Laramie Energy, LLC

Mesa County, CO
Currier 0993-16-07 Pad
Currier BCU 0993-16-14W

OH
Design #3

KLX Anticollision Report

23 September, 2025

KLX Directional Drilling

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Reference Design #3

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.0 usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 9/23/2025

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	9,382.6	Design #3 (OH)	OWSG (REV5) MWD HD(	OWSG MWD - Standard

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Currier 0993-16-07 Pad						
(Offset) Buzzard Creek 15-12 - Wellbore #1 - Wellbore #	2,394.5	1,960.4	2,525.9	2,503.5	112.777	CC
(Offset) Buzzard Creek 15-12 - Wellbore #1 - Wellbore #	2,500.0	2,040.3	2,526.8	2,503.2	107.215	ES
(Offset) Buzzard Creek 15-12 - Wellbore #1 - Wellbore #	9,280.0	8,610.0	4,231.0	4,149.5	51.909	SF
(Offset) Buzzard Creek 16-1 - Wellbore #1 - Wellbore #1	206.2	198.9	2,018.0	2,015.1	708.760	CC
(Offset) Buzzard Creek 16-1 - Wellbore #1 - Wellbore #1	300.0	292.7	2,018.6	2,014.5	491.349	ES
(Offset) Buzzard Creek 16-1 - Wellbore #1 - Wellbore #1	9,200.0	8,548.0	4,847.2	4,778.8	70.867	SF
(Offset) Buzzard Creek 16-10 - Wellbore #1 - Wellbore #	4,379.3	4,524.8	1,748.7	1,695.9	33.103	CC
(Offset) Buzzard Creek 16-10 - Wellbore #1 - Wellbore #	4,400.0	4,537.6	1,748.8	1,695.7	32.963	ES
(Offset) Buzzard Creek 16-10 - Wellbore #1 - Wellbore #	9,200.0	8,669.0	1,950.9	1,873.2	25.108	SF
(Offset) Buzzard Creek 16-12 - Wellbore #1 - Wellbore #	4,783.2	4,193.5	1,906.6	1,841.7	29.364	CC
(Offset) Buzzard Creek 16-12 - Wellbore #1 - Wellbore #	4,900.0	4,294.2	1,907.6	1,841.4	28.856	ES
(Offset) Buzzard Creek 16-12 - Wellbore #1 - Wellbore #	9,200.0	8,283.2	1,961.6	1,871.2	21.694	SF
(Offset) Buzzard Creek 16-8 - Wellbore #1 - Wellbore #1	220.1	216.6	2,015.7	2,012.7	675.083	CC
(Offset) Buzzard Creek 16-8 - Wellbore #1 - Wellbore #1	300.0	294.4	2,016.1	2,012.3	519.601	ES
(Offset) Buzzard Creek 16-8 - Wellbore #1 - Wellbore #1	8,400.0	7,762.0	3,783.7	3,715.3	55.344	SF
(Offset) Buzzard Creek 21-1 - Wellbore #1 - Wellbore #1	2,633.1	2,012.9	2,552.7	2,526.9	98.813	CC
(Offset) Buzzard Creek 21-1 - Wellbore #1 - Wellbore #1	2,800.0	2,150.7	2,553.8	2,525.9	91.601	ES
(Offset) Buzzard Creek 21-1 - Wellbore #1 - Wellbore #1	9,300.0	8,660.0	2,822.6	2,738.1	33.401	SF
(Offset) Currier 9-15 - Wellbore #1 - Wellbore #1	0.0	0.0	1,233.3			
(Offset) Currier 9-15 - Wellbore #1 - Wellbore #1	200.0	198.2	1,233.5	1,230.8	448.820	ES
(Offset) Currier 9-15 - Wellbore #1 - Wellbore #1	1,500.0	1,442.0	1,574.2	1,557.2	92.427	SF
(Offset) Currier Family 16-3 - Wellbore #1 - Wellbore #1	0.0	0.0	1,221.6			
(Offset) Currier Family 16-3 - Wellbore #1 - Wellbore #1	200.0	198.8	1,221.7	1,219.1	471.354	ES
(Offset) Currier Family 16-3 - Wellbore #1 - Wellbore #1	9,382.6	8,650.0	4,151.8	4,076.2	54.930	SF
Currier 0993-16-01M - OH - Design #3	200.0	200.0	51.0	48.2	18.024	CC, ES
Currier 0993-16-01M - OH - Design #3	400.0	395.8	64.5	57.8	9.589	SF
Currier 0993-16-03M - OH - Design #2	200.0	200.0	41.2	38.4	14.577	CC, ES
Currier 0993-16-03M - OH - Design #2	500.0	495.0	65.6	58.0	8.584	SF
Currier 0993-16-04M - OH - Design #4	200.0	200.0	31.6	28.8	11.177	CC, ES
Currier 0993-16-04M - OH - Design #4	400.0	398.6	41.3	35.5	7.069	SF
Currier BCU 0993-16-05M - OH - Design #2	200.0	200.0	14.1	11.3	4.999	CC, ES
Currier BCU 0993-16-05M - OH - Design #2	400.0	399.7	22.9	16.8	3.805	SF
Currier BCU 0993-16-06W - OH - Design #3	200.0	200.0	10.0	7.2	3.534	CC, ES
Currier BCU 0993-16-06W - OH - Design #3	400.0	399.7	17.5	11.7	3.009	SF
Currier BCU 0993-16-07M - OH - Design #2	200.0	200.0	14.1	11.3	4.994	CC
Currier BCU 0993-16-07M - OH - Design #2	300.0	300.0	14.4	10.8	3.956	ES

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Currier 0993-16-07 Pad						
Currier BCU 0993-16-07M - OH - Design #2	400.0	399.7	17.1	12.1	3.414	SF
Currier BCU 0993-16-08M - OH - Design #3	442.7	442.2	29.0	24.4	6.296	CC, ES
Currier BCU 0993-16-08M - OH - Design #3	600.0	598.0	35.1	28.5	5.312	SF
Currier BCU 0993-16-09M - OH - Design #2	363.6	363.4	8.3	4.2	2.040	Level 1, CC, ES
Currier BCU 0993-16-09M - OH - Design #2	400.0	399.6	8.5	4.3	2.013	Level 1, SF
Currier BCU 0993-16-11E - OH - Design #3	200.0	200.0	50.1	47.3	17.705	CC, ES
Currier BCU 0993-16-11E - OH - Design #3	500.0	497.9	66.5	60.5	11.069	SF
Currier BCU 0993-16-13E - OH - Design #3	200.0	200.0	40.0	37.2	14.142	CC, ES
Currier BCU 0993-16-13E - OH - Design #3	500.0	500.0	52.4	46.6	9.006	SF
Currier BCU 0993-16-13W - OH - Design #2	304.4	303.9	19.5	15.8	5.296	CC
Currier BCU 0993-16-13W - OH - Design #2	400.0	398.7	20.3	14.9	3.736	ES
Currier BCU 0993-16-13W - OH - Design #2	1,900.0	1,888.6	82.0	59.2	3.598	SF
Currier BCU 0993-16-14E - OH - Design #2	210.2	210.3	30.0	27.2	10.750	CC
Currier BCU 0993-16-14E - OH - Design #2	300.0	300.3	30.8	27.1	8.401	ES
Currier BCU 0993-16-14E - OH - Design #2	400.0	400.5	33.6	28.6	6.804	SF
Currier BCU 0993-16-15E - OH - Design #3	200.0	200.0	20.0	17.2	7.071	CC
Currier BCU 0993-16-15E - OH - Design #3	300.0	300.2	20.8	17.1	5.659	ES
Currier BCU 0993-16-15E - OH - Design #3	400.0	400.4	23.3	18.3	4.610	SF
Currier BCU 0993-16-15W - OH - Design #2	219.8	219.8	10.0	7.0	3.314	CC
Currier BCU 0993-16-15W - OH - Design #2	300.0	300.2	10.3	6.4	2.611	ES
Currier BCU 0993-16-15W - OH - Design #2	2,200.0	2,211.0	59.1	30.1	2.036	Level 1, SF
Currier BCU Fed 0993-16-12W - OH - Design #3	113.0	113.0	30.0	28.3	17.249	CC
Currier BCU Fed 0993-16-12W - OH - Design #3	300.0	298.8	30.7	26.5	7.282	ES
Currier BCU Fed 0993-16-12W - OH - Design #3	400.0	397.6	32.7	26.7	5.422	SF

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 15-12 - Wellbore #1 - Wellbore #1

Survey Program: 219-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	134.01	-1,887.8	1,954.4	2,720.9			
100.0	100.0	0.0	0.0	0.8	0.0	134.01	-1,887.8	1,954.4	2,717.6	2,716.8	3,428.161	
147.7	147.7	7.3	7.3	1.1	0.1	134.01	-1,887.8	1,954.4	2,717.3	2,716.1	2,373.967	
200.0	200.0	56.7	56.7	1.4	0.4	134.01	-1,887.8	1,954.4	2,717.3	2,715.5	1,473.886	
300.0	300.0	151.3	151.3	2.1	1.1	-41.04	-1,888.1	1,954.5	2,715.9	2,712.8	870.445	
400.0	399.7	239.3	239.3	3.8	1.8	-41.19	-1,888.5	1,954.7	2,711.4	2,706.5	549.722	
500.0	499.1	311.0	311.0	4.5	2.2	-43.46	-1,888.9	1,955.5	2,704.5	2,698.7	466.616	
600.0	598.0	487.7	487.7	5.0	2.9	-51.52	-1,887.1	1,956.2	2,693.6	2,686.7	391.754	
700.0	696.2	544.7	544.7	5.8	3.0	-56.54	-1,886.3	1,956.7	2,682.1	2,674.4	349.484	
800.0	793.6	615.9	615.9	6.6	3.3	-60.18	-1,885.6	1,958.6	2,671.1	2,662.6	314.213	
900.0	889.9	724.7	724.5	7.4	3.9	-63.28	-1,882.8	1,962.6	2,658.9	2,649.5	282.357	
1,000.0	984.9	802.3	802.0	8.1	4.0	-65.75	-1,880.3	1,966.0	2,646.4	2,636.4	264.405	
1,100.0	1,078.6	875.2	874.8	8.8	4.2	-67.89	-1,878.2	1,969.9	2,634.0	2,623.4	249.064	
1,200.0	1,170.6	970.9	970.3	9.4	4.4	-70.07	-1,874.8	1,975.7	2,621.5	2,610.2	233.537	
1,300.0	1,260.9	1,060.6	1,059.7	10.1	4.6	-72.11	-1,871.1	1,981.4	2,608.8	2,596.8	218.892	
1,400.0	1,349.3	1,144.8	1,143.6	10.7	4.8	-74.03	-1,867.8	1,986.6	2,596.2	2,583.6	205.004	
1,500.0	1,435.5	1,227.0	1,225.6	11.3	5.1	-75.88	-1,864.5	1,991.7	2,584.2	2,570.7	192.516	
1,600.0	1,520.2	1,325.1	1,323.4	11.6	5.4	-77.31	-1,860.1	1,998.0	2,572.8	2,558.5	180.378	
1,700.0	1,604.9	1,421.1	1,419.0	11.9	5.8	-78.59	-1,854.1	2,004.2	2,562.0	2,546.8	168.564	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

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Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 15-12 - Wellbore #1 - Wellbore #1

Survey Program: 219-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
1,800.0	1,689.5	1,492.0	1,489.6	12.3	6.1	-79.54	-1,849.7	2,008.8	2,552.5	2,536.4	158.152	
1,900.0	1,774.2	1,573.0	1,570.3	12.7	6.4	-80.63	-1,845.1	2,014.1	2,544.6	2,527.5	148.479	
2,000.0	1,858.8	1,657.7	1,654.7	13.1	6.8	-81.77	-1,840.0	2,019.5	2,538.0	2,519.8	139.652	
2,100.0	1,943.5	1,738.3	1,735.0	13.6	7.1	-82.86	-1,834.9	2,024.7	2,532.7	2,513.5	131.753	
2,200.0	2,028.1	1,813.9	1,810.3	14.2	7.4	-83.89	-1,830.2	2,029.6	2,528.8	2,508.5	124.671	
2,300.0	2,112.8	1,891.0	1,887.1	14.9	7.7	-84.94	-1,825.5	2,034.8	2,526.6	2,505.2	118.251	
2,394.5	2,192.8	1,960.4	1,956.2	15.6	8.0	-85.88	-1,821.3	2,039.6	2,525.9	2,503.5	112.777	CC
2,400.0	2,197.4	1,964.7	1,960.4	15.7	8.0	-85.94	-1,821.1	2,039.8	2,525.9	2,503.5	112.472	
2,500.0	2,282.1	2,040.3	2,035.7	16.5	8.3	-86.97	-1,816.5	2,045.1	2,526.8	2,503.2	107.215	ES
2,600.0	2,366.7	2,112.0	2,107.2	17.4	8.6	-87.94	-1,812.4	2,050.3	2,529.3	2,504.6	102.497	
2,700.0	2,451.4	2,188.0	2,182.8	18.3	8.9	-88.97	-1,808.2	2,055.9	2,533.4	2,507.6	98.163	
2,800.0	2,536.0	2,263.0	2,257.5	19.2	9.2	-89.98	-1,804.2	2,061.4	2,539.0	2,512.0	94.230	
2,900.0	2,620.7	2,338.4	2,332.5	20.1	9.5	-90.99	-1,800.3	2,067.1	2,546.1	2,518.0	90.643	
3,000.0	2,705.3	2,419.2	2,413.0	21.0	9.8	-92.07	-1,796.3	2,073.4	2,554.8	2,525.6	87.329	
3,100.0	2,790.0	2,516.5	2,509.9	21.9	10.2	-93.37	-1,790.9	2,080.7	2,564.5	2,534.1	84.141	
3,200.0	2,874.6	2,598.5	2,591.6	22.8	10.5	-94.46	-1,786.0	2,086.6	2,575.3	2,543.7	81.381	
3,300.0	2,959.3	2,674.2	2,666.9	23.7	10.8	-95.46	-1,781.5	2,092.0	2,587.4	2,554.6	78.910	
3,400.0	3,043.9	2,743.7	2,736.1	24.7	11.1	-96.38	-1,777.3	2,097.2	2,601.2	2,567.2	76.712	
3,500.0	3,128.6	2,824.6	2,816.6	25.6	11.4	-97.44	-1,772.4	2,103.5	2,616.4	2,581.3	74.609	
3,600.0	3,213.2	2,905.0	2,896.6	26.5	11.7	-98.49	-1,767.6	2,109.6	2,632.8	2,596.5	72.684	
3,700.0	3,297.9	2,976.1	2,967.3	27.4	12.0	-99.41	-1,763.2	2,115.2	2,650.6	2,613.3	70.997	
3,800.0	3,382.5	3,049.8	3,040.7	28.3	12.3	-100.36	-1,758.4	2,121.3	2,669.9	2,631.5	69.461	
3,900.0	3,467.2	3,121.6	3,112.1	29.3	12.6	-101.28	-1,753.4	2,127.3	2,690.6	2,651.1	68.090	
4,000.0	3,551.9	3,183.8	3,173.8	30.2	12.8	-102.08	-1,748.7	2,132.8	2,712.9	2,672.4	66.921	
4,100.0	3,636.5	3,249.4	3,238.9	31.1	13.1	-102.92	-1,743.4	2,139.1	2,736.9	2,695.3	65.814	
4,200.0	3,721.2	3,319.0	3,307.9	32.0	13.4	-103.81	-1,737.7	2,146.0	2,762.4	2,719.8	64.781	
4,300.0	3,805.8	3,383.8	3,372.2	32.9	13.7	-104.63	-1,732.3	2,152.7	2,789.4	2,745.7	63.898	
4,400.0	3,890.5	3,455.9	3,443.6	33.9	13.9	-105.54	-1,725.7	2,160.4	2,817.8	2,773.1	63.055	
4,500.0	3,975.1	3,506.0	3,493.1	34.8	14.1	-106.17	-1,720.8	2,165.7	2,847.5	2,801.9	62.466	
4,600.0	4,059.8	3,563.4	3,549.8	35.7	14.4	-106.89	-1,714.8	2,172.3	2,878.9	2,832.4	61.884	
4,700.0	4,144.4	3,598.0	3,583.9	36.6	14.6	-107.33	-1,711.0	2,176.7	2,912.4	2,865.1	61.581	
4,800.0	4,229.1	3,650.1	3,635.2	37.6	14.8	-107.98	-1,704.9	2,183.8	2,947.7	2,899.5	61.171	
4,900.0	4,313.7	3,691.0	3,675.3	38.5	15.0	-108.50	-1,699.8	2,189.8	2,984.9	2,935.9	60.943	
5,000.0	4,398.4	3,728.3	3,711.8	39.4	15.2	-108.96	-1,694.8	2,195.7	3,024.0	2,974.3	60.804	
5,100.0	4,483.0	3,784.0	3,766.1	40.3	15.5	-109.66	-1,687.0	2,205.3	3,065.2	3,014.6	60.551	
5,200.0	4,567.7	3,784.0	3,766.1	41.3	15.5	-109.66	-1,687.0	2,205.3	3,108.0	3,057.0	60.935	
5,300.0	4,652.3	3,832.2	3,812.9	42.2	15.8	-110.30	-1,680.1	2,214.5	3,152.6	3,100.8	60.869	
5,400.0	4,738.2	3,877.0	3,856.3	43.1	16.1	-112.02	-1,673.7	2,223.7	3,198.4	3,145.8	60.889	
5,500.0	4,826.2	3,877.0	3,856.3	43.9	16.1	-113.22	-1,673.7	2,223.7	3,244.5	3,191.7	61.511	
5,600.0	4,916.2	3,935.9	3,913.1	44.7	16.4	-114.99	-1,664.9	2,236.9	3,290.3	3,236.8	61.508	
5,700.0	5,008.1	3,970.0	3,945.7	45.4	16.6	-116.47	-1,659.6	2,245.0	3,336.2	3,282.3	61.872	
5,800.0	5,101.5	4,017.7	3,991.2	46.0	16.8	-117.99	-1,651.9	2,256.9	3,381.8	3,327.4	62.167	
5,900.0	5,196.4	4,069.0	4,040.1	46.6	17.1	-119.46	-1,643.4	2,270.1	3,426.7	3,371.9	62.466	
6,000.0	5,292.7	4,124.0	4,092.2	47.0	17.3	-120.88	-1,633.5	2,284.6	3,470.8	3,415.5	62.762	
6,100.0	5,390.0	4,164.9	4,130.9	47.5	17.6	-122.13	-1,625.8	2,295.6	3,514.1	3,458.5	63.242	
6,200.0	5,488.2	4,216.0	4,178.8	47.8	17.8	-123.37	-1,615.6	2,310.0	3,556.5	3,500.6	63.638	
6,300.0	5,587.1	4,277.3	4,236.2	48.1	18.2	-124.57	-1,603.2	2,327.7	3,597.7	3,541.4	63.927	
6,400.0	5,686.6	4,357.2	4,310.9	48.3	18.6	-125.72	-1,587.1	2,351.0	3,637.1	3,580.3	64.000	
6,500.0	5,786.4	4,447.5	4,395.3	48.4	19.0	-126.77	-1,569.1	2,377.5	3,674.4	3,616.9	63.988	
6,600.0	5,886.4	4,536.8	4,478.8	48.4	19.5	73.33	-1,551.0	2,403.7	3,709.3	3,651.4	64.087	
6,700.0	5,986.4	4,624.2	4,560.2	48.4	19.9	73.16	-1,532.3	2,429.1	3,743.6	3,685.3	64.241	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 15-12 - Wellbore #1 - Wellbore #1

Survey Program: 219-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
6,800.0	6,086.4	4,713.0	4,642.9	48.4	20.3	72.97	-1,512.4	2,454.8	3,778.0	3,719.4	64.380	
6,900.0	6,186.4	4,789.0	4,713.5	48.4	20.7	72.81	-1,495.2	2,477.0	3,812.8	3,753.9	64.668	
7,000.0	6,286.4	4,863.4	4,782.7	48.4	21.1	72.67	-1,478.8	2,499.0	3,848.0	3,788.8	64.972	
7,100.0	6,386.4	4,929.3	4,843.8	48.4	21.4	72.55	-1,464.8	2,519.2	3,883.8	3,824.4	65.378	
7,200.0	6,486.4	5,016.3	4,924.5	48.4	21.9	72.41	-1,446.9	2,546.5	3,920.1	3,860.2	65.527	
7,300.0	6,586.4	5,109.8	5,011.2	48.4	22.3	72.26	-1,427.7	2,575.7	3,956.2	3,895.9	65.591	
7,400.0	6,686.4	5,180.4	5,076.6	48.4	22.7	72.15	-1,412.9	2,597.9	3,992.8	3,932.2	65.931	
7,500.0	6,786.4	5,296.0	5,183.4	48.4	23.3	71.96	-1,387.8	2,634.1	4,029.5	3,968.2	65.739	
7,600.0	6,886.4	5,448.1	5,324.3	48.4	24.1	71.67	-1,352.8	2,679.3	4,065.2	4,002.8	65.139	
7,700.0	6,986.4	5,528.2	5,398.6	48.4	24.5	71.50	-1,333.8	2,702.3	4,100.3	4,037.6	65.344	
7,800.0	7,086.4	5,659.7	5,520.7	48.4	25.1	71.24	-1,302.6	2,740.2	4,135.6	4,072.0	64.981	
7,900.0	7,186.4	6,117.3	5,954.2	48.4	27.7	70.61	-1,215.7	2,857.3	4,166.9	4,099.0	61.354	
8,000.0	7,286.4	6,580.3	6,404.6	48.4	29.9	70.17	-1,152.4	2,943.2	4,189.5	4,118.1	58.661	
8,100.0	7,386.4	6,925.6	6,745.4	48.4	31.5	69.90	-1,116.4	2,984.8	4,204.8	4,131.2	57.201	
8,200.0	7,486.4	7,112.0	6,930.3	48.5	32.4	69.75	-1,098.6	3,000.0	4,215.7	4,141.2	56.576	
8,300.0	7,586.4	7,345.4	7,162.6	48.5	33.6	69.58	-1,080.5	3,013.9	4,224.0	4,148.2	55.667	
8,400.0	7,686.4	7,564.4	7,381.2	48.5	34.7	69.47	-1,068.7	3,021.9	4,229.3	4,152.3	54.900	
8,500.0	7,786.4	7,778.4	7,594.9	48.5	35.8	69.36	-1,059.5	3,024.2	4,231.9	4,153.8	54.189	
8,600.0	7,886.4	7,902.4	7,718.8	48.5	36.1	69.31	-1,055.5	3,024.1	4,232.9	4,154.5	54.012	
8,700.0	7,986.4	8,035.4	7,851.8	48.5	36.5	69.28	-1,052.9	3,023.5	4,233.2	4,154.5	53.775	
8,800.0	8,086.4	8,146.4	7,962.8	48.5	37.1	69.26	-1,051.6	3,022.6	4,232.8	4,153.7	53.463	
8,900.0	8,186.4	8,246.4	8,062.8	48.5	37.6	69.24	-1,050.6	3,021.8	4,232.4	4,152.8	53.120	
9,000.0	8,286.4	8,346.4	8,162.8	48.5	38.2	69.22	-1,049.6	3,021.0	4,232.1	4,151.9	52.781	
9,100.0	8,386.4	8,446.4	8,262.8	48.5	38.7	69.21	-1,048.5	3,020.2	4,231.7	4,151.0	52.445	
9,200.0	8,486.4	8,546.4	8,362.8	48.5	39.3	69.19	-1,047.5	3,019.4	4,231.3	4,150.1	52.113	
9,280.0	8,566.4	8,610.0	8,426.4	48.5	39.7	69.18	-1,046.8	3,018.9	4,231.0	4,149.5	51.909	SF
9,300.0	8,586.4	8,610.0	8,426.4	48.5	39.7	69.18	-1,046.8	3,018.9	4,231.0	4,149.5	51.917	
9,382.6	8,669.0	8,610.0	8,426.4	48.5	39.7	69.18	-1,046.8	3,018.9	4,232.2	4,150.8	51.975	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 16-1 - Wellbore #1 - Wellbore #1

Survey Program: 200-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	66.42	807.4	1,849.5	2,018.1			
100.0	100.0	91.8	91.8	0.8	0.7	66.41	807.5	1,849.4	2,018.0	2,016.6	1,399.683	
200.0	200.0	192.7	192.7	1.4	1.4	66.40	807.7	1,849.2	2,018.0	2,015.2	726.345	
206.2	206.2	198.9	198.9	1.5	1.4	-108.60	807.8	1,849.2	2,018.0	2,015.1	708.760	CC
300.0	300.0	292.7	292.7	2.1	2.3	-108.65	808.1	1,849.0	2,018.6	2,014.5	491.349	ES
400.0	399.7	392.5	392.5	3.8	3.3	-108.79	808.5	1,848.7	2,020.6	2,014.9	356.785	
500.0	499.1	492.4	492.4	4.5	5.4	-111.05	808.9	1,848.4	2,024.1	2,016.0	252.053	
600.0	598.0	591.8	591.7	5.0	7.5	-118.72	809.4	1,848.1	2,030.4	2,019.8	192.162	
700.0	696.2	690.4	690.4	5.8	9.5	-123.57	810.1	1,847.6	2,040.1	2,026.9	154.000	
800.0	793.6	788.1	788.1	6.6	11.5	-126.93	810.8	1,847.1	2,053.5	2,037.6	129.314	
900.0	889.9	884.6	884.6	7.4	13.5	-129.43	811.7	1,846.5	2,070.4	2,051.8	111.799	
1,000.0	984.9	979.7	979.7	8.1	15.3	-131.38	812.7	1,845.8	2,090.9	2,069.9	99.455	
1,100.0	1,078.6	1,071.7	1,071.7	8.8	15.5	-132.93	813.5	1,845.2	2,115.1	2,093.2	96.594	
1,200.0	1,170.6	1,159.5	1,159.5	9.4	15.7	-134.18	814.0	1,844.9	2,143.2	2,120.4	94.178	
1,300.0	1,260.9	1,245.0	1,245.0	10.1	15.9	-135.22	814.7	1,844.8	2,175.1	2,151.5	92.087	
1,400.0	1,349.3	1,331.0	1,331.0	10.7	16.1	-136.11	815.5	1,844.7	2,211.0	2,186.5	90.261	
1,500.0	1,435.5	1,419.3	1,419.2	11.3	16.3	-136.90	816.5	1,844.6	2,250.6	2,225.1	88.416	
1,600.0	1,520.2	1,508.7	1,508.7	11.6	16.6	-137.79	817.5	1,844.2	2,292.7	2,266.5	87.419	
1,700.0	1,604.9	1,597.0	1,597.0	11.9	16.8	-138.68	818.7	1,843.5	2,335.2	2,308.2	86.448	
1,800.0	1,689.5	1,680.2	1,680.1	12.3	17.1	-139.49	819.8	1,842.8	2,378.1	2,350.3	85.559	
1,900.0	1,774.2	1,763.2	1,763.1	12.7	17.3	-140.28	821.0	1,842.0	2,421.5	2,392.9	84.726	
2,000.0	1,858.8	1,846.1	1,846.0	13.1	17.6	-141.05	822.2	1,841.3	2,465.3	2,436.0	83.954	
2,100.0	1,943.5	1,928.5	1,928.4	13.6	17.8	-141.78	823.5	1,840.6	2,509.7	2,479.5	83.259	
2,200.0	2,028.1	2,010.8	2,010.6	14.2	18.1	-142.50	825.0	1,839.8	2,554.4	2,523.5	82.616	
2,300.0	2,112.8	2,092.8	2,092.7	14.9	18.3	-143.20	826.6	1,839.0	2,599.6	2,567.9	82.026	
2,400.0	2,197.4	2,173.9	2,173.8	15.7	18.6	-143.88	828.3	1,838.2	2,645.2	2,612.7	81.504	
2,500.0	2,282.1	2,255.0	2,254.8	16.5	18.8	-144.53	830.2	1,837.4	2,691.2	2,658.0	81.026	
2,600.0	2,366.7	2,334.0	2,333.8	17.4	19.0	-145.15	832.0	1,836.7	2,737.6	2,703.7	80.606	
2,700.0	2,451.4	2,416.9	2,416.7	18.3	19.3	-145.78	834.0	1,836.0	2,784.4	2,749.7	80.191	
2,800.0	2,536.0	2,498.1	2,497.8	19.2	19.5	-146.38	835.9	1,835.4	2,831.6	2,796.1	79.825	
2,900.0	2,620.7	2,579.2	2,578.9	20.1	19.8	-146.96	837.8	1,835.0	2,879.1	2,842.9	79.489	
3,000.0	2,705.3	2,660.5	2,660.2	21.0	20.0	-147.52	839.6	1,834.7	2,927.0	2,890.0	79.167	
3,100.0	2,790.0	2,741.7	2,741.4	21.9	20.2	-148.06	841.4	1,834.5	2,975.1	2,937.4	78.870	
3,200.0	2,874.6	2,823.0	2,822.6	22.8	20.5	-148.59	843.3	1,834.4	3,023.6	2,985.1	78.595	
3,300.0	2,959.3	2,909.4	2,909.0	23.7	20.7	-149.13	845.2	1,834.3	3,072.2	3,033.0	78.363	
3,400.0	3,043.9	2,997.2	2,996.8	24.7	20.9	-149.66	847.0	1,834.1	3,121.0	3,081.1	78.148	
3,500.0	3,128.6	3,076.8	3,076.4	25.6	21.1	-150.14	848.6	1,833.9	3,169.9	3,129.3	78.062	
3,600.0	3,213.2	3,142.1	3,141.7	26.5	21.2	-150.52	850.5	1,833.6	3,219.4	3,178.2	78.199	
3,700.0	3,297.9	3,196.1	3,195.6	27.4	21.3	-150.85	852.8	1,833.2	3,269.6	3,227.9	78.435	
3,800.0	3,382.5	3,251.0	3,250.4	28.3	21.4	-151.19	856.2	1,832.4	3,320.8	3,278.6	78.698	
3,900.0	3,467.2	3,292.0	3,291.3	29.3	21.5	-151.46	859.5	1,831.7	3,373.0	3,330.4	79.069	
4,000.0	3,551.9	3,345.0	3,344.0	30.2	21.7	-151.81	864.7	1,830.6	3,426.4	3,383.2	79.385	
4,100.0	3,636.5	3,384.8	3,383.5	31.1	21.8	-152.08	869.4	1,829.6	3,480.6	3,437.0	79.830	
4,200.0	3,721.2	3,439.0	3,437.2	32.0	22.0	-152.46	876.6	1,827.9	3,535.9	3,491.8	80.187	
4,300.0	3,805.8	3,474.6	3,472.4	32.9	22.1	-152.71	881.9	1,826.7	3,592.1	3,547.6	80.728	
4,400.0	3,890.5	3,531.0	3,528.0	33.9	22.2	-153.12	891.0	1,825.0	3,649.4	3,604.4	81.123	
4,500.0	3,975.1	3,557.6	3,554.2	34.8	22.3	-153.31	895.6	1,824.2	3,707.5	3,662.2	81.796	
4,600.0	4,059.8	3,601.6	3,597.5	35.7	22.4	-153.62	903.6	1,822.9	3,766.6	3,720.8	82.339	
4,700.0	4,144.4	3,624.0	3,619.4	36.6	22.5	-153.78	907.8	1,822.2	3,826.6	3,780.5	83.109	
4,800.0	4,229.1	3,680.4	3,674.6	37.6	22.7	-154.20	919.4	1,820.2	3,887.3	3,840.8	83.548	
4,900.0	4,313.7	3,717.0	3,710.2	38.5	22.8	-154.47	927.7	1,818.7	3,949.1	3,902.2	84.209	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 16-1 - Wellbore #1 - Wellbore #1

Survey Program: 200-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,000.0	4,398.4	3,764.6	3,756.4	39.4	22.9	-154.83	939.0	1,816.5	4,011.7	3,964.3	84.762	
5,100.0	4,483.0	3,811.0	3,801.2	40.3	23.1	-155.19	950.7	1,814.2	4,074.9	4,027.1	85.341	
5,200.0	4,567.7	3,855.6	3,844.3	41.3	23.2	-155.53	962.3	1,811.7	4,138.8	4,090.6	85.963	
5,300.0	4,652.3	3,905.0	3,891.7	42.2	23.4	-155.94	975.6	1,809.0	4,203.4	4,154.8	86.547	
5,400.0	4,738.2	3,941.1	3,926.4	43.1	23.5	-157.03	985.6	1,807.0	4,267.0	4,218.1	87.189	
5,500.0	4,826.2	3,999.0	3,981.6	43.9	23.6	-158.16	1,002.4	1,803.5	4,328.3	4,278.8	87.502	
5,600.0	4,916.2	4,027.3	4,008.6	44.7	23.7	-159.00	1,010.9	1,801.8	4,386.9	4,337.2	88.116	
5,700.0	5,008.1	4,072.8	4,051.8	45.4	23.8	-159.86	1,024.8	1,799.0	4,443.1	4,392.9	88.510	
5,800.0	5,101.5	4,130.5	4,106.5	46.0	24.0	-160.70	1,043.0	1,795.5	4,496.5	4,445.8	88.729	
5,900.0	5,196.4	4,187.0	4,159.9	46.6	24.2	-161.46	1,061.0	1,792.0	4,546.9	4,495.8	88.932	
6,000.0	5,292.7	4,258.3	4,227.2	47.0	24.4	-162.22	1,084.1	1,787.4	4,594.2	4,542.5	88.912	
6,100.0	5,390.0	4,339.6	4,303.9	47.5	24.6	-162.94	1,110.8	1,782.3	4,638.3	4,586.0	88.732	
6,200.0	5,488.2	4,499.3	4,454.6	47.8	25.1	-163.89	1,162.1	1,771.0	4,677.7	4,624.2	87.515	
6,300.0	5,587.1	4,564.0	4,515.8	48.1	25.3	-164.39	1,182.8	1,766.8	4,713.6	4,659.6	87.420	
6,400.0	5,686.6	4,614.0	4,563.0	48.3	25.4	-164.79	1,199.0	1,763.8	4,746.2	4,692.0	87.524	
6,500.0	5,786.4	4,727.6	4,670.1	48.4	25.8	-165.35	1,236.1	1,756.1	4,774.9	4,720.0	86.843	
6,600.0	5,886.4	4,837.5	4,773.6	48.4	26.1	35.07	1,271.9	1,748.0	4,799.4	4,744.0	86.581	
6,700.0	5,986.4	4,947.4	4,877.2	48.4	26.5	34.73	1,307.7	1,739.3	4,822.4	4,766.5	86.419	
6,800.0	6,086.4	5,704.8	5,610.7	48.4	29.3	33.13	1,483.8	1,697.7	4,840.6	4,779.6	79.361	
6,900.0	6,186.4	5,823.4	5,728.4	48.4	29.7	33.02	1,498.6	1,695.6	4,850.1	4,788.7	79.047	
7,000.0	6,286.4	6,286.0	6,189.8	48.4	30.9	32.84	1,526.3	1,695.5	4,853.3	4,789.7	76.331	
7,100.0	6,386.4	6,369.2	6,273.0	48.4	31.1	32.82	1,528.2	1,695.5	4,855.2	4,791.5	76.242	
7,200.0	6,486.4	6,482.4	6,386.2	48.4	31.4	32.81	1,531.0	1,695.6	4,857.3	4,793.3	75.899	
7,300.0	6,586.4	6,606.9	6,510.6	48.4	31.8	32.78	1,534.1	1,694.4	4,858.9	4,794.5	75.461	
7,400.0	6,686.4	6,731.4	6,635.1	48.4	32.2	32.73	1,537.3	1,692.0	4,860.1	4,795.3	75.022	
7,500.0	6,786.4	6,841.0	6,744.6	48.4	32.5	32.69	1,540.1	1,689.3	4,860.9	4,795.9	74.797	
7,600.0	6,886.4	6,950.9	6,854.4	48.4	32.8	32.65	1,542.6	1,686.6	4,861.4	4,796.2	74.554	
7,700.0	6,986.4	7,059.1	6,962.6	48.4	33.1	32.61	1,544.4	1,684.4	4,861.8	4,796.4	74.327	
7,800.0	7,086.4	7,242.6	7,146.1	48.4	33.5	32.58	1,545.5	1,681.8	4,861.8	4,796.0	73.938	
7,900.0	7,186.4	7,374.3	7,277.7	48.4	33.7	32.57	1,543.5	1,679.8	4,859.5	4,793.5	73.659	
8,000.0	7,286.4	7,438.0	7,341.4	48.4	33.9	32.56	1,543.2	1,678.2	4,857.8	4,791.7	73.526	
8,100.0	7,386.4	7,501.7	7,405.1	48.4	34.1	32.53	1,543.8	1,676.1	4,856.9	4,790.7	73.408	
8,200.0	7,486.4	7,627.4	7,530.6	48.5	34.6	32.46	1,546.7	1,670.5	4,856.5	4,789.8	72.801	
8,300.0	7,586.4	7,801.7	7,704.7	48.5	35.1	32.36	1,547.8	1,661.8	4,854.1	4,786.6	71.896	
8,400.0	7,686.4	7,875.7	7,778.6	48.5	35.3	32.33	1,548.1	1,658.1	4,851.8	4,784.3	71.862	
8,500.0	7,786.4	7,949.7	7,852.6	48.5	35.4	32.29	1,548.7	1,654.7	4,850.0	4,782.4	71.838	
8,600.0	7,886.4	8,029.8	7,932.6	48.5	35.6	32.25	1,549.6	1,651.2	4,848.6	4,781.1	71.791	
8,700.0	7,986.4	8,116.5	8,019.2	48.5	35.8	32.21	1,550.6	1,648.0	4,847.6	4,780.0	71.715	
8,800.0	8,086.4	8,201.0	8,103.6	48.5	36.0	32.18	1,551.6	1,645.3	4,846.9	4,779.3	71.652	
8,900.0	8,186.4	8,287.3	8,189.9	48.5	36.3	32.14	1,552.7	1,642.8	4,846.5	4,778.7	71.448	
8,979.0	8,265.4	8,353.8	8,256.4	48.5	36.5	32.12	1,553.9	1,640.8	4,846.4	4,778.4	71.301	
9,000.0	8,286.4	8,371.5	8,274.1	48.5	36.5	32.11	1,554.2	1,640.3	4,846.4	4,778.4	71.263	
9,100.0	8,386.4	8,455.7	8,358.2	48.5	36.8	32.07	1,556.1	1,637.7	4,846.6	4,778.5	71.083	
9,200.0	8,486.4	8,548.0	8,450.4	48.5	37.2	32.03	1,558.5	1,634.7	4,847.2	4,778.8	70.867	SF
9,300.0	8,586.4	8,590.0	8,492.4	48.5	37.3	32.01	1,559.8	1,633.4	4,848.2	4,779.9	70.998	
9,382.6	8,669.0	8,590.0	8,492.4	48.5	37.3	32.01	1,559.8	1,633.4	4,850.3	4,782.3	71.270	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 16-10 - Wellbore #1 - Wellbore #1

Survey Program: 157-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	134.30	-1,887.8	1,934.6	2,706.7			
100.0	100.0	0.0	0.0	0.8	0.0	134.30	-1,887.8	1,934.6	2,703.3	2,702.5	3,410.191	
156.6	156.6	16.9	16.9	1.1	0.1	134.30	-1,887.8	1,934.6	2,703.0	2,701.8	2,166.024	
200.0	200.0	61.2	61.2	1.4	0.4	134.30	-1,887.9	1,934.5	2,703.0	2,701.2	1,510.673	
300.0	300.0	163.0	163.0	2.1	1.0	-40.75	-1,888.2	1,934.1	2,701.3	2,698.3	908.146	
400.0	399.7	274.5	274.5	3.8	1.6	-40.92	-1,888.4	1,933.6	2,696.2	2,691.4	563.827	
500.0	499.1	408.1	408.1	4.5	2.2	-43.31	-1,888.0	1,931.3	2,686.5	2,680.7	462.184	
600.0	598.0	524.6	524.5	5.0	2.6	-51.20	-1,887.8	1,928.2	2,674.4	2,667.7	403.642	
700.0	696.2	658.7	658.5	5.8	3.1	-56.49	-1,886.0	1,923.7	2,659.8	2,652.2	349.105	
800.0	793.6	775.3	775.0	6.6	3.5	-60.39	-1,883.7	1,919.2	2,643.5	2,635.0	312.646	
900.0	889.9	897.9	897.4	7.4	3.9	-63.62	-1,880.2	1,913.9	2,625.3	2,616.0	282.841	
1,000.0	984.9	1,042.1	1,041.4	8.1	4.4	-66.59	-1,875.3	1,905.7	2,605.1	2,594.9	254.899	
1,100.0	1,078.6	1,201.2	1,199.7	8.8	5.1	-69.48	-1,869.8	1,892.0	2,582.2	2,570.9	228.800	
1,200.0	1,170.6	1,359.0	1,356.4	9.4	5.8	-72.35	-1,861.8	1,874.7	2,556.2	2,543.8	206.912	
1,300.0	1,260.9	1,478.6	1,474.9	10.1	6.4	-74.94	-1,854.3	1,860.1	2,528.5	2,515.1	189.542	
1,400.0	1,349.3	1,551.0	1,546.5	10.7	6.7	-77.06	-1,849.6	1,851.1	2,500.6	2,486.4	175.882	
1,500.0	1,435.5	1,636.9	1,631.6	11.3	7.0	-79.28	-1,844.7	1,840.3	2,473.6	2,458.4	162.798	
1,600.0	1,520.2	1,763.0	1,756.4	11.6	7.6	-81.06	-1,837.0	1,823.3	2,446.3	2,430.0	150.096	
1,700.0	1,604.9	1,932.1	1,922.8	11.9	8.3	-83.19	-1,823.1	1,797.4	2,417.6	2,399.9	136.779	
1,800.0	1,689.5	2,115.3	2,102.0	12.3	9.2	-85.62	-1,803.4	1,764.2	2,387.1	2,367.9	124.385	
1,900.0	1,774.2	2,267.9	2,249.8	12.7	10.0	-87.73	-1,783.6	1,732.2	2,354.4	2,333.8	114.017	
2,000.0	1,858.8	2,408.0	2,384.5	13.1	10.7	-89.73	-1,763.2	1,699.5	2,320.6	2,298.6	105.258	
2,100.0	1,943.5	2,565.3	2,534.4	13.6	11.5	-92.09	-1,737.4	1,659.5	2,285.9	2,262.3	97.236	
2,200.0	2,028.1	2,712.1	2,672.7	14.2	12.3	-94.39	-1,710.9	1,618.0	2,249.5	2,224.6	90.048	
2,300.0	2,112.8	2,871.7	2,821.2	14.9	13.1	-96.98	-1,680.0	1,568.2	2,212.0	2,185.5	83.534	
2,400.0	2,197.4	2,995.6	2,935.0	15.7	13.7	-99.07	-1,654.8	1,526.3	2,173.5	2,145.7	78.032	
2,500.0	2,282.1	3,070.5	3,003.5	16.5	14.1	-100.37	-1,639.6	1,500.1	2,135.7	2,106.6	73.325	
2,600.0	2,366.7	3,151.0	3,077.0	17.4	14.5	-101.79	-1,623.3	1,471.8	2,099.2	2,068.8	69.009	
2,700.0	2,451.4	3,227.6	3,147.0	18.3	14.9	-103.17	-1,607.7	1,444.6	2,064.1	2,032.4	65.078	
2,800.0	2,536.0	3,302.9	3,215.6	19.2	15.3	-104.57	-1,592.1	1,418.0	2,030.5	1,997.5	61.494	
2,900.0	2,620.7	3,378.1	3,284.3	20.1	15.6	-105.98	-1,576.8	1,391.2	1,998.6	1,964.3	58.222	
3,000.0	2,705.3	3,449.8	3,349.7	21.0	16.0	-107.34	-1,562.8	1,365.6	1,968.6	1,932.9	55.243	
3,100.0	2,790.0	3,533.3	3,425.9	21.9	16.4	-108.94	-1,547.0	1,335.4	1,940.2	1,903.2	52.509	
3,200.0	2,874.6	3,618.1	3,503.2	22.8	16.8	-110.59	-1,531.2	1,304.3	1,913.3	1,875.1	50.005	
3,300.0	2,959.3	3,702.7	3,580.2	23.7	17.3	-112.27	-1,515.4	1,272.8	1,888.0	1,848.4	47.712	
3,400.0	3,043.9	3,778.9	3,649.3	24.7	17.6	-113.81	-1,500.8	1,244.3	1,864.4	1,823.6	45.620	
3,500.0	3,128.6	3,855.6	3,718.9	25.6	18.0	-115.38	-1,486.2	1,215.6	1,843.0	1,800.9	43.717	
3,600.0	3,213.2	3,938.8	3,794.4	26.5	18.5	-117.10	-1,470.7	1,184.1	1,823.5	1,780.1	41.976	
3,700.0	3,297.9	4,015.9	3,864.2	27.4	18.9	-118.70	-1,456.5	1,154.7	1,806.0	1,761.3	40.395	
3,800.0	3,382.5	4,086.3	3,928.0	28.3	19.2	-120.18	-1,443.6	1,127.9	1,790.9	1,744.9	38.968	
3,900.0	3,467.2	4,164.1	3,998.6	29.3	19.6	-121.83	-1,429.7	1,098.3	1,778.1	1,730.9	37.677	
4,000.0	3,551.9	4,243.0	4,070.1	30.2	20.0	-123.51	-1,415.5	1,068.2	1,767.6	1,719.1	36.509	
4,100.0	3,636.5	4,321.5	4,141.2	31.1	20.5	-125.20	-1,401.4	1,038.0	1,759.3	1,709.7	35.460	
4,200.0	3,721.2	4,400.7	4,212.8	32.0	20.9	-126.90	-1,387.3	1,007.5	1,753.3	1,702.5	34.518	
4,300.0	3,805.8	4,475.4	4,280.7	32.9	21.5	-128.50	-1,374.6	978.6	1,749.7	1,697.7	33.682	
4,379.3	3,872.9	4,524.8	4,325.6	33.7	21.8	-129.54	-1,366.8	959.8	1,748.7	1,695.9	33.103	CC
4,400.0	3,890.5	4,537.6	4,337.3	33.9	21.9	-129.81	-1,364.9	954.9	1,748.8	1,695.7	32.963	ES
4,500.0	3,975.1	4,604.3	4,398.5	34.8	22.4	-131.18	-1,355.5	930.3	1,750.8	1,696.7	32.342	
4,600.0	4,059.8	4,667.0	4,456.2	35.7	22.9	-132.47	-1,346.7	907.3	1,755.5	1,700.3	31.821	
4,700.0	4,144.4	4,731.0	4,515.3	36.6	23.3	-133.78	-1,337.4	884.3	1,763.0	1,706.8	31.392	
4,800.0	4,229.1	4,790.5	4,570.3	37.6	23.8	-135.00	-1,328.3	863.5	1,773.6	1,716.5	31.061	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 16-10 - Wellbore #1 - Wellbore #1

Survey Program: 157-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,900.0	4,313.7	4,854.0	4,629.0	38.5	24.2	-136.30	-1,318.1	841.7	1,787.1	1,729.1	30.804	
5,000.0	4,398.4	4,918.4	4,688.7	39.4	24.6	-137.62	-1,307.5	820.0	1,803.3	1,744.4	30.619	
5,100.0	4,483.0	4,981.3	4,747.0	40.3	25.1	-138.89	-1,296.8	799.1	1,822.2	1,762.5	30.506	
5,200.0	4,567.7	5,043.2	4,804.6	41.3	25.5	-140.13	-1,286.0	778.9	1,843.8	1,783.3	30.462	
5,300.0	4,652.3	5,142.2	4,896.5	42.2	26.2	-142.10	-1,268.8	746.4	1,867.1	1,805.6	30.359	
5,400.0	4,738.2	5,196.1	4,946.6	43.1	26.5	-143.48	-1,259.5	728.9	1,890.7	1,828.5	30.380	
5,500.0	4,826.2	5,258.7	5,005.0	43.9	26.9	-144.93	-1,248.7	709.2	1,913.4	1,850.4	30.373	
5,600.0	4,916.2	5,325.6	5,067.6	44.7	27.4	-146.35	-1,237.0	688.7	1,934.8	1,871.0	30.353	
5,700.0	5,008.1	5,398.8	5,136.2	45.4	27.8	-147.77	-1,224.1	666.7	1,954.6	1,890.1	30.305	
5,800.0	5,101.5	5,477.0	5,209.6	46.0	28.3	-149.15	-1,210.0	643.5	1,972.4	1,907.1	30.223	
5,900.0	5,196.4	5,554.9	5,282.6	46.6	28.8	-150.43	-1,195.8	620.6	1,988.0	1,922.0	30.123	
6,000.0	5,292.7	5,664.0	5,385.0	47.0	29.5	-152.01	-1,175.9	588.6	2,001.1	1,934.1	29.875	
6,100.0	5,390.0	5,761.6	5,476.6	47.5	30.1	-153.31	-1,159.2	559.3	2,010.0	1,942.2	29.619	
6,200.0	5,488.2	5,866.2	5,575.0	47.8	30.8	-154.56	-1,142.1	528.3	2,015.8	1,947.0	29.307	
6,300.0	5,587.1	5,928.9	5,634.4	48.1	31.1	-155.23	-1,132.8	510.7	2,018.5	1,949.3	29.135	
6,400.0	5,686.6	5,999.6	5,702.1	48.3	31.5	-155.88	-1,122.6	492.8	2,019.5	1,949.7	28.935	
6,500.0	5,786.4	6,102.6	5,801.2	48.4	32.0	-156.68	-1,109.2	468.4	2,017.1	1,946.5	28.593	
6,600.0	5,886.4	6,195.9	5,891.5	48.4	32.4	43.60	-1,098.3	447.3	2,011.0	1,940.0	28.357	
6,700.0	5,986.4	6,277.0	5,970.5	48.4	32.8	43.09	-1,089.9	430.8	2,004.3	1,933.3	28.206	
6,800.0	6,086.4	6,342.8	6,034.9	48.4	33.0	42.72	-1,083.6	419.1	1,999.1	1,928.1	28.149	
6,900.0	6,186.4	6,420.9	6,111.8	48.4	33.2	42.33	-1,076.6	407.2	1,995.3	1,924.3	28.081	
7,000.0	6,286.4	6,514.5	6,204.3	48.4	33.5	41.94	-1,069.5	395.3	1,992.3	1,921.1	27.979	
7,100.0	6,386.4	6,607.8	6,297.0	48.4	33.7	41.64	-1,064.5	385.8	1,989.5	1,918.2	27.893	
7,200.0	6,486.4	6,693.4	6,382.2	48.4	33.8	41.43	-1,061.1	379.0	1,987.3	1,916.0	27.856	
7,300.0	6,586.4	6,795.6	6,484.4	48.4	33.9	41.28	-1,058.8	373.9	1,985.7	1,914.2	27.776	
7,400.0	6,686.4	6,896.3	6,585.0	48.4	34.0	41.22	-1,059.1	371.0	1,983.6	1,912.0	27.690	
7,500.0	6,786.4	6,986.5	6,675.2	48.4	34.1	41.19	-1,059.6	369.3	1,981.9	1,910.2	27.641	
7,600.0	6,886.4	7,098.4	6,787.1	48.4	34.3	41.17	-1,060.5	367.7	1,980.4	1,908.4	27.511	
7,700.0	6,986.4	7,224.2	6,912.8	48.4	34.6	41.14	-1,062.3	364.6	1,977.7	1,905.3	27.317	
7,800.0	7,086.4	7,326.9	7,015.4	48.4	34.9	41.10	-1,064.2	361.1	1,974.1	1,901.5	27.195	
7,900.0	7,186.4	7,419.6	7,108.1	48.4	35.1	41.08	-1,066.0	358.5	1,970.7	1,898.0	27.110	
8,000.0	7,286.4	7,513.7	7,202.1	48.4	35.4	41.06	-1,067.7	356.2	1,967.8	1,894.9	27.011	
8,100.0	7,386.4	7,608.4	7,296.8	48.4	35.7	41.03	-1,068.9	353.7	1,965.1	1,892.0	26.906	
8,200.0	7,486.4	7,703.1	7,391.5	48.5	36.0	40.98	-1,069.6	351.0	1,962.6	1,889.4	26.807	
8,300.0	7,586.4	7,798.5	7,486.8	48.5	36.4	40.92	-1,069.9	348.2	1,960.5	1,887.1	26.704	
8,400.0	7,686.4	7,895.0	7,583.2	48.5	36.8	40.87	-1,070.0	345.4	1,958.5	1,884.8	26.586	
8,500.0	7,786.4	7,991.5	7,679.7	48.5	37.2	40.81	-1,070.1	342.8	1,956.7	1,882.8	26.470	
8,600.0	7,886.4	8,082.0	7,770.2	48.5	37.6	40.76	-1,070.1	340.6	1,955.1	1,881.0	26.378	
8,700.0	7,986.4	8,182.6	7,870.8	48.5	38.3	40.71	-1,070.0	338.3	1,953.7	1,879.0	26.147	
8,800.0	8,086.4	8,277.3	7,965.4	48.5	39.0	40.66	-1,069.6	336.3	1,952.6	1,877.3	25.936	
8,900.0	8,186.4	8,371.9	8,060.1	48.5	39.7	40.60	-1,069.1	334.5	1,951.8	1,875.9	25.719	
9,000.0	8,286.4	8,466.6	8,154.7	48.5	40.4	40.55	-1,068.3	332.7	1,951.2	1,874.7	25.515	
9,100.0	8,386.4	8,561.3	8,249.4	48.5	41.1	40.50	-1,067.3	331.2	1,950.9	1,873.9	25.331	
9,150.5	8,436.9	8,609.1	8,297.2	48.5	41.5	40.47	-1,066.7	330.4	1,950.9	1,873.6	25.245	
9,200.0	8,486.4	8,669.0	8,357.1	48.5	42.0	40.43	-1,065.9	329.5	1,950.9	1,873.2	25.108	SF
9,210.7	8,497.1	8,669.0	8,357.1	48.5	42.0	40.43	-1,065.9	329.5	1,950.9	1,873.3	25.135	
9,300.0	8,586.4	8,743.0	8,431.1	48.5	42.1	40.39	-1,064.9	328.5	1,951.1	1,873.5	25.160	
9,382.6	8,669.0	8,743.0	8,431.1	48.5	42.1	40.39	-1,064.9	328.5	1,953.5	1,876.7	25.436	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 16-12 - Wellbore #1 - Wellbore #1

Survey Program: 920-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-107.53	-769.6	-2,436.3	2,563.8			
100.0	100.0	0.0	0.0	0.8	0.0	-107.53	-769.6	-2,436.3	2,557.5	2,556.7	3,205.640	
200.0	200.0	0.0	0.0	1.4	0.0	-107.53	-769.6	-2,436.3	2,555.0	2,553.6	1,806.109	
217.1	217.1	0.0	0.0	1.5	0.0	77.47	-769.6	-2,436.3	2,555.0	2,553.5	1,727.425	
300.0	300.0	0.0	0.0	2.1	0.0	77.45	-769.6	-2,436.3	2,556.0	2,554.2	1,439.818	
400.0	399.7	146.1	146.1	3.8	4.0	77.62	-770.1	-2,437.4	2,554.6	2,548.4	411.326	
500.0	499.1	223.9	223.9	4.5	6.1	75.78	-770.8	-2,438.8	2,554.2	2,545.6	297.240	
600.0	598.0	301.4	301.3	5.0	8.2	68.68	-771.7	-2,440.8	2,552.4	2,541.2	228.265	
700.0	696.2	378.5	378.4	5.8	10.3	64.51	-773.0	-2,443.4	2,548.5	2,534.7	183.969	
800.0	793.6	455.2	455.0	6.6	12.4	61.93	-774.5	-2,446.6	2,542.5	2,526.1	154.505	
900.0	889.9	531.3	531.0	7.4	14.5	60.31	-776.2	-2,450.3	2,534.6	2,515.5	132.888	
1,000.0	984.9	606.7	606.3	8.1	16.5	59.33	-778.3	-2,454.6	2,524.7	2,503.0	116.368	
1,100.0	1,078.6	681.5	680.8	8.8	18.6	58.81	-780.5	-2,459.4	2,513.0	2,488.7	103.321	
1,200.0	1,170.6	755.4	754.5	9.4	20.6	58.63	-783.0	-2,464.7	2,499.6	2,472.7	92.740	
1,300.0	1,260.9	920.0	918.4	10.1	25.1	59.52	-789.5	-2,478.4	2,486.7	2,454.7	77.644	
1,400.0	1,349.3	920.0	918.4	10.7	25.1	59.24	-789.5	-2,478.4	2,468.1	2,435.4	75.345	
1,500.0	1,435.5	993.4	991.5	11.3	25.5	59.76	-793.9	-2,484.7	2,449.8	2,416.0	72.503	
1,600.0	1,520.2	1,097.6	1,094.8	11.6	25.8	60.72	-803.9	-2,492.5	2,430.0	2,395.4	70.107	
1,700.0	1,604.9	1,185.7	1,182.2	11.9	25.9	61.55	-812.6	-2,498.7	2,410.5	2,375.1	68.092	
1,800.0	1,689.5	1,281.2	1,277.1	12.3	25.9	62.46	-821.9	-2,505.6	2,391.6	2,355.4	66.102	
1,900.0	1,774.2	1,385.5	1,380.6	12.7	26.0	63.48	-832.0	-2,512.6	2,373.0	2,336.0	64.147	
2,000.0	1,858.8	1,478.6	1,473.2	13.1	26.0	64.40	-840.9	-2,518.5	2,354.6	2,316.8	62.238	
2,100.0	1,943.5	1,604.4	1,598.2	13.6	26.0	65.66	-853.1	-2,525.5	2,336.2	2,297.6	60.380	
2,200.0	2,028.1	1,720.3	1,713.3	14.2	26.1	66.81	-865.1	-2,530.2	2,317.3	2,277.7	58.582	
2,300.0	2,112.8	1,834.9	1,827.1	14.9	26.2	67.96	-877.9	-2,533.6	2,298.0	2,257.6	56.839	
2,400.0	2,197.4	1,984.4	1,975.6	15.7	26.3	69.46	-895.3	-2,535.1	2,277.5	2,236.3	55.173	
2,500.0	2,282.1	2,107.3	2,097.7	16.5	26.4	70.71	-909.7	-2,534.1	2,256.3	2,214.1	53.549	
2,600.0	2,366.7	2,241.7	2,231.1	17.4	26.6	72.12	-925.6	-2,530.4	2,233.8	2,190.9	52.003	
2,700.0	2,451.4	2,346.8	2,335.4	18.3	26.7	73.24	-937.8	-2,526.3	2,211.1	2,167.2	50.446	
2,800.0	2,536.0	2,454.9	2,442.8	19.2	26.8	74.45	-949.3	-2,520.8	2,188.0	2,143.3	48.947	
2,900.0	2,620.7	2,550.5	2,537.8	20.1	26.9	75.56	-958.7	-2,515.7	2,165.5	2,119.8	47.475	
3,000.0	2,705.3	2,655.9	2,642.5	21.0	27.0	76.83	-968.2	-2,509.3	2,143.2	2,096.7	46.086	
3,100.0	2,790.0	2,764.9	2,750.8	21.9	27.1	78.19	-977.4	-2,501.6	2,120.9	2,073.5	44.756	
3,200.0	2,874.6	2,869.9	2,855.2	22.8	27.2	79.54	-985.5	-2,493.1	2,098.8	2,050.5	43.458	
3,300.0	2,959.3	2,957.9	2,942.6	23.7	27.3	80.71	-991.8	-2,485.5	2,077.2	2,027.9	42.160	
3,400.0	3,043.9	3,050.9	3,035.1	24.7	27.4	81.97	-998.2	-2,477.2	2,056.5	2,006.3	40.932	
3,500.0	3,128.6	3,142.4	3,126.0	25.6	27.5	83.24	-1,004.5	-2,468.8	2,036.6	1,985.4	39.752	
3,600.0	3,213.2	3,220.6	3,203.7	26.5	27.6	84.34	-1,009.7	-2,461.6	2,017.8	1,965.5	38.595	
3,700.0	3,297.9	3,303.6	3,286.2	27.4	27.6	85.54	-1,014.6	-2,454.1	2,000.5	1,947.2	37.515	
3,800.0	3,382.5	3,389.2	3,371.3	28.3	27.7	86.80	-1,019.1	-2,446.2	1,984.4	1,930.0	36.498	
3,900.0	3,467.2	3,471.4	3,453.0	29.3	27.8	88.06	-1,022.5	-2,438.5	1,969.6	1,914.2	35.524	
4,000.0	3,551.9	3,551.7	3,532.9	30.2	27.9	89.29	-1,025.8	-2,431.1	1,956.4	1,899.8	34.601	
4,100.0	3,636.5	3,634.7	3,615.6	31.1	28.0	90.58	-1,029.2	-2,423.6	1,944.6	1,887.0	33.744	
4,200.0	3,721.2	3,719.6	3,700.0	32.0	28.1	91.92	-1,032.2	-2,415.7	1,934.3	1,875.6	32.945	
4,300.0	3,805.8	3,799.4	3,779.5	32.9	28.2	93.20	-1,034.7	-2,408.3	1,925.5	1,865.7	32.196	
4,400.0	3,890.5	3,878.3	3,858.0	33.9	28.3	94.47	-1,037.1	-2,401.1	1,918.4	1,857.5	31.503	
4,500.0	3,975.1	3,956.0	3,935.3	34.8	28.4	95.72	-1,039.4	-2,394.3	1,913.1	1,851.1	30.866	
4,600.0	4,059.8	4,044.2	4,023.1	35.7	28.4	97.17	-1,041.6	-2,386.4	1,909.4	1,846.3	30.294	
4,700.0	4,144.4	4,124.0	4,102.6	36.6	28.5	98.48	-1,043.1	-2,379.0	1,907.1	1,843.0	29.764	
4,783.2	4,214.8	4,193.5	4,171.8	37.4	28.6	99.64	-1,044.3	-2,372.6	1,906.6	1,841.7	29.364	CC
4,800.0	4,229.1	4,208.9	4,187.1	37.6	28.6	99.89	-1,044.5	-2,371.2	1,906.6	1,841.5	29.288	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 16-12 - Wellbore #1 - Wellbore #1

Survey Program: 920-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,900.0	4,313.7	4,294.2	4,272.0	38.5	28.7	101.32	-1,045.6	-2,362.9	1,907.6	1,841.4	28.856	ES
5,000.0	4,398.4	4,376.5	4,353.9	39.4	28.8	102.69	-1,047.0	-2,355.2	1,910.1	1,843.1	28.468	
5,100.0	4,483.0	4,461.8	4,438.8	40.3	28.8	104.11	-1,048.0	-2,346.8	1,914.3	1,846.2	28.125	
5,200.0	4,567.7	4,540.0	4,516.6	41.3	28.9	105.43	-1,048.5	-2,338.9	1,920.1	1,851.1	27.827	
5,300.0	4,652.3	4,619.5	4,595.7	42.2	29.0	106.77	-1,048.9	-2,331.0	1,927.7	1,857.8	27.575	
5,400.0	4,738.2	4,697.6	4,673.4	43.1	29.1	108.23	-1,049.1	-2,323.3	1,936.4	1,865.6	27.357	
5,500.0	4,826.2	4,772.6	4,748.1	43.9	29.1	109.57	-1,049.1	-2,316.1	1,945.4	1,873.9	27.186	
5,600.0	4,916.2	4,868.3	4,843.4	44.7	29.2	111.09	-1,048.9	-2,307.2	1,954.5	1,882.2	27.039	
5,700.0	5,008.1	4,964.8	4,939.4	45.4	29.3	112.49	-1,049.2	-2,297.8	1,962.5	1,889.5	26.901	
5,800.0	5,101.5	5,052.9	5,027.1	46.0	29.4	113.66	-1,049.4	-2,289.2	1,969.6	1,896.0	26.779	
5,900.0	5,196.4	5,137.5	5,111.3	46.6	29.5	114.66	-1,049.6	-2,281.3	1,976.0	1,901.9	26.672	
6,000.0	5,292.7	5,227.8	5,201.2	47.0	29.6	115.59	-1,049.6	-2,273.2	1,981.5	1,907.0	26.573	
6,100.0	5,390.0	5,321.1	5,294.2	47.5	29.7	116.41	-1,049.8	-2,265.2	1,985.6	1,910.6	26.472	
6,200.0	5,488.2	5,424.3	5,397.0	47.8	29.9	117.15	-1,049.8	-2,256.3	1,988.3	1,912.9	26.361	
6,300.0	5,587.1	5,519.4	5,491.7	48.1	30.0	117.68	-1,050.3	-2,247.9	1,988.7	1,912.9	26.244	
6,400.0	5,686.6	5,600.7	5,572.8	48.3	30.1	118.02	-1,050.3	-2,241.3	1,988.0	1,912.0	26.142	
6,500.0	5,786.4	5,687.2	5,659.0	48.4	30.2	118.22	-1,050.6	-2,235.6	1,986.1	1,909.9	26.039	
6,600.0	5,886.4	5,782.0	5,753.7	48.4	30.3	-40.77	-1,050.6	-2,229.5	1,982.7	1,906.2	25.947	
6,700.0	5,986.4	5,868.6	5,840.1	48.4	30.4	-40.67	-1,050.8	-2,224.7	1,978.9	1,902.4	25.876	
6,800.0	6,086.4	5,953.6	5,925.1	48.4	30.5	-40.58	-1,050.6	-2,220.7	1,975.9	1,899.4	25.817	
6,900.0	6,186.4	6,043.0	6,014.4	48.4	30.6	-40.49	-1,050.3	-2,217.1	1,973.6	1,897.0	25.761	
7,000.0	6,286.4	6,136.6	6,107.9	48.4	30.8	-40.42	-1,049.9	-2,213.9	1,971.7	1,895.0	25.708	
7,100.0	6,386.4	6,233.8	6,205.1	48.4	30.9	-40.34	-1,049.5	-2,210.9	1,970.1	1,893.3	25.655	
7,200.0	6,486.4	6,336.0	6,307.3	48.4	31.0	-40.26	-1,049.1	-2,207.8	1,968.4	1,891.5	25.598	
7,300.0	6,586.4	6,436.5	6,407.7	48.4	31.1	-40.19	-1,048.8	-2,204.8	1,966.6	1,889.6	25.539	
7,400.0	6,686.4	6,527.7	6,498.8	48.4	31.2	-40.14	-1,048.8	-2,202.6	1,965.1	1,888.0	25.497	
7,500.0	6,786.4	6,623.2	6,594.3	48.4	31.4	-40.10	-1,048.7	-2,200.7	1,963.9	1,886.7	25.443	
7,600.0	6,886.4	6,717.8	6,688.9	48.4	31.6	-40.05	-1,048.3	-2,198.9	1,963.0	1,885.6	25.377	
7,700.0	6,986.4	6,812.5	6,783.6	48.4	31.8	-40.00	-1,047.7	-2,197.2	1,962.3	1,884.8	25.315	
7,800.0	7,086.4	6,907.1	6,878.2	48.4	32.0	-39.95	-1,046.7	-2,195.5	1,962.0	1,884.3	25.257	
7,900.0	7,186.4	7,005.9	6,976.9	48.4	32.8	-39.88	-1,045.5	-2,193.7	1,961.8	1,883.3	25.006	
8,000.0	7,286.4	7,106.8	7,077.9	48.4	33.9	-39.82	-1,044.3	-2,192.0	1,961.6	1,882.0	24.657	
8,100.0	7,386.4	7,207.8	7,178.8	48.4	35.0	-39.77	-1,043.3	-2,190.4	1,961.3	1,880.7	24.316	
8,200.0	7,486.4	7,308.7	7,279.7	48.5	36.1	-39.72	-1,042.4	-2,188.9	1,961.0	1,879.3	23.983	
8,300.0	7,586.4	7,409.7	7,380.7	48.5	37.3	-39.67	-1,041.7	-2,187.4	1,960.7	1,877.8	23.656	
8,400.0	7,686.4	7,510.6	7,481.6	48.5	38.4	-39.63	-1,041.0	-2,186.0	1,960.3	1,876.3	23.337	
8,500.0	7,786.4	7,611.6	7,582.6	48.5	39.6	-39.59	-1,040.5	-2,184.7	1,959.8	1,874.7	23.025	
8,600.0	7,886.4	7,708.6	7,679.6	48.5	40.4	-39.55	-1,040.1	-2,183.5	1,959.4	1,873.4	22.788	
8,700.0	7,986.4	7,804.2	7,775.1	48.5	41.3	-39.52	-1,039.5	-2,182.6	1,959.2	1,872.5	22.582	
8,738.4	8,024.8	7,840.9	7,811.8	48.5	41.6	-39.51	-1,039.3	-2,182.3	1,959.2	1,872.1	22.505	
8,800.0	8,086.4	7,899.7	7,870.7	48.5	42.1	-39.49	-1,038.8	-2,181.8	1,959.3	1,871.7	22.382	
8,900.0	8,186.4	7,995.2	7,966.2	48.5	42.9	-39.46	-1,038.0	-2,181.2	1,959.5	1,871.2	22.187	
9,000.0	8,286.4	8,090.8	8,061.7	48.5	43.7	-39.43	-1,037.1	-2,180.7	1,960.0	1,870.9	21.999	
9,100.0	8,386.4	8,186.3	8,157.3	48.5	44.5	-39.41	-1,036.0	-2,180.5	1,960.7	1,870.8	21.815	
9,200.0	8,486.4	8,283.2	8,254.1	48.5	45.1	-39.38	-1,034.8	-2,180.4	1,961.6	1,871.2	21.694	SF
9,300.0	8,586.4	8,325.0	8,295.9	48.5	45.1	-39.37	-1,034.2	-2,180.4	1,963.5	1,873.3	21.775	
9,382.6	8,669.0	8,325.0	8,295.9	48.5	45.1	-39.37	-1,034.2	-2,180.4	1,968.5	1,878.7	21.942	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 16-8 - Wellbore #1 - Wellbore #1

Survey Program: 184-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	66.95	789.2	1,855.1	2,016.0			
100.0	100.0	94.3	94.3	0.8	0.6	66.96	789.1	1,855.1	2,015.9	2,014.5	1,411.585	
200.0	200.0	197.0	197.0	1.4	1.3	66.96	788.9	1,854.9	2,015.7	2,012.9	731.383	
220.1	220.1	216.6	216.6	1.6	1.5	-108.04	788.9	1,854.9	2,015.7	2,012.7	675.083	CC
300.0	300.0	294.4	294.4	2.1	2.1	-108.08	788.5	1,854.8	2,016.1	2,012.3	519.601	ES
400.0	399.7	398.0	398.0	3.8	2.7	-108.20	787.9	1,854.9	2,018.0	2,013.0	402.416	
500.0	499.1	504.5	504.5	4.5	3.2	-110.48	787.6	1,854.3	2,020.9	2,015.1	348.911	
600.0	598.0	606.7	606.7	5.0	3.6	-118.14	787.0	1,853.7	2,026.4	2,019.7	300.767	
700.0	696.2	702.1	702.0	5.8	4.0	-122.95	786.1	1,853.3	2,035.3	2,027.5	261.247	
800.0	793.6	793.0	793.0	6.6	4.4	-126.26	785.5	1,852.9	2,048.0	2,039.2	233.150	
900.0	889.9	888.2	888.2	7.4	4.8	-128.72	785.2	1,852.7	2,064.4	2,054.6	210.307	
1,000.0	984.9	983.0	983.0	8.1	5.2	-130.65	785.1	1,852.4	2,084.5	2,073.6	191.771	
1,100.0	1,078.6	1,075.9	1,075.8	8.8	5.4	-132.20	785.2	1,852.0	2,108.3	2,096.4	178.501	
1,200.0	1,170.6	1,178.6	1,178.6	9.4	5.6	-133.57	784.9	1,851.6	2,135.5	2,122.8	167.703	
1,300.0	1,260.9	1,303.6	1,303.6	10.1	5.9	-134.94	783.2	1,850.4	2,165.5	2,151.8	157.803	
1,400.0	1,349.3	1,422.3	1,422.2	10.7	6.1	-136.09	779.3	1,848.5	2,198.0	2,183.3	149.185	
1,500.0	1,435.5	1,553.3	1,553.0	11.3	6.5	-137.25	772.9	1,845.0	2,232.6	2,216.7	141.112	
1,600.0	1,520.2	1,650.2	1,649.6	11.6	6.7	-138.08	766.5	1,842.0	2,268.8	2,252.1	136.521	
1,700.0	1,604.9	1,787.1	1,786.0	11.9	7.2	-139.19	755.1	1,837.5	2,304.4	2,286.8	130.814	
1,800.0	1,689.5	1,906.8	1,905.0	12.3	7.6	-140.10	743.6	1,832.1	2,338.9	2,320.3	125.824	
1,900.0	1,774.2	2,022.9	2,020.1	12.7	8.0	-140.92	730.3	1,826.4	2,372.5	2,353.0	121.272	
2,000.0	1,858.8	2,152.4	2,148.3	13.1	8.4	-141.75	712.7	1,819.8	2,405.1	2,384.5	116.696	
2,100.0	1,943.5	2,256.9	2,251.6	13.6	8.8	-142.39	697.9	1,813.8	2,437.2	2,415.6	112.902	
2,200.0	2,028.1	2,360.9	2,354.1	14.2	9.2	-142.99	681.8	1,807.7	2,468.8	2,446.2	109.350	
2,300.0	2,112.8	2,444.3	2,436.4	14.9	9.5	-143.44	668.6	1,803.2	2,500.6	2,477.1	106.480	
2,400.0	2,197.4	2,530.7	2,521.5	15.7	9.9	-143.89	654.7	1,799.1	2,533.0	2,508.6	103.810	
2,500.0	2,282.1	2,620.7	2,610.3	16.5	10.2	-144.36	640.4	1,794.7	2,565.6	2,540.3	101.266	
2,600.0	2,366.7	2,707.2	2,695.6	17.4	10.5	-144.79	626.6	1,790.7	2,598.5	2,572.3	98.950	
2,700.0	2,451.4	2,789.2	2,776.5	18.3	10.8	-145.20	614.1	1,786.9	2,631.9	2,604.8	96.870	
2,800.0	2,536.0	2,882.6	2,868.7	19.2	11.2	-145.65	599.7	1,782.8	2,665.6	2,637.5	94.757	
2,900.0	2,620.7	2,977.8	2,962.6	20.1	11.6	-146.09	584.8	1,778.7	2,699.3	2,670.2	92.743	
3,000.0	2,705.3	3,061.0	3,044.8	21.0	11.9	-146.48	572.2	1,775.1	2,733.5	2,703.4	91.035	
3,100.0	2,790.0	3,145.7	3,128.5	21.9	12.2	-146.86	559.6	1,771.5	2,768.0	2,737.1	89.425	
3,200.0	2,874.6	3,231.2	3,213.0	22.8	12.6	-147.25	547.1	1,767.8	2,802.7	2,770.9	87.900	
3,300.0	2,959.3	3,332.5	3,313.2	23.7	13.0	-147.71	532.6	1,763.1	2,837.6	2,804.7	86.252	
3,400.0	3,043.9	3,407.1	3,386.9	24.7	13.3	-148.03	521.9	1,759.8	2,872.7	2,838.9	85.046	
3,500.0	3,128.6	3,494.5	3,473.3	25.6	13.6	-148.40	509.3	1,756.5	2,908.3	2,873.6	83.770	
3,600.0	3,213.2	3,582.6	3,560.5	26.5	14.0	-148.76	496.7	1,753.1	2,944.1	2,908.4	82.556	
3,700.0	3,297.9	3,660.0	3,637.1	27.4	14.3	-149.08	486.1	1,750.0	2,980.2	2,943.6	81.544	
3,800.0	3,382.5	3,739.5	3,715.8	28.3	14.6	-149.42	475.9	1,746.8	3,017.0	2,979.5	80.581	
3,900.0	3,467.2	3,835.9	3,811.4	29.3	15.0	-149.82	463.6	1,742.8	3,053.8	3,015.4	79.475	
4,000.0	3,551.9	3,931.1	3,905.7	30.2	15.4	-150.19	451.1	1,739.0	3,090.7	3,051.3	78.433	
4,100.0	3,636.5	4,026.5	4,000.2	31.1	15.8	-150.57	438.6	1,735.1	3,127.6	3,087.2	77.435	
4,200.0	3,721.2	4,131.8	4,104.5	32.0	16.2	-150.97	424.7	1,730.5	3,164.3	3,122.9	76.367	
4,300.0	3,805.8	4,235.7	4,207.3	32.9	16.6	-151.36	411.0	1,725.2	3,200.7	3,158.2	75.345	
4,400.0	3,890.5	4,330.2	4,300.8	33.9	17.0	-151.71	398.1	1,720.5	3,237.0	3,193.5	74.461	
4,500.0	3,975.1	4,398.1	4,368.0	34.8	17.3	-151.94	388.5	1,717.6	3,273.5	3,229.2	73.891	
4,600.0	4,059.8	4,467.2	4,436.4	35.7	17.6	-152.17	379.2	1,715.2	3,311.1	3,265.9	73.366	
4,700.0	4,144.4	4,571.1	4,539.2	36.6	18.0	-152.51	364.9	1,711.3	3,348.3	3,302.2	72.529	
4,800.0	4,229.1	4,635.0	4,602.5	37.6	18.3	-152.72	356.5	1,709.3	3,386.3	3,339.4	72.117	
4,900.0	4,313.7	4,748.1	4,714.6	38.5	18.7	-153.07	341.3	1,705.9	3,424.5	3,376.5	71.281	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 16-8 - Wellbore #1 - Wellbore #1

Survey Program: 184-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,000.0	4,398.4	4,836.2	4,801.8	39.4	19.1	-153.33	329.1	1,703.1	3,462.3	3,413.3	70.689	
5,100.0	4,483.0	4,915.0	4,879.8	40.3	19.4	-153.56	318.4	1,700.6	3,500.5	3,450.6	70.208	
5,200.0	4,567.7	5,019.8	4,983.6	41.3	19.9	-153.89	305.0	1,696.5	3,538.6	3,487.7	69.514	
5,300.0	4,652.3	5,099.0	5,062.2	42.2	20.2	-154.17	295.9	1,692.5	3,576.9	3,525.1	69.066	
5,400.0	4,738.2	5,155.1	5,117.9	43.1	20.4	-154.78	290.2	1,689.3	3,613.9	3,561.3	68.765	
5,500.0	4,826.2	5,193.0	5,155.6	43.9	20.6	-155.28	286.8	1,687.1	3,648.2	3,594.9	68.560	
5,600.0	4,916.2	5,231.5	5,194.0	44.7	20.7	-155.74	283.8	1,685.2	3,680.2	3,626.3	68.344	
5,700.0	5,008.1	5,270.0	5,232.4	45.4	20.9	-156.15	281.6	1,683.8	3,710.2	3,655.8	68.142	
5,800.0	5,101.5	5,349.6	5,311.8	46.0	21.2	-156.59	277.6	1,681.6	3,737.7	3,682.3	67.538	
5,900.0	5,196.4	5,447.4	5,409.4	46.6	21.9	-156.99	271.8	1,679.2	3,760.9	3,704.4	66.496	
6,000.0	5,292.7	5,535.5	5,497.4	47.0	22.5	-157.30	266.9	1,677.0	3,780.5	3,722.8	65.472	
6,100.0	5,390.0	5,624.4	5,586.1	47.5	23.2	-157.55	262.2	1,674.8	3,796.4	3,737.5	64.449	
6,200.0	5,488.2	5,713.7	5,675.3	47.8	23.9	-157.74	257.9	1,672.6	3,808.6	3,748.5	63.429	
6,300.0	5,587.1	5,803.4	5,764.9	48.1	24.5	-157.88	253.8	1,670.3	3,817.0	3,755.8	62.417	
6,400.0	5,686.6	5,867.0	5,828.4	48.3	25.0	-157.95	251.1	1,668.7	3,821.7	3,759.8	61.712	
6,500.0	5,786.4	5,956.7	5,918.0	48.4	25.5	-157.99	248.0	1,666.6	3,822.9	3,760.1	60.873	
6,600.0	5,886.4	6,026.1	5,987.4	48.4	25.9	42.92	246.1	1,665.2	3,821.0	3,757.8	60.456	
6,700.0	5,986.4	6,095.6	6,056.8	48.4	26.3	42.92	244.9	1,664.0	3,818.6	3,755.0	60.127	
6,800.0	6,086.4	6,174.0	6,135.2	48.4	26.8	42.92	244.2	1,662.9	3,816.9	3,753.0	59.734	
6,900.0	6,186.4	6,281.8	6,243.0	48.4	27.2	42.91	243.4	1,661.4	3,815.5	3,751.1	59.262	
7,000.0	6,286.4	6,405.6	6,366.8	48.4	27.7	42.90	241.9	1,659.3	3,813.4	3,748.4	58.671	
7,100.0	6,386.4	6,456.0	6,417.2	48.4	27.9	42.90	241.1	1,658.4	3,811.3	3,746.3	58.621	
7,200.0	6,486.4	6,567.2	6,528.3	48.4	28.0	42.89	240.0	1,656.4	3,809.3	3,744.0	58.355	
7,300.0	6,586.4	6,637.0	6,598.2	48.4	28.2	42.88	240.0	1,655.4	3,808.3	3,743.0	58.326	
7,369.4	6,655.8	6,685.5	6,646.7	48.4	28.2	42.87	240.3	1,654.9	3,808.2	3,742.9	58.315	
7,400.0	6,686.4	6,733.0	6,694.1	48.4	28.3	42.86	240.9	1,654.4	3,808.3	3,742.9	58.174	
7,416.7	6,703.1	6,733.0	6,694.1	48.4	28.3	42.86	240.9	1,654.4	3,808.3	3,742.9	58.234	
7,500.0	6,786.4	6,825.1	6,786.2	48.4	28.4	42.83	242.2	1,653.2	3,808.4	3,742.9	58.075	
7,600.0	6,886.4	6,972.3	6,933.4	48.4	28.6	42.77	244.0	1,649.5	3,807.6	3,741.6	57.693	
7,700.0	6,986.4	7,118.0	7,079.0	48.4	28.9	42.70	245.1	1,643.9	3,805.5	3,739.0	57.172	
7,800.0	7,086.4	7,263.6	7,224.3	48.4	29.2	42.61	245.3	1,636.6	3,802.2	3,735.1	56.645	
7,900.0	7,186.4	7,362.3	7,322.9	48.4	29.6	42.56	244.8	1,631.7	3,798.6	3,731.0	56.261	
8,000.0	7,286.4	7,470.8	7,431.3	48.4	29.9	42.52	243.8	1,626.5	3,794.6	3,726.7	55.848	
8,100.0	7,386.4	7,553.2	7,513.6	48.4	30.2	42.48	242.8	1,622.7	3,790.7	3,722.5	55.627	
8,200.0	7,486.4	7,621.5	7,581.8	48.5	30.3	42.45	242.7	1,619.7	3,787.5	3,719.3	55.524	
8,300.0	7,586.4	7,689.7	7,650.0	48.5	30.5	42.41	243.2	1,616.7	3,785.2	3,716.9	55.437	
8,400.0	7,686.4	7,762.0	7,722.2	48.5	30.7	42.37	244.6	1,613.7	3,783.7	3,715.3	55.344	SF
8,500.0	7,786.4	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,782.8	3,714.6	55.437	
8,504.4	7,790.8	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,782.8	3,714.6	55.451	
8,600.0	7,886.4	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,784.1	3,716.2	55.802	
8,700.0	7,986.4	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,787.9	3,720.6	56.240	
8,800.0	8,086.4	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,794.5	3,727.6	56.751	
8,900.0	8,186.4	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,803.6	3,737.3	57.336	
9,000.0	8,286.4	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,815.3	3,749.6	57.996	
9,100.0	8,386.4	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,829.7	3,764.5	58.729	
9,200.0	8,486.4	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,846.5	3,781.9	59.536	
9,300.0	8,586.4	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,865.9	3,801.9	60.416	
9,382.6	8,669.0	7,820.0	7,780.1	48.5	30.7	42.32	246.0	1,611.3	3,883.8	3,820.3	61.202	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 21-1 - Wellbore #1 - Wellbore #1

Survey Program: 130-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	134.59	-1,887.8	1,914.8	2,692.6			
100.0	100.0	0.0	0.0	0.8	0.0	134.59	-1,887.8	1,914.8	2,689.2	2,688.4	3,392.335	
140.0	140.0	0.0	0.0	1.0	0.0	134.59	-1,887.8	1,914.8	2,688.9	2,687.9	2,582.850	
200.0	200.0	56.4	56.4	1.4	0.3	134.60	-1,887.9	1,914.7	2,688.9	2,687.2	1,555.239	
300.0	300.0	130.0	130.0	2.1	0.7	-40.44	-1,888.3	1,914.6	2,687.6	2,684.9	993.606	
400.0	399.7	219.0	219.0	3.8	1.5	-40.55	-1,889.8	1,914.6	2,683.9	2,679.3	582.544	
500.0	499.1	295.1	295.0	4.5	2.0	-42.78	-1,892.3	1,914.5	2,677.8	2,672.3	483.754	
600.0	598.0	359.3	359.1	5.0	2.3	-50.41	-1,895.3	1,914.3	2,670.6	2,664.4	427.059	
700.0	696.2	423.8	423.5	5.8	2.6	-55.27	-1,899.2	1,914.5	2,663.6	2,656.5	374.521	
800.0	793.6	490.0	489.6	6.6	3.0	-58.67	-1,904.0	1,914.8	2,656.6	2,648.7	337.908	
900.0	889.9	582.0	581.2	7.4	3.4	-61.35	-1,912.3	1,915.0	2,649.2	2,640.5	305.455	
1,000.0	984.9	652.2	651.0	8.1	3.7	-63.44	-1,919.8	1,914.8	2,641.5	2,632.2	281.795	
1,100.0	1,078.6	730.8	729.1	8.8	4.1	-65.26	-1,929.1	1,914.4	2,633.6	2,623.5	260.636	
1,200.0	1,170.6	807.0	804.5	9.4	4.4	-66.87	-1,939.2	1,913.8	2,625.5	2,614.6	241.751	
1,300.0	1,260.9	880.6	877.4	10.1	4.8	-68.33	-1,950.0	1,913.0	2,617.3	2,605.7	224.580	
1,400.0	1,349.3	952.7	948.5	10.7	5.2	-69.68	-1,961.7	1,912.1	2,609.3	2,596.8	208.845	
1,500.0	1,435.5	1,059.4	1,053.6	11.3	5.7	-71.24	-1,980.0	1,909.9	2,600.9	2,587.4	192.883	
1,600.0	1,520.2	1,139.0	1,131.8	11.6	6.0	-72.03	-1,994.5	1,907.7	2,592.4	2,578.0	180.574	
1,700.0	1,604.9	1,217.2	1,208.5	11.9	6.4	-72.64	-2,009.9	1,905.1	2,584.8	2,569.5	168.877	
1,800.0	1,689.5	1,295.2	1,284.7	12.3	6.8	-73.23	-2,026.3	1,902.3	2,578.3	2,562.0	158.063	
1,900.0	1,774.2	1,375.9	1,363.3	12.7	7.1	-73.82	-2,044.5	1,899.1	2,572.8	2,555.5	148.193	
2,000.0	1,858.8	1,462.7	1,447.6	13.1	7.5	-74.44	-2,064.7	1,895.5	2,568.1	2,549.7	139.258	
2,100.0	1,943.5	1,552.8	1,535.3	13.6	7.9	-75.10	-2,085.2	1,892.4	2,564.0	2,544.5	131.114	
2,200.0	2,028.1	1,641.7	1,621.8	14.2	8.3	-75.76	-2,105.6	1,889.5	2,560.6	2,539.9	123.694	
2,300.0	2,112.8	1,742.5	1,719.8	14.9	8.8	-76.50	-2,128.9	1,886.1	2,557.5	2,535.6	116.710	
2,400.0	2,197.4	1,824.2	1,799.1	15.7	9.1	-77.10	-2,147.8	1,883.3	2,554.9	2,531.9	110.767	
2,500.0	2,282.1	1,902.0	1,874.6	16.5	9.5	-77.65	-2,166.7	1,880.6	2,553.3	2,529.1	105.399	
2,600.0	2,366.7	1,984.2	1,953.9	17.4	9.9	-78.21	-2,188.0	1,877.6	2,552.7	2,527.3	100.400	
2,633.1	2,394.8	2,012.9	1,981.6	17.7	10.1	-78.40	-2,195.6	1,876.5	2,552.7	2,526.9	98.813	CC
2,700.0	2,451.4	2,069.1	2,035.7	18.3	10.3	-78.78	-2,210.5	1,874.5	2,552.9	2,526.2	95.780	
2,800.0	2,536.0	2,150.7	2,114.1	19.2	10.7	-79.31	-2,232.8	1,871.6	2,553.8	2,525.9	91.601	ES
2,900.0	2,620.7	2,232.2	2,192.2	20.1	11.1	-79.83	-2,256.2	1,868.6	2,555.6	2,526.5	87.739	
3,000.0	2,705.3	2,330.9	2,286.4	21.0	11.6	-80.42	-2,285.5	1,864.6	2,557.9	2,527.4	83.905	
3,100.0	2,790.0	2,418.1	2,369.3	21.9	12.0	-80.93	-2,312.2	1,860.8	2,560.7	2,528.9	80.535	
3,200.0	2,874.6	2,503.0	2,449.7	22.8	12.5	-81.40	-2,339.0	1,856.8	2,563.9	2,530.8	77.437	
3,300.0	2,959.3	2,597.0	2,538.3	23.7	12.9	-81.89	-2,370.1	1,852.1	2,567.8	2,533.3	74.418	
3,400.0	3,043.9	2,675.2	2,611.7	24.7	13.3	-82.27	-2,396.9	1,848.2	2,572.4	2,536.6	71.813	
3,500.0	3,128.6	2,762.8	2,693.6	25.6	13.8	-82.69	-2,427.6	1,843.9	2,577.7	2,540.5	69.280	
3,600.0	3,213.2	2,861.3	2,785.6	26.5	14.3	-83.15	-2,462.5	1,839.1	2,583.3	2,544.7	66.793	
3,700.0	3,297.9	2,968.4	2,885.4	27.4	14.8	-83.64	-2,500.8	1,833.3	2,588.9	2,548.7	64.380	
3,800.0	3,382.5	3,058.0	2,969.0	28.3	15.3	-84.05	-2,532.8	1,828.7	2,594.7	2,553.1	62.319	
3,900.0	3,467.2	3,141.9	3,047.2	29.3	15.7	-84.43	-2,562.9	1,824.6	2,601.1	2,558.0	60.451	
4,000.0	3,551.9	3,222.9	3,122.7	30.2	16.1	-84.79	-2,592.1	1,821.0	2,608.1	2,563.7	58.739	
4,100.0	3,636.5	3,345.7	3,237.1	31.1	16.7	-85.35	-2,636.3	1,815.7	2,615.3	2,569.2	56.764	
4,200.0	3,721.2	3,455.5	3,339.9	32.0	17.3	-85.86	-2,674.7	1,810.3	2,621.7	2,574.1	55.034	
4,300.0	3,805.8	3,542.8	3,421.8	32.9	17.7	-86.28	-2,704.4	1,806.3	2,628.3	2,579.2	53.589	
4,400.0	3,890.5	3,615.0	3,489.7	33.9	18.1	-86.64	-2,728.8	1,803.8	2,635.8	2,585.5	52.353	
4,500.0	3,975.1	3,703.6	3,573.1	34.8	18.5	-87.09	-2,758.7	1,801.3	2,644.2	2,592.4	51.085	
4,600.0	4,059.8	3,800.0	3,663.8	35.7	19.0	-87.56	-2,791.3	1,798.5	2,652.7	2,599.5	49.842	
4,700.0	4,144.4	3,884.0	3,742.6	36.6	19.5	-87.97	-2,820.1	1,796.1	2,661.7	2,607.1	48.747	
4,800.0	4,229.1	3,985.6	3,838.0	37.6	20.0	-88.46	-2,855.1	1,793.6	2,671.2	2,615.1	47.606	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Buzzard Creek 21-1 - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 usft

Survey Program: 130-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,900.0	4,313.7	4,085.7	3,932.1	38.5	20.5	-88.95	-2,889.1	1,791.0	2,680.6	2,623.0	46.536	
5,000.0	4,398.4	4,185.2	4,025.6	39.4	21.0	-89.43	-2,922.9	1,788.4	2,690.2	2,631.1	45.528	
5,100.0	4,483.0	4,292.5	4,126.7	40.3	21.5	-89.95	-2,958.8	1,785.3	2,699.6	2,638.9	44.526	
5,200.0	4,567.7	4,374.6	4,204.2	41.3	22.0	-90.36	-2,986.1	1,783.1	2,709.3	2,647.4	43.712	
5,300.0	4,652.3	4,465.4	4,290.0	42.2	22.4	-90.83	-3,015.8	1,781.5	2,719.8	2,656.4	42.910	
5,400.0	4,738.2	4,593.4	4,411.2	43.1	23.1	-91.67	-3,056.7	1,778.2	2,729.4	2,664.4	41.974	
5,500.0	4,826.2	4,688.9	4,502.0	43.9	23.6	-92.29	-3,086.1	1,776.0	2,739.1	2,672.7	41.290	
5,600.0	4,916.2	4,765.7	4,575.5	44.7	24.0	-92.80	-3,108.4	1,774.7	2,748.8	2,681.4	40.757	
5,700.0	5,008.1	4,834.2	4,640.7	45.4	24.4	-93.22	-3,129.2	1,774.3	2,759.6	2,691.2	40.329	
5,800.0	5,101.5	4,957.5	4,757.3	46.0	25.0	-93.60	-3,169.3	1,772.6	2,770.3	2,700.5	39.701	
5,900.0	5,196.4	5,063.3	4,857.3	46.6	25.6	-93.82	-3,203.9	1,770.3	2,779.9	2,709.0	39.186	
6,000.0	5,292.7	5,179.0	4,966.5	47.0	26.2	-93.93	-3,242.0	1,767.7	2,789.2	2,717.1	38.679	
6,100.0	5,390.0	5,282.6	5,064.4	47.5	26.7	-93.94	-3,275.7	1,764.8	2,797.6	2,724.5	38.259	
6,200.0	5,488.2	5,364.1	5,141.5	47.8	27.1	-93.92	-3,302.2	1,762.7	2,806.0	2,732.1	37.970	
6,300.0	5,587.1	5,462.6	5,234.7	48.1	27.6	-93.79	-3,333.9	1,760.7	2,814.6	2,739.8	37.661	
6,400.0	5,686.6	5,575.5	5,341.5	48.3	28.2	-93.49	-3,370.2	1,758.0	2,822.6	2,747.0	37.335	
6,500.0	5,786.4	5,664.2	5,425.6	48.4	28.7	-93.22	-3,398.7	1,755.8	2,830.5	2,754.3	37.131	
6,600.0	5,886.4	5,762.2	5,518.1	48.4	29.2	108.12	-3,430.6	1,753.3	2,838.5	2,761.7	36.941	
6,700.0	5,986.4	5,888.7	5,637.7	48.4	29.8	108.93	-3,471.7	1,749.4	2,846.4	2,768.8	36.671	
6,800.0	6,086.4	6,013.3	5,755.9	48.4	30.5	109.70	-3,510.7	1,744.4	2,853.2	2,774.9	36.415	
6,900.0	6,186.4	6,137.6	5,874.7	48.4	31.1	110.42	-3,547.0	1,739.3	2,859.7	2,780.6	36.183	
7,000.0	6,286.4	6,333.7	6,063.8	48.4	32.1	111.45	-3,597.9	1,729.1	2,864.4	2,784.4	35.814	
7,100.0	6,386.4	6,503.8	6,230.3	48.4	33.0	112.14	-3,630.8	1,718.5	2,865.7	2,785.1	35.568	
7,200.0	6,486.4	6,582.0	6,307.5	48.4	33.4	112.39	-3,642.7	1,714.7	2,866.8	2,786.0	35.472	
7,300.0	6,586.4	6,691.5	6,416.1	48.4	33.9	112.68	-3,656.5	1,710.5	2,868.2	2,787.1	35.370	
7,400.0	6,686.4	6,823.0	6,546.9	48.4	34.4	112.94	-3,669.0	1,706.0	2,868.6	2,787.3	35.276	
7,500.0	6,786.4	6,963.0	6,686.6	48.4	34.9	113.10	-3,676.0	1,701.7	2,867.8	2,786.3	35.220	
7,600.0	6,886.4	7,057.5	6,781.1	48.4	35.2	113.16	-3,678.1	1,699.5	2,866.5	2,785.0	35.169	
7,700.0	6,986.4	7,150.6	6,874.2	48.4	35.4	113.20	-3,679.7	1,697.7	2,865.4	2,783.8	35.115	
7,800.0	7,086.4	7,246.7	6,970.2	48.4	35.7	113.24	-3,681.3	1,696.1	2,864.5	2,782.8	35.051	
7,900.0	7,186.4	7,355.9	7,079.4	48.4	36.2	113.29	-3,683.2	1,694.1	2,863.5	2,781.5	34.920	
8,000.0	7,286.4	7,465.0	7,188.5	48.4	36.7	113.35	-3,685.3	1,691.6	2,862.2	2,779.9	34.787	
8,100.0	7,386.4	7,574.2	7,297.6	48.4	37.2	113.42	-3,687.8	1,688.7	2,860.6	2,778.0	34.653	
8,200.0	7,486.4	7,686.6	7,409.9	48.5	37.7	113.50	-3,690.2	1,685.2	2,858.6	2,775.8	34.516	
8,300.0	7,586.4	7,800.3	7,523.5	48.5	38.1	113.55	-3,691.7	1,681.5	2,856.1	2,773.0	34.376	
8,400.0	7,686.4	7,914.0	7,637.1	48.5	38.5	113.59	-3,692.1	1,677.7	2,853.2	2,769.8	34.232	
8,500.0	7,786.4	8,026.5	7,749.5	48.5	38.8	113.61	-3,691.4	1,673.8	2,849.8	2,766.2	34.114	
8,600.0	7,886.4	8,138.3	7,861.3	48.5	39.0	113.61	-3,689.6	1,669.9	2,846.0	2,762.3	34.008	
8,700.0	7,986.4	8,250.1	7,973.0	48.5	39.2	113.59	-3,686.7	1,666.0	2,841.7	2,757.9	33.897	
8,800.0	8,086.4	8,347.5	8,070.3	48.5	39.3	113.56	-3,683.7	1,662.6	2,837.3	2,753.3	33.784	
8,900.0	8,186.4	8,441.9	8,164.6	48.5	39.5	113.53	-3,681.0	1,659.3	2,833.0	2,748.9	33.673	
9,000.0	8,286.4	8,536.4	8,259.0	48.5	39.6	113.52	-3,678.7	1,656.1	2,828.9	2,744.6	33.566	
9,100.0	8,386.4	8,633.6	8,356.1	48.5	39.7	113.50	-3,676.7	1,652.9	2,825.0	2,740.7	33.494	
9,200.0	8,486.4	8,660.0	8,382.5	48.5	39.7	113.50	-3,676.1	1,652.0	2,822.1	2,737.6	33.422	
9,236.1	8,522.5	8,660.0	8,382.5	48.5	39.7	113.50	-3,676.1	1,652.0	2,821.8	2,737.4	33.406	
9,300.0	8,586.4	8,660.0	8,382.5	48.5	39.7	113.50	-3,676.1	1,652.0	2,822.6	2,738.1	33.401	SF
9,382.6	8,669.0	8,660.0	8,382.5	48.5	39.7	113.50	-3,676.1	1,652.0	2,825.6	2,741.1	33.441	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Currier 9-15 - Wellbore #1 - Wellbore #1

Survey Program: 162-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	4.26	1,229.8	91.6	1,233.3			
100.0	100.0	99.2	99.2	0.8	0.6	4.26	1,229.9	91.6	1,233.3	1,231.9	884.394	
200.0	200.0	198.2	198.2	1.4	1.3	4.25	1,230.1	91.3	1,233.5	1,230.8	448.820	ES
300.0	300.0	298.4	298.4	2.1	2.3	-170.78	1,230.4	90.9	1,235.9	1,231.5	280.549	
400.0	399.7	396.9	396.9	3.8	3.1	-170.84	1,230.7	90.2	1,242.6	1,235.8	182.470	
500.0	499.1	493.9	493.9	4.5	3.8	-173.00	1,231.2	88.9	1,253.7	1,245.6	154.186	
600.0	598.0	588.4	588.3	5.0	4.3	179.37	1,231.9	87.2	1,269.2	1,260.1	138.895	
700.0	696.2	681.3	681.2	5.8	4.8	174.61	1,233.0	85.6	1,289.0	1,278.5	123.125	
800.0	793.6	783.3	783.2	6.6	5.1	171.39	1,234.2	84.1	1,312.8	1,301.2	113.584	
900.0	889.9	894.6	894.5	7.4	5.3	169.18	1,234.6	84.0	1,339.7	1,327.2	107.298	
1,000.0	984.9	999.4	999.3	8.1	5.4	167.65	1,233.7	86.2	1,369.5	1,356.1	102.272	
1,100.0	1,078.6	1,093.7	1,093.5	8.8	5.5	166.54	1,232.5	89.6	1,402.8	1,388.6	98.942	
1,200.0	1,170.6	1,188.3	1,188.1	9.4	5.5	165.73	1,231.2	93.6	1,439.9	1,424.9	96.380	
1,300.0	1,260.9	1,279.1	1,278.7	10.1	5.6	165.11	1,229.6	97.9	1,480.6	1,464.9	94.467	
1,400.0	1,349.3	1,360.7	1,360.3	10.7	5.7	164.53	1,228.6	101.0	1,525.3	1,509.0	93.229	
1,500.0	1,435.5	1,442.0	1,441.5	11.3	5.8	164.00	1,228.0	103.2	1,574.2	1,557.2	92.427	SF
1,600.0	1,520.2	1,500.2	1,499.7	11.6	5.9	164.19	1,228.2	104.8	1,626.4	1,609.0	93.458	
1,700.0	1,604.9	1,564.0	1,563.5	11.9	6.0	164.65	1,229.2	106.8	1,679.9	1,662.1	94.530	
1,800.0	1,689.5	1,614.7	1,614.1	12.3	6.0	164.98	1,230.6	108.4	1,734.6	1,716.6	95.958	
1,900.0	1,774.2	1,664.0	1,663.3	12.7	6.0	165.30	1,233.1	110.1	1,791.1	1,772.7	97.379	
2,000.0	1,858.8	1,707.1	1,706.3	13.1	6.1	165.57	1,235.9	111.9	1,849.2	1,830.5	98.927	
2,100.0	1,943.5	1,752.0	1,751.0	13.6	6.1	165.85	1,239.8	113.8	1,909.0	1,890.0	100.431	
2,200.0	2,028.1	1,784.0	1,782.8	14.2	6.2	166.03	1,243.2	115.2	1,970.4	1,951.2	102.265	
2,300.0	2,112.8	1,825.1	1,823.5	14.9	6.2	166.25	1,248.4	116.8	2,033.5	2,014.0	103.858	
2,400.0	2,197.4	1,872.9	1,870.8	15.7	6.3	166.49	1,255.4	118.5	2,098.0	2,078.0	105.284	
2,500.0	2,282.1	1,925.4	1,922.6	16.5	6.4	166.72	1,263.7	120.1	2,163.3	2,143.0	106.542	
2,600.0	2,366.7	1,966.1	1,962.6	17.4	6.5	166.89	1,270.7	121.2	2,229.7	2,209.0	108.102	
2,700.0	2,451.4	2,008.0	2,003.8	18.3	6.5	167.04	1,278.7	122.1	2,297.3	2,276.3	109.575	
2,800.0	2,536.0	2,008.0	2,003.8	19.2	6.5	167.04	1,278.7	122.1	2,366.4	2,345.4	112.543	
2,900.0	2,620.7	2,051.4	2,046.1	20.1	6.9	167.18	1,288.3	122.8	2,436.6	2,414.9	112.393	
3,000.0	2,705.3	2,104.0	2,096.9	21.0	7.4	167.31	1,301.9	123.2	2,508.8	2,486.3	111.406	
3,100.0	2,790.0	2,104.0	2,096.9	21.9	7.4	167.31	1,301.9	123.2	2,581.3	2,558.7	114.387	
3,200.0	2,874.6	2,104.0	2,096.9	22.8	7.4	167.31	1,301.9	123.2	2,655.6	2,633.0	117.493	
3,300.0	2,959.3	2,151.9	2,142.7	23.7	8.0	167.41	1,316.0	123.3	2,730.5	2,707.0	116.037	
3,400.0	3,043.9	2,200.0	2,188.3	24.7	8.6	167.49	1,331.3	123.3	2,806.7	2,782.2	114.646	
3,500.0	3,128.6	2,200.0	2,188.3	25.6	8.6	167.49	1,331.3	123.3	2,883.4	2,858.9	117.639	
3,600.0	3,213.2	2,230.7	2,217.2	26.5	8.9	167.53	1,341.6	123.3	2,961.2	2,936.2	118.704	
3,700.0	3,297.9	2,256.6	2,241.4	27.4	9.0	167.57	1,350.7	123.4	3,039.6	3,014.3	120.065	
3,800.0	3,382.5	2,296.0	2,278.2	28.3	9.3	167.63	1,365.0	123.7	3,118.9	3,093.1	120.548	
3,900.0	3,467.2	2,308.1	2,289.4	29.3	9.4	167.65	1,369.5	123.8	3,198.8	3,172.8	123.042	
4,000.0	3,551.9	2,328.0	2,307.8	30.2	9.4	167.68	1,377.0	124.0	3,279.3	3,253.1	125.223	
4,100.0	3,636.5	2,360.0	2,337.3	31.1	9.5	167.72	1,389.4	124.3	3,360.4	3,333.9	126.931	
4,200.0	3,721.2	2,377.2	2,353.0	32.0	9.5	167.74	1,396.3	124.6	3,442.2	3,415.5	129.218	
4,300.0	3,805.8	2,391.0	2,365.7	32.9	9.6	167.77	1,401.9	124.9	3,524.6	3,497.8	131.646	
4,400.0	3,890.5	2,424.0	2,395.7	33.9	9.7	167.82	1,415.5	126.0	3,607.5	3,580.4	133.222	
4,500.0	3,975.1	2,455.0	2,423.8	34.8	9.7	167.88	1,428.5	127.4	3,690.9	3,663.5	134.862	
4,600.0	4,059.8	2,523.4	2,485.8	35.7	9.9	168.03	1,457.1	131.1	3,774.3	3,746.3	134.812	
4,700.0	4,144.4	2,578.9	2,536.3	36.6	10.1	168.14	1,480.1	134.0	3,857.5	3,829.0	135.255	
4,800.0	4,229.1	2,648.0	2,599.1	37.6	10.3	168.28	1,508.7	137.7	3,940.7	3,911.5	135.052	
4,900.0	4,313.7	2,680.0	2,628.2	38.5	10.4	168.33	1,521.9	139.4	4,023.9	3,994.4	136.396	
5,000.0	4,398.4	2,723.1	2,667.2	39.4	10.5	168.41	1,539.9	141.7	4,107.4	4,077.4	137.209	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Currier 9-15 - Wellbore #1 - Wellbore #1

Survey Program: 162-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	2,881.5	2,811.3	40.3	11.1	168.68	1,605.2	149.9	4,190.8	4,159.2	132.851	
5,200.0	4,567.7	2,954.7	2,878.4	41.3	11.4	168.78	1,634.3	153.1	4,272.9	4,240.5	132.173	
5,300.0	4,652.3	3,023.9	2,941.9	42.2	11.7	168.90	1,661.7	155.8	4,354.8	4,321.7	131.614	
5,400.0	4,738.2	3,071.0	2,985.1	43.1	11.9	169.58	1,680.3	157.4	4,435.3	4,401.6	131.824	
5,500.0	4,826.2	3,113.8	3,024.4	43.9	12.1	170.15	1,697.4	158.9	4,513.4	4,479.2	132.004	
5,600.0	4,916.2	3,167.0	3,072.9	44.7	12.3	170.66	1,719.0	161.1	4,589.3	4,554.4	131.716	
5,700.0	5,008.1	3,190.8	3,094.7	45.4	12.4	171.09	1,728.8	162.2	4,662.6	4,627.4	132.562	
5,800.0	5,101.5	3,248.8	3,147.5	46.0	12.6	171.48	1,752.5	165.5	4,733.2	4,697.4	132.007	
5,900.0	5,196.4	3,359.0	3,248.0	46.6	13.1	171.83	1,796.9	172.6	4,800.3	4,763.2	129.499	
6,000.0	5,292.7	3,419.8	3,303.6	47.0	13.4	172.13	1,821.3	176.3	4,864.0	4,826.2	128.795	
6,100.0	5,390.0	3,590.6	3,460.0	47.5	14.2	172.39	1,888.8	187.7	4,923.8	4,884.1	123.990	
6,200.0	5,488.2	3,647.0	3,511.8	47.8	14.5	172.60	1,911.0	191.5	4,979.8	4,939.4	123.349	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Currier Family 16-3 - Wellbore #1 - Wellbore #1

Survey Program: 130-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	3.77	1,218.9	80.3	1,221.6			
100.0	100.0	99.0	99.0	0.8	0.6	3.77	1,219.0	80.4	1,221.6	1,220.3	908.891	
200.0	200.0	198.8	198.8	1.4	1.2	3.78	1,219.0	80.5	1,221.7	1,219.1	471.354	ES
300.0	300.0	294.5	294.5	2.1	1.7	-171.24	1,219.3	80.3	1,224.1	1,220.3	325.417	
400.0	399.7	385.4	385.3	3.8	2.2	-171.33	1,220.1	78.6	1,231.3	1,225.4	208.896	
500.0	499.1	476.2	476.1	4.5	2.6	-173.59	1,221.7	75.2	1,243.6	1,236.7	179.610	
600.0	598.0	569.7	569.4	5.0	3.0	178.61	1,223.9	70.3	1,260.5	1,252.8	163.845	
700.0	696.2	661.1	660.5	5.8	3.5	173.59	1,226.6	63.5	1,281.7	1,272.9	145.225	
800.0	793.6	746.9	745.9	6.6	4.0	170.04	1,229.7	55.4	1,307.4	1,297.6	132.428	
900.0	889.9	832.9	831.3	7.4	4.4	167.30	1,233.6	45.6	1,337.8	1,326.9	123.339	
1,000.0	984.9	927.2	924.5	8.1	4.9	165.01	1,238.3	32.4	1,372.2	1,360.4	115.958	
1,100.0	1,078.6	1,012.9	1,009.0	8.8	5.4	163.05	1,242.6	18.5	1,410.3	1,397.6	110.609	
1,200.0	1,170.6	1,092.7	1,087.3	9.4	5.8	161.31	1,247.3	4.1	1,452.7	1,439.1	106.777	
1,300.0	1,260.9	1,170.1	1,163.2	10.1	6.1	159.74	1,252.4	-10.5	1,499.2	1,484.7	103.947	
1,400.0	1,349.3	1,244.3	1,235.7	10.7	6.4	158.29	1,257.9	-24.8	1,549.7	1,534.5	101.925	
1,500.0	1,435.5	1,331.7	1,321.3	11.3	6.7	156.95	1,264.6	-41.5	1,603.7	1,587.7	99.902	
1,600.0	1,520.2	1,410.0	1,397.9	11.6	7.0	156.73	1,270.6	-56.4	1,660.0	1,643.3	99.785	
1,700.0	1,604.9	1,481.8	1,468.1	11.9	7.3	156.78	1,276.4	-70.0	1,716.6	1,699.4	99.794	
1,800.0	1,689.5	1,562.4	1,547.1	12.3	7.6	156.85	1,283.4	-84.9	1,773.7	1,755.9	99.427	
1,900.0	1,774.2	1,667.9	1,650.5	12.7	8.0	156.98	1,291.9	-103.6	1,830.3	1,811.7	98.114	
2,000.0	1,858.8	1,793.8	1,774.1	13.1	8.6	157.09	1,299.6	-126.6	1,885.4	1,865.7	95.937	
2,100.0	1,943.5	1,861.2	1,840.2	13.6	8.8	157.15	1,303.2	-138.8	1,939.7	1,919.5	95.737	
2,200.0	2,028.1	1,937.2	1,915.0	14.2	9.2	157.24	1,307.9	-151.8	1,994.8	1,973.9	95.366	
2,300.0	2,112.8	2,075.0	2,050.6	14.9	9.7	157.40	1,315.2	-175.2	2,049.3	2,027.3	93.149	
2,400.0	2,197.4	2,141.8	2,116.2	15.7	10.0	157.45	1,317.8	-187.2	2,102.5	2,079.9	92.795	
2,500.0	2,282.1	2,205.6	2,178.9	16.5	10.3	157.49	1,321.0	-198.9	2,156.5	2,133.3	92.634	
2,600.0	2,366.7	2,273.3	2,245.4	17.4	10.6	157.55	1,324.9	-210.9	2,211.3	2,187.4	92.464	
2,700.0	2,451.4	2,394.3	2,364.3	18.3	11.1	157.62	1,331.0	-232.8	2,265.4	2,240.4	90.878	
2,800.0	2,536.0	2,473.4	2,442.0	19.2	11.4	157.67	1,334.6	-247.2	2,319.0	2,293.4	90.370	
2,900.0	2,620.7	2,546.0	2,513.3	20.1	11.8	157.72	1,338.2	-260.0	2,373.1	2,346.8	90.097	
3,000.0	2,705.3	2,643.6	2,609.3	21.0	12.2	157.79	1,343.1	-277.1	2,427.2	2,400.1	89.288	
3,100.0	2,790.0	2,763.2	2,726.7	21.9	12.7	157.83	1,347.6	-299.6	2,480.2	2,452.0	87.928	
3,200.0	2,874.6	2,841.3	2,803.3	22.8	13.0	157.85	1,350.1	-314.4	2,532.8	2,503.8	87.477	
3,300.0	2,959.3	2,902.1	2,863.0	23.7	13.3	157.88	1,352.5	-325.5	2,586.0	2,556.4	87.439	
3,400.0	3,043.9	3,010.1	2,969.2	24.7	13.8	157.94	1,357.0	-344.8	2,639.4	2,608.9	86.519	
3,500.0	3,128.6	3,104.4	3,061.9	25.6	14.2	157.98	1,360.2	-362.0	2,692.1	2,660.7	85.863	
3,600.0	3,213.2	3,153.3	3,109.9	26.5	14.4	158.00	1,362.0	-370.8	2,745.2	2,713.3	86.001	
3,700.0	3,297.9	3,207.7	3,163.4	27.4	14.7	158.02	1,364.8	-380.7	2,799.4	2,766.9	86.070	
3,800.0	3,382.5	3,289.0	3,243.2	28.3	15.0	158.05	1,369.1	-395.5	2,853.7	2,820.4	85.618	
3,900.0	3,467.2	3,348.4	3,301.5	29.3	15.3	158.07	1,372.5	-406.3	2,908.5	2,874.5	85.608	
4,000.0	3,551.9	3,383.0	3,335.5	30.2	15.4	158.09	1,374.9	-412.4	2,964.4	2,930.0	86.113	
4,100.0	3,636.5	3,447.5	3,398.9	31.1	15.7	158.13	1,380.1	-423.3	3,021.1	2,985.9	86.001	
4,200.0	3,721.2	3,526.0	3,476.0	32.0	16.1	158.19	1,387.1	-436.0	3,078.5	3,042.6	85.693	
4,300.0	3,805.8	3,632.3	3,580.3	32.9	16.6	158.24	1,396.0	-454.0	3,135.4	3,098.5	84.928	
4,400.0	3,890.5	3,731.2	3,677.4	33.9	17.0	158.28	1,403.6	-471.4	3,191.8	3,154.0	84.324	
4,500.0	3,975.1	3,805.3	3,750.1	34.8	17.3	158.31	1,409.2	-484.7	3,248.1	3,209.5	84.146	
4,600.0	4,059.8	3,959.0	3,900.6	35.7	18.0	158.32	1,419.9	-513.9	3,303.8	3,263.8	82.527	
4,700.0	4,144.4	4,010.2	3,950.7	36.6	18.3	158.32	1,423.0	-524.0	3,358.9	3,318.2	82.619	
4,800.0	4,229.1	4,070.5	4,009.6	37.6	18.6	158.31	1,427.3	-535.8	3,414.7	3,373.3	82.618	
4,900.0	4,313.7	4,141.5	4,079.2	38.5	18.9	158.31	1,432.7	-549.6	3,470.9	3,428.8	82.478	
5,000.0	4,398.4	4,228.3	4,164.0	39.4	19.3	158.30	1,439.3	-566.9	3,527.0	3,484.1	82.097	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - (Offset) Currier Family 16-3 - Wellbore #1 - Wellbore #1

Survey Program: 130-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	4,295.9	4,230.0	40.3	19.6	158.30	1,444.5	-580.3	3,583.4	3,539.7	82.025	
5,200.0	4,567.7	4,418.7	4,350.1	41.3	20.2	158.30	1,453.7	-604.1	3,639.6	3,594.7	81.134	
5,300.0	4,652.3	4,488.9	4,418.9	42.2	20.5	158.33	1,458.8	-617.4	3,695.5	3,649.9	81.047	
5,400.0	4,738.2	4,650.3	4,577.3	43.1	21.2	158.91	1,468.1	-646.3	3,748.1	3,701.1	79.644	
5,500.0	4,826.2	4,724.6	4,650.5	43.9	21.6	159.41	1,472.0	-659.1	3,797.0	3,749.2	79.307	
5,600.0	4,916.2	4,796.7	4,721.2	44.7	21.9	159.82	1,476.1	-671.8	3,842.8	3,794.1	78.955	
5,700.0	5,008.1	4,880.3	4,803.4	45.4	22.3	160.15	1,481.1	-687.0	3,885.1	3,835.5	78.409	
5,800.0	5,101.5	4,961.0	4,882.6	46.0	22.7	160.43	1,486.2	-701.3	3,924.0	3,873.6	77.875	
5,900.0	5,196.4	5,037.6	4,957.9	46.6	23.0	160.66	1,491.3	-714.6	3,959.4	3,908.3	77.369	
6,000.0	5,292.7	5,142.1	5,060.6	47.0	23.5	160.80	1,498.3	-732.6	3,991.0	3,938.8	76.510	
6,100.0	5,390.0	5,216.1	5,133.3	47.5	23.8	160.93	1,503.3	-745.0	4,018.7	3,965.8	75.994	
6,200.0	5,488.2	5,299.6	5,215.5	47.8	24.2	161.00	1,509.3	-758.5	4,043.0	3,989.3	75.365	
6,300.0	5,587.1	5,403.1	5,317.6	48.1	24.7	161.01	1,516.8	-774.1	4,063.3	4,008.8	74.525	
6,400.0	5,686.6	5,508.4	5,421.4	48.3	25.1	160.96	1,524.2	-790.2	4,079.4	4,024.0	73.663	
6,500.0	5,786.4	5,610.0	5,521.3	48.4	25.6	160.84	1,531.3	-807.3	4,091.3	4,035.2	72.826	
6,600.0	5,886.4	5,802.9	5,711.1	48.4	26.5	1.34	1,541.7	-839.9	4,097.4	4,040.0	71.411	
6,700.0	5,986.4	5,907.9	5,814.4	48.4	26.9	1.09	1,546.4	-857.9	4,101.6	4,043.8	70.948	
6,800.0	6,086.4	5,992.5	5,897.7	48.4	27.3	0.89	1,550.3	-872.4	4,106.0	4,047.9	70.681	
6,900.0	6,186.4	6,101.8	6,005.6	48.4	27.8	0.65	1,555.5	-889.0	4,110.6	4,052.0	70.232	
7,000.0	6,286.4	6,210.0	6,112.9	48.4	28.3	0.48	1,560.1	-901.7	4,114.7	4,055.8	69.851	
7,100.0	6,386.4	6,330.7	6,233.1	48.4	28.8	0.32	1,565.2	-912.9	4,118.9	4,059.6	69.432	
7,200.0	6,486.4	6,537.9	6,439.9	48.4	29.6	0.17	1,569.0	-923.5	4,120.1	4,060.0	68.555	
7,300.0	6,586.4	6,625.6	6,527.5	48.4	30.0	0.13	1,570.1	-926.6	4,121.4	4,061.1	68.391	
7,400.0	6,686.4	6,717.0	6,618.9	48.4	30.3	0.09	1,571.6	-929.5	4,123.0	4,062.5	68.211	
7,500.0	6,786.4	6,847.1	6,748.9	48.4	30.9	0.04	1,573.3	-933.2	4,124.3	4,063.3	67.598	
7,600.0	6,886.4	6,983.1	6,884.8	48.4	31.5	-0.01	1,573.9	-936.2	4,124.8	4,063.2	66.946	
7,700.0	6,986.4	7,119.1	7,020.8	48.4	32.1	-0.04	1,573.4	-938.6	4,124.4	4,062.2	66.300	
7,754.5	7,040.9	7,148.4	7,050.2	48.4	32.5	-0.05	1,573.4	-939.2	4,124.3	4,061.7	65.948	
7,800.0	7,086.4	7,187.3	7,089.0	48.4	32.8	-0.06	1,573.4	-940.0	4,124.2	4,061.4	65.660	
7,817.8	7,104.2	7,202.5	7,104.2	48.4	32.9	-0.06	1,573.4	-940.3	4,124.2	4,061.3	65.548	
7,900.0	7,186.4	7,272.6	7,174.4	48.4	33.4	-0.08	1,573.5	-941.8	4,124.3	4,060.9	65.039	
8,000.0	7,286.4	7,358.0	7,259.7	48.4	34.0	-0.11	1,573.9	-943.8	4,124.8	4,060.8	64.435	
8,100.0	7,386.4	7,443.3	7,345.0	48.4	34.7	-0.14	1,574.6	-946.0	4,125.6	4,061.0	63.848	
8,200.0	7,486.4	7,528.7	7,430.3	48.5	35.3	-0.17	1,575.6	-948.4	4,126.8	4,061.6	63.277	
8,300.0	7,586.4	7,616.6	7,518.1	48.5	36.0	-0.21	1,576.9	-951.0	4,128.3	4,062.5	62.671	
8,400.0	7,686.4	7,709.6	7,611.1	48.5	36.7	-0.25	1,578.5	-953.6	4,130.1	4,063.4	61.985	
8,500.0	7,786.4	7,802.7	7,704.1	48.5	37.4	-0.28	1,580.3	-955.8	4,132.0	4,064.6	61.319	
8,600.0	7,886.4	7,895.7	7,797.1	48.5	38.1	-0.30	1,582.2	-957.5	4,134.1	4,065.9	60.670	
8,700.0	7,986.4	7,988.8	7,890.2	48.5	38.9	-0.32	1,584.3	-958.9	4,136.3	4,067.4	60.039	
8,800.0	8,086.4	8,083.6	7,984.9	48.5	39.6	-0.33	1,586.5	-959.9	4,138.7	4,069.0	59.377	
8,900.0	8,186.4	8,186.8	8,088.2	48.5	40.6	-0.35	1,589.0	-960.9	4,141.1	4,070.3	58.497	
9,000.0	8,286.4	8,290.1	8,191.4	48.5	41.6	-0.36	1,591.4	-962.1	4,143.4	4,071.6	57.642	
9,100.0	8,386.4	8,393.4	8,294.6	48.5	42.5	-0.38	1,593.7	-963.4	4,145.7	4,072.7	56.812	
9,200.0	8,486.4	8,496.6	8,397.8	48.5	43.5	-0.40	1,596.0	-964.8	4,147.9	4,073.8	56.004	
9,300.0	8,586.4	8,599.9	8,501.1	48.5	44.5	-0.42	1,598.1	-966.4	4,150.0	4,074.8	55.218	
9,382.6	8,669.0	8,650.0	8,551.2	48.5	44.9	-0.43	1,599.1	-967.3	4,151.8	4,076.2	54.930	SF

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier 0993-16-01M - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	32.47	43.0	27.4	51.0			
100.0	100.0	100.0	100.0	0.8	0.8	32.47	43.0	27.4	51.0	49.4	32.191	
200.0	200.0	200.0	200.0	1.4	1.4	32.47	43.0	27.4	51.0	48.2	18.024	CC, ES
300.0	300.0	298.3	298.3	2.1	2.3	-144.69	44.7	27.5	54.3	50.1	12.906	
400.0	399.7	395.8	395.6	3.8	3.4	-149.76	49.7	28.0	64.5	57.8	9.589	SF
500.0	499.1	491.5	491.0	4.5	4.3	-157.34	57.8	28.7	82.3	73.9	9.824	
600.0	598.0	585.0	583.8	5.0	5.0	-168.75	68.8	29.6	107.9	98.2	11.130	
700.0	696.2	675.8	673.6	5.8	5.7	-175.80	82.3	30.5	140.7	129.5	12.571	
800.0	793.6	763.2	759.7	6.6	6.2	179.39	97.9	30.5	180.2	167.7	14.401	
900.0	889.9	846.8	841.4	7.4	6.7	175.92	115.1	29.9	226.0	212.3	16.508	
1,000.0	984.9	926.1	918.5	8.1	7.2	173.29	133.6	28.7	277.6	262.9	18.832	
1,100.0	1,078.6	1,000.0	989.9	8.8	7.7	171.18	152.7	27.1	334.8	319.1	21.363	
1,200.0	1,170.6	1,071.0	1,058.0	9.4	8.1	169.40	172.7	25.0	397.1	380.6	24.007	
1,300.0	1,260.9	1,136.3	1,120.2	10.1	8.5	167.84	192.5	22.7	464.2	446.9	26.818	
1,400.0	1,349.3	1,200.0	1,180.4	10.7	8.8	166.40	213.1	20.0	535.7	517.6	29.655	
1,500.0	1,435.5	1,252.3	1,229.5	11.3	9.1	164.98	231.0	17.6	611.1	592.5	32.815	
1,600.0	1,520.2	1,300.0	1,273.9	11.6	9.4	164.84	248.0	15.1	689.5	670.5	36.350	
1,700.0	1,604.9	1,353.4	1,323.3	11.9	9.7	164.99	268.0	12.1	768.8	749.4	39.544	
1,800.0	1,689.5	1,400.0	1,366.2	12.3	9.9	165.05	286.1	9.3	849.1	829.3	42.835	
1,900.0	1,774.2	1,446.6	1,408.7	12.7	10.1	165.08	304.9	6.2	930.3	910.1	46.117	
2,000.0	1,858.8	1,496.1	1,453.6	13.1	10.3	165.07	325.5	2.8	1,012.2	991.6	49.240	
2,100.0	1,943.5	1,553.3	1,505.4	13.6	10.5	165.05	349.4	-1.2	1,094.2	1,073.2	51.983	
2,200.0	2,028.1	1,610.5	1,557.2	14.2	10.7	165.04	373.3	-5.2	1,176.3	1,154.7	54.570	
2,300.0	2,112.8	1,667.6	1,609.0	14.9	10.9	165.02	397.3	-9.2	1,258.3	1,236.2	56.988	
2,400.0	2,197.4	1,724.8	1,660.7	15.7	11.2	165.01	421.2	-13.2	1,340.3	1,317.7	59.265	
2,500.0	2,282.1	1,782.0	1,712.5	16.5	11.4	165.00	445.1	-17.2	1,422.4	1,399.2	61.413	
2,600.0	2,366.7	1,839.2	1,764.3	17.4	11.6	164.99	469.0	-21.2	1,504.4	1,480.7	63.427	
2,700.0	2,451.4	1,896.4	1,816.1	18.3	11.8	164.99	492.9	-25.2	1,586.5	1,562.2	65.326	
2,800.0	2,536.0	1,953.5	1,867.9	19.2	12.1	164.98	516.9	-29.1	1,668.5	1,643.6	67.109	
2,900.0	2,620.7	2,010.7	1,919.7	20.1	12.3	164.97	540.8	-33.1	1,750.5	1,725.1	68.793	
3,000.0	2,705.3	2,067.9	1,971.4	21.0	12.5	164.97	564.7	-37.1	1,832.6	1,806.5	70.376	
3,100.0	2,790.0	2,125.1	2,023.2	21.9	12.8	164.96	588.6	-41.1	1,914.6	1,888.0	71.870	
3,200.0	2,874.6	2,182.3	2,075.0	22.8	13.0	164.96	612.5	-45.1	1,996.7	1,969.4	73.280	
3,300.0	2,959.3	2,239.4	2,126.8	23.7	13.3	164.95	636.5	-49.1	2,078.7	2,050.8	74.610	
3,400.0	3,043.9	2,296.6	2,178.6	24.7	13.5	164.95	660.4	-53.1	2,160.7	2,132.3	75.868	
3,500.0	3,128.6	2,353.8	2,230.3	25.6	13.8	164.95	684.3	-57.1	2,242.8	2,213.7	77.053	
3,600.0	3,213.2	2,411.0	2,282.1	26.5	14.1	164.94	708.2	-61.1	2,324.8	2,295.1	78.178	
3,700.0	3,297.9	2,468.1	2,333.9	27.4	14.3	164.94	732.2	-65.1	2,406.9	2,376.5	79.240	
3,800.0	3,382.5	2,525.3	2,385.7	28.3	14.6	164.94	756.1	-69.1	2,488.9	2,457.9	80.247	
3,900.0	3,467.2	2,582.5	2,437.5	29.3	14.9	164.93	780.0	-73.1	2,570.9	2,539.3	81.201	
4,000.0	3,551.9	2,639.7	2,489.3	30.2	15.2	164.93	803.9	-77.1	2,653.0	2,620.7	82.105	
4,100.0	3,636.5	2,696.9	2,541.0	31.1	15.4	164.93	827.8	-81.1	2,735.0	2,702.0	82.965	
4,200.0	3,721.2	2,754.0	2,592.8	32.0	15.7	164.93	851.8	-85.0	2,817.1	2,783.4	83.779	
4,300.0	3,805.8	2,811.2	2,644.6	32.9	16.0	164.92	875.7	-89.0	2,899.1	2,864.8	84.555	
4,400.0	3,890.5	2,868.4	2,696.4	33.9	16.4	164.92	899.6	-93.0	2,981.1	2,946.2	85.291	
4,500.0	3,975.1	2,925.6	2,748.2	34.8	16.7	164.92	923.5	-97.0	3,063.2	3,027.6	85.992	
4,600.0	4,059.8	2,982.8	2,799.9	35.7	17.0	164.92	947.4	-101.0	3,145.2	3,108.9	86.660	
4,700.0	4,144.4	3,039.9	2,851.7	36.6	17.4	164.92	971.4	-105.0	3,227.3	3,190.3	87.295	
4,800.0	4,229.1	3,097.1	2,903.5	37.6	17.8	164.91	995.3	-109.0	3,309.3	3,271.6	87.902	
4,900.0	4,313.7	3,154.3	2,955.3	38.5	18.1	164.91	1,019.2	-113.0	3,391.3	3,353.0	88.480	
5,000.0	4,398.4	3,211.5	3,007.1	39.4	18.5	164.91	1,043.1	-117.0	3,473.4	3,434.4	89.032	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier 0993-16-01M - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	3,268.7	3,058.9	40.3	18.9	164.91	1,067.0	-121.0	3,555.4	3,515.7	89.559	
5,200.0	4,567.7	3,325.8	3,110.6	41.3	19.3	164.91	1,091.0	-125.0	3,637.4	3,597.1	90.062	
5,300.0	4,652.3	3,383.0	3,162.4	42.2	19.7	164.94	1,114.9	-129.0	3,719.5	3,678.4	90.545	
5,400.0	4,738.2	3,442.0	3,215.9	43.1	20.1	165.79	1,139.6	-133.1	3,800.2	3,758.4	90.877	
5,500.0	4,826.2	3,504.4	3,272.4	43.9	20.5	166.50	1,165.7	-137.5	3,878.3	3,835.7	90.999	
5,600.0	4,916.2	3,570.0	3,331.7	44.7	21.0	167.09	1,193.1	-142.0	3,953.8	3,910.3	90.983	
5,700.0	5,008.1	3,638.7	3,393.9	45.4	21.5	167.59	1,221.8	-146.8	4,026.3	3,982.0	90.843	
5,800.0	5,101.5	3,710.3	3,458.8	46.0	22.0	168.00	1,251.8	-151.8	4,095.9	4,050.7	90.591	
5,900.0	5,196.4	3,784.8	3,526.3	46.6	22.5	168.35	1,283.0	-157.0	4,162.4	4,116.2	90.236	
6,000.0	5,292.7	3,861.9	3,596.1	47.0	23.0	168.63	1,315.2	-162.4	4,225.6	4,178.5	89.792	
6,100.0	5,390.0	3,941.6	3,668.3	47.5	23.6	168.86	1,348.6	-168.0	4,285.4	4,237.4	89.272	
6,200.0	5,488.2	4,023.7	3,742.6	47.8	24.2	169.04	1,382.9	-173.7	4,341.8	4,292.9	88.687	
6,300.0	5,587.1	4,108.0	3,819.0	48.1	24.8	169.18	1,418.2	-179.6	4,394.7	4,344.8	88.051	
6,400.0	5,686.6	4,194.4	3,897.2	48.3	25.4	169.29	1,454.3	-185.6	4,443.8	4,393.0	87.380	
6,500.0	5,786.4	4,282.7	3,977.2	48.4	26.0	169.35	1,491.2	-191.8	4,489.3	4,437.5	86.701	
6,600.0	5,886.4	4,372.7	4,058.7	48.4	26.7	10.25	1,528.9	-198.1	4,530.9	4,478.5	86.425	
6,700.0	5,986.4	4,463.2	4,140.7	48.4	27.3	10.07	1,566.8	-204.4	4,571.3	4,518.3	86.255	
6,800.0	6,086.4	4,553.8	4,222.7	48.4	28.0	9.90	1,604.7	-210.7	4,611.7	4,558.1	86.090	
6,900.0	6,186.4	4,644.4	4,304.7	48.4	28.6	9.73	1,642.6	-217.1	4,652.1	4,597.9	85.927	
7,000.0	6,286.4	6,700.6	6,286.4	48.4	36.0	8.00	2,063.7	-287.4	4,659.9	4,589.9	66.613	
7,100.0	6,386.4	6,800.6	6,386.4	48.4	36.0	8.00	2,063.7	-287.4	4,659.9	4,589.9	66.568	
7,200.0	6,486.4	6,900.6	6,486.4	48.4	36.1	8.00	2,063.7	-287.4	4,659.9	4,589.8	66.523	
7,300.0	6,586.4	7,000.6	6,586.4	48.4	36.1	8.00	2,063.7	-287.4	4,659.9	4,589.8	66.478	
7,400.0	6,686.4	7,100.6	6,686.4	48.4	36.1	8.00	2,063.7	-287.4	4,659.9	4,589.7	66.432	
7,500.0	6,786.4	7,200.6	6,786.4	48.4	36.2	8.00	2,063.7	-287.4	4,659.9	4,589.7	66.386	
7,600.0	6,886.4	7,300.6	6,886.4	48.4	36.2	8.00	2,063.7	-287.4	4,659.9	4,589.6	66.339	
7,700.0	6,986.4	7,400.6	6,986.4	48.4	36.2	8.00	2,063.7	-287.4	4,659.9	4,589.6	66.293	
7,800.0	7,086.4	7,500.6	7,086.4	48.4	36.2	8.00	2,063.7	-287.4	4,659.9	4,589.5	66.246	
7,900.0	7,186.4	7,600.6	7,186.4	48.4	36.3	8.00	2,063.7	-287.4	4,659.9	4,589.5	66.199	
8,000.0	7,286.4	7,700.6	7,286.4	48.4	36.3	8.00	2,063.7	-287.4	4,659.9	4,589.4	66.152	
8,100.0	7,386.4	7,800.6	7,386.4	48.4	36.3	8.00	2,063.7	-287.4	4,659.9	4,589.4	66.104	
8,200.0	7,486.4	7,900.6	7,486.4	48.5	36.3	8.00	2,063.7	-287.4	4,659.9	4,589.3	66.057	
8,300.0	7,586.4	8,000.6	7,586.4	48.5	36.4	8.00	2,063.7	-287.4	4,659.9	4,589.3	66.009	
8,400.0	7,686.4	8,100.6	7,686.4	48.5	36.4	8.00	2,063.7	-287.4	4,659.9	4,589.2	65.960	
8,500.0	7,786.4	8,200.6	7,786.4	48.5	36.4	8.00	2,063.7	-287.4	4,659.9	4,589.2	65.912	
8,600.0	7,886.4	8,300.6	7,886.4	48.5	36.4	8.00	2,063.7	-287.4	4,659.9	4,589.1	65.863	
8,700.0	7,986.4	8,400.6	7,986.4	48.5	36.5	8.00	2,063.7	-287.4	4,659.9	4,589.1	65.814	
8,800.0	8,086.4	8,500.6	8,086.4	48.5	36.5	8.00	2,063.7	-287.4	4,659.9	4,589.0	65.765	
8,900.0	8,186.4	8,600.6	8,186.4	48.5	36.5	8.00	2,063.7	-287.4	4,659.9	4,589.0	65.715	
9,000.0	8,286.4	8,700.6	8,286.4	48.5	36.6	8.00	2,063.7	-287.4	4,659.9	4,588.9	65.666	
9,100.0	8,386.4	8,800.6	8,386.4	48.5	36.6	8.00	2,063.7	-287.4	4,659.9	4,588.9	65.616	
9,200.0	8,486.4	8,900.6	8,486.4	48.5	36.6	8.00	2,063.7	-287.4	4,659.9	4,588.8	65.566	
9,300.0	8,586.4	9,000.6	8,586.4	48.5	36.6	8.00	2,063.7	-287.4	4,659.9	4,588.8	65.515	
9,307.2	8,593.6	9,007.8	8,593.6	48.5	36.6	8.00	2,063.7	-287.4	4,659.9	4,588.8	65.513	
9,382.6	8,669.0	9,067.2	8,653.0	48.5	36.7	8.00	2,063.7	-287.4	4,659.9	4,588.8	65.502	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier 0993-16-03M - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	29.75	35.8	20.5	41.2			
100.0	100.0	100.0	100.0	0.8	0.8	29.75	35.8	20.5	41.2	39.7	26.033	
200.0	200.0	200.0	200.0	1.4	1.4	29.75	35.8	20.5	41.2	38.4	14.577	CC, ES
300.0	300.0	299.7	299.7	2.1	1.7	-146.93	35.9	20.5	43.1	39.4	11.543	
400.0	399.7	398.1	398.0	3.8	2.5	-152.58	38.2	19.9	50.7	44.8	8.614	
500.0	499.1	495.0	494.8	4.5	3.6	-161.65	43.7	18.7	65.6	58.0	8.584	SF
600.0	598.0	589.8	589.2	5.0	4.4	-174.16	52.1	16.8	88.3	79.3	9.758	
700.0	696.2	682.0	680.7	5.8	5.2	178.31	63.3	14.4	118.3	107.7	11.131	
800.0	793.6	770.9	768.5	6.6	5.8	173.54	76.8	11.4	155.2	143.2	12.919	
900.0	889.9	856.0	852.2	7.4	6.4	170.32	92.1	7.9	198.4	185.2	15.000	
1,000.0	984.9	937.1	931.3	8.1	6.9	167.99	109.0	4.2	247.7	233.4	17.308	
1,100.0	1,078.6	1,013.6	1,005.6	8.8	7.3	166.20	127.0	0.2	302.6	287.4	19.863	
1,200.0	1,170.6	1,092.0	1,081.3	9.4	7.5	164.78	146.8	-4.2	362.2	346.3	22.685	
1,300.0	1,260.9	1,169.7	1,156.4	10.1	7.8	163.68	166.5	-8.6	425.1	408.4	25.414	
1,400.0	1,349.3	1,244.7	1,228.9	10.7	8.0	162.78	185.5	-12.8	491.1	473.6	28.115	
1,500.0	1,435.5	1,317.0	1,298.7	11.3	8.3	162.00	203.8	-16.9	560.0	541.8	30.800	
1,600.0	1,520.2	1,387.3	1,366.5	11.6	8.5	162.42	221.6	-20.9	630.9	612.2	33.731	
1,700.0	1,604.9	1,457.5	1,434.4	11.9	8.8	163.03	239.4	-24.8	701.9	682.7	36.474	
1,800.0	1,689.5	1,527.8	1,502.2	12.3	9.0	163.52	257.1	-28.8	772.9	753.1	39.029	
1,900.0	1,774.2	1,598.0	1,570.0	12.7	9.3	163.93	274.9	-32.7	844.0	823.6	41.410	
2,000.0	1,858.8	1,668.2	1,637.8	13.1	9.6	164.28	292.7	-36.7	915.1	894.1	43.623	
2,100.0	1,943.5	1,738.5	1,705.7	13.6	9.8	164.58	310.5	-40.6	986.2	964.6	45.685	
2,200.0	2,028.1	1,808.7	1,773.5	14.2	10.1	164.84	328.3	-44.6	1,057.3	1,035.1	47.607	
2,300.0	2,112.8	1,878.9	1,841.3	14.9	10.4	165.06	346.1	-48.5	1,128.5	1,105.6	49.394	
2,400.0	2,197.4	1,949.1	1,909.1	15.7	10.7	165.26	363.9	-52.5	1,199.6	1,176.1	51.061	
2,500.0	2,282.1	2,019.4	1,976.9	16.5	11.0	165.44	381.6	-56.5	1,270.7	1,246.6	52.617	
2,600.0	2,366.7	2,089.6	2,044.8	17.4	11.3	165.60	399.4	-60.4	1,341.9	1,317.1	54.069	
2,700.0	2,451.4	2,159.8	2,112.6	18.3	11.6	165.74	417.2	-64.4	1,413.0	1,387.5	55.424	
2,800.0	2,536.0	2,230.0	2,180.4	19.2	11.9	165.87	435.0	-68.3	1,484.2	1,458.0	56.693	
2,900.0	2,620.7	2,300.3	2,248.2	20.1	12.2	165.98	452.8	-72.3	1,555.4	1,528.5	57.882	
3,000.0	2,705.3	2,370.5	2,316.1	21.0	12.5	166.09	470.6	-76.2	1,626.5	1,598.9	58.993	
3,100.0	2,790.0	2,440.7	2,383.9	21.9	12.8	166.19	488.3	-80.2	1,697.7	1,669.4	60.037	
3,200.0	2,874.6	2,510.9	2,451.7	22.8	13.1	166.28	506.1	-84.1	1,768.8	1,739.9	61.018	
3,300.0	2,959.3	2,581.2	2,519.5	23.7	13.4	166.36	523.9	-88.1	1,840.0	1,810.3	61.940	
3,400.0	3,043.9	2,651.4	2,587.3	24.7	13.7	166.44	541.7	-92.1	1,911.2	1,880.8	62.807	
3,500.0	3,128.6	2,721.6	2,655.2	25.6	14.1	166.51	559.5	-96.0	1,982.4	1,951.2	63.624	
3,600.0	3,213.2	2,791.9	2,723.0	26.5	14.4	166.57	577.3	-100.0	2,053.5	2,021.6	64.395	
3,700.0	3,297.9	2,862.1	2,790.8	27.4	14.7	166.63	595.1	-103.9	2,124.7	2,092.1	65.122	
3,800.0	3,382.5	2,932.3	2,858.6	28.3	15.0	166.69	612.8	-107.9	2,195.9	2,162.5	65.809	
3,900.0	3,467.2	3,002.5	2,926.5	29.3	15.3	166.75	630.6	-111.8	2,267.0	2,232.9	66.459	
4,000.0	3,551.9	3,072.8	2,994.3	30.2	15.7	166.80	648.4	-115.8	2,338.2	2,303.4	67.075	
4,100.0	3,636.5	3,143.0	3,062.1	31.1	16.0	166.85	666.2	-119.7	2,409.4	2,373.8	67.658	
4,200.0	3,721.2	3,213.2	3,129.9	32.0	16.3	166.89	684.0	-123.7	2,480.6	2,444.2	68.211	
4,300.0	3,805.8	3,283.4	3,197.7	32.9	16.6	166.93	701.8	-127.7	2,551.8	2,514.6	68.736	
4,400.0	3,890.5	3,353.7	3,265.6	33.9	17.0	166.97	719.5	-131.6	2,622.9	2,585.1	69.235	
4,500.0	3,975.1	3,423.9	3,333.4	34.8	17.3	167.01	737.3	-135.6	2,694.1	2,655.5	69.709	
4,600.0	4,059.8	3,494.1	3,401.2	35.7	17.6	167.05	755.1	-139.5	2,765.3	2,725.9	70.161	
4,700.0	4,144.4	3,564.3	3,469.0	36.6	17.9	167.08	772.9	-143.5	2,836.5	2,796.3	70.591	
4,800.0	4,229.1	3,634.6	3,536.9	37.6	18.3	167.11	790.7	-147.4	2,907.7	2,866.7	71.001	
4,900.0	4,313.7	3,704.8	3,604.7	38.5	18.6	167.15	808.5	-151.4	2,978.8	2,937.1	71.392	
5,000.0	4,398.4	3,775.0	3,672.5	39.4	18.9	167.18	826.3	-155.3	3,050.0	3,007.5	71.765	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier 0993-16-03M - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	3,845.3	3,740.3	40.3	19.3	167.20	844.0	-159.3	3,121.2	3,077.9	72.122	
5,200.0	4,567.7	3,915.5	3,808.1	41.3	19.6	167.23	861.8	-163.3	3,192.4	3,148.3	72.463	
5,300.0	4,652.3	3,985.7	3,876.0	42.2	19.9	167.28	879.6	-167.2	3,263.6	3,218.7	72.790	
5,400.0	4,738.2	4,057.6	3,945.4	43.1	20.3	167.81	897.8	-171.3	3,333.1	3,287.5	72.988	
5,500.0	4,826.2	4,132.3	4,017.5	43.9	20.6	168.26	916.7	-175.5	3,399.5	3,353.0	73.009	
5,600.0	4,916.2	4,209.8	4,092.4	44.7	21.0	168.64	936.4	-179.8	3,462.7	3,415.2	72.925	
5,700.0	5,008.1	4,289.9	4,169.8	45.4	21.4	168.96	956.6	-184.3	3,522.5	3,474.1	72.745	
5,800.0	5,101.5	4,372.5	4,249.5	46.0	21.8	169.22	977.6	-189.0	3,578.8	3,529.4	72.479	
5,900.0	5,196.4	4,457.4	4,331.5	46.6	22.2	169.44	999.0	-193.8	3,631.5	3,581.2	72.134	
6,000.0	5,292.7	4,544.4	4,415.5	47.0	22.6	169.61	1,021.1	-198.7	3,680.6	3,629.2	71.721	
6,100.0	5,390.0	4,633.4	4,501.5	47.5	23.0	169.74	1,043.6	-203.7	3,725.8	3,673.5	71.247	
6,200.0	5,488.2	4,724.2	4,589.1	47.8	23.5	169.83	1,066.6	-208.8	3,767.2	3,713.9	70.723	
6,300.0	5,587.1	4,816.6	4,678.4	48.1	23.9	169.89	1,090.0	-214.0	3,804.7	3,750.4	70.159	
6,400.0	5,686.6	4,910.5	4,769.1	48.3	24.4	169.92	1,113.8	-219.3	3,838.1	3,783.0	69.566	
6,500.0	5,786.4	5,005.6	4,861.0	48.4	24.8	169.91	1,137.9	-224.7	3,867.5	3,811.5	68.964	
6,600.0	5,886.4	5,101.9	4,953.9	48.4	25.3	10.76	1,162.3	-230.1	3,892.9	3,836.2	68.667	
6,700.0	5,986.4	6,148.5	5,986.4	48.4	29.7	9.95	1,299.1	-260.5	3,908.8	3,843.7	60.107	
6,800.0	6,086.4	6,248.5	6,086.4	48.4	29.7	9.95	1,299.1	-260.5	3,908.8	3,843.7	60.060	
6,900.0	6,186.4	6,348.5	6,186.4	48.4	29.7	9.95	1,299.1	-260.5	3,908.8	3,843.6	60.011	
7,000.0	6,286.4	6,448.5	6,286.4	48.4	29.8	9.95	1,299.1	-260.5	3,908.8	3,843.6	59.963	
7,100.0	6,386.4	6,548.5	6,386.4	48.4	29.8	9.95	1,299.1	-260.5	3,908.8	3,843.5	59.914	
7,200.0	6,486.4	6,648.5	6,486.4	48.4	29.8	9.95	1,299.1	-260.5	3,908.8	3,843.5	59.865	
7,300.0	6,586.4	6,748.5	6,586.4	48.4	29.9	9.95	1,299.1	-260.5	3,908.8	3,843.4	59.816	
7,400.0	6,686.4	6,848.5	6,686.4	48.4	29.9	9.95	1,299.1	-260.5	3,908.8	3,843.4	59.767	
7,500.0	6,786.4	6,948.5	6,786.4	48.4	30.0	9.95	1,299.1	-260.5	3,908.8	3,843.3	59.717	
7,600.0	6,886.4	7,048.5	6,886.4	48.4	30.0	9.95	1,299.1	-260.5	3,908.8	3,843.2	59.667	
7,700.0	6,986.4	7,148.5	6,986.4	48.4	30.0	9.95	1,299.1	-260.5	3,908.8	3,843.2	59.617	
7,800.0	7,086.4	7,248.5	7,086.4	48.4	30.1	9.95	1,299.1	-260.5	3,908.8	3,843.1	59.567	
7,900.0	7,186.4	7,348.5	7,186.4	48.4	30.1	9.95	1,299.1	-260.5	3,908.8	3,843.1	59.516	
8,000.0	7,286.4	7,448.5	7,286.4	48.4	30.2	9.95	1,299.1	-260.5	3,908.8	3,843.0	59.466	
8,100.0	7,386.4	7,548.5	7,386.4	48.4	30.2	9.95	1,299.1	-260.5	3,908.8	3,843.0	59.415	
8,200.0	7,486.4	7,648.5	7,486.4	48.5	30.2	9.95	1,299.1	-260.5	3,908.8	3,842.9	59.363	
8,300.0	7,586.4	7,748.5	7,586.4	48.5	30.3	9.95	1,299.1	-260.5	3,908.8	3,842.9	59.312	
8,400.0	7,686.4	7,848.5	7,686.4	48.5	30.3	9.95	1,299.1	-260.5	3,908.8	3,842.8	59.260	
8,500.0	7,786.4	7,948.5	7,786.4	48.5	30.4	9.95	1,299.1	-260.5	3,908.8	3,842.7	59.214	
8,600.0	7,886.4	7,952.1	7,790.0	48.5	30.4	9.95	1,299.1	-260.5	3,909.9	3,844.2	59.440	
8,700.0	7,986.4	7,952.1	7,790.0	48.5	30.4	9.95	1,299.1	-260.5	3,913.7	3,848.2	59.744	
8,800.0	8,086.4	7,952.1	7,790.0	48.5	30.4	9.95	1,299.1	-260.5	3,920.0	3,854.8	60.117	
8,900.0	8,186.4	7,952.1	7,790.0	48.5	30.4	9.95	1,299.1	-260.5	3,928.8	3,863.9	60.560	
9,000.0	8,286.4	7,952.1	7,790.0	48.5	30.4	9.95	1,299.1	-260.5	3,940.2	3,875.6	61.071	
9,100.0	8,386.4	7,952.1	7,790.0	48.5	30.4	9.95	1,299.1	-260.5	3,954.0	3,889.9	61.651	
9,200.0	8,486.4	7,952.1	7,790.0	48.5	30.4	9.95	1,299.1	-260.5	3,970.3	3,906.6	62.299	
9,300.0	8,586.4	7,952.1	7,790.0	48.5	30.4	9.95	1,299.1	-260.5	3,989.1	3,925.8	63.014	
9,382.6	8,669.0	7,952.1	7,790.0	48.5	30.4	9.95	1,299.1	-260.5	4,006.4	3,943.4	63.658	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier 0993-16-04M - OH - Design #4

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	25.33	28.6	13.5	31.6			
100.0	100.0	100.0	100.0	0.8	0.8	25.33	28.6	13.5	31.6	30.0	19.961	
200.0	200.0	200.0	200.0	1.4	1.4	25.33	28.6	13.5	31.6	28.8	11.177	CC, ES
300.0	300.0	299.8	299.8	2.1	1.7	-151.82	28.8	13.4	33.6	29.9	9.108	
400.0	399.7	398.6	398.5	3.8	2.5	-159.45	31.1	11.7	41.3	35.5	7.069	SF
500.0	499.1	496.0	495.8	4.5	3.6	-170.21	36.2	8.2	56.2	48.7	7.477	
600.0	598.0	591.1	590.4	5.0	4.0	176.94	44.0	3.4	78.7	70.2	9.274	
700.0	696.2	683.5	682.1	5.8	4.6	170.21	54.5	-1.3	108.4	98.5	10.922	
800.0	793.6	772.7	770.2	6.6	5.2	166.50	67.4	-6.1	144.8	133.5	12.839	
900.0	889.9	858.2	854.2	7.4	5.8	164.29	82.4	-10.7	187.5	175.0	14.952	
1,000.0	984.9	942.1	936.3	8.1	6.4	162.87	99.4	-15.3	236.0	222.4	17.298	
1,100.0	1,078.6	1,027.2	1,019.4	8.8	6.7	161.95	117.0	-19.9	288.4	273.8	19.802	
1,200.0	1,170.6	1,110.1	1,100.4	9.4	7.0	161.31	134.1	-24.5	344.1	328.7	22.367	
1,300.0	1,260.9	1,190.6	1,179.1	10.1	7.2	160.83	150.8	-28.9	403.0	386.8	24.904	
1,400.0	1,349.3	1,268.7	1,255.3	10.7	7.5	160.43	166.9	-33.2	465.1	448.1	27.427	
1,500.0	1,435.5	1,344.1	1,329.0	11.3	7.8	160.07	182.5	-37.4	530.3	512.6	29.945	
1,600.0	1,520.2	1,417.6	1,400.8	11.6	8.0	160.83	197.8	-41.4	597.7	579.4	32.733	
1,700.0	1,604.9	1,491.0	1,472.5	11.9	8.3	161.69	213.0	-45.5	665.2	646.3	35.334	
1,800.0	1,689.5	1,564.5	1,544.2	12.3	8.6	162.40	228.2	-49.5	732.7	713.3	37.745	
1,900.0	1,774.2	1,637.9	1,616.0	12.7	8.9	162.99	243.4	-53.5	800.4	780.3	39.984	
2,000.0	1,858.8	1,711.4	1,687.7	13.1	9.2	163.48	258.6	-57.6	868.0	847.4	42.063	
2,100.0	1,943.5	1,784.8	1,759.4	13.6	9.5	163.91	273.7	-61.6	935.7	914.4	43.991	
2,200.0	2,028.1	1,858.2	1,831.2	14.2	9.8	164.28	288.9	-65.7	1,003.4	981.5	45.782	
2,300.0	2,112.8	1,931.7	1,902.9	14.9	10.1	164.60	304.1	-69.7	1,071.2	1,048.6	47.446	
2,400.0	2,197.4	2,005.1	1,974.6	15.7	10.4	164.88	319.3	-73.8	1,138.9	1,115.7	48.995	
2,500.0	2,282.1	2,078.6	2,046.4	16.5	10.7	165.13	334.5	-77.8	1,206.7	1,182.8	50.436	
2,600.0	2,366.7	2,152.0	2,118.1	17.4	11.0	165.36	349.7	-81.8	1,274.5	1,249.9	51.779	
2,700.0	2,451.4	2,225.4	2,189.9	18.3	11.3	165.56	364.9	-85.9	1,342.3	1,316.9	53.032	
2,800.0	2,536.0	2,298.9	2,261.6	19.2	11.6	165.74	380.1	-89.9	1,410.1	1,384.0	54.202	
2,900.0	2,620.7	2,372.3	2,333.3	20.1	11.9	165.91	395.3	-94.0	1,477.9	1,451.1	55.296	
3,000.0	2,705.3	2,445.7	2,405.1	21.0	12.3	166.06	410.5	-98.0	1,545.7	1,518.2	56.320	
3,100.0	2,790.0	2,519.2	2,476.8	21.9	12.6	166.20	425.7	-102.0	1,613.5	1,585.3	57.280	
3,200.0	2,874.6	2,592.6	2,548.5	22.8	12.9	166.33	440.9	-106.1	1,681.3	1,652.4	58.181	
3,300.0	2,959.3	2,666.1	2,620.3	23.7	13.2	166.45	456.1	-110.1	1,749.1	1,719.5	59.027	
3,400.0	3,043.9	2,739.5	2,692.0	24.7	13.5	166.55	471.3	-114.2	1,816.9	1,786.6	59.822	
3,500.0	3,128.6	2,812.9	2,763.7	25.6	13.9	166.66	486.5	-118.2	1,884.8	1,853.7	60.572	
3,600.0	3,213.2	2,886.4	2,835.5	26.5	14.2	166.75	501.7	-122.2	1,952.6	1,920.7	61.278	
3,700.0	3,297.9	2,959.8	2,907.2	27.4	14.5	166.84	516.9	-126.3	2,020.4	1,987.8	61.945	
3,800.0	3,382.5	3,033.3	2,978.9	28.3	14.9	166.92	532.1	-130.3	2,088.3	2,054.9	62.574	
3,900.0	3,467.2	3,106.7	3,050.7	29.3	15.2	167.00	547.3	-134.4	2,156.1	2,122.0	63.170	
4,000.0	3,551.9	3,180.1	3,122.4	30.2	15.5	167.07	562.5	-138.4	2,224.0	2,189.1	63.734	
4,100.0	3,636.5	3,253.6	3,194.2	31.1	15.9	167.14	577.7	-142.4	2,291.8	2,256.1	64.268	
4,200.0	3,721.2	3,327.0	3,265.9	32.0	16.2	167.20	592.9	-146.5	2,359.7	2,323.2	64.775	
4,300.0	3,805.8	3,400.5	3,337.6	32.9	16.5	167.26	608.1	-150.5	2,427.5	2,390.3	65.256	
4,400.0	3,890.5	3,473.9	3,409.4	33.9	16.9	167.32	623.3	-154.6	2,495.3	2,457.4	65.713	
4,500.0	3,975.1	3,547.3	3,481.1	34.8	17.2	167.37	638.5	-158.6	2,563.2	2,524.4	66.148	
4,600.0	4,059.8	3,620.8	3,552.8	35.7	17.5	167.43	653.7	-162.6	2,631.0	2,591.5	66.561	
4,700.0	4,144.4	3,694.2	3,624.6	36.6	17.9	167.47	668.9	-166.7	2,698.9	2,658.6	66.956	
4,800.0	4,229.1	3,767.7	3,696.3	37.6	18.2	167.52	684.1	-170.7	2,766.8	2,725.7	67.332	
4,900.0	4,313.7	3,841.1	3,768.0	38.5	18.5	167.56	699.3	-174.8	2,834.6	2,792.7	67.690	
5,000.0	4,398.4	3,914.5	3,839.8	39.4	18.9	167.61	714.5	-178.8	2,902.5	2,859.8	68.033	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier 0993-16-04M - OH - Design #4

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	3,988.0	3,911.5	40.3	19.2	167.65	729.7	-182.8	2,970.3	2,926.9	68.360	
5,200.0	4,567.7	4,061.4	3,983.3	41.3	19.6	167.69	744.9	-186.9	3,038.2	2,993.9	68.673	
5,300.0	4,652.3	4,134.9	4,055.0	42.2	19.9	167.74	760.1	-190.9	3,106.0	3,061.0	68.975	
5,400.0	4,738.2	4,209.8	4,128.2	43.1	20.2	168.22	775.6	-195.1	3,172.2	3,126.3	69.149	
5,500.0	4,826.2	4,287.6	4,204.2	43.9	20.6	168.63	791.7	-199.3	3,235.0	3,188.3	69.151	
5,600.0	4,916.2	4,368.0	4,282.7	44.7	21.0	168.97	808.3	-203.8	3,294.5	3,246.8	69.052	
5,700.0	5,008.1	4,450.8	4,363.6	45.4	21.4	169.26	825.5	-208.3	3,350.5	3,301.9	68.862	
5,800.0	5,101.5	4,535.9	4,446.7	46.0	21.8	169.49	843.1	-213.0	3,402.9	3,353.3	68.589	
5,900.0	5,196.4	4,623.2	4,532.0	46.6	22.2	169.68	861.1	-217.8	3,451.6	3,401.1	68.241	
6,000.0	5,292.7	4,712.4	4,619.1	47.0	22.6	169.83	879.6	-222.7	3,496.6	3,445.0	67.827	
6,100.0	5,390.0	4,803.5	4,708.1	47.5	23.0	169.94	898.4	-227.7	3,537.6	3,485.1	67.355	
6,200.0	5,488.2	4,896.1	4,798.6	47.8	23.4	170.01	917.6	-232.8	3,574.7	3,521.2	66.835	
6,300.0	5,587.1	4,990.3	4,890.6	48.1	23.9	170.05	937.1	-238.0	3,607.8	3,553.3	66.275	
6,400.0	5,686.6	5,085.7	4,983.8	48.3	24.3	170.07	956.8	-243.2	3,636.8	3,581.4	65.686	
6,500.0	5,786.4	5,182.2	5,078.0	48.4	24.8	170.05	976.8	-248.6	3,661.7	3,605.4	65.088	
6,600.0	5,886.4	5,279.6	5,173.2	48.4	25.2	10.88	997.0	-253.9	3,682.5	3,625.6	64.778	
6,700.0	5,986.4	6,099.3	5,986.4	48.4	28.4	10.32	1,076.3	-275.0	3,686.9	3,623.8	58.450	
6,800.0	6,086.4	6,199.3	6,086.4	48.4	28.4	10.32	1,076.3	-275.0	3,686.9	3,623.7	58.399	
6,900.0	6,186.4	6,299.3	6,186.4	48.4	28.4	10.32	1,076.3	-275.0	3,686.9	3,623.7	58.348	
7,000.0	6,286.4	6,399.3	6,286.4	48.4	28.5	10.32	1,076.3	-275.0	3,686.9	3,623.6	58.297	
7,100.0	6,386.4	6,499.3	6,386.4	48.4	28.5	10.32	1,076.3	-275.0	3,686.9	3,623.6	58.246	
7,200.0	6,486.4	6,599.3	6,486.4	48.4	28.5	10.32	1,076.3	-275.0	3,686.9	3,623.5	58.195	
7,300.0	6,586.4	6,699.3	6,586.4	48.4	28.6	10.32	1,076.3	-275.0	3,686.9	3,623.5	58.143	
7,400.0	6,686.4	6,799.3	6,686.4	48.4	28.6	10.32	1,076.3	-275.0	3,686.9	3,623.4	58.091	
7,500.0	6,786.4	6,899.3	6,786.4	48.4	28.7	10.32	1,076.3	-275.0	3,686.9	3,623.3	58.039	
7,600.0	6,886.4	6,999.3	6,886.4	48.4	28.7	10.32	1,076.3	-275.0	3,686.9	3,623.3	57.986	
7,700.0	6,986.4	7,099.3	6,986.4	48.4	28.8	10.32	1,076.3	-275.0	3,686.9	3,623.2	57.934	
7,800.0	7,086.4	7,199.3	7,086.4	48.4	28.8	10.32	1,076.3	-275.0	3,686.9	3,623.2	57.881	
7,900.0	7,186.4	7,299.3	7,186.4	48.4	28.8	10.32	1,076.3	-275.0	3,686.9	3,623.1	57.828	
8,000.0	7,286.4	7,399.3	7,286.4	48.4	28.9	10.32	1,076.3	-275.0	3,686.9	3,623.0	57.774	
8,100.0	7,386.4	7,499.3	7,386.4	48.4	28.9	10.32	1,076.3	-275.0	3,686.9	3,623.0	57.721	
8,200.0	7,486.4	7,599.3	7,486.4	48.5	29.0	10.32	1,076.3	-275.0	3,686.9	3,622.9	57.667	
8,300.0	7,586.4	7,699.3	7,586.4	48.5	29.0	10.32	1,076.3	-275.0	3,686.9	3,622.9	57.613	
8,400.0	7,686.4	7,799.3	7,686.4	48.5	29.0	10.32	1,076.3	-275.0	3,686.9	3,622.8	57.559	
8,500.0	7,786.4	7,899.3	7,786.4	48.5	29.1	10.32	1,076.3	-275.0	3,686.9	3,622.7	57.505	
8,600.0	7,886.4	7,999.3	7,886.4	48.5	29.1	10.32	1,076.3	-275.0	3,686.9	3,622.7	57.450	
8,700.0	7,986.4	8,099.3	7,986.4	48.5	29.2	10.32	1,076.3	-275.0	3,686.9	3,622.6	57.395	
8,800.0	8,086.4	8,199.3	8,086.4	48.5	29.2	10.32	1,076.3	-275.0	3,686.9	3,622.6	57.340	
8,900.0	8,186.4	8,299.3	8,186.4	48.5	29.3	10.32	1,076.3	-275.0	3,686.9	3,622.5	57.285	
9,000.0	8,286.4	8,399.3	8,286.4	48.5	29.3	10.32	1,076.3	-275.0	3,686.9	3,622.4	57.230	
9,100.0	8,386.4	8,499.3	8,386.4	48.5	29.3	10.32	1,076.3	-275.0	3,686.9	3,622.4	57.174	
9,200.0	8,486.4	8,599.3	8,486.4	48.5	29.4	10.32	1,076.3	-275.0	3,686.9	3,622.3	57.118	
9,300.0	8,586.4	8,699.3	8,586.4	48.5	29.4	10.32	1,076.3	-275.0	3,686.9	3,622.3	57.062	
9,309.1	8,595.5	8,708.4	8,595.5	48.5	29.4	10.32	1,076.3	-275.0	3,686.9	3,622.2	57.058	
9,382.6	8,669.0	8,769.9	8,657.0	48.5	29.4	10.32	1,076.3	-275.0	3,686.9	3,622.3	57.060	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-05M - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-1.15	14.1	-0.3	14.1			
100.0	100.0	100.0	100.0	0.8	0.8	-1.15	14.1	-0.3	14.1	12.6	8.927	
200.0	200.0	200.0	200.0	1.4	1.4	-1.15	14.1	-0.3	14.1	11.3	4.999	CC, ES
300.0	300.0	300.0	300.0	2.1	1.9	-176.66	14.1	-0.3	16.3	12.3	4.102	
400.0	399.7	399.7	399.7	3.8	2.2	-177.61	14.1	-0.3	22.9	16.8	3.805	SF
500.0	499.1	499.1	499.1	4.5	2.5	179.64	14.1	-0.3	33.7	26.7	4.800	
600.0	598.0	598.0	598.0	5.0	2.8	173.50	14.1	-0.3	48.5	40.7	6.225	
700.0	696.2	695.9	695.9	5.8	3.0	171.26	14.2	-0.3	67.2	58.4	7.610	
800.0	793.6	790.3	790.3	6.6	3.5	170.04	16.1	-1.0	91.8	81.7	9.125	
900.0	889.9	882.1	882.0	7.4	4.3	168.98	20.8	-2.7	123.1	111.6	10.754	
1,000.0	984.9	970.7	970.2	8.1	4.9	168.00	28.0	-5.3	160.9	148.2	12.674	
1,100.0	1,078.6	1,055.5	1,054.5	8.8	5.5	167.06	37.2	-8.7	204.9	191.1	14.859	
1,200.0	1,170.6	1,139.6	1,137.6	9.4	6.0	166.22	48.4	-12.7	254.5	239.7	17.227	
1,300.0	1,260.9	1,224.1	1,221.2	10.1	6.3	165.63	59.9	-16.9	307.9	292.2	19.633	
1,400.0	1,349.3	1,306.3	1,302.6	10.7	6.5	165.20	71.1	-20.9	364.6	348.2	22.191	
1,500.0	1,435.5	1,386.0	1,381.5	11.3	6.8	164.86	81.9	-24.9	424.7	407.5	24.746	
1,600.0	1,520.2	1,464.0	1,458.7	11.6	7.0	165.45	92.6	-28.7	487.1	469.4	27.563	
1,700.0	1,604.9	1,541.9	1,535.8	11.9	7.2	166.12	103.2	-32.6	549.6	531.4	30.198	
1,800.0	1,689.5	1,619.9	1,612.9	12.3	7.5	166.65	113.8	-36.4	612.1	593.3	32.647	
1,900.0	1,774.2	1,697.8	1,690.0	12.7	7.7	167.08	124.4	-40.3	674.6	655.3	34.923	
2,000.0	1,858.8	1,775.7	1,767.1	13.1	8.0	167.44	135.0	-44.1	737.2	717.3	37.035	
2,100.0	1,943.5	1,853.7	1,844.2	13.6	8.2	167.74	145.6	-48.0	799.8	779.3	38.998	
2,200.0	2,028.1	1,931.6	1,921.3	14.2	8.5	168.00	156.2	-51.8	862.4	841.3	40.822	
2,300.0	2,112.8	2,009.5	1,998.4	14.9	8.8	168.23	166.8	-55.7	925.0	903.3	42.518	
2,400.0	2,197.4	2,087.4	2,075.5	15.7	9.1	168.42	177.4	-59.5	987.6	965.2	44.094	
2,500.0	2,282.1	2,165.4	2,152.6	16.5	9.3	168.59	188.0	-63.4	1,050.2	1,027.2	45.560	
2,600.0	2,366.7	2,243.3	2,229.8	17.4	9.6	168.75	198.6	-67.2	1,112.9	1,089.2	46.927	
2,700.0	2,451.4	2,321.2	2,306.9	18.3	9.9	168.88	209.2	-71.1	1,175.5	1,151.1	48.201	
2,800.0	2,536.0	2,399.2	2,384.0	19.2	10.2	169.01	219.8	-74.9	1,238.1	1,213.1	49.391	
2,900.0	2,620.7	2,477.1	2,461.1	20.1	10.5	169.12	230.4	-78.8	1,300.8	1,275.0	50.501	
3,000.0	2,705.3	2,555.0	2,538.2	21.0	10.8	169.22	241.0	-82.6	1,363.4	1,337.0	51.540	
3,100.0	2,790.0	2,632.9	2,615.3	21.9	11.1	169.31	251.6	-86.5	1,426.1	1,398.9	52.513	
3,200.0	2,874.6	2,710.9	2,692.4	22.8	11.4	169.39	262.2	-90.3	1,488.7	1,460.8	53.426	
3,300.0	2,959.3	2,788.8	2,769.5	23.7	11.7	169.47	272.8	-94.2	1,551.4	1,522.8	54.282	
3,400.0	3,043.9	2,866.7	2,846.6	24.7	12.0	169.54	283.4	-98.0	1,614.0	1,584.7	55.086	
3,500.0	3,128.6	2,944.7	2,923.7	25.6	12.3	169.61	294.0	-101.8	1,676.6	1,646.6	55.842	
3,600.0	3,213.2	3,022.6	3,000.8	26.5	12.6	169.67	304.6	-105.7	1,739.3	1,708.5	56.555	
3,700.0	3,297.9	3,100.5	3,077.9	27.4	13.0	169.73	315.3	-109.5	1,802.0	1,770.5	57.227	
3,800.0	3,382.5	3,178.4	3,155.0	28.3	13.3	169.78	325.9	-113.4	1,864.6	1,832.4	57.861	
3,900.0	3,467.2	3,256.4	3,232.2	29.3	13.6	169.83	336.5	-117.2	1,927.3	1,894.3	58.460	
4,000.0	3,551.9	3,334.3	3,309.3	30.2	13.9	169.88	347.1	-121.1	1,989.9	1,956.2	59.026	
4,100.0	3,636.5	3,412.2	3,386.4	31.1	14.2	169.92	357.7	-124.9	2,052.6	2,018.1	59.563	
4,200.0	3,721.2	3,490.2	3,463.5	32.0	14.5	169.96	368.3	-128.8	2,115.2	2,080.0	60.071	
4,300.0	3,805.8	3,568.1	3,540.6	32.9	14.9	170.00	378.9	-132.6	2,177.9	2,141.9	60.553	
4,400.0	3,890.5	3,646.0	3,617.7	33.9	15.2	170.04	389.5	-136.5	2,240.5	2,203.8	61.011	
4,500.0	3,975.1	3,723.9	3,694.8	34.8	15.5	170.07	400.1	-140.3	2,303.2	2,265.7	61.446	
4,600.0	4,059.8	3,801.9	3,771.9	35.7	15.8	170.11	410.7	-144.2	2,365.9	2,327.6	61.859	
4,700.0	4,144.4	3,879.8	3,849.0	36.6	16.1	170.14	421.3	-148.0	2,428.5	2,389.5	62.253	
4,800.0	4,229.1	3,957.7	3,926.1	37.6	16.5	170.17	431.9	-151.9	2,491.2	2,451.4	62.628	
4,900.0	4,313.7	4,035.7	4,003.2	38.5	16.8	170.19	442.5	-155.7	2,553.8	2,513.3	62.986	
5,000.0	4,398.4	4,113.6	4,080.3	39.4	17.1	170.22	453.1	-159.6	2,616.5	2,575.2	63.327	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-05M - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	4,191.5	4,157.4	40.3	17.4	170.25	463.7	-163.4	2,679.1	2,637.1	63.653	
5,200.0	4,567.7	4,269.4	4,234.6	41.3	17.8	170.27	474.3	-167.3	2,741.8	2,698.9	63.965	
5,300.0	4,652.3	4,347.4	4,311.7	42.2	18.1	170.31	484.9	-171.1	2,804.5	2,760.8	64.264	
5,400.0	4,738.2	4,426.7	4,390.2	43.1	18.4	170.64	495.7	-175.0	2,865.3	2,820.8	64.434	
5,500.0	4,826.2	4,508.6	4,471.2	43.9	18.8	170.91	506.9	-179.1	2,922.6	2,877.3	64.429	
5,600.0	4,916.2	4,592.9	4,554.6	44.7	19.1	171.14	518.3	-183.2	2,976.4	2,930.2	64.325	
5,700.0	5,008.1	4,679.5	4,640.3	45.4	19.5	171.32	530.1	-187.5	3,026.5	2,979.3	64.131	
5,800.0	5,101.5	4,768.1	4,727.9	46.0	19.9	171.47	542.2	-191.9	3,072.8	3,024.7	63.854	
5,900.0	5,196.4	4,858.5	4,817.4	46.6	20.3	171.58	554.5	-196.4	3,115.3	3,066.2	63.504	
6,000.0	5,292.7	4,950.7	4,908.7	47.0	20.6	171.67	567.0	-200.9	3,153.8	3,103.8	63.088	
6,100.0	5,390.0	5,044.5	5,001.5	47.5	21.0	171.72	579.8	-205.5	3,188.3	3,137.4	62.614	
6,200.0	5,488.2	5,139.6	5,095.6	47.8	21.4	171.74	592.7	-210.2	3,218.7	3,166.9	62.091	
6,300.0	5,587.1	5,235.9	5,190.9	48.1	21.9	171.73	605.8	-215.0	3,245.0	3,192.2	61.527	
6,400.0	5,686.6	5,333.3	5,287.2	48.3	22.3	171.70	619.1	-219.8	3,267.1	3,213.5	60.934	
6,500.0	5,786.4	5,431.4	5,384.3	48.4	22.7	171.65	632.4	-224.6	3,285.0	3,230.5	60.330	
6,600.0	5,886.4	5,935.7	5,886.4	48.4	24.9	12.22	669.9	-238.2	3,295.4	3,236.8	56.273	
6,700.0	5,986.4	6,035.7	5,986.4	48.4	24.9	12.22	669.9	-238.2	3,295.4	3,236.8	56.211	
6,800.0	6,086.4	6,135.7	6,086.4	48.4	24.9	12.22	669.9	-238.2	3,295.4	3,236.7	56.152	
6,900.0	6,186.4	6,235.7	6,186.4	48.4	25.0	12.22	669.9	-238.2	3,295.4	3,236.7	56.092	
7,000.0	6,286.4	6,335.7	6,286.4	48.4	25.0	12.22	669.9	-238.2	3,295.4	3,236.6	56.032	
7,100.0	6,386.4	6,435.7	6,386.4	48.4	25.1	12.22	669.9	-238.2	3,295.4	3,236.5	55.971	
7,200.0	6,486.4	6,535.7	6,486.4	48.4	25.1	12.22	669.9	-238.2	3,295.4	3,236.5	55.911	
7,300.0	6,586.4	6,635.7	6,586.4	48.4	25.2	12.22	669.9	-238.2	3,295.4	3,236.4	55.850	
7,400.0	6,686.4	6,735.7	6,686.4	48.4	25.2	12.22	669.9	-238.2	3,295.4	3,236.3	55.789	
7,500.0	6,786.4	6,835.7	6,786.4	48.4	25.3	12.22	669.9	-238.2	3,295.4	3,236.3	55.728	
7,600.0	6,886.4	6,935.7	6,886.4	48.4	25.3	12.22	669.9	-238.2	3,295.4	3,236.2	55.667	
7,700.0	6,986.4	7,035.7	6,986.4	48.4	25.4	12.22	669.9	-238.2	3,295.4	3,236.1	55.605	
7,800.0	7,086.4	7,135.7	7,086.4	48.4	25.4	12.22	669.9	-238.2	3,295.4	3,236.1	55.543	
7,900.0	7,186.4	7,235.7	7,186.4	48.4	25.4	12.22	669.9	-238.2	3,295.4	3,236.0	55.482	
8,000.0	7,286.4	7,335.7	7,286.4	48.4	25.5	12.22	669.9	-238.2	3,295.4	3,235.9	55.419	
8,100.0	7,386.4	7,435.7	7,386.4	48.4	25.5	12.22	669.9	-238.2	3,295.4	3,235.9	55.357	
8,200.0	7,486.4	7,535.7	7,486.4	48.5	25.6	12.22	669.9	-238.2	3,295.4	3,235.8	55.295	
8,300.0	7,586.4	7,635.7	7,586.4	48.5	25.6	12.22	669.9	-238.2	3,295.4	3,235.7	55.232	
8,400.0	7,686.4	7,735.7	7,686.4	48.5	25.7	12.22	669.9	-238.2	3,295.4	3,235.7	55.169	
8,500.0	7,786.4	7,835.7	7,786.4	48.5	25.7	12.22	669.9	-238.2	3,295.4	3,235.6	55.112	
8,600.0	7,886.4	7,851.3	7,802.0	48.5	25.7	12.22	669.9	-238.2	3,296.5	3,237.0	55.426	
8,700.0	7,986.4	7,851.3	7,802.0	48.5	25.7	12.22	669.9	-238.2	3,300.6	3,241.5	55.891	
8,800.0	8,086.4	7,851.3	7,802.0	48.5	25.7	12.22	669.9	-238.2	3,307.7	3,249.1	56.449	
8,900.0	8,186.4	7,851.3	7,802.0	48.5	25.7	12.22	669.9	-238.2	3,317.7	3,259.6	57.100	
9,000.0	8,286.4	7,851.3	7,802.0	48.5	25.7	12.22	669.9	-238.2	3,330.8	3,273.2	57.843	
9,100.0	8,386.4	7,851.3	7,802.0	48.5	25.7	12.22	669.9	-238.2	3,346.8	3,289.8	58.677	
9,200.0	8,486.4	7,851.3	7,802.0	48.5	25.7	12.22	669.9	-238.2	3,365.7	3,309.3	59.603	
9,300.0	8,586.4	7,851.3	7,802.0	48.5	25.7	12.22	669.9	-238.2	3,387.5	3,331.6	60.619	
9,382.6	8,669.0	7,851.3	7,802.0	48.5	25.7	12.22	669.9	-238.2	3,407.5	3,352.2	61.530	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-06W - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-46.22	6.9	-7.2	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.22	6.9	-7.2	10.0	8.4	6.311	
200.0	200.0	200.0	200.0	1.4	1.4	-46.22	6.9	-7.2	10.0	7.2	3.534	CC, ES
300.0	300.0	300.0	300.0	2.1	1.9	145.79	6.9	-7.2	11.7	7.8	3.020	
400.0	399.7	399.7	399.7	3.8	2.2	157.84	6.9	-7.2	17.5	11.7	3.009	SF
500.0	499.1	498.9	498.9	4.5	2.4	163.79	7.0	-7.5	28.0	21.3	4.139	
600.0	598.0	597.0	597.0	5.0	3.1	159.63	7.8	-10.4	43.8	36.1	5.712	
700.0	696.2	693.9	693.7	5.8	4.0	156.35	9.5	-16.4	64.4	55.5	7.227	
800.0	793.6	789.4	788.6	6.6	4.8	153.71	12.0	-25.4	89.9	79.8	8.959	
900.0	889.9	883.1	881.5	7.4	5.5	151.52	15.2	-37.3	120.0	109.0	10.851	
1,000.0	984.9	974.8	972.0	8.1	6.1	149.66	19.2	-51.7	154.7	142.7	12.867	
1,100.0	1,078.6	1,065.6	1,061.2	8.8	6.4	148.12	23.9	-68.4	193.7	180.8	15.082	
1,200.0	1,170.6	1,156.2	1,150.0	9.4	6.7	147.32	28.6	-85.4	235.8	222.1	17.260	
1,300.0	1,260.9	1,245.3	1,237.4	10.1	6.9	147.00	33.2	-102.2	280.9	266.4	19.382	
1,400.0	1,349.3	1,332.6	1,323.0	10.7	7.2	146.94	37.8	-118.6	329.1	313.8	21.471	
1,500.0	1,435.5	1,418.1	1,406.8	11.3	7.5	147.03	42.3	-134.7	380.4	364.2	23.540	
1,600.0	1,520.2	1,502.1	1,489.3	11.6	7.8	148.22	46.6	-150.5	433.8	417.0	25.834	
1,700.0	1,604.9	1,586.1	1,571.7	11.9	8.1	149.41	51.0	-166.3	487.4	470.0	27.946	
1,800.0	1,689.5	1,670.1	1,654.0	12.3	8.4	150.37	55.4	-182.1	541.2	523.1	29.884	
1,900.0	1,774.2	1,754.1	1,736.4	12.7	8.7	151.15	59.8	-197.9	595.1	576.3	31.664	
2,000.0	1,858.8	1,838.1	1,818.8	13.1	9.0	151.80	64.2	-213.7	649.0	629.5	33.299	
2,100.0	1,943.5	1,922.1	1,901.2	13.6	9.4	152.36	68.5	-229.5	703.0	682.8	34.803	
2,200.0	2,028.1	2,006.1	1,983.6	14.2	9.7	152.83	72.9	-245.3	757.0	736.1	36.187	
2,300.0	2,112.8	2,090.1	2,066.0	14.9	10.0	153.24	77.3	-261.1	811.0	789.4	37.461	
2,400.0	2,197.4	2,174.1	2,148.3	15.7	10.4	153.60	81.7	-276.9	865.1	842.7	38.637	
2,500.0	2,282.1	2,258.1	2,230.7	16.5	10.7	153.92	86.1	-292.7	919.2	896.1	39.724	
2,600.0	2,366.7	2,342.1	2,313.1	17.4	11.0	154.21	90.5	-308.5	973.3	949.4	40.729	
2,700.0	2,451.4	2,426.1	2,395.5	18.3	11.4	154.46	94.8	-324.3	1,027.5	1,002.8	41.660	
2,800.0	2,536.0	2,510.1	2,477.9	19.2	11.7	154.69	99.2	-340.1	1,081.6	1,056.2	42.525	
2,900.0	2,620.7	2,594.1	2,560.3	20.1	12.1	154.89	103.6	-355.9	1,135.8	1,109.6	43.329	
3,000.0	2,705.3	2,678.1	2,642.6	21.0	12.5	155.08	108.0	-371.7	1,189.9	1,162.9	44.077	
3,100.0	2,790.0	2,762.1	2,725.0	21.9	12.8	155.25	112.4	-387.5	1,244.1	1,216.3	44.775	
3,200.0	2,874.6	2,846.1	2,807.4	22.8	13.2	155.41	116.7	-403.3	1,298.3	1,269.7	45.427	
3,300.0	2,959.3	2,930.1	2,889.8	23.7	13.5	155.55	121.1	-419.1	1,352.5	1,323.1	46.037	
3,400.0	3,043.9	3,014.1	2,972.2	24.7	13.9	155.69	125.5	-434.9	1,406.7	1,376.5	46.608	
3,500.0	3,128.6	3,098.1	3,054.6	25.6	14.3	155.81	129.9	-450.7	1,460.9	1,429.9	47.144	
3,600.0	3,213.2	3,182.1	3,136.9	26.5	14.6	155.92	134.3	-466.5	1,515.1	1,483.3	47.647	
3,700.0	3,297.9	3,266.1	3,219.3	27.4	15.0	156.03	138.6	-482.3	1,569.3	1,536.6	48.121	
3,800.0	3,382.5	3,350.1	3,301.7	28.3	15.4	156.13	143.0	-498.1	1,623.5	1,590.0	48.567	
3,900.0	3,467.2	3,434.1	3,384.1	29.3	15.7	156.22	147.4	-514.0	1,677.7	1,643.4	48.987	
4,000.0	3,551.9	3,518.1	3,466.5	30.2	16.1	156.31	151.8	-529.8	1,731.9	1,696.8	49.385	
4,100.0	3,636.5	3,602.1	3,548.9	31.1	16.5	156.39	156.2	-545.6	1,786.1	1,750.2	49.760	
4,200.0	3,721.2	3,686.1	3,631.3	32.0	16.9	156.47	160.6	-561.4	1,840.3	1,803.6	50.116	
4,300.0	3,805.8	3,770.1	3,713.6	32.9	17.2	156.54	164.9	-577.2	1,894.6	1,857.0	50.453	
4,400.0	3,890.5	3,854.1	3,796.0	33.9	17.6	156.61	169.3	-593.0	1,948.8	1,910.4	50.772	
4,500.0	3,975.1	3,938.1	3,878.4	34.8	18.0	156.68	173.7	-608.8	2,003.0	1,963.8	51.076	
4,600.0	4,059.8	4,022.1	3,960.8	35.7	18.4	156.74	178.1	-624.6	2,057.2	2,017.2	51.365	
4,700.0	4,144.4	4,106.1	4,043.2	36.6	18.7	156.80	182.5	-640.4	2,111.5	2,070.6	51.639	
4,800.0	4,229.1	4,190.1	4,125.6	37.6	19.1	156.85	186.8	-656.2	2,165.7	2,124.0	51.901	
4,900.0	4,313.7	4,274.1	4,207.9	38.5	19.5	156.90	191.2	-672.0	2,219.9	2,177.4	52.150	
5,000.0	4,398.4	4,358.1	4,290.3	39.4	19.9	156.95	195.6	-687.8	2,274.2	2,230.7	52.387	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-06W - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	4,442.1	4,372.7	40.3	20.3	157.00	200.0	-703.6	2,328.4	2,284.1	52.615	
5,200.0	4,567.7	4,526.1	4,455.1	41.3	20.6	157.05	204.4	-719.4	2,382.6	2,337.5	52.832	
5,300.0	4,652.3	4,610.1	4,537.5	42.2	21.0	157.12	208.7	-735.2	2,436.9	2,390.9	53.040	
5,400.0	4,738.2	4,695.3	4,621.0	43.1	21.4	157.72	213.2	-751.2	2,489.2	2,442.4	53.147	
5,500.0	4,826.2	4,782.5	4,706.5	43.9	21.8	158.22	217.7	-767.6	2,538.2	2,490.4	53.122	
5,600.0	4,916.2	4,871.6	4,793.9	44.7	22.2	158.62	222.4	-784.4	2,583.5	2,534.8	53.017	
5,700.0	5,008.1	4,962.4	4,882.9	45.4	22.6	158.94	227.1	-801.5	2,625.2	2,575.5	52.839	
5,800.0	5,101.5	5,054.7	4,973.5	46.0	23.0	159.17	231.9	-818.8	2,663.2	2,612.5	52.595	
5,900.0	5,196.4	5,148.4	5,065.4	46.6	23.5	159.32	236.8	-836.4	2,697.3	2,645.7	52.291	
6,000.0	5,292.7	5,243.2	5,158.4	47.0	23.9	159.40	241.8	-854.3	2,727.7	2,675.1	51.933	
6,100.0	5,390.0	5,339.1	5,252.4	47.5	24.3	159.42	246.8	-872.3	2,754.1	2,700.7	51.528	
6,200.0	5,488.2	5,449.3	5,360.6	47.8	24.9	159.34	252.4	-892.6	2,776.6	2,722.1	50.944	
6,300.0	5,587.1	5,580.7	5,490.4	48.1	25.6	159.23	257.8	-912.1	2,794.1	2,738.5	50.202	
6,400.0	5,686.6	5,714.2	5,623.1	48.3	26.2	159.15	261.7	-926.0	2,806.4	2,749.8	49.544	
6,500.0	5,786.4	5,849.1	5,757.8	48.4	26.8	159.11	263.9	-934.0	2,813.5	2,756.0	48.963	
6,600.0	5,886.4	5,977.8	5,886.4	48.4	27.1	-0.01	264.4	-936.1	2,815.3	2,757.5	48.685	
6,700.0	5,986.4	6,077.8	5,986.4	48.4	27.1	-0.01	264.4	-936.1	2,815.3	2,757.4	48.638	
6,800.0	6,086.4	6,177.8	6,086.4	48.4	27.2	-0.01	264.4	-936.1	2,815.3	2,757.3	48.588	
6,900.0	6,186.4	6,277.8	6,186.4	48.4	27.2	-0.01	264.4	-936.1	2,815.3	2,757.3	48.536	
7,000.0	6,286.4	6,377.8	6,286.4	48.4	27.2	-0.01	264.4	-936.1	2,815.3	2,757.2	48.484	
7,100.0	6,386.4	6,477.8	6,386.4	48.4	27.3	-0.01	264.4	-936.1	2,815.3	2,757.2	48.432	
7,200.0	6,486.4	6,577.8	6,486.4	48.4	27.3	-0.01	264.4	-936.1	2,815.3	2,757.1	48.380	
7,300.0	6,586.4	6,677.8	6,586.4	48.4	27.3	-0.01	264.4	-936.1	2,815.3	2,757.0	48.328	
7,400.0	6,686.4	6,777.8	6,686.4	48.4	27.4	-0.01	264.4	-936.1	2,815.3	2,757.0	48.275	
7,500.0	6,786.4	6,877.8	6,786.4	48.4	27.4	-0.01	264.4	-936.1	2,815.3	2,756.9	48.222	
7,600.0	6,886.4	6,977.8	6,886.4	48.4	27.4	-0.01	264.4	-936.1	2,815.3	2,756.8	48.169	
7,700.0	6,986.4	7,077.8	6,986.4	48.4	27.5	-0.01	264.4	-936.1	2,815.3	2,756.8	48.116	
7,800.0	7,086.4	7,177.8	7,086.4	48.4	27.5	-0.01	264.4	-936.1	2,815.3	2,756.7	48.062	
7,900.0	7,186.4	7,277.8	7,186.4	48.4	27.5	-0.01	264.4	-936.1	2,815.3	2,756.6	48.009	
8,000.0	7,286.4	7,377.8	7,286.4	48.4	27.6	-0.01	264.4	-936.1	2,815.3	2,756.6	47.955	
8,100.0	7,386.4	7,477.8	7,386.4	48.4	27.6	-0.01	264.4	-936.1	2,815.3	2,756.5	47.901	
8,200.0	7,486.4	7,577.8	7,486.4	48.5	27.6	-0.01	264.4	-936.1	2,815.3	2,756.4	47.847	
8,300.0	7,586.4	7,677.8	7,586.4	48.5	27.7	-0.01	264.4	-936.1	2,815.3	2,756.4	47.793	
8,400.0	7,686.4	7,777.8	7,686.4	48.5	27.7	-0.01	264.4	-936.1	2,815.3	2,756.3	47.738	
8,500.0	7,786.4	7,877.8	7,786.4	48.5	27.7	-0.01	264.4	-936.1	2,815.3	2,756.2	47.684	
8,600.0	7,886.4	7,977.8	7,886.4	48.5	27.8	-0.01	264.4	-936.1	2,815.3	2,756.2	47.629	
8,700.0	7,986.4	8,077.8	7,986.4	48.5	27.8	-0.01	264.4	-936.1	2,815.3	2,756.1	47.574	
8,800.0	8,086.4	8,177.8	8,086.4	48.5	27.8	-0.01	264.4	-936.1	2,815.3	2,756.0	47.519	
8,900.0	8,186.4	8,277.8	8,186.4	48.5	27.9	-0.01	264.4	-936.1	2,815.3	2,756.0	47.464	
9,000.0	8,286.4	8,377.8	8,286.4	48.5	27.9	-0.01	264.4	-936.1	2,815.3	2,755.9	47.408	
9,100.0	8,386.4	8,477.8	8,386.4	48.5	28.0	-0.01	264.4	-936.1	2,815.3	2,755.8	47.353	
9,200.0	8,486.4	8,577.8	8,486.4	48.5	28.0	-0.01	264.4	-936.1	2,815.3	2,755.8	47.297	
9,300.0	8,586.4	8,677.8	8,586.4	48.5	28.0	-0.01	264.4	-936.1	2,815.3	2,755.7	47.241	
9,354.0	8,640.4	8,731.8	8,640.4	48.5	28.0	-0.01	264.4	-936.1	2,815.3	2,755.7	47.217	
9,382.6	8,669.0	8,757.4	8,666.0	48.5	28.1	-0.01	264.4	-936.1	2,815.3	2,755.7	47.217	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-07M - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-91.24	-0.3	-14.1	14.1			
100.0	100.0	100.0	100.0	0.8	0.8	-91.24	-0.3	-14.1	14.1	12.5	8.918	
200.0	200.0	200.0	200.0	1.4	1.4	-91.24	-0.3	-14.1	14.1	11.3	4.994	CC
204.4	204.4	204.4	204.4	1.4	1.4	93.78	-0.3	-14.1	14.1	11.3	4.931	
300.0	300.0	300.0	300.0	2.1	1.9	102.42	-0.3	-14.1	14.4	10.8	3.956	ES
400.0	399.7	399.7	399.7	3.8	2.2	124.28	-0.3	-14.1	17.1	12.1	3.414	SF
500.0	499.1	498.6	498.5	4.5	2.8	140.31	-0.3	-15.8	26.0	19.5	3.995	
600.0	598.0	596.7	596.5	5.0	3.8	141.77	-0.3	-20.9	40.7	33.0	5.292	
700.0	696.2	694.8	694.3	5.8	4.0	141.80	-0.6	-29.1	59.5	50.9	6.905	
800.0	793.6	793.9	792.9	6.6	4.4	141.45	-3.4	-39.4	79.7	70.0	8.161	
900.0	889.9	892.8	890.8	7.4	4.7	141.20	-9.0	-51.3	100.8	90.2	9.446	
1,000.0	984.9	989.8	986.9	8.1	5.0	141.93	-15.1	-63.3	124.3	112.8	10.756	
1,100.0	1,078.6	1,085.9	1,082.1	8.8	5.3	143.35	-21.2	-75.2	150.9	138.4	12.084	
1,200.0	1,170.6	1,181.0	1,176.2	9.4	5.6	145.03	-27.2	-87.0	180.8	167.4	13.458	
1,300.0	1,260.9	1,274.7	1,269.0	10.1	5.9	146.76	-33.2	-98.6	214.1	199.8	14.889	
1,400.0	1,349.3	1,366.9	1,360.3	10.7	6.2	148.40	-39.0	-110.0	251.1	235.8	16.379	
1,500.0	1,435.5	1,457.5	1,450.1	11.3	6.5	149.91	-44.7	-121.3	291.7	275.4	17.926	
1,600.0	1,520.2	1,546.9	1,538.6	11.6	6.9	152.05	-50.4	-132.3	335.0	318.0	19.732	
1,700.0	1,604.9	1,636.2	1,627.0	11.9	7.2	153.91	-56.0	-143.4	378.7	361.0	21.422	
1,800.0	1,689.5	1,725.5	1,715.5	12.3	7.6	155.39	-61.7	-154.5	422.7	404.3	22.991	
1,900.0	1,774.2	1,814.9	1,803.9	12.7	7.9	156.59	-67.3	-165.6	466.8	447.7	24.445	
2,000.0	1,858.8	1,904.2	1,892.4	13.1	8.3	157.59	-73.0	-176.6	511.1	491.3	25.793	
2,100.0	1,943.5	1,993.5	1,980.8	13.6	8.6	158.43	-78.6	-187.7	555.5	535.0	27.040	
2,200.0	2,028.1	2,076.2	2,062.8	14.2	9.0	159.16	-83.5	-197.3	600.4	579.2	28.293	
2,300.0	2,112.8	2,155.8	2,142.0	14.9	9.4	159.96	-87.3	-204.6	646.6	624.7	29.526	
2,400.0	2,197.4	2,233.9	2,219.8	15.7	9.9	160.83	-90.0	-209.9	694.1	671.6	30.757	
2,500.0	2,282.1	2,310.3	2,296.2	16.5	10.3	161.74	-91.7	-213.2	743.0	719.8	32.006	
2,600.0	2,366.7	2,385.0	2,370.8	17.4	10.7	162.67	-92.4	-214.7	793.4	769.5	33.303	
2,700.0	2,451.4	2,465.5	2,451.4	18.3	10.8	163.67	-92.5	-214.8	844.8	820.5	34.652	
2,800.0	2,536.0	2,550.2	2,536.0	19.2	10.8	164.62	-92.5	-214.8	896.6	871.7	35.939	
2,900.0	2,620.7	2,634.8	2,620.7	20.1	10.9	165.46	-92.5	-214.8	948.5	923.0	37.186	
3,000.0	2,705.3	2,719.5	2,705.3	21.0	11.0	166.22	-92.5	-214.8	1,000.6	974.5	38.383	
3,100.0	2,790.0	2,804.1	2,790.0	21.9	11.0	166.91	-92.5	-214.8	1,052.8	1,026.2	39.533	
3,200.0	2,874.6	2,888.8	2,874.6	22.8	11.1	167.53	-92.5	-214.8	1,105.1	1,077.9	40.639	
3,300.0	2,959.3	2,973.4	2,959.3	23.7	11.1	168.09	-92.5	-214.8	1,157.4	1,129.7	41.701	
3,400.0	3,043.9	3,058.1	3,043.9	24.7	11.2	168.61	-92.5	-214.8	1,209.9	1,181.6	42.722	
3,500.0	3,128.6	3,142.7	3,128.6	25.6	11.2	169.09	-92.5	-214.8	1,262.4	1,233.5	43.704	
3,600.0	3,213.2	3,227.4	3,213.2	26.5	11.3	169.52	-92.5	-214.8	1,315.0	1,285.5	44.648	
3,700.0	3,297.9	3,312.1	3,297.9	27.4	11.3	169.93	-92.5	-214.8	1,367.6	1,337.6	45.556	
3,800.0	3,382.5	3,396.7	3,382.5	28.3	11.4	170.30	-92.5	-214.8	1,420.3	1,389.7	46.430	
3,900.0	3,467.2	3,481.4	3,467.2	29.3	11.5	170.65	-92.5	-214.8	1,473.0	1,441.8	47.271	
4,000.0	3,551.9	3,566.0	3,551.9	30.2	11.5	170.97	-92.5	-214.8	1,525.7	1,494.0	48.081	
4,100.0	3,636.5	3,650.7	3,636.5	31.1	11.6	171.27	-92.5	-214.8	1,578.5	1,546.2	48.861	
4,200.0	3,721.2	3,735.3	3,721.2	32.0	11.6	171.56	-92.5	-214.8	1,631.3	1,598.4	49.612	
4,300.0	3,805.8	3,820.0	3,805.8	32.9	11.7	171.82	-92.5	-214.8	1,684.1	1,650.7	50.337	
4,400.0	3,890.5	3,904.6	3,890.5	33.9	11.8	172.07	-92.5	-214.8	1,737.0	1,703.0	51.036	
4,500.0	3,975.1	3,989.3	3,975.1	34.8	11.8	172.31	-92.5	-214.8	1,789.9	1,755.3	51.710	
4,600.0	4,059.8	4,073.9	4,059.8	35.7	11.9	172.53	-92.5	-214.8	1,842.8	1,807.6	52.361	
4,700.0	4,144.4	4,158.6	4,144.4	36.6	11.9	172.74	-92.5	-214.8	1,895.7	1,859.9	52.990	
4,800.0	4,229.1	4,243.2	4,229.1	37.6	12.0	172.93	-92.5	-214.8	1,948.6	1,912.3	53.597	
4,900.0	4,313.7	4,327.9	4,313.7	38.5	12.0	173.12	-92.5	-214.8	2,001.6	1,964.7	54.185	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-07M - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,000.0	4,398.4	4,412.5	4,398.4	39.4	12.1	173.30	-92.5	-214.8	2,054.6	2,017.0	54.752	
5,100.0	4,483.0	4,497.2	4,483.0	40.3	12.2	173.47	-92.5	-214.8	2,107.5	2,069.4	55.302	
5,200.0	4,567.7	4,581.8	4,567.7	41.3	12.2	173.63	-92.5	-214.8	2,160.5	2,121.8	55.833	
5,300.0	4,652.3	4,666.5	4,652.3	42.2	12.3	173.79	-92.5	-214.8	2,213.5	2,174.3	56.349	
5,400.0	4,738.2	4,752.3	4,738.2	43.1	12.3	174.08	-92.5	-214.8	2,264.6	2,224.6	56.727	
5,500.0	4,826.2	4,840.4	4,826.2	43.9	12.4	174.34	-92.5	-214.8	2,311.8	2,271.2	56.920	
5,600.0	4,916.2	4,930.4	4,916.2	44.7	12.5	174.56	-92.5	-214.8	2,355.2	2,313.9	57.011	
5,700.0	5,008.1	5,022.2	5,008.1	45.4	12.5	174.74	-92.5	-214.8	2,394.6	2,352.6	57.007	
5,800.0	5,101.5	5,115.7	5,101.5	46.0	12.6	174.91	-92.5	-214.8	2,430.0	2,387.3	56.914	
5,900.0	5,196.4	5,210.6	5,196.4	46.6	12.7	175.04	-92.5	-214.8	2,461.3	2,417.9	56.741	
6,000.0	5,292.7	5,306.8	5,292.7	47.0	12.7	175.16	-92.5	-214.8	2,488.5	2,444.4	56.494	
6,100.0	5,390.0	5,404.1	5,390.0	47.5	12.8	175.25	-92.5	-214.8	2,511.4	2,466.7	56.180	
6,200.0	5,488.2	5,502.3	5,488.2	47.8	12.9	175.32	-92.5	-214.8	2,530.1	2,484.8	55.806	
6,300.0	5,587.1	5,601.3	5,587.1	48.1	12.9	175.38	-92.5	-214.8	2,544.5	2,498.6	55.382	
6,400.0	5,686.6	5,700.7	5,686.6	48.3	13.0	175.42	-92.5	-214.8	2,554.6	2,508.1	54.919	
6,500.0	5,786.4	5,800.6	5,786.4	48.4	13.1	175.44	-92.5	-214.8	2,560.4	2,513.4	54.433	
6,600.0	5,886.4	5,900.6	5,886.4	48.4	13.1	16.34	-92.5	-214.8	2,561.9	2,514.7	54.230	
6,700.0	5,986.4	6,000.6	5,986.4	48.4	13.2	16.34	-92.5	-214.8	2,561.9	2,514.6	54.119	
6,800.0	6,086.4	6,100.6	6,086.4	48.4	13.3	16.34	-92.5	-214.8	2,561.9	2,514.5	54.010	
6,900.0	6,186.4	6,200.6	6,186.4	48.4	13.4	16.34	-92.5	-214.8	2,561.9	2,514.4	53.901	
7,000.0	6,286.4	6,300.6	6,286.4	48.4	13.4	16.34	-92.5	-214.8	2,561.9	2,514.3	53.792	
7,100.0	6,386.4	6,400.6	6,386.4	48.4	13.5	16.34	-92.5	-214.8	2,561.9	2,514.2	53.684	
7,200.0	6,486.4	6,500.6	6,486.4	48.4	13.6	16.34	-92.5	-214.8	2,561.9	2,514.1	53.576	
7,300.0	6,586.4	6,600.6	6,586.4	48.4	13.7	16.34	-92.5	-214.8	2,561.9	2,514.0	53.468	
7,400.0	6,686.4	6,700.6	6,686.4	48.4	13.7	16.34	-92.5	-214.8	2,561.9	2,513.9	53.360	
7,500.0	6,786.4	6,800.6	6,786.4	48.4	13.8	16.34	-92.5	-214.8	2,561.9	2,513.8	53.253	
7,600.0	6,886.4	6,900.6	6,886.4	48.4	13.9	16.34	-92.5	-214.8	2,561.9	2,513.7	53.146	
7,700.0	6,986.4	7,000.6	6,986.4	48.4	13.9	16.34	-92.5	-214.8	2,561.9	2,513.6	53.039	
7,800.0	7,086.4	7,100.6	7,086.4	48.4	14.0	16.34	-92.5	-214.8	2,561.9	2,513.5	52.932	
7,900.0	7,186.4	7,200.6	7,186.4	48.4	14.1	16.34	-92.5	-214.8	2,561.9	2,513.4	52.826	
8,000.0	7,286.4	7,300.6	7,286.4	48.4	14.2	16.34	-92.5	-214.8	2,561.9	2,513.3	52.720	
8,100.0	7,386.4	7,400.6	7,386.4	48.4	14.2	16.34	-92.5	-214.8	2,561.9	2,513.2	52.614	
8,200.0	7,486.4	7,500.6	7,486.4	48.5	14.3	16.34	-92.5	-214.8	2,561.9	2,513.1	52.508	
8,300.0	7,586.4	7,600.6	7,586.4	48.5	14.4	16.34	-92.5	-214.8	2,561.9	2,513.0	52.403	
8,400.0	7,686.4	7,700.6	7,686.4	48.5	14.5	16.34	-92.5	-214.8	2,561.9	2,512.9	52.298	
8,500.0	7,786.4	7,800.6	7,786.4	48.5	14.5	16.34	-92.5	-214.8	2,561.9	2,512.8	52.193	
8,510.0	7,796.4	7,810.6	7,796.4	48.5	14.5	16.34	-92.5	-214.8	2,561.9	2,512.8	52.186	
8,600.0	7,886.4	7,838.2	7,824.0	48.5	14.5	16.34	-92.5	-214.8	2,562.7	2,513.9	52.594	
8,700.0	7,986.4	7,838.2	7,824.0	48.5	14.5	16.34	-92.5	-214.8	2,567.0	2,519.0	53.390	
8,800.0	8,086.4	7,838.2	7,824.0	48.5	14.5	16.34	-92.5	-214.8	2,575.3	2,527.9	54.328	
8,900.0	8,186.4	7,838.2	7,824.0	48.5	14.5	16.34	-92.5	-214.8	2,587.4	2,540.7	55.409	
9,000.0	8,286.4	7,838.2	7,824.0	48.5	14.5	16.34	-92.5	-214.8	2,603.3	2,557.3	56.631	
9,100.0	8,386.4	7,838.2	7,824.0	48.5	14.5	16.34	-92.5	-214.8	2,622.9	2,577.7	57.995	
9,200.0	8,486.4	7,838.2	7,824.0	48.5	14.5	16.34	-92.5	-214.8	2,646.1	2,601.7	59.496	
9,300.0	8,586.4	7,838.2	7,824.0	48.5	14.5	16.34	-92.5	-214.8	2,672.9	2,629.2	61.132	
9,382.6	8,669.0	7,838.2	7,824.0	48.5	14.5	16.34	-92.5	-214.8	2,697.7	2,654.6	62.587	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-08M - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-117.95	-14.8	-27.8	31.5			
100.0	100.0	100.0	100.0	0.8	0.8	-117.95	-14.8	-27.8	31.5	29.9	19.885	
200.0	200.0	200.0	200.0	1.4	1.4	-117.95	-14.8	-27.8	31.5	28.7	11.134	
300.0	300.0	300.0	300.0	2.1	1.9	70.82	-14.8	-27.8	30.7	27.1	8.383	
400.0	399.7	399.7	399.7	3.8	2.2	83.03	-14.8	-27.8	29.2	24.8	6.644	
442.7	442.2	442.2	442.2	4.1	2.4	90.00	-14.8	-27.8	29.0	24.4	6.296	CC, ES
500.0	499.1	499.1	499.1	4.5	2.5	102.02	-14.8	-27.8	29.9	24.8	5.867	
600.0	598.0	598.0	598.0	5.0	2.8	119.05	-14.8	-27.8	35.1	28.5	5.312	SF
700.0	696.2	696.2	696.2	5.8	3.1	135.19	-14.8	-27.8	46.7	38.5	5.663	
800.0	793.6	793.6	793.6	6.6	3.3	146.54	-14.8	-27.8	64.8	55.2	6.735	
900.0	889.9	889.9	889.9	7.4	3.5	153.93	-14.8	-27.8	88.4	77.7	8.214	
1,000.0	984.9	984.9	984.9	8.1	3.7	158.79	-14.8	-27.8	117.1	105.3	9.944	
1,100.0	1,078.6	1,080.7	1,080.7	8.8	4.0	161.82	-15.3	-28.8	149.8	137.1	11.806	
1,200.0	1,170.6	1,177.0	1,176.9	9.4	4.6	163.21	-17.5	-32.6	185.1	171.4	13.501	
1,300.0	1,260.9	1,274.1	1,273.7	10.1	5.0	163.71	-21.4	-39.1	222.5	207.9	15.240	
1,400.0	1,349.3	1,374.1	1,373.2	10.7	5.2	164.35	-28.2	-46.0	261.1	245.5	16.770	
1,500.0	1,435.5	1,474.9	1,473.3	11.3	5.6	165.31	-38.6	-52.1	300.5	283.8	18.005	
1,600.0	1,520.2	1,568.8	1,566.3	11.6	5.9	166.84	-50.5	-57.1	340.5	323.1	19.540	
1,700.0	1,604.9	1,660.0	1,656.6	11.9	6.2	168.18	-62.2	-62.0	380.8	362.7	21.062	
1,800.0	1,689.5	1,751.3	1,747.0	12.3	6.4	169.26	-74.0	-66.9	421.1	402.4	22.485	
1,900.0	1,774.2	1,842.5	1,837.3	12.7	6.6	170.16	-85.7	-71.8	461.6	442.1	23.785	
2,000.0	1,858.8	1,933.8	1,927.7	13.1	6.9	170.91	-97.4	-76.6	502.1	482.0	24.972	
2,100.0	1,943.5	2,025.0	2,018.0	13.6	7.1	171.55	-109.1	-81.5	542.7	521.8	26.055	
2,200.0	2,028.1	2,116.2	2,108.4	14.2	7.4	172.10	-120.9	-86.4	583.3	561.7	27.043	
2,300.0	2,112.8	2,207.5	2,198.7	14.9	7.7	172.58	-132.6	-91.3	624.0	601.7	27.944	
2,400.0	2,197.4	2,298.7	2,289.1	15.7	8.0	173.00	-144.3	-96.2	664.7	641.6	28.766	
2,500.0	2,282.1	2,389.9	2,379.4	16.5	8.3	173.37	-156.1	-101.1	705.4	681.5	29.518	
2,600.0	2,366.7	2,481.2	2,469.8	17.4	8.7	173.70	-167.8	-105.9	746.2	721.5	30.205	
2,700.0	2,451.4	2,572.4	2,560.1	18.3	9.0	174.00	-179.5	-110.8	787.0	761.5	30.836	
2,800.0	2,536.0	2,663.6	2,650.5	19.2	9.3	174.26	-191.2	-115.7	827.8	801.4	31.415	
2,900.0	2,620.7	2,754.9	2,740.8	20.1	9.7	174.51	-203.0	-120.6	868.6	841.4	31.948	
3,000.0	2,705.3	2,846.1	2,831.2	21.0	10.0	174.73	-214.7	-125.5	909.4	881.4	32.439	
3,100.0	2,790.0	2,937.3	2,921.5	21.9	10.4	174.93	-226.4	-130.4	950.2	921.3	32.892	
3,200.0	2,874.6	3,028.6	3,011.9	22.8	10.7	175.11	-238.2	-135.2	991.1	961.3	33.311	
3,300.0	2,959.3	3,119.8	3,102.2	23.7	11.1	175.28	-249.9	-140.1	1,031.9	1,001.3	33.699	
3,400.0	3,043.9	3,211.1	3,192.5	24.7	11.4	175.44	-261.6	-145.0	1,072.8	1,041.3	34.058	
3,500.0	3,128.6	3,302.3	3,282.9	25.6	11.8	175.59	-273.3	-149.9	1,113.6	1,081.3	34.392	
3,600.0	3,213.2	3,393.5	3,373.2	26.5	12.1	175.72	-285.1	-154.8	1,154.5	1,121.2	34.703	
3,700.0	3,297.9	3,484.8	3,463.6	27.4	12.5	175.85	-296.8	-159.7	1,195.4	1,161.2	34.993	
3,800.0	3,382.5	3,576.0	3,553.9	28.3	12.9	175.97	-308.5	-164.5	1,236.2	1,201.2	35.263	
3,900.0	3,467.2	3,667.2	3,644.3	29.3	13.2	176.08	-320.2	-169.4	1,277.1	1,241.2	35.516	
4,000.0	3,551.9	3,758.5	3,734.6	30.2	13.6	176.18	-332.0	-174.3	1,318.0	1,281.1	35.753	
4,100.0	3,636.5	3,849.7	3,825.0	31.1	14.0	176.28	-343.7	-179.2	1,358.9	1,321.1	35.975	
4,200.0	3,721.2	3,940.9	3,915.3	32.0	14.4	176.37	-355.4	-184.1	1,399.8	1,361.1	36.183	
4,300.0	3,805.8	4,032.2	4,005.7	32.9	14.7	176.46	-367.2	-189.0	1,440.7	1,401.1	36.379	
4,400.0	3,890.5	4,123.4	4,096.0	33.9	15.1	176.54	-378.9	-193.8	1,481.6	1,441.1	36.571	
4,500.0	3,975.1	4,187.3	4,159.3	34.8	15.3	176.60	-386.7	-197.1	1,523.2	1,482.0	37.016	
4,600.0	4,059.8	4,245.8	4,217.5	35.7	15.6	176.65	-392.7	-199.6	1,566.6	1,524.9	37.511	
4,700.0	4,144.4	4,300.0	4,271.4	36.6	15.9	176.70	-397.3	-201.5	1,611.9	1,569.6	38.083	
4,800.0	4,229.1	4,359.5	4,330.8	37.6	16.2	176.76	-401.2	-203.1	1,658.9	1,616.0	38.626	
4,900.0	4,313.7	4,400.0	4,371.2	38.5	16.4	176.80	-403.2	-204.0	1,707.7	1,664.4	39.423	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-08M - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,000.0	4,398.4	4,468.4	4,439.6	39.4	16.7	176.87	-405.5	-204.9	1,758.0	1,714.0	39.960	
5,100.0	4,483.0	4,521.1	4,492.3	40.3	16.8	176.93	-406.2	-205.2	1,810.0	1,765.6	40.763	
5,200.0	4,567.7	4,596.5	4,567.7	41.3	16.9	177.00	-406.2	-205.2	1,863.1	1,818.2	41.526	
5,300.0	4,652.3	4,681.1	4,652.3	42.2	16.9	177.09	-406.2	-205.2	1,916.3	1,870.9	42.204	
5,400.0	4,738.2	4,767.0	4,738.2	43.1	16.9	177.24	-406.2	-205.2	1,967.5	1,921.5	42.770	
5,500.0	4,826.2	4,855.0	4,826.2	43.9	17.0	177.37	-406.2	-205.2	2,014.9	1,968.2	43.187	
5,600.0	4,916.2	4,945.0	4,916.2	44.7	17.0	177.48	-406.2	-205.2	2,058.4	2,011.1	43.509	
5,700.0	5,008.1	5,036.9	5,008.1	45.4	17.0	177.57	-406.2	-205.2	2,097.9	2,049.9	43.741	
5,800.0	5,101.5	5,130.3	5,101.5	46.0	17.1	177.65	-406.2	-205.2	2,133.4	2,084.8	43.888	
5,900.0	5,196.4	5,225.3	5,196.4	46.6	17.1	177.72	-406.2	-205.2	2,164.8	2,115.6	43.955	
6,000.0	5,292.7	5,321.5	5,292.7	47.0	17.1	177.77	-406.2	-205.2	2,192.0	2,142.2	43.947	
6,100.0	5,390.0	5,418.8	5,390.0	47.5	17.2	177.82	-406.2	-205.2	2,215.1	2,164.6	43.869	
6,200.0	5,488.2	5,517.0	5,488.2	47.8	17.2	177.85	-406.2	-205.2	2,233.8	2,182.7	43.727	
6,300.0	5,587.1	5,615.9	5,587.1	48.1	17.3	177.88	-406.2	-205.2	2,248.3	2,196.6	43.528	
6,400.0	5,686.6	5,715.4	5,686.6	48.3	17.3	177.90	-406.2	-205.2	2,258.4	2,206.2	43.279	
6,500.0	5,786.4	5,815.2	5,786.4	48.4	17.3	177.91	-406.2	-205.2	2,264.2	2,211.5	42.994	
6,600.0	5,886.4	5,915.2	5,886.4	48.4	17.4	18.81	-406.2	-205.2	2,265.6	2,212.8	42.892	
6,700.0	5,986.4	6,015.2	5,986.4	48.4	17.4	18.81	-406.2	-205.2	2,265.6	2,212.8	42.847	
6,800.0	6,086.4	6,115.2	6,086.4	48.4	17.4	18.81	-406.2	-205.2	2,265.6	2,212.7	42.804	
6,900.0	6,186.4	6,215.2	6,186.4	48.4	17.5	18.81	-406.2	-205.2	2,265.6	2,212.7	42.761	
7,000.0	6,286.4	6,315.2	6,286.4	48.4	17.5	18.81	-406.2	-205.2	2,265.6	2,212.6	42.717	
7,100.0	6,386.4	6,415.2	6,386.4	48.4	17.6	18.81	-406.2	-205.2	2,265.6	2,212.6	42.673	
7,200.0	6,486.4	6,515.2	6,486.4	48.4	17.6	18.81	-406.2	-205.2	2,265.6	2,212.5	42.629	
7,300.0	6,586.4	6,615.2	6,586.4	48.4	17.7	18.81	-406.2	-205.2	2,265.6	2,212.4	42.585	
7,400.0	6,686.4	6,715.2	6,686.4	48.4	17.7	18.81	-406.2	-205.2	2,265.6	2,212.4	42.540	
7,500.0	6,786.4	6,815.2	6,786.4	48.4	17.7	18.81	-406.2	-205.2	2,265.6	2,212.3	42.495	
7,600.0	6,886.4	6,915.2	6,886.4	48.4	17.8	18.81	-406.2	-205.2	2,265.6	2,212.3	42.449	
7,700.0	6,986.4	7,015.2	6,986.4	48.4	17.8	18.81	-406.2	-205.2	2,265.6	2,212.2	42.404	
7,800.0	7,086.4	7,115.2	7,086.4	48.4	17.9	18.81	-406.2	-205.2	2,265.6	2,212.2	42.358	
7,900.0	7,186.4	7,215.2	7,186.4	48.4	17.9	18.81	-406.2	-205.2	2,265.6	2,212.1	42.312	
8,000.0	7,286.4	7,315.2	7,286.4	48.4	18.0	18.81	-406.2	-205.2	2,265.6	2,212.0	42.266	
8,100.0	7,386.4	7,415.2	7,386.4	48.4	18.0	18.81	-406.2	-205.2	2,265.6	2,212.0	42.219	
8,200.0	7,486.4	7,515.2	7,486.4	48.5	18.0	18.81	-406.2	-205.2	2,265.6	2,211.9	42.172	
8,300.0	7,586.4	7,615.2	7,586.4	48.5	18.1	18.81	-406.2	-205.2	2,265.6	2,211.9	42.125	
8,400.0	7,686.4	7,715.2	7,686.4	48.5	18.1	18.81	-406.2	-205.2	2,265.6	2,211.8	42.078	
8,500.0	7,786.4	7,815.2	7,786.4	48.5	18.2	18.81	-406.2	-205.2	2,265.6	2,211.7	42.030	
8,600.0	7,886.4	7,915.2	7,886.4	48.5	18.2	18.81	-406.2	-205.2	2,265.6	2,211.7	41.983	
8,700.0	7,986.4	8,015.2	7,986.4	48.5	18.3	18.81	-406.2	-205.2	2,265.6	2,211.6	41.935	
8,800.0	8,086.4	8,115.2	8,086.4	48.5	18.3	18.81	-406.2	-205.2	2,265.6	2,211.6	41.886	
8,900.0	8,186.4	8,215.2	8,186.4	48.5	18.4	18.81	-406.2	-205.2	2,265.6	2,211.5	41.838	
9,000.0	8,286.4	8,315.2	8,286.4	48.5	18.4	18.81	-406.2	-205.2	2,265.6	2,211.4	41.789	
9,100.0	8,386.4	8,415.2	8,386.4	48.5	18.4	18.81	-406.2	-205.2	2,265.6	2,211.4	41.741	
9,200.0	8,486.4	8,515.2	8,486.4	48.5	18.5	18.81	-406.2	-205.2	2,265.6	2,211.3	41.691	
9,300.0	8,586.4	8,615.2	8,586.4	48.5	18.5	18.81	-406.2	-205.2	2,265.6	2,211.2	41.642	
9,382.6	8,669.0	8,697.8	8,669.0	48.5	18.6	18.81	-406.2	-205.2	2,265.6	2,211.2	41.604	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-09M - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-136.28	-7.2	-6.9	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	-136.28	-7.2	-6.9	10.0	8.4	6.308	
200.0	200.0	200.0	200.0	1.4	1.4	-136.28	-7.2	-6.9	10.0	7.2	3.532	
300.0	300.0	299.9	299.9	2.1	1.7	58.93	-7.4	-6.9	8.8	5.3	2.506	
363.6	363.5	363.4	363.3	3.2	2.2	74.75	-8.7	-7.3	8.3	4.2	2.040	Level 1, CC, ES
400.0	399.7	399.6	399.6	3.8	2.5	85.70	-10.1	-7.7	8.5	4.3	2.013	Level 1, SF
500.0	499.1	499.4	499.2	4.5	3.6	110.23	-16.1	-9.3	11.5	6.3	2.238	Level 1
600.0	598.0	599.4	598.6	5.0	4.5	119.53	-25.5	-11.8	15.8	9.1	2.363	Level 1
700.0	696.2	699.3	697.7	5.8	4.9	127.50	-38.1	-15.1	20.6	12.3	2.462	Level 1
800.0	793.6	798.9	796.4	6.6	5.1	138.65	-51.4	-18.7	27.7	17.4	2.682	
900.0	889.9	898.0	894.5	7.4	5.4	149.32	-64.7	-22.2	38.8	26.6	3.192	
1,000.0	984.9	996.4	992.0	8.1	5.8	157.27	-77.9	-25.7	54.5	40.8	3.995	
1,100.0	1,078.6	1,094.0	1,088.6	8.8	6.1	162.74	-91.0	-29.2	74.8	59.9	5.024	
1,200.0	1,170.6	1,190.6	1,184.3	9.4	6.4	166.48	-103.9	-32.7	99.7	83.7	6.222	
1,300.0	1,260.9	1,286.0	1,278.7	10.1	6.8	169.09	-116.7	-36.1	129.0	111.9	7.549	
1,400.0	1,349.3	1,379.9	1,371.8	10.7	7.1	170.95	-129.3	-39.4	162.5	144.4	8.978	
1,500.0	1,435.5	1,472.3	1,463.3	11.3	7.4	172.30	-141.7	-42.7	200.2	181.1	10.491	
1,600.0	1,520.2	1,563.6	1,553.6	11.6	7.8	173.81	-153.9	-46.0	240.7	221.0	12.179	
1,700.0	1,604.9	1,654.7	1,643.9	11.9	8.1	175.00	-166.1	-49.2	281.5	261.0	13.752	
1,800.0	1,689.5	1,745.9	1,734.2	12.3	8.5	175.89	-178.3	-52.5	322.4	301.2	15.207	
1,900.0	1,774.2	1,837.1	1,824.5	12.7	8.8	176.58	-190.6	-55.7	363.3	341.3	16.554	
2,000.0	1,858.8	1,928.3	1,914.8	13.1	9.2	177.13	-202.8	-59.0	404.2	381.5	17.800	
2,100.0	1,943.5	2,019.4	2,005.1	13.6	9.6	177.58	-215.0	-62.3	445.2	421.7	18.953	
2,200.0	2,028.1	2,110.6	2,095.4	14.2	9.9	177.96	-227.2	-65.5	486.1	461.9	20.020	
2,300.0	2,112.8	2,201.8	2,185.7	14.9	10.3	178.27	-239.4	-68.8	527.1	502.0	21.010	
2,400.0	2,197.4	2,293.0	2,276.0	15.7	10.7	178.54	-251.6	-72.0	568.1	542.2	21.928	
2,500.0	2,282.1	2,384.1	2,366.3	16.5	11.0	178.78	-263.9	-75.3	609.2	582.4	22.781	
2,600.0	2,366.7	2,475.3	2,456.6	17.4	11.4	178.98	-276.1	-78.5	650.2	622.6	23.574	
2,700.0	2,451.4	2,566.5	2,546.9	18.3	11.8	179.16	-288.3	-81.8	691.2	662.8	24.314	
2,800.0	2,536.0	2,657.7	2,637.2	19.2	12.2	179.32	-300.5	-85.0	732.2	703.0	25.003	
2,900.0	2,620.7	2,748.8	2,727.4	20.1	12.5	179.46	-312.7	-88.3	773.3	743.1	25.648	
3,000.0	2,705.3	2,840.0	2,817.7	21.0	12.9	179.59	-325.0	-91.6	814.3	783.3	26.250	
3,100.0	2,790.0	2,931.2	2,908.0	21.9	13.3	179.71	-337.2	-94.8	855.4	823.5	26.815	
3,200.0	2,874.6	3,022.4	2,998.3	22.8	13.7	179.81	-349.4	-98.1	896.4	863.6	27.345	
3,300.0	2,959.3	3,113.5	3,088.6	23.7	14.0	179.91	-361.6	-101.3	937.5	903.8	27.842	
3,400.0	3,043.9	3,204.7	3,178.9	24.7	14.4	180.00	-373.8	-104.6	978.5	944.0	28.310	
3,500.0	3,128.6	3,295.9	3,269.2	25.6	14.8	-179.92	-386.0	-107.8	1,019.6	984.1	28.751	
3,600.0	3,213.2	3,387.1	3,359.5	26.5	15.2	-179.84	-398.3	-111.1	1,060.6	1,024.3	29.167	
3,700.0	3,297.9	3,478.2	3,449.8	27.4	15.6	-179.78	-410.5	-114.3	1,101.7	1,064.4	29.560	
3,800.0	3,382.5	3,569.4	3,540.1	28.3	16.0	-179.71	-422.7	-117.6	1,142.7	1,104.6	29.931	
3,900.0	3,467.2	3,660.6	3,630.4	29.3	16.3	-179.65	-434.9	-120.8	1,183.8	1,144.7	30.283	
4,000.0	3,551.9	3,751.8	3,720.7	30.2	16.7	-179.60	-447.1	-124.1	1,224.9	1,184.8	30.616	
4,100.0	3,636.5	3,842.9	3,811.0	31.1	17.1	-179.54	-459.4	-127.4	1,265.9	1,225.0	30.932	
4,200.0	3,721.2	3,934.1	3,901.3	32.0	17.5	-179.49	-471.6	-130.6	1,307.0	1,265.1	31.232	
4,300.0	3,805.8	4,025.3	3,991.6	32.9	17.9	-179.45	-483.8	-133.9	1,348.0	1,305.3	31.517	
4,400.0	3,890.5	4,116.5	4,081.9	33.9	18.3	-179.40	-496.0	-137.1	1,389.1	1,345.4	31.788	
4,500.0	3,975.1	4,207.6	4,172.2	34.8	18.7	-179.36	-508.2	-140.4	1,430.2	1,385.5	32.047	
4,600.0	4,059.8	4,298.8	4,262.5	35.7	19.0	-179.33	-520.4	-143.6	1,471.2	1,425.7	32.294	
4,700.0	4,144.4	4,390.0	4,352.7	36.6	19.4	-179.29	-532.7	-146.9	1,512.3	1,465.8	32.529	
4,800.0	4,229.1	4,481.2	4,443.0	37.6	19.8	-179.25	-544.9	-150.1	1,553.4	1,505.9	32.754	
4,900.0	4,313.7	4,572.3	4,533.3	38.5	20.2	-179.22	-557.1	-153.4	1,594.4	1,546.1	32.968	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-09M - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,000.0	4,398.4	4,663.5	4,623.6	39.4	20.6	-179.19	-569.3	-156.7	1,635.5	1,586.2	33.174	
5,100.0	4,483.0	4,754.7	4,713.9	40.3	21.0	-179.16	-581.5	-159.9	1,676.6	1,626.3	33.371	
5,200.0	4,567.7	4,845.9	4,804.2	41.3	21.4	-179.13	-593.7	-163.2	1,717.6	1,666.4	33.560	
5,300.0	4,652.3	4,937.0	4,894.5	42.2	21.8	-179.11	-606.0	-166.4	1,758.7	1,706.6	33.741	
5,400.0	4,738.2	5,029.2	4,985.7	43.1	22.2	-179.10	-618.3	-169.7	1,797.6	1,744.5	33.839	
5,500.0	4,826.2	5,122.9	5,078.6	43.9	22.6	-179.08	-630.9	-173.1	1,832.4	1,778.3	33.818	
5,600.0	4,916.2	5,218.0	5,172.8	44.7	23.0	-179.07	-643.6	-176.4	1,863.2	1,807.9	33.723	
5,700.0	5,008.1	5,314.4	5,268.2	45.4	23.4	-179.05	-656.5	-179.9	1,889.7	1,833.4	33.559	
5,800.0	5,101.5	5,411.9	5,364.8	46.0	23.8	-179.02	-669.6	-183.4	1,912.0	1,854.7	33.330	
5,900.0	5,196.4	5,510.2	5,462.2	46.6	24.2	-179.00	-682.8	-186.9	1,930.1	1,871.7	33.044	
6,000.0	5,292.7	5,588.7	5,539.9	47.0	24.5	-178.98	-693.1	-189.6	1,944.1	1,884.9	32.832	
6,100.0	5,390.0	5,648.0	5,598.8	47.5	24.8	-178.96	-699.9	-191.4	1,955.6	1,895.8	32.704	
6,200.0	5,488.2	5,700.0	5,650.5	47.8	25.0	-178.96	-704.8	-192.8	1,964.8	1,904.5	32.612	
6,300.0	5,587.1	5,766.6	5,716.9	48.1	25.3	-178.95	-709.9	-194.1	1,971.7	1,910.8	32.413	
6,400.0	5,686.6	5,825.9	5,776.2	48.3	25.6	-178.94	-713.1	-195.0	1,976.2	1,915.0	32.266	
6,500.0	5,786.4	5,900.0	5,850.2	48.4	25.9	-178.93	-715.4	-195.6	1,978.6	1,916.8	32.034	
6,600.0	5,886.4	5,944.6	5,894.8	48.4	26.0	21.97	-715.9	-195.7	1,978.6	1,917.1	32.206	
6,642.0	5,928.4	5,978.2	5,928.4	48.4	26.0	21.97	-716.0	-195.7	1,978.5	1,917.1	32.236	
6,700.0	5,986.4	6,036.2	5,986.4	48.4	26.0	21.97	-716.0	-195.7	1,978.5	1,917.1	32.229	
6,800.0	6,086.4	6,136.2	6,086.4	48.4	26.0	21.97	-716.0	-195.7	1,978.5	1,917.1	32.216	
6,900.0	6,186.4	6,236.2	6,186.4	48.4	26.0	21.97	-716.0	-195.7	1,978.5	1,917.1	32.201	
7,000.0	6,286.4	6,336.2	6,286.4	48.4	26.0	21.97	-716.0	-195.7	1,978.5	1,917.0	32.186	
7,100.0	6,386.4	6,436.2	6,386.4	48.4	26.0	21.97	-716.0	-195.7	1,978.5	1,917.0	32.171	
7,200.0	6,486.4	6,536.2	6,486.4	48.4	26.1	21.97	-716.0	-195.7	1,978.5	1,917.0	32.156	
7,300.0	6,586.4	6,636.2	6,586.4	48.4	26.1	21.97	-716.0	-195.7	1,978.5	1,917.0	32.140	
7,400.0	6,686.4	6,736.2	6,686.4	48.4	26.1	21.97	-716.0	-195.7	1,978.5	1,916.9	32.125	
7,500.0	6,786.4	6,836.2	6,786.4	48.4	26.1	21.97	-716.0	-195.7	1,978.5	1,916.9	32.109	
7,600.0	6,886.4	6,936.2	6,886.4	48.4	26.1	21.97	-716.0	-195.7	1,978.5	1,916.9	32.093	
7,700.0	6,986.4	7,036.2	6,986.4	48.4	26.2	21.97	-716.0	-195.7	1,978.5	1,916.8	32.076	
7,800.0	7,086.4	7,136.2	7,086.4	48.4	26.2	21.97	-716.0	-195.7	1,978.5	1,916.8	32.060	
7,900.0	7,186.4	7,236.2	7,186.4	48.4	26.2	21.97	-716.0	-195.7	1,978.5	1,916.8	32.043	
8,000.0	7,286.4	7,336.2	7,286.4	48.4	26.2	21.97	-716.0	-195.7	1,978.5	1,916.7	32.026	
8,100.0	7,386.4	7,436.2	7,386.4	48.4	26.2	21.97	-716.0	-195.7	1,978.5	1,916.7	32.009	
8,200.0	7,486.4	7,536.2	7,486.4	48.5	26.2	21.97	-716.0	-195.7	1,978.5	1,916.7	31.991	
8,300.0	7,586.4	7,636.2	7,586.4	48.5	26.3	21.97	-716.0	-195.7	1,978.5	1,916.6	31.974	
8,400.0	7,686.4	7,736.2	7,686.4	48.5	26.3	21.97	-716.0	-195.7	1,978.5	1,916.6	31.956	
8,500.0	7,786.4	7,836.2	7,786.4	48.5	26.3	21.97	-716.0	-195.7	1,978.5	1,916.6	31.938	
8,510.0	7,796.4	7,846.2	7,796.4	48.5	26.3	21.97	-716.0	-195.7	1,978.5	1,916.6	31.937	
8,600.0	7,886.4	7,892.8	7,843.0	48.5	26.3	21.97	-716.0	-195.7	1,979.0	1,917.4	32.147	
8,700.0	7,986.4	7,892.8	7,843.0	48.5	26.3	21.97	-716.0	-195.7	1,983.7	1,923.2	32.764	
8,800.0	8,086.4	7,892.8	7,843.0	48.5	26.3	21.97	-716.0	-195.7	1,993.4	1,934.0	33.543	
8,900.0	8,186.4	7,892.8	7,843.0	48.5	26.3	21.97	-716.0	-195.7	2,008.1	1,949.9	34.488	
9,000.0	8,286.4	7,892.8	7,843.0	48.5	26.3	21.97	-716.0	-195.7	2,027.6	1,970.6	35.601	
9,100.0	8,386.4	7,892.8	7,843.0	48.5	26.3	21.97	-716.0	-195.7	2,051.8	1,996.1	36.882	
9,200.0	8,486.4	7,892.8	7,843.0	48.5	26.3	21.97	-716.0	-195.7	2,080.5	2,026.2	38.330	
9,300.0	8,586.4	7,892.8	7,843.0	48.5	26.3	21.97	-716.0	-195.7	2,113.6	2,060.6	39.943	
9,382.6	8,669.0	7,892.8	7,843.0	48.5	26.3	21.97	-716.0	-195.7	2,144.0	2,092.2	41.400	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-11E - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	43.89	36.1	34.7	50.1			
100.0	100.0	100.0	100.0	0.8	0.8	43.89	36.1	34.7	50.1	48.5	31.620	
200.0	200.0	200.0	200.0	1.4	1.4	43.89	36.1	34.7	50.1	47.3	17.705	CC, ES
300.0	300.0	299.6	299.6	2.1	2.2	-130.53	34.9	36.5	51.9	48.2	13.890	
400.0	399.7	399.0	398.7	3.8	3.8	-129.00	31.3	41.9	57.4	52.2	11.086	
500.0	499.1	497.9	497.1	4.5	5.0	-129.02	25.3	50.8	66.5	60.5	11.069	SF
600.0	598.0	596.8	595.0	5.0	5.2	-134.39	17.6	62.1	80.0	73.3	11.929	
700.0	696.2	695.2	692.2	5.8	5.5	-137.69	9.1	74.2	97.6	89.9	12.701	
800.0	793.6	792.5	787.7	6.6	6.2	-138.67	-2.4	88.9	119.3	110.6	13.698	
900.0	889.9	888.4	881.1	7.4	7.0	-138.43	-16.7	105.9	145.3	135.5	14.905	
1,000.0	984.9	982.8	971.9	8.1	7.8	-137.59	-33.6	125.2	175.4	164.7	16.272	
1,100.0	1,078.6	1,075.3	1,059.8	8.8	8.4	-136.48	-52.9	146.5	209.9	198.0	17.737	
1,200.0	1,170.6	1,165.7	1,144.6	9.4	9.1	-135.25	-74.3	169.5	248.5	235.6	19.252	
1,300.0	1,260.9	1,253.8	1,225.9	10.1	9.7	-133.98	-97.6	194.0	291.2	277.2	20.781	
1,400.0	1,349.3	1,339.5	1,303.7	10.7	10.1	-132.69	-122.5	219.8	337.8	322.7	22.371	
1,500.0	1,435.5	1,425.8	1,381.3	11.3	10.4	-131.60	-148.9	246.8	387.8	371.6	23.885	
1,600.0	1,520.2	1,511.2	1,458.1	11.6	10.7	-131.26	-174.9	273.5	439.9	422.6	25.458	
1,700.0	1,604.9	1,596.5	1,534.9	11.9	11.0	-131.08	-201.0	300.3	492.0	473.6	26.769	
1,800.0	1,689.5	1,681.9	1,611.6	12.3	11.3	-130.94	-227.0	327.0	544.0	524.5	27.870	
1,900.0	1,774.2	1,767.2	1,688.4	12.7	11.6	-130.82	-253.1	353.8	596.1	575.4	28.808	
2,000.0	1,858.8	1,852.6	1,765.2	13.1	12.0	-130.72	-279.1	380.5	648.2	626.3	29.611	
2,100.0	1,943.5	1,937.9	1,841.9	13.6	12.3	-130.64	-305.2	407.2	700.3	677.2	30.303	
2,200.0	2,028.1	2,023.3	1,918.7	14.2	12.7	-130.56	-331.2	434.0	752.4	728.1	30.904	
2,300.0	2,112.8	2,108.7	1,995.5	14.9	13.0	-130.50	-357.3	460.7	804.5	778.9	31.427	
2,400.0	2,197.4	2,194.0	2,072.2	15.7	13.4	-130.45	-383.3	487.4	856.6	829.7	31.885	
2,500.0	2,282.1	2,279.4	2,149.0	16.5	13.8	-130.40	-409.4	514.2	908.7	880.5	32.281	
2,600.0	2,366.7	2,364.7	2,225.7	17.4	14.3	-130.35	-435.4	540.9	960.8	931.3	32.624	
2,700.0	2,451.4	2,450.1	2,302.5	18.3	14.9	-130.31	-461.4	567.7	1,012.9	982.2	32.973	
2,800.0	2,536.0	2,535.4	2,379.3	19.2	15.5	-130.28	-487.5	594.4	1,065.0	1,033.0	33.245	
2,900.0	2,620.7	2,620.8	2,456.0	20.1	16.1	-130.25	-513.5	621.1	1,117.1	1,083.7	33.495	
3,000.0	2,705.3	2,706.1	2,532.8	21.0	16.8	-130.22	-539.6	647.9	1,169.2	1,134.5	33.722	
3,100.0	2,790.0	2,791.5	2,609.5	21.9	17.5	-130.19	-565.6	674.6	1,221.3	1,185.3	33.928	
3,200.0	2,874.6	2,876.9	2,686.3	22.8	18.2	-130.17	-591.7	701.3	1,273.4	1,236.0	34.114	
3,300.0	2,959.3	2,962.2	2,763.1	23.7	18.9	-130.14	-617.7	728.1	1,325.5	1,286.8	34.284	
3,400.0	3,043.9	3,047.6	2,839.8	24.7	19.5	-130.12	-643.8	754.8	1,377.6	1,337.6	34.439	
3,500.0	3,128.6	3,132.9	2,916.6	25.6	20.2	-130.10	-669.8	781.6	1,429.7	1,388.3	34.580	
3,600.0	3,213.2	3,218.3	2,993.3	26.5	20.9	-130.08	-695.9	808.3	1,481.8	1,439.1	34.710	
3,700.0	3,297.9	3,303.6	3,070.1	27.4	21.6	-130.07	-721.9	835.0	1,533.9	1,489.8	34.830	
3,800.0	3,382.5	3,389.0	3,146.9	28.3	22.3	-130.05	-748.0	861.8	1,586.0	1,540.6	34.941	
3,900.0	3,467.2	3,474.3	3,223.6	29.3	23.0	-130.04	-774.0	888.5	1,638.1	1,591.3	35.043	
4,000.0	3,551.9	3,559.7	3,300.4	30.2	23.7	-130.02	-800.1	915.2	1,690.2	1,642.1	35.138	
4,100.0	3,636.5	3,645.1	3,377.1	31.1	24.4	-130.01	-826.1	942.0	1,742.3	1,692.8	35.226	
4,200.0	3,721.2	3,730.4	3,453.9	32.0	25.1	-130.00	-852.2	968.7	1,794.4	1,743.5	35.308	
4,300.0	3,805.8	3,815.8	3,530.7	32.9	25.8	-129.99	-878.2	995.5	1,846.5	1,794.3	35.384	
4,400.0	3,890.5	3,901.1	3,607.4	33.9	26.5	-129.98	-904.3	1,022.2	1,898.6	1,845.0	35.456	
4,500.0	3,975.1	3,986.5	3,684.2	34.8	27.2	-129.97	-930.3	1,048.9	1,950.7	1,895.7	35.523	
4,600.0	4,059.8	4,071.8	3,760.9	35.7	27.9	-129.96	-956.4	1,075.7	2,002.8	1,946.5	35.586	
4,700.0	4,144.4	4,157.2	3,837.7	36.6	28.6	-129.95	-982.4	1,102.4	2,054.9	1,997.2	35.644	
4,800.0	4,229.1	4,242.5	3,914.5	37.6	29.3	-129.94	-1,008.5	1,129.2	2,107.0	2,047.9	35.700	
4,900.0	4,313.7	4,327.9	3,991.2	38.5	30.0	-129.93	-1,034.5	1,155.9	2,159.1	2,098.7	35.752	
5,000.0	4,398.4	4,413.3	4,068.0	39.4	30.7	-129.92	-1,060.5	1,182.6	2,211.2	2,149.4	35.801	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-11E - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	4,498.6	4,144.7	40.3	31.4	-129.91	-1,086.6	1,209.4	2,263.3	2,200.1	35.847	
5,200.0	4,567.7	4,584.0	4,221.5	41.3	32.1	-129.91	-1,112.6	1,236.1	2,315.4	2,250.8	35.891	
5,300.0	4,652.3	4,669.3	4,298.3	42.2	32.8	-129.95	-1,138.7	1,262.8	2,367.5	2,301.6	35.933	
5,400.0	4,738.2	4,755.4	4,375.7	43.1	33.5	-131.01	-1,165.0	1,289.8	2,418.2	2,351.0	35.942	
5,500.0	4,826.2	4,842.8	4,454.3	43.9	34.2	-131.90	-1,191.6	1,317.2	2,466.6	2,397.9	35.917	
5,600.0	4,916.2	4,931.3	4,533.9	44.7	34.9	-132.64	-1,218.6	1,344.9	2,512.3	2,442.3	35.866	
5,700.0	5,008.1	5,020.8	4,614.3	45.4	35.7	-133.22	-1,245.9	1,372.9	2,555.5	2,484.1	35.790	
5,800.0	5,101.5	5,111.0	4,695.4	46.0	36.4	-133.67	-1,273.5	1,401.2	2,596.0	2,523.2	35.694	
5,900.0	5,196.4	5,201.8	4,777.1	46.6	37.2	-133.99	-1,301.2	1,429.6	2,633.8	2,559.8	35.581	
6,000.0	5,292.7	5,293.0	4,859.2	47.0	37.9	-134.20	-1,329.0	1,458.2	2,669.0	2,593.7	35.453	
6,100.0	5,390.0	5,404.1	4,959.2	47.5	38.8	-134.18	-1,362.7	1,492.7	2,701.4	2,624.6	35.182	
6,200.0	5,488.2	5,575.4	5,117.2	47.8	40.0	-133.84	-1,408.8	1,540.1	2,729.2	2,650.2	34.559	
6,300.0	5,587.1	5,754.9	5,287.6	48.1	41.1	-133.52	-1,448.1	1,580.5	2,751.4	2,670.5	34.008	
6,400.0	5,686.6	5,941.3	5,468.6	48.3	41.9	-133.25	-1,479.0	1,612.2	2,767.8	2,685.3	33.543	
6,500.0	5,786.4	6,133.0	5,657.9	48.4	42.4	-133.03	-1,500.0	1,633.7	2,778.0	2,694.3	33.175	
6,600.0	5,886.4	6,327.9	5,852.3	48.4	42.7	68.02	-1,509.9	1,643.9	2,782.0	2,697.5	32.954	
6,700.0	5,986.4	6,462.1	5,986.4	48.4	42.8	68.04	-1,510.6	1,644.6	2,782.2	2,697.6	32.894	
6,800.0	6,086.4	6,562.1	6,086.4	48.4	42.8	68.04	-1,510.6	1,644.6	2,782.2	2,697.6	32.881	
6,900.0	6,186.4	6,662.1	6,186.4	48.4	42.8	68.04	-1,510.6	1,644.6	2,782.2	2,697.6	32.875	
7,000.0	6,286.4	6,762.1	6,286.4	48.4	42.8	68.04	-1,510.6	1,644.6	2,782.2	2,697.5	32.870	
7,100.0	6,386.4	6,862.1	6,386.4	48.4	42.8	68.04	-1,510.6	1,644.6	2,782.2	2,697.5	32.864	
7,200.0	6,486.4	6,962.1	6,486.4	48.4	42.8	68.04	-1,510.6	1,644.6	2,782.2	2,697.5	32.859	
7,300.0	6,586.4	7,062.1	6,586.4	48.4	42.9	68.04	-1,510.6	1,644.6	2,782.2	2,697.5	32.853	
7,400.0	6,686.4	7,162.1	6,686.4	48.4	42.9	68.04	-1,510.6	1,644.6	2,782.2	2,697.5	32.847	
7,500.0	6,786.4	7,262.1	6,786.4	48.4	42.9	68.04	-1,510.6	1,644.6	2,782.2	2,697.5	32.841	
7,600.0	6,886.4	7,362.1	6,886.4	48.4	42.9	68.04	-1,510.6	1,644.6	2,782.2	2,697.4	32.835	
7,700.0	6,986.4	7,462.1	6,986.4	48.4	42.9	68.04	-1,510.6	1,644.6	2,782.2	2,697.4	32.829	
7,800.0	7,086.4	7,562.1	7,086.4	48.4	42.9	68.04	-1,510.6	1,644.6	2,782.2	2,697.4	32.823	
7,900.0	7,186.4	7,662.1	7,186.4	48.4	42.9	68.04	-1,510.6	1,644.6	2,782.2	2,697.4	32.816	
8,000.0	7,286.4	7,762.1	7,286.4	48.4	43.0	68.04	-1,510.6	1,644.6	2,782.2	2,697.4	32.810	
8,100.0	7,386.4	7,862.1	7,386.4	48.4	43.0	68.04	-1,510.6	1,644.6	2,782.2	2,697.4	32.803	
8,200.0	7,486.4	7,962.1	7,486.4	48.5	43.0	68.04	-1,510.6	1,644.6	2,782.2	2,697.3	32.796	
8,300.0	7,586.4	8,062.1	7,586.4	48.5	43.0	68.04	-1,510.6	1,644.6	2,782.2	2,697.3	32.789	
8,400.0	7,686.4	8,162.1	7,686.4	48.5	43.0	68.04	-1,510.6	1,644.6	2,782.2	2,697.3	32.782	
8,500.0	7,786.4	8,262.1	7,786.4	48.5	43.0	68.04	-1,510.6	1,644.6	2,782.2	2,697.3	32.775	
8,503.4	7,789.8	8,265.5	7,789.8	48.5	43.0	68.04	-1,510.6	1,644.6	2,782.2	2,697.3	32.775	
8,600.0	7,886.4	8,333.7	7,858.0	48.5	43.0	68.04	-1,510.6	1,644.6	2,782.3	2,697.5	32.790	
8,700.0	7,986.4	8,333.7	7,858.0	48.5	43.0	68.04	-1,510.6	1,644.6	2,785.1	2,700.5	32.906	
8,800.0	8,086.4	8,333.7	7,858.0	48.5	43.0	68.04	-1,510.6	1,644.6	2,791.5	2,707.2	33.096	
8,900.0	8,186.4	8,333.7	7,858.0	48.5	43.0	68.04	-1,510.6	1,644.6	2,801.5	2,717.5	33.362	
9,000.0	8,286.4	8,333.7	7,858.0	48.5	43.0	68.04	-1,510.6	1,644.6	2,815.0	2,731.4	33.703	
9,100.0	8,386.4	8,333.7	7,858.0	48.5	43.0	68.04	-1,510.6	1,644.6	2,831.9	2,748.9	34.117	
9,200.0	8,486.4	8,333.7	7,858.0	48.5	43.0	68.04	-1,510.6	1,644.6	2,852.3	2,769.8	34.605	
9,300.0	8,586.4	8,333.7	7,858.0	48.5	43.0	68.04	-1,510.6	1,644.6	2,876.0	2,794.2	35.165	
9,382.6	8,669.0	8,333.7	7,858.0	48.5	43.0	68.04	-1,510.6	1,644.6	2,898.0	2,816.8	35.683	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-13E - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	43.78	28.9	27.7	40.0			
100.0	100.0	100.0	100.0	0.8	0.8	43.78	28.9	27.7	40.0	38.4	25.257	
200.0	200.0	200.0	200.0	1.4	1.4	43.78	28.9	27.7	40.0	37.2	14.142	CC, ES
300.0	300.0	300.0	300.0	2.1	1.7	-132.71	28.5	28.1	41.4	37.9	11.704	
400.0	399.7	400.1	400.0	3.8	3.0	-133.20	25.4	31.1	45.6	40.6	9.121	
500.0	499.1	500.0	499.5	4.5	4.3	-134.26	19.1	37.1	52.4	46.6	9.006	SF
600.0	598.0	599.5	598.1	5.0	5.4	-138.64	9.8	46.2	62.9	56.4	9.638	
700.0	696.2	698.2	695.3	5.8	6.3	-138.94	-2.5	58.0	77.7	70.2	10.386	
800.0	793.6	795.7	790.6	6.6	7.1	-137.62	-17.6	72.6	97.0	88.6	11.543	
900.0	889.9	891.7	883.4	7.4	7.8	-135.82	-35.3	89.7	121.2	111.8	12.920	
1,000.0	984.9	986.0	973.4	8.1	8.5	-134.02	-55.4	109.1	150.1	139.7	14.435	
1,100.0	1,078.6	1,078.2	1,060.3	8.8	9.1	-132.34	-77.6	130.5	183.6	172.2	16.029	
1,200.0	1,170.6	1,168.1	1,143.7	9.4	9.7	-130.83	-101.6	153.7	221.7	209.1	17.658	
1,300.0	1,260.9	1,255.5	1,223.6	10.1	10.2	-129.43	-127.3	178.5	264.0	250.3	19.290	
1,400.0	1,349.3	1,340.3	1,299.6	10.7	10.8	-128.13	-154.2	204.5	310.5	295.6	20.900	
1,500.0	1,435.5	1,422.3	1,371.8	11.3	11.2	-126.88	-182.1	231.5	360.9	344.8	22.493	
1,600.0	1,520.2	1,503.8	1,442.3	11.6	11.5	-126.09	-211.6	259.9	414.1	397.0	24.194	
1,700.0	1,604.9	1,588.2	1,514.9	11.9	11.8	-125.50	-242.5	289.7	467.7	449.3	25.537	
1,800.0	1,689.5	1,672.5	1,587.6	12.3	12.1	-125.03	-273.4	319.6	521.2	501.7	26.643	
1,900.0	1,774.2	1,756.9	1,660.2	12.7	12.3	-124.64	-304.2	349.4	574.8	554.0	27.571	
2,000.0	1,858.8	1,841.3	1,732.8	13.1	12.6	-124.32	-335.1	379.2	628.4	606.3	28.356	
2,100.0	1,943.5	1,925.6	1,805.5	13.6	13.0	-124.05	-366.0	409.0	682.1	658.6	29.025	
2,200.0	2,028.1	2,010.0	1,878.1	14.2	13.3	-123.82	-396.9	438.8	735.7	710.8	29.600	
2,300.0	2,112.8	2,094.4	1,950.7	14.9	13.6	-123.62	-427.7	468.6	789.3	763.1	30.095	
2,400.0	2,197.4	2,178.8	2,023.4	15.7	13.9	-123.45	-458.6	498.4	843.0	815.3	30.507	
2,500.0	2,282.1	2,263.1	2,096.0	16.5	14.5	-123.29	-489.5	528.3	896.6	867.7	30.956	
2,600.0	2,366.7	2,347.5	2,168.6	17.4	15.3	-123.16	-520.4	558.1	950.3	919.9	31.235	
2,700.0	2,451.4	2,431.9	2,241.3	18.3	16.2	-123.04	-551.2	587.9	1,003.9	972.1	31.521	
2,800.0	2,536.0	2,516.2	2,313.9	19.2	17.0	-122.93	-582.1	617.7	1,057.6	1,024.3	31.778	
2,900.0	2,620.7	2,600.6	2,386.5	20.1	17.8	-122.83	-613.0	647.5	1,111.3	1,076.5	32.007	
3,000.0	2,705.3	2,685.0	2,459.2	21.0	18.6	-122.74	-643.9	677.3	1,164.9	1,128.8	32.214	
3,100.0	2,790.0	2,769.3	2,531.8	21.9	19.4	-122.66	-674.7	707.2	1,218.6	1,181.0	32.400	
3,200.0	2,874.6	2,853.7	2,604.4	22.8	20.2	-122.59	-705.6	737.0	1,272.3	1,233.2	32.567	
3,300.0	2,959.3	2,938.1	2,677.1	23.7	21.0	-122.52	-736.5	766.8	1,325.9	1,285.4	32.722	
3,400.0	3,043.9	3,085.7	2,804.2	24.7	22.5	-122.36	-792.3	816.8	1,378.5	1,335.4	31.989	
3,500.0	3,128.6	3,214.4	2,915.1	25.6	23.8	-122.13	-845.3	855.2	1,426.1	1,380.8	31.490	
3,600.0	3,213.2	3,302.5	2,990.9	26.5	24.6	-121.97	-882.0	880.9	1,473.3	1,426.5	31.470	
3,700.0	3,297.9	3,390.6	3,066.8	27.4	25.4	-121.83	-918.8	906.5	1,520.5	1,472.1	31.446	
3,800.0	3,382.5	3,478.7	3,142.6	28.3	26.2	-121.69	-955.5	932.2	1,567.7	1,517.8	31.423	
3,900.0	3,467.2	3,566.8	3,218.5	29.3	27.0	-121.56	-992.3	957.8	1,614.9	1,563.5	31.399	
4,000.0	3,551.9	3,654.9	3,294.3	30.2	27.9	-121.43	-1,029.0	983.5	1,662.1	1,609.1	31.374	
4,100.0	3,636.5	3,743.0	3,370.1	31.1	28.7	-121.32	-1,065.8	1,009.1	1,709.3	1,654.8	31.350	
4,200.0	3,721.2	3,831.1	3,446.0	32.0	29.5	-121.21	-1,102.5	1,034.8	1,756.6	1,700.5	31.326	
4,300.0	3,805.8	3,919.2	3,521.8	32.9	30.4	-121.10	-1,139.2	1,060.4	1,803.8	1,746.2	31.302	
4,400.0	3,890.5	4,007.3	3,597.7	33.9	31.2	-121.00	-1,176.0	1,086.1	1,851.0	1,791.8	31.278	
4,500.0	3,975.1	4,095.4	3,673.5	34.8	32.0	-120.91	-1,212.7	1,111.7	1,898.3	1,837.5	31.255	
4,600.0	4,059.8	4,183.5	3,749.4	35.7	32.9	-120.82	-1,249.5	1,137.4	1,945.5	1,883.2	31.232	
4,700.0	4,144.4	4,271.6	3,825.2	36.6	33.7	-120.73	-1,286.2	1,163.0	1,992.7	1,928.9	31.209	
4,800.0	4,229.1	4,359.7	3,901.1	37.6	34.5	-120.65	-1,323.0	1,188.7	2,040.0	1,974.6	31.187	
4,900.0	4,313.7	4,447.8	3,976.9	38.5	35.4	-120.57	-1,359.7	1,214.3	2,087.2	2,020.3	31.165	
5,000.0	4,398.4	4,535.9	4,052.8	39.4	36.2	-120.50	-1,396.5	1,240.0	2,134.5	2,066.0	31.144	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-13E - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	4,624.0	4,128.6	40.3	37.0	-120.43	-1,433.2	1,265.6	2,181.8	2,111.7	31.123	
5,200.0	4,567.7	4,712.0	4,204.5	41.3	37.9	-120.36	-1,470.0	1,291.3	2,229.0	2,157.3	31.102	
5,300.0	4,652.3	4,800.1	4,280.3	42.2	38.7	-120.34	-1,506.7	1,316.9	2,276.3	2,203.0	31.083	
5,400.0	4,738.2	4,888.7	4,356.6	43.1	39.5	-121.34	-1,543.7	1,342.7	2,322.5	2,247.7	31.046	
5,500.0	4,826.2	4,978.1	4,433.5	43.9	40.4	-122.17	-1,581.0	1,368.7	2,366.7	2,290.3	30.999	
5,600.0	4,916.2	5,068.0	4,510.9	44.7	41.2	-122.85	-1,618.5	1,394.9	2,408.8	2,331.0	30.942	
5,700.0	5,008.1	5,158.4	4,588.7	45.4	42.1	-123.38	-1,656.2	1,421.2	2,448.9	2,369.6	30.878	
5,800.0	5,101.5	5,249.0	4,666.8	46.0	43.0	-123.78	-1,694.0	1,447.6	2,486.8	2,406.1	30.808	
5,900.0	5,196.4	5,342.4	4,747.2	46.6	43.8	-124.04	-1,732.9	1,474.8	2,522.7	2,440.6	30.720	
6,000.0	5,292.7	5,494.1	4,880.5	47.0	45.2	-123.90	-1,792.3	1,516.2	2,555.3	2,471.0	30.312	
6,100.0	5,390.0	5,652.6	5,024.5	47.5	46.4	-123.75	-1,846.4	1,554.0	2,583.6	2,497.3	29.934	
6,200.0	5,488.2	5,817.4	5,178.8	47.8	47.4	-123.59	-1,894.0	1,587.2	2,607.1	2,519.0	29.595	
6,300.0	5,587.1	5,987.8	5,342.2	48.1	48.3	-123.44	-1,933.4	1,614.7	2,625.8	2,536.2	29.304	
6,400.0	5,686.6	6,162.7	5,513.2	48.3	48.9	-123.30	-1,963.4	1,635.6	2,639.3	2,548.5	29.067	
6,500.0	5,786.4	6,341.0	5,689.8	48.4	49.3	-123.18	-1,982.9	1,649.2	2,647.6	2,556.0	28.884	
6,600.0	5,886.4	6,521.3	5,869.8	48.4	49.5	77.81	-1,991.1	1,655.0	2,650.6	2,558.5	28.783	
6,700.0	5,986.4	6,637.9	5,986.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.5	28.775	
6,800.0	6,086.4	6,737.9	6,086.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.5	28.772	
6,900.0	6,186.4	6,837.9	6,186.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.5	28.770	
7,000.0	6,286.4	6,937.9	6,286.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.5	28.767	
7,100.0	6,386.4	7,037.9	6,386.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.5	28.764	
7,200.0	6,486.4	7,137.9	6,486.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.5	28.762	
7,300.0	6,586.4	7,237.9	6,586.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.5	28.759	
7,400.0	6,686.4	7,337.9	6,686.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.5	28.756	
7,500.0	6,786.4	7,437.9	6,786.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.5	28.752	
7,600.0	6,886.4	7,537.9	6,886.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.4	28.749	
7,700.0	6,986.4	7,637.9	6,986.4	48.4	49.6	77.81	-1,991.3	1,655.1	2,650.6	2,558.4	28.746	
7,800.0	7,086.4	7,737.9	7,086.4	48.4	49.7	77.81	-1,991.3	1,655.1	2,650.6	2,558.4	28.743	
7,900.0	7,186.4	7,837.9	7,186.4	48.4	49.7	77.81	-1,991.3	1,655.1	2,650.6	2,558.4	28.739	
8,000.0	7,286.4	7,937.9	7,286.4	48.4	49.7	77.81	-1,991.3	1,655.1	2,650.6	2,558.4	28.735	
8,100.0	7,386.4	8,037.9	7,386.4	48.4	49.7	77.81	-1,991.3	1,655.1	2,650.6	2,558.4	28.732	
8,200.0	7,486.4	8,137.9	7,486.4	48.5	49.7	77.81	-1,991.3	1,655.1	2,650.6	2,558.4	28.728	
8,300.0	7,586.4	8,237.9	7,586.4	48.5	49.7	77.81	-1,991.3	1,655.1	2,650.6	2,558.4	28.724	
8,400.0	7,686.4	8,337.9	7,686.4	48.5	49.7	77.81	-1,991.3	1,655.1	2,650.6	2,558.4	28.720	
8,500.0	7,786.4	8,437.9	7,786.4	48.5	49.7	77.81	-1,991.3	1,655.1	2,650.6	2,558.3	28.716	
8,600.0	7,886.4	8,537.9	7,886.4	48.5	49.7	77.81	-1,991.3	1,655.1	2,650.6	2,558.3	28.712	
8,700.0	7,986.4	8,637.9	7,986.4	48.5	49.8	77.81	-1,991.3	1,655.1	2,650.6	2,558.3	28.708	
8,800.0	8,086.4	8,737.9	8,086.4	48.5	49.8	77.81	-1,991.3	1,655.1	2,650.6	2,558.3	28.704	
8,900.0	8,186.4	8,837.9	8,186.4	48.5	49.8	77.81	-1,991.3	1,655.1	2,650.6	2,558.3	28.699	
9,000.0	8,286.4	8,937.9	8,286.4	48.5	49.8	77.81	-1,991.3	1,655.1	2,650.6	2,558.3	28.695	
9,100.0	8,386.4	9,037.9	8,386.4	48.5	49.8	77.81	-1,991.3	1,655.1	2,650.6	2,558.3	28.690	
9,200.0	8,486.4	9,137.9	8,486.4	48.5	49.8	77.81	-1,991.3	1,655.1	2,650.6	2,558.2	28.686	
9,300.0	8,586.4	9,237.9	8,586.4	48.5	49.8	77.81	-1,991.3	1,655.1	2,650.6	2,558.2	28.681	
9,382.6	8,669.0	9,320.5	8,669.0	48.5	49.8	77.81	-1,991.3	1,655.1	2,650.6	2,558.2	28.678	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-13W - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-136.22	-14.4	-13.8	20.0			
100.0	100.0	100.0	100.0	0.8	0.8	-136.22	-14.4	-13.8	20.0	18.4	12.629	
200.0	200.0	200.0	200.0	1.4	1.4	-136.22	-14.4	-13.8	20.0	17.2	7.071	
300.0	300.0	299.5	299.5	2.1	1.7	52.69	-15.3	-14.2	19.5	15.9	5.422	
304.4	304.4	303.9	303.9	2.2	1.8	53.00	-15.4	-14.3	19.5	15.8	5.296	CC
400.0	399.7	398.7	398.5	3.8	3.1	61.69	-19.8	-16.2	20.3	14.9	3.736	ES
500.0	499.1	497.8	497.2	4.5	4.4	70.72	-28.2	-20.0	23.4	17.2	3.778	
600.0	598.0	596.9	595.4	5.0	5.5	72.02	-40.5	-25.5	27.6	20.8	4.048	
700.0	696.2	696.0	692.9	5.8	6.4	73.54	-56.6	-32.7	32.1	24.6	4.293	
800.0	793.6	795.2	789.6	6.6	7.2	74.89	-76.6	-41.7	36.6	28.6	4.550	
900.0	889.9	894.3	885.3	7.4	7.9	76.01	-100.4	-52.3	41.1	32.4	4.726	
1,000.0	984.9	993.5	979.8	8.1	8.6	76.94	-128.0	-64.6	45.4	35.9	4.808	
1,100.0	1,078.6	1,092.8	1,072.9	8.8	9.3	77.70	-159.3	-78.6	49.4	39.1	4.799	
1,200.0	1,170.6	1,192.0	1,164.4	9.4	9.9	78.35	-194.2	-94.3	53.3	42.0	4.712	
1,300.0	1,260.9	1,291.3	1,254.3	10.1	10.4	78.92	-232.7	-111.5	56.9	44.4	4.577	
1,400.0	1,349.3	1,391.2	1,344.0	10.7	10.7	81.78	-273.0	-129.5	59.6	46.0	4.380	
1,500.0	1,435.5	1,490.9	1,433.4	11.3	11.0	88.37	-313.1	-147.5	61.8	46.8	4.122	
1,600.0	1,520.2	1,590.3	1,522.6	11.6	11.4	97.48	-353.2	-165.4	64.8	48.0	3.858	
1,700.0	1,604.9	1,689.7	1,611.8	11.9	11.7	105.77	-393.3	-183.3	69.4	50.5	3.679	
1,800.0	1,689.5	1,789.2	1,701.0	12.3	12.1	112.93	-433.3	-201.2	75.2	54.3	3.600	
1,900.0	1,774.2	1,888.6	1,790.3	12.7	12.4	118.98	-473.4	-219.2	82.0	59.2	3.598	SF
2,000.0	1,858.8	1,988.0	1,879.5	13.1	12.8	124.06	-513.4	-237.1	89.6	65.1	3.651	
2,100.0	1,943.5	2,087.4	1,968.7	13.6	13.2	128.33	-553.5	-255.0	97.8	71.7	3.739	
2,200.0	2,028.1	2,186.8	2,057.9	14.2	13.6	131.91	-593.5	-272.9	106.5	78.8	3.848	
2,300.0	2,112.8	2,286.3	2,147.1	14.9	14.1	134.96	-633.6	-290.9	115.5	86.4	3.970	
2,400.0	2,197.4	2,385.7	2,236.3	15.7	14.5	137.55	-673.6	-308.8	124.8	94.3	4.099	
2,500.0	2,282.1	2,485.1	2,325.5	16.5	14.9	139.79	-713.7	-326.7	134.3	102.5	4.230	
2,600.0	2,366.7	2,584.5	2,414.7	17.4	15.3	141.73	-753.8	-344.6	144.0	110.9	4.360	
2,700.0	2,451.4	2,683.9	2,503.9	18.3	16.1	143.42	-793.8	-362.5	153.8	119.5	4.490	
2,800.0	2,536.0	2,783.4	2,593.2	19.2	16.8	144.91	-833.9	-380.5	163.7	128.2	4.614	
2,900.0	2,620.7	2,882.8	2,682.4	20.1	17.6	146.22	-873.9	-398.4	173.8	137.1	4.734	
3,000.0	2,705.3	2,982.2	2,771.6	21.0	18.3	147.40	-914.0	-416.3	183.9	146.0	4.851	
3,100.0	2,790.0	3,081.6	2,860.8	21.9	19.1	148.45	-954.0	-434.2	194.1	155.0	4.963	
3,200.0	2,874.6	3,181.0	2,950.0	22.8	19.9	149.39	-994.1	-452.2	204.3	164.0	5.070	
3,300.0	2,959.3	3,280.5	3,039.2	23.7	20.6	150.25	-1,034.2	-470.1	214.6	173.1	5.173	
3,400.0	3,043.9	3,379.9	3,128.4	24.7	21.4	151.02	-1,074.2	-488.0	224.9	182.3	5.271	
3,500.0	3,128.6	3,479.3	3,217.6	25.6	22.1	151.73	-1,114.3	-505.9	235.3	191.4	5.365	
3,600.0	3,213.2	3,578.7	3,306.8	26.5	22.9	152.38	-1,154.3	-523.8	245.7	200.7	5.454	
3,700.0	3,297.9	3,678.1	3,396.1	27.4	23.7	152.98	-1,194.4	-541.8	256.2	209.9	5.540	
3,800.0	3,382.5	3,777.6	3,485.3	28.3	24.4	153.52	-1,234.4	-559.7	266.6	219.2	5.621	
3,900.0	3,467.2	3,877.0	3,574.5	29.3	25.2	154.03	-1,274.5	-577.6	277.1	228.5	5.699	
4,000.0	3,551.9	3,976.4	3,663.7	30.2	26.0	154.50	-1,314.5	-595.5	287.6	237.8	5.774	
4,100.0	3,636.5	4,075.8	3,752.9	31.1	26.7	154.94	-1,354.6	-613.5	298.1	247.1	5.845	
4,200.0	3,721.2	4,175.2	3,842.1	32.0	27.5	155.35	-1,394.7	-631.4	308.7	256.5	5.913	
4,300.0	3,805.8	4,274.7	3,931.3	32.9	28.3	155.73	-1,434.7	-649.3	319.2	265.8	5.978	
4,400.0	3,890.5	4,374.1	4,020.5	33.9	29.0	156.08	-1,474.8	-667.2	329.8	275.2	6.040	
4,500.0	3,975.1	4,473.5	4,109.7	34.8	29.8	156.42	-1,514.8	-685.1	340.4	284.6	6.100	
4,600.0	4,059.8	4,572.9	4,199.0	35.7	30.5	156.73	-1,554.9	-703.1	350.9	293.9	6.157	
4,700.0	4,144.4	4,672.3	4,288.2	36.6	31.3	157.03	-1,594.9	-721.0	361.5	303.3	6.212	
4,800.0	4,229.1	4,771.8	4,377.4	37.6	32.1	157.31	-1,635.0	-738.9	372.1	312.7	6.264	
4,900.0	4,313.7	4,871.2	4,466.6	38.5	32.8	157.57	-1,675.1	-756.8	382.8	322.1	6.315	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-13W - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,000.0	4,398.4	4,970.6	4,555.8	39.4	33.6	157.82	-1,715.1	-774.8	393.4	331.6	6.363	
5,100.0	4,483.0	5,070.0	4,645.0	40.3	34.4	158.06	-1,755.2	-792.7	404.0	341.0	6.410	
5,200.0	4,567.7	5,169.4	4,734.2	41.3	35.1	158.28	-1,795.2	-810.6	414.6	350.4	6.455	
5,300.0	4,652.3	5,268.9	4,823.4	42.2	35.9	158.50	-1,835.3	-828.5	425.3	359.8	6.498	
5,400.0	4,738.2	5,361.4	4,906.6	43.1	36.6	158.68	-1,872.2	-845.1	434.1	367.5	6.512	
5,500.0	4,826.2	5,446.3	4,984.1	43.9	37.2	158.82	-1,903.9	-859.2	441.9	374.0	6.515	
5,600.0	4,916.2	5,531.0	5,062.6	44.7	37.8	158.93	-1,932.8	-872.2	448.9	380.0	6.515	
5,700.0	5,008.1	5,615.5	5,142.2	45.4	38.3	159.03	-1,959.0	-883.9	455.3	385.4	6.514	
5,800.0	5,101.5	5,700.0	5,222.6	46.0	38.7	159.12	-1,982.6	-894.4	460.9	390.1	6.514	
5,900.0	5,196.4	5,784.2	5,303.7	46.6	39.1	159.19	-2,003.3	-903.7	465.8	394.3	6.515	
6,000.0	5,292.7	5,868.4	5,385.6	47.0	39.5	159.25	-2,021.3	-911.7	470.0	397.9	6.517	
6,100.0	5,390.0	5,952.5	5,468.0	47.5	39.8	159.29	-2,036.5	-918.5	473.5	400.9	6.521	
6,200.0	5,488.2	6,036.6	5,550.9	47.8	40.0	159.32	-2,048.9	-924.1	476.3	403.3	6.525	
6,300.0	5,587.1	6,120.5	5,634.2	48.1	40.2	159.34	-2,058.6	-928.4	478.3	405.1	6.531	
6,400.0	5,686.6	6,200.0	5,713.4	48.3	40.4	159.35	-2,065.1	-931.4	479.7	406.6	6.561	
6,500.0	5,786.4	6,288.4	5,801.6	48.4	40.5	159.35	-2,069.5	-933.3	480.2	406.9	6.554	
6,600.0	5,886.4	6,373.2	5,886.4	48.4	40.5	0.23	-2,070.7	-933.9	480.1	407.4	6.602	
6,700.0	5,986.4	6,473.2	5,986.4	48.4	40.5	0.23	-2,070.7	-933.9	480.1	407.4	6.600	
6,800.0	6,086.4	6,573.2	6,086.4	48.4	40.5	0.23	-2,070.7	-933.9	480.1	407.3	6.598	
6,900.0	6,186.4	6,673.2	6,186.4	48.4	40.5	0.23	-2,070.7	-933.9	480.1	407.3	6.595	
7,000.0	6,286.4	6,773.2	6,286.4	48.4	40.5	0.23	-2,070.7	-933.9	480.1	407.3	6.593	
7,100.0	6,386.4	6,873.2	6,386.4	48.4	40.5	0.23	-2,070.7	-933.9	480.1	407.3	6.590	
7,200.0	6,486.4	6,973.2	6,486.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.2	6.588	
7,300.0	6,586.4	7,073.2	6,586.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.2	6.585	
7,400.0	6,686.4	7,173.2	6,686.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.2	6.583	
7,500.0	6,786.4	7,273.2	6,786.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.1	6.580	
7,600.0	6,886.4	7,373.2	6,886.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.1	6.577	
7,700.0	6,986.4	7,473.2	6,986.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.1	6.575	
7,800.0	7,086.4	7,573.2	7,086.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.1	6.572	
7,900.0	7,186.4	7,673.2	7,186.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.0	6.569	
8,000.0	7,286.4	7,773.2	7,286.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.0	6.567	
8,100.0	7,386.4	7,873.2	7,386.4	48.4	40.6	0.23	-2,070.7	-933.9	480.1	407.0	6.564	
8,200.0	7,486.4	7,973.2	7,486.4	48.5	40.6	0.23	-2,070.7	-933.9	480.1	406.9	6.561	
8,300.0	7,586.4	8,073.2	7,586.4	48.5	40.6	0.23	-2,070.7	-933.9	480.1	406.9	6.558	
8,400.0	7,686.4	8,173.2	7,686.4	48.5	40.6	0.23	-2,070.7	-933.9	480.1	406.9	6.556	
8,500.0	7,786.4	8,273.2	7,786.4	48.5	40.6	0.23	-2,070.7	-933.9	480.1	406.8	6.553	
8,600.0	7,886.4	8,304.8	7,818.0	48.5	40.6	0.23	-2,070.7	-933.9	485.0	415.7	7.004	
8,700.0	7,986.4	8,304.8	7,818.0	48.5	40.6	0.23	-2,070.7	-933.9	508.8	446.8	8.204	
8,800.0	8,086.4	8,304.8	7,818.0	48.5	40.6	0.23	-2,070.7	-933.9	550.0	495.5	10.090	
8,900.0	8,186.4	8,304.8	7,818.0	48.5	40.6	0.23	-2,070.7	-933.9	605.2	557.3	12.641	
9,000.0	8,286.4	8,304.8	7,818.0	48.5	40.6	0.23	-2,070.7	-933.9	670.8	628.1	15.739	
9,100.0	8,386.4	8,304.8	7,818.0	48.5	40.6	0.23	-2,070.7	-933.9	744.0	705.2	19.175	
9,200.0	8,486.4	8,304.8	7,818.0	48.5	40.6	0.23	-2,070.7	-933.9	823.0	786.7	22.711	
9,300.0	8,586.4	8,304.8	7,818.0	48.5	40.6	0.23	-2,070.7	-933.9	906.1	871.4	26.152	
9,382.6	8,669.0	8,304.8	7,818.0	48.5	40.6	0.23	-2,070.7	-933.9	977.1	943.2	28.841	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-14E - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	43.76	21.7	20.7	30.0			
100.0	100.0	100.0	100.0	0.8	0.8	43.76	21.7	20.7	30.0	28.4	18.936	
200.0	200.0	200.1	200.1	1.4	1.2	43.93	21.6	20.8	30.0	27.3	11.309	
210.2	210.2	210.3	210.3	1.5	1.3	-130.90	21.5	20.9	30.0	27.2	10.750	CC
300.0	300.0	300.3	300.3	2.1	2.5	-128.55	19.0	22.5	30.8	27.1	8.401	ES
400.0	399.7	400.5	400.1	3.8	4.0	-124.74	12.8	26.5	33.6	28.6	6.804	SF
500.0	499.1	500.4	499.4	4.5	5.1	-122.52	2.9	33.0	38.5	33.0	6.968	
600.0	598.0	600.0	597.7	5.0	6.1	-124.65	-10.5	41.7	46.9	40.7	7.601	
700.0	696.2	698.9	694.4	5.8	6.9	-123.81	-27.3	52.7	59.5	52.5	8.402	
800.0	793.6	796.8	789.3	6.6	7.6	-122.25	-47.4	65.8	76.5	68.5	9.544	
900.0	889.9	893.5	882.0	7.4	8.3	-120.74	-70.6	81.0	97.9	88.9	10.853	
1,000.0	984.9	988.7	972.0	8.1	9.0	-119.46	-96.6	97.9	123.4	113.4	12.261	
1,100.0	1,078.6	1,082.4	1,059.2	8.8	9.6	-118.39	-125.2	116.6	153.0	141.9	13.710	
1,200.0	1,170.6	1,174.2	1,143.3	9.4	10.2	-117.47	-156.1	136.8	186.6	174.3	15.156	
1,300.0	1,260.9	1,264.1	1,224.1	10.1	10.7	-116.64	-189.1	158.3	223.9	210.4	16.568	
1,400.0	1,349.3	1,351.8	1,301.4	10.7	11.3	-115.85	-223.8	180.9	264.9	250.1	17.924	
1,500.0	1,435.5	1,437.5	1,375.3	11.3	11.7	-115.08	-260.1	204.6	309.2	293.1	19.213	
1,600.0	1,520.2	1,521.1	1,445.9	11.6	12.2	-114.65	-297.7	229.1	356.3	338.9	20.516	
1,700.0	1,604.9	1,605.2	1,515.2	11.9	12.5	-114.00	-337.5	255.1	404.5	385.9	21.641	
1,800.0	1,689.5	1,692.6	1,586.9	12.3	12.8	-113.38	-379.4	282.4	453.1	433.0	22.502	
1,900.0	1,774.2	1,779.9	1,658.5	12.7	13.1	-112.88	-421.2	309.7	501.7	480.1	23.205	
2,000.0	1,858.8	1,867.2	1,730.1	13.1	13.4	-112.46	-463.0	337.0	550.3	527.2	23.792	
2,100.0	1,943.5	1,954.5	1,801.7	13.6	13.7	-112.12	-504.9	364.3	599.0	574.3	24.285	
2,200.0	2,028.1	2,041.8	1,873.3	14.2	14.0	-111.82	-546.7	391.6	647.6	621.4	24.700	
2,300.0	2,112.8	2,129.2	1,945.0	14.9	14.5	-111.57	-588.5	418.9	696.3	668.5	25.084	
2,400.0	2,197.4	2,216.5	2,016.6	15.7	15.4	-111.35	-630.4	446.2	745.0	715.6	25.388	
2,500.0	2,282.1	2,303.8	2,088.2	16.5	16.3	-111.15	-672.2	473.5	793.6	762.7	25.658	
2,600.0	2,366.7	2,391.1	2,159.8	17.4	17.2	-110.98	-714.1	500.8	842.3	809.8	25.896	
2,700.0	2,451.4	2,478.5	2,231.4	18.3	18.2	-110.83	-755.9	528.1	891.0	856.9	26.105	
2,800.0	2,536.0	2,565.8	2,303.1	19.2	19.1	-110.69	-797.7	555.4	939.7	904.0	26.291	
2,900.0	2,620.7	2,653.1	2,374.7	20.1	20.0	-110.57	-839.6	582.7	988.4	951.1	26.456	
3,000.0	2,705.3	2,740.4	2,446.3	21.0	21.0	-110.46	-881.4	610.0	1,037.1	998.1	26.605	
3,100.0	2,790.0	2,827.7	2,517.9	21.9	21.9	-110.36	-923.2	637.3	1,085.8	1,045.2	26.738	
3,200.0	2,874.6	2,915.1	2,589.6	22.8	22.9	-110.26	-965.1	664.6	1,134.5	1,092.3	26.859	
3,300.0	2,959.3	3,002.4	2,661.2	23.7	23.8	-110.18	-1,006.9	692.0	1,183.2	1,139.4	26.968	
3,400.0	3,043.9	3,089.7	2,732.8	24.7	24.7	-110.10	-1,048.7	719.3	1,232.0	1,186.4	27.068	
3,500.0	3,128.6	3,177.0	2,804.4	25.6	25.7	-110.03	-1,090.6	746.6	1,280.7	1,233.5	27.159	
3,600.0	3,213.2	3,264.3	2,876.0	26.5	26.6	-109.96	-1,132.4	773.9	1,329.4	1,280.6	27.243	
3,700.0	3,297.9	3,351.7	2,947.7	27.4	27.6	-109.90	-1,174.2	801.2	1,378.1	1,327.7	27.320	
3,800.0	3,382.5	3,439.0	3,019.3	28.3	28.5	-109.84	-1,216.1	828.5	1,426.8	1,374.7	27.391	
3,900.0	3,467.2	3,526.3	3,090.9	29.3	29.4	-109.79	-1,257.9	855.8	1,475.5	1,421.8	27.456	
4,000.0	3,551.9	3,613.6	3,162.5	30.2	30.4	-109.74	-1,299.8	883.1	1,524.3	1,468.9	27.517	
4,100.0	3,636.5	3,701.0	3,234.1	31.1	31.3	-109.69	-1,341.6	910.4	1,573.0	1,515.9	27.573	
4,200.0	3,721.2	3,788.3	3,305.8	32.0	32.3	-109.64	-1,383.4	937.7	1,621.7	1,563.0	27.626	
4,300.0	3,805.8	3,875.6	3,377.4	32.9	33.2	-109.60	-1,425.3	965.0	1,670.4	1,610.1	27.675	
4,400.0	3,890.5	3,962.9	3,449.0	33.9	34.2	-109.56	-1,467.1	992.3	1,719.1	1,657.1	27.721	
4,500.0	3,975.1	4,050.2	3,520.6	34.8	35.1	-109.52	-1,508.9	1,019.6	1,767.9	1,704.2	27.764	
4,600.0	4,059.8	4,137.6	3,592.2	35.7	36.1	-109.49	-1,550.8	1,046.9	1,816.6	1,751.3	27.804	
4,700.0	4,144.4	4,224.9	3,663.9	36.6	37.0	-109.45	-1,592.6	1,074.2	1,865.3	1,798.3	27.842	
4,800.0	4,229.1	4,312.2	3,735.5	37.6	38.0	-109.42	-1,634.4	1,101.5	1,914.0	1,845.4	27.877	
4,900.0	4,313.7	4,399.5	3,807.1	38.5	38.9	-109.39	-1,676.3	1,128.8	1,962.8	1,892.4	27.911	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-14E - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,000.0	4,398.4	4,486.8	3,878.7	39.4	39.9	-109.36	-1,718.1	1,156.1	2,011.5	1,939.5	27.943	
5,100.0	4,483.0	4,574.2	3,950.3	40.3	40.8	-109.33	-1,759.9	1,183.4	2,060.2	1,986.6	27.973	
5,200.0	4,567.7	4,661.5	4,022.0	41.3	41.8	-109.31	-1,801.8	1,210.7	2,108.9	2,033.6	28.001	
5,300.0	4,652.3	4,748.8	4,093.6	42.2	42.7	-109.34	-1,843.6	1,238.0	2,157.7	2,080.7	28.028	
5,400.0	4,738.2	4,836.5	4,165.5	43.1	43.7	-110.53	-1,885.6	1,265.4	2,205.7	2,127.1	28.048	
5,500.0	4,826.2	4,924.6	4,237.8	43.9	44.6	-111.56	-1,927.8	1,292.9	2,252.4	2,172.2	28.072	
5,600.0	4,916.2	5,013.1	4,310.3	44.7	45.6	-112.43	-1,970.2	1,320.6	2,297.7	2,215.9	28.098	
5,700.0	5,008.1	5,101.7	4,383.0	45.4	46.5	-113.16	-2,012.7	1,348.3	2,341.6	2,258.4	28.126	
5,800.0	5,101.5	5,190.3	4,455.7	46.0	47.5	-113.75	-2,055.1	1,376.0	2,384.1	2,299.4	28.159	
5,900.0	5,196.4	5,278.7	4,528.2	46.6	48.5	-114.21	-2,097.5	1,403.6	2,425.1	2,339.1	28.199	
6,000.0	5,292.7	5,397.5	4,626.0	47.0	49.7	-114.34	-2,153.9	1,440.4	2,464.6	2,376.8	28.066	
6,100.0	5,390.0	5,592.4	4,793.1	47.5	51.6	-113.96	-2,238.0	1,495.3	2,499.9	2,409.2	27.552	
6,200.0	5,488.2	5,800.3	4,979.9	47.8	53.3	-113.58	-2,314.2	1,545.0	2,529.7	2,436.3	27.091	
6,300.0	5,587.1	6,020.1	5,185.6	48.1	54.7	-113.24	-2,379.0	1,587.3	2,553.5	2,457.8	26.707	
6,400.0	5,686.6	6,250.0	5,407.6	48.3	55.7	-112.96	-2,428.8	1,619.8	2,570.8	2,473.5	26.411	
6,500.0	5,786.4	6,487.4	5,641.8	48.4	56.4	-112.76	-2,460.4	1,640.5	2,581.3	2,482.8	26.213	
6,600.0	5,886.4	6,728.8	5,882.7	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.9	26.136	
6,700.0	5,986.4	6,832.5	5,986.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.9	26.137	
6,800.0	6,086.4	6,932.5	6,086.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.9	26.136	
6,900.0	6,186.4	7,032.5	6,186.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.9	26.134	
7,000.0	6,286.4	7,132.5	6,286.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.9	26.133	
7,100.0	6,386.4	7,232.5	6,386.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.132	
7,200.0	6,486.4	7,332.5	6,486.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.130	
7,300.0	6,586.4	7,432.5	6,586.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.129	
7,400.0	6,686.4	7,532.5	6,686.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.127	
7,500.0	6,786.4	7,632.5	6,786.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.126	
7,600.0	6,886.4	7,732.5	6,886.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.124	
7,700.0	6,986.4	7,832.5	6,986.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.122	
7,800.0	7,086.4	7,932.5	7,086.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.120	
7,900.0	7,186.4	8,032.5	7,186.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.118	
8,000.0	7,286.4	8,132.5	7,286.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.116	
8,100.0	7,386.4	8,232.5	7,386.4	48.4	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.114	
8,200.0	7,486.4	8,332.5	7,486.4	48.5	56.7	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.112	
8,300.0	7,586.4	8,432.5	7,586.4	48.5	56.8	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.110	
8,400.0	7,686.4	8,532.5	7,686.4	48.5	56.8	88.24	-2,471.6	1,647.8	2,584.8	2,485.8	26.108	
8,500.0	7,786.4	8,632.5	7,786.4	48.5	56.8	88.24	-2,471.6	1,647.8	2,584.8	2,485.7	26.106	
8,510.0	7,796.4	8,642.5	7,796.4	48.5	56.8	88.24	-2,471.6	1,647.8	2,584.8	2,485.7	26.106	
8,600.0	7,886.4	8,671.1	7,825.0	48.5	56.8	88.24	-2,471.6	1,647.8	2,585.5	2,486.4	26.103	
8,700.0	7,986.4	8,671.1	7,825.0	48.5	56.8	88.24	-2,471.6	1,647.8	2,589.8	2,490.8	26.157	
8,800.0	8,086.4	8,671.1	7,825.0	48.5	56.8	88.24	-2,471.6	1,647.8	2,597.9	2,499.1	26.280	
8,900.0	8,186.4	8,671.1	7,825.0	48.5	56.8	88.24	-2,471.6	1,647.8	2,609.9	2,511.3	26.471	
9,000.0	8,286.4	8,671.1	7,825.0	48.5	56.8	88.24	-2,471.6	1,647.8	2,625.6	2,527.4	26.731	
9,100.0	8,386.4	8,671.1	7,825.0	48.5	56.8	88.24	-2,471.6	1,647.8	2,645.0	2,547.3	27.058	
9,200.0	8,486.4	8,671.1	7,825.0	48.5	56.8	88.24	-2,471.6	1,647.8	2,668.0	2,570.8	27.451	
9,300.0	8,586.4	8,671.1	7,825.0	48.5	56.8	88.24	-2,471.6	1,647.8	2,694.6	2,598.0	27.908	
9,382.6	8,669.0	8,671.1	7,825.0	48.5	56.8	88.24	-2,471.6	1,647.8	2,719.1	2,623.1	28.335	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-15E - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	43.79	14.4	13.8	20.0			
100.0	100.0	100.0	100.0	0.8	0.8	43.79	14.4	13.8	20.0	18.4	12.628	
200.0	200.0	200.0	200.0	1.4	1.4	43.79	14.4	13.8	20.0	17.2	7.071	CC
300.0	300.0	300.2	300.2	2.1	2.1	-129.95	12.5	14.9	20.8	17.1	5.659	ES
400.0	399.7	400.4	400.2	3.8	3.8	-126.68	6.8	18.2	23.3	18.3	4.610	SF
500.0	499.1	500.5	499.7	4.5	4.9	-124.53	-2.7	23.5	27.6	21.9	4.872	
600.0	598.0	600.3	598.3	5.0	5.9	-126.03	-15.9	31.0	35.0	28.7	5.626	
700.0	696.2	699.6	695.6	5.8	6.7	-124.40	-32.7	40.6	46.2	39.2	6.589	
800.0	793.6	798.0	791.2	6.6	7.5	-122.28	-53.1	52.1	61.6	53.7	7.835	
900.0	889.9	895.4	884.8	7.4	8.2	-120.43	-76.7	65.4	81.1	72.3	9.210	
1,000.0	984.9	991.6	976.0	8.1	8.9	-118.96	-103.3	80.6	104.6	94.8	10.651	
1,100.0	1,078.6	1,086.4	1,064.5	8.8	9.5	-117.78	-132.9	97.3	131.9	121.0	12.108	
1,200.0	1,170.6	1,179.6	1,150.1	9.4	10.1	-116.80	-165.0	115.5	163.1	151.0	13.544	
1,300.0	1,260.9	1,271.1	1,232.5	10.1	10.6	-115.93	-199.4	135.0	197.8	184.6	14.929	
1,400.0	1,349.3	1,360.7	1,311.7	10.7	11.2	-115.14	-235.9	155.6	236.1	221.6	16.247	
1,500.0	1,435.5	1,448.4	1,387.6	11.3	11.7	-114.36	-274.2	177.3	277.7	261.8	17.487	
1,600.0	1,520.2	1,534.3	1,460.2	11.6	12.2	-113.87	-314.1	199.9	321.8	304.6	18.711	
1,700.0	1,604.9	1,618.9	1,530.0	11.9	12.6	-113.07	-355.7	223.5	367.2	348.6	19.751	
1,800.0	1,689.5	1,700.0	1,595.2	12.3	13.0	-112.04	-397.6	247.2	413.8	393.8	20.708	
1,900.0	1,774.2	1,784.3	1,661.1	12.7	13.4	-110.78	-443.3	273.1	461.7	440.2	21.497	
2,000.0	1,858.8	1,871.2	1,728.3	13.1	13.6	-109.57	-491.3	300.3	510.3	487.2	22.125	
2,100.0	1,943.5	1,958.2	1,795.6	13.6	13.9	-108.57	-539.3	327.5	558.9	534.3	22.654	
2,200.0	2,028.1	2,045.2	1,862.8	14.2	14.2	-107.72	-587.3	354.6	607.7	581.4	23.101	
2,300.0	2,112.8	2,132.1	1,930.1	14.9	14.7	-107.01	-635.3	381.8	656.6	628.7	23.515	
2,400.0	2,197.4	2,219.1	1,997.3	15.7	15.7	-106.39	-683.2	409.0	705.6	676.0	23.847	
2,500.0	2,282.1	2,306.0	2,064.5	16.5	16.8	-105.85	-731.2	436.2	754.6	723.3	24.145	
2,600.0	2,366.7	2,393.0	2,131.8	17.4	17.8	-105.38	-779.2	463.4	803.6	770.7	24.409	
2,700.0	2,451.4	2,480.0	2,199.0	18.3	18.8	-104.96	-827.2	490.5	852.7	818.1	24.644	
2,800.0	2,536.0	2,566.9	2,266.3	19.2	19.8	-104.59	-875.2	517.7	901.8	865.5	24.854	
2,900.0	2,620.7	2,653.9	2,333.5	20.1	20.9	-104.25	-923.2	544.9	951.0	913.0	25.043	
3,000.0	2,705.3	2,740.9	2,400.8	21.0	21.9	-103.95	-971.1	572.1	1,000.1	960.5	25.213	
3,100.0	2,790.0	2,827.8	2,468.0	21.9	23.0	-103.68	-1,019.1	599.2	1,049.3	1,008.0	25.367	
3,200.0	2,874.6	2,914.8	2,535.3	22.8	24.0	-103.43	-1,067.1	626.4	1,098.5	1,055.5	25.507	
3,300.0	2,959.3	3,001.7	2,602.5	23.7	25.0	-103.20	-1,115.1	653.6	1,147.7	1,103.0	25.635	
3,400.0	3,043.9	3,088.7	2,669.7	24.7	26.1	-102.99	-1,163.1	680.8	1,197.0	1,150.5	25.753	
3,500.0	3,128.6	3,175.7	2,737.0	25.6	27.1	-102.80	-1,211.0	707.9	1,246.2	1,198.0	25.860	
3,600.0	3,213.2	3,262.6	2,804.2	26.5	28.2	-102.62	-1,259.0	735.1	1,295.5	1,245.6	25.960	
3,700.0	3,297.9	3,349.6	2,871.5	27.4	29.2	-102.45	-1,307.0	762.3	1,344.7	1,293.1	26.052	
3,800.0	3,382.5	3,436.6	2,938.7	28.3	30.3	-102.30	-1,355.0	789.5	1,394.0	1,340.7	26.137	
3,900.0	3,467.2	3,523.5	3,006.0	29.3	31.3	-102.16	-1,403.0	816.6	1,443.3	1,388.2	26.216	
4,000.0	3,551.9	3,610.5	3,073.2	30.2	32.3	-102.02	-1,451.0	843.8	1,492.5	1,435.8	26.290	
4,100.0	3,636.5	3,697.5	3,140.5	31.1	33.4	-101.90	-1,498.9	871.0	1,541.8	1,483.3	26.358	
4,200.0	3,721.2	3,784.4	3,207.7	32.0	34.4	-101.78	-1,546.9	898.2	1,591.1	1,530.9	26.423	
4,300.0	3,805.8	3,871.4	3,274.9	32.9	35.5	-101.67	-1,594.9	925.4	1,640.4	1,578.5	26.483	
4,400.0	3,890.5	3,958.3	3,342.2	33.9	36.5	-101.57	-1,642.9	952.5	1,689.7	1,626.0	26.539	
4,500.0	3,975.1	4,045.3	3,409.4	34.8	37.6	-101.47	-1,690.9	979.7	1,739.0	1,673.6	26.592	
4,600.0	4,059.8	4,132.3	3,476.7	35.7	38.6	-101.38	-1,738.8	1,006.9	1,788.3	1,721.2	26.642	
4,700.0	4,144.4	4,219.2	3,543.9	36.6	39.7	-101.29	-1,786.8	1,034.1	1,837.6	1,768.8	26.690	
4,800.0	4,229.1	4,306.2	3,611.2	37.6	40.7	-101.21	-1,834.8	1,061.2	1,887.0	1,816.4	26.734	
4,900.0	4,313.7	4,393.2	3,678.4	38.5	41.8	-101.13	-1,882.8	1,088.4	1,936.3	1,864.0	26.776	
5,000.0	4,398.4	4,480.1	3,745.6	39.4	42.8	-101.05	-1,930.8	1,115.6	1,985.6	1,911.5	26.816	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-15E - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,483.0	4,567.1	3,812.9	40.3	43.9	-100.98	-1,978.8	1,142.8	2,034.9	1,959.1	26.854	
5,200.0	4,567.7	4,654.0	3,880.1	41.3	44.9	-100.91	-2,026.7	1,169.9	2,084.2	2,006.7	26.890	
5,300.0	4,652.3	4,741.0	3,947.4	42.2	46.0	-100.90	-2,074.7	1,197.1	2,133.6	2,054.3	26.925	
5,400.0	4,738.2	4,828.1	4,014.7	43.1	47.0	-102.15	-2,122.8	1,224.3	2,182.5	2,101.5	26.959	
5,500.0	4,826.2	4,915.3	4,082.2	43.9	48.1	-103.24	-2,170.9	1,251.6	2,230.6	2,148.1	27.012	
5,600.0	4,916.2	5,002.5	4,149.6	44.7	49.1	-104.19	-2,219.0	1,278.8	2,278.0	2,193.8	27.077	
5,700.0	5,008.1	5,089.5	4,216.9	45.4	50.2	-105.00	-2,267.0	1,306.0	2,324.4	2,238.8	27.156	
5,800.0	5,101.5	5,176.1	4,283.8	46.0	51.2	-105.69	-2,314.8	1,333.1	2,370.0	2,283.1	27.250	
5,900.0	5,196.4	5,262.2	4,350.4	46.6	52.3	-106.27	-2,362.3	1,360.0	2,414.8	2,326.6	27.360	
6,000.0	5,292.7	5,347.6	4,416.5	47.0	53.3	-106.76	-2,409.4	1,386.7	2,458.8	2,369.3	27.488	
6,100.0	5,390.0	5,548.3	4,576.3	47.5	55.6	-106.23	-2,515.0	1,446.5	2,500.3	2,407.6	26.974	
6,200.0	5,488.2	5,793.1	4,784.6	47.8	58.0	-105.52	-2,626.7	1,509.7	2,536.0	2,439.8	26.364	
6,300.0	5,587.1	6,059.5	5,025.4	48.1	60.0	-104.87	-2,725.5	1,565.7	2,564.8	2,465.6	25.855	
6,400.0	5,686.6	6,345.1	5,296.3	48.3	61.6	-104.35	-2,803.7	1,610.0	2,586.0	2,484.5	25.475	
6,500.0	5,786.4	6,645.2	5,590.6	48.4	62.6	-104.00	-2,853.6	1,638.3	2,598.8	2,495.9	25.254	
6,600.0	5,886.4	6,929.5	5,874.1	48.4	63.0	97.04	-2,869.6	1,647.3	2,602.7	2,499.5	25.209	
6,700.0	5,986.4	7,041.8	5,986.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.215	
6,800.0	6,086.4	7,141.8	6,086.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.214	
6,900.0	6,186.4	7,241.8	6,186.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.214	
7,000.0	6,286.4	7,341.8	6,286.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.213	
7,100.0	6,386.4	7,441.8	6,386.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.212	
7,200.0	6,486.4	7,541.8	6,486.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.211	
7,300.0	6,586.4	7,641.8	6,586.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.210	
7,400.0	6,686.4	7,741.8	6,686.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.209	
7,500.0	6,786.4	7,841.8	6,786.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.208	
7,600.0	6,886.4	7,941.8	6,886.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.206	
7,700.0	6,986.4	8,041.8	6,986.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.205	
7,800.0	7,086.4	8,141.8	7,086.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.204	
7,900.0	7,186.4	8,241.8	7,186.4	48.4	63.0	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.202	
8,000.0	7,286.4	8,341.8	7,286.4	48.4	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.201	
8,100.0	7,386.4	8,441.8	7,386.4	48.4	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.199	
8,200.0	7,486.4	8,541.8	7,486.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.198	
8,300.0	7,586.4	8,641.8	7,586.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.5	25.196	
8,400.0	7,686.4	8,741.8	7,686.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.194	
8,500.0	7,786.4	8,841.8	7,786.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.192	
8,600.0	7,886.4	8,941.8	7,886.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.190	
8,700.0	7,986.4	9,041.8	7,986.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.189	
8,800.0	8,086.4	9,141.8	8,086.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.187	
8,900.0	8,186.4	9,241.8	8,186.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.185	
9,000.0	8,286.4	9,341.8	8,286.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.182	
9,100.0	8,386.4	9,441.8	8,386.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.180	
9,200.0	8,486.4	9,541.8	8,486.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.178	
9,300.0	8,586.4	9,641.8	8,586.4	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.176	
9,382.6	8,669.0	9,724.4	8,669.0	48.5	63.1	97.04	-2,869.7	1,647.4	2,602.8	2,499.4	25.175	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-15W - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	43.85	7.2	6.9	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	43.85	7.2	6.9	10.0	8.4	6.320	
200.0	200.0	200.0	200.0	1.4	1.3	43.96	7.2	6.9	10.0	7.3	3.660	
219.8	219.8	219.8	219.8	1.6	1.5	-130.52	7.0	7.0	10.0	7.0	3.314	CC
300.0	300.0	300.2	300.2	2.1	2.5	-127.07	4.7	7.8	10.3	6.4	2.611	ES
400.0	399.7	400.3	400.0	3.8	4.0	-120.86	-1.8	10.2	11.7	6.5	2.270	Level 1
500.0	499.1	500.4	499.5	4.5	5.1	-116.41	-12.5	14.1	14.3	8.7	2.567	
600.0	598.0	600.9	598.7	5.0	5.5	-117.69	-27.2	18.0	18.2	11.9	2.907	
700.0	696.2	701.4	697.6	5.8	6.1	-118.36	-45.8	19.9	22.2	14.7	2.962	
800.0	793.6	802.1	795.7	6.6	6.8	-118.78	-68.2	19.7	26.1	17.6	3.067	
900.0	889.9	902.9	893.0	7.4	7.5	-119.06	-94.4	17.4	30.0	20.5	3.161	
1,000.0	984.9	1,003.8	989.2	8.1	8.1	-119.28	-124.4	13.1	33.9	23.4	3.237	
1,100.0	1,078.6	1,104.7	1,084.1	8.8	8.8	-119.45	-158.1	6.6	37.6	26.1	3.279	
1,200.0	1,170.6	1,205.8	1,177.6	9.4	9.4	-119.60	-195.4	-1.9	41.3	28.7	3.282	
1,300.0	1,260.9	1,307.0	1,269.5	10.1	10.0	-119.73	-236.4	-12.5	44.8	31.0	3.251	
1,400.0	1,349.3	1,408.2	1,359.6	10.7	10.6	-119.86	-280.9	-25.1	48.2	33.1	3.194	
1,500.0	1,435.5	1,509.5	1,447.6	11.3	11.2	-119.98	-328.9	-39.8	51.5	35.0	3.118	
1,600.0	1,520.2	1,610.9	1,533.5	11.6	11.8	-118.62	-380.2	-56.4	53.8	36.0	3.019	
1,700.0	1,604.9	1,712.2	1,616.8	11.9	12.3	-113.52	-434.6	-75.0	53.7	34.6	2.807	
1,800.0	1,689.5	1,812.2	1,697.3	12.3	12.7	-105.47	-490.6	-94.8	52.7	32.0	2.543	
1,848.3	1,730.4	1,860.3	1,736.0	12.5	12.9	-101.46	-517.6	-104.3	52.6	30.9	2.429	Level 1
1,900.0	1,774.2	1,911.9	1,777.4	12.7	13.1	-97.17	-546.5	-114.5	52.8	30.1	2.324	Level 1
2,000.0	1,858.8	2,011.6	1,857.6	13.1	13.6	-89.04	-602.4	-134.2	53.9	29.0	2.169	Level 1
2,100.0	1,943.5	2,111.3	1,937.8	13.6	14.2	-81.39	-658.3	-153.9	56.0	29.0	2.076	Level 1
2,200.0	2,028.1	2,211.0	2,017.9	14.2	14.9	-74.41	-714.2	-173.6	59.1	30.1	2.036	Level 1, SF
2,300.0	2,112.8	2,310.7	2,098.1	14.9	15.8	-68.20	-770.1	-193.4	63.0	32.0	2.036	Level 1
2,400.0	2,197.4	2,410.4	2,178.3	15.7	16.7	-62.77	-826.0	-213.1	67.5	34.8	2.067	Level 1
2,500.0	2,282.1	2,510.1	2,258.4	16.5	17.6	-58.04	-881.9	-232.8	72.5	38.3	2.119	Level 1
2,600.0	2,366.7	2,609.8	2,338.6	17.4	18.6	-53.96	-937.8	-252.5	78.0	42.3	2.185	Level 1
2,700.0	2,451.4	2,709.6	2,418.8	18.3	19.5	-50.42	-993.8	-272.2	83.8	46.7	2.261	Level 1
2,800.0	2,536.0	2,809.3	2,499.0	19.2	20.5	-47.36	-1,049.7	-292.0	89.9	51.5	2.342	Level 1
2,900.0	2,620.7	2,909.0	2,579.1	20.1	21.5	-44.68	-1,105.6	-311.7	96.2	56.6	2.427	Level 1
3,000.0	2,705.3	3,008.7	2,659.3	21.0	22.5	-42.34	-1,161.5	-331.4	102.7	61.8	2.513	
3,100.0	2,790.0	3,108.4	2,739.5	21.9	23.5	-40.28	-1,217.4	-351.1	109.4	67.3	2.598	
3,200.0	2,874.6	3,208.1	2,819.6	22.8	24.5	-38.46	-1,273.3	-370.8	116.1	72.8	2.682	
3,300.0	2,959.3	3,307.8	2,899.8	23.7	25.5	-36.84	-1,329.2	-390.6	123.0	78.5	2.765	
3,400.0	3,043.9	3,407.5	2,980.0	24.7	26.5	-35.40	-1,385.1	-410.3	130.0	84.3	2.846	
3,500.0	3,128.6	3,507.2	3,060.1	25.6	27.5	-34.10	-1,441.0	-430.0	137.0	90.2	2.924	
3,600.0	3,213.2	3,606.9	3,140.3	26.5	28.5	-32.93	-1,496.9	-449.7	144.1	96.1	3.000	
3,700.0	3,297.9	3,706.6	3,220.5	27.4	29.5	-31.86	-1,552.8	-469.4	151.3	102.0	3.073	
3,800.0	3,382.5	3,806.3	3,300.6	28.3	30.6	-30.90	-1,608.7	-489.2	158.5	108.1	3.143	
3,900.0	3,467.2	3,906.0	3,380.8	29.3	31.6	-30.02	-1,664.6	-508.9	165.7	114.1	3.211	
4,000.0	3,551.9	4,005.7	3,461.0	30.2	32.6	-29.21	-1,720.5	-528.6	173.0	120.2	3.276	
4,100.0	3,636.5	4,105.4	3,541.2	31.1	33.6	-28.47	-1,776.4	-548.3	180.3	126.3	3.339	
4,200.0	3,721.2	4,205.1	3,621.3	32.0	34.6	-27.79	-1,832.3	-568.1	187.7	132.5	3.399	
4,300.0	3,805.8	4,304.9	3,701.5	32.9	35.6	-27.15	-1,888.2	-587.8	195.0	138.6	3.457	
4,400.0	3,890.5	4,404.6	3,781.7	33.9	36.7	-26.57	-1,944.1	-607.5	202.4	144.8	3.512	
4,500.0	3,975.1	4,504.3	3,861.8	34.8	37.7	-26.02	-2,000.0	-627.2	209.8	151.0	3.566	
4,600.0	4,059.8	4,604.0	3,942.0	35.7	38.7	-25.51	-2,055.9	-646.9	217.2	157.2	3.617	
4,700.0	4,144.4	4,703.7	4,022.2	36.6	39.7	-25.04	-2,111.8	-666.7	224.7	163.4	3.666	
4,800.0	4,229.1	4,803.4	4,102.3	37.6	40.8	-24.60	-2,167.8	-686.4	232.1	169.6	3.714	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU 0993-16-15W - OH - Design #2

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,900.0	4,313.7	4,903.1	4,182.5	38.5	41.8	-24.18	-2,223.7	-706.1	239.6	175.9	3.759	
5,000.0	4,398.4	5,002.8	4,262.7	39.4	42.8	-23.79	-2,279.6	-725.8	247.1	182.1	3.803	
5,100.0	4,483.0	5,102.5	4,342.8	40.3	43.8	-23.42	-2,335.5	-745.5	254.6	188.4	3.846	
5,200.0	4,567.7	5,202.2	4,423.0	41.3	44.9	-23.07	-2,391.4	-765.3	262.1	194.6	3.886	
5,300.0	4,652.3	5,302.3	4,503.5	42.2	45.9	-22.75	-2,447.5	-785.1	269.6	200.9	3.925	
5,400.0	4,738.2	5,414.5	4,595.4	43.1	47.0	-22.48	-2,508.2	-806.5	276.8	206.5	3.935	
5,500.0	4,826.2	5,527.1	4,690.8	43.9	48.1	-22.25	-2,564.7	-826.4	283.6	211.7	3.944	
5,600.0	4,916.2	5,640.2	4,789.3	44.7	49.0	-22.04	-2,616.9	-844.8	289.7	216.4	3.953	
5,700.0	5,008.1	5,753.5	4,890.7	45.4	49.9	-21.87	-2,664.7	-861.7	295.3	220.8	3.964	
5,800.0	5,101.5	5,867.3	4,994.8	46.0	50.7	-21.72	-2,707.7	-876.9	300.4	224.8	3.977	
5,900.0	5,196.4	5,981.3	5,101.4	46.6	51.4	-21.59	-2,746.0	-890.4	304.8	228.4	3.991	
6,000.0	5,292.7	6,095.6	5,210.1	47.0	52.1	-21.49	-2,779.3	-902.1	308.6	231.6	4.007	
6,100.0	5,390.0	6,210.1	5,320.6	47.5	52.6	-21.40	-2,807.4	-912.0	311.7	234.3	4.026	
6,200.0	5,488.2	6,324.8	5,432.7	47.8	53.0	-21.34	-2,830.4	-920.1	314.3	236.6	4.047	
6,300.0	5,587.1	6,439.6	5,546.0	48.1	53.3	-21.30	-2,848.0	-926.4	316.2	238.5	4.072	
6,400.0	5,686.6	6,554.6	5,660.2	48.3	53.6	-21.27	-2,860.3	-930.7	317.4	240.0	4.099	
6,500.0	5,786.4	6,669.6	5,774.9	48.4	53.7	-21.27	-2,867.2	-933.1	318.0	241.0	4.132	
6,600.0	5,886.4	6,781.1	5,886.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.8	4.176	
6,700.0	5,986.4	6,881.1	5,986.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.8	4.174	
6,800.0	6,086.4	6,981.1	6,086.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.8	4.173	
6,900.0	6,186.4	7,081.1	6,186.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.8	4.172	
7,000.0	6,286.4	7,181.1	6,286.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.7	4.170	
7,100.0	6,386.4	7,281.1	6,386.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.7	4.169	
7,200.0	6,486.4	7,381.1	6,486.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.7	4.168	
7,300.0	6,586.4	7,481.1	6,586.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.7	4.166	
7,400.0	6,686.4	7,581.1	6,686.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.6	4.165	
7,500.0	6,786.4	7,681.1	6,786.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.6	4.163	
7,600.0	6,886.4	7,781.1	6,886.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.6	4.162	
7,700.0	6,986.4	7,881.1	6,986.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.5	4.160	
7,800.0	7,086.4	7,981.1	7,086.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.5	4.159	
7,900.0	7,186.4	8,081.1	7,186.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.5	4.157	
8,000.0	7,286.4	8,181.1	7,286.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.5	4.156	
8,100.0	7,386.4	8,281.1	7,386.4	48.4	53.8	179.62	-2,868.8	-933.7	318.0	241.4	4.154	
8,200.0	7,486.4	8,381.1	7,486.4	48.5	53.8	179.62	-2,868.8	-933.7	318.0	241.4	4.152	
8,300.0	7,586.4	8,481.1	7,586.4	48.5	53.8	179.62	-2,868.8	-933.7	318.0	241.4	4.151	
8,400.0	7,686.4	8,581.1	7,686.4	48.5	53.8	179.62	-2,868.8	-933.7	318.0	241.3	4.149	
8,500.0	7,786.4	8,681.1	7,786.4	48.5	53.8	179.62	-2,868.8	-933.7	318.0	241.3	4.148	
8,600.0	7,886.4	8,694.7	7,800.0	48.5	53.8	179.62	-2,868.8	-933.7	329.5	247.2	4.002	
8,700.0	7,986.4	8,694.7	7,800.0	48.5	53.8	179.62	-2,868.8	-933.7	368.6	285.4	4.430	
8,800.0	8,086.4	8,694.7	7,800.0	48.5	53.8	179.62	-2,868.8	-933.7	427.9	347.4	5.312	
8,900.0	8,186.4	8,694.7	7,800.0	48.5	53.8	179.62	-2,868.8	-933.7	500.4	423.5	6.505	
9,000.0	8,286.4	8,694.7	7,800.0	48.5	53.8	179.62	-2,868.8	-933.7	581.1	507.7	7.914	
9,100.0	8,386.4	8,694.7	7,800.0	48.5	53.8	179.62	-2,868.8	-933.7	667.1	596.6	9.473	
9,200.0	8,486.4	8,694.7	7,800.0	48.5	53.8	179.62	-2,868.8	-933.7	756.5	688.5	11.136	
9,300.0	8,586.4	8,694.7	7,800.0	48.5	53.8	179.62	-2,868.8	-933.7	848.3	782.4	12.874	
9,382.6	8,669.0	8,694.7	7,800.0	48.5	53.8	179.62	-2,868.8	-933.7	925.3	860.9	14.349	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU Fed 0993-16-12W - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-136.25	-21.7	-20.7	30.0			
100.0	100.0	100.0	100.0	0.8	0.8	-136.25	-21.7	-20.7	30.0	28.4	18.941	
113.0	113.0	113.0	113.0	0.9	0.9	-136.25	-21.7	-20.7	30.0	28.3	17.249	CC
200.0	200.0	199.9	199.9	1.4	1.3	-136.24	-21.7	-20.8	30.0	27.3	10.985	
300.0	300.0	298.8	298.8	2.1	2.3	52.52	-22.9	-22.4	30.7	26.5	7.282	ES
400.0	399.7	397.6	397.4	3.8	3.5	62.75	-26.0	-26.9	32.7	26.7	5.422	SF
500.0	499.1	496.1	495.5	4.5	3.8	74.15	-31.2	-33.9	37.6	31.4	6.068	
600.0	598.0	594.7	593.5	5.0	4.3	77.95	-39.5	-42.3	44.2	37.4	6.476	
700.0	696.2	693.5	691.1	5.8	5.1	82.21	-50.9	-52.0	51.4	43.8	6.797	
800.0	793.6	792.4	788.3	6.6	5.8	86.41	-65.4	-63.1	58.9	50.8	7.235	
900.0	889.9	891.5	885.0	7.4	6.4	90.46	-83.1	-75.4	66.7	57.9	7.605	
1,000.0	984.9	990.8	981.1	8.1	7.1	94.36	-103.9	-89.0	74.7	65.2	7.855	
1,100.0	1,078.6	1,090.3	1,076.5	8.8	7.7	98.12	-127.8	-103.8	82.8	72.4	7.966	
1,200.0	1,170.6	1,190.0	1,171.1	9.4	8.3	101.76	-154.9	-120.0	91.3	79.8	7.948	
1,300.0	1,260.9	1,290.0	1,264.9	10.1	8.9	105.31	-185.1	-137.4	99.9	87.2	7.831	
1,400.0	1,349.3	1,389.2	1,357.1	10.7	9.3	109.40	-216.9	-155.4	109.4	95.1	7.676	
1,500.0	1,435.5	1,487.8	1,448.8	11.3	9.7	114.68	-248.4	-173.3	120.7	104.8	7.561	
1,600.0	1,520.2	1,585.9	1,540.0	11.6	10.1	120.70	-279.9	-191.1	134.4	116.7	7.602	
1,700.0	1,604.9	1,684.0	1,631.2	11.9	10.5	125.74	-311.3	-208.9	149.4	130.1	7.742	
1,800.0	1,689.5	1,782.1	1,722.4	12.3	10.8	129.86	-342.7	-226.7	165.3	144.5	7.948	
1,900.0	1,774.2	1,880.2	1,813.6	12.7	11.3	133.24	-374.2	-244.5	181.9	159.7	8.191	
2,000.0	1,858.8	1,978.3	1,904.7	13.1	11.7	136.06	-405.6	-262.3	199.1	175.5	8.451	
2,100.0	1,943.5	2,076.3	1,995.9	13.6	12.1	138.42	-437.0	-280.1	216.6	191.8	8.718	
2,200.0	2,028.1	2,174.4	2,087.1	14.2	12.5	140.44	-468.5	-297.9	234.4	208.3	8.983	
2,300.0	2,112.8	2,272.5	2,178.3	14.9	13.0	142.16	-499.9	-315.7	252.5	225.2	9.242	
2,400.0	2,197.4	2,370.6	2,269.5	15.7	13.4	143.66	-531.3	-333.5	270.8	242.3	9.492	
2,500.0	2,282.1	2,468.7	2,360.7	16.5	13.9	144.97	-562.7	-351.3	289.2	259.5	9.732	
2,600.0	2,366.7	2,566.8	2,451.9	17.4	14.3	146.12	-594.2	-369.2	307.8	276.9	9.960	
2,700.0	2,451.4	2,664.8	2,543.1	18.3	14.8	147.14	-625.6	-387.0	326.5	294.4	10.178	
2,800.0	2,536.0	2,762.9	2,634.3	19.2	15.3	148.05	-657.0	-404.8	345.2	312.0	10.384	
2,900.0	2,620.7	2,861.0	2,725.5	20.1	15.8	148.86	-688.5	-422.6	364.1	329.6	10.579	
3,000.0	2,705.3	2,959.1	2,816.7	21.0	16.3	149.60	-719.9	-440.4	382.9	347.4	10.764	
3,100.0	2,790.0	3,057.2	2,907.9	21.9	16.8	150.27	-751.3	-458.2	401.9	365.2	10.938	
3,200.0	2,874.6	3,155.3	2,999.0	22.8	17.4	150.87	-782.7	-476.0	420.9	383.0	11.104	
3,300.0	2,959.3	3,253.4	3,090.2	23.7	17.9	151.43	-814.2	-493.8	439.9	400.9	11.260	
3,400.0	3,043.9	3,351.4	3,181.4	24.7	18.5	151.94	-845.6	-511.6	459.0	418.8	11.408	
3,500.0	3,128.6	3,449.5	3,272.6	25.6	19.1	152.40	-877.0	-529.4	478.1	436.7	11.550	
3,600.0	3,213.2	3,547.6	3,363.8	26.5	19.7	152.84	-908.5	-547.2	497.3	454.7	11.683	
3,700.0	3,297.9	3,645.7	3,455.0	27.4	20.3	153.24	-939.9	-565.0	516.4	472.7	11.809	
3,800.0	3,382.5	3,743.8	3,546.2	28.3	20.9	153.61	-971.3	-582.8	535.6	490.7	11.929	
3,900.0	3,467.2	3,841.9	3,637.4	29.3	21.5	153.95	-1,002.8	-600.6	554.8	508.7	12.042	
4,000.0	3,551.9	3,940.0	3,728.6	30.2	22.1	154.28	-1,034.2	-618.4	574.0	526.8	12.151	
4,100.0	3,636.5	4,038.0	3,819.8	31.1	22.7	154.58	-1,065.6	-636.2	593.3	544.9	12.254	
4,200.0	3,721.2	4,136.1	3,911.0	32.0	23.4	154.86	-1,097.0	-654.0	612.5	563.0	12.352	
4,300.0	3,805.8	4,234.2	4,002.1	32.9	24.0	155.12	-1,128.5	-671.8	631.8	581.0	12.445	
4,400.0	3,890.5	4,332.3	4,093.3	33.9	24.6	155.37	-1,159.9	-689.6	651.1	599.1	12.534	
4,500.0	3,975.1	4,430.4	4,184.5	34.8	25.2	155.61	-1,191.3	-707.5	670.4	617.3	12.620	
4,600.0	4,059.8	4,528.5	4,275.7	35.7	25.9	155.83	-1,222.8	-725.3	689.7	635.4	12.701	
4,700.0	4,144.4	4,626.6	4,366.9	36.6	26.5	156.04	-1,254.2	-743.1	709.0	653.5	12.779	
4,800.0	4,229.1	4,724.6	4,458.1	37.6	27.1	156.24	-1,285.6	-760.9	728.3	671.7	12.853	
4,900.0	4,313.7	4,822.7	4,549.3	38.5	27.7	156.43	-1,317.1	-778.7	747.7	689.8	12.925	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Offset Design Currier 0993-16-07 Pad - Currier BCU Fed 0993-16-12W - OH - Design #3

Offset Site Error: 0.0 usft

Survey Program: 0-OWSG (REV5) MWD HDGM Standard

Offset Well Error: 0.0 usft

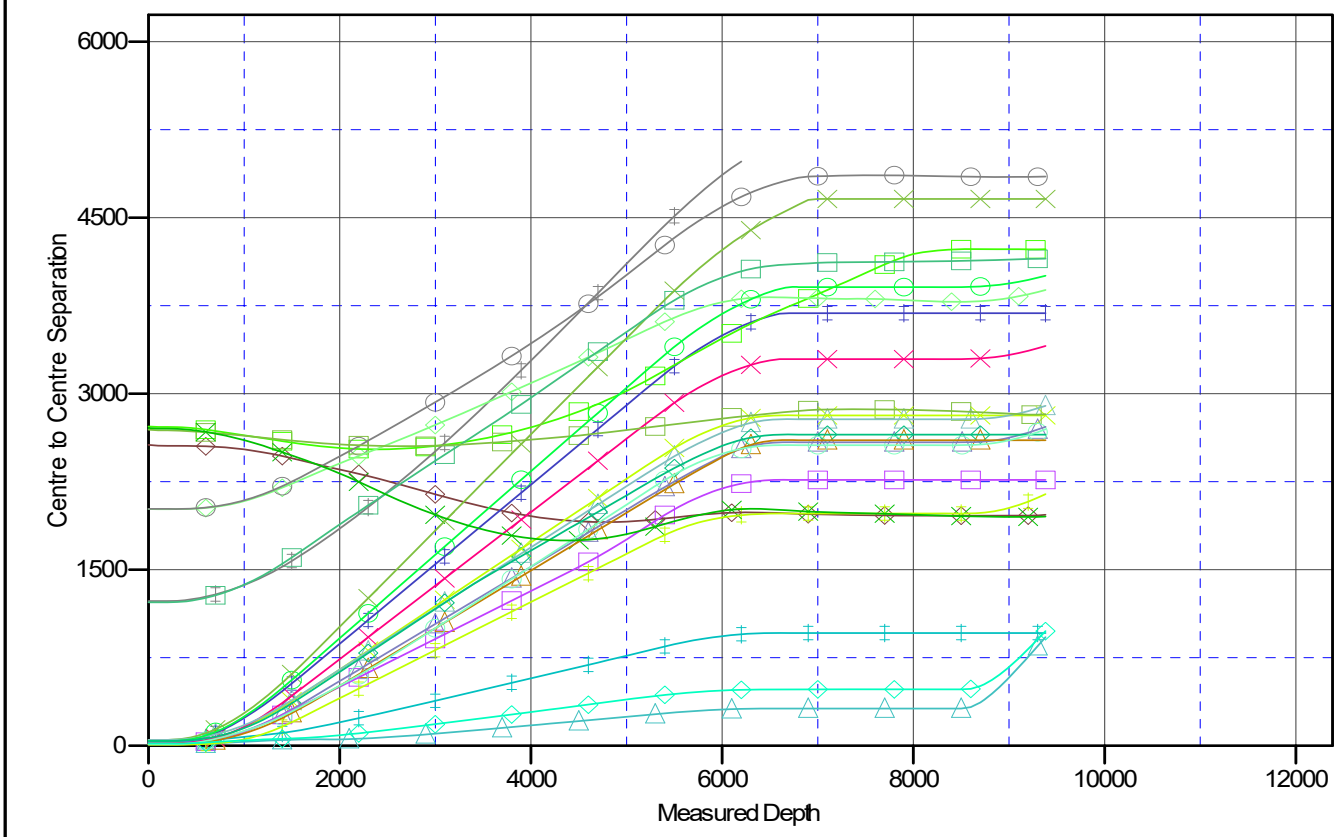
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
5,000.0	4,398.4	4,920.8	4,640.5	39.4	28.4	156.61	-1,348.5	-796.5	767.0	708.0	12.993	
5,100.0	4,483.0	5,018.9	4,731.7	40.3	29.0	156.78	-1,379.9	-814.3	786.3	726.1	13.058	
5,200.0	4,567.7	5,117.0	4,822.9	41.3	29.6	156.94	-1,411.3	-832.1	805.7	744.3	13.122	
5,300.0	4,652.3	5,200.0	4,900.4	42.2	30.1	157.12	-1,437.2	-846.7	826.0	763.6	13.235	
5,400.0	4,738.2	5,275.6	4,971.7	43.1	30.6	157.48	-1,459.0	-859.1	846.4	783.1	13.358	
5,500.0	4,826.2	5,353.7	5,046.0	43.9	31.0	157.81	-1,479.8	-870.9	865.3	800.9	13.449	
5,600.0	4,916.2	5,431.6	5,120.8	44.7	31.4	158.10	-1,498.9	-881.7	882.5	817.2	13.525	
5,700.0	5,008.1	5,500.0	5,186.9	45.4	31.7	158.34	-1,514.1	-890.3	898.0	832.1	13.622	
5,800.0	5,101.5	5,587.1	5,271.7	46.0	32.1	158.57	-1,531.5	-900.2	911.8	845.0	13.640	
5,900.0	5,196.4	5,664.7	5,347.7	46.6	32.3	158.75	-1,545.1	-907.9	924.0	856.4	13.681	
6,000.0	5,292.7	5,742.2	5,424.1	47.0	32.6	158.91	-1,556.9	-914.6	934.4	866.3	13.712	
6,100.0	5,390.0	5,819.7	5,500.7	47.5	32.8	159.03	-1,566.9	-920.2	943.2	874.5	13.734	
6,200.0	5,488.2	5,900.0	5,580.4	47.8	33.0	159.13	-1,575.3	-925.0	950.2	881.0	13.734	
6,300.0	5,587.1	5,974.6	5,654.6	48.1	33.2	159.20	-1,581.5	-928.5	955.5	886.0	13.753	
6,400.0	5,686.6	6,052.0	5,731.9	48.3	33.3	159.25	-1,586.0	-931.0	959.1	889.4	13.754	
6,500.0	5,786.4	6,129.4	5,809.2	48.4	33.4	159.27	-1,588.7	-932.6	961.0	891.2	13.761	
6,600.0	5,886.4	6,207.2	5,887.0	48.4	33.4	0.16	-1,589.7	-933.1	961.2	891.7	13.824	
6,633.5	5,919.9	6,240.2	5,919.9	48.4	33.4	0.16	-1,589.7	-933.1	961.2	891.6	13.823	
6,700.0	5,986.4	6,306.6	5,986.4	48.4	33.4	0.16	-1,589.7	-933.1	961.2	891.6	13.816	
6,800.0	6,086.4	6,406.6	6,086.4	48.4	33.4	0.16	-1,589.7	-933.1	961.2	891.6	13.810	
6,900.0	6,186.4	6,506.6	6,186.4	48.4	33.4	0.16	-1,589.7	-933.1	961.2	891.6	13.805	
7,000.0	6,286.4	6,606.6	6,286.4	48.4	33.4	0.16	-1,589.7	-933.1	961.2	891.5	13.799	
7,100.0	6,386.4	6,706.6	6,386.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.5	13.793	
7,200.0	6,486.4	6,806.6	6,486.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.5	13.787	
7,300.0	6,586.4	6,906.6	6,586.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.4	13.781	
7,400.0	6,686.4	7,006.6	6,686.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.4	13.775	
7,500.0	6,786.4	7,106.6	6,786.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.4	13.769	
7,600.0	6,886.4	7,206.6	6,886.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.3	13.763	
7,700.0	6,986.4	7,306.6	6,986.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.3	13.757	
7,800.0	7,086.4	7,406.6	7,086.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.3	13.751	
7,900.0	7,186.4	7,506.6	7,186.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.3	13.744	
8,000.0	7,286.4	7,606.6	7,286.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.2	13.738	
8,100.0	7,386.4	7,706.6	7,386.4	48.4	33.5	0.16	-1,589.7	-933.1	961.2	891.2	13.732	
8,200.0	7,486.4	7,806.6	7,486.4	48.5	33.5	0.16	-1,589.7	-933.1	961.2	891.2	13.725	
8,300.0	7,586.4	7,906.6	7,586.4	48.5	33.6	0.16	-1,589.7	-933.1	961.2	891.1	13.718	
8,400.0	7,686.4	8,006.6	7,686.4	48.5	33.6	0.16	-1,589.7	-933.1	961.2	891.1	13.712	
8,500.0	7,786.4	8,106.6	7,786.4	48.5	33.6	0.16	-1,589.7	-933.1	961.2	891.1	13.705	
8,600.0	7,886.4	8,206.6	7,886.4	48.5	33.6	0.16	-1,589.7	-933.1	961.2	891.0	13.698	
8,700.0	7,986.4	8,306.6	7,986.4	48.5	33.6	0.16	-1,589.7	-933.1	961.2	891.0	13.691	
8,800.0	8,086.4	8,406.6	8,086.4	48.5	33.6	0.16	-1,589.7	-933.1	961.2	890.9	13.685	
8,900.0	8,186.4	8,506.6	8,186.4	48.5	33.6	0.16	-1,589.7	-933.1	961.2	890.9	13.678	
9,000.0	8,286.4	8,606.6	8,286.4	48.5	33.6	0.16	-1,589.7	-933.1	961.2	890.9	13.671	
9,100.0	8,386.4	8,706.6	8,386.4	48.5	33.6	0.16	-1,589.7	-933.1	961.2	890.8	13.663	
9,200.0	8,486.4	8,806.6	8,486.4	48.5	33.7	0.16	-1,589.7	-933.1	961.2	890.8	13.656	
9,300.0	8,586.4	8,906.6	8,586.4	48.5	33.7	0.16	-1,589.7	-933.1	961.2	890.8	13.649	
9,382.6	8,669.0	8,989.2	8,669.0	48.5	33.7	0.16	-1,589.7	-933.1	961.2	890.7	13.643	

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB=30' @ 7487.0usft (TBD)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Currier BCU 0993-16-14W - Slot 16-14W
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.43°

Ladder Plot



LEGEND

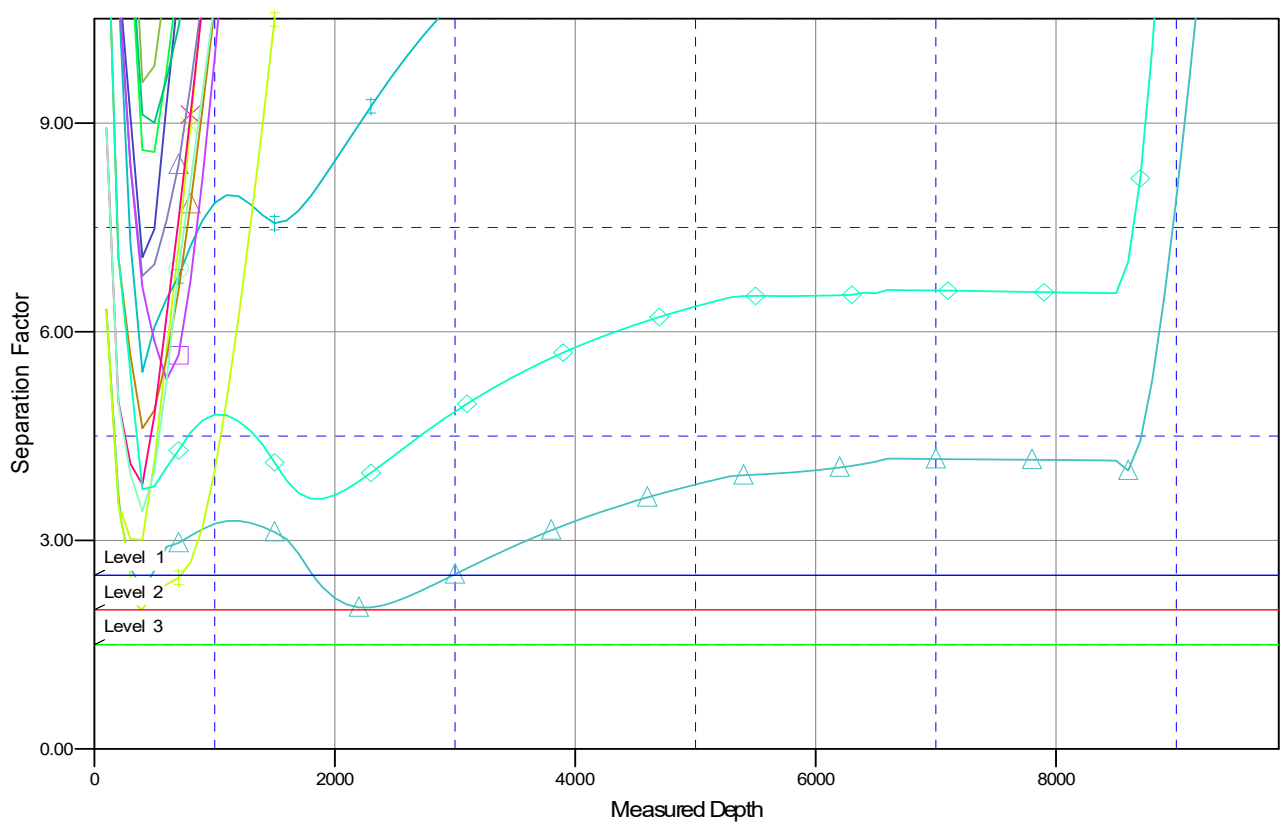
- (Offset) Buzzard Creek 16-12, Wellbore #1, Wellbore #1 V0
- Currier BCU 0993-16-06W, OH, Design #3 V0
- Currier BCU 0993-16-14E, OH, Design #2 V0
- Currier 0993-16-04M, OH, Design #4 V0
- Currier BCU Fed 0993-16-12W, OH, Design #3 V0
- (Offset) Buzzard Creek 15-12, Wellbore #1, Wellbore #1 V0
- (Offset) Currier 9-15, Wellbore #1, Wellbore #1 V0
- (Offset) Buzzard Creek 16-8, Wellbore #1, Wellbore #1 V0
- Currier 0993-16-01M, OH, Design #3 V0
- Currier BCU 0993-16-08M, OH, Design #3 V0
- Currier BCU 0993-16-15E, OH, Design #3 V0
- Currier BCU 0993-16-05M, OH, Design #2 V0
- Currier BCU 0993-16-11E, OH, Design #3 V0
- Currier BCU 0993-16-15W, OH, Design #2 V0
- Currier BCU 0993-16-09M, OH, Design #2 V0
- (Offset) Currier Family 16-3, Wellbore #1, Wellbore #1 V0
- (Offset) Buzzard Creek 16-1, Wellbore #1, Wellb
- (Offset) Buzzard Creek 21-1, Wellbore #1, Wellb
- Currier 0993-16-03M, OH, Design #2 V0
- Currier BCU 0993-16-13E, OH, Design #3 V0
- Currier BCU 0993-16-07M, OH, Design #2 V0
- Currier BCU 0993-16-13W, OH, Design #2 V0
- (Offset) Buzzard Creek 16-10, Wellbore #1, Wel

Company:	Laramie Energy, LLC	**Local Co-ordinate Reference:**	Well Currier BCU 0993-16-14W - Slot 16-14W
Project:	Mesa County, CO	**TVD Reference:**	RKB=30' @ 7487.0usft (TBD)
Reference Site:	Currier 0993-16-07 Pad	**MD Reference:**	RKB=30' @ 7487.0usft (TBD)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	Currier BCU 0993-16-14W	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	KLXDirectional-AD
Reference Design:	Design #3	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB=30' @ 7487.0usft (TBD)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Currier BCU 0993-16-14W - Slot 16-14W
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.43°

Separation Factor Plot



LEGEND

- (Offset) Buzzard Creek 16-12, Welbore #1, Wellbore #1 V0
- Currier 0993-16-01M, OH, Design #3 V0
- (Offset) Buzzard Creek 16-1, Wellbore #1, Wellb
- ier BCU 0993-16-06W, OH, Design #3 V0
- Currier BCU 0993-16-08M, OH, Design #3 V0
- (Offset) Buzzard Creek 21-1, Wellbore #1, Wellb
- ier BCU 0993-16-14E, OH, Design #2 V0
- Currier BCU 0993-16-15E, OH, Design #3 V0
- Currier 0993-16-03M, OH, Design #2 V0
- ier 0993-16-04M, OH, Design #4 V0
- Currier BCU 0993-16-05M, OH, Design #2 V0
- Currier BCU 0993-16-13E, OH, Design #3 V0
- ier BCU Fed 0993-16-12W, OH, Design #3 V0
- Currier BCU 0993-16-11E, OH, Design #3 V0
- Currier BCU 0993-16-07M, OH, Design #2 V0
- (Offset) Buzzard Creek 15-12, Welbore #1, Wellbore #1 V0
- Currier BCU 0993-16-15W, OH, Design #2 V0
- Currier BCU 0993-16-13W, OH, Design #2 V0
- (Offset) Currier 9-15, Wellbore #1, Wellbore #1 V0
- Currier BCU 0993-16-09M, OH, Design #2 V0
- (Offset) Buzzard Creek 16-10, Welbore #1, Wel
- (Offset) Buzzard Creek 16-8, Wellbore #1, Wellbore #1 V0
- (Offset) Currier Family 16-3, Wellbore #1, Wellbore #1 V0

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation