

Project: Rio Blanco County, CO
 Site: ELU M12 496
 Well: ELU M12 FED 15C-12 496
 Wellbore: OH
 Design: Design #4
 Latitude: 39.712863
 Longitude: -108.122911
 Ground Level: 7985.0
 RKB=26' @ 8011.0usft (TBD)

PROJECT DETAILS: Rio Blanco 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

REFERENCE INFORMATION

Vertical (TVD) Reference: RKB=26' @ 8011.0usft (TBD)
 Section (VS) Reference: Slot - 15C-12(0.0N, 0.0E)
 Measured Depth Reference: RKB=26' @ 8011.0usft (TBD)
 Calculation Method: Minimum Curvature

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
235.0	0.00	0.00	235.0	0.0	0.0	0.00	0.00	0.0	
501.7	8.00	110.00	500.8	-6.4	17.5	3.00	110.00	11.0	
714.7	8.00	157.20	711.9	-25.1	37.2	3.00	113.37	34.6	
5141.9	8.00	157.20	5096.1	-593.4	276.0	0.00	0.00	647.1	
5408.7	0.00	0.00	5362.0	-610.5	283.2	3.00	180.00	665.6	
8573.7	0.00	0.00	8527.0	-610.5	283.2	0.00	0.00	665.6	
9114.0	1.26	250.01	8657.8	-610.8	282.3	1.50	250.01	665.6	
12111.0	1.26	250.01	13111.0	-644.7	189.2	0.00	0.00	671.9	

DESIGN TARGET DETAILS

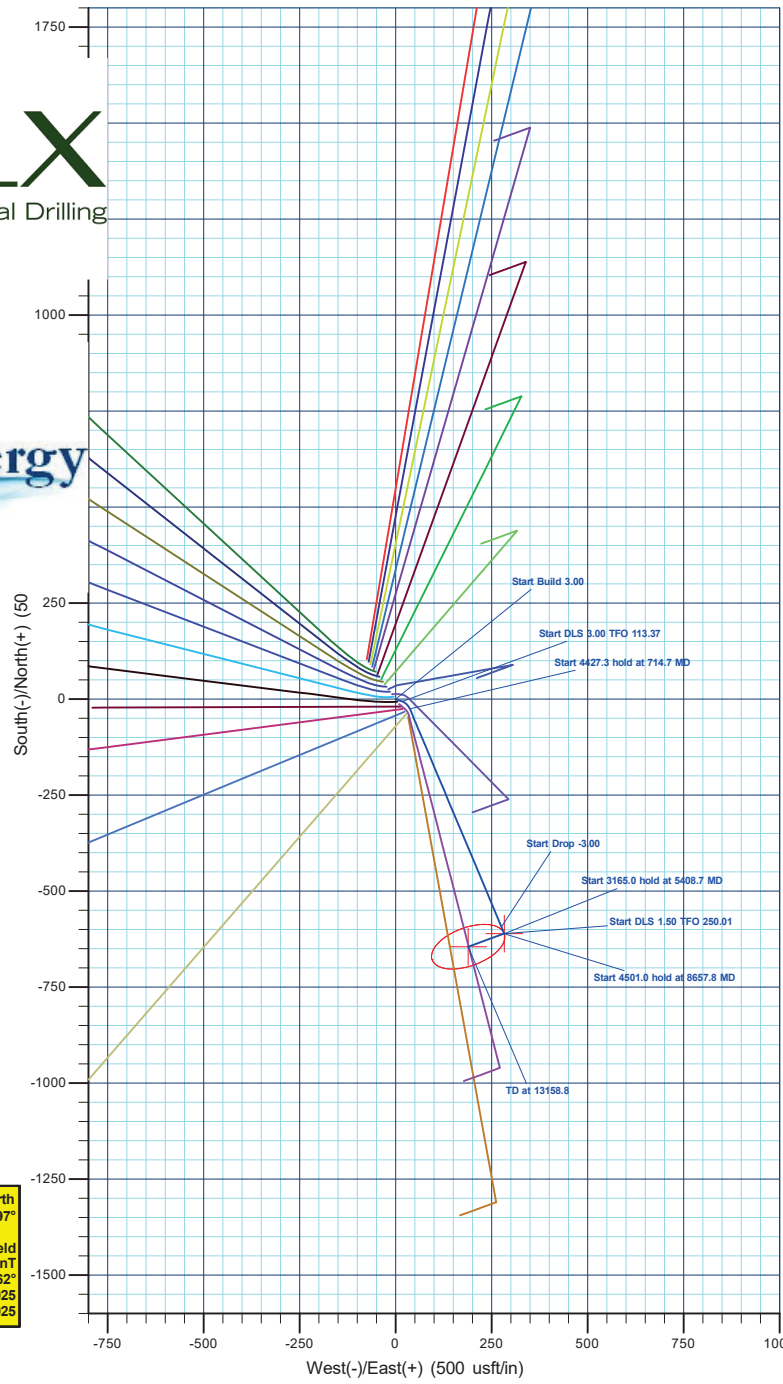
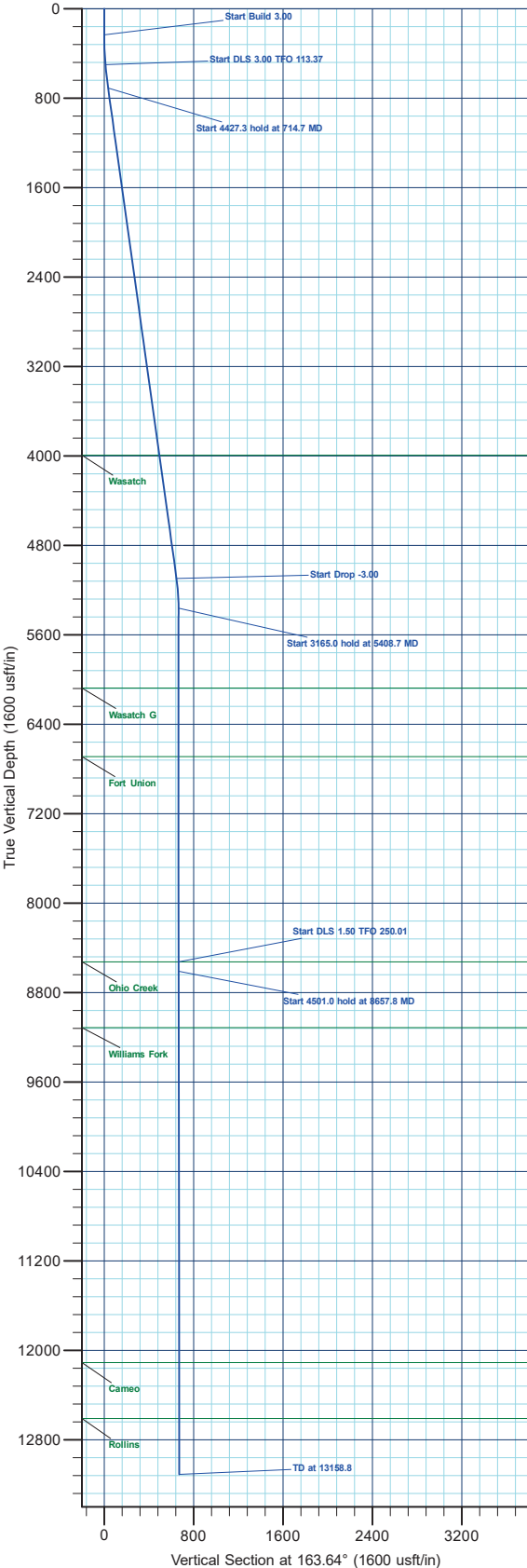
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
15C-12 - OHCR	8527.0	-610.5	283.2	14433876.39	2449899.73	39.711187	-108.121905
15C-12 - PBHL	13111.0	-644.7	189.2	14433839.20	2449806.90	39.711093	-108.12239

WELL DETAILS: ELU M12 FED 15C-12 496

+N/-S	+E/-W	Ground Level : 7985.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14434477.50	2449597.10	39.712863	-108.122911 15C-12

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3995.0	4030.0	Wasatch
6077.0	6123.7	Wasatch G
6691.0	6737.7	Fort Union
8527.0	8573.7	Ohio Creek
9114.0	9160.8	Williams Fork
12111.0	12158.6	Cameo
12611.0	12658.7	Rollins



T M
 Azimuths to True North
 Magnetic North: 8.97°
 Magnetic Field
 Strength: 50694.0nT
 Dip Angle: 65.62°
 Date: 7/24/2025
 Model: HDGM2025

Plan: Design #4 (ELU M12 FED 15C-12 496/OH)

Created By: Will Jircik Date: 21:37, July 24 2025



QB Energy Operating, LLC

Rio Blanco County, CO

ELU M12 496

ELU M12 FED 15C-12 496 - Slot 15C-12

OH

Plan: Design #4

KLX Well Planning Report

24 July, 2025



Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well ELU M12 FED 15C-12 496 - Slot 15C-12
Company:	QB Energy Operating, LLC	TVD Reference:	RKB=26' @ 8011.0usft (TBD)
Project:	Rio Blanco County, CO	MD Reference:	RKB=26' @ 8011.0usft (TBD)
Site:	ELU M12 496	North Reference:	True
Well:	ELU M12 FED 15C-12 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #4		

Project	Rio Blanco County, CO		
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	ELU M12 496				
Site Position:	Northing:	14,434,433.20 usft	Latitude:	39.712738	
From: Map	Easting:	2,449,631.30 usft	Longitude:	-108.122795	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.84 °

Well	ELU M12 FED 15C-12 496 - Slot 15C-12					
Well Position	+N/-S	45.4 usft	Northing:	14,434,477.50 usft	Latitude:	39.712863
	+E/-W	-32.8 usft	Easting:	2,449,597.10 usft	Longitude:	-108.122911
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	7,985.0 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2025	7/24/2025	8.97	65.62	50,694.00000000

Design	Design #4			
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	163.64

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	
235.0	0.00	0.00	235.0	0.0	0.0	0.00	0.00	0.00	0.00	
501.7	8.00	110.00	500.8	-6.4	17.5	3.00	3.00	0.00	110.00	
714.7	8.00	157.20	711.9	-25.1	37.2	3.00	0.00	22.16	113.37	
5,141.9	8.00	157.20	5,096.1	-593.4	276.0	0.00	0.00	0.00	0.00	
5,408.7	0.00	0.00	5,362.0	-610.5	283.2	3.00	-3.00	0.00	180.00	
8,573.7	0.00	0.00	8,527.0	-610.5	283.2	0.00	0.00	0.00	0.00	15C-12 - OHCR
8,657.8	1.26	250.01	8,611.1	-610.8	282.3	1.50	1.50	-130.81	250.01	
13,158.8	1.26	250.01	13,111.0	-644.7	189.2	0.00	0.00	0.00	0.00	15C-12 - PBHL

Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well ELU M12 FED 15C-12 496 - Slot 15C-12
Company:	QB Energy Operating, LLC	TVD Reference:	RKB=26' @ 8011.0usft (TBD)
Project:	Rio Blanco County, CO	MD Reference:	RKB=26' @ 8011.0usft (TBD)
Site:	ELU M12 496	North Reference:	True
Well:	ELU M12 FED 15C-12 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #4		

Planned 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
235.0	0.00	0.00	235.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	1.95	110.00	300.0	-0.4	1.0	0.7	3.00	3.00	0.00
400.0	4.95	110.00	399.8	-2.4	6.7	4.2	3.00	3.00	0.00
501.7	8.00	110.00	500.8	-6.4	17.5	11.0	3.00	3.00	0.00
600.0	7.34	131.69	598.3	-12.9	28.6	20.4	3.00	-0.67	22.06
700.0	7.84	154.24	697.4	-23.3	36.3	32.6	3.00	0.49	22.55
714.7	8.00	157.20	711.9	-25.1	37.2	34.6	3.00	1.12	20.19
800.0	8.00	157.20	796.4	-36.1	41.8	46.4	0.00	0.00	0.00
900.0	8.00	157.20	895.5	-48.9	47.2	60.2	0.00	0.00	0.00
1,000.0	8.00	157.20	994.5	-61.7	52.6	74.0	0.00	0.00	0.00
1,100.0	8.00	157.20	1,093.5	-74.6	57.9	87.9	0.00	0.00	0.00
1,200.0	8.00	157.20	1,192.6	-87.4	63.3	101.7	0.00	0.00	0.00
1,300.0	8.00	157.20	1,291.6	-100.2	68.7	115.5	0.00	0.00	0.00
1,400.0	8.00	157.20	1,390.6	-113.1	74.1	129.4	0.00	0.00	0.00
1,500.0	8.00	157.20	1,489.6	-125.9	79.5	143.2	0.00	0.00	0.00
1,600.0	8.00	157.20	1,588.7	-138.7	84.9	157.0	0.00	0.00	0.00
1,700.0	8.00	157.20	1,687.7	-151.6	90.3	170.9	0.00	0.00	0.00
1,800.0	8.00	157.20	1,786.7	-164.4	95.7	184.7	0.00	0.00	0.00
1,900.0	8.00	157.20	1,885.7	-177.3	101.1	198.6	0.00	0.00	0.00
2,000.0	8.00	157.20	1,984.8	-190.1	106.5	212.4	0.00	0.00	0.00
2,100.0	8.00	157.20	2,083.8	-202.9	111.9	226.2	0.00	0.00	0.00
2,200.0	8.00	157.20	2,182.8	-215.8	117.3	240.1	0.00	0.00	0.00
2,300.0	8.00	157.20	2,281.8	-228.6	122.7	253.9	0.00	0.00	0.00
2,400.0	8.00	157.20	2,380.9	-241.4	128.1	267.7	0.00	0.00	0.00
2,500.0	8.00	157.20	2,479.9	-254.3	133.5	281.6	0.00	0.00	0.00
2,600.0	8.00	157.20	2,578.9	-267.1	138.9	295.4	0.00	0.00	0.00
2,700.0	8.00	157.20	2,677.9	-279.9	144.3	309.2	0.00	0.00	0.00
2,800.0	8.00	157.20	2,777.0	-292.8	149.6	323.1	0.00	0.00	0.00
2,900.0	8.00	157.20	2,876.0	-305.6	155.0	336.9	0.00	0.00	0.00
3,000.0	8.00	157.20	2,975.0	-318.4	160.4	350.7	0.00	0.00	0.00
3,100.0	8.00	157.20	3,074.0	-331.3	165.8	364.6	0.00	0.00	0.00
3,200.0	8.00	157.20	3,173.1	-344.1	171.2	378.4	0.00	0.00	0.00
3,300.0	8.00	157.20	3,272.1	-356.9	176.6	392.2	0.00	0.00	0.00
3,400.0	8.00	157.20	3,371.1	-369.8	182.0	406.1	0.00	0.00	0.00
3,500.0	8.00	157.20	3,470.2	-382.6	187.4	419.9	0.00	0.00	0.00
3,600.0	8.00	157.20	3,569.2	-395.5	192.8	433.7	0.00	0.00	0.00
3,700.0	8.00	157.20	3,668.2	-408.3	198.2	447.6	0.00	0.00	0.00
3,800.0	8.00	157.20	3,767.2	-421.1	203.6	461.4	0.00	0.00	0.00
3,900.0	8.00	157.20	3,866.3	-434.0	209.0	475.2	0.00	0.00	0.00
4,000.0	8.00	157.20	3,965.3	-446.8	214.4	489.1	0.00	0.00	0.00
Wasatch									
4,030.0	8.00	157.20	3,995.0	-450.6	216.0	493.2	0.00	0.00	0.00
4,100.0	8.00	157.20	4,064.3	-459.6	219.8	502.9	0.00	0.00	0.00
4,200.0	8.00	157.20	4,163.3	-472.5	225.2	516.8	0.00	0.00	0.00
4,300.0	8.00	157.20	4,262.4	-485.3	230.6	530.6	0.00	0.00	0.00
4,400.0	8.00	157.20	4,361.4	-498.1	236.0	544.4	0.00	0.00	0.00
4,500.0	8.00	157.20	4,460.4	-511.0	241.3	558.3	0.00	0.00	0.00
4,600.0	8.00	157.20	4,559.4	-523.8	246.7	572.1	0.00	0.00	0.00
4,700.0	8.00	157.20	4,658.5	-536.6	252.1	585.9	0.00	0.00	0.00
4,800.0	8.00	157.20	4,757.5	-549.5	257.5	599.8	0.00	0.00	0.00
4,900.0	8.00	157.20	4,856.5	-562.3	262.9	613.6	0.00	0.00	0.00

Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well ELU M12 FED 15C-12 496 - Slot 15C-12
Company:	QB Energy Operating, LLC	TVD Reference:	RKB=26' @ 8011.0usft (TBD)
Project:	Rio Blanco County, CO	MD Reference:	RKB=26' @ 8011.0usft (TBD)
Site:	ELU M12 496	North Reference:	True
Well:	ELU M12 FED 15C-12 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #4		

Planned 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)	
5,000.0	8.00	157.20	4,955.5	-575.1	268.3	627.4	0.00	0.00	0.00	
5,100.0	8.00	157.20	5,054.6	-588.0	273.7	641.3	0.00	0.00	0.00	
5,141.9	8.00	157.20	5,096.1	-593.4	276.0	647.1	0.00	0.00	0.00	
5,200.0	6.26	157.20	5,153.7	-600.0	278.8	654.2	3.00	-3.00	0.00	
5,300.0	3.26	157.20	5,253.4	-607.7	282.0	662.5	3.00	-3.00	0.00	
5,408.7	0.00	0.00	5,362.0	-610.5	283.2	665.6	3.00	-3.00	0.00	
5,500.0	0.00	0.00	5,453.3	-610.5	283.2	665.6	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,553.3	-610.5	283.2	665.6	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,653.3	-610.5	283.2	665.6	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,753.3	-610.5	283.2	665.6	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,853.3	-610.5	283.2	665.6	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,953.3	-610.5	283.2	665.6	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,053.3	-610.5	283.2	665.6	0.00	0.00	0.00	
Wasatch G										
6,123.7	0.00	0.00	6,077.0	-610.5	283.2	665.6	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,153.3	-610.5	283.2	665.6	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,253.3	-610.5	283.2	665.6	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,353.3	-610.5	283.2	665.6	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,453.3	-610.5	283.2	665.6	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,553.3	-610.5	283.2	665.6	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,653.3	-610.5	283.2	665.6	0.00	0.00	0.00	
Fort Union										
6,737.7	0.00	0.00	6,691.0	-610.5	283.2	665.6	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,753.3	-610.5	283.2	665.6	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,853.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,953.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,053.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,153.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,253.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,353.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,453.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,553.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,653.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,753.3	-610.5	283.2	665.6	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,853.3	-610.5	283.2	665.6	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,953.3	-610.5	283.2	665.6	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,053.3	-610.5	283.2	665.6	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,153.3	-610.5	283.2	665.6	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,253.3	-610.5	283.2	665.6	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,353.3	-610.5	283.2	665.6	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,453.3	-610.5	283.2	665.6	0.00	0.00	0.00	
Ohio Creek										
8,573.7	0.00	0.00	8,527.0	-610.5	283.2	665.6	0.00	0.00	0.00	
8,600.0	0.39	250.01	8,553.3	-610.5	283.1	665.6	1.50	1.50	0.00	
8,657.8	1.26	250.01	8,611.1	-610.8	282.3	665.6	1.50	1.50	0.00	
8,700.0	1.26	250.01	8,653.3	-611.1	281.4	665.7	0.00	0.00	0.00	
8,800.0	1.26	250.01	8,753.3	-611.9	279.4	665.8	0.00	0.00	0.00	
8,900.0	1.26	250.01	8,853.2	-612.7	277.3	665.9	0.00	0.00	0.00	
9,000.0	1.26	250.01	8,953.2	-613.4	275.2	666.1	0.00	0.00	0.00	
9,100.0	1.26	250.01	9,053.2	-614.2	273.2	666.2	0.00	0.00	0.00	
Williams Fork										
9,160.8	1.26	250.01	9,114.0	-614.6	271.9	666.3	0.00	0.00	0.00	
9,200.0	1.26	250.01	9,153.2	-614.9	271.1	666.4	0.00	0.00	0.00	

Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well ELU M12 FED 15C-12 496 - Slot 15C-12
Company:	QB Energy Operating, LLC	TVD Reference:	RKB=26' @ 8011.0usft (TBD)
Project:	Rio Blanco County, CO	MD Reference:	RKB=26' @ 8011.0usft (TBD)
Site:	ELU M12 496	North Reference:	True
Well:	ELU M12 FED 15C-12 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #4		

Planned 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)	
9,300.0	1.26	250.01	9,253.1	-615.7	269.0	666.5	0.00	0.00	0.00	
9,400.0	1.26	250.01	9,353.1	-616.4	267.0	666.6	0.00	0.00	0.00	
9,500.0	1.26	250.01	9,453.1	-617.2	264.9	666.8	0.00	0.00	0.00	
9,600.0	1.26	250.01	9,553.1	-617.9	262.8	666.9	0.00	0.00	0.00	
9,700.0	1.26	250.01	9,653.0	-618.7	260.8	667.1	0.00	0.00	0.00	
9,800.0	1.26	250.01	9,753.0	-619.4	258.7	667.2	0.00	0.00	0.00	
9,900.0	1.26	250.01	9,853.0	-620.2	256.6	667.3	0.00	0.00	0.00	
10,000.0	1.26	250.01	9,953.0	-620.9	254.5	667.5	0.00	0.00	0.00	
10,100.0	1.26	250.01	10,052.9	-621.7	252.5	667.6	0.00	0.00	0.00	
10,200.0	1.26	250.01	10,152.9	-622.4	250.4	667.8	0.00	0.00	0.00	
10,300.0	1.26	250.01	10,252.9	-623.2	248.3	667.9	0.00	0.00	0.00	
10,400.0	1.26	250.01	10,352.9	-623.9	246.3	668.0	0.00	0.00	0.00	
10,500.0	1.26	250.01	10,452.8	-624.7	244.2	668.2	0.00	0.00	0.00	
10,600.0	1.26	250.01	10,552.8	-625.4	242.1	668.3	0.00	0.00	0.00	
10,700.0	1.26	250.01	10,652.8	-626.2	240.1	668.5	0.00	0.00	0.00	
10,800.0	1.26	250.01	10,752.8	-627.0	238.0	668.6	0.00	0.00	0.00	
10,900.0	1.26	250.01	10,852.7	-627.7	235.9	668.7	0.00	0.00	0.00	
11,000.0	1.26	250.01	10,952.7	-628.5	233.9	668.9	0.00	0.00	0.00	
11,100.0	1.26	250.01	11,052.7	-629.2	231.8	669.0	0.00	0.00	0.00	
11,200.0	1.26	250.01	11,152.7	-630.0	229.7	669.2	0.00	0.00	0.00	
11,300.0	1.26	250.01	11,252.6	-630.7	227.7	669.3	0.00	0.00	0.00	
11,400.0	1.26	250.01	11,352.6	-631.5	225.6	669.4	0.00	0.00	0.00	
11,500.0	1.26	250.01	11,452.6	-632.2	223.5	669.6	0.00	0.00	0.00	
11,600.0	1.26	250.01	11,552.6	-633.0	221.4	669.7	0.00	0.00	0.00	
11,700.0	1.26	250.01	11,652.5	-633.7	219.4	669.9	0.00	0.00	0.00	
11,800.0	1.26	250.01	11,752.5	-634.5	217.3	670.0	0.00	0.00	0.00	
11,900.0	1.26	250.01	11,852.5	-635.2	215.2	670.1	0.00	0.00	0.00	
12,000.0	1.26	250.01	11,952.5	-636.0	213.2	670.3	0.00	0.00	0.00	
12,100.0	1.26	250.01	12,052.5	-636.7	211.1	670.4	0.00	0.00	0.00	
Cameo										
12,158.6	1.26	250.01	12,111.0	-637.2	209.9	670.5	0.00	0.00	0.00	
12,200.0	1.26	250.01	12,152.4	-637.5	209.0	670.6	0.00	0.00	0.00	
12,300.0	1.26	250.01	12,252.4	-638.2	207.0	670.7	0.00	0.00	0.00	
12,400.0	1.26	250.01	12,352.4	-639.0	204.9	670.8	0.00	0.00	0.00	
12,500.0	1.26	250.01	12,452.4	-639.7	202.8	671.0	0.00	0.00	0.00	
12,600.0	1.26	250.01	12,552.3	-640.5	200.8	671.1	0.00	0.00	0.00	
Rollins										
12,658.7	1.26	250.01	12,611.0	-640.9	199.5	671.2	0.00	0.00	0.00	
12,700.0	1.26	250.01	12,652.3	-641.3	198.7	671.3	0.00	0.00	0.00	
12,800.0	1.26	250.01	12,752.3	-642.0	196.6	671.4	0.00	0.00	0.00	
12,900.0	1.26	250.01	12,852.3	-642.8	194.6	671.5	0.00	0.00	0.00	
13,000.0	1.26	250.01	12,952.2	-643.5	192.5	671.7	0.00	0.00	0.00	
13,100.0	1.26	250.01	13,052.2	-644.3	190.4	671.8	0.00	0.00	0.00	
13,158.8	1.26	250.01	13,111.0	-644.7	189.2	671.9	0.00	0.00	0.00	

Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well ELU M12 FED 15C-12 496 - Slot 15C-12
Company:	QB Energy Operating, LLC	TVD Reference:	RKB=26' @ 8011.0usft (TBD)
Project:	Rio Blanco County, CO	MD Reference:	RKB=26' @ 8011.0usft (TBD)
Site:	ELU M12 496	North Reference:	True
Well:	ELU M12 FED 15C-12 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #4		

Design 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
15C-12 - OHCR - plan hits target center - Point	0.00	0.00	8,527.0	-610.5	283.2	14,433,876.39	2,449,899.73	39.711187	-108.121905
15C-12 - PBHL - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	13,111.0	-644.7	189.2	14,433,839.20	2,449,806.90	39.711093	-108.122239

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,030.0	3,995.0	Wasatch				
6,123.7	6,077.0	Wasatch G				
6,737.7	6,691.0	Fort Union				
8,573.7	8,527.0	Ohio Creek				
9,160.8	9,114.0	Williams Fork				
12,158.6	12,111.0	Cameo				
12,658.7	12,611.0	Rollins				