



Laramie Energy, LLC

Mesa County, CO

Laramie 0993-29-01

Laramie 29-01 Fed 0993-21-13W

OH

Design #2

KLX Anticollision Report

08 May, 2025





Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Reference	Design #2		
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	5/8/2025		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	9,418.4	Design #2 (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
Laramie 0993-29-01						
Laramie 29-01 0993-20-11E - OH - Design #2	200.0	200.0	30.0	27.2	10.607	CC, ES
Laramie 29-01 0993-20-11E - OH - Design #2	400.0	397.3	38.1	32.4	6.736	SF
Laramie 29-01 0993-20-12E - OH - Design #2	200.0	200.0	31.6	28.8	11.182	CC, ES
Laramie 29-01 0993-20-12E - OH - Design #2	400.0	397.0	41.7	35.8	7.106	SF
Laramie 29-01 0993-20-13E - OH - Design #2	200.0	200.0	22.4	19.6	7.910	CC, ES
Laramie 29-01 0993-20-13E - OH - Design #2	400.0	397.7	32.3	26.5	5.540	SF
Laramie 29-01 0993-20-14E - OH - Design #2	200.0	200.0	14.2	11.3	5.009	CC
Laramie 29-01 0993-20-14E - OH - Design #2	204.4	204.4	14.2	11.3	4.958	ES
Laramie 29-01 0993-20-14E - OH - Design #2	400.0	398.7	22.9	17.3	4.085	SF
Laramie 29-01 0993-20-15E - OH - Design #2	200.0	200.0	10.0	7.2	3.537	CC, ES
Laramie 29-01 0993-20-15E - OH - Design #2	300.0	300.0	11.2	7.5	2.995	SF
Laramie 29-01 0993-20-16E - OH - Design #2	200.0	200.0	22.4	19.5	7.903	CC
Laramie 29-01 0993-20-16E - OH - Design #2	300.0	300.1	22.8	19.4	6.735	ES
Laramie 29-01 0993-20-16E - OH - Design #2	500.0	498.3	35.5	28.3	4.958	SF
Laramie 29-01 0993-20-17E - OH - Design #2	200.0	200.0	31.6	28.8	11.174	CC
Laramie 29-01 0993-20-17E - OH - Design #2	300.0	300.0	32.0	28.4	8.942	ES
Laramie 29-01 0993-20-17E - OH - Design #2	500.0	499.2	39.5	33.3	6.327	SF
Laramie 29-01 0993-20-18E - OH - Design #2	200.0	200.0	51.0	48.1	18.018	CC
Laramie 29-01 0993-20-18E - OH - Design #2	300.0	300.0	51.2	47.6	14.376	ES
Laramie 29-01 0993-20-18E - OH - Design #2	600.0	598.2	63.2	55.9	8.656	SF
Laramie 29-01 Fed 0993-21-11W - OH - Design #2	200.0	200.0	20.0	17.2	7.076	CC
Laramie 29-01 Fed 0993-21-11W - OH - Design #2	300.0	299.8	20.5	16.9	5.815	ES
Laramie 29-01 Fed 0993-21-11W - OH - Design #2	500.0	499.2	25.0	19.8	4.851	SF
Laramie 29-01 Fed 0993-21-12W - OH - Design #2	200.0	200.0	10.0	7.2	3.542	CC
Laramie 29-01 Fed 0993-21-12W - OH - Design #2	300.0	299.9	10.5	6.8	2.897	ES
Laramie 29-01 Fed 0993-21-12W - OH - Design #2	500.0	499.5	14.1	8.6	2.554	SF
Laramie 29-01 Fed 0993-21-14W - OH - Design #2	200.0	200.0	10.0	7.2	3.534	CC
Laramie 29-01 Fed 0993-21-14W - OH - Design #2	400.0	399.9	10.7	6.4	2.476	Level 1, ES
Laramie 29-01 Fed 0993-21-14W - OH - Design #2	600.0	599.6	12.9	7.0	2.196	Level 1, SF
Laramie 29-01 Fed 0993-21-15W - OH - Design #2	253.4	253.4	20.0	16.9	6.406	CC
Laramie 29-01 Fed 0993-21-15W - OH - Design #2	300.0	299.9	20.1	16.8	6.067	ES
Laramie 29-01 Fed 0993-21-15W - OH - Design #2	600.0	599.5	25.1	19.6	4.559	SF
Laramie 29-01 Fed 0993-21-16W - OH - Design #2	300.0	300.0	30.0	26.4	8.439	CC, ES
Laramie 29-01 Fed 0993-21-16W - OH - Design #2	700.0	699.0	42.8	36.1	6.314	SF
Laramie 29-01 Fed 0993-21-17W - OH - Design #2	252.6	252.6	40.0	36.9	12.836	CC, ES
Laramie 29-01 Fed 0993-21-17W - OH - Design #2	600.0	597.1	51.3	45.5	8.775	SF

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



Anticollision Report



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Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Laramie 0993-29-01						
Laramie 29-01 Fed 0993-21-18W - OH - Design #2	277.2	277.1	49.9	46.6	15.085	CC, ES
Laramie 29-01 Fed 0993-21-18W - OH - Design #2	600.0	595.9	62.8	56.7	10.337	SF

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 0993-20-11E - OH - Design #2											Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	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	-46.76	20.6	-21.9	30.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.76	20.6	-21.9	30.0	28.4	18.944	
200.0	200.0	200.0	200.0	1.4	1.4	-46.76	20.6	-21.9	30.0	27.2	10.607	CC, ES
300.0	300.0	298.8	298.8	1.9	2.5	-92.76	22.6	-22.6	32.0	28.0	7.954	
400.0	399.8	397.3	397.0	3.4	4.0	-96.33	28.5	-24.8	38.1	32.4	6.736	SF
500.0	499.3	495.1	494.3	4.6	5.1	-101.01	38.4	-28.4	48.5	41.7	7.063	
600.0	598.3	592.0	590.1	5.6	6.0	-105.22	52.0	-33.3	63.6	55.7	8.026	
700.0	696.6	687.1	683.4	6.5	6.8	-108.77	68.7	-40.0	83.6	74.7	9.398	
800.0	794.0	780.1	774.0	7.3	7.4	-111.81	87.9	-49.0	109.0	99.1	11.068	
900.0	890.3	870.8	861.4	8.1	8.1	-114.18	109.3	-60.1	139.7	128.9	12.933	
1,000.0	985.3	958.8	945.3	8.8	8.7	-115.92	132.6	-73.0	175.5	163.8	14.935	
1,100.0	1,078.9	1,043.8	1,025.3	9.4	9.2	-117.15	157.3	-87.5	216.3	203.6	17.027	
1,200.0	1,170.9	1,125.7	1,101.3	10.1	9.7	-117.95	183.2	-103.3	261.9	248.2	19.172	
1,300.0	1,261.0	1,200.0	1,169.4	10.7	10.2	-118.31	208.5	-119.2	311.9	297.4	21.463	
1,400.0	1,349.2	1,279.3	1,240.9	11.3	10.7	-118.56	237.3	-137.8	366.0	350.5	23.502	
1,500.0	1,435.4	1,351.0	1,304.5	11.7	11.1	-118.93	264.9	-156.0	424.1	407.6	25.746	
1,600.0	1,521.0	1,420.2	1,365.0	12.0	11.5	-119.92	293.0	-174.8	484.5	467.2	27.918	
1,700.0	1,606.6	1,487.4	1,422.6	12.3	11.8	-120.50	321.5	-194.2	546.7	528.5	29.957	
1,800.0	1,692.2	1,552.4	1,477.4	12.6	12.2	-120.81	350.3	-214.1	610.6	591.5	31.882	
1,900.0	1,777.9	1,615.4	1,529.5	13.0	12.5	-120.92	379.2	-234.3	676.0	656.0	33.734	
2,000.0	1,863.5	1,676.2	1,578.9	13.4	12.8	-120.90	408.2	-254.8	742.9	722.0	35.541	
2,100.0	1,949.1	1,747.4	1,636.0	13.8	13.1	-120.79	442.9	-279.4	810.7	788.7	36.942	
2,200.0	2,034.8	1,820.9	1,695.0	14.2	13.3	-120.69	478.6	-304.9	878.5	855.4	38.110	
2,300.0	2,120.4	1,894.4	1,753.9	14.6	13.6	-120.61	514.4	-330.3	946.3	922.1	39.135	
2,400.0	2,206.0	1,967.9	1,812.9	15.5	13.9	-120.54	550.2	-355.8	1,014.1	988.7	40.028	
2,500.0	2,291.7	2,041.4	1,871.8	16.4	14.2	-120.48	586.0	-381.2	1,081.9	1,055.4	40.815	
2,600.0	2,377.3	2,114.9	1,930.8	17.3	14.7	-120.42	621.7	-406.6	1,149.7	1,122.0	41.518	
2,700.0	2,462.9	2,188.4	1,989.7	18.2	15.3	-120.37	657.5	-432.1	1,217.5	1,188.6	42.137	
2,800.0	2,548.6	2,261.9	2,048.7	19.2	16.0	-120.33	693.3	-457.5	1,285.3	1,255.2	42.688	
2,900.0	2,634.2	2,335.4	2,107.6	20.1	16.7	-120.29	729.1	-483.0	1,353.1	1,321.7	43.181	
3,000.0	2,719.8	2,408.9	2,166.6	21.0	17.5	-120.25	764.9	-508.4	1,420.9	1,388.3	43.624	
3,100.0	2,805.5	2,482.4	2,225.5	21.9	18.3	-120.22	800.6	-533.8	1,488.7	1,454.9	44.022	
3,200.0	2,891.1	2,555.9	2,284.5	22.9	19.1	-120.19	836.4	-559.3	1,556.5	1,521.4	44.381	
3,300.0	2,976.7	2,629.4	2,343.4	23.8	19.9	-120.16	872.2	-584.7	1,624.3	1,588.0	44.707	
3,400.0	3,062.4	2,702.9	2,402.4	24.7	20.7	-120.14	908.0	-610.2	1,692.1	1,654.5	45.004	
3,500.0	3,148.0	2,776.4	2,461.3	25.7	21.5	-120.11	943.7	-635.6	1,759.9	1,721.0	45.274	
3,600.0	3,233.6	2,849.9	2,520.3	26.6	22.4	-120.09	979.5	-661.0	1,827.7	1,787.6	45.521	
3,700.0	3,319.2	2,923.4	2,579.2	27.5	23.2	-120.07	1,015.3	-686.5	1,895.5	1,854.1	45.748	
3,800.0	3,404.9	2,996.9	2,638.2	28.5	24.0	-120.05	1,051.1	-711.9	1,963.3	1,920.6	45.956	
3,900.0	3,490.5	3,070.4	2,697.1	29.4	24.8	-120.04	1,086.9	-737.4	2,031.1	1,987.1	46.147	

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



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Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 0993-20-11E - OH - Design #2													
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
4,000.0	3,576.1	3,143.9	2,756.1	30.3	25.7	-120.02	1,122.6	-762.8	2,098.9	2,053.6	46.324		
4,100.0	3,661.8	3,217.4	2,815.0	31.3	26.5	-120.01	1,158.4	-788.2	2,166.7	2,120.1	46.488		
4,200.0	3,747.4	3,290.9	2,874.0	32.2	27.3	-119.99	1,194.2	-813.7	2,234.5	2,186.6	46.639		
4,300.0	3,833.0	3,364.4	2,932.9	33.1	28.2	-119.98	1,230.0	-839.1	2,302.3	2,253.1	46.780		
4,400.0	3,918.7	3,437.9	2,991.9	34.1	29.0	-119.97	1,265.7	-864.6	2,370.2	2,319.6	46.911		
4,500.0	4,004.3	3,511.4	3,050.8	35.0	29.8	-119.95	1,301.5	-890.0	2,438.0	2,386.1	47.033		
4,600.0	4,089.9	3,584.9	3,109.8	35.9	30.7	-119.94	1,337.3	-915.4	2,505.8	2,452.6	47.147		
4,700.0	4,175.6	3,658.4	3,168.7	36.9	31.5	-119.93	1,373.1	-940.9	2,573.6	2,519.1	47.253		
4,800.0	4,261.2	3,731.9	3,227.6	37.8	32.3	-119.92	1,408.9	-966.3	2,641.4	2,585.6	47.353		
4,900.0	4,346.8	3,805.4	3,286.6	38.7	33.2	-119.91	1,444.6	-991.8	2,709.2	2,652.1	47.447		
5,000.0	4,432.5	3,878.9	3,345.5	39.7	34.0	-119.90	1,480.4	-1,017.2	2,777.0	2,718.6	47.534		
5,100.0	4,518.1	3,952.4	3,404.5	40.6	34.8	-119.89	1,516.2	-1,042.6	2,844.8	2,785.1	47.617		
5,200.0	4,603.7	4,025.9	3,463.4	41.5	35.7	-119.89	1,552.0	-1,068.1	2,912.6	2,851.5	47.695		
5,300.0	4,689.3	4,099.4	3,522.4	42.5	36.5	-119.88	1,587.7	-1,093.5	2,980.4	2,918.0	47.768		
5,400.0	4,775.0	4,172.9	3,581.3	43.4	37.4	-119.87	1,623.5	-1,119.0	3,048.2	2,984.5	47.837		
5,500.0	4,860.6	4,246.4	3,640.3	44.3	38.2	-119.86	1,659.3	-1,144.4	3,116.0	3,051.0	47.902		
5,600.0	4,946.3	4,319.9	3,699.3	45.3	39.0	-120.20	1,695.1	-1,169.8	3,183.8	3,117.4	47.966		
5,700.0	5,033.4	4,394.4	3,759.0	46.2	39.9	-122.05	1,731.3	-1,195.6	3,250.5	3,182.8	48.018		
5,800.0	5,122.5	4,470.1	3,819.7	47.0	40.7	-123.69	1,768.2	-1,221.8	3,315.5	3,246.5	48.055		
5,900.0	5,213.6	4,547.0	3,881.4	47.7	41.6	-125.15	1,805.6	-1,248.4	3,378.6	3,308.3	48.087		
6,000.0	5,306.4	4,624.9	3,943.8	48.4	42.5	-126.44	1,843.5	-1,275.4	3,439.8	3,368.3	48.115		
6,100.0	5,400.7	4,703.6	4,007.0	48.9	43.4	-127.56	1,881.9	-1,302.7	3,499.0	3,426.3	48.140		
6,200.0	5,496.3	4,783.0	4,070.7	49.4	44.3	-128.54	1,920.5	-1,330.1	3,556.1	3,482.3	48.165		
6,300.0	5,593.2	4,863.0	4,134.9	49.9	45.2	-129.38	1,959.5	-1,357.8	3,611.2	3,536.2	48.191		
6,400.0	5,691.0	4,943.4	4,199.3	50.2	46.1	-130.10	1,998.6	-1,385.7	3,664.1	3,588.1	48.220		
6,500.0	5,789.7	5,024.1	4,264.0	50.5	47.1	-130.71	2,037.9	-1,413.6	3,714.8	3,637.8	48.255		
6,600.0	5,888.9	5,104.8	4,328.8	50.7	48.0	-131.21	2,077.2	-1,441.5	3,763.3	3,685.4	48.298		
6,700.0	5,988.6	5,185.5	4,393.5	50.8	48.9	-131.62	2,116.4	-1,469.4	3,809.6	3,730.8	48.352		
6,800.0	6,088.6	5,266.0	4,458.0	50.9	49.8	-131.94	2,155.6	-1,497.3	3,853.7	3,774.1	48.424		
6,900.0	6,188.6	5,346.2	4,522.4	50.9	50.7	-85.98	2,194.6	-1,525.1	3,896.3	3,816.1	48.560		
7,000.0	6,288.6	5,426.1	4,586.6	50.9	61.7	-79.23	2,681.4	-1,871.2	3,928.7	3,831.5	40.442		
7,100.0	6,388.6	5,506.1	4,651.0	51.0	61.7	-79.23	2,681.4	-1,871.2	3,928.7	3,831.5	40.428		
7,200.0	6,488.6	5,586.1	4,715.4	51.0	61.7	-79.23	2,681.4	-1,871.2	3,928.7	3,831.5	40.414		
7,300.0	6,588.6	5,666.1	4,779.8	51.0	61.7	-79.23	2,681.4	-1,871.2	3,928.7	3,831.4	40.400		
7,400.0	6,688.6	5,746.1	4,844.2	51.0	61.7	-79.23	2,681.4	-1,871.2	3,928.7	3,831.4	40.386		
7,500.0	6,788.6	5,826.1	4,908.6	51.0	61.8	-79.23	2,681.4	-1,871.2	3,928.7	3,831.4	40.372		
7,600.0	6,888.6	5,906.1	4,973.0	51.1	61.8	-79.23	2,681.4	-1,871.2	3,928.7	3,831.3	40.357		
7,700.0	6,988.6	5,986.1	5,037.4	51.1	61.8	-79.23	2,681.4	-1,871.2	3,928.7	3,831.3	40.343		
7,800.0	7,088.6	6,066.1	5,101.8	51.1	61.8	-79.23	2,681.4	-1,871.2	3,928.7	3,831.3	40.328		
7,900.0	7,188.6	6,146.1	5,166.2	51.1	61.8	-79.23	2,681.4	-1,871.2	3,928.7	3,831.2	40.314		
8,000.0	7,288.6	6,226.1	5,230.6	51.1	61.8	-79.23	2,681.4	-1,871.2	3,928.7	3,831.2	40.299		
8,100.0	7,388.6	6,306.1	5,295.0	51.2	61.9	-79.23	2,681.4	-1,871.2	3,928.7	3,831.1	40.284		
8,200.0	7,488.6	6,386.1	5,359.4	51.2	61.9	-79.23	2,681.4	-1,871.2	3,928.7	3,831.1	40.269		
8,300.0	7,588.6	6,466.1	5,423.8	51.2	61.9	-79.23	2,681.4	-1,871.2	3,928.7	3,831.1	40.254		
8,400.0	7,688.6	6,546.1	5,488.2	51.2	61.9	-79.23	2,681.4	-1,871.2	3,928.7	3,831.0	40.239		
8,500.0	7,788.6	6,626.1	5,552.6	51.2	61.9	-79.23	2,681.4	-1,871.2	3,928.7	3,831.0	40.223		
8,502.7	7,791.2	6,629.7	5,555.7	51.2	61.9	-79.23	2,681.4	-1,871.2	3,928.7	3,831.0	40.223		
8,600.0	7,888.6	6,706.1	5,617.0	51.3	61.9	-79.23	2,681.4	-1,871.2	3,928.8	3,831.1	40.204		
8,700.0	7,988.6	6,786.1	5,679.4	51.3	61.9	-79.23	2,681.4	-1,871.2	3,930.8	3,833.0	40.202		
8,800.0	8,088.6	6,866.1	5,741.8	51.3	61.9	-79.23	2,681.4	-1,871.2	3,935.4	3,837.6	40.245		
8,900.0	8,188.6	6,946.1	5,804.2	51.3	61.9	-79.23	2,681.4	-1,871.2	3,942.5	3,844.7	40.334		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 0993-20-11E - OH - Design #2												Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard													
Reference	Offset		Semi Major Axis		Highside	Offset Wellbore	Centre	Distance		Separation	Warning		
Measured	Vertical	Measured	Vertical	Reference				Offset	Between			Between	Factor
Depth	Depth	Depth	Depth	(usft)	(usft)	Toolface	+N/-S	+E/-W	Centres	Ellipses			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)			
9,000.0	8,288.6	8,828.6	7,859.0	51.3	61.9	-79.23	2,681.4	-1,871.2	3,952.1	3,854.4	40.469		
9,100.0	8,388.6	8,828.6	7,859.0	51.4	61.9	-79.23	2,681.4	-1,871.2	3,964.2	3,866.7	40.649		
9,200.0	8,488.6	8,828.6	7,859.0	51.4	61.9	-79.23	2,681.4	-1,871.2	3,978.8	3,881.5	40.873		
9,300.0	8,588.6	8,828.6	7,859.0	51.4	61.9	-79.23	2,681.4	-1,871.2	3,995.8	3,898.7	41.141		
9,400.0	8,688.6	8,828.6	7,859.0	51.4	61.9	-79.23	2,681.4	-1,871.2	4,015.3	3,918.4	41.453		
9,418.4	8,707.0	8,828.6	7,859.0	51.4	61.9	-79.23	2,681.4	-1,871.2	4,019.1	3,922.3	41.516		



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	-65.18	13.3	-28.7	31.6				
100.0	100.0	100.0	100.0	0.8	0.8	-65.18	13.3	-28.7	31.6	30.1	19.970		
200.0	200.0	200.0	200.0	1.4	1.4	-65.18	13.3	-28.7	31.6	28.8	11.182	CC, ES	
300.0	300.0	298.7	298.7	1.9	2.4	-110.97	15.0	-30.0	34.0	30.0	8.499		
400.0	399.8	397.0	396.8	3.4	3.9	-113.61	20.0	-33.9	41.7	35.8	7.106	SF	
500.0	499.3	494.3	493.5	4.6	5.0	-116.95	28.2	-40.2	54.9	47.5	7.443		
600.0	598.3	590.3	588.4	5.6	5.9	-119.77	39.6	-48.9	73.7	65.1	8.502		
700.0	696.6	684.5	680.9	6.5	6.7	-121.82	53.7	-59.8	98.1	88.2	9.973		
800.0	794.0	776.5	770.4	7.3	7.5	-123.19	70.5	-72.7	127.8	116.9	11.717		
900.0	890.3	866.0	856.7	8.1	8.1	-124.05	89.5	-87.3	162.6	150.7	13.652		
1,000.0	985.3	952.7	939.3	8.8	8.7	-124.51	110.4	-103.4	202.4	189.5	15.720		
1,100.0	1,078.9	1,036.5	1,018.0	9.4	9.3	-124.68	133.0	-120.7	246.9	233.1	17.877		
1,200.0	1,170.9	1,117.0	1,092.7	10.1	9.8	-124.60	156.8	-139.1	295.8	281.1	20.088		
1,300.0	1,261.0	1,194.2	1,163.4	10.7	10.3	-124.32	181.6	-158.1	349.0	333.4	22.323		
1,400.0	1,349.2	1,268.1	1,229.8	11.3	10.7	-123.85	207.0	-177.7	406.1	389.6	24.552		
1,500.0	1,435.4	1,338.6	1,292.3	11.7	11.1	-123.71	232.9	-197.6	466.9	449.5	26.878		
1,600.0	1,521.0	1,406.8	1,351.8	12.0	11.5	-124.31	259.4	-217.9	529.7	511.5	29.132		
1,700.0	1,606.6	1,473.0	1,408.6	12.3	11.9	-124.60	286.4	-238.7	594.0	574.9	31.227		
1,800.0	1,692.2	1,537.4	1,462.7	12.6	12.2	-124.66	313.9	-259.9	659.6	639.8	33.278		
1,900.0	1,777.9	1,606.8	1,520.3	13.0	12.4	-124.59	344.7	-283.5	726.4	705.7	35.093		
2,000.0	1,863.5	1,681.1	1,581.9	13.4	12.7	-124.50	377.8	-308.9	793.2	771.5	36.557		
2,100.0	1,949.1	1,755.5	1,643.4	13.8	12.9	-124.44	410.8	-334.4	860.1	837.4	37.830		
2,200.0	2,034.8	1,829.8	1,705.0	14.2	13.2	-124.38	443.9	-359.8	927.0	903.2	38.946		
2,300.0	2,120.4	1,904.2	1,766.5	14.6	13.4	-124.33	476.9	-385.2	993.8	968.9	39.931		
2,400.0	2,206.0	1,978.5	1,828.1	15.5	13.7	-124.28	510.0	-410.6	1,060.7	1,034.7	40.793		
2,500.0	2,291.7	2,052.9	1,889.7	16.4	14.0	-124.24	543.0	-436.0	1,127.6	1,100.4	41.555		
2,600.0	2,377.3	2,127.2	1,951.2	17.3	14.3	-124.21	576.1	-461.4	1,194.4	1,166.2	42.233		
2,700.0	2,462.9	2,201.6	2,012.8	18.2	14.8	-124.18	609.2	-486.9	1,261.3	1,231.9	42.846		
2,800.0	2,548.6	2,275.9	2,074.3	19.2	15.6	-124.15	642.2	-512.3	1,328.2	1,297.6	43.387		
2,900.0	2,634.2	2,350.3	2,135.9	20.1	16.4	-124.12	675.3	-537.7	1,395.0	1,363.2	43.871		
3,000.0	2,719.8	2,424.6	2,197.4	21.0	17.2	-124.10	708.3	-563.1	1,461.9	1,428.9	44.308		
3,100.0	2,805.5	2,499.0	2,259.0	21.9	17.9	-124.08	741.4	-588.5	1,528.8	1,494.6	44.702		
3,200.0	2,891.1	2,573.3	2,320.6	22.9	18.7	-124.06	774.4	-613.9	1,595.7	1,560.2	45.058		
3,300.0	2,976.7	2,647.7	2,382.1	23.8	19.5	-124.04	807.5	-639.4	1,662.5	1,625.9	45.381		
3,400.0	3,062.4	2,722.0	2,443.7	24.7	20.3	-124.03	840.6	-664.8	1,729.4	1,691.5	45.676		
3,500.0	3,148.0	2,796.4	2,505.2	25.7	21.1	-124.01	873.6	-690.2	1,796.3	1,757.2	45.945		
3,600.0	3,233.6	2,870.8	2,566.8	26.6	21.9	-124.00	906.7	-715.6	1,863.1	1,822.8	46.190		
3,700.0	3,319.2	2,945.1	2,628.3	27.5	22.6	-123.99	939.7	-741.0	1,930.0	1,888.4	46.416		
3,800.0	3,404.9	3,019.5	2,689.9	28.5	23.4	-123.97	972.8	-766.4	1,996.9	1,954.1	46.623		
3,900.0	3,490.5	3,093.8	2,751.5	29.4	24.2	-123.96	1,005.8	-791.9	2,063.8	2,019.7	46.814		
4,000.0	3,576.1	3,168.2	2,813.0	30.3	25.0	-123.95	1,038.9	-817.3	2,130.6	2,085.3	46.990		
4,100.0	3,661.8	3,242.5	2,874.6	31.3	25.8	-123.94	1,072.0	-842.7	2,197.5	2,150.9	47.153		
4,200.0	3,747.4	3,316.9	2,936.1	32.2	26.6	-123.93	1,105.0	-868.1	2,264.4	2,216.5	47.305		
4,300.0	3,833.0	3,391.2	2,997.7	33.1	27.4	-123.92	1,138.1	-893.5	2,331.2	2,282.1	47.445		
4,400.0	3,918.7	3,465.6	3,059.2	34.1	28.2	-123.92	1,171.1	-918.9	2,398.1	2,347.7	47.575		
4,500.0	4,004.3	3,539.9	3,120.8	35.0	29.0	-123.91	1,204.2	-944.4	2,465.0	2,413.3	47.697		
4,600.0	4,089.9	3,614.3	3,182.4	35.9	29.7	-123.90	1,237.2	-969.8	2,531.9	2,478.9	47.810		
4,700.0	4,175.6	3,688.6	3,243.9	36.9	30.5	-123.89	1,270.3	-995.2	2,598.7	2,544.5	47.916		
4,800.0	4,261.2	3,763.0	3,305.5	37.8	31.3	-123.89	1,303.4	-1,020.6	2,665.6	2,610.1	48.015		
4,900.0	4,346.8	3,837.3	3,367.0	38.7	32.1	-123.88	1,336.4	-1,046.0	2,732.5	2,675.7	48.108		
5,000.0	4,432.5	3,911.7	3,428.6	39.7	32.9	-123.87	1,369.5	-1,071.4	2,799.3	2,741.3	48.196		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,518.1	3,986.0	3,490.2	40.6	33.7	-123.87	1,402.5	-1,096.9	2,866.2	2,806.8	48.278		
5,200.0	4,603.7	4,060.4	3,551.7	41.5	34.5	-123.86	1,435.6	-1,122.3	2,933.1	2,872.4	48.354		
5,300.0	4,689.3	4,134.7	3,613.3	42.5	35.3	-123.86	1,468.6	-1,147.7	3,000.0	2,938.0	48.427		
5,400.0	4,775.0	4,209.1	3,674.8	43.4	36.1	-123.85	1,501.7	-1,173.1	3,066.8	3,003.6	48.495		
5,500.0	4,860.6	4,283.4	3,736.4	44.3	36.9	-123.85	1,534.8	-1,198.5	3,133.7	3,069.2	48.560		
5,600.0	4,946.3	4,357.8	3,798.0	45.3	37.7	-124.16	1,567.8	-1,224.0	3,200.5	3,134.7	48.623		
5,700.0	5,033.4	4,433.2	3,860.4	46.2	38.5	-125.88	1,601.3	-1,249.7	3,266.2	3,199.1	48.668		
5,800.0	5,122.5	4,510.1	3,924.0	47.0	39.3	-127.40	1,635.5	-1,276.0	3,329.8	3,261.5	48.689		
5,900.0	5,213.6	4,588.2	3,988.7	47.7	40.1	-128.74	1,670.3	-1,302.7	3,391.5	3,321.8	48.697		
6,000.0	5,306.4	4,667.5	4,054.4	48.4	41.0	-129.90	1,705.5	-1,329.8	3,451.0	3,380.1	48.695		
6,100.0	5,400.7	4,747.8	4,120.9	48.9	41.8	-130.91	1,741.2	-1,357.3	3,508.3	3,436.2	48.684		
6,200.0	5,496.3	4,829.0	4,188.0	49.4	42.7	-131.78	1,777.3	-1,385.0	3,563.3	3,490.1	48.668		
6,300.0	5,593.2	4,910.8	4,255.8	49.9	43.6	-132.51	1,813.7	-1,413.0	3,616.0	3,541.7	48.647		
6,400.0	5,691.0	4,993.2	4,324.0	50.2	44.4	-133.13	1,850.3	-1,441.2	3,666.3	3,590.9	48.625		
6,500.0	5,789.7	5,076.0	4,392.5	50.5	45.3	-133.63	1,887.1	-1,469.5	3,714.3	3,637.9	48.604		
6,600.0	5,888.9	5,158.9	4,461.2	50.7	46.2	-134.04	1,924.0	-1,497.8	3,759.8	3,682.4	48.587		
6,700.0	5,988.6	5,242.0	4,530.0	50.8	47.1	-134.35	1,960.9	-1,526.2	3,802.9	3,724.7	48.577		
6,800.0	6,088.6	5,325.0	4,598.7	50.9	48.0	-134.58	1,997.8	-1,554.6	3,843.7	3,764.5	48.582		
6,900.0	6,188.6	5,407.8	4,667.3	50.9	48.9	-88.60	2,034.6	-1,582.9	3,882.7	3,802.9	48.660		
7,000.0	6,288.6	7,134.6	6,288.6	50.9	57.6	-83.10	2,415.2	-1,875.4	3,892.0	3,797.6	41.222		
7,100.0	6,388.6	7,234.6	6,388.6	51.0	57.6	-83.10	2,415.2	-1,875.4	3,892.0	3,797.5	41.207		
7,200.0	6,488.6	7,334.6	6,488.6	51.0	57.7	-83.10	2,415.2	-1,875.4	3,892.0	3,797.5	41.191		
7,300.0	6,588.6	7,434.6	6,588.6	51.0	57.7	-83.10	2,415.2	-1,875.4	3,892.0	3,797.5	41.176		
7,400.0	6,688.6	7,534.6	6,688.6	51.0	57.7	-83.10	2,415.2	-1,875.4	3,892.0	3,797.4	41.161		
7,500.0	6,788.6	7,634.6	6,788.6	51.0	57.7	-83.10	2,415.2	-1,875.4	3,892.0	3,797.4	41.145		
7,600.0	6,888.6	7,734.6	6,888.6	51.1	57.7	-83.10	2,415.2	-1,875.4	3,892.0	3,797.4	41.129		
7,700.0	6,988.6	7,834.6	6,988.6	51.1	57.7	-83.10	2,415.2	-1,875.4	3,892.0	3,797.3	41.114		
7,800.0	7,088.6	7,934.6	7,088.6	51.1	57.8	-83.10	2,415.2	-1,875.4	3,892.0	3,797.3	41.098		
7,900.0	7,188.6	8,034.6	7,188.6	51.1	57.8	-83.10	2,415.2	-1,875.4	3,892.0	3,797.2	41.082		
8,000.0	7,288.6	8,134.6	7,288.6	51.1	57.8	-83.10	2,415.2	-1,875.4	3,892.0	3,797.2	41.066		
8,100.0	7,388.6	8,234.6	7,388.6	51.2	57.8	-83.10	2,415.2	-1,875.4	3,892.0	3,797.2	41.049		
8,200.0	7,488.6	8,334.6	7,488.6	51.2	57.8	-83.10	2,415.2	-1,875.4	3,892.0	3,797.1	41.033		
8,300.0	7,588.6	8,434.6	7,588.6	51.2	57.9	-83.10	2,415.2	-1,875.4	3,892.0	3,797.1	41.017		
8,400.0	7,688.6	8,534.6	7,688.6	51.2	57.9	-83.10	2,415.2	-1,875.4	3,892.0	3,797.1	41.000		
8,500.0	7,788.6	8,634.6	7,788.6	51.2	57.9	-83.10	2,415.2	-1,875.4	3,892.0	3,797.0	40.984		
8,600.0	7,888.6	8,734.6	7,888.6	51.3	57.9	-83.10	2,415.2	-1,875.4	3,892.0	3,797.0	40.967		
8,700.0	7,988.6	8,834.6	7,988.6	51.3	57.9	-83.10	2,415.2	-1,875.4	3,892.0	3,796.9	40.950		
8,800.0	8,088.6	8,934.6	8,088.6	51.3	57.9	-83.10	2,415.2	-1,875.4	3,892.0	3,796.9	40.933		
8,900.0	8,188.6	9,034.6	8,188.6	51.3	58.0	-83.10	2,415.2	-1,875.4	3,892.0	3,796.8	40.916		
9,000.0	8,288.6	9,134.6	8,288.6	51.3	58.0	-83.10	2,415.2	-1,875.4	3,892.0	3,796.8	40.899		
9,100.0	8,388.6	9,234.6	8,388.6	51.4	58.0	-83.10	2,415.2	-1,875.4	3,892.0	3,796.8	40.882		
9,200.0	8,488.6	9,334.6	8,488.6	51.4	58.0	-83.10	2,415.2	-1,875.4	3,892.0	3,796.7	40.865		
9,300.0	8,588.6	9,434.6	8,588.6	51.4	58.0	-83.10	2,415.2	-1,875.4	3,892.0	3,796.7	40.847		
9,309.6	8,598.1	9,444.1	8,598.1	51.4	58.0	-83.10	2,415.2	-1,875.4	3,892.0	3,796.7	40.846		
9,400.0	8,688.6	9,517.0	8,671.0	51.4	58.1	-83.10	2,415.2	-1,875.4	3,892.0	3,796.7	40.830		
9,418.4	8,707.0	9,517.0	8,671.0	51.4	58.1	-83.10	2,415.2	-1,875.4	3,892.1	3,796.8	40.829		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	-73.32	6.4	-21.4	22.4				
100.0	100.0	100.0	100.0	0.8	0.8	-73.32	6.4	-21.4	22.4	20.8	14.127		
200.0	200.0	200.0	200.0	1.4	1.4	-73.32	6.4	-21.4	22.4	19.6	7.910	CC, ES	
300.0	300.0	299.3	299.3	1.9	1.8	-121.36	6.7	-22.4	24.1	20.5	6.826		
400.0	399.8	397.7	397.5	3.4	3.2	-128.78	8.3	-27.3	32.3	26.5	5.540	SF	
500.0	499.3	495.2	494.6	4.6	3.6	-134.78	11.6	-35.7	47.7	40.5	6.680		
600.0	598.3	591.5	590.1	5.6	4.4	-137.23	18.1	-46.4	68.8	60.2	7.971		
700.0	696.6	686.1	683.3	6.5	5.2	-137.92	27.6	-59.2	95.4	85.3	9.514		
800.0	794.0	778.6	773.8	7.3	6.1	-137.80	40.0	-73.8	127.1	115.8	11.318		
900.0	890.3	868.7	861.1	8.1	6.8	-137.29	54.9	-90.0	163.7	151.4	13.299		
1,000.0	985.3	956.0	945.0	8.8	7.5	-136.58	72.1	-107.6	205.2	191.9	15.401		
1,100.0	1,078.9	1,040.4	1,025.0	9.4	8.1	-135.76	91.1	-126.3	251.3	237.0	17.587		
1,200.0	1,170.9	1,121.7	1,101.2	10.1	8.7	-134.85	111.8	-146.0	301.7	286.5	19.827		
1,300.0	1,261.0	1,200.0	1,173.5	10.7	9.2	-133.87	133.8	-166.3	356.3	340.2	22.092		
1,400.0	1,349.2	1,274.5	1,241.4	11.3	9.7	-132.81	156.6	-186.9	414.7	397.7	24.366		
1,500.0	1,435.4	1,345.9	1,305.4	11.7	10.1	-132.13	180.1	-207.8	476.8	459.0	26.760		
1,600.0	1,521.0	1,415.2	1,366.7	12.0	10.6	-132.20	204.6	-229.2	540.5	522.0	29.086		
1,700.0	1,606.6	1,482.8	1,425.4	12.3	11.0	-132.04	229.8	-251.0	605.5	586.1	31.242		
1,800.0	1,692.2	1,549.0	1,482.0	12.6	11.3	-131.72	256.1	-273.3	671.5	651.4	33.368		
1,900.0	1,777.9	1,623.6	1,545.2	13.0	11.5	-131.34	286.2	-298.9	738.0	717.0	35.113		
2,000.0	1,863.5	1,698.2	1,608.5	13.4	11.8	-131.02	316.4	-324.4	804.6	782.6	36.647		
2,100.0	1,949.1	1,772.7	1,671.7	13.8	12.0	-130.75	346.5	-350.0	871.2	848.2	37.980		
2,200.0	2,034.8	1,847.3	1,734.9	14.2	12.3	-130.52	376.6	-375.6	937.7	913.8	39.162		
2,300.0	2,120.4	1,921.9	1,798.2	14.6	12.6	-130.32	406.8	-401.2	1,004.3	979.3	40.211		
2,400.0	2,206.0	1,996.5	1,861.4	15.5	12.9	-130.14	436.9	-426.7	1,070.9	1,044.9	41.145		
2,500.0	2,291.7	2,071.0	1,924.6	16.4	13.3	-129.99	467.1	-452.3	1,137.5	1,110.4	41.963		
2,600.0	2,377.3	2,145.6	1,987.8	17.3	13.8	-129.85	497.2	-477.9	1,204.1	1,175.9	42.723		
2,700.0	2,462.9	2,220.2	2,051.1	18.2	14.4	-129.72	527.4	-503.4	1,270.7	1,241.4	43.372		
2,800.0	2,548.6	2,294.7	2,114.3	19.2	15.1	-129.61	557.5	-529.0	1,337.3	1,306.9	43.964		
2,900.0	2,634.2	2,369.3	2,177.5	20.1	15.8	-129.51	587.7	-554.6	1,403.9	1,372.3	44.496		
3,000.0	2,719.8	2,443.9	2,240.7	21.0	16.5	-129.42	617.8	-580.1	1,470.5	1,437.8	44.977		
3,100.0	2,805.5	2,518.4	2,304.0	21.9	17.2	-129.33	648.0	-605.7	1,537.1	1,503.3	45.413		
3,200.0	2,891.1	2,593.0	2,367.2	22.9	17.9	-129.26	678.1	-631.3	1,603.7	1,568.7	45.808		
3,300.0	2,976.7	2,667.6	2,430.4	23.8	18.7	-129.19	708.3	-656.8	1,670.3	1,634.2	46.167		
3,400.0	3,062.4	2,742.1	2,493.6	24.7	19.4	-129.12	738.4	-682.4	1,737.0	1,699.6	46.495		
3,500.0	3,148.0	2,816.7	2,556.9	25.7	20.1	-129.06	768.6	-708.0	1,803.6	1,765.0	46.796		
3,600.0	3,233.6	2,891.3	2,620.1	26.6	20.9	-129.00	798.7	-733.5	1,870.2	1,830.5	47.071		
3,700.0	3,319.2	2,965.8	2,683.3	27.5	21.6	-128.95	828.9	-759.1	1,936.8	1,895.9	47.323		
3,800.0	3,404.9	3,040.4	2,746.5	28.5	22.4	-128.90	859.0	-784.7	2,003.4	1,961.3	47.555		
3,900.0	3,490.5	3,115.0	2,809.8	29.4	23.1	-128.86	889.2	-810.3	2,070.1	2,026.7	47.770		
4,000.0	3,576.1	3,189.5	2,873.0	30.3	23.8	-128.81	919.3	-835.8	2,136.7	2,092.1	47.968		
4,100.0	3,661.8	3,264.1	2,936.2	31.3	24.6	-128.77	949.5	-861.4	2,203.3	2,157.5	48.151		
4,200.0	3,747.4	3,338.7	2,999.5	32.2	25.3	-128.73	979.6	-887.0	2,269.9	2,222.9	48.322		
4,300.0	3,833.0	3,413.2	3,062.7	33.1	26.1	-128.70	1,009.8	-912.5	2,336.5	2,288.3	48.480		
4,400.0	3,918.7	3,487.8	3,125.9	34.1	26.8	-128.66	1,039.9	-938.1	2,403.2	2,353.7	48.627		
4,500.0	4,004.3	3,562.4	3,189.1	35.0	27.6	-128.63	1,070.1	-963.7	2,469.8	2,419.1	48.764		
4,600.0	4,089.9	3,636.9	3,252.4	35.9	28.3	-128.60	1,100.2	-989.2	2,536.4	2,484.5	48.892		
4,700.0	4,175.6	3,711.5	3,315.6	36.9	29.0	-128.57	1,130.4	-1,014.8	2,603.0	2,549.9	49.012		
4,800.0	4,261.2	3,786.1	3,378.8	37.8	29.8	-128.55	1,160.5	-1,040.4	2,669.7	2,615.3	49.125		
4,900.0	4,346.8	3,860.6	3,442.0	38.7	30.5	-128.52	1,190.7	-1,065.9	2,736.3	2,680.7	49.230		
5,000.0	4,432.5	3,935.2	3,505.3	39.7	31.3	-128.49	1,220.8	-1,091.5	2,802.9	2,746.1	49.328		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,518.1	4,009.8	3,568.5	40.6	32.0	-128.47	1,251.0	-1,117.1	2,869.5	2,811.5	49.421		
5,200.0	4,603.7	4,084.3	3,631.7	41.5	32.8	-128.45	1,281.1	-1,142.7	2,936.2	2,876.8	49.509		
5,300.0	4,689.3	4,158.9	3,694.9	42.5	33.5	-128.43	1,311.3	-1,168.2	3,002.8	2,942.2	49.591		
5,400.0	4,775.0	4,233.5	3,758.2	43.4	34.3	-128.41	1,341.4	-1,193.8	3,069.4	3,007.6	49.668		
5,500.0	4,860.6	4,308.0	3,821.4	44.3	35.0	-128.39	1,371.6	-1,219.4	3,136.0	3,073.0	49.742		
5,600.0	4,946.3	4,382.6	3,884.6	45.3	35.8	-128.67	1,401.7	-1,244.9	3,202.6	3,138.3	49.813		
5,700.0	5,033.4	4,458.4	3,948.9	46.2	36.5	-130.26	1,432.3	-1,270.9	3,267.9	3,202.3	49.858		
5,800.0	5,122.5	4,535.7	4,014.4	47.0	37.3	-131.65	1,463.6	-1,297.4	3,330.9	3,264.1	49.868		
5,900.0	5,213.6	4,614.5	4,081.2	47.7	38.1	-132.86	1,495.4	-1,324.4	3,391.8	3,323.7	49.858		
6,000.0	5,306.4	4,694.5	4,149.1	48.4	38.9	-133.91	1,527.8	-1,351.9	3,450.2	3,381.0	49.830		
6,100.0	5,400.7	4,775.8	4,218.0	48.9	39.7	-134.81	1,560.7	-1,379.7	3,506.3	3,435.9	49.787		
6,200.0	5,496.3	4,858.0	4,287.7	49.4	40.5	-135.57	1,593.9	-1,407.9	3,559.9	3,488.3	49.733		
6,300.0	5,593.2	4,941.0	4,358.1	49.9	41.4	-136.20	1,627.5	-1,436.4	3,610.9	3,538.2	49.669		
6,400.0	5,691.0	5,024.8	4,429.1	50.2	42.2	-136.72	1,661.3	-1,465.1	3,659.4	3,585.6	49.598		
6,500.0	5,789.7	5,109.0	4,500.6	50.5	43.1	-137.13	1,695.4	-1,494.0	3,705.3	3,630.5	49.523		
6,600.0	5,888.9	5,193.7	4,572.3	50.7	43.9	-137.45	1,729.6	-1,523.0	3,748.5	3,672.7	49.449		
6,700.0	5,988.6	5,278.5	4,644.3	50.8	44.8	-137.67	1,763.9	-1,552.1	3,789.1	3,712.4	49.378		
6,800.0	6,088.6	5,363.4	4,716.2	50.9	45.6	-137.81	1,798.2	-1,581.2	3,827.1	3,749.5	49.319		
6,900.0	6,188.6	5,448.3	4,788.1	50.9	46.4	-137.86	1,832.5	-1,610.3	3,864.2	3,786.6	49.260		
7,000.0	6,288.6	5,533.2	4,860.0	50.9	47.2	-137.91	1,866.8	-1,639.4	3,899.3	3,823.7	49.201		
7,100.0	6,388.6	5,617.9	4,931.9	51.0	48.0	-137.96	1,901.1	-1,668.5	3,934.4	3,860.8	49.142		
7,200.0	6,488.6	5,702.6	5,003.8	51.0	48.8	-138.01	1,935.4	-1,697.6	3,969.5	3,897.9	49.083		
7,300.0	6,588.6	5,787.3	5,075.7	51.0	49.6	-138.06	1,969.7	-1,726.7	4,004.6	3,935.0	49.024		
7,400.0	6,688.6	5,872.0	5,147.6	51.0	50.4	-138.11	2,004.0	-1,755.8	4,039.7	3,972.1	48.965		
7,500.0	6,788.6	5,956.7	5,219.5	51.0	51.2	-138.16	2,038.3	-1,784.9	4,074.8	4,009.2	48.906		
7,600.0	6,888.6	6,041.4	5,291.4	51.1	52.0	-138.21	2,072.6	-1,814.0	4,109.9	4,044.3	48.847		
7,700.0	6,988.6	6,126.1	5,363.3	51.1	52.8	-138.26	2,106.9	-1,843.1	4,145.0	4,079.4	48.788		
7,800.0	7,088.6	6,210.8	5,435.2	51.1	53.6	-138.31	2,141.2	-1,872.2	4,180.1	4,114.5	48.729		
7,900.0	7,188.6	6,295.5	5,507.1	51.1	54.4	-138.36	2,175.5	-1,901.3	4,215.2	4,149.6	48.670		
8,000.0	7,288.6	6,380.2	5,579.0	51.1	55.2	-138.41	2,209.8	-1,930.4	4,250.3	4,184.7	48.611		
8,100.0	7,388.6	6,464.9	5,650.9	51.2	56.0	-138.46	2,244.1	-1,959.5	4,285.4	4,219.8	48.552		
8,200.0	7,488.6	6,549.6	5,722.8	51.2	56.8	-138.51	2,278.4	-1,988.6	4,320.5	4,254.9	48.493		
8,300.0	7,588.6	6,634.3	5,794.7	51.2	57.6	-138.56	2,312.7	-2,017.7	4,355.6	4,290.0	48.434		
8,400.0	7,688.6	6,719.0	5,866.6	51.2	58.4	-138.61	2,347.0	-2,046.8	4,390.7	4,325.1	48.375		
8,500.0	7,788.6	6,803.7	5,938.5	51.2	59.2	-138.66	2,381.3	-2,075.9	4,425.8	4,360.2	48.316		
8,510.0	7,798.6	6,818.4	5,953.2	51.2	59.4	-138.67	2,386.8	-2,079.4	4,430.3	4,364.7	48.311		
8,600.0	7,888.6	6,897.4	6,020.1	51.3	60.0	-138.72	2,421.1	-2,108.5	4,465.4	4,399.8	48.252		
8,700.0	7,988.6	6,976.1	6,087.0	51.3	60.8	-138.77	2,455.4	-2,137.6	4,500.5	4,434.9	48.193		
8,800.0	8,088.6	7,054.8	6,153.9	51.3	61.6	-138.82	2,489.7	-2,166.7	4,535.6	4,470.0	48.134		
8,900.0	8,188.6	7,133.5	6,220.8	51.3	62.4	-138.87	2,524.0	-2,195.8	4,570.7	4,505.1	48.075		
9,000.0	8,288.6	7,212.2	6,287.7	51.3	63.2	-138.92	2,558.3	-2,224.9	4,605.8	4,540.2	48.016		
9,100.0	8,388.6	7,290.9	6,353.6	51.4	64.0	-138.97	2,592.6	-2,254.0	4,640.9	4,575.3	47.957		
9,200.0	8,488.6	7,369.6	6,419.5	51.4	64.8	-139.02	2,626.9	-2,283.1	4,676.0	4,610.4	47.898		
9,300.0	8,588.6	7,448.3	6,485.4	51.4	65.6	-139.07	2,661.2	-2,312.2	4,711.1	4,645.5	47.839		
9,400.0	8,688.6	7,527.0	6,551.3	51.4	66.4	-139.12	2,695.5	-2,341.3	4,746.2	4,680.6	47.780		
9,418.4	8,707.0	7,545.4	6,569.7	51.4	66.8	-139.14	2,708.9	-2,353.7	4,760.6	4,695.0	47.765		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	-91.72	-0.4	-14.2	14.2				
100.0	100.0	100.0	100.0	0.8	0.8	-91.72	-0.4	-14.2	14.2	12.6	8.945		
200.0	200.0	200.0	200.0	1.4	1.4	-91.72	-0.4	-14.2	14.2	11.3	5.009	CC	
204.4	204.4	204.4	204.4	1.4	1.4	-137.33	-0.4	-14.2	14.2	11.3	4.958	ES	
300.0	300.0	299.8	299.8	1.9	1.7	-140.03	-0.3	-14.4	15.3	11.9	4.436		
400.0	399.8	398.7	398.7	3.4	2.8	-144.84	0.9	-17.8	22.9	17.3	4.085	SF	
500.0	499.3	496.5	496.1	4.6	4.2	-147.26	3.6	-25.1	37.9	30.1	4.835		
600.0	598.3	592.8	591.7	5.6	4.5	-147.94	7.8	-36.0	59.8	50.8	6.658		
700.0	696.6	687.6	685.3	6.5	5.1	-147.22	14.8	-49.3	87.3	77.1	8.553		
800.0	794.0	780.3	776.2	7.3	5.9	-146.01	24.6	-64.6	119.9	108.5	10.499		
900.0	890.3	870.4	863.8	8.1	6.6	-144.68	36.9	-81.6	157.7	145.2	12.584		
1,000.0	985.3	957.6	947.8	8.8	7.3	-143.35	51.4	-100.1	200.3	186.8	14.782		
1,100.0	1,078.9	1,041.8	1,028.0	9.4	7.9	-142.05	67.8	-119.8	247.7	233.2	17.063		
1,200.0	1,170.9	1,122.7	1,104.1	10.1	8.5	-140.76	85.7	-140.4	299.5	284.1	19.402		
1,300.0	1,261.0	1,200.0	1,175.9	10.7	9.0	-139.47	104.8	-161.6	355.6	339.3	21.783		
1,400.0	1,349.2	1,274.1	1,243.9	11.3	9.5	-138.17	125.0	-183.3	415.7	398.5	24.168		
1,500.0	1,435.4	1,344.5	1,307.5	11.7	10.0	-137.26	145.7	-205.2	479.4	461.4	26.702		
1,600.0	1,521.0	1,412.8	1,368.3	12.0	10.4	-137.12	167.3	-227.5	544.8	526.1	29.193		
1,700.0	1,606.6	1,480.8	1,427.9	12.3	10.7	-136.78	190.2	-250.7	611.3	591.9	31.538		
1,800.0	1,692.2	1,553.2	1,490.9	12.6	10.9	-136.38	215.5	-276.1	678.3	658.1	33.642		
1,900.0	1,777.9	1,627.3	1,555.4	13.0	11.2	-136.05	241.2	-302.1	745.4	724.4	35.476		
2,000.0	1,863.5	1,701.5	1,619.8	13.4	11.5	-135.77	267.0	-328.1	812.4	790.5	37.113		
2,100.0	1,949.1	1,775.6	1,684.3	13.8	11.7	-135.53	292.8	-354.0	879.5	856.7	38.559		
2,200.0	2,034.8	1,849.7	1,748.8	14.2	12.0	-135.33	318.6	-380.0	946.6	922.9	39.853		
2,300.0	2,120.4	1,923.8	1,813.2	14.6	12.3	-135.16	344.4	-405.9	1,013.7	989.0	41.012		
2,400.0	2,206.0	1,997.9	1,877.7	15.5	12.6	-135.00	370.1	-431.9	1,080.8	1,055.1	42.054		
2,500.0	2,291.7	2,072.1	1,942.1	16.4	13.0	-134.86	395.9	-457.9	1,147.9	1,121.2	42.976		
2,600.0	2,377.3	2,146.2	2,006.6	17.3	13.4	-134.74	421.7	-483.8	1,215.0	1,187.3	43.796		
2,700.0	2,462.9	2,220.3	2,071.1	18.2	13.9	-134.64	447.5	-509.8	1,282.1	1,253.3	44.578		
2,800.0	2,548.6	2,294.4	2,135.5	19.2	14.4	-134.54	473.3	-535.7	1,349.2	1,319.4	45.256		
2,900.0	2,634.2	2,368.5	2,200.0	20.1	15.1	-134.45	499.0	-561.7	1,416.3	1,385.5	45.872		
3,000.0	2,719.8	2,442.6	2,264.4	21.0	15.7	-134.37	524.8	-587.7	1,483.4	1,451.5	46.431		
3,100.0	2,805.5	2,516.8	2,328.9	21.9	16.4	-134.29	550.6	-613.6	1,550.6	1,517.5	46.941		
3,200.0	2,891.1	2,590.9	2,393.3	22.9	17.0	-134.23	576.4	-639.6	1,617.7	1,583.6	47.406		
3,300.0	2,976.7	2,665.0	2,457.8	23.8	17.7	-134.17	602.2	-665.5	1,684.8	1,649.6	47.831		
3,400.0	3,062.4	2,739.1	2,522.3	24.7	18.4	-134.11	628.0	-691.5	1,751.9	1,715.6	48.221		
3,500.0	3,148.0	2,813.2	2,586.7	25.7	19.0	-134.06	653.7	-717.5	1,819.0	1,781.6	48.580		
3,600.0	3,233.6	2,887.4	2,651.2	26.6	19.7	-134.01	679.5	-743.4	1,886.2	1,847.6	48.910		
3,700.0	3,319.2	2,961.5	2,715.6	27.5	20.4	-133.96	705.3	-769.4	1,953.3	1,913.6	49.214		
3,800.0	3,404.9	3,035.6	2,780.1	28.5	21.1	-133.92	731.1	-795.3	2,020.4	1,979.6	49.495		
3,900.0	3,490.5	3,109.7	2,844.6	29.4	21.8	-133.88	756.9	-821.3	2,087.5	2,045.6	49.756		
4,000.0	3,576.1	3,183.8	2,909.0	30.3	22.5	-133.84	782.6	-847.3	2,154.6	2,111.5	49.997		
4,100.0	3,661.8	3,258.0	2,973.5	31.3	23.1	-133.80	808.4	-873.2	2,221.8	2,177.5	50.222		
4,200.0	3,747.4	3,332.1	3,037.9	32.2	23.8	-133.77	834.2	-899.2	2,288.9	2,243.5	50.431		
4,300.0	3,833.0	3,406.2	3,102.4	33.1	24.5	-133.74	860.0	-925.2	2,356.0	2,309.5	50.626		
4,400.0	3,918.7	3,480.3	3,166.9	34.1	25.2	-133.71	885.8	-951.1	2,423.1	2,375.4	50.808		
4,500.0	4,004.3	3,554.4	3,231.3	35.0	25.9	-133.68	911.5	-977.1	2,490.3	2,441.4	50.978		
4,600.0	4,089.9	3,628.5	3,295.8	35.9	26.6	-133.66	937.3	-1,003.0	2,557.4	2,507.4	51.137		
4,700.0	4,175.6	3,702.7	3,360.2	36.9	27.3	-133.63	963.1	-1,029.0	2,624.5	2,573.3	51.287		
4,800.0	4,261.2	3,776.8	3,424.7	37.8	28.0	-133.61	988.9	-1,055.0	2,691.6	2,639.3	51.427		
4,900.0	4,346.8	3,850.9	3,489.1	38.7	28.6	-133.58	1,014.7	-1,080.9	2,758.8	2,705.2	51.559		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft	
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft	
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning		
5,000.0	4,432.5	3,925.0	3,553.6	39.7	29.3	-133.56	1,040.5	-1,106.9	2,825.9	2,771.2	51.684			
5,100.0	4,518.1	3,999.1	3,618.1	40.6	30.0	-133.54	1,066.2	-1,132.8	2,893.0	2,837.2	51.801			
5,200.0	4,603.7	4,073.3	3,682.5	41.5	30.7	-133.52	1,092.0	-1,158.8	2,960.1	2,903.1	51.911			
5,300.0	4,689.3	4,147.4	3,747.0	42.5	31.4	-133.50	1,117.8	-1,184.8	3,027.3	2,969.1	52.015			
5,400.0	4,775.0	4,221.5	3,811.4	43.4	32.1	-133.48	1,143.6	-1,210.7	3,094.4	3,035.0	52.114			
5,500.0	4,860.6	4,295.6	3,875.9	44.3	32.8	-133.47	1,169.4	-1,236.7	3,161.5	3,101.0	52.207			
5,600.0	4,946.3	4,369.8	3,940.4	45.3	33.5	-133.73	1,195.2	-1,262.7	3,228.6	3,166.9	52.298			
5,700.0	5,033.4	4,445.2	4,006.0	46.2	34.2	-135.22	1,221.4	-1,289.1	3,294.2	3,231.3	52.352			
5,800.0	5,122.5	4,522.4	4,073.1	47.0	34.9	-136.51	1,248.3	-1,316.1	3,357.4	3,293.3	52.355			
5,900.0	5,213.6	4,601.3	4,141.8	47.7	35.6	-137.62	1,275.7	-1,343.8	3,418.2	3,352.9	52.329			
6,000.0	5,306.4	4,681.7	4,211.7	48.4	36.4	-138.58	1,303.7	-1,371.9	3,476.4	3,409.9	52.276			
6,100.0	5,400.7	4,763.5	4,282.8	48.9	37.2	-139.39	1,332.1	-1,400.6	3,532.0	3,464.3	52.200			
6,200.0	5,496.3	4,846.5	4,355.0	49.4	37.9	-140.06	1,361.0	-1,429.6	3,584.9	3,516.1	52.104			
6,300.0	5,593.2	4,930.6	4,428.1	49.9	38.7	-140.62	1,390.2	-1,459.1	3,635.0	3,565.0	51.991			
6,400.0	5,691.0	5,015.5	4,502.0	50.2	39.5	-141.07	1,419.8	-1,488.8	3,682.2	3,611.2	51.865			
6,500.0	5,789.7	5,101.2	4,576.5	50.5	40.3	-141.41	1,449.6	-1,518.8	3,726.7	3,654.6	51.730			
6,600.0	5,888.9	5,187.5	4,651.5	50.7	41.1	-141.66	1,479.6	-1,549.1	3,768.2	3,695.2	51.588			
6,700.0	5,988.6	5,274.1	4,726.9	50.8	41.9	-141.83	1,509.7	-1,579.4	3,806.9	3,732.9	51.447			
6,800.0	6,088.6	5,361.0	4,802.4	50.9	42.8	-141.91	1,539.9	-1,609.8	3,842.7	3,767.8	51.315			
6,900.0	6,188.6	5,448.7	4,878.6	50.9	43.6	-141.91	1,570.2	-1,640.6	3,878.6	3,803.7	51.184			
7,000.0	6,288.6	5,537.4	4,955.4	50.9	44.4	-141.82	1,600.9	-1,671.5	3,914.5	3,839.6	51.053			
7,100.0	6,388.6	5,626.1	5,032.2	50.9	45.2	-141.63	1,632.1	-1,702.4	3,950.4	3,875.5	50.922			
7,200.0	6,488.6	5,714.8	5,108.9	50.9	46.0	-141.34	1,663.8	-1,733.3	3,986.3	3,911.4	50.791			
7,300.0	6,588.6	5,803.5	5,185.6	50.9	46.8	-140.95	1,696.0	-1,764.2	4,022.2	3,947.3	50.660			
7,400.0	6,688.6	5,892.2	5,262.2	50.9	47.6	-140.46	1,728.7	-1,795.1	4,058.1	3,983.2	50.529			
7,500.0	6,788.6	5,980.9	5,338.8	50.9	48.4	-139.97	1,762.0	-1,826.0	4,094.0	4,019.1	50.398			
7,600.0	6,888.6	6,069.6	5,415.4	50.9	49.2	-139.38	1,795.8	-1,856.9	4,130.0	4,055.0	50.267			
7,700.0	6,988.6	6,158.3	5,492.0	50.9	50.0	-138.69	1,830.2	-1,887.8	4,166.0	4,090.9	50.136			
7,800.0	7,088.6	6,247.0	5,568.6	50.9	50.8	-137.90	1,865.1	-1,918.7	4,202.0	4,126.9	50.005			
7,900.0	7,188.6	6,335.7	5,645.2	50.9	51.6	-137.01	1,900.5	-1,949.6	4,238.0	4,162.8	49.874			
8,000.0	7,288.6	6,424.4	5,721.8	50.9	52.4	-136.02	1,936.4	-1,980.5	4,274.0	4,198.7	49.743			
8,100.0	7,388.6	6,513.1	5,798.4	50.9	53.2	-134.93	1,972.8	-2,011.4	4,310.0	4,234.6	49.612			
8,200.0	7,488.6	6,601.8	5,875.0	50.9	54.0	-133.74	2,009.7	-2,042.3	4,346.0	4,270.5	49.481			
8,300.0	7,588.6	6,690.5	5,951.6	50.9	54.8	-132.45	2,047.1	-2,073.2	4,382.0	4,306.4	49.350			
8,400.0	7,688.6	6,779.2	6,028.2	50.9	55.6	-131.06	2,085.0	-2,104.1	4,418.0	4,342.3	49.219			
8,500.0	7,788.6	6,867.9	6,104.8	50.9	56.4	-129.57	2,123.4	-2,135.0	4,454.0	4,378.2	49.088			
8,600.0	7,888.6	6,956.6	6,181.4	50.9	57.2	-127.98	2,162.3	-2,165.9	4,490.0	4,414.1	48.957			
8,700.0	7,988.6	7,045.3	6,258.0	50.9	58.0	-126.29	2,201.7	-2,196.8	4,526.0	4,450.0	48.826			
8,800.0	8,088.6	7,134.0	6,334.6	50.9	58.8	-124.50	2,241.6	-2,227.7	4,562.0	4,485.9	48.695			
8,900.0	8,188.6	7,222.7	6,411.2	50.9	59.6	-122.61	2,282.0	-2,258.6	4,598.0	4,521.8	48.564			
9,000.0	8,288.6	7,311.4	6,487.8	50.9	60.4	-120.62	2,322.9	-2,289.5	4,634.0	4,557.7	48.433			
9,100.0	8,388.6	7,400.1	6,564.4	50.9	61.2	-118.53	2,364.3	-2,320.4	4,670.0	4,593.6	48.302			
9,200.0	8,488.6	7,488.8	6,641.0	50.9	62.0	-116.34	2,406.2	-2,351.3	4,706.0	4,629.5	48.171			
9,300.0	8,588.6	7,577.5	6,717.6	50.9	62.8	-114.05	2,448.6	-2,382.2	4,742.0	4,665.4	48.040			
9,301.3	8,589.9	7,578.8	6,718.9	50.9	62.8	-114.05	2,448.6	-2,382.2	4,742.0	4,665.4	48.040			
9,400.0	8,688.6	7,666.2	6,794.2	50.9	63.6	-111.66	2,491.5	-2,413.1	4,778.0	4,701.3	47.909			
9,418.4	8,707.0	7,685.6	6,813.6	50.9	63.6	-111.66	2,491.5	-2,413.1	4,778.0	4,701.3	47.909			

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	-136.72	-7.3	-6.9	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	-136.72	-7.3	-6.9	10.0	8.4	6.316	
200.0	200.0	200.0	200.0	1.4	1.4	-136.72	-7.3	-6.9	10.0	7.2	3.537 CC, ES	
300.0	300.0	300.0	300.0	1.9	1.9	-177.93	-7.3	-6.9	11.2	7.5	2.995 SF	
400.0	399.8	399.4	399.4	3.4	2.3	-177.46	-7.0	-8.3	17.5	12.0	3.180	
500.0	499.3	497.5	497.3	4.6	3.9	-169.02	-5.9	-14.5	31.6	23.8	4.034	
600.0	598.3	593.3	592.4	5.6	5.2	-163.38	-4.0	-25.4	54.0	44.2	5.519	
700.0	696.6	688.2	686.1	6.5	5.6	-159.44	-0.2	-39.7	83.0	71.9	7.522	
800.0	794.0	780.9	777.1	7.3	6.2	-156.27	6.5	-56.0	117.1	104.8	9.539	
900.0	890.3	870.9	864.8	8.1	6.8	-153.64	15.6	-74.2	156.3	142.9	11.668	
1,000.0	985.3	958.1	949.0	8.8	7.4	-151.39	27.0	-93.8	200.5	186.1	13.919	
1,100.0	1,078.9	1,042.0	1,029.2	9.4	8.0	-149.39	40.4	-114.6	249.3	234.0	16.267	
1,200.0	1,170.9	1,122.5	1,105.3	10.1	8.5	-147.58	55.3	-136.3	302.7	286.5	18.684	
1,300.0	1,261.0	1,200.0	1,177.6	10.7	9.0	-145.88	71.7	-158.8	360.4	343.4	21.135	
1,400.0	1,349.2	1,272.9	1,244.8	11.3	9.5	-144.24	88.8	-181.3	422.1	404.3	23.626	
1,500.0	1,435.4	1,342.6	1,308.2	11.7	9.9	-143.03	106.8	-204.1	487.5	468.9	26.268	
1,600.0	1,521.0	1,410.2	1,368.8	12.0	10.3	-142.59	125.6	-227.2	554.4	535.2	28.900	
1,700.0	1,606.6	1,483.4	1,433.9	12.3	10.5	-142.07	146.9	-253.0	621.9	602.1	31.300	
1,800.0	1,692.2	1,557.1	1,499.4	12.6	10.7	-141.65	168.3	-279.0	689.5	668.9	33.459	
1,900.0	1,777.9	1,630.7	1,564.9	13.0	11.0	-141.31	189.7	-305.0	757.0	735.6	35.414	
2,000.0	1,863.5	1,704.4	1,630.5	13.4	11.2	-141.02	211.1	-331.0	824.6	802.4	37.181	
2,100.0	1,949.1	1,778.1	1,696.0	13.8	11.5	-140.78	232.5	-356.9	892.1	869.1	38.766	
2,200.0	2,034.8	1,851.7	1,761.5	14.2	11.8	-140.57	253.9	-382.9	959.7	935.8	40.197	
2,300.0	2,120.4	1,925.4	1,827.1	14.6	12.1	-140.38	275.3	-408.9	1,027.3	1,002.5	41.494	
2,400.0	2,206.0	1,999.1	1,892.6	15.5	12.4	-140.22	296.7	-434.8	1,094.9	1,069.2	42.674	
2,500.0	2,291.7	2,072.7	1,958.1	16.4	12.8	-140.08	318.1	-460.8	1,162.5	1,135.9	43.722	
2,600.0	2,377.3	2,146.4	2,023.6	17.3	13.2	-139.96	339.5	-486.8	1,230.1	1,202.6	44.728	
2,700.0	2,462.9	2,220.1	2,089.2	18.2	13.6	-139.84	361.0	-512.8	1,297.7	1,269.2	45.578	
2,800.0	2,548.6	2,293.7	2,154.7	19.2	14.1	-139.74	382.4	-538.7	1,365.3	1,335.9	46.375	
2,900.0	2,634.2	2,367.4	2,220.2	20.1	14.6	-139.65	403.8	-564.7	1,432.9	1,402.5	47.103	
3,000.0	2,719.8	2,441.1	2,285.8	21.0	15.2	-139.57	425.2	-590.7	1,500.5	1,469.1	47.768	
3,100.0	2,805.5	2,514.7	2,351.3	21.9	15.8	-139.49	446.6	-616.6	1,568.1	1,535.7	48.378	
3,200.0	2,891.1	2,588.4	2,416.8	22.9	16.3	-139.42	468.0	-642.6	1,635.7	1,602.3	48.937	
3,300.0	2,976.7	2,662.1	2,482.3	23.8	16.9	-139.36	489.4	-668.6	1,703.3	1,668.9	49.452	
3,400.0	3,062.4	2,735.7	2,547.9	24.7	17.5	-139.30	510.8	-694.5	1,770.9	1,735.5	49.926	
3,500.0	3,148.0	2,809.4	2,613.4	25.7	18.1	-139.24	532.2	-720.5	1,838.6	1,802.1	50.365	
3,600.0	3,233.6	2,883.1	2,678.9	26.6	18.8	-139.19	553.6	-746.5	1,906.2	1,868.6	50.770	
3,700.0	3,319.2	2,956.7	2,744.5	27.5	19.4	-139.14	575.1	-772.5	1,973.8	1,935.2	51.145	
3,800.0	3,404.9	3,030.4	2,810.0	28.5	20.0	-139.10	596.5	-798.4	2,041.4	2,001.8	51.493	
3,900.0	3,490.5	3,104.1	2,875.5	29.4	20.6	-139.06	617.9	-824.4	2,109.0	2,068.3	51.817	
4,000.0	3,576.1	3,177.7	2,941.0	30.3	21.2	-139.02	639.3	-850.4	2,176.6	2,134.9	52.118	
4,100.0	3,661.8	3,251.4	3,006.6	31.3	21.8	-138.98	660.7	-876.3	2,244.3	2,201.4	52.399	
4,200.0	3,747.4	3,325.1	3,072.1	32.2	22.5	-138.94	682.1	-902.3	2,311.9	2,268.0	52.662	
4,300.0	3,833.0	3,398.7	3,137.6	33.1	23.1	-138.91	703.5	-928.3	2,379.5	2,334.5	52.908	
4,400.0	3,918.7	3,472.4	3,203.2	34.1	23.7	-138.88	724.9	-954.2	2,447.1	2,401.1	53.137	
4,500.0	4,004.3	3,546.1	3,268.7	35.0	24.3	-138.85	746.3	-980.2	2,514.7	2,467.6	53.353	
4,600.0	4,089.9	3,619.7	3,334.2	35.9	25.0	-138.82	767.7	-1,006.2	2,582.3	2,534.1	53.556	
4,700.0	4,175.6	3,693.4	3,399.7	36.9	25.6	-138.80	789.2	-1,032.2	2,650.0	2,600.7	53.746	
4,800.0	4,261.2	3,767.1	3,465.3	37.8	26.2	-138.77	810.6	-1,058.1	2,717.6	2,667.2	53.925	
4,900.0	4,346.8	3,840.7	3,530.8	38.7	26.9	-138.75	832.0	-1,084.1	2,785.2	2,733.7	54.094	
5,000.0	4,432.5	3,914.4	3,596.3	39.7	27.5	-138.73	853.4	-1,110.1	2,852.8	2,800.2	54.254	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance		Separation Factor	Warning	
				Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,518.1	3,988.1	3,661.9	40.6	28.1	-138.70	874.8	-1,136.0	2,920.4	2,866.8	54.404		
5,200.0	4,603.7	4,061.7	3,727.4	41.5	28.7	-138.68	896.2	-1,162.0	2,988.1	2,933.3	54.546		
5,300.0	4,689.3	4,135.4	3,792.9	42.5	29.4	-138.66	917.6	-1,188.0	3,055.7	2,999.8	54.681		
5,400.0	4,775.0	4,209.1	3,858.4	43.4	30.0	-138.65	939.0	-1,214.0	3,123.3	3,066.3	54.808		
5,500.0	4,860.6	4,282.7	3,924.0	44.3	30.6	-138.63	960.4	-1,239.9	3,190.9	3,132.8	54.929		
5,600.0	4,946.3	4,356.4	3,989.5	45.3	31.3	-138.87	981.9	-1,265.9	3,258.5	3,199.3	55.047		
5,700.0	5,033.4	4,431.5	4,056.3	46.2	31.9	-140.23	1,003.7	-1,292.4	3,324.5	3,264.2	55.116		
5,800.0	5,122.5	4,508.6	4,124.9	47.0	32.6	-141.41	1,026.1	-1,319.6	3,387.9	3,326.4	55.117		
5,900.0	5,213.6	4,587.6	4,195.2	47.7	33.3	-142.42	1,049.0	-1,347.4	3,448.6	3,386.0	55.078		
6,000.0	5,306.4	4,668.3	4,267.0	48.4	33.9	-143.27	1,072.5	-1,375.9	3,506.6	3,442.9	55.003		
6,100.0	5,400.7	4,750.6	4,340.2	48.9	34.7	-143.99	1,096.4	-1,404.9	3,561.8	3,496.9	54.897		
6,200.0	5,496.3	4,834.3	4,414.6	49.4	35.4	-144.58	1,120.7	-1,434.4	3,614.1	3,548.1	54.762		
6,300.0	5,593.2	4,919.3	4,490.2	49.9	36.1	-145.07	1,145.4	-1,464.3	3,663.3	3,596.2	54.603		
6,400.0	5,691.0	5,005.3	4,566.7	50.2	36.8	-145.45	1,170.4	-1,494.7	3,709.6	3,641.4	54.424		
6,500.0	5,789.7	5,092.2	4,644.0	50.5	37.6	-145.73	1,195.7	-1,525.3	3,752.7	3,683.5	54.229		
6,600.0	5,888.9	5,180.0	4,722.1	50.7	38.3	-145.92	1,221.2	-1,556.2	3,792.8	3,722.6	54.023		
6,700.0	5,988.6	5,268.3	4,800.6	50.8	39.1	-146.03	1,246.9	-1,587.4	3,829.7	3,758.5	53.812		
6,800.0	6,088.6	5,357.0	4,879.6	50.9	39.9	-146.07	1,272.6	-1,618.6	3,863.5	3,791.4	53.611		
6,900.0	6,188.6	5,446.3	4,959.6	50.9	40.6	-146.07	1,298.3	-1,650.0	3,897.3	3,824.2	53.410		
7,000.0	6,288.6	5,535.6	5,040.6	50.9	41.3	-146.07	1,324.0	-1,681.6	3,931.1	3,857.0	53.209		
7,100.0	6,388.6	5,625.0	5,122.1	51.0	42.0	-146.07	1,349.7	-1,713.2	3,964.9	3,889.8	53.008		
7,200.0	6,488.6	5,714.3	5,204.6	51.0	42.7	-146.07	1,375.4	-1,744.8	3,998.7	3,922.6	52.807		
7,300.0	6,588.6	5,803.7	5,287.1	51.0	43.4	-146.07	1,401.1	-1,776.4	4,032.5	3,955.4	52.606		
7,400.0	6,688.6	5,893.0	5,370.6	51.0	44.1	-146.07	1,426.8	-1,808.0	4,066.3	3,988.2	52.405		
7,500.0	6,788.6	5,982.4	5,454.1	51.0	44.8	-146.07	1,452.5	-1,839.6	4,100.1	4,021.0	52.204		
7,600.0	6,888.6	6,071.7	5,537.6	51.1	45.5	-146.07	1,478.2	-1,871.2	4,133.9	4,053.8	52.003		
7,700.0	6,988.6	6,161.1	5,621.1	51.1	46.2	-146.07	1,503.9	-1,902.8	4,167.7	4,086.6	51.802		
7,800.0	7,088.6	6,250.4	5,704.6	51.1	46.9	-146.07	1,529.6	-1,934.4	4,201.5	4,119.4	51.601		
7,900.0	7,188.6	6,339.8	5,788.1	51.1	47.6	-146.07	1,555.3	-1,966.0	4,235.3	4,152.2	51.400		
8,000.0	7,288.6	6,429.1	5,871.6	51.1	48.3	-146.07	1,581.0	-1,997.6	4,269.1	4,185.0	51.199		
8,100.0	7,388.6	6,518.5	5,955.1	51.2	49.0	-146.07	1,606.7	-2,029.2	4,302.9	4,217.8	51.000		
8,200.0	7,488.6	6,607.8	6,038.6	51.2	49.7	-146.07	1,632.4	-2,060.8	4,336.7	4,250.6	50.800		
8,300.0	7,588.6	6,697.2	6,122.1	51.2	50.4	-146.07	1,658.1	-2,092.4	4,370.5	4,283.4	50.600		
8,400.0	7,688.6	6,786.5	6,205.6	51.2	51.1	-146.07	1,683.8	-2,124.0	4,404.3	4,316.2	50.400		
8,500.0	7,788.6	6,875.9	6,289.1	51.2	51.8	-146.07	1,709.5	-2,155.6	4,438.1	4,349.0	50.200		
8,510.0	7,798.6	6,832.8	6,279.6	51.2	51.8	-146.07	1,709.5	-2,155.6	4,438.1	4,349.0	50.200		
8,600.0	7,888.6	6,967.2	6,404.6	51.3	52.5	-146.07	1,735.2	-2,187.2	4,471.9	4,381.8	50.000		
8,700.0	7,988.6	7,056.5	6,488.1	51.3	53.2	-146.07	1,760.9	-2,218.8	4,505.7	4,414.6	49.800		
8,800.0	8,088.6	7,145.9	6,571.6	51.3	53.9	-146.07	1,786.6	-2,250.4	4,539.5	4,447.4	49.600		
8,900.0	8,188.6	7,235.2	6,655.1	51.3	54.6	-146.07	1,812.3	-2,282.0	4,573.3	4,480.2	49.400		
9,000.0	8,288.6	7,324.6	6,738.6	51.3	55.3	-146.07	1,838.0	-2,313.6	4,607.1	4,513.0	49.200		
9,100.0	8,388.6	7,413.9	6,822.1	51.4	56.0	-146.07	1,863.7	-2,345.2	4,640.9	4,545.8	49.000		
9,200.0	8,488.6	7,503.3	6,905.6	51.4	56.7	-146.07	1,889.4	-2,376.8	4,674.7	4,578.6	48.800		
9,300.0	8,588.6	7,592.6	6,989.1	51.4	57.4	-146.07	1,915.1	-2,408.4	4,708.5	4,611.4	48.600		
9,400.0	8,688.6	7,682.0	7,072.6	51.4	58.1	-146.07	1,940.8	-2,440.0	4,742.3	4,644.2	48.400		
9,418.4	8,707.0	7,682.0	7,072.6	51.4	58.1	-146.07	1,940.8	-2,440.0	4,742.3	4,644.2	48.411		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	159.86	-21.0	7.7	22.4			
100.0	100.0	100.0	100.0	0.8	0.8	159.86	-21.0	7.7	22.4	20.8	14.115	
200.0	200.0	200.0	200.0	1.4	1.4	159.86	-21.0	7.7	22.4	19.5	7.903 CC	
300.0	300.0	300.1	300.1	1.9	1.7	117.88	-21.0	7.4	22.8	19.4	6.735 ES	
400.0	399.8	400.0	399.9	3.4	2.9	137.33	-20.6	3.4	25.3	20.5	5.226	
500.0	499.3	498.3	497.9	4.6	4.2	161.75	-19.9	-4.6	35.5	28.3	4.958 SF	
600.0	598.3	594.6	593.4	5.6	4.9	178.03	-18.8	-16.6	55.9	46.6	6.039	
700.0	696.6	689.7	687.2	6.5	5.3	-172.26	-15.9	-31.6	84.0	73.1	7.772	
800.0	794.0	782.2	778.0	7.3	6.0	-165.89	-10.4	-48.8	118.1	105.9	9.678	
900.0	890.3	871.8	865.1	8.1	6.7	-161.34	-2.6	-68.0	158.0	144.6	11.805	
1,000.0	985.3	958.1	948.3	8.8	7.3	-157.86	7.2	-88.8	203.3	188.9	14.095	
1,100.0	1,078.9	1,040.9	1,027.3	9.4	7.9	-155.05	18.6	-110.8	253.7	238.3	16.496	
1,200.0	1,170.9	1,120.0	1,101.9	10.1	8.4	-152.68	31.5	-133.7	308.8	292.5	18.977	
1,300.0	1,261.0	1,195.1	1,171.9	10.7	8.9	-150.57	45.4	-157.1	368.5	351.4	21.519	
1,400.0	1,349.2	1,266.3	1,237.5	11.3	9.4	-148.63	60.1	-180.7	432.3	414.4	24.069	
1,500.0	1,435.4	1,336.3	1,301.1	11.7	9.8	-147.17	75.8	-205.2	499.8	481.2	26.795	
1,600.0	1,521.0	1,409.2	1,367.2	12.0	10.1	-146.69	92.5	-231.0	568.2	548.9	29.420	
1,700.0	1,606.6	1,482.1	1,433.3	12.3	10.3	-146.31	109.1	-256.7	636.6	616.6	31.859	
1,800.0	1,692.2	1,555.0	1,499.5	12.6	10.6	-146.01	125.8	-282.5	705.0	684.3	34.083	
1,900.0	1,777.9	1,627.9	1,565.6	13.0	10.9	-145.76	142.4	-308.3	773.4	752.0	36.113	
2,000.0	1,863.5	1,700.8	1,631.7	13.4	11.1	-145.55	159.1	-334.0	841.8	819.7	37.966	
2,100.0	1,949.1	1,773.7	1,697.9	13.8	11.4	-145.37	175.7	-359.8	910.3	887.3	39.644	
2,200.0	2,034.8	1,846.6	1,764.0	14.2	11.7	-145.21	192.3	-385.5	978.7	954.9	41.176	
2,300.0	2,120.4	1,919.5	1,830.1	14.6	12.0	-145.08	209.0	-411.3	1,047.1	1,022.5	42.576	
2,400.0	2,206.0	1,992.4	1,896.3	15.5	12.3	-144.96	225.6	-437.0	1,115.5	1,090.1	43.855	
2,500.0	2,291.7	2,065.3	1,962.4	16.4	12.6	-144.86	242.3	-462.8	1,184.0	1,157.7	45.014	
2,600.0	2,377.3	2,138.2	2,028.5	17.3	13.0	-144.76	258.9	-488.6	1,252.4	1,225.2	46.053	
2,700.0	2,462.9	2,211.1	2,094.7	18.2	13.3	-144.68	275.6	-514.3	1,320.9	1,292.8	47.072	
2,800.0	2,548.6	2,284.0	2,160.8	19.2	13.7	-144.61	292.2	-540.1	1,389.3	1,360.3	47.971	
2,900.0	2,634.2	2,356.9	2,226.9	20.1	14.1	-144.54	308.9	-565.8	1,457.7	1,427.9	48.793	
3,000.0	2,719.8	2,429.8	2,293.1	21.0	14.6	-144.48	325.5	-591.6	1,526.2	1,495.4	49.552	
3,100.0	2,805.5	2,502.7	2,359.2	21.9	15.1	-144.42	342.2	-617.4	1,594.6	1,562.9	50.253	
3,200.0	2,891.1	2,575.6	2,425.3	22.9	15.6	-144.37	358.8	-643.1	1,663.1	1,630.4	50.902	
3,300.0	2,976.7	2,648.5	2,491.5	23.8	16.1	-144.32	375.5	-668.9	1,731.5	1,697.9	51.502	
3,400.0	3,062.4	2,721.4	2,557.6	24.7	16.7	-144.28	392.1	-694.6	1,799.9	1,765.4	52.058	
3,500.0	3,148.0	2,794.3	2,623.8	25.7	17.2	-144.24	408.8	-720.4	1,868.4	1,832.9	52.575	
3,600.0	3,233.6	2,867.2	2,689.9	26.6	17.8	-144.20	425.4	-746.2	1,936.8	1,900.3	53.056	
3,700.0	3,319.2	2,940.1	2,756.0	27.5	18.3	-144.16	442.1	-771.9	2,005.3	1,967.8	53.503	
3,800.0	3,404.9	3,013.0	2,822.2	28.5	18.9	-144.13	458.7	-797.7	2,073.7	2,035.3	53.922	
3,900.0	3,490.5	3,085.9	2,888.3	29.4	19.4	-144.10	475.4	-823.4	2,142.2	2,102.7	54.312	
4,000.0	3,576.1	3,158.8	2,954.4	30.3	20.0	-144.07	492.0	-849.2	2,210.6	2,170.2	54.677	
4,100.0	3,661.8	3,231.7	3,020.6	31.3	20.6	-144.04	508.7	-875.0	2,279.1	2,237.6	55.020	
4,200.0	3,747.4	3,304.6	3,086.7	32.2	21.1	-144.02	525.3	-900.7	2,347.5	2,305.1	55.342	
4,300.0	3,833.0	3,377.5	3,152.8	33.1	21.7	-143.99	542.0	-926.5	2,416.0	2,372.5	55.643	
4,400.0	3,918.7	3,450.4	3,219.0	34.1	22.3	-143.97	558.6	-952.2	2,484.4	2,440.0	55.927	
4,500.0	4,004.3	3,523.3	3,285.1	35.0	22.8	-143.95	575.3	-978.0	2,552.9	2,507.4	56.195	
4,600.0	4,089.9	3,596.2	3,351.2	35.9	23.4	-143.93	591.9	-1,003.7	2,621.3	2,574.9	56.447	
4,700.0	4,175.6	3,669.1	3,417.4	36.9	24.0	-143.91	608.6	-1,029.5	2,689.8	2,642.3	56.685	
4,800.0	4,261.2	3,742.0	3,483.5	37.8	24.5	-143.89	625.2	-1,055.3	2,758.2	2,709.7	56.910	
4,900.0	4,346.8	3,814.9	3,549.6	38.7	25.1	-143.87	641.9	-1,081.0	2,826.7	2,777.2	57.123	
5,000.0	4,432.5	3,887.8	3,615.8	39.7	25.7	-143.85	658.5	-1,106.8	2,895.1	2,844.6	57.324	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside	Offset Wellbore	Centre	Distance		Separation	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				+N/-S (usft)	+E/-W (usft)			Between Centres (usft)
5,100.0	4,518.1	3,960.7	3,681.9	40.6	26.3	-143.84	675.2	-1,132.5	2,963.5	2,912.0	57.515		
5,200.0	4,603.7	4,033.6	3,748.0	41.5	26.8	-143.82	691.8	-1,158.3	3,032.0	2,979.4	57.696		
5,300.0	4,689.3	4,106.5	3,814.2	42.5	27.4	-143.81	708.5	-1,184.1	3,100.4	3,046.9	57.868		
5,400.0	4,775.0	4,179.4	3,880.3	43.4	28.0	-143.80	725.1	-1,209.8	3,168.9	3,114.3	58.031		
5,500.0	4,860.6	4,252.3	3,946.4	44.3	28.5	-143.78	741.8	-1,235.6	3,237.3	3,181.7	58.187		
5,600.0	4,946.3	4,325.2	4,012.6	45.3	29.1	-144.01	758.4	-1,261.3	3,305.8	3,249.1	58.338		
5,700.0	5,033.4	4,399.7	4,080.2	46.2	29.7	-145.25	775.4	-1,287.7	3,372.4	3,314.7	58.428		
5,800.0	5,122.5	4,476.4	4,149.7	47.0	30.3	-146.32	792.9	-1,314.8	3,436.4	3,377.6	58.431		
5,900.0	5,213.6	4,555.1	4,221.2	47.7	30.9	-147.22	810.9	-1,342.6	3,497.6	3,437.7	58.382		
6,000.0	5,306.4	4,635.9	4,294.4	48.4	31.6	-147.99	829.4	-1,371.1	3,555.8	3,494.8	58.288		
6,100.0	5,400.7	4,718.3	4,369.2	48.9	32.2	-148.63	848.2	-1,400.3	3,611.0	3,548.9	58.152		
6,200.0	5,496.3	4,802.4	4,445.5	49.4	32.9	-149.16	867.4	-1,430.0	3,663.2	3,600.0	57.979		
6,300.0	5,593.2	4,888.0	4,523.1	49.9	33.6	-149.58	886.9	-1,460.2	3,712.1	3,647.9	57.774		
6,400.0	5,691.0	4,974.8	4,601.9	50.2	34.3	-149.91	906.8	-1,490.9	3,757.9	3,692.6	57.541		
6,500.0	5,789.7	5,062.8	4,681.7	50.5	34.9	-150.15	926.9	-1,522.0	3,800.3	3,734.0	57.287		
6,600.0	5,888.9	5,151.7	4,762.4	50.7	35.7	-150.30	947.2	-1,553.4	3,839.5	3,772.1	57.016		
6,700.0	5,988.6	5,241.5	4,843.8	50.8	36.4	-150.38	967.7	-1,585.1	3,875.3	3,807.0	56.736		
6,800.0	6,088.6	5,331.8	4,925.8	50.9	37.1	-150.39	988.3	-1,617.0	3,907.7	3,838.5	56.464		
6,900.0	6,188.6	5,422.0	5,008.6	50.9	37.8	-150.39	1,009.0	-1,649.0	3,939.3	3,869.5	56.205		
7,000.0	6,288.6	5,512.0	5,091.4	50.9	38.4	-150.39	1,030.0	-1,680.0	3,970.3	3,900.5	55.946		
7,100.0	6,388.6	5,602.0	5,174.2	51.0	39.0	-150.39	1,051.0	-1,711.0	4,001.3	3,931.5	55.687		
7,200.0	6,488.6	5,692.0	5,257.0	51.0	39.6	-150.39	1,072.0	-1,742.0	4,032.3	3,962.5	55.428		
7,300.0	6,588.6	5,782.0	5,339.8	51.0	40.2	-150.39	1,093.0	-1,773.0	4,063.3	3,993.5	55.169		
7,400.0	6,688.6	5,872.0	5,422.6	51.0	40.8	-150.39	1,114.0	-1,804.0	4,094.3	4,024.5	54.910		
7,500.0	6,788.6	5,962.0	5,505.4	51.0	41.4	-150.39	1,135.0	-1,835.0	4,125.3	4,055.5	54.651		
7,600.0	6,888.6	6,052.0	5,588.2	51.0	42.0	-150.39	1,156.0	-1,866.0	4,156.3	4,086.5	54.392		
7,700.0	6,988.6	6,142.0	5,671.0	51.0	42.6	-150.39	1,177.0	-1,897.0	4,187.3	4,117.5	54.133		
7,800.0	7,088.6	6,232.0	5,753.8	51.0	43.2	-150.39	1,198.0	-1,928.0	4,218.3	4,148.5	53.874		
7,900.0	7,188.6	6,322.0	5,836.6	51.0	43.8	-150.39	1,219.0	-1,959.0	4,249.3	4,179.5	53.615		
8,000.0	7,288.6	6,412.0	5,919.4	51.0	44.4	-150.39	1,240.0	-1,990.0	4,280.3	4,210.5	53.356		
8,100.0	7,388.6	6,502.0	6,002.2	51.0	45.0	-150.39	1,261.0	-2,021.0	4,311.3	4,241.5	53.097		
8,200.0	7,488.6	6,592.0	6,085.0	51.0	45.6	-150.39	1,282.0	-2,052.0	4,342.3	4,272.5	52.838		
8,300.0	7,588.6	6,682.0	6,167.8	51.0	46.2	-150.39	1,303.0	-2,083.0	4,373.3	4,303.5	52.579		
8,400.0	7,688.6	6,772.0	6,250.6	51.0	46.8	-150.39	1,324.0	-2,114.0	4,404.3	4,334.5	52.320		
8,500.0	7,788.6	6,862.0	6,333.4	51.0	47.4	-150.39	1,345.0	-2,145.0	4,435.3	4,365.5	52.061		
8,600.0	7,888.6	6,952.0	6,416.2	51.0	48.0	-150.39	1,366.0	-2,176.0	4,466.3	4,396.5	51.802		
8,700.0	7,988.6	7,042.0	6,499.0	51.0	48.6	-150.39	1,387.0	-2,207.0	4,497.3	4,427.5	51.543		
8,800.0	8,088.6	7,132.0	6,581.8	51.0	49.2	-150.39	1,408.0	-2,238.0	4,528.3	4,458.5	51.284		
8,900.0	8,188.6	7,222.0	6,664.6	51.0	49.8	-150.39	1,429.0	-2,269.0	4,559.3	4,489.5	51.025		
9,000.0	8,288.6	7,312.0	6,747.4	51.0	50.4	-150.39	1,450.0	-2,300.0	4,590.3	4,520.5	50.766		
9,100.0	8,388.6	7,402.0	6,830.2	51.0	51.0	-150.39	1,471.0	-2,331.0	4,621.3	4,551.5	50.507		
9,200.0	8,488.6	7,492.0	6,913.0	51.0	51.6	-150.39	1,492.0	-2,362.0	4,652.3	4,582.5	50.248		
9,300.0	8,588.6	7,582.0	6,995.8	51.0	52.2	-150.39	1,513.0	-2,393.0	4,683.3	4,613.5	49.989		
9,400.0	8,688.6	7,672.0	7,078.6	51.0	52.8	-150.39	1,534.0	-2,424.0	4,714.3	4,644.5	49.730		
9,500.0	8,788.6	7,762.0	7,161.4	51.0	53.4	-150.39	1,555.0	-2,455.0	4,745.3	4,675.5	49.471		
9,600.0	8,888.6	7,852.0	7,244.2	51.0	54.0	-150.39	1,576.0	-2,486.0	4,776.3	4,706.5	49.212		
9,700.0	8,988.6	7,942.0	7,327.0	51.0	54.6	-150.39	1,597.0	-2,517.0	4,807.3	4,737.5	48.953		
9,800.0	9,088.6	8,032.0	7,409.8	51.0	55.2	-150.39	1,618.0	-2,548.0	4,838.3	4,768.5	48.694		
9,900.0	9,188.6	8,122.0	7,492.6	51.0	55.8	-150.39	1,639.0	-2,579.0	4,869.3	4,799.5	48.435		
10,000.0	9,288.6	8,212.0	7,575.4	51.0	56.4	-150.39	1,660.0	-2,610.0	4,900.3	4,830.5	48.176		
10,100.0	9,388.6	8,302.0	7,658.2	51.0	57.0	-150.39	1,681.0	-2,641.0	4,931.3	4,861.5	47.917		
10,200.0	9,488.6	8,392.0	7,741.0	51.0	57.6	-150.39	1,702.0	-2,672.0	4,962.3	4,892.5	47.658		
10,300.0	9,588.6	8,482.0	7,823.8	51.0	58.2	-150.39	1,723.0	-2,703.0	4,993.3	4,923.5	47.399		
10,400.0	9,688.6	8,572.0	7,906.6	51.0	58.8	-150.39	1,744.0	-2,734.0	5,024.3	4,954.5	47.140		
10,500.0	9,788.6	8,662.0	7,989.4	51.0	59.4	-150.39	1,765.0	-2,765.0	5,055.3	4,985.5	46.881		
10,600.0	9,888.6	8,752.0	8,072.2	51.0	60.0	-150.39	1,786.0	-2,796.0	5,086.3	5,016.5	46.622		
10,700.0	9,988.6	8,842.0	8,155.0	51.0	60.6	-150.39	1,807.0	-2,827.0	5,117.3	5,047.5	46.363		
10,800.0	10,088.6	8,932.0	8,237.8	51.0	61.2	-150.39	1,828.0	-2,858.0	5,148.3	5,078.5	46.104		
10,900.0	10,188.6	9,022.0	8,320.6	51.0	61.8	-150.39	1,849.0	-2,889.0	5,179.3	5,109.5	45.845		
11,000.0	10,288.6	9,112.0	8,403.4	51.0	62.4	-150.39	1,870.0	-2,920.0	5,210.3	5,140.5	45.586		
11,100.0	10,388.6	9,202.0	8,486.2	51.0	63.0	-150.39	1,891.0	-2,951.0	5,241.3	5,171.5	45.327		
11,200.0	10,488.6	9,292.0	8,569.0	51.0	63.6	-150.39	1,912.0	-2,982.0	5,272.3	5,202.5	45.068		
11,300.0	10,588.6	9,382.0	8,651.8	51.0	64.2	-150.39	1,933.0	-3,013.0	5,303.3	5,233.5	44.809		
11,400.0	10,688.6	9,472.0	8,734.6	51.0	64.8	-150.39	1,954.0	-3,044.0	5,334.3	5,264.5	44.550		
11,500.0	10,788.6	9,562.0	8,817.4	51.0	65.4	-150.39	1,975.0	-3,075.0	5,365.3	5,295.5	44.291		
11,600.0	10,888.6	9,652.0	8,899.2	51.0	66.0	-150.39	1,996.0	-3,106.0	5,396.3	5,326.5	44.032		
11,700.0	10,988.6	9,742.0	8,982.0	51.0	66.6	-150.39	2,017.0	-3,137.0	5,427.3	5,357.5	43.773		
11,800.0	11,088.6	9,832.0	9,064.8	51.0	67.2	-150.39	2,038.0	-3,168.0	5,458.3	5,388.5	43.514		
11,900.0	11,188.6	9,922.0	9,147.6	51.0	67.8	-150.39	2,059.0	-3,199.0	5,489.3	5,419.5	43.255		
12,000.0	11,288.6	10,012.0	9,230.4	51.0	68.4	-150.39	2,080.0	-3,230.0	5,520.3	5,450.5	43.000		
12,100.0	11,388.6	10,102.0	9,313.2	51.0	69.0	-150.39	2,101.0	-3,261.0	5,551.3	5,481.5	42.741		
12,200.0	11,488.6	10,192.0	9,396.0	51.0	69.6	-150.39	2,122.0	-3,292.0	5,582.3	5,512.5	42.482		
12,300.0	11,588.6	10,282.0	9,478.8	51.0	70.2	-150.39	2,143.0	-3,323.0	5,613.3	5,543.5	42.223		
12,400.0	11,688.6	10,372.0	9,561.6	51.0	70.8	-150.39	2,164.0	-3,354.0	5,644.3	5,574.5	41.964		
12,500.0	11,788.6	10,462.0	9,644.4	51.0	71.4	-150.39	2,185.0	-3,385.0	5,675.3	5,605.5	41.705		
12,600.0	11,888.6	10,552.0	9,727.2	51.0	72.0	-150.39	2,206.0	-3,416.0	5,706.3	5,636.5	41.446		
12,700.0	11,988.6	10,642.0	9,810.0	51.0	72.6	-150.39	2,227.0	-3,447.0	5,737.3	5,667.5	41.187		
12,800.0	12,088.6	10,732.0	9,892.8	51.0	73.2	-150.39	2,248.0	-3,478.0	5,768.3	5,698.5	40.928		
12,900.0	12,188.6	10,822.0</											



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	151.73	-27.8	15.0	31.6				
100.0	100.0	100.0	100.0	0.8	0.8	151.73	-27.8	15.0	31.6	30.0	19.956		
200.0	200.0	200.0	200.0	1.4	1.4	151.73	-27.8	15.0	31.6	28.8	11.174	CC	
300.0	300.0	300.0	300.0	1.9	1.9	108.24	-27.8	15.0	32.0	28.4	8.942	ES	
400.0	399.8	400.1	400.1	3.4	2.2	118.94	-27.8	13.7	33.7	29.2	7.448		
500.0	499.3	499.2	499.1	4.6	3.6	139.13	-27.8	8.4	39.5	33.3	6.327	SF	
600.0	598.3	596.2	595.6	5.6	4.7	158.94	-27.8	-1.1	54.4	45.9	6.408		
700.0	696.6	690.3	688.7	6.5	5.7	172.40	-27.8	-14.1	79.6	69.0	7.499		
800.0	794.0	782.3	779.3	7.3	6.0	-179.10	-27.4	-30.3	113.5	101.5	9.443		
900.0	890.3	872.2	867.2	8.1	6.4	-173.15	-24.8	-48.9	153.6	140.3	11.534		
1,000.0	985.3	958.8	951.3	8.8	7.0	-168.72	-20.1	-69.3	199.2	184.7	13.749		
1,100.0	1,078.9	1,041.8	1,031.1	9.4	7.5	-165.21	-13.6	-91.0	250.1	234.6	16.095		
1,200.0	1,170.9	1,120.9	1,106.5	10.1	8.1	-162.31	-5.6	-113.7	306.0	289.5	18.563		
1,300.0	1,261.0	1,196.0	1,177.2	10.7	8.5	-159.82	3.7	-137.0	366.4	349.1	21.135		
1,400.0	1,349.2	1,267.0	1,243.4	11.3	9.0	-157.58	13.8	-160.6	431.2	413.1	23.781		
1,500.0	1,435.4	1,334.4	1,305.4	11.7	9.3	-155.81	24.8	-184.5	499.9	481.2	26.741		
1,600.0	1,521.0	1,405.7	1,370.8	12.0	9.5	-154.82	36.9	-210.2	569.7	550.5	29.619		
1,700.0	1,606.6	1,477.0	1,436.2	12.3	9.8	-154.05	49.0	-236.0	639.6	619.8	32.251		
1,800.0	1,692.2	1,548.2	1,501.5	12.6	10.0	-153.43	61.1	-261.8	709.5	689.0	34.674		
1,900.0	1,777.9	1,619.5	1,566.9	13.0	10.3	-152.92	73.2	-287.6	779.5	758.3	36.905		
2,000.0	1,863.5	1,690.8	1,632.2	13.4	10.5	-152.49	85.3	-313.4	849.5	827.6	38.954		
2,100.0	1,949.1	1,762.1	1,697.6	13.8	10.8	-152.13	97.4	-339.2	919.5	896.9	40.829		
2,200.0	2,034.8	1,833.4	1,763.0	14.2	11.1	-151.81	109.5	-364.9	989.5	966.2	42.554		
2,300.0	2,120.4	1,904.7	1,828.3	14.6	11.4	-151.54	121.7	-390.7	1,059.5	1,035.5	44.139		
2,400.0	2,206.0	1,976.0	1,893.7	15.5	11.7	-151.31	133.8	-416.5	1,129.6	1,104.8	45.583		
2,500.0	2,291.7	2,047.3	1,959.0	16.4	12.0	-151.10	145.9	-442.3	1,199.6	1,174.1	46.952		
2,600.0	2,377.3	2,118.6	2,024.4	17.3	12.3	-150.91	158.0	-468.1	1,269.7	1,243.3	48.174		
2,700.0	2,462.9	2,189.9	2,089.7	18.2	12.6	-150.75	170.1	-493.9	1,339.7	1,312.6	49.308		
2,800.0	2,548.6	2,261.2	2,155.1	19.2	13.0	-150.60	182.2	-519.6	1,409.8	1,381.8	50.355		
2,900.0	2,634.2	2,332.5	2,220.5	20.1	13.4	-150.46	194.3	-545.4	1,479.9	1,451.1	51.322		
3,000.0	2,719.8	2,403.8	2,285.8	21.0	13.8	-150.34	206.5	-571.2	1,550.0	1,520.3	52.217		
3,100.0	2,805.5	2,475.1	2,351.2	21.9	14.2	-150.22	218.6	-597.0	1,620.1	1,589.5	53.046		
3,200.0	2,891.1	2,546.4	2,416.5	22.9	14.7	-150.12	230.7	-622.8	1,690.2	1,658.7	53.814		
3,300.0	2,976.7	2,617.7	2,481.9	23.8	15.1	-150.02	242.8	-648.6	1,760.2	1,728.0	54.529		
3,400.0	3,062.4	2,689.0	2,547.2	24.7	15.6	-149.94	254.9	-674.3	1,830.3	1,797.2	55.193		
3,500.0	3,148.0	2,760.3	2,612.6	25.7	16.1	-149.86	267.0	-700.1	1,900.4	1,866.4	55.812		
3,600.0	3,233.6	2,831.6	2,678.0	26.6	16.6	-149.78	279.1	-725.9	1,970.5	1,935.6	56.389		
3,700.0	3,319.2	2,902.9	2,743.3	27.5	17.1	-149.71	291.2	-751.7	2,040.6	2,004.8	56.929		
3,800.0	3,404.9	2,974.2	2,808.7	28.5	17.6	-149.64	303.4	-777.5	2,110.7	2,074.0	57.433		
3,900.0	3,490.5	3,045.5	2,874.0	29.4	18.1	-149.58	315.5	-803.3	2,180.8	2,143.2	57.905		
4,000.0	3,576.1	3,116.8	2,939.4	30.3	18.6	-149.52	327.6	-829.0	2,250.9	2,212.4	58.349		
4,100.0	3,661.8	3,188.1	3,004.8	31.3	19.2	-149.47	339.7	-854.8	2,321.0	2,281.5	58.765		
4,200.0	3,747.4	3,259.4	3,070.1	32.2	19.7	-149.42	351.8	-880.6	2,391.1	2,350.7	59.156		
4,300.0	3,833.0	3,330.7	3,135.5	33.1	20.2	-149.37	363.9	-906.4	2,461.2	2,419.9	59.524		
4,400.0	3,918.7	3,402.0	3,200.8	34.1	20.7	-149.32	376.0	-932.2	2,531.3	2,489.1	59.871		
4,500.0	4,004.3	3,473.3	3,266.2	35.0	21.3	-149.28	388.2	-958.0	2,601.5	2,558.2	60.198		
4,600.0	4,089.9	3,544.5	3,331.5	35.9	21.8	-149.24	400.3	-983.7	2,671.6	2,627.4	60.506		
4,700.0	4,175.6	3,615.8	3,396.9	36.9	22.3	-149.20	412.4	-1,009.5	2,741.7	2,696.6	60.799		
4,800.0	4,261.2	3,687.1	3,462.3	37.8	22.8	-149.17	424.5	-1,035.3	2,811.8	2,765.7	61.075		
4,900.0	4,346.8	3,758.4	3,527.6	38.7	23.4	-149.13	436.6	-1,061.1	2,881.9	2,834.9	61.336		
5,000.0	4,432.5	3,829.7	3,593.0	39.7	23.9	-149.10	448.7	-1,086.9	2,952.0	2,904.1	61.584		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,518.1	3,901.0	3,658.3	40.6	24.4	-149.06	460.8	-1,112.7	3,022.1	2,973.2	61.820		
5,200.0	4,603.7	3,972.3	3,723.7	41.5	24.9	-149.03	472.9	-1,138.4	3,092.2	3,042.4	62.043		
5,300.0	4,689.3	4,043.6	3,789.0	42.5	25.5	-149.01	485.1	-1,164.2	3,162.3	3,111.5	62.255		
5,400.0	4,775.0	4,114.9	3,854.4	43.4	26.0	-148.98	497.2	-1,190.0	3,232.4	3,180.7	62.458		
5,500.0	4,860.6	4,186.2	3,919.8	44.3	26.5	-148.95	509.3	-1,215.8	3,302.5	3,249.8	62.650		
5,600.0	4,946.3	4,257.5	3,985.2	45.3	27.1	-149.14	521.4	-1,241.6	3,372.6	3,318.9	62.836		
5,700.0	5,033.4	4,330.6	4,052.1	46.2	27.6	-150.26	533.8	-1,268.0	3,440.9	3,386.2	62.948		
5,800.0	5,122.5	4,406.0	4,121.2	47.0	28.2	-151.22	546.6	-1,295.3	3,506.4	3,450.7	62.950		
5,900.0	5,213.6	4,483.7	4,192.5	47.7	28.8	-152.03	559.8	-1,323.4	3,568.9	3,512.2	62.890		
6,000.0	5,306.4	4,563.5	4,265.6	48.4	29.4	-152.71	573.4	-1,352.2	3,628.4	3,570.6	62.772		
6,100.0	5,400.7	4,645.3	4,340.7	48.9	30.0	-153.27	587.3	-1,381.8	3,684.8	3,626.0	62.604		
6,200.0	5,496.3	4,729.0	4,417.3	49.4	30.6	-153.73	601.5	-1,412.1	3,738.0	3,678.1	62.389		
6,300.0	5,593.2	4,814.3	4,495.5	49.9	31.2	-154.10	616.0	-1,442.9	3,787.8	3,726.9	62.135		
6,400.0	5,691.0	4,901.1	4,571.5	50.2	31.9	-154.38	630.7	-1,474.3	3,834.3	3,772.3	61.847		
6,500.0	5,789.7	4,989.3	4,655.9	50.5	32.6	-154.59	645.7	-1,506.2	3,877.4	3,814.4	61.530		
6,600.0	5,888.9	5,078.6	4,737.8	50.7	33.2	-154.72	660.9	-1,538.5	3,917.0	3,853.0	61.192		
6,700.0	5,988.6	5,168.9	4,820.6	50.8	33.9	-154.78	676.2	-1,571.2	3,953.0	3,888.1	60.842		
6,800.0	6,088.6	5,260.0	4,904.2	50.9	34.6	-154.77	691.7	-1,604.1	3,985.5	3,919.7	60.502		
6,900.0	6,188.6	5,351.7	4,988.2	50.9	35.3	-108.88	707.3	-1,637.3	4,015.5	3,949.0	60.361		
7,000.0	6,288.6	6,690.9	6,288.6	50.9	40.0	-106.39	814.1	-1,864.5	4,016.1	3,939.3	52.247		
7,100.0	6,388.6	6,790.9	6,388.6	51.0	40.0	-106.39	814.1	-1,864.5	4,016.1	3,939.2	52.216		
7,200.0	6,488.6	6,890.9	6,488.6	51.0	40.0	-106.39	814.1	-1,864.5	4,016.1	3,939.2	52.184		
7,300.0	6,588.6	6,990.9	6,588.6	51.0	40.0	-106.39	814.1	-1,864.5	4,016.1	3,939.1	52.153		
7,400.0	6,688.6	7,090.9	6,688.6	51.0	40.1	-106.39	814.1	-1,864.5	4,016.1	3,939.1	52.121		
7,500.0	6,788.6	7,190.9	6,788.6	51.0	40.1	-106.39	814.1	-1,864.5	4,016.1	3,939.0	52.089		
7,600.0	6,888.6	7,290.9	6,888.6	51.1	40.1	-106.39	814.1	-1,864.5	4,016.1	3,939.0	52.056		
7,700.0	6,988.6	7,390.9	6,988.6	51.1	40.2	-106.39	814.1	-1,864.5	4,016.1	3,938.9	52.024		
7,800.0	7,088.6	7,490.9	7,088.6	51.1	40.2	-106.39	814.1	-1,864.5	4,016.1	3,938.9	51.991		
7,900.0	7,188.6	7,590.9	7,188.6	51.1	40.2	-106.39	814.1	-1,864.5	4,016.1	3,938.8	51.958		
8,000.0	7,288.6	7,690.9	7,288.6	51.1	40.2	-106.39	814.1	-1,864.5	4,016.1	3,938.8	51.925		
8,100.0	7,388.6	7,790.9	7,388.6	51.2	40.3	-106.39	814.1	-1,864.5	4,016.1	3,938.7	51.892		
8,200.0	7,488.6	7,890.9	7,488.6	51.2	40.3	-106.39	814.1	-1,864.5	4,016.1	3,938.7	51.859		
8,300.0	7,588.6	7,990.9	7,588.6	51.2	40.3	-106.39	814.1	-1,864.5	4,016.1	3,938.6	51.826		
8,400.0	7,688.6	8,090.9	7,688.6	51.2	40.4	-106.39	814.1	-1,864.5	4,016.1	3,938.6	51.792		
8,500.0	7,788.6	8,190.9	7,788.6	51.2	40.4	-106.39	814.1	-1,864.5	4,016.1	3,938.5	51.758		
8,600.0	7,888.6	8,219.4	7,817.0	51.3	40.4	-106.39	814.1	-1,864.5	4,016.8	3,939.2	51.815		
8,700.0	7,988.6	8,219.4	7,817.0	51.3	40.4	-106.39	814.1	-1,864.5	4,019.8	3,942.4	51.954		
8,800.0	8,088.6	8,219.4	7,817.0	51.3	40.4	-106.39	814.1	-1,864.5	4,025.3	3,948.1	52.150		
8,900.0	8,188.6	8,219.4	7,817.0	51.3	40.4	-106.39	814.1	-1,864.5	4,033.3	3,956.3	52.403		
9,000.0	8,288.6	8,219.4	7,817.0	51.3	40.4	-106.39	814.1	-1,864.5	4,043.7	3,967.0	52.712		
9,100.0	8,388.6	8,219.4	7,817.0	51.4	40.4	-106.39	814.1	-1,864.5	4,056.6	3,980.2	53.076		
9,200.0	8,488.6	8,219.4	7,817.0	51.4	40.4	-106.39	814.1	-1,864.5	4,071.9	3,995.8	53.496		
9,300.0	8,588.6	8,219.4	7,817.0	51.4	40.4	-106.39	814.1	-1,864.5	4,089.6	4,013.8	53.971		
9,400.0	8,688.6	8,219.4	7,817.0	51.4	40.4	-106.39	814.1	-1,864.5	4,109.6	4,034.2	54.500		
9,418.4	8,707.0	8,219.4	7,817.0	51.4	40.4	-106.39	814.1	-1,864.5	4,113.6	4,038.2	54.605		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	144.60	-41.6	29.5	51.0				
100.0	100.0	100.0	100.0	0.8	0.8	144.60	-41.6	29.5	51.0	49.4	32.180		
200.0	200.0	200.0	200.0	1.4	1.4	144.60	-41.6	29.5	51.0	48.1	18.018	CC	
300.0	300.0	300.0	300.0	1.9	1.9	100.35	-41.6	29.5	51.2	47.6	14.376	ES	
400.0	399.8	400.4	400.4	3.4	2.1	106.76	-41.6	29.0	52.2	47.9	12.282		
500.0	499.3	500.3	500.2	4.6	3.2	120.72	-41.6	24.6	54.6	49.1	9.845		
600.0	598.3	598.2	597.7	5.6	4.5	139.19	-41.6	16.1	63.2	55.9	8.656	SF	
700.0	696.6	693.2	691.9	6.5	5.5	156.00	-41.6	3.9	82.2	72.7	8.663		
800.0	794.0	785.3	782.7	7.3	5.8	168.23	-41.4	-11.7	111.7	100.5	9.917		
900.0	890.3	875.0	870.5	8.1	6.2	176.81	-39.9	-29.9	149.5	136.7	11.710		
1,000.0	985.3	960.9	953.9	8.8	6.8	-177.04	-36.9	-50.2	194.2	180.2	13.810		
1,100.0	1,078.9	1,042.5	1,032.4	9.4	7.4	-172.45	-32.6	-72.0	245.2	230.1	16.143		
1,200.0	1,170.9	1,119.7	1,106.0	10.1	8.0	-168.86	-27.2	-94.9	301.9	285.8	18.663		
1,300.0	1,261.0	1,192.3	1,174.4	10.7	8.5	-165.92	-21.1	-118.3	363.8	346.8	21.319		
1,400.0	1,349.2	1,260.2	1,237.6	11.3	8.8	-163.42	-14.3	-141.9	430.5	412.6	24.169		
1,500.0	1,435.4	1,328.6	1,300.8	11.7	9.1	-161.39	-6.8	-167.0	501.0	482.6	27.258		
1,600.0	1,521.0	1,398.1	1,365.1	12.0	9.3	-160.25	0.8	-192.5	572.5	553.5	30.254		
1,700.0	1,606.6	1,467.7	1,429.4	12.3	9.5	-159.36	8.5	-218.0	644.0	624.5	33.022		
1,800.0	1,692.2	1,537.3	1,493.7	12.6	9.8	-158.64	16.2	-243.5	715.6	695.5	35.592		
1,900.0	1,777.9	1,606.8	1,557.9	13.0	10.0	-158.05	23.8	-269.0	787.2	766.5	37.973		
2,000.0	1,863.5	1,676.4	1,622.2	13.4	10.3	-157.56	31.5	-294.5	858.9	837.5	40.169		
2,100.0	1,949.1	1,746.0	1,686.5	13.8	10.5	-157.15	39.2	-320.0	930.6	908.5	42.197		
2,200.0	2,034.8	1,815.5	1,750.7	14.2	10.8	-156.80	46.8	-345.5	1,002.3	979.5	44.074		
2,300.0	2,120.4	1,885.1	1,815.0	14.6	11.1	-156.49	54.5	-371.0	1,074.0	1,050.6	45.805		
2,400.0	2,206.0	1,954.7	1,879.3	15.5	11.4	-156.22	62.2	-396.5	1,145.7	1,121.6	47.401		
2,500.0	2,291.7	2,024.2	1,943.6	16.4	11.7	-155.98	69.8	-422.0	1,217.5	1,192.6	48.876		
2,600.0	2,377.3	2,093.8	2,007.8	17.3	12.0	-155.77	77.5	-447.5	1,289.3	1,263.6	50.251		
2,700.0	2,462.9	2,163.4	2,072.1	18.2	12.3	-155.58	85.2	-473.0	1,361.0	1,334.6	51.539		
2,800.0	2,548.6	2,232.9	2,136.4	19.2	12.6	-155.41	92.8	-498.5	1,432.8	1,405.6	52.696		
2,900.0	2,634.2	2,302.5	2,200.6	20.1	12.9	-155.26	100.5	-524.0	1,504.6	1,476.6	53.785		
3,000.0	2,719.8	2,372.1	2,264.9	21.0	13.2	-155.12	108.2	-549.5	1,576.4	1,547.6	54.798		
3,100.0	2,805.5	2,441.7	2,329.2	21.9	13.5	-154.99	115.8	-575.0	1,648.2	1,618.6	55.740		
3,200.0	2,891.1	2,511.2	2,393.5	22.9	13.9	-154.87	123.5	-600.5	1,720.0	1,689.6	56.618		
3,300.0	2,976.7	2,580.8	2,457.7	23.8	14.3	-154.76	131.2	-626.0	1,791.8	1,760.6	57.437		
3,400.0	3,062.4	2,650.4	2,522.0	24.7	14.7	-154.66	138.8	-651.5	1,863.6	1,831.5	58.201		
3,500.0	3,148.0	2,719.9	2,586.3	25.7	15.1	-154.57	146.5	-677.0	1,935.4	1,902.5	58.916		
3,600.0	3,233.6	2,789.5	2,650.5	26.6	15.6	-154.49	154.2	-702.5	2,007.2	1,973.5	59.586		
3,700.0	3,319.2	2,859.1	2,714.8	27.5	16.1	-154.41	161.8	-728.0	2,079.0	2,044.4	60.213		
3,800.0	3,404.9	2,928.6	2,779.1	28.5	16.6	-154.33	169.5	-753.5	2,150.8	2,115.4	60.802		
3,900.0	3,490.5	2,998.2	2,843.4	29.4	17.0	-154.26	177.2	-779.0	2,222.6	2,186.4	61.355		
4,000.0	3,576.1	3,067.8	2,907.6	30.3	17.5	-154.20	184.8	-804.5	2,294.4	2,257.3	61.875		
4,100.0	3,661.8	3,137.3	2,971.9	31.3	18.0	-154.14	192.5	-830.0	2,366.2	2,328.3	62.365		
4,200.0	3,747.4	3,206.9	3,036.2	32.2	18.5	-154.08	200.2	-855.5	2,438.0	2,399.2	62.827		
4,300.0	3,833.0	3,276.5	3,100.4	33.1	19.0	-154.03	207.8	-881.0	2,509.8	2,470.2	63.263		
4,400.0	3,918.7	3,346.1	3,164.7	34.1	19.5	-153.97	215.5	-906.5	2,581.7	2,541.1	63.674		
4,500.0	4,004.3	3,415.6	3,229.0	35.0	20.0	-153.93	223.2	-932.0	2,653.5	2,612.1	64.064		
4,600.0	4,089.9	3,485.2	3,293.3	35.9	20.5	-153.88	230.8	-957.5	2,725.3	2,683.0	64.433		
4,700.0	4,175.6	3,554.8	3,357.5	36.9	21.0	-153.84	238.5	-983.0	2,797.1	2,753.9	64.782		
4,800.0	4,261.2	3,624.3	3,421.8	37.8	21.5	-153.80	246.2	-1,008.5	2,868.9	2,824.9	65.113		
4,900.0	4,346.8	3,693.9	3,486.1	38.7	22.0	-153.76	253.8	-1,034.0	2,940.8	2,895.8	65.427		
5,000.0	4,432.5	3,763.5	3,550.3	39.7	22.5	-153.72	261.5	-1,059.5	3,012.6	2,966.7	65.726		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,518.1	3,833.0	3,614.6	40.6	23.0	-153.68	269.2	-1,085.0	3,084.4	3,037.7	66.010		
5,200.0	4,603.7	3,902.6	3,678.9	41.5	23.5	-153.65	276.8	-1,110.5	3,156.2	3,108.6	66.280		
5,300.0	4,689.3	3,972.2	3,743.2	42.5	24.0	-153.62	284.5	-1,136.0	3,228.0	3,179.5	66.537		
5,400.0	4,775.0	4,041.7	3,807.4	43.4	24.5	-153.58	292.2	-1,161.5	3,299.9	3,250.5	66.782		
5,500.0	4,860.6	4,111.3	3,871.7	44.3	25.0	-153.55	299.8	-1,187.0	3,371.7	3,321.4	67.016		
5,600.0	4,946.3	4,180.9	3,936.0	45.3	25.5	-153.72	307.5	-1,212.5	3,443.5	3,392.3	67.242		
5,700.0	5,033.4	4,252.3	4,002.0	46.2	26.0	-154.73	315.4	-1,238.7	3,513.4	3,461.3	67.380		
5,800.0	5,122.5	4,326.3	4,070.4	47.0	26.5	-155.58	323.5	-1,265.8	3,580.5	3,527.4	67.388		
5,900.0	5,213.6	4,402.8	4,141.0	47.7	27.1	-156.31	332.0	-1,293.8	3,644.6	3,590.5	67.321		
6,000.0	5,306.4	4,481.6	4,213.8	48.4	27.6	-156.91	340.7	-1,322.7	3,705.6	3,650.5	67.186		
6,100.0	5,400.7	4,562.6	4,288.6	48.9	28.2	-157.41	349.6	-1,352.4	3,763.4	3,707.2	66.990		
6,200.0	5,496.3	4,645.6	4,365.3	49.4	28.8	-157.82	358.7	-1,382.8	3,817.9	3,760.7	66.740		
6,300.0	5,593.2	4,730.5	4,443.7	49.9	29.4	-158.15	368.1	-1,413.9	3,869.0	3,810.8	66.442		
6,400.0	5,691.0	4,817.1	4,523.7	50.2	30.0	-158.40	377.6	-1,445.7	3,916.6	3,857.4	66.104		
6,500.0	5,789.7	4,905.2	4,605.1	50.5	30.7	-158.58	387.3	-1,478.0	3,960.7	3,900.5	65.731		
6,600.0	5,888.9	4,994.7	4,687.8	50.7	31.3	-158.69	397.2	-1,510.8	4,001.2	3,940.0	65.333		
6,700.0	5,988.6	5,085.4	4,771.6	50.8	32.0	-158.74	407.2	-1,544.0	4,038.1	3,975.9	64.921		
6,800.0	6,088.6	5,177.1	4,856.3	50.9	32.6	-158.74	417.3	-1,577.6	4,071.2	4,008.1	64.519		
6,900.0	6,188.6	5,269.4	4,941.6	50.9	33.3	-112.89	427.5	-1,611.5	4,101.7	4,038.0	64.359		
7,000.0	6,288.6	6,657.1	6,288.6	50.9	38.3	-110.55	503.4	-1,864.0	4,114.1	4,039.5	55.178		
7,100.0	6,388.6	6,757.1	6,388.6	51.0	38.4	-110.55	503.4	-1,864.0	4,114.1	4,039.5	55.142		
7,200.0	6,488.6	6,857.1	6,488.6	51.0	38.4	-110.55	503.4	-1,864.0	4,114.1	4,039.4	55.107		
7,300.0	6,588.6	6,957.1	6,588.6	51.0	38.4	-110.55	503.4	-1,864.0	4,114.1	4,039.4	55.071		
7,400.0	6,688.6	7,057.1	6,688.6	51.0	38.5	-110.55	503.4	-1,864.0	4,114.1	4,039.3	55.035		
7,500.0	6,788.6	7,157.1	6,788.6	51.0	38.5	-110.55	503.4	-1,864.0	4,114.1	4,039.3	54.998		
7,600.0	6,888.6	7,257.1	6,888.6	51.1	38.5	-110.55	503.4	-1,864.0	4,114.1	4,039.2	54.962		
7,700.0	6,988.6	7,357.1	6,988.6	51.1	38.5	-110.55	503.4	-1,864.0	4,114.1	4,039.2	54.925		
7,800.0	7,088.6	7,457.1	7,088.6	51.1	38.6	-110.55	503.4	-1,864.0	4,114.1	4,039.1	54.888		
7,900.0	7,188.6	7,557.1	7,188.6	51.1	38.6	-110.55	503.4	-1,864.0	4,114.1	4,039.1	54.851		
8,000.0	7,288.6	7,657.1	7,288.6	51.1	38.6	-110.55	503.4	-1,864.0	4,114.1	4,039.0	54.814		
8,100.0	7,388.6	7,757.1	7,388.6	51.2	38.7	-110.55	503.4	-1,864.0	4,114.1	4,039.0	54.777		
8,200.0	7,488.6	7,857.1	7,488.6	51.2	38.7	-110.55	503.4	-1,864.0	4,114.1	4,038.9	54.739		
8,300.0	7,588.6	7,957.1	7,588.6	51.2	38.7	-110.55	503.4	-1,864.0	4,114.1	4,038.9	54.702		
8,400.0	7,688.6	8,057.1	7,688.6	51.2	38.8	-110.55	503.4	-1,864.0	4,114.1	4,038.8	54.664		
8,500.0	7,788.6	8,157.1	7,788.6	51.2	38.8	-110.55	503.4	-1,864.0	4,114.1	4,038.8	54.625		
8,600.0	7,888.6	8,257.1	7,888.6	51.3	38.8	-110.55	503.4	-1,864.0	4,114.1	4,038.7	54.587		
8,700.0	7,988.6	8,357.1	7,988.6	51.3	38.9	-110.55	503.4	-1,864.0	4,114.1	4,038.7	54.549		
8,800.0	8,088.6	8,457.1	8,088.6	51.3	38.9	-110.55	503.4	-1,864.0	4,114.1	4,038.6	54.510		
8,900.0	8,188.6	8,557.1	8,188.6	51.3	38.9	-110.55	503.4	-1,864.0	4,114.1	4,038.6	54.471		
9,000.0	8,288.6	8,657.1	8,288.6	51.3	39.0	-110.55	503.4	-1,864.0	4,114.1	4,038.5	54.432		
9,100.0	8,388.6	8,757.1	8,388.6	51.4	39.0	-110.55	503.4	-1,864.0	4,114.1	4,038.5	54.393		
9,200.0	8,488.6	8,857.1	8,488.6	51.4	39.0	-110.55	503.4	-1,864.0	4,114.1	4,038.4	54.354		
9,300.0	8,588.6	8,957.1	8,588.6	51.4	39.0	-110.55	503.4	-1,864.0	4,114.1	4,038.4	54.315		
9,310.0	8,598.6	8,967.1	8,598.6	51.4	39.1	-110.55	503.4	-1,864.0	4,114.1	4,038.4	54.311		
9,400.0	8,688.6	8,994.5	8,626.0	51.4	39.1	-110.55	503.4	-1,864.0	4,114.6	4,038.9	54.362		
9,418.4	8,707.0	8,994.5	8,626.0	51.4	39.1	-110.55	503.4	-1,864.0	4,114.9	4,039.2	54.386		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	-46.78	13.7	-14.6	20.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.78	13.7	-14.6	20.0	18.4	12.637	
200.0	200.0	200.0	200.0	1.4	1.4	-46.78	13.7	-14.6	20.0	17.2	7.076	CC
300.0	300.0	299.8	299.8	1.9	2.1	-91.53	15.1	-13.8	20.5	16.9	5.815	ES
400.0	399.8	399.6	399.4	3.4	3.6	-90.89	20.2	-11.0	22.1	17.7	5.059	
500.0	499.3	499.2	498.5	4.6	4.8	-90.72	29.1	-6.0	25.0	19.8	4.851	SF
600.0	598.3	598.9	597.1	5.6	5.8	-90.88	41.7	1.1	29.0	23.2	4.961	
700.0	696.6	698.4	694.8	6.5	6.6	-91.24	58.0	10.2	34.3	27.8	5.247	
800.0	794.0	797.7	791.5	7.3	7.4	-91.66	78.0	21.5	40.8	33.6	5.628	
900.0	890.3	897.0	887.0	8.1	8.2	-92.09	101.6	34.7	48.5	40.5	6.046	
1,000.0	985.3	996.1	981.0	8.8	8.8	-92.47	128.7	49.9	57.3	48.5	6.461	
1,100.0	1,078.9	1,095.0	1,073.5	9.4	9.5	-92.80	159.3	67.0	67.3	57.5	6.843	
1,200.0	1,170.9	1,193.7	1,164.2	10.1	10.1	-93.07	193.2	86.1	78.5	67.5	7.178	
1,300.0	1,261.0	1,292.2	1,253.0	10.7	10.7	-93.28	230.5	107.0	90.7	78.5	7.458	
1,400.0	1,349.2	1,390.5	1,339.7	11.3	11.3	-93.43	270.9	129.7	104.0	90.5	7.684	
1,500.0	1,435.4	1,488.6	1,424.1	11.7	11.9	-93.54	314.5	154.1	118.4	103.4	7.883	
1,600.0	1,521.0	1,586.8	1,506.5	12.0	12.2	-92.59	361.0	180.2	133.6	117.0	8.043	
1,700.0	1,606.6	1,685.6	1,588.9	12.3	12.5	-91.48	408.5	206.8	149.0	130.7	8.139	
1,800.0	1,692.2	1,784.3	1,671.3	12.6	12.9	-90.58	456.0	233.4	164.4	144.4	8.207	
1,900.0	1,777.9	1,883.1	1,753.8	13.0	13.2	-89.83	503.5	260.1	179.9	158.1	8.259	
2,000.0	1,863.5	1,981.9	1,836.2	13.4	13.6	-89.20	550.9	286.7	195.4	171.8	8.299	
2,100.0	1,949.1	2,080.7	1,918.6	13.8	13.9	-88.67	598.4	313.3	210.9	185.6	8.331	
2,200.0	2,034.8	2,179.4	2,001.0	14.2	14.3	-88.21	645.9	339.9	226.4	199.3	8.357	
2,300.0	2,120.4	2,278.2	2,083.5	14.6	14.7	-87.80	693.3	366.5	242.0	213.1	8.377	
2,400.0	2,206.0	2,377.0	2,165.9	15.5	15.3	-87.45	740.8	393.2	257.5	226.9	8.412	
2,500.0	2,291.7	2,475.7	2,248.3	16.4	16.2	-87.13	788.3	419.8	273.1	240.6	8.417	
2,600.0	2,377.3	2,574.5	2,330.7	17.3	17.1	-86.85	835.7	446.4	288.6	254.4	8.429	
2,700.0	2,462.9	2,673.3	2,413.2	18.2	18.1	-86.60	883.2	473.0	304.2	268.2	8.440	
2,800.0	2,548.6	2,772.1	2,495.6	19.2	19.0	-86.38	930.7	499.6	319.8	281.9	8.449	
2,900.0	2,634.2	2,870.8	2,578.0	20.1	19.9	-86.17	978.1	526.3	335.4	295.7	8.458	
3,000.0	2,719.8	2,969.6	2,660.4	21.0	20.9	-85.98	1,025.6	552.9	351.0	309.5	8.465	
3,100.0	2,805.5	3,068.4	2,742.8	21.9	21.8	-85.81	1,073.1	579.5	366.6	323.3	8.471	
3,200.0	2,891.1	3,167.1	2,825.3	22.9	22.7	-85.65	1,120.6	606.1	382.2	337.1	8.477	
3,300.0	2,976.7	3,265.9	2,907.7	23.8	23.7	-85.51	1,168.0	632.7	397.8	350.9	8.482	
3,400.0	3,062.4	3,364.7	2,990.1	24.7	24.6	-85.37	1,215.5	659.4	413.4	364.7	8.487	
3,500.0	3,148.0	3,463.5	3,072.5	25.7	25.5	-85.25	1,263.0	686.0	429.0	378.4	8.491	
3,600.0	3,233.6	3,562.2	3,155.0	26.6	26.5	-85.13	1,310.4	712.6	444.6	392.2	8.494	
3,700.0	3,319.2	3,661.0	3,237.4	27.5	27.4	-85.03	1,357.9	739.2	460.2	406.0	8.498	
3,800.0	3,404.9	3,759.8	3,319.8	28.5	28.3	-84.93	1,405.4	765.8	475.8	419.8	8.501	
3,900.0	3,490.5	3,858.5	3,402.2	29.4	29.3	-84.83	1,452.8	792.5	491.4	433.6	8.503	
4,000.0	3,576.1	3,957.3	3,484.7	30.3	30.2	-84.74	1,500.3	819.1	507.0	447.4	8.506	
4,100.0	3,661.8	4,056.1	3,567.1	31.3	31.1	-84.66	1,547.8	845.7	522.6	461.2	8.508	
4,200.0	3,747.4	4,154.9	3,649.5	32.2	32.1	-84.58	1,595.2	872.3	538.2	475.0	8.510	
4,300.0	3,833.0	4,253.6	3,731.9	33.1	33.0	-84.51	1,642.7	898.9	553.8	488.8	8.512	
4,400.0	3,918.7	4,352.4	3,814.4	34.1	33.9	-84.44	1,690.2	925.6	569.5	502.6	8.513	
4,500.0	4,004.3	4,451.2	3,896.8	35.0	34.9	-84.37	1,737.7	952.2	585.1	516.4	8.515	
4,600.0	4,089.9	4,549.9	3,979.2	35.9	35.8	-84.31	1,785.1	978.8	600.7	530.1	8.516	
4,700.0	4,175.6	4,648.7	4,061.6	36.9	36.8	-84.25	1,832.6	1,005.4	616.3	543.9	8.518	
4,800.0	4,261.2	4,747.5	4,144.1	37.8	37.7	-84.19	1,880.1	1,032.0	631.9	557.7	8.519	
4,900.0	4,346.8	4,846.2	4,226.5	38.7	38.6	-84.14	1,927.5	1,058.7	647.5	571.5	8.520	
5,000.0	4,432.5	4,945.0	4,308.9	39.7	39.6	-84.09	1,975.0	1,085.3	663.1	585.3	8.521	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-11W - OH - Design #2													
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,518.1	5,043.8	4,391.3	40.6	40.5	-84.04	2,022.5	1,111.9	678.8	599.1	8.522		
5,200.0	4,603.7	5,142.6	4,473.8	41.5	41.5	-83.99	2,069.9	1,138.5	694.4	612.9	8.523		
5,300.0	4,689.3	5,241.3	4,556.2	42.5	42.4	-83.95	2,117.4	1,165.1	710.0	626.7	8.524		
5,400.0	4,775.0	5,340.1	4,638.6	43.4	43.3	-83.90	2,164.9	1,191.8	725.6	640.5	8.524		
5,500.0	4,860.6	5,438.9	4,721.0	44.3	44.3	-83.86	2,212.3	1,218.4	741.2	654.3	8.525		
5,600.0	4,946.3	5,537.6	4,803.5	45.3	45.2	-83.89	2,259.8	1,245.0	756.9	668.1	8.527		
5,700.0	5,033.4	5,642.4	4,891.2	46.2	46.2	-84.05	2,309.7	1,273.0	772.6	682.0	8.526		
5,800.0	5,122.5	5,754.5	4,987.6	47.0	47.2	-84.14	2,359.7	1,301.0	787.4	694.9	8.516		
5,900.0	5,213.6	5,867.3	5,087.2	47.7	48.1	-84.23	2,405.7	1,326.8	800.9	706.8	8.507		
6,000.0	5,306.4	5,980.7	5,189.9	48.4	48.9	-84.32	2,447.7	1,350.4	813.2	717.5	8.500		
6,100.0	5,400.7	6,094.7	5,295.4	48.9	49.6	-84.39	2,485.3	1,371.5	824.1	727.1	8.495		
6,200.0	5,496.3	6,209.1	5,403.3	49.4	50.3	-84.46	2,518.4	1,390.0	833.7	735.5	8.491		
6,300.0	5,593.2	6,324.0	5,513.5	49.9	50.8	-84.53	2,546.9	1,406.0	841.9	742.7	8.489		
6,400.0	5,691.0	6,439.3	5,625.5	50.2	51.3	-84.58	2,570.6	1,419.3	848.7	748.7	8.488		
6,500.0	5,789.7	6,554.8	5,739.0	50.5	51.7	-84.63	2,589.5	1,429.9	854.1	753.4	8.488		
6,600.0	5,888.9	6,670.6	5,853.7	50.7	51.9	-84.67	2,603.3	1,437.6	858.0	756.9	8.489		
6,700.0	5,988.6	6,786.6	5,969.2	50.8	52.1	-84.70	2,612.0	1,442.5	860.5	759.1	8.491		
6,800.0	6,088.6	6,902.6	6,085.1	50.9	52.2	-84.72	2,615.7	1,444.6	861.5	760.1	8.493		
6,900.0	6,188.6	7,006.1	6,188.6	50.9	52.2	-39.13	2,615.8	1,444.7	861.5	760.1	8.493		
7,000.0	6,288.6	7,106.1	6,288.6	50.9	52.2	-39.13	2,615.8	1,444.7	861.5	760.0	8.489		
7,100.0	6,388.6	7,206.1	6,388.6	51.0	52.3	-39.13	2,615.8	1,444.7	861.5	760.0	8.486		
7,200.0	6,488.6	7,306.1	6,488.6	51.0	52.3	-39.13	2,615.8	1,444.7	861.5	760.0	8.483		
7,300.0	6,588.6	7,406.1	6,588.6	51.0	52.3	-39.13	2,615.8	1,444.7	861.5	759.9	8.480		
7,400.0	6,688.6	7,506.1	6,688.6	51.0	52.3	-39.13	2,615.8	1,444.7	861.5	759.9	8.477		
7,500.0	6,788.6	7,606.1	6,788.6	51.0	52.3	-39.13	2,615.8	1,444.7	861.5	759.8	8.473		
7,600.0	6,888.6	7,706.1	6,888.6	51.1	52.3	-39.13	2,615.8	1,444.7	861.5	759.8	8.470		
7,700.0	6,988.6	7,806.1	6,988.6	51.1	52.4	-39.13	2,615.8	1,444.7	861.5	759.8	8.467		
7,800.0	7,088.6	7,906.1	7,088.6	51.1	52.4	-39.13	2,615.8	1,444.7	861.5	759.7	8.463		
7,900.0	7,188.6	8,006.1	7,188.6	51.1	52.4	-39.13	2,615.8	1,444.7	861.5	759.7	8.460		
8,000.0	7,288.6	8,106.1	7,288.6	51.1	52.4	-39.13	2,615.8	1,444.7	861.5	759.6	8.457		
8,100.0	7,388.6	8,206.1	7,388.6	51.2	52.4	-39.13	2,615.8	1,444.7	861.5	759.6	8.453		
8,200.0	7,488.6	8,306.1	7,488.6	51.2	52.4	-39.13	2,615.8	1,444.7	861.5	759.6	8.450		
8,300.0	7,588.6	8,406.1	7,588.6	51.2	52.5	-39.13	2,615.8	1,444.7	861.5	759.5	8.447		
8,400.0	7,688.6	8,506.1	7,688.6	51.2	52.5	-39.13	2,615.8	1,444.7	861.5	759.5	8.443		
8,500.0	7,788.6	8,606.1	7,788.6	51.2	52.5	-39.13	2,615.8	1,444.7	861.5	759.4	8.440		
8,600.0	7,888.6	8,706.1	7,888.6	51.3	52.5	-39.13	2,615.8	1,444.7	861.5	759.4	8.436		
8,700.0	7,988.6	8,806.1	7,988.6	51.3	52.5	-39.13	2,615.8	1,444.7	861.5	759.4	8.433		
8,800.0	8,088.6	8,906.1	8,088.6	51.3	52.5	-39.13	2,615.8	1,444.7	861.5	759.3	8.429		
8,900.0	8,188.6	9,006.1	8,188.6	51.3	52.6	-39.13	2,615.8	1,444.7	861.5	759.3	8.426		
9,000.0	8,288.6	9,106.1	8,288.6	51.3	52.6	-39.13	2,615.8	1,444.7	861.5	759.2	8.422		
9,100.0	8,388.6	9,206.1	8,388.6	51.4	52.6	-39.13	2,615.8	1,444.7	861.5	759.2	8.419		
9,200.0	8,488.6	9,306.1	8,488.6	51.4	52.6	-39.13	2,615.8	1,444.7	861.5	759.1	8.415		
9,300.0	8,588.6	9,406.1	8,588.6	51.4	52.6	-39.13	2,615.8	1,444.7	861.5	759.1	8.412		
9,400.0	8,688.6	9,506.1	8,688.6	51.4	52.6	-39.13	2,615.8	1,444.7	861.5	759.1	8.408		
9,401.3	8,689.8	9,507.3	8,689.8	51.4	52.6	-39.13	2,615.8	1,444.7	861.5	759.1	8.408		
9,418.4	8,707.0	9,520.3	8,702.8	51.4	52.7	-39.13	2,615.8	1,444.7	861.5	759.0	8.406		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-12W - OH - Design #2											Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	-46.80	6.9	-7.3	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.80	6.9	-7.3	10.0	8.4	6.325	
200.0	200.0	200.0	200.0	1.4	1.4	-46.80	6.9	-7.3	10.0	7.2	3.542	CC
300.0	300.0	299.9	299.9	1.9	2.5	-87.31	8.7	-6.1	10.5	6.8	2.897	ES
400.0	399.8	399.8	399.5	3.4	4.0	-82.96	14.1	-2.4	11.8	7.3	2.587	
500.0	499.3	499.5	498.7	4.6	5.1	-80.52	23.0	3.7	14.1	8.6	2.554	SF
600.0	598.3	599.2	597.2	5.6	6.0	-79.59	35.6	12.2	17.2	10.8	2.699	
700.0	696.6	698.9	694.9	6.5	6.9	-79.61	51.6	23.0	21.1	14.0	2.956	
800.0	794.0	798.4	791.6	7.3	7.6	-80.14	71.1	36.3	25.9	18.0	3.282	
900.0	890.3	897.8	887.1	8.1	8.3	-80.90	94.1	51.8	31.4	22.8	3.640	
1,000.0	985.3	997.1	981.1	8.8	9.0	-81.72	120.4	69.7	37.7	28.3	4.000	
1,100.0	1,078.9	1,096.3	1,073.6	9.4	9.7	-82.52	150.1	89.8	44.9	34.5	4.339	
1,200.0	1,170.9	1,195.3	1,164.3	10.1	10.3	-83.28	183.0	112.1	52.8	41.4	4.640	
1,300.0	1,261.0	1,294.2	1,251.1	10.7	10.9	-83.96	219.0	136.5	61.5	49.0	4.897	
1,400.0	1,349.2	1,393.0	1,339.8	11.3	11.5	-84.56	258.1	163.0	71.0	57.1	5.100	
1,500.0	1,435.4	1,492.4	1,425.8	11.7	11.9	-86.12	299.4	191.0	80.8	65.5	5.282	
1,600.0	1,521.0	1,591.8	1,511.8	12.0	12.2	-88.10	340.8	219.1	90.7	73.9	5.396	
1,700.0	1,606.6	1,691.3	1,597.7	12.3	12.6	-89.69	382.2	247.1	100.6	82.2	5.467	
1,800.0	1,692.2	1,790.8	1,683.7	12.6	12.9	-91.00	423.6	275.2	110.6	90.5	5.516	
1,900.0	1,777.9	1,890.2	1,769.7	13.0	13.3	-92.09	464.9	303.3	120.6	98.9	5.550	
2,000.0	1,863.5	1,989.7	1,855.7	13.4	13.6	-93.01	506.3	331.3	130.7	107.3	5.576	
2,100.0	1,949.1	2,089.2	1,941.7	13.8	14.0	-93.80	547.7	359.4	140.8	115.7	5.595	
2,200.0	2,034.8	2,188.6	2,027.7	14.2	14.4	-94.48	589.1	387.4	151.0	124.1	5.611	
2,300.0	2,120.4	2,288.1	2,113.7	14.6	14.8	-95.08	630.5	415.5	161.1	132.5	5.624	
2,400.0	2,206.0	2,387.6	2,199.7	15.5	15.2	-95.60	671.8	443.5	171.3	140.9	5.633	
2,500.0	2,291.7	2,487.1	2,285.7	16.4	15.8	-96.07	713.2	471.6	181.5	149.4	5.649	
2,600.0	2,377.3	2,586.5	2,371.7	17.3	16.7	-96.49	754.6	499.6	191.7	157.8	5.652	
2,700.0	2,462.9	2,686.0	2,457.7	18.2	17.5	-96.86	796.0	527.7	201.9	166.2	5.658	
2,800.0	2,548.6	2,785.5	2,543.7	19.2	18.4	-97.20	837.4	555.7	212.1	174.7	5.664	
2,900.0	2,634.2	2,884.9	2,629.7	20.1	19.3	-97.51	878.7	583.8	222.3	183.1	5.669	
3,000.0	2,719.8	2,984.4	2,715.7	21.0	20.1	-97.79	920.1	611.9	232.6	191.6	5.674	
3,100.0	2,805.5	3,083.9	2,801.7	21.9	21.0	-98.05	961.5	639.9	242.8	200.0	5.678	
3,200.0	2,891.1	3,183.3	2,887.6	22.9	21.8	-98.29	1,002.9	668.0	253.0	208.5	5.681	
3,300.0	2,976.7	3,282.8	2,973.6	23.8	22.7	-98.50	1,044.3	696.0	263.3	216.9	5.685	
3,400.0	3,062.4	3,382.3	3,059.6	24.7	23.6	-98.71	1,085.6	724.1	273.5	225.4	5.688	
3,500.0	3,148.0	3,481.7	3,145.6	25.7	24.4	-98.89	1,127.0	752.1	283.7	233.9	5.691	
3,600.0	3,233.6	3,581.2	3,231.6	26.6	25.3	-99.07	1,168.4	780.2	294.0	242.4	5.693	
3,700.0	3,319.2	3,680.7	3,317.6	27.5	26.2	-99.23	1,209.8	808.2	304.2	250.8	5.696	
3,800.0	3,404.9	3,780.2	3,403.6	28.5	27.0	-99.38	1,251.2	836.3	314.5	259.3	5.698	
3,900.0	3,490.5	3,879.6	3,489.6	29.4	27.9	-99.52	1,292.6	864.3	324.8	267.8	5.700	
4,000.0	3,576.1	3,979.1	3,575.6	30.3	28.8	-99.66	1,333.9	892.4	335.0	276.3	5.702	
4,100.0	3,661.8	4,078.6	3,661.6	31.3	29.6	-99.78	1,375.3	920.5	345.3	284.7	5.703	
4,200.0	3,747.4	4,178.0	3,747.6	32.2	30.5	-99.90	1,416.7	948.5	355.5	293.2	5.705	
4,300.0	3,833.0	4,277.5	3,833.6	33.1	31.4	-100.01	1,458.1	976.6	365.8	301.7	5.707	
4,400.0	3,918.7	4,377.0	3,919.6	34.1	32.2	-100.12	1,499.5	1,004.6	376.0	310.2	5.708	
4,500.0	4,004.3	4,476.4	4,005.6	35.0	33.1	-100.22	1,540.8	1,032.7	386.3	318.6	5.709	
4,600.0	4,089.9	4,575.9	4,091.5	35.9	34.0	-100.31	1,582.2	1,060.7	396.6	327.1	5.711	
4,700.0	4,175.6	4,675.4	4,177.5	36.9	34.8	-100.40	1,623.6	1,088.8	406.8	335.6	5.712	
4,800.0	4,261.2	4,774.9	4,263.5	37.8	35.7	-100.49	1,665.0	1,116.8	417.1	344.1	5.713	
4,900.0	4,346.8	4,874.3	4,349.5	38.7	36.6	-100.57	1,706.4	1,144.9	427.4	352.6	5.714	
5,000.0	4,432.5	4,973.8	4,435.5	39.7	37.4	-100.65	1,747.7	1,173.0	437.6	361.1	5.715	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-12W - OH - Design #2												Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard													
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	Offset Wellbore Centre +E-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,518.1	5,073.3	4,521.5	40.6	38.3	-100.72	1,789.1	1,201.0	447.9	369.6	5.716		
5,200.0	4,603.7	5,172.7	4,607.5	41.5	39.2	-100.79	1,830.5	1,229.1	458.2	378.0	5.717		
5,300.0	4,689.3	5,272.2	4,693.5	42.5	40.0	-100.86	1,871.9	1,257.1	468.5	386.5	5.718		
5,400.0	4,775.0	5,371.7	4,779.5	43.4	40.9	-100.93	1,913.3	1,285.2	478.7	395.0	5.719		
5,500.0	4,860.6	5,471.1	4,865.5	44.3	41.8	-100.99	1,954.6	1,313.2	489.0	403.5	5.719		
5,600.0	4,946.3	5,570.6	4,951.5	45.3	42.6	-101.08	1,996.0	1,341.3	499.3	412.0	5.720		
5,700.0	5,033.4	5,669.7	5,038.0	46.2	43.5	-101.26	2,036.0	1,368.4	509.0	420.0	5.721		
5,800.0	5,122.5	5,768.9	5,126.7	47.0	44.2	-101.42	2,072.8	1,393.3	518.0	427.4	5.720		
5,900.0	5,213.6	5,868.2	5,217.2	47.7	44.9	-101.56	2,106.5	1,416.2	526.2	434.2	5.721		
6,000.0	5,306.4	5,967.5	5,309.5	48.4	45.6	-101.69	2,136.9	1,436.8	533.6	440.3	5.721		
6,100.0	5,400.7	6,066.9	5,403.3	48.9	46.1	-101.81	2,164.0	1,455.2	540.2	445.8	5.722		
6,200.0	5,496.3	6,166.4	5,498.6	49.4	46.6	-101.91	2,187.7	1,471.2	546.0	450.6	5.723		
6,300.0	5,593.2	6,265.9	5,595.0	49.9	47.0	-102.00	2,208.0	1,485.0	550.9	454.7	5.724		
6,400.0	5,691.0	6,365.5	5,692.5	50.2	47.4	-102.08	2,224.8	1,496.4	555.0	458.0	5.725		
6,500.0	5,789.7	6,465.1	5,790.8	50.5	47.7	-102.15	2,238.1	1,505.4	558.2	460.7	5.725		
6,600.0	5,888.9	6,564.7	5,889.7	50.7	47.9	-102.20	2,247.8	1,512.0	560.6	462.7	5.725		
6,700.0	5,988.6	6,664.3	5,989.1	50.8	48.0	-102.24	2,254.0	1,516.2	562.2	464.0	5.724		
6,800.0	6,088.6	6,764.0	6,088.7	50.9	48.1	-102.27	2,256.6	1,518.0	562.8	464.5	5.723		
6,900.0	6,188.6	6,863.9	6,188.6	50.9	48.1	-56.68	2,256.7	1,518.0	562.9	464.5	5.721		
7,000.0	6,288.6	6,963.9	6,288.6	50.9	48.1	-56.68	2,256.7	1,518.0	562.9	464.4	5.719		
7,100.0	6,388.6	7,063.9	6,388.6	51.0	48.1	-56.68	2,256.7	1,518.0	562.9	464.4	5.717		
7,200.0	6,488.6	7,163.9	6,488.6	51.0	48.2	-56.68	2,256.7	1,518.0	562.9	464.4	5.714		
7,300.0	6,588.6	7,263.9	6,588.6	51.0	48.2	-56.68	2,256.7	1,518.0	562.9	464.3	5.712		
7,400.0	6,688.6	7,363.9	6,688.6	51.0	48.2	-56.68	2,256.7	1,518.0	562.9	464.3	5.710		
7,500.0	6,788.6	7,463.9	6,788.6	51.0	48.2	-56.68	2,256.7	1,518.0	562.9	464.2	5.708		
7,600.0	6,888.6	7,563.9	6,888.6	51.1	48.2	-56.68	2,256.7	1,518.0	562.9	464.2	5.706		
7,700.0	6,988.6	7,663.9	6,988.6	51.1	48.3	-56.68	2,256.7	1,518.0	562.9	464.2	5.704		
7,800.0	7,088.6	7,763.9	7,088.6	51.1	48.3	-56.68	2,256.7	1,518.0	562.9	464.1	5.702		
7,900.0	7,188.6	7,863.9	7,188.6	51.1	48.3	-56.68	2,256.7	1,518.0	562.9	464.1	5.699		
8,000.0	7,288.6	7,963.9	7,288.6	51.1	48.3	-56.68	2,256.7	1,518.0	562.9	464.1	5.697		
8,100.0	7,388.6	8,063.9	7,388.6	51.2	48.3	-56.68	2,256.7	1,518.0	562.9	464.0	5.695		
8,200.0	7,488.6	8,163.9	7,488.6	51.2	48.4	-56.68	2,256.7	1,518.0	562.9	464.0	5.693		
8,300.0	7,588.6	8,263.9	7,588.6	51.2	48.4	-56.68	2,256.7	1,518.0	562.9	463.9	5.691		
8,400.0	7,688.6	8,363.9	7,688.6	51.2	48.4	-56.68	2,256.7	1,518.0	562.9	463.9	5.688		
8,500.0	7,788.6	8,463.9	7,788.6	51.2	48.4	-56.68	2,256.7	1,518.0	562.9	463.9	5.686		
8,565.8	7,854.4	8,529.7	7,854.4	51.2	48.4	-56.68	2,256.7	1,518.0	562.9	463.8	5.685		
8,600.0	7,888.6	8,561.3	7,886.0	51.3	48.4	-56.68	2,256.7	1,518.0	562.9	463.8	5.685		
8,700.0	7,988.6	8,561.3	7,886.0	51.3	48.4	-56.68	2,256.7	1,518.0	572.1	474.8	5.877		
8,800.0	8,088.6	8,561.3	7,886.0	51.3	48.4	-56.68	2,256.7	1,518.0	598.2	504.5	6.387		
8,900.0	8,188.6	8,561.3	7,886.0	51.3	48.4	-56.68	2,256.7	1,518.0	639.0	550.3	7.200		
9,000.0	8,288.6	8,561.3	7,886.0	51.3	48.4	-56.68	2,256.7	1,518.0	692.0	608.5	8.292		
9,100.0	8,388.6	8,561.3	7,886.0	51.4	48.4	-56.68	2,256.7	1,518.0	754.6	676.2	9.628		
9,200.0	8,488.6	8,561.3	7,886.0	51.4	48.4	-56.68	2,256.7	1,518.0	824.6	750.8	11.173		
9,300.0	8,588.6	8,561.3	7,886.0	51.4	48.4	-56.68	2,256.7	1,518.0	900.2	830.4	12.889		
9,400.0	8,688.6	8,561.3	7,886.0	51.4	48.4	-56.68	2,256.7	1,518.0	980.3	913.8	14.740		
9,418.4	8,707.0	8,561.3	7,886.0	51.4	48.4	-56.68	2,256.7	1,518.0	995.4	929.5	15.093		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-14W - 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)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance		Separation Factor	Warning		
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			Offset Site Error:	Offset Well Error:
0.0	0.0	0.0	0.0	0.0	0.0	133.32	-6.9	7.3	10.0					
100.0	100.0	100.0	100.0	0.8	0.8	133.32	-6.9	7.3	10.0	8.4	6.312			
200.0	200.0	200.0	200.0	1.4	1.4	133.32	-6.9	7.3	10.0	7.2	3.534 CC			
300.0	300.0	299.9	299.9	1.9	2.1	85.82	-5.9	8.5	10.2	6.7	2.902			
400.0	399.8	399.9	399.7	3.4	3.6	83.81	-2.1	13.0	10.7	6.4	2.476 Level 1, ES			
500.0	499.3	499.8	499.0	4.6	4.8	82.35	4.4	20.9	11.6	6.5	2.270 Level 1			
600.0	598.3	599.6	597.8	5.6	5.8	81.44	13.6	32.1	12.9	7.0	2.196 Level 1, SF			
700.0	696.6	699.5	695.9	6.5	6.6	81.00	25.6	46.7	14.6	8.0	2.200 Level 1			
800.0	794.0	799.3	793.0	7.3	7.4	80.92	40.2	64.5	16.6	9.2	2.250 Level 1			
900.0	890.3	899.1	889.0	8.1	8.2	81.09	57.5	85.5	19.0	10.8	2.323 Level 1			
1,000.0	985.3	998.8	983.6	8.8	8.9	81.41	77.5	109.8	21.7	12.7	2.403 Level 1			
1,100.0	1,078.9	1,098.6	1,076.8	9.4	9.5	81.82	100.0	137.2	24.8	14.8	2.478 Level 1			
1,200.0	1,170.9	1,198.3	1,168.4	10.1	10.1	82.26	125.1	167.7	28.2	17.1	2.542			
1,300.0	1,261.0	1,297.9	1,258.1	10.7	10.8	82.71	152.7	201.2	32.0	19.6	2.590			
1,400.0	1,349.2	1,397.7	1,346.1	11.3	11.1	83.78	182.5	237.5	36.0	22.3	2.636			
1,500.0	1,435.4	1,497.5	1,433.8	11.7	11.4	89.57	212.8	274.2	39.9	24.9	2.663			
1,600.0	1,521.0	1,597.3	1,521.5	12.0	11.7	95.68	243.1	311.0	44.2	27.6	2.655			
1,700.0	1,606.6	1,697.1	1,609.2	12.3	12.1	100.65	273.3	347.8	49.0	30.5	2.648			
1,800.0	1,692.2	1,796.9	1,696.9	12.6	12.4	104.72	303.6	384.6	54.0	33.7	2.654			
1,900.0	1,777.9	1,896.7	1,784.6	13.0	12.8	108.08	333.9	421.3	59.3	37.1	2.673			
2,000.0	1,863.5	1,996.5	1,872.4	13.4	13.2	110.88	364.1	458.1	64.8	40.8	2.701			
2,100.0	1,949.1	2,096.3	1,960.1	13.8	13.6	113.24	394.4	494.9	70.4	44.6	2.735			
2,200.0	2,034.8	2,196.1	2,047.8	14.2	14.0	115.26	424.6	531.7	76.0	48.6	2.772			
2,300.0	2,120.4	2,295.9	2,135.5	14.6	14.4	116.99	454.9	568.4	81.8	52.7	2.811			
2,400.0	2,206.0	2,395.8	2,223.2	15.5	15.0	118.49	485.2	605.2	87.6	56.9	2.850			
2,500.0	2,291.7	2,495.6	2,310.9	16.4	15.8	119.80	515.4	642.0	93.5	61.1	2.889			
2,600.0	2,377.3	2,595.4	2,398.6	17.3	16.7	120.96	545.7	678.8	99.4	65.5	2.926			
2,700.0	2,462.9	2,695.2	2,486.3	18.2	17.5	121.99	575.9	715.5	105.4	69.8	2.963			
2,800.0	2,548.6	2,795.0	2,574.0	19.2	18.4	122.91	606.2	752.3	111.4	74.2	2.998			
2,900.0	2,634.2	2,894.8	2,661.7	20.1	19.3	123.73	636.5	789.1	117.4	78.7	3.032			
3,000.0	2,719.8	2,994.6	2,749.5	21.0	20.1	124.48	666.7	825.9	123.5	83.2	3.064			
3,100.0	2,805.5	3,094.4	2,837.2	21.9	21.0	125.15	697.0	862.6	129.5	87.7	3.095			
3,200.0	2,891.1	3,194.2	2,924.9	22.9	21.8	125.76	727.2	899.4	135.6	92.2	3.124			
3,300.0	2,976.7	3,294.0	3,012.6	23.8	22.7	126.32	757.5	936.2	141.7	96.7	3.152			
3,400.0	3,062.4	3,393.8	3,100.3	24.7	23.6	126.84	787.8	973.0	147.8	101.3	3.178			
3,500.0	3,148.0	3,493.6	3,188.0	25.7	24.4	127.31	818.0	1,009.7	153.9	105.8	3.203			
3,600.0	3,233.6	3,593.4	3,275.7	26.6	25.3	127.75	848.3	1,046.5	160.0	110.4	3.227			
3,700.0	3,319.2	3,693.2	3,363.4	27.5	26.1	128.16	878.5	1,083.3	166.1	115.0	3.250			
3,800.0	3,404.9	3,793.0	3,451.1	28.5	27.0	128.53	908.8	1,120.1	172.3	119.6	3.272			
3,900.0	3,490.5	3,892.8	3,538.8	29.4	27.9	128.88	939.1	1,156.8	178.4	124.2	3.292			
4,000.0	3,576.1	3,992.6	3,626.6	30.3	28.7	129.21	969.3	1,193.6	184.6	128.8	3.312			
4,100.0	3,661.8	4,092.4	3,714.3	31.3	29.6	129.52	999.6	1,230.4	190.7	133.5	3.331			
4,200.0	3,747.4	4,192.2	3,802.0	32.2	30.5	129.80	1,029.8	1,267.2	196.9	138.1	3.349			
4,300.0	3,833.0	4,292.1	3,889.7	33.1	31.3	130.07	1,060.1	1,303.9	203.0	142.7	3.366			
4,400.0	3,918.7	4,391.9	3,977.4	34.1	32.2	130.33	1,090.4	1,340.7	209.2	147.4	3.382			
4,500.0	4,004.3	4,491.7	4,065.1	35.0	33.1	130.57	1,120.6	1,377.5	215.4	152.0	3.398			
4,600.0	4,089.9	4,591.5	4,152.8	35.9	33.9	130.79	1,150.9	1,414.2	221.6	156.6	3.413			
4,700.0	4,175.6	4,691.3	4,240.5	36.9	34.8	131.01	1,181.1	1,451.0	227.7	161.3	3.427			
4,800.0	4,261.2	4,791.1	4,328.2	37.8	35.7	131.21	1,211.4	1,487.8	233.9	165.9	3.441			
4,900.0	4,346.8	4,890.9	4,416.0	38.7	36.5	131.40	1,241.6	1,524.6	240.1	170.6	3.454			
5,000.0	4,432.5	4,990.7	4,503.7	39.7	37.4	131.58	1,271.9	1,561.3	246.3	175.3	3.467			

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning
				Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)		
5,100.0	4,518.1	5,090.5	4,591.4	40.6	38.3	131.76	1,302.2	1,598.1	252.5	179.9	3.479	
5,200.0	4,603.7	5,190.3	4,679.1	41.5	39.1	131.92	1,332.4	1,634.9	258.7	184.6	3.491	
5,300.0	4,689.3	5,290.1	4,766.8	42.5	40.0	132.08	1,362.7	1,671.7	264.9	189.2	3.502	
5,400.0	4,775.0	5,389.9	4,854.5	43.4	40.9	132.23	1,392.9	1,708.4	271.1	193.9	3.513	
5,500.0	4,860.6	5,489.7	4,942.2	44.3	41.7	132.37	1,423.2	1,745.2	277.3	198.6	3.523	
5,600.0	4,946.3	5,588.8	5,029.3	45.3	42.6	132.52	1,453.3	1,781.7	283.4	203.2	3.533	
5,700.0	5,033.4	5,681.5	5,111.8	46.2	43.3	132.70	1,480.1	1,814.3	289.1	207.5	3.542	
5,800.0	5,122.5	5,774.1	5,195.8	47.0	44.0	132.86	1,504.8	1,844.3	294.4	211.4	3.548	
5,900.0	5,213.6	5,866.5	5,281.2	47.7	44.7	133.00	1,527.2	1,871.6	299.2	215.0	3.554	
6,000.0	5,306.4	5,958.9	5,367.9	48.4	45.2	133.12	1,547.5	1,896.2	303.5	218.2	3.560	
6,100.0	5,400.7	6,051.1	5,455.7	48.9	45.7	133.23	1,565.5	1,918.1	307.4	221.2	3.566	
6,200.0	5,496.3	6,143.3	5,544.5	49.4	46.1	133.33	1,581.2	1,937.2	310.7	223.7	3.571	
6,300.0	5,593.2	6,235.5	5,634.2	49.9	46.5	133.40	1,594.6	1,953.5	313.6	225.9	3.577	
6,400.0	5,691.0	6,327.6	5,724.6	50.2	46.8	133.47	1,605.7	1,967.0	316.0	227.8	3.583	
6,500.0	5,789.7	6,419.6	5,815.6	50.5	47.1	133.52	1,614.5	1,977.7	317.9	229.3	3.589	
6,600.0	5,888.9	6,511.6	5,907.0	50.7	47.2	133.56	1,621.0	1,985.6	319.3	230.4	3.594	
6,700.0	5,988.6	6,600.0	5,995.2	50.8	47.3	133.58	1,625.0	1,990.5	320.2	231.4	3.608	
6,800.0	6,088.6	6,695.6	6,090.7	50.9	47.4	133.59	1,626.9	1,992.8	320.5	231.7	3.607	
6,900.0	6,188.6	6,793.4	6,188.6	50.9	47.4	133.59	1,627.0	1,992.9	320.5	231.7	3.609	
7,000.0	6,288.6	6,893.4	6,288.6	50.9	47.5	133.59	1,627.0	1,992.9	320.5	231.7	3.607	
7,100.0	6,388.6	6,993.4	6,388.6	51.0	47.5	133.59	1,627.0	1,992.9	320.5	231.6	3.605	
7,200.0	6,488.6	7,093.4	6,488.6	51.0	47.5	133.59	1,627.0	1,992.9	320.5	231.6	3.602	
7,300.0	6,588.6	7,193.4	6,588.6	51.0	47.5	133.59	1,627.0	1,992.9	320.5	231.5	3.600	
7,400.0	6,688.6	7,293.4	6,688.6	51.0	47.5	133.59	1,627.0	1,992.9	320.5	231.5	3.598	
7,500.0	6,788.6	7,393.4	6,788.6	51.0	47.6	133.59	1,627.0	1,992.9	320.5	231.4	3.596	
7,600.0	6,888.6	7,493.4	6,888.6	51.1	47.6	133.59	1,627.0	1,992.9	320.5	231.4	3.594	
7,700.0	6,988.6	7,593.4	6,988.6	51.1	47.6	133.59	1,627.0	1,992.9	320.5	231.3	3.592	
7,800.0	7,088.6	7,693.4	7,088.6	51.1	47.6	133.59	1,627.0	1,992.9	320.5	231.2	3.590	
7,900.0	7,188.6	7,793.4	7,188.6	51.1	47.6	133.59	1,627.0	1,992.9	320.5	231.2	3.587	
8,000.0	7,288.6	7,893.4	7,288.6	51.1	47.7	133.59	1,627.0	1,992.9	320.5	231.1	3.585	
8,100.0	7,388.6	7,993.4	7,388.6	51.2	47.7	133.59	1,627.0	1,992.9	320.5	231.1	3.583	
8,200.0	7,488.6	8,093.4	7,488.6	51.2	47.7	133.59	1,627.0	1,992.9	320.5	231.0	3.581	
8,300.0	7,588.6	8,193.4	7,588.6	51.2	47.7	133.59	1,627.0	1,992.9	320.5	231.0	3.579	
8,400.0	7,688.6	8,293.4	7,688.6	51.2	47.8	133.59	1,627.0	1,992.9	320.5	230.9	3.576	
8,500.0	7,788.6	8,393.4	7,788.6	51.2	47.8	133.59	1,627.0	1,992.9	320.5	230.9	3.574	
8,600.0	7,888.6	8,493.4	7,888.6	51.3	47.8	133.59	1,627.0	1,992.9	320.5	230.8	3.572	
8,700.0	7,988.6	8,494.9	7,890.0	51.3	47.8	133.59	1,627.0	1,992.9	335.4	253.6	4.103	
8,800.0	8,088.6	8,494.9	7,890.0	51.3	47.8	133.59	1,627.0	1,992.9	377.1	306.3	5.329	
8,900.0	8,188.6	8,494.9	7,890.0	51.3	47.8	133.59	1,627.0	1,992.9	438.1	377.2	7.193	
9,000.0	8,288.6	8,494.9	7,890.0	51.3	47.8	133.59	1,627.0	1,992.9	511.5	457.9	9.542	
9,100.0	8,388.6	8,494.9	7,890.0	51.4	47.8	133.59	1,627.0	1,992.9	592.7	544.0	12.175	
9,200.0	8,488.6	8,494.9	7,890.0	51.4	47.8	133.59	1,627.0	1,992.9	679.0	633.5	14.914	
9,300.0	8,588.6	8,494.9	7,890.0	51.4	47.8	133.59	1,627.0	1,992.9	768.6	725.0	17.639	
9,400.0	8,688.6	8,494.9	7,890.0	51.4	47.8	133.59	1,627.0	1,992.9	860.5	818.1	20.290	
9,418.4	8,707.0	8,494.9	7,890.0	51.4	47.8	133.59	1,627.0	1,992.9	877.6	835.4	20.769	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-15W - OH - Design #2											Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	133.30	-13.7	14.5	20.0			
100.0	100.0	100.0	100.0	0.8	0.8	133.30	-13.7	14.5	20.0	18.4	12.619	
200.0	200.0	200.0	200.0	1.4	1.4	133.30	-13.7	14.5	20.0	17.2	7.066	
253.4	253.4	253.4	253.4	1.6	1.5	89.03	-13.7	14.6	20.0	16.9	6.406	CC
300.0	300.0	299.9	299.9	1.9	1.7	89.68	-13.4	15.0	20.1	16.8	6.067	ES
400.0	399.8	399.8	399.6	3.4	3.0	92.88	-11.0	18.6	20.9	16.8	5.122	
500.0	499.3	499.6	499.1	4.6	4.3	95.81	-6.1	25.8	22.6	17.8	4.696	
600.0	598.3	599.5	598.2	5.6	5.4	98.21	1.1	36.6	25.1	19.6	4.559	SF
700.0	696.6	699.5	696.6	6.5	6.3	100.01	10.8	51.0	28.5	22.2	4.570	
800.0	794.0	799.4	794.1	7.3	7.1	101.25	22.8	69.0	32.6	25.6	4.663	
900.0	890.3	899.3	890.6	8.1	7.9	102.03	37.2	90.4	37.6	29.7	4.799	
1,000.0	985.3	999.2	985.9	8.8	8.6	102.47	53.9	115.3	43.3	34.5	4.950	
1,100.0	1,078.9	1,099.1	1,079.8	9.4	9.3	102.64	72.9	143.7	49.7	40.0	5.096	
1,200.0	1,170.9	1,198.9	1,172.1	10.1	9.9	102.63	94.2	175.4	57.0	46.0	5.223	
1,300.0	1,261.0	1,298.8	1,262.5	10.7	10.5	102.49	117.7	210.4	64.9	52.7	5.323	
1,400.0	1,349.2	1,398.4	1,351.8	11.3	10.9	103.88	142.2	247.0	73.7	60.0	5.375	
1,500.0	1,435.4	1,497.7	1,440.9	11.7	11.3	107.73	166.7	283.5	83.7	68.2	5.414	
1,600.0	1,521.0	1,597.0	1,529.9	12.0	11.6	111.46	191.2	320.0	94.3	77.1	5.470	
1,700.0	1,606.6	1,696.2	1,618.9	12.3	11.9	114.43	215.7	356.4	105.3	86.4	5.546	
1,800.0	1,692.2	1,795.5	1,707.9	12.6	12.3	116.83	240.2	392.9	116.6	95.9	5.637	
1,900.0	1,777.9	1,894.7	1,796.9	13.0	12.6	118.80	264.7	429.4	128.0	105.7	5.733	
2,000.0	1,863.5	1,994.0	1,886.0	13.4	13.0	120.46	289.1	465.9	139.5	115.6	5.830	
2,100.0	1,949.1	2,093.3	1,975.0	13.8	13.4	121.85	313.6	502.4	151.1	125.6	5.926	
2,200.0	2,034.8	2,192.5	2,064.0	14.2	13.8	123.05	338.1	538.9	162.8	135.8	6.018	
2,300.0	2,120.4	2,291.8	2,153.0	14.6	14.2	124.09	362.6	575.4	174.6	146.0	6.105	
2,400.0	2,206.0	2,391.0	2,242.0	15.5	14.6	125.00	387.1	611.8	186.4	156.3	6.187	
2,500.0	2,291.7	2,490.3	2,331.0	16.4	15.1	125.80	411.5	648.3	198.2	166.6	6.265	
2,600.0	2,377.3	2,589.6	2,420.0	17.3	15.7	126.51	436.0	684.8	210.1	177.0	6.339	
2,700.0	2,462.9	2,688.8	2,509.0	18.2	16.5	127.14	460.5	721.3	222.0	187.4	6.407	
2,800.0	2,548.6	2,788.1	2,598.0	19.2	17.3	127.71	485.0	757.8	234.0	197.8	6.470	
2,900.0	2,634.2	2,887.3	2,687.0	20.1	18.1	128.22	509.5	794.3	245.9	208.3	6.530	
3,000.0	2,719.8	2,986.6	2,776.0	21.0	18.9	128.68	534.0	830.8	257.9	218.7	6.586	
3,100.0	2,805.5	3,085.9	2,865.0	21.9	19.7	129.11	558.4	867.2	269.9	229.2	6.639	
3,200.0	2,891.1	3,185.1	2,954.0	22.9	20.5	129.50	582.9	903.7	281.9	239.7	6.688	
3,300.0	2,976.7	3,284.4	3,043.0	23.8	21.3	129.85	607.4	940.2	293.9	250.2	6.734	
3,400.0	3,062.4	3,383.6	3,132.0	24.7	22.1	130.18	631.9	976.7	305.9	260.8	6.778	
3,500.0	3,148.0	3,482.9	3,221.0	25.7	22.9	130.49	656.4	1,013.2	317.9	271.3	6.819	
3,600.0	3,233.6	3,582.2	3,310.1	26.6	23.7	130.77	680.8	1,049.7	330.0	281.9	6.857	
3,700.0	3,319.2	3,681.4	3,399.1	27.5	24.5	131.03	705.3	1,086.1	342.0	292.4	6.894	
3,800.0	3,404.9	3,780.7	3,488.1	28.5	25.3	131.27	729.8	1,122.6	354.1	303.0	6.928	
3,900.0	3,490.5	3,879.9	3,577.1	29.4	26.1	131.50	754.3	1,159.1	366.1	313.5	6.960	
4,000.0	3,576.1	3,979.2	3,666.1	30.3	26.9	131.71	778.8	1,195.6	378.2	324.1	6.991	
4,100.0	3,661.8	4,078.5	3,755.1	31.3	27.7	131.91	803.2	1,232.1	390.3	334.7	7.020	
4,200.0	3,747.4	4,177.7	3,844.1	32.2	28.5	132.10	827.7	1,268.6	402.3	345.3	7.048	
4,300.0	3,833.0	4,277.0	3,933.1	33.1	29.3	132.28	852.2	1,305.1	414.4	355.8	7.074	
4,400.0	3,918.7	4,376.2	4,022.1	34.1	30.1	132.45	876.7	1,341.5	426.5	366.4	7.099	
4,500.0	4,004.3	4,475.5	4,111.1	35.0	30.9	132.60	901.2	1,378.0	438.6	377.0	7.123	
4,600.0	4,089.9	4,574.8	4,200.1	35.9	31.7	132.75	925.6	1,414.5	450.7	387.6	7.145	
4,700.0	4,175.6	4,674.0	4,289.1	36.9	32.5	132.89	950.1	1,451.0	462.8	398.2	7.167	
4,800.0	4,261.2	4,773.3	4,378.1	37.8	33.3	133.03	974.6	1,487.5	474.9	408.8	7.187	
4,900.0	4,346.8	4,872.5	4,467.1	38.7	34.1	133.16	999.1	1,524.0	487.0	419.4	7.207	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft	
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-15W - OH - Design #2												Offset Well Error:	0.0 usft	
Survey Program: 0-OWSG (REV5) MWD HDGM Standard														
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning		
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.0	4,432.5	4,971.8	4,556.1	39.7	34.9	133.28	1,023.6	1,560.5	499.1	430.0	7.226			
5,100.0	4,518.1	5,071.1	4,645.1	40.6	35.7	133.39	1,048.0	1,596.9	511.2	440.6	7.244			
5,200.0	4,603.7	5,170.3	4,734.2	41.5	36.5	133.50	1,072.5	1,633.4	523.3	451.2	7.261			
5,300.0	4,689.3	5,269.6	4,823.2	42.5	37.3	133.61	1,097.0	1,669.9	535.4	461.8	7.277			
5,400.0	4,775.0	5,368.8	4,912.2	43.4	38.1	133.71	1,121.5	1,706.4	547.5	472.4	7.293			
5,500.0	4,860.6	5,468.1	5,001.2	44.3	38.9	133.81	1,146.0	1,742.9	559.6	483.0	7.308			
5,600.0	4,946.3	5,567.4	5,090.2	45.3	39.7	133.93	1,170.5	1,779.4	571.6	493.6	7.323			
5,700.0	5,033.4	5,656.0	5,170.2	46.2	40.4	134.12	1,191.7	1,811.0	582.5	503.1	7.335			
5,800.0	5,122.5	5,742.9	5,250.0	47.0	41.0	134.29	1,210.9	1,839.6	592.5	511.8	7.343			
5,900.0	5,213.6	5,829.6	5,330.9	47.7	41.6	134.44	1,228.3	1,865.6	601.6	519.8	7.351			
6,000.0	5,306.4	5,916.3	5,412.8	48.4	42.1	134.58	1,244.0	1,889.0	609.8	526.9	7.358			
6,100.0	5,400.7	6,000.0	5,492.9	48.9	42.5	134.69	1,257.5	1,909.1	617.1	533.3	7.370			
6,200.0	5,496.3	6,089.3	5,579.4	49.4	42.9	134.79	1,270.1	1,927.9	623.4	538.9	7.373			
6,300.0	5,593.2	6,175.8	5,663.8	49.9	43.2	134.88	1,280.5	1,943.4	628.8	543.6	7.380			
6,400.0	5,691.0	6,262.2	5,748.7	50.2	43.5	134.94	1,289.2	1,956.3	633.3	547.6	7.386			
6,500.0	5,789.7	6,348.6	5,834.2	50.5	43.7	135.00	1,296.0	1,966.5	636.9	550.7	7.392			
6,600.0	5,888.9	6,434.9	5,920.1	50.7	43.9	135.03	1,301.0	1,974.0	639.4	553.0	7.398			
6,700.0	5,988.6	6,521.2	6,006.2	50.8	44.0	135.05	1,304.3	1,978.8	641.1	554.5	7.404			
6,800.0	6,088.6	6,607.5	6,092.5	50.9	44.0	135.06	1,305.7	1,980.9	641.8	555.2	7.411			
6,900.0	6,188.6	6,703.6	6,188.6	50.9	44.1	-179.35	1,305.8	1,981.0	641.8	555.2	7.415			
7,000.0	6,288.6	6,803.6	6,288.6	50.9	44.1	-179.35	1,305.8	1,981.0	641.8	555.2	7.410			
7,100.0	6,388.6	6,903.6	6,388.6	51.0	44.1	-179.35	1,305.8	1,981.0	641.8	555.1	7.406			
7,200.0	6,488.6	7,003.6	6,488.6	51.0	44.1	-179.35	1,305.8	1,981.0	641.8	555.1	7.401			
7,300.0	6,588.6	7,103.6	6,588.6	51.0	44.2	-179.35	1,305.8	1,981.0	641.8	555.0	7.397			
7,400.0	6,688.6	7,203.6	6,688.6	51.0	44.2	-179.35	1,305.8	1,981.0	641.8	555.0	7.392			
7,500.0	6,788.6	7,303.6	6,788.6	51.0	44.2	-179.35	1,305.8	1,981.0	641.8	554.9	7.387			
7,600.0	6,888.6	7,403.6	6,888.6	51.1	44.2	-179.35	1,305.8	1,981.0	641.8	554.9	7.383			
7,700.0	6,988.6	7,503.6	6,988.6	51.1	44.3	-179.35	1,305.8	1,981.0	641.8	554.8	7.378			
7,800.0	7,088.6	7,603.6	7,088.6	51.1	44.3	-179.35	1,305.8	1,981.0	641.8	554.8	7.373			
7,900.0	7,188.6	7,703.6	7,188.6	51.1	44.3	-179.35	1,305.8	1,981.0	641.8	554.7	7.369			
8,000.0	7,288.6	7,803.6	7,288.6	51.1	44.3	-179.35	1,305.8	1,981.0	641.8	554.6	7.364			
8,100.0	7,388.6	7,903.6	7,388.6	51.2	44.4	-179.35	1,305.8	1,981.0	641.8	554.6	7.359			
8,200.0	7,488.6	8,003.6	7,488.6	51.2	44.4	-179.35	1,305.8	1,981.0	641.8	554.5	7.355			
8,300.0	7,588.6	8,103.6	7,588.6	51.2	44.4	-179.35	1,305.8	1,981.0	641.8	554.5	7.350			
8,400.0	7,688.6	8,203.6	7,688.6	51.2	44.4	-179.35	1,305.8	1,981.0	641.8	554.4	7.345			
8,500.0	7,788.6	8,303.6	7,788.6	51.2	44.5	-179.35	1,305.8	1,981.0	641.8	554.4	7.340			
8,600.0	7,888.6	8,403.6	7,888.6	51.3	44.5	-179.35	1,305.8	1,981.0	641.8	554.3	7.335			
8,700.0	7,988.6	8,503.6	7,988.6	51.3	44.5	-179.35	1,305.8	1,981.0	641.8	554.2	7.331			
8,800.0	8,088.6	8,603.6	8,088.6	51.3	44.5	-179.35	1,305.8	1,981.0	641.8	554.2	7.326			
8,900.0	8,188.6	8,703.6	8,188.6	51.3	44.6	-179.35	1,305.8	1,981.0	641.8	554.1	7.321			
9,000.0	8,288.6	8,803.6	8,288.6	51.3	44.6	-179.35	1,305.8	1,981.0	641.8	554.1	7.316			
9,100.0	8,388.6	8,903.6	8,388.6	51.4	44.6	-179.35	1,305.8	1,981.0	641.8	554.0	7.311			
9,200.0	8,488.6	9,003.6	8,488.6	51.4	44.6	-179.35	1,305.8	1,981.0	641.8	554.0	7.306			
9,300.0	8,588.6	9,103.6	8,588.6	51.4	44.7	-179.35	1,305.8	1,981.0	641.8	553.9	7.301			
9,400.0	8,688.6	9,203.6	8,688.6	51.4	44.7	-179.35	1,305.8	1,981.0	641.8	553.8	7.296			
9,418.4	8,707.0	9,222.0	8,707.0	51.4	44.7	-179.35	1,305.8	1,981.0	641.8	553.8	7.296			

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-16W - OH - Design #2											Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	133.28	-20.6	21.8	30.0			
100.0	100.0	100.0	100.0	0.8	0.8	133.28	-20.6	21.8	30.0	28.4	18.930	
200.0	200.0	200.0	200.0	1.4	1.4	133.28	-20.6	21.8	30.0	27.2	10.600	
299.0	299.0	299.0	299.0	1.9	1.9	90.75	-20.6	21.8	30.0	26.4	8.454	
300.0	300.0	300.0	300.0	1.9	1.9	90.03	-20.6	21.8	30.0	26.4	8.439	CC, ES
400.0	399.8	399.6	399.6	3.4	2.7	96.28	-19.6	23.8	30.8	26.5	7.187	
500.0	499.3	499.3	499.1	4.6	4.1	101.99	-16.6	29.5	33.3	28.2	6.548	
600.0	598.3	599.1	598.3	5.6	5.2	106.56	-11.7	39.2	37.3	31.4	6.319	
700.0	696.6	699.0	697.0	6.5	6.1	109.83	-4.7	52.7	42.8	36.1	6.314	SF
800.0	794.0	798.9	795.0	7.3	7.0	111.95	4.1	69.9	49.7	42.0	6.462	
900.0	890.3	898.8	892.0	8.1	7.7	113.17	15.0	91.0	57.9	49.3	6.712	
1,000.0	985.3	998.7	987.9	8.8	8.4	113.74	27.7	115.8	67.3	57.7	7.021	
1,100.0	1,078.9	1,098.5	1,082.5	9.4	9.1	113.85	42.3	144.3	77.8	67.3	7.350	
1,200.0	1,170.9	1,198.3	1,175.5	10.1	9.7	113.65	58.8	176.5	89.6	77.9	7.668	
1,300.0	1,261.0	1,298.0	1,266.8	10.7	10.2	113.28	77.1	212.0	102.5	89.7	7.980	
1,400.0	1,349.2	1,396.9	1,356.7	11.3	10.5	114.12	95.9	248.6	117.0	102.7	8.186	
1,500.0	1,435.4	1,495.4	1,446.3	11.7	10.8	116.42	114.6	285.0	133.2	117.4	8.401	
1,600.0	1,521.0	1,593.8	1,535.8	12.0	11.1	118.77	133.2	321.4	150.2	132.7	8.617	
1,700.0	1,606.6	1,692.2	1,625.3	12.3	11.5	120.64	151.9	357.8	167.3	148.4	8.822	
1,800.0	1,692.2	1,790.6	1,714.8	12.6	11.8	122.16	170.6	394.1	184.6	164.1	9.016	
1,900.0	1,777.9	1,888.9	1,804.3	13.0	12.2	123.42	189.3	430.5	202.0	180.0	9.196	
2,000.0	1,863.5	1,987.3	1,893.8	13.4	12.6	124.48	207.9	466.9	219.5	196.1	9.362	
2,100.0	1,949.1	2,085.7	1,983.3	13.8	12.9	125.38	226.6	503.3	237.0	212.1	9.515	
2,200.0	2,034.8	2,184.1	2,072.8	14.2	13.3	126.16	245.3	539.6	254.6	228.2	9.655	
2,300.0	2,120.4	2,282.5	2,162.2	14.6	13.7	126.84	264.0	576.0	272.3	244.4	9.782	
2,400.0	2,206.0	2,380.9	2,251.7	15.5	14.2	127.43	282.6	612.4	289.9	260.6	9.899	
2,500.0	2,291.7	2,479.3	2,341.2	16.4	14.6	127.96	301.3	648.7	307.6	276.9	10.005	
2,600.0	2,377.3	2,577.6	2,430.7	17.3	15.0	128.43	320.0	685.1	325.3	293.1	10.103	
2,700.0	2,462.9	2,676.0	2,520.2	18.2	15.6	128.85	338.6	721.5	343.0	309.4	10.192	
2,800.0	2,548.6	2,774.4	2,609.7	19.2	16.3	129.23	357.3	757.8	360.8	325.7	10.276	
2,900.0	2,634.2	2,872.8	2,699.2	20.1	17.0	129.58	376.0	794.2	378.5	342.0	10.351	
3,000.0	2,719.8	2,971.2	2,788.7	21.0	17.8	129.89	394.7	830.6	396.3	358.3	10.421	
3,100.0	2,805.5	3,069.6	2,878.2	21.9	18.5	130.18	413.3	867.0	414.1	374.6	10.486	
3,200.0	2,891.1	3,168.0	2,967.6	22.9	19.3	130.44	432.0	903.3	431.9	390.9	10.546	
3,300.0	2,976.7	3,266.3	3,057.1	23.8	20.0	130.68	450.7	939.7	449.7	407.3	10.602	
3,400.0	3,062.4	3,364.7	3,146.6	24.7	20.8	130.91	469.4	976.1	467.5	423.6	10.654	
3,500.0	3,148.0	3,463.1	3,236.1	25.7	21.5	131.11	488.0	1,012.4	485.3	440.0	10.702	
3,600.0	3,233.6	3,561.5	3,325.6	26.6	22.2	131.31	506.7	1,048.8	503.1	456.3	10.748	
3,700.0	3,319.2	3,659.9	3,415.1	27.5	23.0	131.49	525.4	1,085.2	521.0	472.7	10.790	
3,800.0	3,404.9	3,758.3	3,504.6	28.5	23.7	131.65	544.1	1,121.6	538.8	489.0	10.830	
3,900.0	3,490.5	3,856.7	3,594.1	29.4	24.5	131.81	562.7	1,157.9	556.6	505.4	10.867	
4,000.0	3,576.1	3,955.1	3,683.6	30.3	25.2	131.96	581.4	1,194.3	574.5	521.8	10.902	
4,100.0	3,661.8	4,053.4	3,773.0	31.3	26.0	132.10	600.1	1,230.7	592.3	538.1	10.935	
4,200.0	3,747.4	4,151.8	3,862.5	32.2	26.7	132.23	618.7	1,267.0	610.1	554.5	10.966	
4,300.0	3,833.0	4,250.2	3,952.0	33.1	27.5	132.35	637.4	1,303.4	628.0	570.9	10.995	
4,400.0	3,918.7	4,348.6	4,041.5	34.1	28.2	132.46	656.1	1,339.8	645.8	587.2	11.023	
4,500.0	4,004.3	4,447.0	4,131.0	35.0	29.0	132.57	674.8	1,376.1	663.7	603.6	11.049	
4,600.0	4,089.9	4,545.4	4,220.5	35.9	29.7	132.68	693.4	1,412.5	681.5	620.0	11.074	
4,700.0	4,175.6	4,643.8	4,310.0	36.9	30.5	132.78	712.1	1,448.9	699.4	636.4	11.098	
4,800.0	4,261.2	4,742.1	4,399.5	37.8	31.2	132.87	730.8	1,485.3	717.2	652.7	11.120	
4,900.0	4,346.8	4,840.5	4,489.0	38.7	32.0	132.96	749.5	1,521.6	735.1	669.1	11.142	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-16W - OH - Design #2											Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)		
5,000.0	4,432.5	4,938.9	4,578.5	39.7	32.7	133.04	768.1	1,558.0	753.0	685.5	11.162	
5,100.0	4,518.1	5,037.3	4,667.9	40.6	33.5	133.13	786.8	1,594.4	770.8	701.9	11.181	
5,200.0	4,603.7	5,135.7	4,757.4	41.5	34.2	133.20	805.5	1,630.7	788.7	718.3	11.200	
5,300.0	4,689.3	5,234.1	4,846.9	42.5	35.0	133.28	824.1	1,667.1	806.6	734.7	11.218	
5,400.0	4,775.0	5,332.5	4,936.4	43.4	35.7	133.35	842.8	1,703.5	824.4	751.0	11.234	
5,500.0	4,860.6	5,430.8	5,025.9	44.3	36.5	133.42	861.5	1,739.9	842.3	767.4	11.251	
5,600.0	4,946.3	5,529.2	5,115.4	45.3	37.3	133.53	880.2	1,776.2	860.1	783.8	11.266	
5,700.0	5,033.4	5,621.0	5,199.0	46.2	37.9	133.78	897.4	1,809.9	876.2	798.4	11.271	
5,800.0	5,122.5	5,700.0	5,271.9	47.0	38.5	133.98	911.3	1,836.9	890.7	811.8	11.287	
5,900.0	5,213.6	5,788.4	5,354.7	47.7	39.1	134.15	925.5	1,864.4	903.9	823.8	11.283	
6,000.0	5,306.4	5,872.1	5,434.1	48.4	39.5	134.30	937.5	1,887.9	915.9	834.7	11.289	
6,100.0	5,400.7	5,955.7	5,514.4	48.9	39.9	134.44	948.2	1,908.7	926.5	844.4	11.294	
6,200.0	5,496.3	6,039.4	5,595.6	49.4	40.3	134.56	957.5	1,926.9	935.7	852.9	11.298	
6,300.0	5,593.2	6,123.1	5,677.4	49.9	40.6	134.66	965.5	1,942.5	943.6	860.1	11.302	
6,400.0	5,691.0	6,200.0	5,753.1	50.2	40.8	134.74	971.7	1,954.5	950.2	866.3	11.319	
6,500.0	5,789.7	6,290.4	5,842.7	50.5	41.1	134.80	977.4	1,965.6	955.4	870.9	11.307	
6,600.0	5,888.9	6,374.1	5,925.9	50.7	41.2	134.85	981.3	1,973.2	959.2	874.3	11.309	
6,700.0	5,988.6	6,457.8	6,009.4	50.8	41.3	134.88	983.8	1,978.0	961.6	876.6	11.310	
6,800.0	6,088.6	6,541.5	6,093.1	50.9	41.4	134.89	984.8	1,980.1	962.6	877.5	11.314	
6,900.0	6,188.6	6,637.0	6,188.6	50.9	41.4	-179.52	984.9	1,980.2	962.7	877.6	11.315	
7,000.0	6,288.6	6,737.0	6,288.6	50.9	41.4	-179.52	984.9	1,980.2	962.7	877.5	11.308	
7,100.0	6,388.6	6,837.0	6,388.6	51.0	41.4	-179.52	984.9	1,980.2	962.7	877.5	11.301	
7,200.0	6,488.6	6,937.0	6,488.6	51.0	41.5	-179.52	984.9	1,980.2	962.7	877.4	11.293	
7,300.0	6,588.6	7,037.0	6,588.6	51.0	41.5	-179.52	984.9	1,980.2	962.7	877.4	11.286	
7,400.0	6,688.6	7,137.0	6,688.6	51.0	41.5	-179.52	984.9	1,980.2	962.7	877.3	11.279	
7,500.0	6,788.6	7,237.0	6,788.6	51.0	41.6	-179.52	984.9	1,980.2	962.7	877.3	11.272	
7,600.0	6,888.6	7,337.0	6,888.6	51.1	41.6	-179.52	984.9	1,980.2	962.7	877.2	11.264	
7,700.0	6,988.6	7,437.0	6,988.6	51.1	41.6	-179.52	984.9	1,980.2	962.7	877.1	11.257	
7,800.0	7,088.6	7,537.0	7,088.6	51.1	41.6	-179.52	984.9	1,980.2	962.7	877.1	11.250	
7,900.0	7,188.6	7,637.0	7,188.6	51.1	41.7	-179.52	984.9	1,980.2	962.7	877.0	11.242	
8,000.0	7,288.6	7,737.0	7,288.6	51.1	41.7	-179.52	984.9	1,980.2	962.7	877.0	11.235	
8,100.0	7,388.6	7,837.0	7,388.6	51.2	41.7	-179.52	984.9	1,980.2	962.7	876.9	11.228	
8,200.0	7,488.6	7,937.0	7,488.6	51.2	41.7	-179.52	984.9	1,980.2	962.7	876.9	11.220	
8,300.0	7,588.6	8,037.0	7,588.6	51.2	41.8	-179.52	984.9	1,980.2	962.7	876.8	11.213	
8,400.0	7,688.6	8,137.0	7,688.6	51.2	41.8	-179.52	984.9	1,980.2	962.7	876.7	11.205	
8,500.0	7,788.6	8,237.0	7,788.6	51.2	41.8	-179.52	984.9	1,980.2	962.7	876.7	11.198	
8,600.0	7,888.6	8,337.0	7,888.6	51.3	41.8	-179.52	984.9	1,980.2	962.7	876.6	11.191	
8,700.0	7,988.6	8,339.4	7,891.0	51.3	41.8	-179.52	984.9	1,980.2	967.6	883.3	11.483	
8,800.0	8,088.6	8,339.4	7,891.0	51.3	41.8	-179.52	984.9	1,980.2	982.7	900.9	12.010	
8,900.0	8,188.6	8,339.4	7,891.0	51.3	41.8	-179.52	984.9	1,980.2	1,007.6	928.7	12.771	
9,000.0	8,288.6	8,339.4	7,891.0	51.3	41.8	-179.52	984.9	1,980.2	1,041.5	965.9	13.765	
9,100.0	8,388.6	8,339.4	7,891.0	51.4	41.8	-179.52	984.9	1,980.2	1,083.7	1,011.3	14.987	
9,200.0	8,488.6	8,339.4	7,891.0	51.4	41.8	-179.52	984.9	1,980.2	1,133.1	1,064.1	16.428	
9,300.0	8,588.6	8,339.4	7,891.0	51.4	41.8	-179.52	984.9	1,980.2	1,188.8	1,123.1	18.075	
9,400.0	8,688.6	8,339.4	7,891.0	51.4	41.8	-179.52	984.9	1,980.2	1,250.1	1,187.3	19.909	
9,418.4	8,707.0	8,339.4	7,891.0	51.4	41.8	-179.52	984.9	1,980.2	1,262.0	1,199.7	20.266	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-17W - OH - Design #2												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	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	133.29	-27.4	29.1	40.0			
100.0	100.0	100.0	100.0	0.8	0.8	133.29	-27.4	29.1	40.0	38.4	25.242	
200.0	200.0	200.0	200.0	1.4	1.4	133.29	-27.4	29.1	40.0	37.2	14.134	
252.6	252.6	252.6	252.6	1.6	1.5	88.34	-27.4	29.1	40.0	36.9	12.836	CC, ES
300.0	300.0	299.6	299.6	1.9	1.7	88.74	-27.2	29.6	40.2	36.9	12.140	
400.0	399.8	398.8	398.7	3.4	3.0	90.82	-25.8	33.7	42.0	37.8	9.917	
500.0	499.3	498.0	497.5	4.6	4.3	93.10	-22.9	41.7	45.7	40.6	8.949	
600.0	598.3	597.1	595.8	5.6	5.4	95.28	-18.6	53.8	51.3	45.5	8.775	SF
700.0	696.6	696.1	693.3	6.5	6.3	97.16	-12.9	69.9	58.8	52.3	8.974	
800.0	794.0	794.8	789.7	7.3	7.1	98.67	-5.8	89.8	68.2	60.9	9.362	
900.0	890.3	893.4	885.0	8.1	7.8	99.82	2.6	113.6	79.4	71.3	9.833	
1,000.0	985.3	991.7	978.8	8.8	8.5	100.65	12.4	141.2	92.4	83.5	10.319	
1,100.0	1,078.9	1,089.6	1,071.0	9.4	9.2	101.22	23.5	172.4	107.2	97.3	10.778	
1,200.0	1,170.9	1,187.6	1,161.8	10.1	9.6	101.69	35.8	207.1	123.7	112.7	11.260	
1,300.0	1,261.0	1,285.9	1,252.5	10.7	9.9	103.29	48.5	242.8	141.3	129.1	11.569	
1,400.0	1,349.2	1,383.8	1,342.8	11.3	10.2	105.93	61.1	278.3	160.2	146.6	11.752	
1,500.0	1,435.4	1,481.0	1,432.6	11.7	10.5	109.28	73.7	313.6	180.9	165.7	11.935	
1,600.0	1,521.0	1,578.1	1,522.1	12.0	10.8	112.50	86.2	348.8	202.4	185.7	12.113	
1,700.0	1,606.6	1,675.2	1,611.7	12.3	11.2	115.09	98.7	384.0	224.5	206.2	12.294	
1,800.0	1,692.2	1,772.3	1,701.3	12.6	11.5	117.22	111.2	419.3	246.9	227.1	12.480	
1,900.0	1,777.9	1,869.3	1,790.9	13.0	11.9	119.00	123.7	454.5	269.6	248.4	12.665	
2,000.0	1,863.5	1,966.4	1,880.5	13.4	12.3	120.50	136.2	489.7	292.6	269.8	12.845	
2,100.0	1,949.1	2,063.5	1,970.1	13.8	12.7	121.78	148.8	524.9	315.6	291.4	13.018	
2,200.0	2,034.8	2,160.6	2,059.7	14.2	13.1	122.89	161.3	560.1	338.8	313.1	13.183	
2,300.0	2,120.4	2,257.6	2,149.3	14.6	13.5	123.85	173.8	595.4	362.2	335.0	13.337	
2,400.0	2,206.0	2,354.7	2,238.9	15.5	13.9	124.70	186.3	630.6	385.5	357.0	13.483	
2,500.0	2,291.7	2,451.8	2,328.5	16.4	14.3	125.45	198.8	665.8	409.0	379.0	13.619	
2,600.0	2,377.3	2,548.8	2,418.0	17.3	14.8	126.12	211.3	701.0	432.5	401.1	13.747	
2,700.0	2,462.9	2,645.9	2,507.6	18.2	15.2	126.73	223.8	736.2	456.1	423.2	13.866	
2,800.0	2,548.6	2,743.0	2,597.2	19.2	15.7	127.27	236.4	771.5	479.7	445.4	13.977	
2,900.0	2,634.2	2,840.1	2,686.8	20.1	16.3	127.76	248.9	806.7	503.4	467.7	14.081	
3,000.0	2,719.8	2,937.1	2,776.4	21.0	17.0	128.21	261.4	841.9	527.1	489.9	14.179	
3,100.0	2,805.5	3,034.2	2,866.0	21.9	17.7	128.62	273.9	877.1	550.8	512.2	14.270	
3,200.0	2,891.1	3,131.3	2,955.6	22.9	18.4	128.99	286.4	912.3	574.6	534.5	14.356	
3,300.0	2,976.7	3,228.4	3,045.2	23.8	19.1	129.34	298.9	947.6	598.3	556.9	14.436	
3,400.0	3,062.4	3,325.4	3,134.8	24.7	19.7	129.66	311.4	982.8	622.1	579.2	14.511	
3,500.0	3,148.0	3,422.5	3,224.4	25.7	20.4	129.95	324.0	1,018.0	645.9	601.6	14.583	
3,600.0	3,233.6	3,519.6	3,313.9	26.6	21.1	130.23	336.5	1,053.2	669.7	624.0	14.649	
3,700.0	3,319.2	3,616.7	3,403.5	27.5	21.8	130.48	349.0	1,088.4	693.5	646.4	14.713	
3,800.0	3,404.9	3,713.7	3,493.1	28.5	22.5	130.72	361.5	1,123.7	717.4	668.8	14.772	
3,900.0	3,490.5	3,810.8	3,582.7	29.4	23.2	130.95	374.0	1,158.9	741.2	691.2	14.829	
4,000.0	3,576.1	3,907.9	3,672.3	30.3	23.9	131.16	386.5	1,194.1	765.1	713.7	14.882	
4,100.0	3,661.8	4,005.0	3,761.9	31.3	24.5	131.35	399.1	1,229.3	789.0	736.1	14.932	
4,200.0	3,747.4	4,102.0	3,851.5	32.2	25.2	131.54	411.6	1,264.5	812.8	758.6	14.980	
4,300.0	3,833.0	4,199.1	3,941.1	33.1	25.9	131.71	424.1	1,299.8	836.7	781.0	15.026	
4,400.0	3,918.7	4,296.2	4,030.7	34.1	26.6	131.88	436.6	1,335.0	860.6	803.5	15.069	
4,500.0	4,004.3	4,393.3	4,120.3	35.0	27.3	132.03	449.1	1,370.2	884.5	826.0	15.111	
4,600.0	4,089.9	4,490.3	4,209.8	35.9	28.0	132.18	461.6	1,405.4	908.4	848.5	15.150	
4,700.0	4,175.6	4,587.4	4,299.4	36.9	28.7	132.32	474.1	1,440.7	932.3	871.0	15.187	
4,800.0	4,261.2	4,684.5	4,389.0	37.8	29.4	132.46	486.7	1,475.9	956.3	893.4	15.223	
4,900.0	4,346.8	4,781.6	4,478.6	38.7	30.1	132.58	499.2	1,511.1	980.2	915.9	15.257	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,000.0	4,432.5	4,878.6	4,568.2	39.7	30.7	132.70	511.7	1,546.3	1,004.1	938.4	15.290		
5,100.0	4,518.1	4,975.7	4,657.8	40.6	31.4	132.82	524.2	1,581.5	1,028.0	960.9	15.321		
5,200.0	4,603.7	5,072.8	4,747.4	41.5	32.1	132.93	536.7	1,616.8	1,052.0	983.4	15.351		
5,300.0	4,689.3	5,169.9	4,837.0	42.5	32.8	133.03	549.2	1,652.0	1,075.9	1,005.9	15.380		
5,400.0	4,775.0	5,266.9	4,926.6	43.4	33.5	133.13	561.7	1,687.2	1,099.8	1,028.5	15.407		
5,500.0	4,860.6	5,364.0	5,016.2	44.3	34.2	133.23	574.3	1,722.4	1,123.8	1,051.0	15.433		
5,600.0	4,946.3	5,461.1	5,105.8	45.3	34.9	133.40	586.8	1,757.6	1,147.7	1,073.4	15.459		
5,700.0	5,033.4	5,558.6	5,195.8	46.2	35.6	133.79	599.4	1,793.0	1,169.7	1,094.0	15.455		
5,800.0	5,122.5	5,647.6	5,278.1	47.0	36.2	134.01	610.7	1,824.9	1,188.9	1,111.9	15.433		
5,900.0	5,213.6	5,730.6	5,355.8	47.7	36.8	134.21	620.3	1,852.1	1,206.4	1,128.1	15.422		
6,000.0	5,306.4	5,813.7	5,434.7	48.4	37.3	134.38	629.1	1,876.7	1,222.1	1,142.8	15.417		
6,100.0	5,400.7	5,900.0	5,517.6	48.9	37.7	134.53	637.1	1,899.3	1,236.1	1,155.8	15.405		
6,200.0	5,496.3	5,980.2	5,595.5	49.4	38.1	134.67	643.7	1,917.8	1,248.3	1,167.3	15.409		
6,300.0	5,593.2	6,063.7	5,677.1	49.9	38.4	134.78	649.5	1,934.2	1,258.7	1,177.0	15.404		
6,400.0	5,691.0	6,147.3	5,759.4	50.2	38.6	134.87	654.4	1,947.8	1,267.4	1,185.1	15.398		
6,500.0	5,789.7	6,230.9	5,842.2	50.5	38.8	134.94	658.2	1,958.6	1,274.2	1,191.4	15.391		
6,600.0	5,888.9	6,314.7	5,925.5	50.7	39.0	135.00	661.0	1,966.6	1,279.3	1,196.1	15.382		
6,700.0	5,988.6	6,400.0	6,010.7	50.8	39.1	135.03	662.9	1,971.8	1,282.5	1,199.0	15.369		
6,800.0	6,088.6	6,482.2	6,092.9	50.9	39.2	135.05	663.6	1,973.9	1,283.9	1,200.3	15.363		
6,900.0	6,188.6	6,577.9	6,188.6	50.9	39.2	-179.36	663.7	1,974.0	1,283.9	1,200.3	15.352		
7,000.0	6,288.6	6,677.9	6,288.6	50.9	39.3	-179.36	663.7	1,974.0	1,283.9	1,200.3	15.341		
7,100.0	6,388.6	6,777.9	6,388.6	51.0	39.3	-179.36	663.7	1,974.0	1,283.9	1,200.2	15.331		
7,200.0	6,488.6	6,877.9	6,488.6	51.0	39.3	-179.36	663.7	1,974.0	1,283.9	1,200.1	15.321		
7,300.0	6,588.6	6,977.9	6,588.6	51.0	39.3	-179.36	663.7	1,974.0	1,283.9	1,200.1	15.311		
7,400.0	6,688.6	7,077.9	6,688.6	51.0	39.4	-179.36	663.7	1,974.0	1,283.9	1,200.0	15.301		
7,500.0	6,788.6	7,177.9	6,788.6	51.0	39.4	-179.36	663.7	1,974.0	1,283.9	1,200.0	15.291		
7,600.0	6,888.6	7,277.9	6,888.6	51.1	39.4	-179.36	663.7	1,974.0	1,283.9	1,199.9	15.280		
7,700.0	6,988.6	7,377.9	6,988.6	51.1	39.5	-179.36	663.7	1,974.0	1,283.9	1,199.9	15.270		
7,800.0	7,088.6	7,477.9	7,088.6	51.1	39.5	-179.36	663.7	1,974.0	1,283.9	1,199.8	15.260		
7,900.0	7,188.6	7,577.9	7,188.6	51.1	39.5	-179.36	663.7	1,974.0	1,283.9	1,199.8	15.250		
8,000.0	7,288.6	7,677.9	7,288.6	51.1	39.5	-179.36	663.7	1,974.0	1,283.9	1,199.7	15.239		
8,100.0	7,388.6	7,777.9	7,388.6	51.2	39.6	-179.36	663.7	1,974.0	1,283.9	1,199.6	15.229		
8,200.0	7,488.6	7,877.9	7,488.6	51.2	39.6	-179.36	663.7	1,974.0	1,283.9	1,199.6	15.219		
8,300.0	7,588.6	7,977.9	7,588.6	51.2	39.6	-179.36	663.7	1,974.0	1,283.9	1,199.5	15.208		
8,400.0	7,688.6	8,077.9	7,688.6	51.2	39.7	-179.36	663.7	1,974.0	1,283.9	1,199.5	15.198		
8,500.0	7,788.6	8,177.9	7,788.6	51.2	39.7	-179.36	663.7	1,974.0	1,283.9	1,199.4	15.187		
8,600.0	7,888.6	8,277.9	7,888.6	51.3	39.7	-179.36	663.7	1,974.0	1,283.9	1,199.3	15.177		
8,700.0	7,988.6	8,377.9	7,988.6	51.3	39.8	-179.36	663.7	1,974.0	1,283.9	1,199.3	15.166		
8,800.0	8,088.6	8,477.9	8,088.6	51.3	39.8	-179.36	663.7	1,974.0	1,283.9	1,199.2	15.156		
8,900.0	8,188.6	8,577.9	8,188.6	51.3	39.8	-179.36	663.7	1,974.0	1,283.9	1,199.2	15.145		
9,000.0	8,288.6	8,677.9	8,288.6	51.3	39.8	-179.36	663.7	1,974.0	1,283.9	1,199.1	15.134		
9,100.0	8,388.6	8,777.9	8,388.6	51.4	39.9	-179.36	663.7	1,974.0	1,283.9	1,199.1	15.124		
9,200.0	8,488.6	8,877.9	8,488.6	51.4	39.9	-179.36	663.7	1,974.0	1,283.9	1,199.0	15.113		
9,300.0	8,588.6	8,977.9	8,588.6	51.4	39.9	-179.36	663.7	1,974.0	1,283.9	1,198.9	15.102		
9,400.0	8,688.6	9,077.9	8,688.6	51.4	40.0	-179.36	663.7	1,974.0	1,283.9	1,198.9	15.092		
9,418.4	8,707.0	9,096.3	8,707.0	51.4	40.0	-179.36	663.7	1,974.0	1,283.9	1,198.9	15.090		

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-18W - OH - Design #2											Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	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	133.28	-34.3	36.4	50.0			
100.0	100.0	100.0	100.0	0.8	0.8	133.28	-34.3	36.4	50.0	48.4	31.549	
200.0	200.0	200.0	200.0	1.4	1.4	133.28	-34.3	36.4	50.0	47.1	17.665	
277.2	277.2	277.1	277.1	1.8	1.7	88.81	-34.3	36.4	49.9	46.6	15.085	CC, ES
300.0	300.0	299.7	299.7	1.9	1.7	88.96	-34.2	36.5	50.0	46.6	14.802	
400.0	399.8	398.5	398.4	3.4	2.7	91.93	-33.6	39.6	51.8	47.5	12.017	
500.0	499.3	497.2	496.9	4.6	4.1	95.16	-32.0	46.9	56.0	50.7	10.618	
600.0	598.3	595.9	594.8	5.6	5.2	98.21	-29.5	58.3	62.8	56.7	10.337	SF
700.0	696.6	694.3	692.0	6.5	6.1	100.80	-26.2	73.8	72.0	65.2	10.561	
800.0	794.0	792.4	788.1	7.3	7.0	102.82	-22.0	93.2	83.8	76.2	11.045	
900.0	890.3	890.2	882.9	8.1	7.7	104.32	-17.0	116.6	97.9	89.5	11.661	
1,000.0	985.3	987.6	976.2	8.8	8.4	105.36	-11.1	143.8	114.4	105.1	12.324	
1,100.0	1,078.9	1,084.5	1,067.7	9.4	9.1	106.05	-4.5	174.7	133.2	122.9	12.977	
1,200.0	1,170.9	1,181.3	1,158.0	10.1	9.4	106.55	2.9	209.1	154.1	142.9	13.680	
1,300.0	1,261.0	1,278.6	1,248.3	10.7	9.7	107.89	10.5	244.4	176.6	164.2	14.181	
1,400.0	1,349.2	1,375.3	1,338.1	11.3	10.0	109.96	18.1	279.5	200.7	186.9	14.537	
1,500.0	1,435.4	1,471.2	1,427.2	11.7	10.3	112.61	25.6	314.3	226.6	211.4	14.897	
1,600.0	1,521.0	1,566.9	1,516.0	12.0	10.6	115.27	33.0	349.0	253.4	236.8	15.225	
1,700.0	1,606.6	1,662.7	1,604.9	12.3	11.0	117.43	40.5	383.7	280.7	262.6	15.522	
1,800.0	1,692.2	1,758.4	1,693.8	12.6	11.3	119.20	48.0	418.5	308.2	288.7	15.799	
1,900.0	1,777.9	1,854.1	1,782.7	13.0	11.7	120.69	55.5	453.2	336.0	315.1	16.057	
2,000.0	1,863.5	1,949.8	1,871.6	13.4	12.1	121.94	62.9	488.0	364.0	341.7	16.296	
2,100.0	1,949.1	2,045.6	1,960.5	13.8	12.5	123.02	70.4	522.7	392.1	368.4	16.517	
2,200.0	2,034.8	2,141.3	2,049.4	14.2	12.9	123.96	77.9	557.4	420.3	395.2	16.720	
2,300.0	2,120.4	2,237.0	2,138.2	14.6	13.3	124.77	85.4	592.2	448.6	422.1	16.908	
2,400.0	2,206.0	2,332.7	2,227.1	15.5	13.7	125.50	92.9	626.9	477.0	449.1	17.081	
2,500.0	2,291.7	2,428.5	2,316.0	16.4	14.1	126.14	100.3	661.7	505.4	476.1	17.240	
2,600.0	2,377.3	2,524.2	2,404.9	17.3	14.5	126.71	107.8	696.4	533.9	503.2	17.387	
2,700.0	2,462.9	2,619.9	2,493.8	18.2	14.9	127.22	115.3	731.1	562.5	530.4	17.523	
2,800.0	2,548.6	2,715.6	2,582.7	19.2	15.4	127.69	122.8	765.9	591.0	557.5	17.649	
2,900.0	2,634.2	2,811.4	2,671.6	20.1	15.9	128.11	130.2	800.6	619.6	584.8	17.766	
3,000.0	2,719.8	2,907.1	2,760.4	21.0	16.4	128.49	137.7	835.4	648.3	612.0	17.874	
3,100.0	2,805.5	3,002.8	2,849.3	21.9	17.0	128.84	145.2	870.1	676.9	639.3	17.975	
3,200.0	2,891.1	3,098.5	2,938.2	22.9	17.6	129.17	152.7	904.8	705.6	666.6	18.069	
3,300.0	2,976.7	3,194.3	3,027.1	23.8	18.3	129.47	160.2	939.6	734.3	693.9	18.157	
3,400.0	3,062.4	3,290.0	3,116.0	24.7	18.9	129.74	167.6	974.3	763.0	721.2	18.239	
3,500.0	3,148.0	3,385.7	3,204.9	25.7	19.6	130.00	175.1	1,009.1	791.8	748.5	18.315	
3,600.0	3,233.6	3,481.4	3,293.8	26.6	20.2	130.24	182.6	1,043.8	820.5	775.9	18.387	
3,700.0	3,319.2	3,577.2	3,382.6	27.5	20.9	130.46	190.1	1,078.5	849.3	803.3	18.455	
3,800.0	3,404.9	3,672.9	3,471.5	28.5	21.6	130.66	197.6	1,113.3	878.0	830.6	18.519	
3,900.0	3,490.5	3,768.6	3,560.4	29.4	22.2	130.86	205.0	1,148.0	906.8	858.0	18.579	
4,000.0	3,576.1	3,864.3	3,649.3	30.3	22.9	131.04	212.5	1,182.8	935.6	885.4	18.635	
4,100.0	3,661.8	3,960.1	3,738.2	31.3	23.5	131.21	220.0	1,217.5	964.4	912.8	18.689	
4,200.0	3,747.4	4,055.8	3,827.1	32.2	24.2	131.37	227.5	1,252.2	993.2	940.2	18.739	
4,300.0	3,833.0	4,151.5	3,915.9	33.1	24.8	131.53	234.9	1,287.0	1,022.0	967.6	18.787	
4,400.0	3,918.7	4,247.3	4,004.8	34.1	25.5	131.67	242.4	1,321.7	1,050.8	995.0	18.832	
4,500.0	4,004.3	4,343.0	4,093.7	35.0	26.2	131.81	249.9	1,356.4	1,079.7	1,022.5	18.875	
4,600.0	4,089.9	4,438.7	4,182.6	35.9	26.8	131.94	257.4	1,391.2	1,108.5	1,049.9	18.916	
4,700.0	4,175.6	4,534.4	4,271.5	36.9	27.5	132.06	264.9	1,425.9	1,137.3	1,077.3	18.955	
4,800.0	4,261.2	4,630.2	4,360.4	37.8	28.1	132.17	272.3	1,460.7	1,166.2	1,104.8	18.992	
4,900.0	4,346.8	4,725.9	4,449.3	38.7	28.8	132.29	279.8	1,495.4	1,195.0	1,132.2	19.028	

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



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-18W - OH - Design #2											Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)		
5,000.0	4,432.5	4,821.6	4,538.1	39.7	29.4	132.39	287.3	1,530.1	1,223.8	1,159.6	19.061	
5,100.0	4,518.1	4,917.3	4,627.0	40.6	30.1	132.49	294.8	1,564.9	1,252.7	1,187.1	19.094	
5,200.0	4,603.7	5,013.1	4,715.9	41.5	30.8	132.59	302.2	1,599.6	1,281.6	1,214.5	19.124	
5,300.0	4,689.3	5,108.8	4,804.8	42.5	31.4	132.68	309.7	1,634.4	1,310.4	1,242.0	19.154	
5,400.0	4,775.0	5,204.5	4,893.7	43.4	32.1	132.77	317.2	1,669.1	1,339.3	1,269.4	19.182	
5,500.0	4,860.6	5,300.2	4,982.6	44.3	32.7	132.85	324.7	1,703.8	1,368.1	1,296.9	19.209	
5,600.0	4,946.3	5,396.0	5,071.5	45.3	33.4	133.03	332.2	1,738.6	1,396.9	1,324.3	19.236	
5,700.0	5,033.4	5,492.3	5,160.9	46.2	34.1	133.52	339.7	1,773.5	1,423.9	1,349.8	19.232	
5,800.0	5,122.5	5,589.3	5,251.0	47.0	34.7	133.83	347.3	1,808.7	1,447.9	1,372.5	19.187	
5,900.0	5,213.6	5,675.9	5,331.8	47.7	35.3	134.04	353.8	1,839.1	1,469.3	1,392.6	19.160	
6,000.0	5,306.4	5,761.0	5,412.3	48.4	35.8	134.22	359.6	1,866.1	1,488.6	1,410.9	19.139	
6,100.0	5,400.7	5,846.6	5,494.2	48.9	36.3	134.39	364.8	1,890.3	1,505.8	1,427.1	19.117	
6,200.0	5,496.3	5,932.4	5,577.3	49.4	36.6	134.53	369.4	1,911.5	1,520.9	1,441.2	19.094	
6,300.0	5,593.2	6,018.6	5,661.4	49.9	37.0	134.65	373.3	1,929.7	1,533.7	1,453.3	19.072	
6,400.0	5,691.0	6,100.0	5,741.5	50.2	37.2	134.75	376.4	1,944.1	1,544.4	1,463.3	19.061	
6,500.0	5,789.7	6,191.6	5,832.1	50.5	37.5	134.82	379.2	1,956.9	1,552.8	1,471.2	19.026	
6,600.0	5,888.9	6,278.4	5,918.4	50.7	37.6	134.88	381.1	1,965.8	1,559.0	1,476.9	19.004	
6,700.0	5,988.6	6,365.3	6,005.1	50.8	37.8	134.91	382.3	1,971.4	1,562.9	1,480.6	18.981	
6,800.0	6,088.6	6,452.2	6,092.0	50.9	37.8	134.93	382.8	1,973.9	1,564.7	1,482.1	18.959	
6,900.0	6,188.6	6,548.8	6,188.6	50.9	37.9	-179.48	382.8	1,974.0	1,564.7	1,482.2	18.951	
7,000.0	6,288.6	6,648.8	6,288.6	50.9	37.9	-179.48	382.8	1,974.0	1,564.7	1,482.1	18.939	
7,100.0	6,388.6	6,748.8	6,388.6	51.0	37.9	-179.48	382.8	1,974.0	1,564.7	1,482.1	18.926	
7,200.0	6,488.6	6,848.8	6,488.6	51.0	37.9	-179.48	382.8	1,974.0	1,564.7	1,482.0	18.914	
7,300.0	6,588.6	6,948.8	6,588.6	51.0	38.0	-179.48	382.8	1,974.0	1,564.7	1,482.0	18.901	
7,400.0	6,688.6	7,048.8	6,688.6	51.0	38.0	-179.48	382.8	1,974.0	1,564.7	1,481.9	18.889	
7,500.0	6,788.6	7,148.8	6,788.6	51.0	38.0	-179.48	382.8	1,974.0	1,564.7	1,481.8	18.876	
7,600.0	6,888.6	7,248.8	6,888.6	51.1	38.1	-179.48	382.8	1,974.0	1,564.7	1,481.8	18.863	
7,700.0	6,988.6	7,348.8	6,988.6	51.1	38.1	-179.48	382.8	1,974.0	1,564.7	1,481.7	18.851	
7,800.0	7,088.6	7,448.8	7,088.6	51.1	38.1	-179.48	382.8	1,974.0	1,564.7	1,481.7	18.838	
7,900.0	7,188.6	7,548.8	7,188.6	51.1	38.1	-179.48	382.8	1,974.0	1,564.7	1,481.6	18.825	
8,000.0	7,288.6	7,648.8	7,288.6	51.1	38.2	-179.48	382.8	1,974.0	1,564.7	1,481.6	18.812	
8,100.0	7,388.6	7,748.8	7,388.6	51.2	38.2	-179.48	382.8	1,974.0	1,564.7	1,481.5	18.799	
8,200.0	7,488.6	7,848.8	7,488.6	51.2	38.2	-179.48	382.8	1,974.0	1,564.7	1,481.5	18.786	
8,300.0	7,588.6	7,948.8	7,588.6	51.2	38.3	-179.48	382.8	1,974.0	1,564.7	1,481.4	18.773	
8,400.0	7,688.6	8,048.8	7,688.6	51.2	38.3	-179.48	382.8	1,974.0	1,564.7	1,481.3	18.760	
8,500.0	7,788.6	8,148.8	7,788.6	51.2	38.3	-179.48	382.8	1,974.0	1,564.7	1,481.3	18.747	
8,600.0	7,888.6	8,248.8	7,888.6	51.3	38.3	-179.48	382.8	1,974.0	1,564.7	1,481.2	18.735	
8,700.0	7,988.6	8,250.2	7,890.0	51.3	38.3	-179.48	382.8	1,974.0	1,567.8	1,485.2	18.962	
8,800.0	8,088.6	8,250.2	7,890.0	51.3	38.3	-179.48	382.8	1,974.0	1,577.3	1,495.7	19.332	
8,900.0	8,188.6	8,250.2	7,890.0	51.3	38.3	-179.48	382.8	1,974.0	1,593.0	1,512.7	19.846	
9,000.0	8,288.6	8,250.2	7,890.0	51.3	38.3	-179.48	382.8	1,974.0	1,614.7	1,536.0	20.502	
9,100.0	8,388.6	8,250.2	7,890.0	51.4	38.3	-179.48	382.8	1,974.0	1,642.3	1,565.2	21.301	
9,200.0	8,488.6	8,250.2	7,890.0	51.4	38.3	-179.48	382.8	1,974.0	1,675.3	1,600.0	22.240	
9,300.0	8,588.6	8,250.2	7,890.0	51.4	38.3	-179.48	382.8	1,974.0	1,713.6	1,640.1	23.317	
9,400.0	8,688.6	8,250.2	7,890.0	51.4	38.3	-179.48	382.8	1,974.0	1,756.7	1,685.1	24.527	
9,418.4	8,707.0	8,250.2	7,890.0	51.4	38.3	-179.48	382.8	1,974.0	1,765.2	1,693.9	24.765	

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

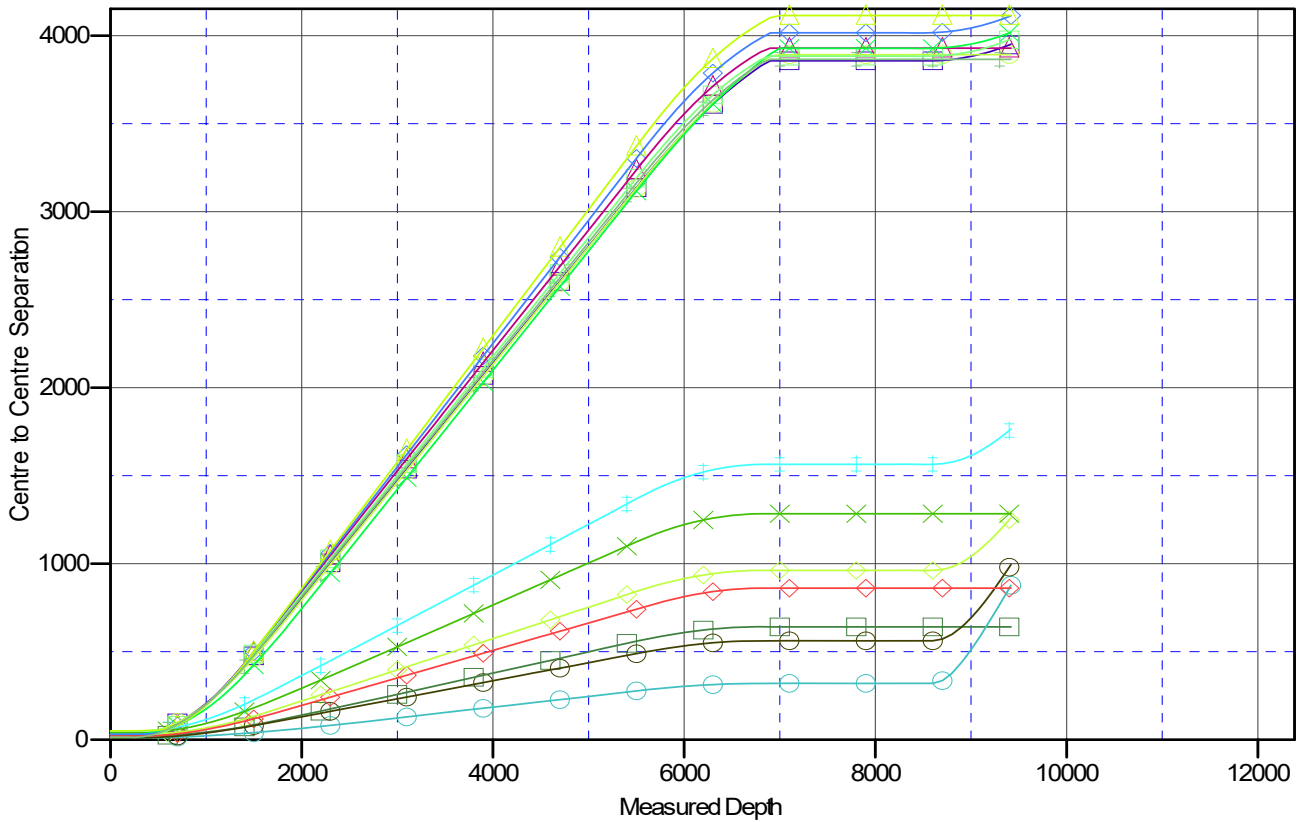


Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=30' @ 7493.0usft (TBD)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: Laramie 29-01 Fed 0993-21-13W - Slot A4
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: -1.44°

Ladder Plot



LEGEND

- | | | |
|---|---|---|
| Laramie 29-01 0993-20-13E, OH, Design #2 V0 | Laramie 29-01 0993-20-11E, OH, Design #2 V0 | Laramie 29-01 0993-20-15E, OH, Design #2 V0 |
| Laramie 29-01 0993-20-12E, OH, Design #2 V0 | Laramie 29-01 Fed 0993-21-15W, OH, Design #2 V0 | Laramie 29-01 0993-20-18E, OH, Design #2 V0 |
| Laramie 29-01 Fed 0993-21-16W, OH, Design #2 V0 | Laramie 29-01 Fed 0993-21-14W, OH, Design #2 V0 | Laramie 29-01 Fed 0993-21-12W, OH, Design #2 V0 |
| Laramie 29-01 Fed 0993-21-17W, OH, Design #2 V0 | Laramie 29-01 0993-20-17E, OH, Design #2 V0 | Laramie 29-01 Fed 0993-21-11W, OH, Design #2 V0 |
| Laramie 29-01 0993-20-16E, OH, Design #2 V0 | Laramie 29-01 Fed 0993-21-18W, OH, Design #2 V0 | Laramie 29-01 0993-20-14E, OH, Design #2 V0 |

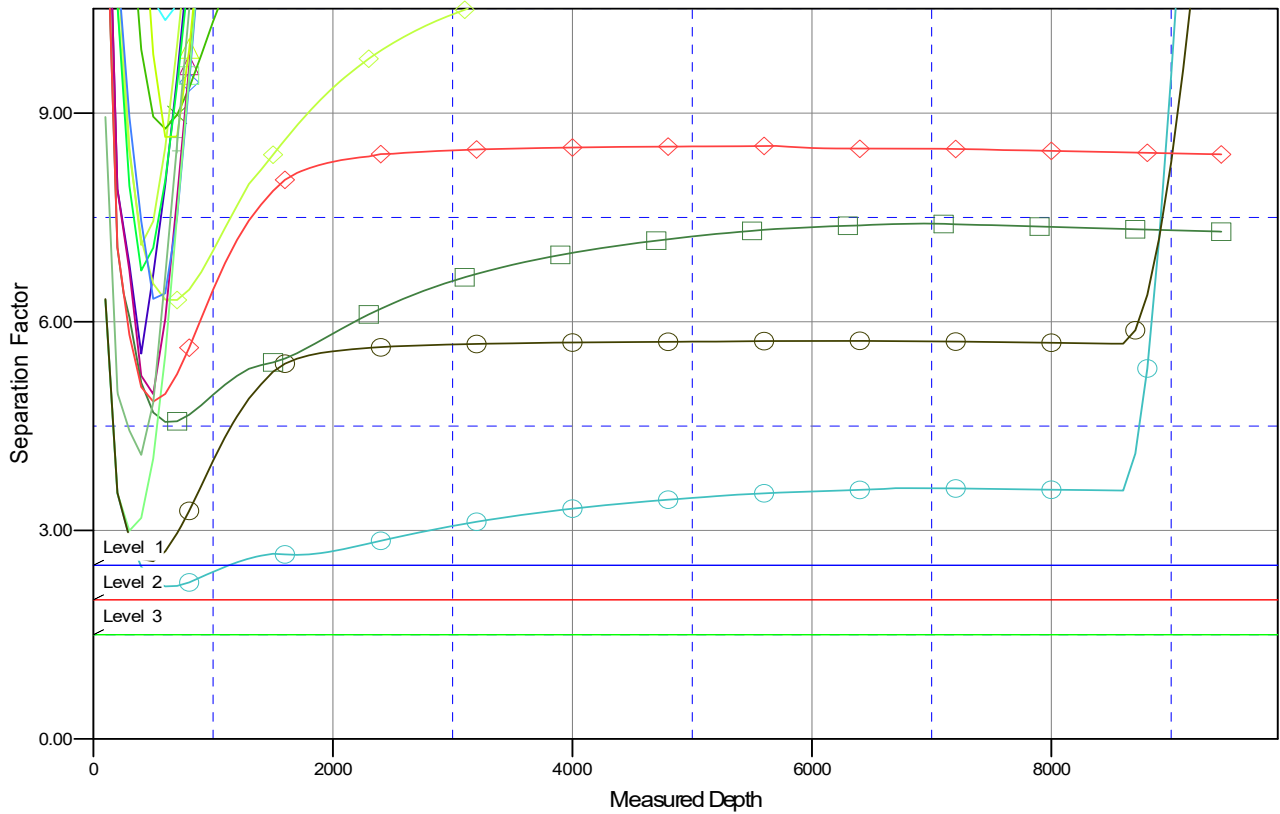


Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-13W - Slot A4
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-13W	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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=30' @ 7493.0usft (TBD)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: Laramie 29-01 Fed 0993-21-13W - Slot A4
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: -1.44°

Separation Factor Plot



LEGEND

- Laramie 29-01 0993-20-13E, OH, Design#2 V0
- Laramie 29-01 0993-20-11E, OH, Design#2 V0
- Laramie 29-01 0993-20-15E, OH, Design#2 V0
- Laramie 29-01 0993-20-12E, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-15W, OH, Design #2 V0
- Laramie 29-01 0993-20-18E, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-16W, OH, Design #2 V0
- Laramie 29-01 Fed 0993-21-14W, OH, Design #2 V0
- Laramie 29-01 Fed 0993-21-12W, OH, Design #2 V0
- Laramie 29-01 0993-20-17E, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-11W, OH, Design #2 V0
- Laramie 29-01 0993-20-16E, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-18W, OH, Design #2 V0
- Laramie 29-01 0993-20-14E, OH, Design#2 V0