

Fed 11C-24  
Garfield County, CO  
Q192115 & RM-191825  
Design #2

Company Name: Caerus Oil & Gas  
Fed 11C-24  
Garfield County, CO  
Rig: H&P #329  
Created By: Will Jircik  
Date: 14:02, December 17 2019

PROJECT DETAILS:	Garfield County, CO
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 - Western US
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
System Datum:	Mean Sea Level

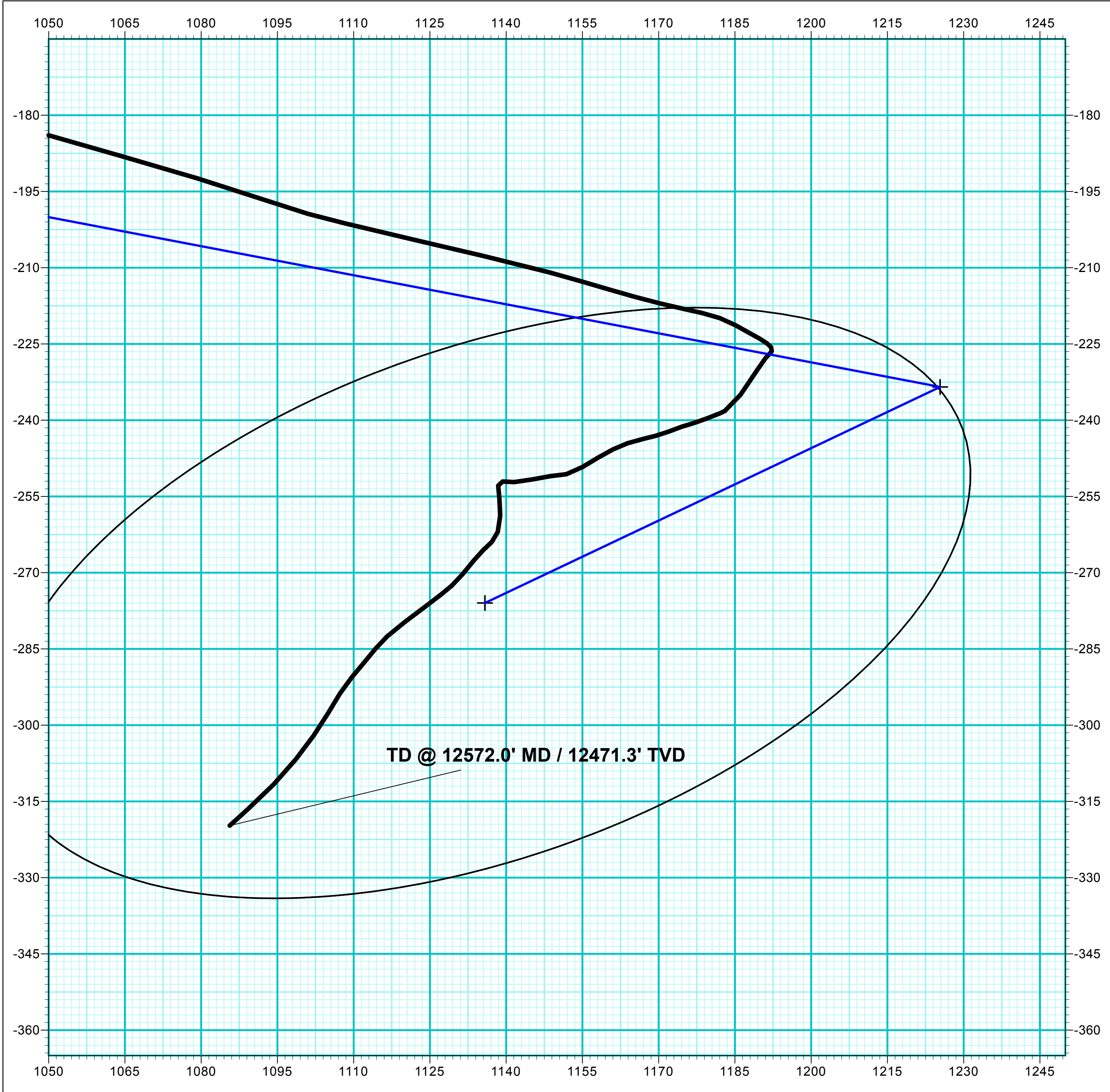
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
6188.0	6259.1	Wasatch G
6715.0	6792.9	Fort Union
8495.0	8693.0	Ohio Creek
8823.0	8921.0	Williams Fork
8873.0	8971.1	TOG
11759.0	11858.0	Cameo
12259.0	12358.1	Rollins

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OhioCreek 11C-24	8495.0	-233.5	1225.4	14427355.45	2450370.13	39.693259	-108.120978
PBHL - 11C-24	12459.0	-276.0	1135.8	14427310.10	2450262.00	39.693143	-108.121296

WELL DETAILS: Fed 11C-24						
				8128.0		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	14427549.50	2449137.90	39.693900	-108.125386	Fed 11C-24

DESIGN ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.0	Build 3" / 100'	
703.2	9.10	100.79	701.9	-4.5	23.6	24.0	24.0	EOB @ 9.10° Inc. / 100.79° Azm	
8289.7	9.10	100.79	8193.1	-229.0	1201.8	1221.9	1223.4	Drop 3" / 100'	
8593.0	0.00	0.00	8495.0	-233.5	1225.4	1245.9	1247.4	EOB @ Vertical / Build 1.5" / 100'	
8699.6	1.45	244.61	8591.7	-234.0	1224.3	1244.9	1248.6	EOB @ 1.45° Inc. / 244.61° Azm	
12558.2	1.45	244.61	12459.0	-276.0	1135.8	1168.9	1346.5	TD @ 12558.2' MD / 12459.0' TVD	

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation	
128.0	0.00	0.00	128.0	0.0	0.0	0.0	0.0	First MWD Survey @ 128.0' MD / 128.0' TVD	
12572.0	4.60	227.90	12471.3	-319.8	1085.6	1130.4	1371.1	TD @ 12572.0' MD / 12471.3' TVD	



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M

Azimuths to True North

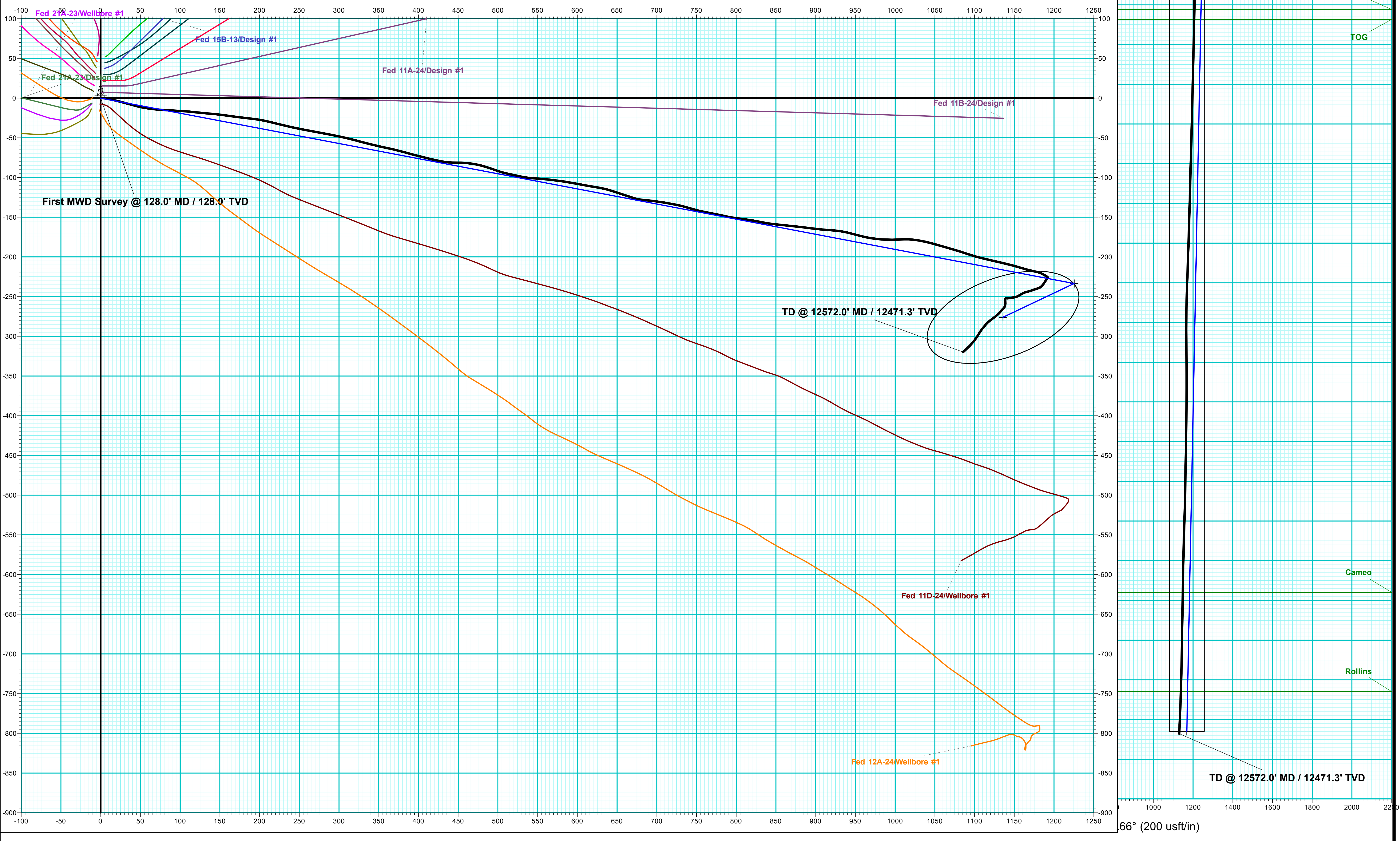
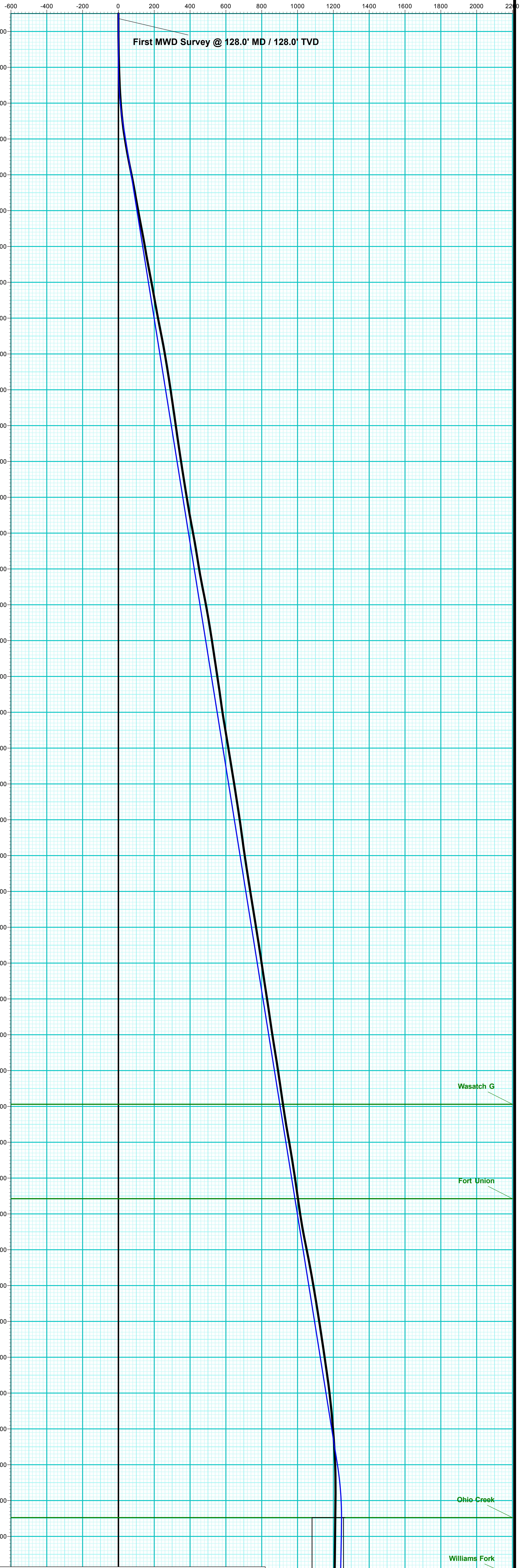
Magnetic North: 9.48°

Strength: 51231.5nT

Dip Angle: 65.82°

Date: 12/8/2019

Model: HDGM\_FILE







## **Caerus Oil & Gas**

**Garfield County, CO**

**Sec 24, T4S, R96W**

**Fed 11C-24 - Slot Fed 11C-24**

**Wellbore #1**

**Design: Wellbore #1**

## **QES Survey Report**

**17 December, 2019**



<b>Company:</b>	Caerus Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Fed 11C-24 - Slot Fed 11C-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	RKB @ 8158.0usft (H&P #329)
<b>Site:</b>	Sec 24, T4S, R96W	<b>MD Reference:</b>	RKB @ 8158.0usft (H&P #329)
<b>Well:</b>	Fed 11C-24	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Garfield County, CO		
<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>	Sec 24, T4S, R96W		
<b>Site Position:</b>		<b>Northing:</b>	14,427,542.90 usft
<b>From:</b>	Map	<b>Easting:</b>	2,449,127.20 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	39.693883
		<b>Longitude:</b>	-108.125370
		<b>Grid Convergence:</b>	1.84 °

<b>Well</b>	Fed 11C-24 - Slot Fed 11C-24		
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 usft		<b>Wellhead Elevation:</b>
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<b>Wellbore</b>	Wellbore #1		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>
			(°)
	HDGM_FILE	12/8/2019	9.48
			<b>Dip Angle</b>
			(°)
			65.82
			<b>Field Strength</b>
			(nT)
			51,231.50000000

<b>Design</b>	Wellbore #1		
<b>Audit Notes:</b>			
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL
		<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			<b>Direction</b>
			(°)
			103.66

<b>Survey Program</b>	<b>Date</b>	12/17/2019		
<b>From</b>	<b>To</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
(usft)	(usft)			
128.0	12,572.0	QES MWD Surveys (Wellbore #1)	MWD	OWSG MWD - Standard

<b>Survey</b>									
<b>Measured</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Vertical</b>	<b>Dogleg</b>	<b>Build</b>	<b>Turn</b>
<b>Depth</b>	(°)	(°)	<b>Depth</b>	<b>(usft)</b>	<b>(usft)</b>	<b>Section</b>	<b>Rate</b>	<b>Rate</b>	<b>Rate</b>
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>First MWD Survey @ 128.0' MD / 128.0' TVD</b>									
128.0	0.00	0.00	128.0	0.0	0.0	0.0	0.00	0.00	0.00
329.0	1.10	89.20	329.0	0.0	1.9	1.9	0.55	0.55	0.00
511.0	2.60	101.10	510.9	-0.7	7.7	7.7	0.85	0.82	6.54
605.0	4.50	101.40	604.7	-1.9	13.4	13.5	2.02	2.02	0.32
699.0	6.40	104.00	698.3	-3.9	22.1	22.4	2.04	2.02	2.77
794.0	8.90	105.70	792.4	-7.1	34.3	35.1	2.64	2.63	1.79
888.0	10.50	103.20	885.1	-11.1	49.7	50.9	1.76	1.70	-2.66
982.0	11.80	95.80	977.3	-14.0	67.6	69.0	2.05	1.38	-7.87
1,077.0	10.60	92.50	1,070.5	-15.4	86.0	87.2	1.43	-1.26	-3.47

<b>Company:</b>	Caerus Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Fed 11C-24 - Slot Fed 11C-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	RKB @ 8158.0usft (H&P #329)
<b>Site:</b>	Sec 24, T4S, R96W	<b>MD Reference:</b>	RKB @ 8158.0usft (H&P #329)
<b>Well:</b>	Fed 11C-24	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,172.0	10.10	93.90	1,163.9	-16.3	103.0	104.0	0.59	-0.53	1.47
1,266.0	11.00	96.80	1,256.4	-17.9	120.2	121.0	1.11	0.96	3.09
1,360.0	10.70	94.20	1,348.7	-19.6	137.8	138.5	0.61	-0.32	-2.77
1,454.0	9.70	98.00	1,441.2	-21.4	154.3	155.0	1.28	-1.06	4.04
1,549.0	11.20	97.80	1,534.6	-23.7	171.4	172.1	1.58	1.58	-0.21
1,643.0	10.40	95.50	1,626.9	-25.8	188.9	189.6	0.97	-0.85	-2.45
1,737.0	10.00	101.70	1,719.5	-28.3	205.3	206.2	1.24	-0.43	6.60
1,832.0	11.00	105.00	1,812.9	-32.3	222.1	223.5	1.23	1.05	3.47
1,925.0	11.30	101.70	1,904.1	-36.4	239.6	241.5	0.76	0.32	-3.55
2,020.0	9.80	101.20	1,997.5	-39.9	256.7	258.8	1.58	-1.58	-0.53
2,114.0	9.10	100.60	2,090.2	-42.8	271.8	274.2	0.75	-0.74	-0.64
2,208.0	8.80	100.10	2,183.1	-45.4	286.2	288.8	0.33	-0.32	-0.53
2,303.0	8.10	102.50	2,277.1	-48.2	299.9	302.8	0.82	-0.74	2.53
2,397.0	8.10	104.00	2,370.1	-51.2	312.8	316.0	0.22	0.00	1.60
2,492.0	8.10	104.70	2,464.2	-54.5	325.8	329.4	0.10	0.00	0.74
2,586.0	8.70	104.40	2,557.2	-58.0	339.1	343.1	0.64	0.64	-0.32
2,681.0	8.90	102.20	2,651.0	-61.3	353.2	357.7	0.41	0.21	-2.32
2,775.0	9.10	102.00	2,743.9	-64.4	367.6	372.4	0.22	0.21	-0.21
2,870.0	9.40	106.50	2,837.7	-68.1	382.4	387.6	0.82	0.32	4.74
2,964.0	10.50	103.90	2,930.2	-72.4	398.0	403.9	1.26	1.17	-2.77
3,059.0	10.50	104.00	3,023.6	-76.6	414.8	421.2	0.02	0.00	0.11
3,107.0	9.80	102.10	3,070.9	-78.5	423.1	429.6	1.62	-1.46	-3.96
3,168.0	8.80	98.90	3,131.1	-80.3	432.8	439.5	1.84	-1.64	-5.25
3,262.0	10.20	89.20	3,223.8	-81.3	448.2	454.7	2.26	1.49	-10.32
3,356.0	11.60	97.40	3,316.1	-82.4	465.9	472.2	2.22	1.49	8.72
3,451.0	10.70	107.50	3,409.3	-86.3	483.8	490.5	2.26	-0.95	10.63
3,545.0	8.80	110.10	3,502.0	-91.4	498.8	506.3	2.07	-2.02	2.77
3,639.0	9.40	101.60	3,594.8	-95.4	513.1	521.1	1.56	0.64	-9.04
3,734.0	8.20	103.30	3,688.7	-98.5	527.3	535.7	1.29	-1.26	1.79
3,828.0	8.90	95.20	3,781.6	-100.7	541.1	549.6	1.48	0.74	-8.62
3,923.0	8.10	93.10	3,875.6	-101.7	555.1	563.4	0.90	-0.84	-2.21
4,017.0	8.20	98.30	3,968.6	-103.0	568.3	576.6	0.79	0.11	5.53
4,112.0	9.40	97.00	4,062.5	-105.0	582.7	591.0	1.28	1.26	-1.37
4,206.0	9.70	102.40	4,155.2	-107.6	598.1	606.6	1.00	0.32	5.74
4,300.0	9.00	98.90	4,248.0	-110.4	613.1	621.8	0.96	-0.74	-3.72
4,395.0	9.40	100.10	4,341.7	-113.0	628.1	637.0	0.47	0.42	1.26
4,490.0	9.00	108.00	4,435.5	-116.6	642.8	652.1	1.39	-0.42	8.32
4,585.0	8.60	108.40	4,529.4	-121.1	656.6	666.6	0.43	-0.42	0.42
4,680.0	8.40	108.10	4,623.4	-125.5	669.9	680.6	0.22	-0.21	-0.32
4,774.0	7.50	94.80	4,716.5	-128.2	682.5	693.5	2.17	-0.96	-14.15
4,869.0	8.70	97.00	4,810.5	-129.6	695.9	706.8	1.30	1.26	2.32
4,964.0	8.80	99.80	4,904.4	-131.7	710.2	721.2	0.46	0.11	2.95
5,059.0	9.10	100.90	4,998.3	-134.4	724.7	735.9	0.36	0.32	1.16

<b>Company:</b>	Caerus Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Fed 11C-24 - Slot Fed 11C-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	RKB @ 8158.0usft (H&P #329)
<b>Site:</b>	Sec 24, T4S, R96W	<b>MD Reference:</b>	RKB @ 8158.0usft (H&P #329)
<b>Well:</b>	Fed 11C-24	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,154.0	9.20	107.70	5,092.1	-138.1	739.3	751.0	1.14	0.11	7.16	
5,248.0	9.20	102.70	5,184.8	-142.0	753.8	766.0	0.85	0.00	-5.32	
5,342.0	8.90	100.50	5,277.7	-145.0	768.3	780.8	0.49	-0.32	-2.34	
5,437.0	8.80	101.80	5,371.5	-147.8	782.6	795.4	0.24	-0.11	1.37	
5,531.0	8.10	100.60	5,464.5	-150.5	796.2	809.2	0.77	-0.74	-1.28	
5,626.0	9.20	96.20	5,558.4	-152.6	810.3	823.4	1.35	1.16	-4.63	
5,720.0	8.50	101.60	5,651.3	-154.8	824.6	837.8	1.15	-0.74	5.74	
5,814.0	7.90	100.30	5,744.4	-157.3	837.7	851.2	0.67	-0.64	-1.38	
5,909.0	9.60	95.40	5,838.3	-159.2	852.0	865.5	1.95	1.79	-5.16	
6,003.0	9.00	96.40	5,931.0	-160.8	867.1	880.6	0.66	-0.64	1.06	
6,097.0	8.70	95.90	6,023.9	-162.3	881.5	894.9	0.33	-0.32	-0.53	
6,192.0	8.10	98.30	6,117.9	-164.1	895.3	908.7	0.73	-0.63	2.53	
6,286.0	8.50	94.60	6,210.9	-165.6	908.8	922.2	0.71	0.43	-3.94	
6,380.0	9.80	94.30	6,303.7	-166.7	923.7	936.9	1.38	1.38	-0.32	
6,474.0	10.10	103.50	6,396.3	-169.2	939.7	953.1	1.72	0.32	9.79	
6,569.0	9.20	105.50	6,489.9	-173.2	955.1	969.0	1.01	-0.95	2.11	
6,663.0	8.40	99.10	6,582.8	-176.3	969.1	983.3	1.34	-0.85	-6.81	
6,757.0	8.20	95.00	6,675.9	-178.0	982.6	996.8	0.66	-0.21	-4.36	
6,852.0	8.50	88.00	6,769.9	-178.3	996.3	1,010.3	1.11	0.32	-7.37	
6,946.0	10.00	88.10	6,862.6	-177.8	1,011.4	1,024.8	1.60	1.60	0.11	
7,040.0	11.70	99.50	6,955.0	-179.1	1,029.0	1,042.2	2.90	1.81	12.13	
7,135.0	11.00	105.70	7,048.1	-183.2	1,047.2	1,060.9	1.48	-0.74	6.53	
7,230.0	10.10	106.20	7,141.5	-187.9	1,063.9	1,078.2	0.95	-0.95	0.53	
7,324.0	9.50	106.40	7,234.1	-192.4	1,079.3	1,094.2	0.64	-0.64	0.21	
7,418.0	9.20	109.30	7,326.9	-197.1	1,093.8	1,109.4	0.59	-0.32	3.09	
7,513.0	9.00	102.80	7,420.7	-201.3	1,108.2	1,124.4	1.10	-0.21	-6.84	
7,608.0	8.30	103.90	7,514.6	-204.6	1,122.1	1,138.7	0.76	-0.74	1.16	
7,702.0	8.30	102.50	7,607.6	-207.6	1,135.4	1,152.3	0.21	0.00	-1.49	
7,797.0	8.20	105.40	7,701.6	-210.9	1,148.6	1,165.9	0.45	-0.11	3.05	
7,891.0	6.70	106.70	7,794.8	-214.3	1,160.3	1,178.1	1.61	-1.60	1.38	
7,986.0	5.70	103.60	7,889.3	-217.0	1,170.2	1,188.3	1.11	-1.05	-3.26	
8,081.0	4.60	102.00	7,983.9	-218.9	1,178.5	1,196.9	1.17	-1.16	-1.68	
8,175.0	4.10	119.30	8,077.6	-221.3	1,185.1	1,203.9	1.49	-0.53	18.40	
8,269.0	2.50	118.80	8,171.5	-224.0	1,189.9	1,209.1	1.70	-1.70	-0.53	
8,364.0	1.00	147.30	8,266.4	-225.6	1,192.1	1,211.7	1.78	-1.58	30.00	
8,458.0	0.40	252.00	8,360.4	-226.4	1,192.2	1,212.0	1.24	-0.64	111.38	
8,553.0	1.80	216.30	8,455.4	-227.7	1,191.0	1,211.1	1.57	1.47	-37.58	
8,647.0	1.60	213.20	8,549.4	-230.0	1,189.5	1,210.1	0.23	-0.21	-3.30	
8,744.0	1.90	214.60	8,646.3	-232.5	1,187.8	1,209.1	0.31	0.31	1.44	
8,836.0	1.90	213.70	8,738.3	-235.0	1,186.1	1,208.0	0.03	0.00	-0.98	
8,988.0	1.50	237.40	8,890.2	-238.2	1,183.0	1,205.8	0.53	-0.26	15.59	
9,024.0	1.70	250.60	8,926.2	-238.6	1,182.1	1,205.0	1.16	0.56	36.67	
9,119.0	1.80	246.40	9,021.1	-239.7	1,179.4	1,202.7	0.17	0.11	-4.42	

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<b>Site:</b>	Sec 24, T4S, R96W	<b>MD Reference:</b>	RKB @ 8158.0usft (H&P #329)
<b>Well:</b>	Fed 11C-24	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,213.0	1.40	256.40	9,115.1	-240.5	1,176.9	1,200.5	0.52	-0.43	10.64
9,308.0	1.70	250.40	9,210.1	-241.3	1,174.5	1,198.3	0.36	0.32	-6.32
9,402.0	1.50	248.10	9,304.0	-242.2	1,172.0	1,196.1	0.22	-0.21	-2.45
9,496.0	1.70	255.30	9,398.0	-243.0	1,169.5	1,193.9	0.30	0.21	7.66
9,591.0	1.70	256.30	9,492.9	-243.7	1,166.8	1,191.4	0.03	0.00	1.05
9,685.0	2.00	253.00	9,586.9	-244.5	1,163.9	1,188.7	0.34	0.32	-3.51
9,779.0	1.80	240.60	9,680.8	-245.7	1,161.0	1,186.2	0.49	-0.21	-13.19
9,874.0	2.10	241.70	9,775.8	-247.3	1,158.2	1,183.8	0.32	0.32	1.16
9,968.0	2.40	236.70	9,869.7	-249.2	1,155.0	1,181.2	0.38	0.32	-5.32
10,063.0	1.90	257.80	9,964.7	-250.6	1,151.8	1,178.4	0.98	-0.53	22.21
10,157.0	2.00	267.90	10,058.6	-251.0	1,148.7	1,175.5	0.38	0.11	10.74
10,251.0	2.50	253.20	10,152.5	-251.7	1,145.1	1,172.1	0.81	0.53	-15.64
10,346.0	1.80	273.70	10,247.5	-252.2	1,141.6	1,168.9	1.08	-0.74	21.58
10,440.0	1.00	270.30	10,341.4	-252.1	1,139.3	1,166.6	0.86	-0.85	-3.62
10,535.0	1.00	183.40	10,436.4	-252.9	1,138.4	1,166.0	1.45	0.00	-91.47
10,629.0	1.90	170.10	10,530.4	-255.2	1,138.7	1,166.7	1.02	0.96	-14.15
10,723.0	2.40	182.40	10,624.3	-258.7	1,138.8	1,167.7	0.72	0.53	13.09
10,817.0	1.60	197.40	10,718.3	-262.0	1,138.4	1,168.0	1.01	-0.85	15.96
10,912.0	1.30	226.60	10,813.2	-264.0	1,137.2	1,167.4	0.83	-0.32	30.74
11,006.0	1.50	227.10	10,907.2	-265.5	1,135.5	1,166.1	0.21	0.21	0.53
11,101.0	1.90	218.40	11,002.2	-267.6	1,133.6	1,164.8	0.50	0.42	-9.16
11,195.0	2.30	220.00	11,096.1	-270.3	1,131.4	1,163.3	0.43	0.43	1.70
11,289.0	1.60	228.20	11,190.1	-272.6	1,129.2	1,161.7	0.80	-0.74	8.72
11,383.0	1.90	232.50	11,284.0	-274.4	1,127.0	1,160.0	0.35	0.32	4.57
11,478.0	2.70	232.80	11,378.9	-276.7	1,124.0	1,157.6	0.84	0.84	0.32
11,572.0	3.30	233.20	11,472.8	-279.7	1,120.1	1,154.4	0.64	0.64	0.43
11,667.0	2.10	226.90	11,567.7	-282.5	1,116.6	1,151.7	1.30	-1.26	-6.63
11,761.0	2.00	219.80	11,661.6	-285.0	1,114.3	1,150.1	0.29	-0.11	-7.55
11,855.0	2.10	219.30	11,755.6	-287.5	1,112.2	1,148.6	0.11	0.11	-0.53
11,950.0	2.50	220.20	11,850.5	-290.5	1,109.7	1,146.9	0.42	0.42	0.95
12,044.0	2.50	212.20	11,944.4	-293.8	1,107.3	1,145.4	0.37	0.00	-8.51
12,139.0	3.00	210.30	12,039.3	-297.7	1,104.9	1,144.0	0.53	0.53	-2.00
12,233.0	3.40	215.10	12,133.2	-302.1	1,102.1	1,142.3	0.51	0.43	5.11
12,327.0	3.70	218.50	12,227.0	-306.7	1,098.6	1,140.0	0.39	0.32	3.62
12,422.0	4.30	224.20	12,321.7	-311.7	1,094.2	1,136.9	0.76	0.63	6.00
12,512.0	4.60	227.90	12,411.5	-316.5	1,089.2	1,133.1	0.46	0.33	4.11
TD @ 12572.0' MD / 12471.3' TVD									
12,572.0	4.60	227.90	12,471.3	-319.8	1,085.6	1,130.4	0.00	0.00	0.00

<b>Company:</b>	Caerus Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Fed 11C-24 - Slot Fed 11C-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	RKB @ 8158.0usft (H&P #329)
<b>Site:</b>	Sec 24, T4S, R96W	<b>MD Reference:</b>	RKB @ 8158.0usft (H&P #329)
<b>Well:</b>	Fed 11C-24	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
128.0	128.0	0.0	0.0	First MWD Survey @ 128.0' MD / 128.0' TVD
12,572.0	12,471.3	-319.8	1,085.6	TD @ 12572.0' MD / 12471.3' TVD

Checked By: _____	Approved By: _____	Date: _____
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