



Laramie Energy, LLC

Mesa County, CO

Laramie 0993-29-01

Laramie 29-01 0993-20-11E - Slot A1

OH

Plan: Design #2

KLX Well Planning Report

07 May, 2025





Well Planning Report



Database:	KLXDirectional-AD	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-11E - Slot A1
Company:	Laramie Energy, LLC	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Project:	Mesa County, CO	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site:	Laramie 0993-29-01	North Reference:	True
Well:	Laramie 29-01 0993-20-11E	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #2		

Project	Mesa County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Laramie 0993-29-01				
Site Position:		Northing:	1,525,818.99 usft	Latitude:	39.254781
From:	Map	Easting:	2,353,268.64 usft	Longitude:	-107.784158
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.44 °

Well	Laramie 29-01 0993-20-11E - Slot A1					
Well Position	+N/-S	-11.1 usft	Northing:	1,525,807.60 usft	Latitude:	39.254751
	+E/-W	11.8 usft	Easting:	2,353,280.11 usft	Longitude:	-107.784117
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	7,463.0 usft

Wellbore	OH
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2025	8/7/2023	8.67	65.10	50,830.00000000

Design	Design #2
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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 0.0 325.20

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	
600.0	10.00	340.00	598.0	32.7	-11.9	2.50	2.50	0.00	340.00	
1,685.9	36.68	324.59	1,586.7	392.4	-236.3	2.50	2.46	-1.42	-20.36	
5,586.5	36.68	324.59	4,715.1	2,291.1	-1,586.4	0.00	0.00	0.00	0.00	
7,053.6	0.00	0.00	6,084.0	2,660.9	-1,849.3	2.50	-2.50	0.00	180.00	
8,828.6	0.00	0.00	7,859.0	2,660.9	-1,849.3	0.00	0.00	0.00	0.00	PBHL - Laramie 20-



Well Planning Report



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Project:	Mesa County, CO	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site:	Laramie 0993-29-01	North Reference:	True
Well:	Laramie 29-01 0993-20-11E	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #2		

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	
KOP (Build 2.5° / 100)										
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	2.50	340.00	300.0	2.0	-0.7	2.1	2.50	2.50	0.00	
400.0	5.00	340.00	399.7	8.2	-3.0	8.4	2.50	2.50	0.00	
500.0	7.50	340.00	499.1	18.4	-6.7	19.0	2.50	2.50	0.00	
EOB @ 10.00° Inc. / 340.00° Azm : Build 2.5° / 100'										
600.0	10.00	340.00	598.0	32.7	-11.9	33.7	2.50	2.50	0.00	
700.0	12.37	335.94	696.1	50.7	-19.2	52.6	2.50	2.37	-4.06	
800.0	14.79	333.18	793.3	71.8	-29.4	75.8	2.50	2.42	-2.76	
900.0	17.23	331.18	889.4	96.2	-42.3	103.1	2.50	2.44	-2.00	
1,000.0	19.68	329.67	984.2	123.7	-57.9	134.7	2.50	2.45	-1.51	
1,100.0	22.15	328.48	1,077.6	154.3	-76.3	170.3	2.50	2.46	-1.19	
1,200.0	24.62	327.51	1,169.4	188.0	-97.3	209.9	2.50	2.47	-0.96	
1,300.0	27.09	326.72	1,259.4	224.6	-121.0	253.5	2.50	2.48	-0.80	
1,400.0	29.57	326.05	1,347.4	264.1	-147.3	300.9	2.50	2.48	-0.67	
8 5/8"										
1,500.0	32.05	325.47	1,433.3	306.4	-176.1	352.1	2.50	2.48	-0.58	
1,600.0	34.54	324.97	1,516.9	351.5	-207.4	407.0	2.50	2.48	-0.50	
EOB @ 36.68° Inc. / 324.59° Azm										
1,685.9	36.68	324.59	1,586.7	392.4	-236.3	457.1	2.50	2.49	-0.45	
1,700.0	36.68	324.59	1,598.0	399.2	-241.2	465.5	0.00	0.00	0.00	
1,800.0	36.68	324.59	1,678.2	447.9	-275.8	525.2	0.00	0.00	0.00	
1,900.0	36.68	324.59	1,758.4	496.6	-310.4	584.9	0.00	0.00	0.00	
2,000.0	36.68	324.59	1,838.6	545.3	-345.0	644.6	0.00	0.00	0.00	
2,100.0	36.68	324.59	1,918.8	593.9	-379.6	704.4	0.00	0.00	0.00	
2,200.0	36.68	324.59	1,999.0	642.6	-414.2	764.1	0.00	0.00	0.00	
2,300.0	36.68	324.59	2,079.2	691.3	-448.8	823.8	0.00	0.00	0.00	
2,400.0	36.68	324.59	2,159.4	740.0	-483.5	883.5	0.00	0.00	0.00	
2,500.0	36.68	324.59	2,239.6	788.6	-518.1	943.3	0.00	0.00	0.00	
2,600.0	36.68	324.59	2,319.8	837.3	-552.7	1,003.0	0.00	0.00	0.00	
2,700.0	36.68	324.59	2,400.0	886.0	-587.3	1,062.7	0.00	0.00	0.00	
2,800.0	36.68	324.59	2,480.2	934.7	-621.9	1,122.4	0.00	0.00	0.00	
2,900.0	36.68	324.59	2,560.4	983.4	-656.5	1,182.2	0.00	0.00	0.00	
3,000.0	36.68	324.59	2,640.7	1,032.0	-691.1	1,241.9	0.00	0.00	0.00	
Wasatch 'G' Sand										
3,084.0	36.68	324.59	2,708.0	1,072.9	-720.2	1,292.0	0.00	0.00	0.00	
3,100.0	36.68	324.59	2,720.9	1,080.7	-725.7	1,301.6	0.00	0.00	0.00	
3,200.0	36.68	324.59	2,801.1	1,129.4	-760.4	1,361.3	0.00	0.00	0.00	
3,300.0	36.68	324.59	2,881.3	1,178.1	-795.0	1,421.1	0.00	0.00	0.00	
3,400.0	36.68	324.59	2,961.5	1,226.7	-829.6	1,480.8	0.00	0.00	0.00	
3,500.0	36.68	324.59	3,041.7	1,275.4	-864.2	1,540.5	0.00	0.00	0.00	
3,600.0	36.68	324.59	3,121.9	1,324.1	-898.8	1,600.2	0.00	0.00	0.00	
Fort Union										
3,684.9	36.68	324.59	3,190.0	1,365.4	-928.2	1,651.0	0.00	0.00	0.00	
3,700.0	36.68	324.59	3,202.1	1,372.8	-933.4	1,660.0	0.00	0.00	0.00	
3,800.0	36.68	324.59	3,282.3	1,421.4	-968.0	1,719.7	0.00	0.00	0.00	
3,900.0	36.68	324.59	3,362.5	1,470.1	-1,002.6	1,779.4	0.00	0.00	0.00	
4,000.0	36.68	324.59	3,442.7	1,518.8	-1,037.3	1,839.1	0.00	0.00	0.00	
4,100.0	36.68	324.59	3,522.9	1,567.5	-1,071.9	1,898.9	0.00	0.00	0.00	
4,200.0	36.68	324.59	3,603.1	1,616.2	-1,106.5	1,958.6	0.00	0.00	0.00	
4,300.0	36.68	324.59	3,683.3	1,664.8	-1,141.1	2,018.3	0.00	0.00	0.00	



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Well:	Laramie 29-01 0993-20-11E	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #2		

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)	
4,400.0	36.68	324.59	3,763.5	1,713.5	-1,175.7	2,078.0	0.00	0.00	0.00	
4,500.0	36.68	324.59	3,843.7	1,762.2	-1,210.3	2,137.8	0.00	0.00	0.00	
Lower Wasatch										
4,532.8	36.68	324.59	3,870.0	1,778.2	-1,221.7	2,157.4	0.00	0.00	0.00	
4,600.0	36.68	324.59	3,923.9	1,810.9	-1,244.9	2,197.5	0.00	0.00	0.00	
4,700.0	36.68	324.59	4,004.1	1,859.5	-1,279.5	2,257.2	0.00	0.00	0.00	
4,800.0	36.68	324.59	4,084.3	1,908.2	-1,314.2	2,316.9	0.00	0.00	0.00	
4,900.0	36.68	324.59	4,164.5	1,956.9	-1,348.8	2,376.7	0.00	0.00	0.00	
5,000.0	36.68	324.59	4,244.7	2,005.6	-1,383.4	2,436.4	0.00	0.00	0.00	
5,100.0	36.68	324.59	4,324.9	2,054.3	-1,418.0	2,496.1	0.00	0.00	0.00	
5,200.0	36.68	324.59	4,405.1	2,102.9	-1,452.6	2,555.8	0.00	0.00	0.00	
5,300.0	36.68	324.59	4,485.3	2,151.6	-1,487.2	2,615.6	0.00	0.00	0.00	
5,400.0	36.68	324.59	4,565.5	2,200.3	-1,521.8	2,675.3	0.00	0.00	0.00	
5,500.0	36.68	324.59	4,645.7	2,249.0	-1,556.4	2,735.0	0.00	0.00	0.00	
Ohio Creek										
5,509.1	36.68	324.59	4,653.0	2,253.4	-1,559.6	2,740.4	0.00	0.00	0.00	
Drop 2.5° /100'										
5,586.5	36.68	324.59	4,715.1	2,291.1	-1,586.4	2,786.7	0.00	0.00	0.00	
5,600.0	36.34	324.59	4,725.9	2,297.6	-1,591.0	2,794.7	2.50	-2.50	0.00	
5,700.0	33.84	324.59	4,807.8	2,344.5	-1,624.3	2,852.2	2.50	-2.50	0.00	
5,800.0	31.34	324.59	4,892.0	2,388.3	-1,655.6	2,906.0	2.50	-2.50	0.00	
5,900.0	28.84	324.59	4,978.5	2,429.2	-1,684.6	2,956.2	2.50	-2.50	0.00	
Williams Fork										
5,993.1	26.51	324.59	5,061.0	2,464.5	-1,709.7	2,999.4	2.50	-2.50	0.00	
6,000.0	26.34	324.59	5,067.2	2,466.9	-1,711.4	3,002.5	2.50	-2.50	0.00	
6,100.0	23.84	324.59	5,157.7	2,501.5	-1,736.0	3,044.9	2.50	-2.50	0.00	
6,200.0	21.34	324.59	5,250.0	2,532.8	-1,758.3	3,083.3	2.50	-2.50	0.00	
6,300.0	18.84	324.59	5,343.9	2,560.8	-1,778.2	3,117.6	2.50	-2.50	0.00	
6,400.0	16.34	324.59	5,439.3	2,585.4	-1,795.7	3,147.8	2.50	-2.50	0.00	
6,500.0	13.84	324.59	5,535.8	2,606.6	-1,810.8	3,173.9	2.50	-2.50	0.00	
6,600.0	11.34	324.59	5,633.4	2,624.4	-1,823.4	3,195.7	2.50	-2.50	0.00	
6,700.0	8.84	324.59	5,731.8	2,638.7	-1,833.5	3,213.2	2.50	-2.50	0.00	
6,800.0	6.34	324.59	5,831.0	2,649.4	-1,841.2	3,226.4	2.50	-2.50	0.00	
6,900.0	3.84	324.59	5,930.6	2,656.7	-1,846.3	3,235.2	2.50	-2.50	0.00	
7,000.0	1.34	324.59	6,030.4	2,660.3	-1,849.0	3,239.8	2.50	-2.50	0.00	
EOD @ Vertical - TOG										
7,053.6	0.00	0.00	6,084.0	2,660.9	-1,849.3	3,240.4	2.50	-2.50	66.12	
7,100.0	0.00	0.00	6,130.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
7,200.0	0.00	0.00	6,230.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
7,300.0	0.00	0.00	6,330.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
7,400.0	0.00	0.00	6,430.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
7,500.0	0.00	0.00	6,530.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
7,600.0	0.00	0.00	6,630.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
7,700.0	0.00	0.00	6,730.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
7,800.0	0.00	0.00	6,830.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
7,900.0	0.00	0.00	6,930.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,030.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,130.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
8,200.0	0.00	0.00	7,230.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
Cameo										
8,252.6	0.00	0.00	7,283.0	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
8,300.0	0.00	0.00	7,330.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
8,400.0	0.00	0.00	7,430.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	



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Wellbore:	OH		
Design:	Design #2		

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)	
8,500.0	0.00	0.00	7,530.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
Rollins										
8,578.6	0.00	0.00	7,609.0	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
8,600.0	0.00	0.00	7,630.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
8,700.0	0.00	0.00	7,730.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
8,800.0	0.00	0.00	7,830.4	2,660.9	-1,849.3	3,240.4	0.00	0.00	0.00	
TD @ 8828.6' MD / 7859.0' TVD										
8,828.6	0.00	0.00	7,859.0	2,660.9	-1,849.3	3,240.4	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	
PBHL - Laramie 20-11 - hit/miss target - Shape - Circle (radius 50.0)	0.00	0.00	7,859.0	2,660.9	-1,849.3	1,528,514.11	2,351,498.27	39.262056	-107.790648	

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
1,500.0	1,433.3	8 5/8"	8-5/8	11		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,084.0	2,708.0	Wasatch 'G' Sand				
3,684.9	3,190.0	Fort Union				
4,532.8	3,870.0	Lower Wasatch				
5,509.1	4,653.0	Ohio Creek				
5,993.1	5,061.0	Williams Fork				
7,053.6	6,084.0	TOG				
8,252.6	7,283.0	Cameo				
8,578.6	7,609.0	Rollins				

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	KOP (Build 2.5° / 100)	
600.0	598.0	32.7	-11.9	EOB @ 10.00° Inc. / 340.00° Azm : Build 2.5° / 100'	
1,685.9	1,586.7	392.4	-236.3	EOB @ 36.68° Inc. / 324.59° Azm	
5,586.5	4,715.1	2,291.1	-1,586.4	Drop 2.5° / 100'	
7,053.6	6,084.0	2,660.9	-1,849.3	EOD @ Vertical	
8,828.6	7,859.0	2,660.9	-1,849.3	TD @ 8828.6' MD / 7859.0' TVD	