



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0	
3	686.1	13.08	356.03	682.3	49.4	-3.4	3.00	356.03	49.6	
4	7611.2	13.08	356.03	7427.7	1613.1	-112.0	0.00	0.00	1617.0	
5	8047.3	0.00	0.00	7860.0	1662.5	-115.4	3.00	180.00	1666.5	
6	10160.3	0.00	0.00	9973.0	1662.5	-115.4	0.00	0.00	1666.5	12A-36-795 PBHL

Project: Garfield County, CO (UTM 12  
 Site: S36-T7S-R95W (36L)  
 Well: 12A-36-795  
 Wellbore: OH  
 Design: PLAN #1

PLAN #1  
 12A-36-795  
 15XXX LR  
 30' KB @ 8931.0usft  
 Ground Level @ 8991.0  
 NAD 1927 - Western US  
 Well 12A-36-795, True North

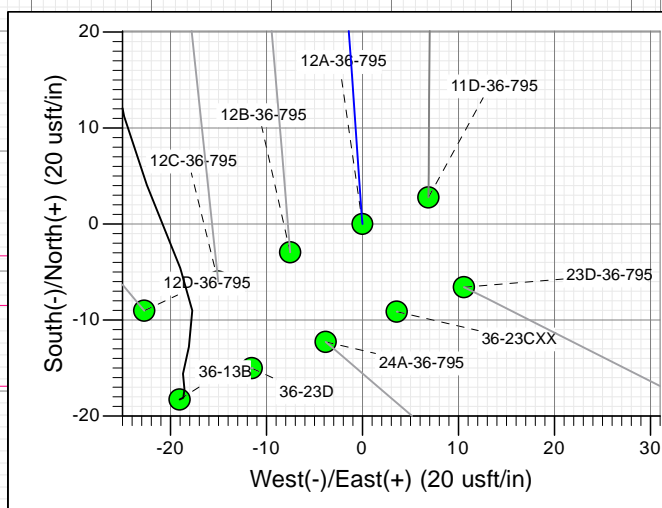
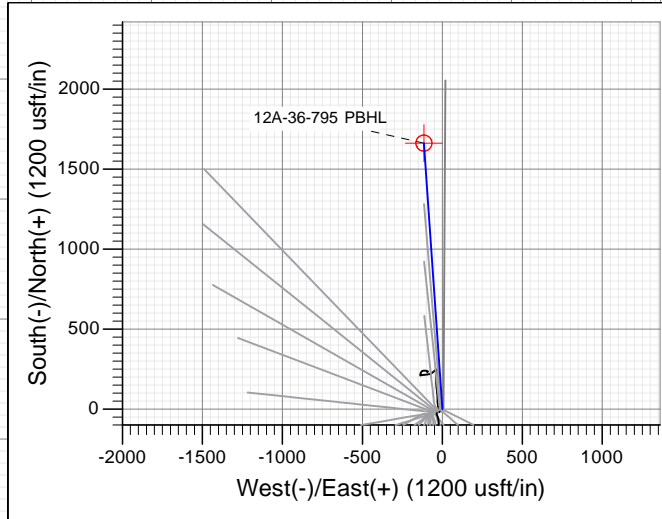
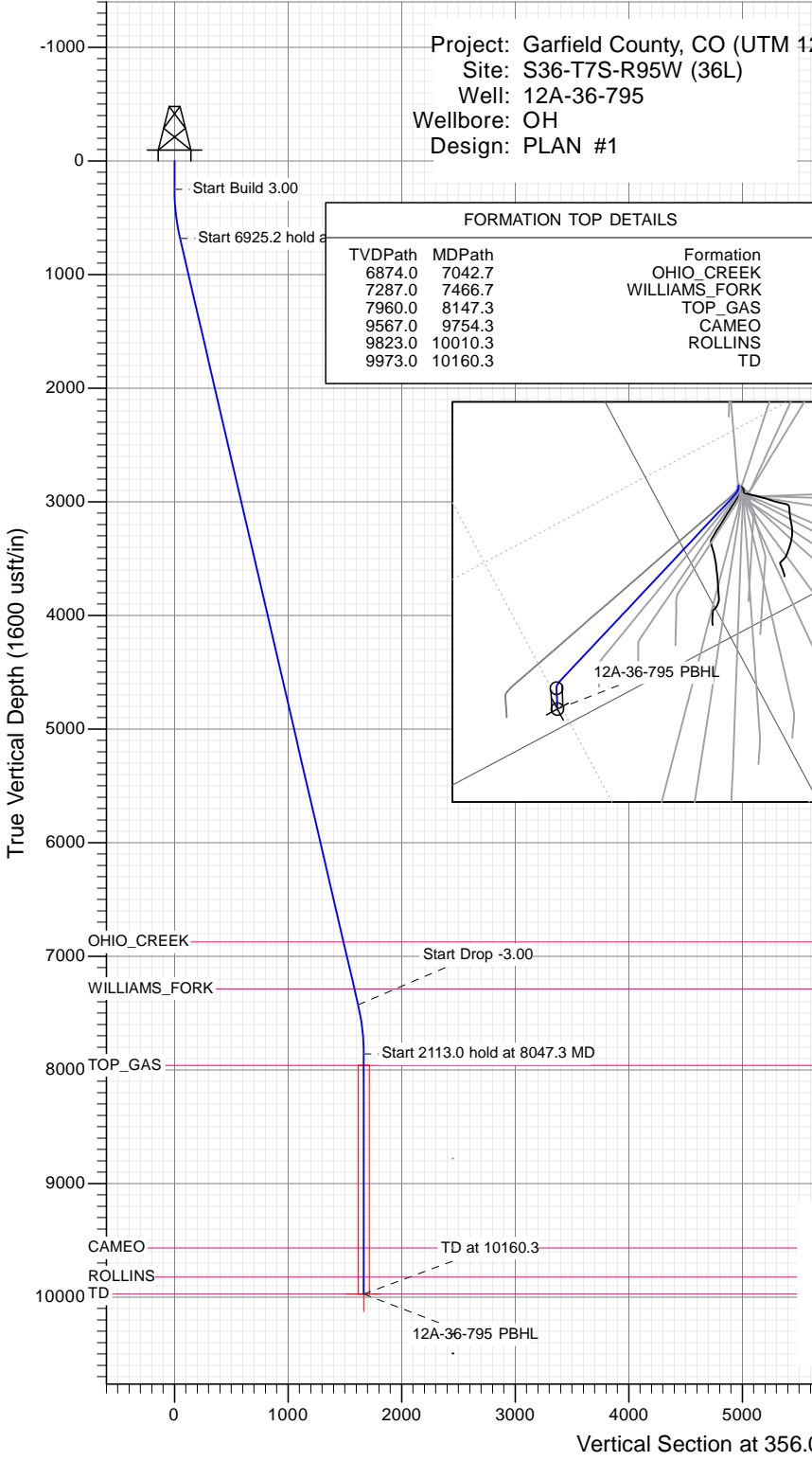
Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	356.03	Slot	0.0	0.0	0.0

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
12A-36-795 PBHL	9973.0	1662.5	-115.4	39.396771	-107.952558

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
6874.0	7042.7	OHIO_CREEK
7287.0	7466.7	WILLIAMS_FORK
7960.0	8147.3	TOP_GAS
9567.0	9754.3	CAMEO
9823.0	10010.3	ROLLINS
9973.0	10160.3	TD



TM  
 Azimuths to True North  
 Magnetic North: 9.42°  
 Magnetic Field  
 Strength: 51881.2snT  
 Dip Angle: 65.60°  
 Date: 12/14/2015  
 Model: HDGM

CASING DETAILS

No casing data is available



WELL DETAILS: 12A-36-795

+N/-S	+E/-W	Northing	Ground Level:	8991.0
0.0	0.0	14319282.30	Easting	2501591.30
			Latitude	39.392208
			Longitude	-107.952150

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 12A-36-795
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8931.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8931.0usft
<b>Site:</b>	S36-T7S-R95W (36L)	<b>North Reference:</b>	True
<b>Well:</b>	12A-36-795	<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)		

<b>Site</b>	S36-T7S-R95W (36L)				
<b>Site Position:</b>		<b>Northing:</b>	14,319,276.10 usft	<b>Latitude:</b>	39.392190
<b>From:</b>	Map	<b>Easting:</b>	2,501,602.10 usft	<b>Longitude:</b>	-107.952113
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	1.94 °

<b>Well</b>	12A-36-795					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,319,282.30 usft	<b>Latitude:</b>	39.392208
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	2,501,591.30 usft	<b>Longitude:</b>	-107.952150
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	0.0 usft	<b>Ground Level:</b>	8,901.0 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</b>
			(°)	(°)	(nT)
	HDGM	12/14/2015	9.42	65.60	51,881

<b>Design</b>	PLAN #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	356.03

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
686.1	13.08	356.03	682.3	49.4	-3.4	3.00	3.00	0.00	356.03	
7,611.2	13.08	356.03	7,427.7	1,613.1	-112.0	0.00	0.00	0.00	0.00	
8,047.3	0.00	0.00	7,860.0	1,662.5	-115.4	3.00	-3.00	0.00	180.00	
10,160.3	0.00	0.00	9,973.0	1,662.5	-115.4	0.00	0.00	0.00	0.00	12A-36-795 PBHL

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 12A-36-795
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8931.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8931.0usft
<b>Site:</b>	S36-T7S-R95W (36L)	<b>North Reference:</b>	True
<b>Well:</b>	12A-36-795	<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
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
300.0	1.50	356.03	300.0	0.7	0.0	0.7	3.00	3.00	
400.0	4.50	356.03	399.8	5.9	-0.4	5.9	3.00	3.00	
500.0	7.50	356.03	499.3	16.3	-1.1	16.3	3.00	3.00	
600.0	10.50	356.03	598.0	31.9	-2.2	32.0	3.00	3.00	
686.1	13.08	356.03	682.3	49.4	-3.4	49.6	3.00	3.00	Start 6925.2 hold at 686.1 MD
700.0	13.08	356.03	695.9	52.6	-3.7	52.7	0.00	0.00	
800.0	13.08	356.03	793.3	75.2	-5.2	75.4	0.00	0.00	
900.0	13.08	356.03	890.7	97.8	-6.8	98.0	0.00	0.00	
1,000.0	13.08	356.03	988.1	120.3	-8.4	120.6	0.00	0.00	
1,100.0	13.08	356.03	1,085.5	142.9	-9.9	143.3	0.00	0.00	
1,200.0	13.08	356.03	1,182.9	165.5	-11.5	165.9	0.00	0.00	
1,300.0	13.08	356.03	1,280.3	188.1	-13.1	188.5	0.00	0.00	
1,400.0	13.08	356.03	1,377.7	210.6	-14.6	211.2	0.00	0.00	
1,500.0	13.08	356.03	1,475.1	233.2	-16.2	233.8	0.00	0.00	
1,600.0	13.08	356.03	1,572.5	255.8	-17.8	256.4	0.00	0.00	
1,700.0	13.08	356.03	1,669.9	278.4	-19.3	279.1	0.00	0.00	
1,800.0	13.08	356.03	1,767.3	301.0	-20.9	301.7	0.00	0.00	
1,900.0	13.08	356.03	1,864.7	323.5	-22.5	324.3	0.00	0.00	
2,000.0	13.08	356.03	1,962.1	346.1	-24.0	347.0	0.00	0.00	
2,100.0	13.08	356.03	2,059.5	368.7	-25.6	369.6	0.00	0.00	
2,200.0	13.08	356.03	2,156.9	391.3	-27.2	392.2	0.00	0.00	
2,300.0	13.08	356.03	2,254.3	413.9	-28.7	414.9	0.00	0.00	
2,400.0	13.08	356.03	2,351.7	436.4	-30.3	437.5	0.00	0.00	
2,500.0	13.08	356.03	2,449.1	459.0	-31.9	460.1	0.00	0.00	
2,600.0	13.08	356.03	2,546.5	481.6	-33.4	482.8	0.00	0.00	
2,700.0	13.08	356.03	2,644.0	504.2	-35.0	505.4	0.00	0.00	
2,800.0	13.08	356.03	2,741.4	526.8	-36.6	528.0	0.00	0.00	
2,900.0	13.08	356.03	2,838.8	549.3	-38.1	550.7	0.00	0.00	
3,000.0	13.08	356.03	2,936.2	571.9	-39.7	573.3	0.00	0.00	
3,100.0	13.08	356.03	3,033.6	594.5	-41.3	595.9	0.00	0.00	
3,200.0	13.08	356.03	3,131.0	617.1	-42.8	618.6	0.00	0.00	
3,300.0	13.08	356.03	3,228.4	639.7	-44.4	641.2	0.00	0.00	
3,400.0	13.08	356.03	3,325.8	662.2	-46.0	663.8	0.00	0.00	
3,500.0	13.08	356.03	3,423.2	684.8	-47.5	686.5	0.00	0.00	
3,600.0	13.08	356.03	3,520.6	707.4	-49.1	709.1	0.00	0.00	
3,700.0	13.08	356.03	3,618.0	730.0	-50.7	731.7	0.00	0.00	
3,800.0	13.08	356.03	3,715.4	752.6	-52.2	754.4	0.00	0.00	
3,900.0	13.08	356.03	3,812.8	775.1	-53.8	777.0	0.00	0.00	
4,000.0	13.08	356.03	3,910.2	797.7	-55.4	799.6	0.00	0.00	
4,100.0	13.08	356.03	4,007.6	820.3	-56.9	822.3	0.00	0.00	
4,200.0	13.08	356.03	4,105.0	842.9	-58.5	844.9	0.00	0.00	
4,300.0	13.08	356.03	4,202.4	865.4	-60.1	867.5	0.00	0.00	
4,400.0	13.08	356.03	4,299.8	888.0	-61.6	890.2	0.00	0.00	
4,500.0	13.08	356.03	4,397.2	910.6	-63.2	912.8	0.00	0.00	
4,600.0	13.08	356.03	4,494.6	933.2	-64.8	935.4	0.00	0.00	
4,700.0	13.08	356.03	4,592.0	955.8	-66.4	958.1	0.00	0.00	
4,800.0	13.08	356.03	4,689.5	978.3	-67.9	980.7	0.00	0.00	
4,900.0	13.08	356.03	4,786.9	1,000.9	-69.5	1,003.3	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 12A-36-795
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8931.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8931.0usft
<b>Site:</b>	S36-T7S-R95W (36L)	<b>North Reference:</b>	True
<b>Well:</b>	12A-36-795	<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
5,000.0	13.08	356.03	4,884.3	1,023.5	-71.1	1,026.0	0.00	0.00	
5,100.0	13.08	356.03	4,981.7	1,046.1	-72.6	1,048.6	0.00	0.00	
5,200.0	13.08	356.03	5,079.1	1,068.7	-74.2	1,071.2	0.00	0.00	
5,300.0	13.08	356.03	5,176.5	1,091.2	-75.8	1,093.9	0.00	0.00	
5,400.0	13.08	356.03	5,273.9	1,113.8	-77.3	1,116.5	0.00	0.00	
5,500.0	13.08	356.03	5,371.3	1,136.4	-78.9	1,139.1	0.00	0.00	
5,600.0	13.08	356.03	5,468.7	1,159.0	-80.5	1,161.8	0.00	0.00	
5,700.0	13.08	356.03	5,566.1	1,181.6	-82.0	1,184.4	0.00	0.00	
5,800.0	13.08	356.03	5,663.5	1,204.1	-83.6	1,207.0	0.00	0.00	
5,900.0	13.08	356.03	5,760.9	1,226.7	-85.2	1,229.7	0.00	0.00	
6,000.0	13.08	356.03	5,858.3	1,249.3	-86.7	1,252.3	0.00	0.00	
6,100.0	13.08	356.03	5,955.7	1,271.9	-88.3	1,274.9	0.00	0.00	
6,200.0	13.08	356.03	6,053.1	1,294.5	-89.9	1,297.6	0.00	0.00	
6,300.0	13.08	356.03	6,150.5	1,317.0	-91.4	1,320.2	0.00	0.00	
6,400.0	13.08	356.03	6,247.9	1,339.6	-93.0	1,342.8	0.00	0.00	
6,500.0	13.08	356.03	6,345.3	1,362.2	-94.6	1,365.5	0.00	0.00	
6,600.0	13.08	356.03	6,442.7	1,384.8	-96.1	1,388.1	0.00	0.00	
6,700.0	13.08	356.03	6,540.1	1,407.4	-97.7	1,410.7	0.00	0.00	
6,800.0	13.08	356.03	6,637.5	1,429.9	-99.3	1,433.4	0.00	0.00	
6,900.0	13.08	356.03	6,735.0	1,452.5	-100.8	1,456.0	0.00	0.00	
7,000.0	13.08	356.03	6,832.4	1,475.1	-102.4	1,478.6	0.00	0.00	
7,042.7	13.08	356.03	6,874.0	1,484.7	-103.1	1,488.3	0.00	0.00	OHIO_CREEK
7,100.0	13.08	356.03	6,929.8	1,497.7	-104.0	1,501.3	0.00	0.00	
7,200.0	13.08	356.03	7,027.2	1,520.2	-105.5	1,523.9	0.00	0.00	
7,300.0	13.08	356.03	7,124.6	1,542.8	-107.1	1,546.5	0.00	0.00	
7,400.0	13.08	356.03	7,222.0	1,565.4	-108.7	1,569.2	0.00	0.00	
7,466.7	13.08	356.03	7,287.0	1,580.5	-109.7	1,584.3	0.00	0.00	WILLIAMS_FORK
7,500.0	13.08	356.03	7,319.4	1,588.0	-110.2	1,591.8	0.00	0.00	
7,600.0	13.08	356.03	7,416.8	1,610.6	-111.8	1,614.4	0.00	0.00	
7,611.2	13.08	356.03	7,427.7	1,613.1	-112.0	1,617.0	0.00	0.00	Start Drop -3.00
7,700.0	10.42	356.03	7,514.6	1,631.1	-113.2	1,635.1	3.00	-3.00	
7,800.0	7.42	356.03	7,613.4	1,646.6	-114.3	1,650.6	3.00	-3.00	
7,900.0	4.42	356.03	7,712.9	1,656.9	-115.0	1,660.9	3.00	-3.00	
8,000.0	1.42	356.03	7,812.7	1,662.0	-115.4	1,666.0	3.00	-3.00	
8,047.3	0.00	0.00	7,860.0	1,662.5	-115.4	1,666.5	3.00	-3.00	Start 2113.0 hold at 8047.3 MD
8,100.0	0.00	0.00	7,912.7	1,662.5	-115.4	1,666.5	0.00	0.00	
8,147.3	0.00	0.00	7,960.0	1,662.5	-115.4	1,666.5	0.00	0.00	TOP_GAS
8,200.0	0.00	0.00	8,012.7	1,662.5	-115.4	1,666.5	0.00	0.00	
8,300.0	0.00	0.00	8,112.7	1,662.5	-115.4	1,666.5	0.00	0.00	
8,400.0	0.00	0.00	8,212.7	1,662.5	-115.4	1,666.5	0.00	0.00	
8,500.0	0.00	0.00	8,312.7	1,662.5	-115.4	1,666.5	0.00	0.00	
8,600.0	0.00	0.00	8,412.7	1,662.5	-115.4	1,666.5	0.00	0.00	
8,700.0	0.00	0.00	8,512.7	1,662.5	-115.4	1,666.5	0.00	0.00	
8,800.0	0.00	0.00	8,612.7	1,662.5	-115.4	1,666.5	0.00	0.00	
8,900.0	0.00	0.00	8,712.7	1,662.5	-115.4	1,666.5	0.00	0.00	
9,000.0	0.00	0.00	8,812.7	1,662.5	-115.4	1,666.5	0.00	0.00	
9,100.0	0.00	0.00	8,912.7	1,662.5	-115.4	1,666.5	0.00	0.00	
9,200.0	0.00	0.00	9,012.7	1,662.5	-115.4	1,666.5	0.00	0.00	
9,300.0	0.00	0.00	9,112.7	1,662.5	-115.4	1,666.5	0.00	0.00	
9,400.0	0.00	0.00	9,212.7	1,662.5	-115.4	1,666.5	0.00	0.00	
9,500.0	0.00	0.00	9,312.7	1,662.5	-115.4	1,666.5	0.00	0.00	
9,600.0	0.00	0.00	9,412.7	1,662.5	-115.4	1,666.5	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 12A-36-795
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8931.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8931.0usft
<b>Site:</b>	S36-T7S-R95W (36L)	<b>North Reference:</b>	True
<b>Well:</b>	12A-36-795	<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
9,700.0	0.00	0.00	9,512.7	1,662.5	-115.4	1,666.5	0.00	0.00	
9,754.3	0.00	0.00	9,567.0	1,662.5	-115.4	1,666.5	0.00	0.00	CAMEO
9,800.0	0.00	0.00	9,612.7	1,662.5	-115.4	1,666.5	0.00	0.00	
9,900.0	0.00	0.00	9,712.7	1,662.5	-115.4	1,666.5	0.00	0.00	
10,000.0	0.00	0.00	9,812.7	1,662.5	-115.4	1,666.5	0.00	0.00	
10,010.3	0.00	0.00	9,823.0	1,662.5	-115.4	1,666.5	0.00	0.00	ROLLINS
10,100.0	0.00	0.00	9,912.7	1,662.5	-115.4	1,666.5	0.00	0.00	
10,160.3	0.00	0.00	9,973.0	1,662.5	-115.4	1,666.5	0.00	0.00	TD at 10160.3 - TD

Targets											
Target Name	- hit/miss target	- Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
12A-36-795 PBHL			0.00	0.00	9,973.0	1,662.5	-115.4	14,320,940.00	2,501,419.80	39.396771	-107.952558
- plan hits target center - Circle (radius 50.0)											

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,042.7	6,874.0	OHIO_CREEK				
7,466.7	7,287.0	WILLIAMS_FORK				
8,147.3	7,960.0	TOP_GAS				
9,754.3	9,567.0	CAMEO				
10,010.3	9,823.0	ROLLINS				
10,160.3	9,973.0	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
250.0	250.0	0.0	0.0	Start Build 3.00	
686.1	682.3	49.4	-3.4	Start 6925.2 hold at 686.1 MD	
7,611.2	7,427.7	1,613.1	-112.0	Start Drop -3.00	
8,047.3	7,860.0	1,662.5	-115.4	Start 2113.0 hold at 8047.3 MD	
10,160.3	9,973.0	1,662.5	-115.4	TD at 10160.3	