



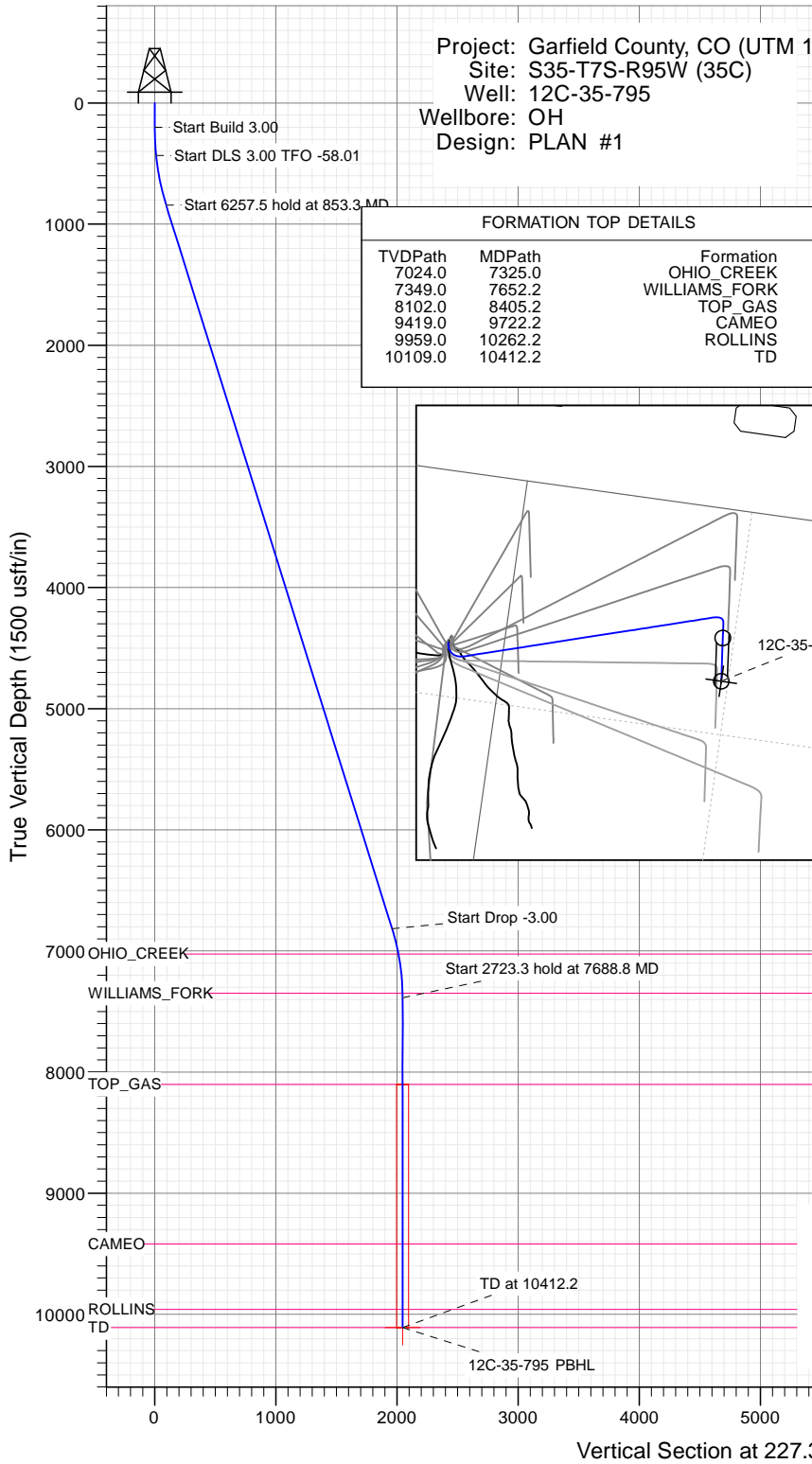
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	433.3	7.00	265.00	432.8	-1.2	-14.2	3.00	265.00	11.3	
4	853.3	17.34	226.62	843.3	-46.6	-85.5	3.00	-58.01	94.4	
5	7110.9	17.34	226.62	6816.5	-1327.4	-1441.0	0.00	0.00	1959.2	
6	7688.8	0.00	0.00	7385.7	-1387.0	-1504.1	3.00	180.00	2046.0	
7	10412.2	0.00	0.00	10109.0	-1387.0	-1504.1	0.00	0.00	2046.0	12C-35-795 PBHL

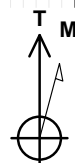
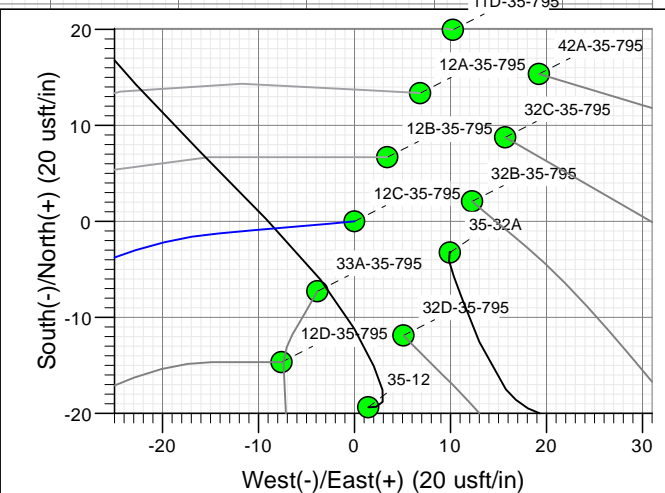
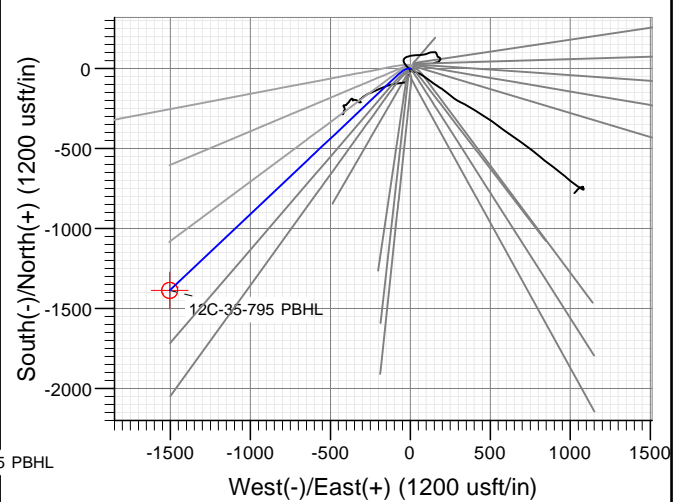
Project: Garfield County, CO (UTM 1
Site: S35-T7S-R95W (35C)
Well: 12C-35-795
Wellbore: OH
Design: PLAN #1

FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
7024.0	7325.0	OHIO_CREEK
7349.0	7652.2	WILLIAMS_FORK
8102.0	8405.2	TOP_GAS
9419.0	9722.2	CAMEO
9959.0	10262.2	ROLLINS
10109.0	10412.2	TD



Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	227.32	Slot	0.0	0.0	0.0
Name	12C-35-795 PBHL	TVD	+N/-S	+E/-W	Latitude	Longitude
		10109.0	-1387.0	-1504.1	39.398945	-107.971267



Azimuths to True North
Magnetic North: 9.43°
Magnetic Field
Strength: 51875.1snT
Dip Angle: 65.62°
Date: 1/18/2016
Model: HDGM

CASING DETAILS

No casing data is available

WELL DETAILS: 12C-35-795

+N/-S
0.0

+E/-W
0.0

Northing
14321604.30

Ground Level:
Easting
2497609.70

9236.0
Latitude
39.398945

Longitude
-107.965947

CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 12C-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9266.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9266.0usft
Site:	S35-T7S-R95W (35C)	North Reference:	True
Well:	12C-35-795	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	S35-T7S-R95W (35C)		
Site Position:		Northing:	14,321,562.10 usft
From:	Map	Easting:	2,497,589.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	39.398831
		Longitude:	-107.966023
		Grid Convergence:	1.93 °

Well	12C-35-795		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	39.398945
		Longitude:	-107.965947
		Ground Level:	9,236.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	1/18/2016	9.43	65.62	51,875

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	227.32

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
433.3	7.00	265.00	432.8	-1.2	-14.2	3.00	3.00	0.00	265.00	
853.3	17.34	226.62	843.3	-46.6	-85.5	3.00	2.46	-9.14	-58.01	
7,110.9	17.34	226.62	6,816.5	-1,327.4	-1,441.0	0.00	0.00	0.00	0.00	
7,688.8	0.00	0.00	7,385.7	-1,387.0	-1,504.1	3.00	-3.00	0.00	180.00	
10,412.2	0.00	0.00	10,109.0	-1,387.0	-1,504.1	0.00	0.00	0.00	0.00	12C-35-795 PBHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 12C-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9266.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9266.0usft
Site:	S35-T7S-R95W (35C)	North Reference:	True
Well:	12C-35-795	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
0.0	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	Start Build 3.00
300.0	3.00	265.00	300.0	-0.2	-2.6	2.1	3.00	3.00	
400.0	6.00	265.00	399.6	-0.9	-10.4	8.3	3.00	3.00	
433.3	7.00	265.00	432.8	-1.2	-14.2	11.3	3.00	3.00	Start DLS 3.00 TFO -58.01
500.0	8.24	253.07	498.8	-3.0	-22.8	18.8	3.00	1.85	
600.0	10.54	241.15	597.5	-9.5	-37.7	34.1	3.00	2.30	
700.0	13.12	233.66	695.4	-20.6	-54.8	54.3	3.00	2.58	
800.0	15.85	228.66	792.2	-36.4	-74.2	79.2	3.00	2.73	
853.3	17.34	226.62	843.3	-46.6	-85.5	94.4	3.00	2.80	Start 6257.5 hold at 853.3 MD
900.0	17.34	226.62	887.8	-56.2	-95.6	108.3	0.00	0.00	
1,000.0	17.34	226.62	983.3	-76.7	-117.2	138.1	0.00	0.00	
1,100.0	17.34	226.62	1,078.8	-97.1	-138.9	167.9	0.00	0.00	
1,200.0	17.34	226.62	1,174.2	-117.6	-160.6	197.7	0.00	0.00	
1,300.0	17.34	226.62	1,269.7	-138.1	-182.2	227.5	0.00	0.00	
1,400.0	17.34	226.62	1,365.1	-158.5	-203.9	257.3	0.00	0.00	
1,500.0	17.34	226.62	1,460.6	-179.0	-225.5	287.1	0.00	0.00	
1,600.0	17.34	226.62	1,556.0	-199.5	-247.2	316.9	0.00	0.00	
1,700.0	17.34	226.62	1,651.5	-219.9	-268.9	346.7	0.00	0.00	
1,800.0	17.34	226.62	1,746.9	-240.4	-290.5	376.5	0.00	0.00	
1,900.0	17.34	226.62	1,842.4	-260.9	-312.2	406.3	0.00	0.00	
2,000.0	17.34	226.62	1,937.9	-281.3	-333.9	436.1	0.00	0.00	
2,100.0	17.34	226.62	2,033.3	-301.8	-355.5	465.9	0.00	0.00	
2,200.0	17.34	226.62	2,128.8	-322.3	-377.2	495.7	0.00	0.00	
2,300.0	17.34	226.62	2,224.2	-342.7	-398.8	525.6	0.00	0.00	
2,400.0	17.34	226.62	2,319.7	-363.2	-420.5	555.4	0.00	0.00	
2,500.0	17.34	226.62	2,415.1	-383.7	-442.2	585.2	0.00	0.00	
2,600.0	17.34	226.62	2,510.6	-404.1	-463.8	615.0	0.00	0.00	
2,700.0	17.34	226.62	2,606.1	-424.6	-485.5	644.8	0.00	0.00	
2,800.0	17.34	226.62	2,701.5	-445.1	-507.2	674.6	0.00	0.00	
2,900.0	17.34	226.62	2,797.0	-465.5	-528.8	704.4	0.00	0.00	
3,000.0	17.34	226.62	2,892.4	-486.0	-550.5	734.2	0.00	0.00	
3,100.0	17.34	226.62	2,987.9	-506.5	-572.1	764.0	0.00	0.00	
3,200.0	17.34	226.62	3,083.3	-526.9	-593.8	793.8	0.00	0.00	
3,300.0	17.34	226.62	3,178.8	-547.4	-615.5	823.6	0.00	0.00	
3,400.0	17.34	226.62	3,274.2	-567.9	-637.1	853.4	0.00	0.00	
3,500.0	17.34	226.62	3,369.7	-588.3	-658.8	883.2	0.00	0.00	
3,600.0	17.34	226.62	3,465.2	-608.8	-680.5	913.0	0.00	0.00	
3,700.0	17.34	226.62	3,560.6	-629.3	-702.1	942.8	0.00	0.00	
3,800.0	17.34	226.62	3,656.1	-649.7	-723.8	972.6	0.00	0.00	
3,900.0	17.34	226.62	3,751.5	-670.2	-745.4	1,002.4	0.00	0.00	
4,000.0	17.34	226.62	3,847.0	-690.7	-767.1	1,032.2	0.00	0.00	
4,100.0	17.34	226.62	3,942.4	-711.2	-788.8	1,062.0	0.00	0.00	
4,200.0	17.34	226.62	4,037.9	-731.6	-810.4	1,091.8	0.00	0.00	
4,300.0	17.34	226.62	4,133.3	-752.1	-832.1	1,121.6	0.00	0.00	
4,400.0	17.34	226.62	4,228.8	-772.6	-853.8	1,151.4	0.00	0.00	
4,500.0	17.34	226.62	4,324.3	-793.0	-875.4	1,181.2	0.00	0.00	
4,600.0	17.34	226.62	4,419.7	-813.5	-897.1	1,211.0	0.00	0.00	
4,700.0	17.34	226.62	4,515.2	-834.0	-918.7	1,240.8	0.00	0.00	
4,800.0	17.34	226.62	4,610.6	-854.4	-940.4	1,270.6	0.00	0.00	
4,900.0	17.34	226.62	4,706.1	-874.9	-962.1	1,300.4	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 12C-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9266.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9266.0usft
Site:	S35-T7S-R95W (35C)	North Reference:	True
Well:	12C-35-795	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
5,000.0	17.34	226.62	4,801.5	-895.4	-983.7	1,330.2	0.00	0.00	
5,100.0	17.34	226.62	4,897.0	-915.8	-1,005.4	1,360.0	0.00	0.00	
5,200.0	17.34	226.62	4,992.4	-936.3	-1,027.1	1,389.8	0.00	0.00	
5,300.0	17.34	226.62	5,087.9	-956.8	-1,048.7	1,419.6	0.00	0.00	
5,400.0	17.34	226.62	5,183.4	-977.2	-1,070.4	1,449.4	0.00	0.00	
5,500.0	17.34	226.62	5,278.8	-997.7	-1,092.0	1,479.2	0.00	0.00	
5,600.0	17.34	226.62	5,374.3	-1,018.2	-1,113.7	1,509.0	0.00	0.00	
5,700.0	17.34	226.62	5,469.7	-1,038.6	-1,135.4	1,538.8	0.00	0.00	
5,800.0	17.34	226.62	5,565.2	-1,059.1	-1,157.0	1,568.6	0.00	0.00	
5,900.0	17.34	226.62	5,660.6	-1,079.6	-1,178.7	1,598.4	0.00	0.00	
6,000.0	17.34	226.62	5,756.1	-1,100.0	-1,200.4	1,628.2	0.00	0.00	
6,100.0	17.34	226.62	5,851.5	-1,120.5	-1,222.0	1,658.0	0.00	0.00	
6,200.0	17.34	226.62	5,947.0	-1,141.0	-1,243.7	1,687.8	0.00	0.00	
6,300.0	17.34	226.62	6,042.5	-1,161.4	-1,265.4	1,717.6	0.00	0.00	
6,400.0	17.34	226.62	6,137.9	-1,181.9	-1,287.0	1,747.4	0.00	0.00	
6,500.0	17.34	226.62	6,233.4	-1,202.4	-1,308.7	1,777.2	0.00	0.00	
6,600.0	17.34	226.62	6,328.8	-1,222.8	-1,330.3	1,807.0	0.00	0.00	
6,700.0	17.34	226.62	6,424.3	-1,243.3	-1,352.0	1,836.8	0.00	0.00	
6,800.0	17.34	226.62	6,519.7	-1,263.8	-1,373.7	1,866.6	0.00	0.00	
6,900.0	17.34	226.62	6,615.2	-1,284.2	-1,395.3	1,896.4	0.00	0.00	
7,000.0	17.34	226.62	6,710.6	-1,304.7	-1,417.0	1,926.2	0.00	0.00	
7,100.0	17.34	226.62	6,806.1	-1,325.2	-1,438.7	1,956.0	0.00	0.00	
7,110.9	17.34	226.62	6,816.5	-1,327.4	-1,441.0	1,959.2	0.00	0.00	Start Drop -3.00
7,200.0	14.66	226.62	6,902.1	-1,344.3	-1,458.9	1,983.8	3.00	-3.00	
7,300.0	11.66	226.62	6,999.5	-1,359.9	-1,475.4	2,006.5	3.00	-3.00	
7,325.0	10.92	226.62	7,024.0	-1,363.3	-1,479.0	2,011.4	3.00	-3.00	OHIO_CREEK
7,400.0	8.66	226.62	7,097.9	-1,372.0	-1,488.2	2,024.2	3.00	-3.00	
7,500.0	5.66	226.62	7,197.1	-1,380.6	-1,497.3	2,036.7	3.00	-3.00	
7,600.0	2.66	226.62	7,296.9	-1,385.6	-1,502.6	2,043.9	3.00	-3.00	
7,652.2	1.10	226.62	7,349.0	-1,386.8	-1,503.8	2,045.6	3.00	-3.00	WILLIAMS_FORK
7,688.8	0.00	0.00	7,385.7	-1,387.0	-1,504.1	2,046.0	3.00	-3.00	Start 2723.3 hold at 7688.8 MD
7,700.0	0.00	0.00	7,396.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
7,800.0	0.00	0.00	7,496.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
7,900.0	0.00	0.00	7,596.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,000.0	0.00	0.00	7,696.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,100.0	0.00	0.00	7,796.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,200.0	0.00	0.00	7,896.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,300.0	0.00	0.00	7,996.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,400.0	0.00	0.00	8,096.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,405.2	0.00	0.00	8,102.0	-1,387.0	-1,504.1	2,046.0	0.00	0.00	TOP_GAS
8,500.0	0.00	0.00	8,196.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,600.0	0.00	0.00	8,296.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,700.0	0.00	0.00	8,396.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,800.0	0.00	0.00	8,496.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
8,900.0	0.00	0.00	8,596.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
9,000.0	0.00	0.00	8,696.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
9,100.0	0.00	0.00	8,796.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
9,200.0	0.00	0.00	8,896.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
9,300.0	0.00	0.00	8,996.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
9,400.0	0.00	0.00	9,096.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
9,500.0	0.00	0.00	9,196.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
9,600.0	0.00	0.00	9,296.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 12C-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9266.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9266.0usft
Site:	S35-T7S-R95W (35C)	North Reference:	True
Well:	12C-35-795	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
9,700.0	0.00	0.00	9,396.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
9,722.2	0.00	0.00	9,419.0	-1,387.0	-1,504.1	2,046.0	0.00	0.00	CAMEO
9,800.0	0.00	0.00	9,496.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
9,900.0	0.00	0.00	9,596.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
10,000.0	0.00	0.00	9,696.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
10,100.0	0.00	0.00	9,796.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
10,200.0	0.00	0.00	9,896.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
10,262.2	0.00	0.00	9,959.0	-1,387.0	-1,504.1	2,046.0	0.00	0.00	ROLLINS
10,300.0	0.00	0.00	9,996.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
10,400.0	0.00	0.00	10,096.8	-1,387.0	-1,504.1	2,046.0	0.00	0.00	
10,412.2	0.00	0.00	10,109.0	-1,387.0	-1,504.1	2,046.0	0.00	0.00	TD at 10412.2 - TD

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
12C-35-795 PBHL - hit/miss target - Shape - plan hits target center - Circle (radius 50.0)	0.00	0.00	10,109.0	-1,387.0	-1,504.1	14,320,167.50	2,496,153.10	39.395139	-107.971267

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,325.0	7,024.0	OHIO_CREEK				
7,652.2	7,349.0	WILLIAMS_FORK				
8,405.2	8,102.0	TOP_GAS				
9,722.2	9,419.0	CAMEO		0.00		
10,262.2	9,959.0	ROLLINS				
10,412.2	10,109.0	TD				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.0	200.0	0.0	0.0	Start Build 3.00
433.3	432.8	-1.2	-14.2	Start DLS 3.00 TFO -58.01
853.3	843.3	-46.6	-85.5	Start 6257.5 hold at 853.3 MD
7,110.9	6,816.5	-1,327.4	-1,441.0	Start Drop -3.00
7,688.8	7,385.7	-1,387.0	-1,504.1	Start 2723.3 hold at 7688.8 MD
10,412.2	10,109.0	-1,387.0	-1,504.1	TD at 10412.2