

Project: Rio Blanco County, CO
 Site: PCU B27 197 Pad
 Well: RNPU B27 FED 14C-22 197
 Wellbore: OH
 Design: Prelim #3
 Latitude: 39.941186
 Longitude: -108.268589
 Ground Level: 6510.0
 RKB @ 6540.0usft (30')

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2513.0	2708.7	Orange Marker
2653.0	2866.3	Wasatch
5577.0	6157.5	Wasatch G
6047.0	6686.5	Fort Union
7561.0	8314.7	Ohio Creek
8311.0	9064.8	Williams Fork
11200.0	11961.2	Cameo
11757.0	12511.3	Rollins
11853.0	12607.3	Cozzette
12453.0	13207.4	Corcoran

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well RNPU B27 FED 14C-22 197 - Slot 14C-22, True North
 Vertical (TVD) Reference: RKB @ 6540.0usft (30')
 Section (VS) Reference: Slot - 14C-22(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 6540.0usft (30')
 Calculation Method: Minimum Curvature

WELL DETAILS: RNPU B27 FED 14C-22 197

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14516350.10	2406078.50	39.941186	-108.268589

PROJECT DETAILS: Rio Blanco County, CO

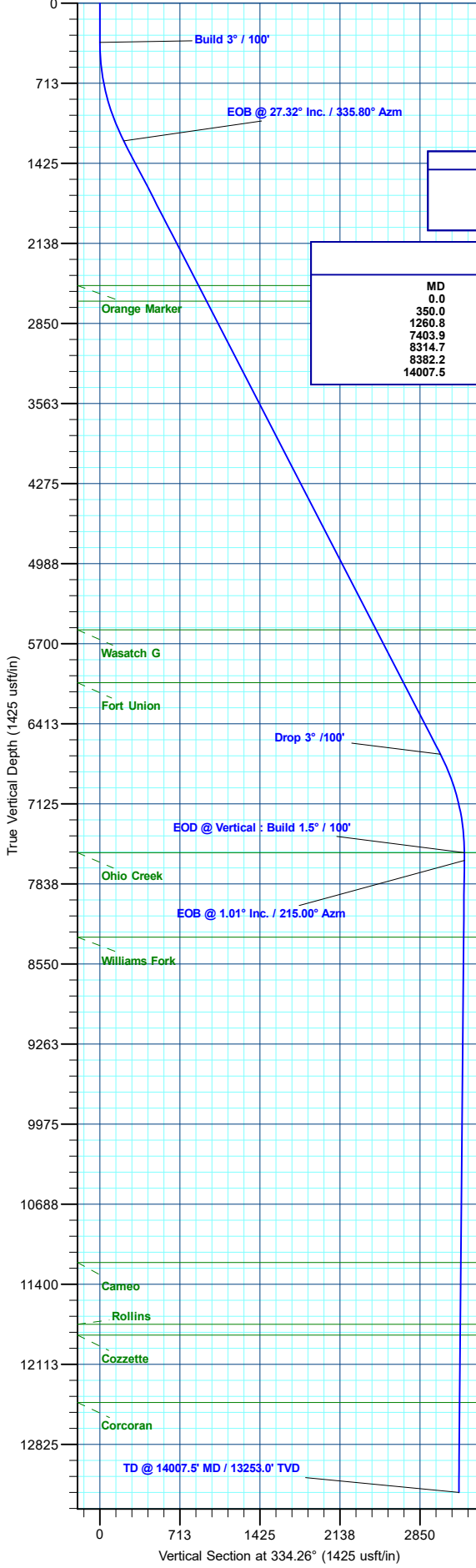
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 - Western US
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 System Datum: Mean Sea Level

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
14C-22 - OHCR	7561.0	2960.7	-1330.7	14519268.63	2404657.83	39.949312	-108.273333
14C-22 - PBHL	13253.0	2878.7	-1388.0	14519185.00	2404603.00	39.949087	-108.273538

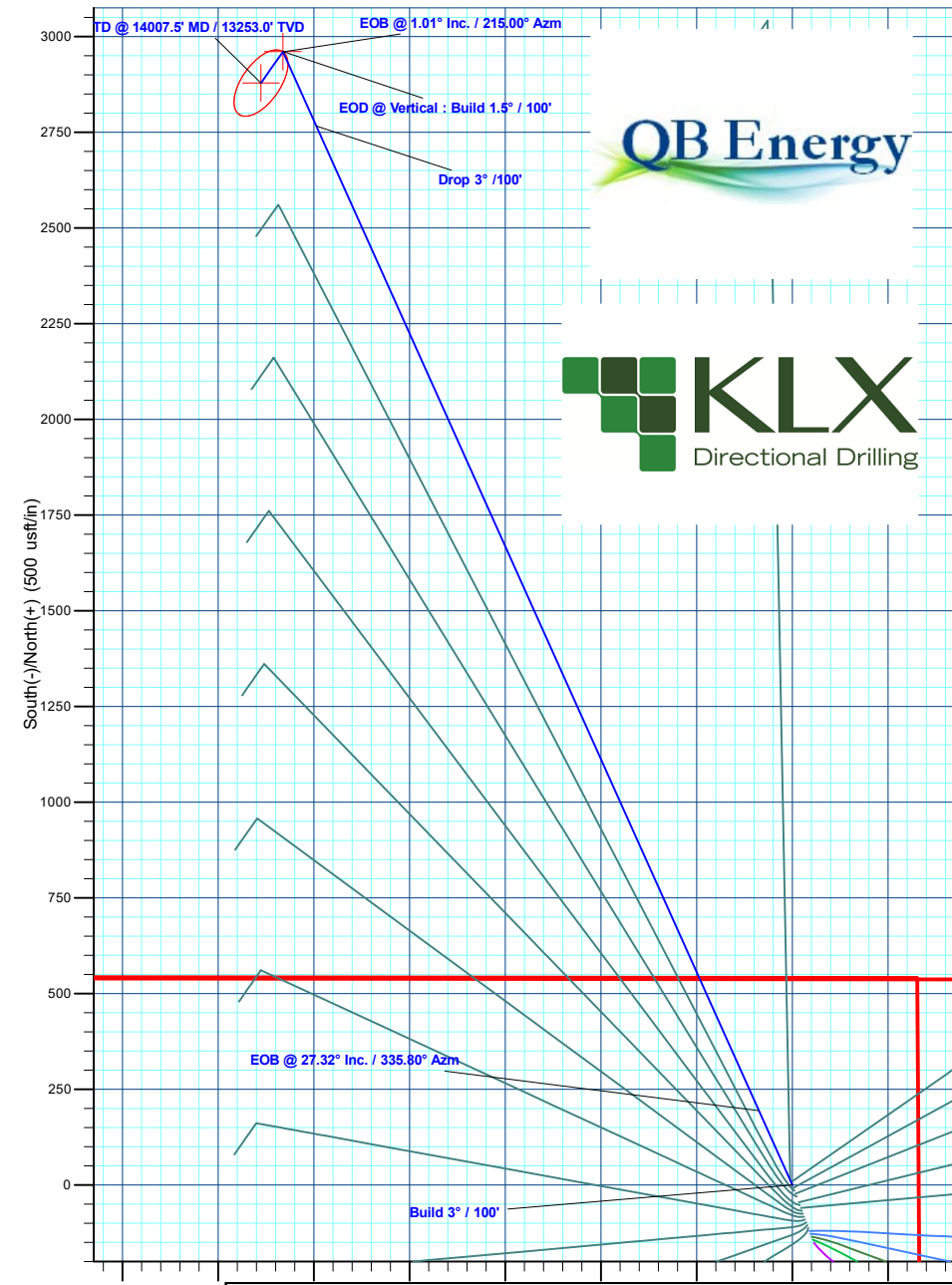
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.0	EOB @ 27.32° Inc. / 335.80° Azm
1260.8	27.32	335.80	1226.7	194.4	-87.4	3.00	335.80	213.0	Drop 3° / 100'
7403.9	27.32	335.80	6684.3	2766.3	-1243.3	3.00	0.00	3031.8	EOB @ Vertical : Build 1.5° / 100'
8314.7	0.00	0.00	7561.0	2960.7	-1330.7	3.00	180.00	3244.8	EOB @ 1.01° Inc. / 215.00° Azm
8382.2	1.01	215.00	7628.5	2960.2	-1331.0	1.50	215.00	3244.5	TD @ 14007.5' MD / 13253.0' TVD
14007.5	1.01	215.00	13253.0	2878.7	-1388.0	0.00	0.00	3195.9	



T M Azimuths to True North
 Magnetic North: 9.15°

Magnetic Field
 Strength: 51080.6nT
 Dip Angle: 65.83°
 Date: 9/30/2022
 Model: HDGM2022



Plan: Prelim #3 (RNPU B27 FED 14C-22 197/OH)
 Created By: Will Jircik Date: 12:48, June 18 2025



QB Energy Operating, LLC

Rio Blanco County, CO

PCU B27 197 Pad

RNPU B27 FED 14C-22 197 - Slot 14C-22

OH

Plan: Prelim #3

KLX Well Planning Report

18 June, 2025



Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well RNPU B27 FED 14C-22 197 - Slot 14C-22
Company:	QB Energy Operating, LLC	TVD Reference:	RKB @ 6540.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6540.0usft (30')
Site:	PCU B27 197 Pad	North Reference:	True
Well:	RNPU B27 FED 14C-22 197	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim #3		

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	PCU B27 197 Pad				
Site Position:	Northing:	14,516,246.39 usft	Latitude:	39.940899	
From: Map	Easting:	2,406,120.81 usft	Longitude:	-108.268449	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.75 °

Well	RNPU B27 FED 14C-22 197 - Slot 14C-22					
Well Position	+N/-S	105.0 usft	Northing:	14,516,350.10 usft	Latitude:	39.941187
	+E/-W	-39.1 usft	Easting:	2,406,078.50 usft	Longitude:	-108.268589
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	6,510.0 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2022	9/30/2022	9.15	65.83	51,080.60000000

Design	Prelim #3			
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	334.26

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	
350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,260.8	27.32	335.80	1,226.7	194.4	-87.4	3.00	3.00	0.00	335.80	
7,403.9	27.32	335.80	6,684.3	2,766.3	-1,243.3	0.00	0.00	0.00	0.00	
8,314.7	0.00	0.00	7,561.0	2,960.7	-1,330.7	3.00	-3.00	0.00	180.00	14C-22 - OHCR
8,382.2	1.01	215.00	7,628.5	2,960.2	-1,331.0	1.50	1.50	-214.81	215.00	
14,007.5	1.01	215.00	13,253.0	2,878.7	-1,388.0	0.00	0.00	0.00	0.00	14C-22 - PBHL

Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well RNPU B27 FED 14C-22 197 - Slot 14C-22
Company:	QB Energy Operating, LLC	TVD Reference:	RKB @ 6540.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6540.0usft (30')
Site:	PCU B27 197 Pad	North Reference:	True
Well:	RNPU B27 FED 14C-22 197	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim #3		

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	0.00
100.0	0.00	0.00	100.0	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	0.0	0.00	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Build 3° / 100'										
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
400.0	1.50	335.80	400.0	0.6	-0.3	0.7	3.00	3.00	3.00	0.00
500.0	4.50	335.80	499.8	5.4	-2.4	5.9	3.00	3.00	3.00	0.00
600.0	7.50	335.80	599.3	14.9	-6.7	16.3	3.00	3.00	3.00	0.00
700.0	10.50	335.80	698.0	29.2	-13.1	32.0	3.00	3.00	3.00	0.00
800.0	13.50	335.80	795.8	48.1	-21.6	52.8	3.00	3.00	3.00	0.00
900.0	16.50	335.80	892.4	71.7	-32.2	78.6	3.00	3.00	3.00	0.00
1,000.0	19.50	335.80	987.5	99.9	-44.9	109.5	3.00	3.00	3.00	0.00
1,100.0	22.50	335.80	1,080.9	132.6	-59.6	145.3	3.00	3.00	3.00	0.00
1,200.0	25.50	335.80	1,172.2	169.7	-76.3	186.0	3.00	3.00	3.00	0.00
EOB @ 27.32° Inc. / 335.80° Azm										
1,260.8	27.32	335.80	1,226.7	194.4	-87.4	213.0	3.00	3.00	3.00	0.00
1,300.0	27.32	335.80	1,261.5	210.8	-94.7	231.0	0.00	0.00	0.00	0.00
1,400.0	27.32	335.80	1,350.3	252.6	-113.5	276.9	0.00	0.00	0.00	0.00
1,500.0	27.32	335.80	1,439.2	294.5	-132.4	322.8	0.00	0.00	0.00	0.00
1,600.0	27.32	335.80	1,528.0	336.4	-151.2	368.7	0.00	0.00	0.00	0.00
1,700.0	27.32	335.80	1,616.9	378.2	-170.0	414.5	0.00	0.00	0.00	0.00
1,800.0	27.32	335.80	1,705.7	420.1	-188.8	460.4	0.00	0.00	0.00	0.00
1,900.0	27.32	335.80	1,794.6	462.0	-207.6	506.3	0.00	0.00	0.00	0.00
2,000.0	27.32	335.80	1,883.4	503.8	-226.5	552.2	0.00	0.00	0.00	0.00
2,100.0	27.32	335.80	1,972.2	545.7	-245.3	598.1	0.00	0.00	0.00	0.00
2,200.0	27.32	335.80	2,061.1	587.6	-264.1	644.0	0.00	0.00	0.00	0.00
2,300.0	27.32	335.80	2,149.9	629.4	-282.9	689.9	0.00	0.00	0.00	0.00
2,400.0	27.32	335.80	2,238.8	671.3	-301.7	735.7	0.00	0.00	0.00	0.00
2,500.0	27.32	335.80	2,327.6	713.2	-320.5	781.6	0.00	0.00	0.00	0.00
2,600.0	27.32	335.80	2,416.5	755.1	-339.4	827.5	0.00	0.00	0.00	0.00
2,700.0	27.32	335.80	2,505.3	796.9	-358.2	873.4	0.00	0.00	0.00	0.00
Orange Marker										
2,708.7	27.32	335.80	2,513.0	800.5	-359.8	877.4	0.00	0.00	0.00	0.00
2,800.0	27.32	335.80	2,594.1	838.8	-377.0	919.3	0.00	0.00	0.00	0.00
Wasatch										
2,866.3	27.32	335.80	2,653.0	866.5	-389.5	949.7	0.00	0.00	0.00	0.00
2,900.0	27.32	335.80	2,683.0	880.7	-395.8	965.2	0.00	0.00	0.00	0.00
3,000.0	27.32	335.80	2,771.8	922.5	-414.6	1,011.0	0.00	0.00	0.00	0.00
3,100.0	27.32	335.80	2,860.7	964.4	-433.4	1,056.9	0.00	0.00	0.00	0.00
3,200.0	27.32	335.80	2,949.5	1,006.3	-452.3	1,102.8	0.00	0.00	0.00	0.00
3,300.0	27.32	335.80	3,038.4	1,048.1	-471.1	1,148.7	0.00	0.00	0.00	0.00
3,400.0	27.32	335.80	3,127.2	1,090.0	-489.9	1,194.6	0.00	0.00	0.00	0.00
3,500.0	27.32	335.80	3,216.0	1,131.9	-508.7	1,240.5	0.00	0.00	0.00	0.00
3,600.0	27.32	335.80	3,304.9	1,173.7	-527.5	1,286.4	0.00	0.00	0.00	0.00
3,700.0	27.32	335.80	3,393.7	1,215.6	-546.3	1,332.2	0.00	0.00	0.00	0.00
3,800.0	27.32	335.80	3,482.6	1,257.5	-565.2	1,378.1	0.00	0.00	0.00	0.00
3,900.0	27.32	335.80	3,571.4	1,299.3	-584.0	1,424.0	0.00	0.00	0.00	0.00
4,000.0	27.32	335.80	3,660.3	1,341.2	-602.8	1,469.9	0.00	0.00	0.00	0.00
4,100.0	27.32	335.80	3,749.1	1,383.1	-621.6	1,515.8	0.00	0.00	0.00	0.00
4,200.0	27.32	335.80	3,837.9	1,424.9	-640.4	1,561.7	0.00	0.00	0.00	0.00
4,300.0	27.32	335.80	3,926.8	1,466.8	-659.2	1,607.5	0.00	0.00	0.00	0.00
4,400.0	27.32	335.80	4,015.6	1,508.7	-678.1	1,653.4	0.00	0.00	0.00	0.00

Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well RNPU B27 FED 14C-22 197 - Slot 14C-22
Company:	QB Energy Operating, LLC	TVD Reference:	RKB @ 6540.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6540.0usft (30')
Site:	PCU B27 197 Pad	North Reference:	True
Well:	RNPU B27 FED 14C-22 197	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim #3		

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)	
4,500.0	27.32	335.80	4,104.5	1,550.5	-696.9	1,699.3	0.00	0.00	0.00	
4,600.0	27.32	335.80	4,193.3	1,592.4	-715.7	1,745.2	0.00	0.00	0.00	
4,700.0	27.32	335.80	4,282.2	1,634.3	-734.5	1,791.1	0.00	0.00	0.00	
4,800.0	27.32	335.80	4,371.0	1,676.1	-753.3	1,837.0	0.00	0.00	0.00	
4,900.0	27.32	335.80	4,459.8	1,718.0	-772.1	1,882.9	0.00	0.00	0.00	
5,000.0	27.32	335.80	4,548.7	1,759.9	-791.0	1,928.7	0.00	0.00	0.00	
5,100.0	27.32	335.80	4,637.5	1,801.7	-809.8	1,974.6	0.00	0.00	0.00	
5,200.0	27.32	335.80	4,726.4	1,843.6	-828.6	2,020.5	0.00	0.00	0.00	
5,300.0	27.32	335.80	4,815.2	1,885.5	-847.4	2,066.4	0.00	0.00	0.00	
5,400.0	27.32	335.80	4,904.1	1,927.3	-866.2	2,112.3	0.00	0.00	0.00	
5,500.0	27.32	335.80	4,992.9	1,969.2	-885.0	2,158.2	0.00	0.00	0.00	
5,600.0	27.32	335.80	5,081.7	2,011.1	-903.9	2,204.1	0.00	0.00	0.00	
5,700.0	27.32	335.80	5,170.6	2,052.9	-922.7	2,249.9	0.00	0.00	0.00	
5,800.0	27.32	335.80	5,259.4	2,094.8	-941.5	2,295.8	0.00	0.00	0.00	
5,900.0	27.32	335.80	5,348.3	2,136.7	-960.3	2,341.7	0.00	0.00	0.00	
6,000.0	27.32	335.80	5,437.1	2,178.5	-979.1	2,387.6	0.00	0.00	0.00	
6,100.0	27.32	335.80	5,526.0	2,220.4	-997.9	2,433.5	0.00	0.00	0.00	
Wasatch G										
6,157.5	27.32	335.80	5,577.0	2,244.5	-1,008.8	2,459.8	0.00	0.00	0.00	
6,200.0	27.32	335.80	5,614.8	2,262.3	-1,016.8	2,479.4	0.00	0.00	0.00	
6,300.0	27.32	335.80	5,703.6	2,304.1	-1,035.6	2,525.2	0.00	0.00	0.00	
6,400.0	27.32	335.80	5,792.5	2,346.0	-1,054.4	2,571.1	0.00	0.00	0.00	
6,500.0	27.32	335.80	5,881.3	2,387.9	-1,073.2	2,617.0	0.00	0.00	0.00	
6,600.0	27.32	335.80	5,970.2	2,429.7	-1,092.0	2,662.9	0.00	0.00	0.00	
Fort Union										
6,686.5	27.32	335.80	6,047.0	2,465.9	-1,108.3	2,702.6	0.00	0.00	0.00	
6,700.0	27.32	335.80	6,059.0	2,471.6	-1,110.8	2,708.8	0.00	0.00	0.00	
6,800.0	27.32	335.80	6,147.9	2,513.5	-1,129.7	2,754.7	0.00	0.00	0.00	
6,900.0	27.32	335.80	6,236.7	2,555.3	-1,148.5	2,800.6	0.00	0.00	0.00	
7,000.0	27.32	335.80	6,325.5	2,597.2	-1,167.3	2,846.4	0.00	0.00	0.00	
7,100.0	27.32	335.80	6,414.4	2,639.1	-1,186.1	2,892.3	0.00	0.00	0.00	
7,200.0	27.32	335.80	6,503.2	2,680.9	-1,204.9	2,938.2	0.00	0.00	0.00	
7,300.0	27.32	335.80	6,592.1	2,722.8	-1,223.8	2,984.1	0.00	0.00	0.00	
Drop 3° / 100'										
7,403.9	27.32	335.80	6,684.3	2,766.3	-1,243.3	3,031.8	0.00	0.00	0.00	
7,500.0	24.44	335.80	6,770.8	2,804.6	-1,260.5	3,073.7	3.00	-3.00	0.00	
7,600.0	21.44	335.80	6,862.9	2,840.1	-1,276.5	3,112.7	3.00	-3.00	0.00	
7,700.0	18.44	335.80	6,956.9	2,871.2	-1,290.5	3,146.7	3.00	-3.00	0.00	
7,800.0	15.44	335.80	7,052.6	2,897.8	-1,302.4	3,175.9	3.00	-3.00	0.00	
7,900.0	12.44	335.80	7,149.6	2,919.8	-1,312.3	3,199.9	3.00	-3.00	0.00	
8,000.0	9.44	335.80	7,247.8	2,937.1	-1,320.0	3,218.9	3.00	-3.00	0.00	
8,100.0	6.44	335.80	7,346.8	2,949.7	-1,325.7	3,232.7	3.00	-3.00	0.00	
8,200.0	3.44	335.80	7,446.4	2,957.5	-1,329.2	3,241.3	3.00	-3.00	0.00	
8,300.0	0.44	335.80	7,546.3	2,960.6	-1,330.6	3,244.7	3.00	-3.00	0.00	
EOD @ Vertical : Build 1.5° / 100' - Ohio Creek										
8,314.7	0.00	0.00	7,561.0	2,960.7	-1,330.7	3,244.8	3.00	-3.00	165.13	
EOB @ 1.01° Inc. / 215.00° Azm										
8,382.2	1.01	215.00	7,628.5	2,960.2	-1,331.0	3,244.5	1.50	1.50	-214.81	
8,400.0	1.01	215.00	7,646.3	2,959.9	-1,331.2	3,244.3	0.00	0.00	0.00	
8,500.0	1.01	215.00	7,746.3	2,958.5	-1,332.2	3,243.5	0.00	0.00	0.00	
8,600.0	1.01	215.00	7,846.3	2,957.0	-1,333.2	3,242.6	0.00	0.00	0.00	
8,700.0	1.01	215.00	7,946.3	2,955.6	-1,334.2	3,241.7	0.00	0.00	0.00	

Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well RNPU B27 FED 14C-22 197 - Slot 14C-22
Company:	QB Energy Operating, LLC	TVD Reference:	RKB @ 6540.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6540.0usft (30')
Site:	PCU B27 197 Pad	North Reference:	True
Well:	RNPU B27 FED 14C-22 197	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim #3		

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)	
8,800.0	1.01	215.00	8,046.3	2,954.1	-1,335.2	3,240.9	0.00	0.00	0.00	
8,900.0	1.01	215.00	8,146.3	2,952.7	-1,336.2	3,240.0	0.00	0.00	0.00	
9,000.0	1.01	215.00	8,246.2	2,951.2	-1,337.3	3,239.1	0.00	0.00	0.00	
Williams Fork										
9,064.8	1.01	215.00	8,311.0	2,950.3	-1,337.9	3,238.6	0.00	0.00	0.00	
9,100.0	1.01	215.00	8,346.2	2,949.8	-1,338.3	3,238.3	0.00	0.00	0.00	
9,200.0	1.01	215.00	8,446.2	2,948.3	-1,339.3	3,237.4	0.00	0.00	0.00	
9,300.0	1.01	215.00	8,546.2	2,946.9	-1,340.3	3,236.5	0.00	0.00	0.00	
9,400.0	1.01	215.00	8,646.2	2,945.4	-1,341.3	3,235.7	0.00	0.00	0.00	
9,500.0	1.01	215.00	8,746.2	2,944.0	-1,342.3	3,234.8	0.00	0.00	0.00	
9,600.0	1.01	215.00	8,846.2	2,942.5	-1,343.3	3,234.0	0.00	0.00	0.00	
9,700.0	1.01	215.00	8,946.1	2,941.1	-1,344.4	3,233.1	0.00	0.00	0.00	
9,800.0	1.01	215.00	9,046.1	2,939.6	-1,345.4	3,232.2	0.00	0.00	0.00	
9,900.0	1.01	215.00	9,146.1	2,938.2	-1,346.4	3,231.4	0.00	0.00	0.00	
10,000.0	1.01	215.00	9,246.1	2,936.8	-1,347.4	3,230.5	0.00	0.00	0.00	
10,100.0	1.01	215.00	9,346.1	2,935.3	-1,348.4	3,229.6	0.00	0.00	0.00	
10,200.0	1.01	215.00	9,446.1	2,933.9	-1,349.4	3,228.8	0.00	0.00	0.00	
10,300.0	1.01	215.00	9,546.0	2,932.4	-1,350.4	3,227.9	0.00	0.00	0.00	
10,400.0	1.01	215.00	9,646.0	2,931.0	-1,351.4	3,227.1	0.00	0.00	0.00	
10,500.0	1.01	215.00	9,746.0	2,929.5	-1,352.5	3,226.2	0.00	0.00	0.00	
10,600.0	1.01	215.00	9,846.0	2,928.1	-1,353.5	3,225.3	0.00	0.00	0.00	
10,700.0	1.01	215.00	9,946.0	2,926.6	-1,354.5	3,224.5	0.00	0.00	0.00	
10,800.0	1.01	215.00	10,046.0	2,925.2	-1,355.5	3,223.6	0.00	0.00	0.00	
10,900.0	1.01	215.00	10,145.9	2,923.7	-1,356.5	3,222.7	0.00	0.00	0.00	
11,000.0	1.01	215.00	10,245.9	2,922.3	-1,357.5	3,221.9	0.00	0.00	0.00	
11,100.0	1.01	215.00	10,345.9	2,920.8	-1,358.5	3,221.0	0.00	0.00	0.00	
11,200.0	1.01	215.00	10,445.9	2,919.4	-1,359.6	3,220.1	0.00	0.00	0.00	
11,300.0	1.01	215.00	10,545.9	2,917.9	-1,360.6	3,219.3	0.00	0.00	0.00	
11,400.0	1.01	215.00	10,645.9	2,916.5	-1,361.6	3,218.4	0.00	0.00	0.00	
11,500.0	1.01	215.00	10,745.9	2,915.0	-1,362.6	3,217.6	0.00	0.00	0.00	
11,600.0	1.01	215.00	10,845.8	2,913.6	-1,363.6	3,216.7	0.00	0.00	0.00	
11,700.0	1.01	215.00	10,945.8	2,912.1	-1,364.6	3,215.8	0.00	0.00	0.00	
11,800.0	1.01	215.00	11,045.8	2,910.7	-1,365.6	3,215.0	0.00	0.00	0.00	
11,900.0	1.01	215.00	11,145.8	2,909.3	-1,366.7	3,214.1	0.00	0.00	0.00	
Cameo										
11,961.2	1.01	215.00	11,207.0	2,908.4	-1,367.3	3,213.6	0.00	0.00	0.00	
12,000.0	1.01	215.00	11,245.8	2,907.8	-1,367.7	3,213.2	0.00	0.00	0.00	
12,100.0	1.01	215.00	11,345.8	2,906.4	-1,368.7	3,212.4	0.00	0.00	0.00	
12,200.0	1.01	215.00	11,445.7	2,904.9	-1,369.7	3,211.5	0.00	0.00	0.00	
12,300.0	1.01	215.00	11,545.7	2,903.5	-1,370.7	3,210.6	0.00	0.00	0.00	
12,400.0	1.01	215.00	11,645.7	2,902.0	-1,371.7	3,209.8	0.00	0.00	0.00	
12,500.0	1.01	215.00	11,745.7	2,900.6	-1,372.7	3,208.9	0.00	0.00	0.00	
Rollins										
12,511.3	1.01	215.00	11,757.0	2,900.4	-1,372.8	3,208.8	0.00	0.00	0.00	
12,600.0	1.01	215.00	11,845.7	2,899.1	-1,373.7	3,208.1	0.00	0.00	0.00	
Cozzette										
12,607.3	1.01	215.00	11,853.0	2,899.0	-1,373.8	3,208.0	0.00	0.00	0.00	
12,700.0	1.01	215.00	11,945.7	2,897.7	-1,374.8	3,207.2	0.00	0.00	0.00	
12,800.0	1.01	215.00	12,045.7	2,896.2	-1,375.8	3,206.3	0.00	0.00	0.00	
12,900.0	1.01	215.00	12,145.6	2,894.8	-1,376.8	3,205.5	0.00	0.00	0.00	
13,000.0	1.01	215.00	12,245.6	2,893.3	-1,377.8	3,204.6	0.00	0.00	0.00	
13,100.0	1.01	215.00	12,345.6	2,891.9	-1,378.8	3,203.7	0.00	0.00	0.00	
13,200.0	1.01	215.00	12,445.6	2,890.4	-1,379.8	3,202.9	0.00	0.00	0.00	

Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well RNPU B27 FED 14C-22 197 - Slot 14C-22
Company:	QB Energy Operating, LLC	TVD Reference:	RKB @ 6540.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6540.0usft (30')
Site:	PCU B27 197 Pad	North Reference:	True
Well:	RNPU B27 FED 14C-22 197	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim #3		

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)	
Corcoran										
13,207.4	1.01	215.00	12,453.0	2,890.3	-1,379.9	3,202.8	0.00	0.00	0.00	
13,300.0	1.01	215.00	12,545.6	2,889.0	-1,380.8	3,202.0	0.00	0.00	0.00	
13,400.0	1.01	215.00	12,645.6	2,887.5	-1,381.9	3,201.1	0.00	0.00	0.00	
13,500.0	1.01	215.00	12,745.5	2,886.1	-1,382.9	3,200.3	0.00	0.00	0.00	
13,600.0	1.01	215.00	12,845.5	2,884.6	-1,383.9	3,199.4	0.00	0.00	0.00	
13,700.0	1.01	215.00	12,945.5	2,883.2	-1,384.9	3,198.6	0.00	0.00	0.00	
13,800.0	1.01	215.00	13,045.5	2,881.7	-1,385.9	3,197.7	0.00	0.00	0.00	
13,900.0	1.01	215.00	13,145.5	2,880.3	-1,386.9	3,196.8	0.00	0.00	0.00	
TD @ 14007.5' MD / 13253.0' TVD										
14,007.5	1.01	215.00	13,253.0	2,878.7	-1,388.0	3,195.9	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
14C-22 - OHCR - hit/miss target - Shape - Point	0.00	0.00	7,561.0	2,960.7	-1,330.7	14,519,268.63	2,404,657.83	39.949312	-108.273334	
14C-22 - PBHL - plan hits target center - Ellipse (radii L100.0 W50.0 on 215.00 azi)	0.00	0.00	13,253.0	2,878.7	-1,388.0	14,519,185.00	2,404,603.00	39.949087	-108.273538	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,708.7	2,513.0	Orange Marker				
2,866.3	2,653.0	Wasatch				
6,157.5	5,577.0	Wasatch G				
6,686.5	6,047.0	Fort Union				
8,314.7	7,561.0	Ohio Creek				
9,064.8	8,311.0	Williams Fork				
11,961.2	11,207.0	Cameo				
12,511.3	11,757.0	Rollins				
12,607.3	11,853.0	Cozzette				
13,207.4	12,453.0	Corcoran				

Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well RNPU B27 FED 14C-22 197 - Slot 14C-22
Company:	QB Energy Operating, LLC	TVD Reference:	RKB @ 6540.0usft (30')
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 6540.0usft (30')
Site:	PCU B27 197 Pad	North Reference:	True
Well:	RNPU B27 FED 14C-22 197	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim #3		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
350.0	350.0	0.0	0.0	Build 3° / 100'
1,260.8	1,226.7	194.4	-87.4	EOB @ 27.32° Inc. / 335.80° Azm
7,403.9	6,684.3	2,766.3	-1,243.3	Drop 3° / 100'
8,314.7	7,561.0	2,960.7	-1,330.7	EOD @ Vertical : Build 1.5° / 100'
8,382.2	7,628.5	2,960.2	-1,331.0	EOB @ 1.01° Inc. / 215.00° Azm
14,007.5	13,253.0	2,878.7	-1,388.0	TD @ 14007.5' MD / 13253.0' TVD