

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 11A-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.0usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 11A-17	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		S17-T6S-R96W (PC5A)			
Site Position:		Northing:	14,367,212.50 usft	Latitude:	39.528318
From:	Map	Easting:	2,450,041.70 usft	Longitude:	-108.128972
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.83 °

Well	CHEVRON 11A-17					
Well Position	+N/-S	0.0 usft	Northing:	14,367,212.50 usft	Latitude:	39.528318
	+E/-W	0.0 usft	Easting:	2,450,041.70 usft	Longitude:	-108.128972
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	5,583.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/10/2015	9.82	65.93	51,889

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	294.89

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	
1,430.2	36.90	294.89	1,346.8	161.0	-347.1	3.00	3.00	0.00	294.89	
4,305.6	36.90	294.89	3,646.2	887.7	-1,913.5	0.00	0.00	0.00	0.00	
5,535.8	0.00	0.00	4,793.0	1,048.8	-2,260.6	3.00	-3.00	0.00	180.00	
7,834.8	0.00	0.00	7,092.0	1,048.8	-2,260.6	0.00	0.00	0.00	0.00	CHEVRON 11A-17 PI

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Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.0usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 11A-17	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	294.89	300.0	1.1	-2.4	2.6	3.00	3.00	
400.0	6.00	294.89	399.6	4.4	-9.5	10.5	3.00	3.00	
500.0	9.00	294.89	498.8	9.9	-21.3	23.5	3.00	3.00	
600.0	12.00	294.89	597.1	17.6	-37.9	41.7	3.00	3.00	
700.0	15.00	294.89	694.3	27.4	-59.0	65.1	3.00	3.00	
800.0	18.00	294.89	790.2	39.3	-84.8	93.5	3.00	3.00	
900.0	21.00	294.89	884.4	53.4	-115.1	126.9	3.00	3.00	
1,000.0	24.00	294.89	976.8	69.5	-149.8	165.1	3.00	3.00	
1,100.0	27.00	294.89	1,067.1	87.6	-188.8	208.2	3.00	3.00	
1,200.0	30.00	294.89	1,154.9	107.7	-232.1	255.9	3.00	3.00	
1,300.0	33.00	294.89	1,240.2	129.7	-279.5	308.1	3.00	3.00	
1,400.0	36.00	294.89	1,322.6	153.5	-330.9	364.8	3.00	3.00	
1,430.2	36.90	294.89	1,346.8	161.0	-347.1	382.7	3.00	3.00	Start 2875.4 hold at 1430.2 MD
1,500.0	36.90	294.89	1,402.7	178.7	-385.2	424.6	0.00	0.00	
1,600.0	36.90	294.89	1,482.7	204.0	-439.6	484.7	0.00	0.00	
1,700.0	36.90	294.89	1,562.6	229.2	-494.1	544.7	0.00	0.00	
1,800.0	36.90	294.89	1,642.6	254.5	-548.6	604.8	0.00	0.00	
1,900.0	36.90	294.89	1,722.5	279.8	-603.1	664.8	0.00	0.00	
2,000.0	36.90	294.89	1,802.5	305.1	-657.5	724.9	0.00	0.00	
2,100.0	36.90	294.89	1,882.5	330.3	-712.0	784.9	0.00	0.00	
2,200.0	36.90	294.89	1,962.4	355.6	-766.5	845.0	0.00	0.00	
2,300.0	36.90	294.89	2,042.4	380.9	-821.0	905.0	0.00	0.00	
2,400.0	36.90	294.89	2,122.4	406.1	-875.4	965.0	0.00	0.00	
2,500.0	36.90	294.89	2,202.3	431.4	-929.9	1,025.1	0.00	0.00	
2,600.0	36.90	294.89	2,282.3	456.7	-984.4	1,085.1	0.00	0.00	
2,700.0	36.90	294.89	2,362.3	482.0	-1,038.8	1,145.2	0.00	0.00	
2,800.0	36.90	294.89	2,442.2	507.2	-1,093.3	1,205.2	0.00	0.00	
2,900.0	36.90	294.89	2,522.2	532.5	-1,147.8	1,265.3	0.00	0.00	
3,000.0	36.90	294.89	2,602.1	557.8	-1,202.3	1,325.3	0.00	0.00	
3,100.0	36.90	294.89	2,682.1	583.0	-1,256.7	1,385.4	0.00	0.00	
3,200.0	36.90	294.89	2,762.1	608.3	-1,311.2	1,445.4	0.00	0.00	
3,300.0	36.90	294.89	2,842.0	633.6	-1,365.7	1,505.5	0.00	0.00	
3,400.0	36.90	294.89	2,922.0	658.9	-1,420.1	1,565.5	0.00	0.00	
3,500.0	36.90	294.89	3,002.0	684.1	-1,474.6	1,625.6	0.00	0.00	
3,600.0	36.90	294.89	3,081.9	709.4	-1,529.1	1,685.6	0.00	0.00	
3,700.0	36.90	294.89	3,161.9	734.7	-1,583.6	1,745.7	0.00	0.00	
3,800.0	36.90	294.89	3,241.8	759.9	-1,638.0	1,805.7	0.00	0.00	
3,900.0	36.90	294.89	3,321.8	785.2	-1,692.5	1,865.8	0.00	0.00	
4,000.0	36.90	294.89	3,401.8	810.5	-1,747.0	1,925.8	0.00	0.00	
4,100.0	36.90	294.89	3,481.7	835.8	-1,801.5	1,985.9	0.00	0.00	
4,200.0	36.90	294.89	3,561.7	861.0	-1,855.9	2,045.9	0.00	0.00	
4,300.0	36.90	294.89	3,641.7	886.3	-1,910.4	2,106.0	0.00	0.00	
4,305.6	36.90	294.89	3,646.2	887.7	-1,913.5	2,109.3	0.00	0.00	Start Drop -3.00
4,400.0	34.07	294.89	3,723.0	910.8	-1,963.2	2,164.1	3.00	-3.00	
4,500.0	31.07	294.89	3,807.3	933.4	-2,012.0	2,218.0	3.00	-3.00	
4,532.2	30.11	294.89	3,835.0	940.3	-2,026.9	2,234.4	3.00	-3.00	OHIO_CREEK.MBL (SSTVD)
4,600.0	28.07	294.89	3,894.2	954.2	-2,056.8	2,267.3	3.00	-3.00	
4,700.0	25.07	294.89	3,983.6	973.0	-2,097.3	2,312.0	3.00	-3.00	
4,800.0	22.07	294.89	4,075.3	989.8	-2,133.6	2,352.0	3.00	-3.00	

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Well:	CHEVRON 11A-17	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
4,855.5	20.41	294.89	4,127.0	998.3	-2,151.8	2,372.1	3.00	-3.00	WILLIAMS_FORK.MBL (SSTVD)
4,900.0	19.07	294.89	4,168.9	1,004.6	-2,165.5	2,387.2	3.00	-3.00	
5,000.0	16.07	294.89	4,264.2	1,017.3	-2,192.9	2,417.4	3.00	-3.00	
5,100.0	13.07	294.89	4,361.0	1,027.9	-2,215.7	2,442.5	3.00	-3.00	
5,200.0	10.07	294.89	4,459.0	1,036.4	-2,233.9	2,462.6	3.00	-3.00	
5,300.0	7.07	294.89	4,557.8	1,042.6	-2,247.4	2,477.5	3.00	-3.00	
5,400.0	4.07	294.89	4,657.3	1,046.7	-2,256.2	2,487.2	3.00	-3.00	
5,500.0	1.07	294.89	4,757.2	1,048.6	-2,260.3	2,491.7	3.00	-3.00	
5,535.8	0.00	0.00	4,793.0	1,048.8	-2,260.6	2,492.0	3.00	-3.00	Start 2299.0 hold at 5535.8 MD
5,600.0	0.00	0.00	4,857.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
5,635.8	0.00	0.00	4,893.0	1,048.8	-2,260.6	2,492.0	0.00	0.00	TOP_GAS.MBL (SSTVD)
5,700.0	0.00	0.00	4,957.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
5,800.0	0.00	0.00	5,057.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
5,900.0	0.00	0.00	5,157.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,000.0	0.00	0.00	5,257.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,100.0	0.00	0.00	5,357.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,200.0	0.00	0.00	5,457.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,300.0	0.00	0.00	5,557.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,400.0	0.00	0.00	5,657.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,500.0	0.00	0.00	5,757.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,600.0	0.00	0.00	5,857.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,700.0	0.00	0.00	5,957.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,800.0	0.00	0.00	6,057.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
6,900.0	0.00	0.00	6,157.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,000.0	0.00	0.00	6,257.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,100.0	0.00	0.00	6,357.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,200.0	0.00	0.00	6,457.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,214.8	0.00	0.00	6,472.0	1,048.8	-2,260.6	2,492.0	0.00	0.00	CAMEO.MBL (SSTVD)
7,300.0	0.00	0.00	6,557.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,400.0	0.00	0.00	6,657.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,500.0	0.00	0.00	6,757.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,600.0	0.00	0.00	6,857.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,684.8	0.00	0.00	6,942.0	1,048.8	-2,260.6	2,492.0	0.00	0.00	ROLLINS.MBL (SSTVD)
7,700.0	0.00	0.00	6,957.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,800.0	0.00	0.00	7,057.2	1,048.8	-2,260.6	2,492.0	0.00	0.00	
7,834.8	0.00	0.00	7,092.0	1,048.8	-2,260.6	2,492.0	0.00	0.00	TD at 7834.8 - TD.MBL (SSTVD)

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CHEVRON 11A-17 PBH	0.00	0.00	7,092.0	1,048.8	-2,260.6	14,368,188.60	2,447,748.80	39.531196	-108.136983
- hit/miss target									
- Shape									
- Circle (radius 50.0)									

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 11A-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.0usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 11A-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,532.2	3,835.0	OHIO_CREEK.MBL (SSTVD)		0.00		
4,855.5	4,127.0	WILLIAMS_FORK.MBL (SSTVD)		0.00		
5,635.8	4,893.0	TOP_GAS.MBL (SSTVD)		0.00		
7,214.8	6,472.0	CAMEO.MBL (SSTVD)		0.00		
7,684.8	6,942.0	ROLLINS.MBL (SSTVD)		0.00		
7,834.8	7,092.0	TD.MBL (SSTVD)		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.0	200.0	0.0	0.0	Start Build 3.00	
1,430.2	1,346.8	161.0	-347.1	Start 2875.4 hold at 1430.2 MD	
4,305.6	3,646.2	887.7	-1,913.5	Start Drop -3.00	
5,535.8	4,793.0	1,048.8	-2,260.6	Start 2299.0 hold at 5535.8 MD	
7,834.8	7,092.0	1,048.8	-2,260.6	TD at 7834.8	