:	14,399,222.07 usft	Latitude:	39.616632
	+E/-W	0.00 usft	Easting:	2,444,191.23 usft	Longitude:	-108.146093
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	6,429.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM_FILE	8/20/2018	9.63	65.90	51,432.60000000

Design	PLAN #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	336.96

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	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	3.00	300.00	499.93	1.96	-3.40	2.00	2.00	0.00	300.00	
680.00	3.00	300.00	679.68	6.67	-11.56	0.00	0.00	0.00	0.00	
1,670.39	31.97	339.52	1,615.34	271.21	-128.39	3.00	2.93	3.99	42.83	
5,457.19	31.97	339.52	4,827.75	2,149.51	-830.03	0.00	0.00	0.00	0.00	
6,522.89	0.00	0.00	5,839.00	2,420.89	-931.41	3.00	-3.00	0.00	180.00	
6,600.43	1.55	250.00	5,916.52	2,420.54	-932.40	2.00	2.00	-141.87	250.00	
9,904.11	1.55	250.00	9,219.00	2,389.96	-1,016.41	0.00	0.00	0.00	0.00	NPR 25D-10 596 PBH

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well NPR 25D-10 596 - Slot NPR 25D-10 596
Company:	Caerus Oil & Gas	TVD Reference:	GL + KB @ 6459.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	GL + KB @ 6459.00usft
Site:	S15-T5S-R96W NPR H15 596 (POD 1) (H&P 330)	North Reference:	True
Well:	NPR 25D-10 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
400.00	1.00	300.00	400.00	0.22	-0.38	0.35	2.00	2.00	
500.00	3.00	300.00	499.93	1.96	-3.40	3.14	2.00	2.00	Start 180.00 hold at 500.00 MD
600.00	3.00	300.00	599.79	4.58	-7.93	7.32	0.00	0.00	
680.00	3.00	300.00	679.68	6.67	-11.56	10.66	0.00	0.00	Start DLS 3.00 TFO 42.83
700.00	3.46	306.77	699.65	7.30	-12.50	11.60	3.00	2.32	
800.00	6.15	323.49	799.30	13.41	-18.10	19.43	3.00	2.68	
900.00	9.03	329.85	898.41	24.50	-25.23	32.43	3.00	2.88	
1,000.00	11.97	333.12	996.73	40.55	-33.87	50.57	3.00	2.94	
1,100.00	14.94	335.12	1,093.97	61.50	-43.98	73.81	3.00	2.96	
1,200.00	17.91	336.46	1,189.88	87.29	-55.55	102.07	3.00	2.98	
1,300.00	20.90	337.44	1,284.19	117.87	-68.54	135.29	3.00	2.98	
1,400.00	23.88	338.17	1,376.64	153.14	-82.91	173.37	3.00	2.99	
1,500.00	26.87	338.76	1,466.98	193.01	-98.63	216.21	3.00	2.99	
1,600.00	29.86	339.23	1,554.96	237.36	-115.65	263.69	3.00	2.99	
1,652.35	31.43	339.45	1,600.00	262.33	-125.06	290.35	3.00	2.99	WASATCH.MBL (TVD)
1,670.39	31.97	339.52	1,615.34	271.21	-128.39	299.82	3.00	2.99	Start 3786.80 hold at 1670.39 MD
1,700.00	31.97	339.52	1,640.46	285.90	-133.87	315.49	0.00	0.00	
1,800.00	31.97	339.52	1,725.29	335.50	-152.40	368.38	0.00	0.00	
1,900.00	31.97	339.52	1,810.13	385.10	-170.93	421.28	0.00	0.00	
2,000.00	31.97	339.52	1,894.96	434.70	-189.46	474.17	0.00	0.00	
2,100.00	31.97	339.52	1,979.79	484.30	-207.99	527.07	0.00	0.00	
2,200.00	31.97	339.52	2,064.62	533.90	-226.52	579.97	0.00	0.00	
2,300.00	31.97	339.52	2,149.45	583.51	-245.05	632.86	0.00	0.00	
2,400.00	31.97	339.52	2,234.28	633.11	-263.57	685.76	0.00	0.00	
2,500.00	31.97	339.52	2,319.12	682.71	-282.10	738.66	0.00	0.00	
2,600.00	31.97	339.52	2,403.95	732.31	-300.63	791.55	0.00	0.00	
2,700.00	31.97	339.52	2,488.78	781.91	-319.16	844.45	0.00	0.00	
2,800.00	31.97	339.52	2,573.61	831.51	-337.69	897.35	0.00	0.00	
2,900.00	31.97	339.52	2,658.44	881.11	-356.22	950.24	0.00	0.00	
3,000.00	31.97	339.52	2,743.27	930.71	-374.75	1,003.14	0.00	0.00	
3,100.00	31.97	339.52	2,828.10	980.32	-393.28	1,056.04	0.00	0.00	
3,200.00	31.97	339.52	2,912.94	1,029.92	-411.80	1,108.93	0.00	0.00	
3,300.00	31.97	339.52	2,997.77	1,079.52	-430.33	1,161.83	0.00	0.00	
3,400.00	31.97	339.52	3,082.60	1,129.12	-448.86	1,214.73	0.00	0.00	
3,500.00	31.97	339.52	3,167.43	1,178.72	-467.39	1,267.62	0.00	0.00	
3,600.00	31.97	339.52	3,252.26	1,228.32	-485.92	1,320.52	0.00	0.00	
3,700.00	31.97	339.52	3,337.09	1,277.92	-504.45	1,373.41	0.00	0.00	
3,769.44	31.97	339.52	3,396.00	1,312.37	-517.31	1,410.15	0.00	0.00	WASATCH_G_ZONE.MBL (TVD)
3,800.00	31.97	339.52	3,421.93	1,327.53	-522.98	1,426.31	0.00	0.00	
3,900.00	31.97	339.52	3,506.76	1,377.13	-541.51	1,479.21	0.00	0.00	
4,000.00	31.97	339.52	3,591.59	1,426.73	-560.03	1,532.10	0.00	0.00	
4,100.00	31.97	339.52	3,676.42	1,476.33	-578.56	1,585.00	0.00	0.00	
4,182.02	31.97	339.52	3,746.00	1,517.01	-593.76	1,628.39	0.00	0.00	FORT_UNION.MBL (TVD)
4,200.00	31.97	339.52	3,761.25	1,525.93	-597.09	1,637.90	0.00	0.00	
4,300.00	31.97	339.52	3,846.08	1,575.53	-615.62	1,690.79	0.00	0.00	
4,400.00	31.97	339.52	3,930.91	1,625.13	-634.15	1,743.69	0.00	0.00	
4,500.00	31.97	339.52	4,015.75	1,674.74	-652.68	1,796.59	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well NPR 25D-10 596 - Slot NPR 25D-10 596
Company:	Caerus Oil & Gas	TVD Reference:	GL + KB @ 6459.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	GL + KB @ 6459.00usft
Site:	S15-T5S-R96W NPR H15 596 (POD 1) (H&P 330)	North Reference:	True
Well:	NPR 25D-10 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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
4,600.00	31.97	339.52	4,100.58	1,724.34	-671.21	1,849.48	0.00	0.00	
4,700.00	31.97	339.52	4,185.41	1,773.94	-689.74	1,902.38	0.00	0.00	
4,800.00	31.97	339.52	4,270.24	1,823.54	-708.27	1,955.28	0.00	0.00	
4,900.00	31.97	339.52	4,355.07	1,873.14	-726.79	2,008.17	0.00	0.00	
5,000.00	31.97	339.52	4,439.90	1,922.74	-745.32	2,061.07	0.00	0.00	
5,100.00	31.97	339.52	4,524.74	1,972.34	-763.85	2,113.97	0.00	0.00	
5,200.00	31.97	339.52	4,609.57	2,021.94	-782.38	2,166.86	0.00	0.00	
5,300.00	31.97	339.52	4,694.40	2,071.55	-800.91	2,219.76	0.00	0.00	
5,400.00	31.97	339.52	4,779.23	2,121.15	-819.44	2,272.66	0.00	0.00	
5,457.19	31.97	339.52	4,827.75	2,149.51	-830.03	2,302.91	0.00	0.00	Start Drop -3.00
5,500.00	30.69	339.52	4,864.31	2,170.37	-837.82	2,325.14	3.00	-3.00	
5,600.00	27.69	339.52	4,951.61	2,216.04	-854.89	2,373.85	3.00	-3.00	
5,700.00	24.69	339.52	5,041.33	2,257.38	-870.33	2,417.94	3.00	-3.00	
5,800.00	21.69	339.52	5,133.24	2,294.26	-884.10	2,457.27	3.00	-3.00	
5,900.00	18.69	339.52	5,227.09	2,326.58	-896.18	2,491.74	3.00	-3.00	
6,000.00	15.69	339.52	5,322.61	2,354.26	-906.52	2,521.25	3.00	-3.00	
6,100.00	12.69	339.52	5,419.55	2,377.21	-915.09	2,545.73	3.00	-3.00	
6,200.00	9.69	339.52	5,517.64	2,395.39	-921.88	2,565.11	3.00	-3.00	
6,300.00	6.69	339.52	5,616.61	2,408.72	-926.86	2,579.34	3.00	-3.00	
6,350.66	5.17	339.52	5,667.00	2,413.62	-928.69	2,584.56	3.00	-3.00	OHIO_CREEK.MBL (TVD)
6,400.00	3.69	339.52	5,716.19	2,417.19	-930.03	2,588.37	3.00	-3.00	
6,500.00	0.69	339.52	5,816.11	2,420.77	-931.36	2,592.18	3.00	-3.00	
6,522.89	0.00	0.00	5,839.00	2,420.89	-931.41	2,592.32	3.00	-3.00	Start DLS 2.00 TFO 250.00 - Formation 11
6,572.90	1.00	250.00	5,889.00	2,420.75	-931.82	2,592.34	2.00	2.00	WILLIAMS_FORK.MBL (TVD)
6,600.00	1.54	250.00	5,916.10	2,420.54	-932.39	2,592.37	2.00	2.00	
6,600.43	1.55	250.00	5,916.52	2,420.54	-932.40	2,592.37	2.00	2.00	Start 3303.69 hold at 6600.43 MD
6,622.91	1.55	250.00	5,939.00	2,420.33	-932.97	2,592.40	0.00	0.00	TOP_GAS.MBL (TVD)
6,700.00	1.55	250.00	6,016.06	2,419.61	-934.93	2,592.51	0.00	0.00	
6,800.00	1.55	250.00	6,116.02	2,418.69	-937.47	2,592.66	0.00	0.00	
6,900.00	1.55	250.00	6,215.99	2,417.76	-940.01	2,592.80	0.00	0.00	
7,000.00	1.55	250.00	6,315.95	2,416.84	-942.56	2,592.94	0.00	0.00	
7,100.00	1.55	250.00	6,415.91	2,415.91	-945.10	2,593.09	0.00	0.00	
7,200.00	1.55	250.00	6,515.88	2,414.99	-947.64	2,593.23	0.00	0.00	
7,300.00	1.55	250.00	6,615.84	2,414.06	-950.19	2,593.38	0.00	0.00	
7,400.00	1.55	250.00	6,715.80	2,413.14	-952.73	2,593.52	0.00	0.00	
7,500.00	1.55	250.00	6,815.77	2,412.21	-955.27	2,593.66	0.00	0.00	
7,600.00	1.55	250.00	6,915.73	2,411.29	-957.81	2,593.81	0.00	0.00	
7,700.00	1.55	250.00	7,015.69	2,410.36	-960.36	2,593.95	0.00	0.00	
7,800.00	1.55	250.00	7,115.66	2,409.44	-962.90	2,594.09	0.00	0.00	
7,900.00	1.55	250.00	7,215.62	2,408.51	-965.44	2,594.24	0.00	0.00	
8,000.00	1.55	250.00	7,315.58	2,407.58	-967.99	2,594.38	0.00	0.00	
8,100.00	1.55	250.00	7,415.55	2,406.66	-970.53	2,594.52	0.00	0.00	
8,200.00	1.55	250.00	7,515.51	2,405.73	-973.07	2,594.67	0.00	0.00	
8,300.00	1.55	250.00	7,615.47	2,404.81	-975.62	2,594.81	0.00	0.00	
8,400.00	1.55	250.00	7,715.44	2,403.88	-978.16	2,594.96	0.00	0.00	
8,500.00	1.55	250.00	7,815.40	2,402.96	-980.70	2,595.10	0.00	0.00	
8,600.00	1.55	250.00	7,915.36	2,402.03	-983.24	2,595.24	0.00	0.00	
8,700.00	1.55	250.00	8,015.33	2,401.11	-985.79	2,595.39	0.00	0.00	
8,800.00	1.55	250.00	8,115.29	2,400.18	-988.33	2,595.53	0.00	0.00	
8,900.00	1.55	250.00	8,215.25	2,399.26	-990.87	2,595.67	0.00	0.00	
9,000.00	1.55	250.00	8,315.22	2,398.33	-993.42	2,595.82	0.00	0.00	
9,100.00	1.55	250.00	8,415.18	2,397.41	-995.96	2,595.96	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well NPR 25D-10 596 - Slot NPR 25D-10 596
Company:	Caerus Oil & Gas	TVD Reference:	GL + KB @ 6459.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	GL + KB @ 6459.00usft
Site:	S15-T5S-R96W NPR H15 596 (POD 1) (H&P 330)	North Reference:	True
Well:	NPR 25D-10 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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
9,200.00	1.55	250.00	8,515.14	2,396.48	-998.50	2,596.10	0.00	0.00	
9,253.88	1.55	250.00	8,569.00	2,395.98	-999.87	2,596.18	0.00	0.00	CAMEO.MBL (TVD)
9,300.00	1.55	250.00	8,615.11	2,395.55	-1,001.05	2,596.25	0.00	0.00	
9,400.00	1.55	250.00	8,715.07	2,394.63	-1,003.59	2,596.39	0.00	0.00	
9,500.00	1.55	250.00	8,815.03	2,393.70	-1,006.13	2,596.54	0.00	0.00	
9,600.00	1.55	250.00	8,915.00	2,392.78	-1,008.67	2,596.68	0.00	0.00	
9,700.00	1.55	250.00	9,014.96	2,391.85	-1,011.22	2,596.82	0.00	0.00	
9,754.06	1.55	250.00	9,069.00	2,391.35	-1,012.59	2,596.90	0.00	0.00	ROLLINS.MBL (TVD)
9,800.00	1.55	250.00	9,114.92	2,390.93	-1,013.76	2,596.97	0.00	0.00	
9,900.00	1.55	250.00	9,214.89	2,390.00	-1,016.30	2,597.11	0.00	0.00	
9,904.11	1.55	250.00	9,219.00	2,389.96	-1,016.41	2,597.12	0.00	0.00	TD at 9904.11 - NPR 25D-10 596 PBHL REVIS

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
NPR 25D-10 596 PBHL	0.00	0.00	9,219.00	2,389.96	-1,016.41	14,401,578.53	2,443,099.39	39.623191	-108.149700
- plan hits target center									
- Ellipse (radii L100.00 W50.00 on 250.00 azi)									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,652.35	1,600.00	WASATCH.MBL (TVD)			
3,769.44	3,396.00	WASATCH_G_ZONE.MBL (TVD)			
4,182.02	3,746.00	FORT_UNION.MBL (TVD)			
6,350.66	5,667.00	OHIO_CREEK.MBL (TVD)			
6,522.89	5,839.00	Formation 11			
6,572.90	5,889.00	WILLIAMS_FORK.MBL (TVD)			
6,622.91	5,939.00	TOP_GAS.MBL (TVD)			
9,253.88	8,569.00	CAMEO.MBL (TVD)			
9,754.06	9,069.00	ROLLINS.MBL (TVD)			
9,904.11	9,219.00	TD.MBL (TVD)			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
350.00	350.00	0.00	0.00	Start Build 2.00
500.00	499.93	1.96	-3.40	Start 180.00 hold at 500.00 MD
680.00	679.68	6.67	-11.56	Start DLS 3.00 TFO 42.83
1,670.39	1,615.34	271.21	-128.39	Start 3786.80 hold at 1670.39 MD
5,457.19	4,827.75	2,149.51	-830.03	Start Drop -3.00
6,522.89	5,839.00	2,420.89	-931.41	Start DLS 2.00 TFO 250.00
6,600.43	5,916.52	2,420.54	-932.40	Start 3303.69 hold at 6600.43 MD
9,904.11	9,219.00	2,389.96	-1,016.41	TD at 9904.11