



Laramie Energy, LLC

Mesa County, CO

Laramie 0993-29-01

Laramie 29-01 Fed 0993-21-15W

OH

Design #2

KLX Anticollision Report

08 May, 2025





Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-15W - Slot A6
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 0993-21-15W	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	9,224.0	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	50.0	47.2	17.673	CC, ES
Laramie 29-01 0993-20-11E - OH - Design #2	500.0	492.6	70.3	63.2	9.940	SF
Laramie 29-01 0993-20-12E - OH - Design #2	200.0	200.0	51.0	48.2	18.023	CC, ES
Laramie 29-01 0993-20-12E - OH - Design #2	500.0	491.7	74.7	67.1	9.882	SF
Laramie 29-01 0993-20-13E - OH - Design #2	200.0	200.0	41.2	38.4	14.575	CC
Laramie 29-01 0993-20-13E - OH - Design #2	204.4	204.4	41.2	38.4	14.490	ES
Laramie 29-01 0993-20-13E - OH - Design #2	400.0	396.4	49.8	44.3	9.008	SF
Laramie 29-01 0993-20-14E - OH - Design #2	200.0	200.0	31.6	28.8	11.182	CC
Laramie 29-01 0993-20-14E - OH - Design #2	204.4	204.4	31.6	28.8	11.089	ES
Laramie 29-01 0993-20-14E - OH - Design #2	500.0	494.8	52.0	44.4	6.851	SF
Laramie 29-01 0993-20-15E - OH - Design #2	200.0	200.0	22.4	19.5	7.900	CC
Laramie 29-01 0993-20-15E - OH - Design #2	300.0	300.0	22.7	19.2	6.471	ES
Laramie 29-01 0993-20-15E - OH - Design #2	500.0	496.2	40.4	32.7	5.256	SF
Laramie 29-01 0993-20-16E - OH - Design #2	200.0	200.0	10.0	7.2	3.534	CC
Laramie 29-01 0993-20-16E - OH - Design #2	204.4	204.4	10.0	7.1	3.507	ES
Laramie 29-01 0993-20-16E - OH - Design #2	300.0	299.9	10.8	7.4	3.242	SF
Laramie 29-01 0993-20-17E - OH - Design #2	200.0	200.0	14.1	11.3	4.998	CC
Laramie 29-01 0993-20-17E - OH - Design #2	300.0	300.0	14.4	10.9	4.109	ES
Laramie 29-01 0993-20-17E - OH - Design #2	400.0	399.7	17.6	12.9	3.737	SF
Laramie 29-01 0993-20-18E - OH - Design #2	200.0	200.0	31.6	28.8	11.176	CC
Laramie 29-01 0993-20-18E - OH - Design #2	400.0	400.1	32.3	28.2	7.841	ES
Laramie 29-01 0993-20-18E - OH - Design #2	600.0	596.9	47.4	39.5	6.008	SF
Laramie 29-01 Fed 0993-21-11W - OH - Design #2	200.0	200.0	40.0	37.2	14.141	CC
Laramie 29-01 Fed 0993-21-11W - OH - Design #2	300.0	299.6	40.5	37.1	11.709	ES
Laramie 29-01 Fed 0993-21-11W - OH - Design #2	600.0	597.4	53.9	47.9	8.962	SF
Laramie 29-01 Fed 0993-21-12W - OH - Design #2	200.0	200.0	30.0	27.2	10.607	CC
Laramie 29-01 Fed 0993-21-12W - OH - Design #2	300.0	299.7	30.5	27.0	8.632	ES
Laramie 29-01 Fed 0993-21-12W - OH - Design #2	600.0	598.1	42.3	36.2	6.923	SF
Laramie 29-01 Fed 0993-21-13W - OH - Design #2	200.0	200.0	20.0	17.2	7.066	CC
Laramie 29-01 Fed 0993-21-13W - OH - Design #2	300.0	300.0	20.1	16.8	6.067	ES
Laramie 29-01 Fed 0993-21-13W - OH - Design #2	600.0	599.7	25.1	19.6	4.561	SF
Laramie 29-01 Fed 0993-21-14W - OH - Design #2	300.0	300.0	10.0	6.5	2.901	CC
Laramie 29-01 Fed 0993-21-14W - OH - Design #2	400.0	400.0	10.5	6.3	2.493	Level 1, ES
Laramie 29-01 Fed 0993-21-14W - OH - Design #2	700.0	699.4	15.4	8.1	2.104	Level 1, SF
Laramie 29-01 Fed 0993-21-16W - OH - Design #2	337.9	337.8	9.8	5.9	2.536	CC
Laramie 29-01 Fed 0993-21-16W - OH - Design #2	400.0	399.9	10.0	5.8	2.384	Level 1, ES

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 0993-21-15W	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 0993-21-16W - OH - Design #2	700.0	700.1	15.6	7.9	2.037	Level 1, SF
Laramie 29-01 Fed 0993-21-17W - OH - Design #2	265.1	265.1	19.9	16.8	6.385	CC, ES
Laramie 29-01 Fed 0993-21-17W - OH - Design #2	600.0	598.5	26.3	20.4	4.433	SF
Laramie 29-01 Fed 0993-21-18W - OH - Design #2	291.5	291.4	29.8	26.5	9.046	CC, ES
Laramie 29-01 Fed 0993-21-18W - OH - Design #2	600.0	597.6	37.7	31.8	6.366	SF

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 Centre +N/-S (usft)	+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	-46.74	34.3	-36.4	50.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.74	34.3	-36.4	50.0	48.4	31.563	
200.0	200.0	200.0	200.0	1.4	1.4	-46.74	34.3	-36.4	50.0	47.2	17.673	CC, ES
300.0	300.0	298.0	298.0	1.7	2.5	-102.38	36.2	-37.1	52.0	48.1	13.124	
400.0	399.9	395.7	395.5	3.0	3.9	-103.58	42.1	-39.3	58.7	53.0	10.333	
500.0	499.5	492.6	491.8	4.3	5.0	-106.13	51.8	-42.8	70.3	63.2	9.940	SF
600.0	598.6	588.3	586.5	5.4	5.9	-109.00	65.1	-47.6	86.8	78.6	10.516	
700.0	697.1	682.0	678.4	6.3	6.7	-111.80	81.5	-54.1	108.7	99.4	11.652	
800.0	794.7	773.2	767.3	7.1	7.4	-114.47	100.1	-62.8	136.2	125.9	13.168	
900.0	891.3	861.7	852.7	7.9	8.0	-116.71	120.8	-73.4	169.4	158.1	14.942	
1,000.0	986.7	947.2	934.3	8.6	8.6	-118.45	143.1	-85.7	208.0	195.7	16.908	
1,100.0	1,080.6	1,029.2	1,011.7	9.3	9.1	-119.73	166.6	-99.4	252.0	238.7	19.018	
1,200.0	1,173.0	1,107.7	1,084.7	9.9	9.6	-120.60	191.1	-114.2	300.9	286.7	21.231	
1,300.0	1,263.7	1,182.3	1,153.3	10.5	10.1	-121.10	216.1	-129.8	354.4	339.4	23.507	
1,400.0	1,353.3	1,253.9	1,218.2	10.9	10.5	-122.53	241.6	-146.2	411.5	395.6	25.887	
1,500.0	1,443.0	1,323.1	1,279.9	11.3	10.9	-123.45	267.7	-163.3	470.8	454.1	28.248	
1,600.0	1,532.7	1,390.0	1,338.7	11.6	11.3	-124.00	294.3	-181.0	532.1	514.7	30.525	
1,700.0	1,622.3	1,454.4	1,394.4	11.9	11.7	-124.31	321.1	-199.1	595.3	577.1	32.719	
1,800.0	1,712.0	1,516.6	1,447.3	12.3	12.0	-124.45	348.0	-217.6	660.2	641.2	34.846	
1,900.0	1,801.7	1,576.4	1,497.4	12.7	12.3	-124.46	374.9	-236.3	726.7	707.0	36.906	
2,000.0	1,891.3	1,634.0	1,544.8	13.0	12.6	-124.39	401.7	-255.1	794.8	774.4	38.955	
2,100.0	1,981.0	1,690.5	1,590.4	13.4	12.9	-124.25	428.9	-274.3	864.4	843.3	40.965	
2,200.0	2,070.7	1,761.7	1,647.5	13.8	13.1	-124.06	463.5	-298.9	934.6	912.6	42.448	
2,300.0	2,160.3	1,832.9	1,704.6	14.3	13.4	-123.90	498.2	-323.6	1,004.8	981.8	43.768	
2,400.0	2,250.0	1,904.1	1,761.7	14.7	13.6	-123.76	532.8	-348.2	1,075.0	1,051.1	44.949	
2,500.0	2,339.7	1,975.3	1,818.8	15.1	13.9	-123.64	567.5	-372.9	1,145.2	1,120.3	46.006	
2,600.0	2,429.4	2,046.5	1,875.9	15.8	14.3	-123.53	602.2	-397.5	1,215.4	1,189.5	46.975	
2,700.0	2,519.0	2,117.7	1,933.0	16.6	14.7	-123.43	636.8	-422.2	1,285.6	1,258.7	47.791	
2,800.0	2,608.7	2,188.9	1,990.1	17.4	15.3	-123.35	671.5	-446.8	1,355.8	1,327.9	48.560	
2,900.0	2,698.4	2,260.1	2,047.3	18.2	15.9	-123.27	706.1	-471.5	1,426.0	1,397.0	49.252	
3,000.0	2,788.0	2,331.3	2,104.4	19.0	16.7	-123.20	740.8	-496.1	1,496.2	1,466.2	49.882	
3,100.0	2,877.7	2,402.5	2,161.5	19.8	17.4	-123.13	775.5	-520.7	1,566.4	1,535.3	50.456	
3,200.0	2,967.4	2,473.7	2,218.6	20.6	18.2	-123.07	810.1	-545.4	1,636.6	1,604.5	50.973	
3,300.0	3,057.0	2,544.9	2,275.7	21.4	19.0	-123.02	844.8	-570.0	1,706.8	1,673.6	51.448	
3,400.0	3,146.7	2,616.1	2,332.8	22.2	19.8	-122.97	879.4	-594.7	1,777.0	1,742.8	51.883	
3,500.0	3,236.4	2,687.3	2,389.9	23.0	20.5	-122.92	914.1	-619.3	1,847.2	1,811.9	52.282	
3,600.0	3,326.1	2,758.5	2,447.0	23.8	21.3	-122.88	948.8	-644.0	1,917.4	1,881.0	52.647	

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



Anticollision Report



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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 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		
3,700.0	3,415.7	2,829.7	2,504.1	24.6	22.1	-122.84	983.4	-668.6	1,987.6	1,950.1	52.985			
3,800.0	3,505.4	2,900.9	2,561.2	25.4	22.9	-122.80	1,018.1	-693.3	2,057.9	2,019.2	53.297			
3,900.0	3,595.1	2,972.1	2,618.3	26.2	23.7	-122.77	1,052.7	-717.9	2,128.1	2,088.4	53.585			
4,000.0	3,684.7	3,043.3	2,675.4	27.1	24.5	-122.74	1,087.4	-742.5	2,198.3	2,157.5	53.852			
4,100.0	3,774.4	3,114.5	2,732.5	27.9	25.3	-122.71	1,122.0	-767.2	2,268.5	2,226.6	54.101			
4,200.0	3,864.1	3,185.7	2,789.6	28.7	26.1	-122.68	1,156.7	-791.8	2,338.7	2,295.7	54.331			
4,300.0	3,953.7	3,256.9	2,846.7	29.5	26.9	-122.65	1,191.4	-816.5	2,408.9	2,364.8	54.546			
4,400.0	4,043.4	3,328.1	2,903.8	30.3	27.8	-122.62	1,226.0	-841.1	2,479.1	2,433.8	54.747			
4,500.0	4,133.1	3,399.3	2,960.9	31.1	28.6	-122.60	1,260.7	-865.8	2,549.3	2,502.9	54.935			
4,600.0	4,222.7	3,470.5	3,018.0	31.9	29.4	-122.58	1,295.3	-890.4	2,619.6	2,572.0	55.110			
4,700.0	4,312.4	3,541.7	3,075.1	32.7	30.2	-122.56	1,330.0	-915.1	2,689.8	2,641.1	55.274			
4,800.0	4,402.1	3,612.9	3,132.2	33.5	31.0	-122.54	1,364.7	-939.7	2,760.0	2,710.2	55.429			
4,900.0	4,491.8	3,684.1	3,189.4	34.3	31.8	-122.52	1,399.3	-964.3	2,830.2	2,779.3	55.573			
5,000.0	4,581.4	3,755.3	3,246.5	35.1	32.6	-122.50	1,434.0	-989.0	2,900.4	2,848.3	55.710			
5,100.0	4,671.1	3,826.5	3,303.6	35.9	33.4	-122.48	1,468.6	-1,013.6	2,970.6	2,917.4	55.838			
5,200.0	4,760.8	3,897.7	3,360.7	36.7	34.2	-122.46	1,503.3	-1,038.3	3,040.8	2,986.5	55.959			
5,300.0	4,850.4	3,968.9	3,417.8	37.6	35.0	-122.45	1,538.0	-1,062.9	3,111.1	3,055.6	56.073			
5,400.0	4,940.1	4,040.1	3,474.9	38.4	35.8	-122.43	1,572.6	-1,087.6	3,181.3	3,124.6	56.181			
5,500.0	5,029.8	4,111.3	3,532.0	39.2	36.7	-122.42	1,607.3	-1,112.2	3,251.5	3,193.7	56.283			
5,600.0	5,119.5	4,182.6	3,589.1	40.0	37.5	-122.79	1,641.9	-1,136.9	3,321.7	3,262.8	56.384			
5,700.0	5,210.4	4,254.8	3,647.1	40.7	38.3	-124.70	1,677.1	-1,161.9	3,390.7	3,330.7	56.468			
5,800.0	5,303.1	4,328.6	3,706.2	41.4	39.1	-126.40	1,713.0	-1,187.4	3,457.9	3,396.8	56.532			
5,900.0	5,397.3	4,403.6	3,766.4	42.0	40.0	-127.90	1,749.5	-1,213.4	3,523.2	3,461.0	56.591			
6,000.0	5,492.9	4,479.8	3,827.5	42.5	40.9	-129.22	1,786.6	-1,239.7	3,586.5	3,523.2	56.647			
6,100.0	5,589.7	4,557.0	3,889.4	43.0	41.7	-130.37	1,824.2	-1,266.5	3,647.7	3,583.4	56.701			
6,200.0	5,687.5	4,635.1	3,952.1	43.3	42.6	-131.37	1,862.2	-1,293.5	3,706.8	3,641.5	56.757			
6,300.0	5,786.1	4,713.9	4,015.3	43.6	43.5	-132.24	1,900.6	-1,320.8	3,763.6	3,697.3	56.815			
6,400.0	5,885.3	4,793.3	4,078.9	43.8	44.4	-132.98	1,939.2	-1,348.3	3,818.1	3,751.0	56.880			
6,500.0	5,985.0	4,873.1	4,143.0	44.0	45.3	-133.60	1,978.1	-1,375.9	3,870.4	3,802.4	56.954			
6,600.0	6,085.0	4,953.2	4,207.2	44.0	46.3	-134.12	2,017.1	-1,403.6	3,920.3	3,851.6	57.047			
6,700.0	6,185.0	5,033.4	4,271.5	44.1	47.2	-77.77	2,056.1	-1,431.4	3,968.5	3,899.2	57.239			
6,800.0	6,285.0	5,113.6	4,335.8	44.1	48.1	-77.24	2,095.1	-1,459.1	4,016.9	3,947.0	57.433			
6,900.0	6,385.0	5,193.8	4,400.2	44.1	49.0	-76.73	2,134.2	-1,486.9	4,065.6	3,995.0	57.629			
7,000.0	6,485.0	5,274.0	4,464.5	44.1	50.0	-76.22	2,173.2	-1,514.7	4,114.1	4,042.5	57.825			
7,100.0	6,585.0	5,354.2	4,528.8	44.1	51.0	-75.71	2,212.2	-1,542.5	4,162.6	4,089.5	58.021			
7,200.0	6,685.0	5,434.4	4,593.1	44.1	52.0	-75.20	2,251.2	-1,570.3	4,211.1	4,136.5	58.217			
7,300.0	6,785.0	5,514.6	4,657.4	44.1	53.0	-74.69	2,290.2	-1,598.1	4,259.6	4,183.5	58.413			
7,400.0	6,885.0	5,594.8	4,721.7	44.1	54.0	-74.18	2,329.2	-1,625.9	4,308.1	4,230.5	58.609			
7,500.0	6,985.0	5,675.0	4,786.0	44.1	55.0	-73.67	2,368.2	-1,653.7	4,356.6	4,277.5	58.805			
7,600.0	7,085.0	5,755.2	4,850.3	44.1	56.0	-73.16	2,407.2	-1,681.5	4,405.1	4,324.5	59.001			
7,700.0	7,185.0	5,835.4	4,914.6	44.1	57.0	-72.65	2,446.2	-1,709.3	4,453.6	4,371.5	59.197			
7,800.0	7,285.0	5,915.6	4,978.9	44.1	58.0	-72.14	2,485.2	-1,737.1	4,502.1	4,418.5	59.393			
7,900.0	7,385.0	5,995.8	5,043.2	44.1	59.0	-71.63	2,524.2	-1,764.9	4,550.6	4,465.5	59.589			
8,000.0	7,485.0	6,076.0	5,107.5	44.1	60.0	-71.12	2,563.2	-1,792.7	4,599.1	4,512.5	59.785			
8,100.0	7,585.0	6,156.2	5,171.8	44.1	61.0	-70.61	2,602.2	-1,820.5	4,647.6	4,559.5	59.981			
8,200.0	7,685.0	6,236.4	5,236.1	44.1	62.0	-70.10	2,641.2	-1,848.3	4,696.1	4,606.5	60.177			
8,300.0	7,785.0	6,316.6	5,300.4	44.1	63.0	-69.59	2,680.2	-1,876.1	4,744.6	4,653.5	60.373			
8,400.0	7,885.0	6,396.8	5,364.7	44.1	64.0	-69.08	2,719.2	-1,903.9	4,793.1	4,700.5	60.569			
8,500.0	7,985.0	6,477.0	5,429.0	44.1	65.0	-68.57	2,758.2	-1,931.7	4,841.6	4,747.5	60.765			
8,600.0	8,085.0	6,557.2	5,493.3	44.1	66.0	-68.06	2,797.2	-1,959.5	4,890.1	4,794.5	60.961			

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 0993-21-15W - Slot A6
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 0993-21-15W	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 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	
8,700.0	8,185.0	8,828.6	7,859.0	44.6	61.9	-70.35	2,695.1	-1,885.7	4,103.4	4,014.5	46.155		
8,800.0	8,285.0	8,828.6	7,859.0	44.6	61.9	-70.35	2,695.1	-1,885.7	4,112.6	4,023.7	46.250		
8,900.0	8,385.0	8,828.6	7,859.0	44.6	61.9	-70.35	2,695.1	-1,885.7	4,124.1	4,035.2	46.391		
9,000.0	8,485.0	8,828.6	7,859.0	44.6	61.9	-70.35	2,695.1	-1,885.7	4,138.1	4,049.2	46.580		
9,100.0	8,585.0	8,828.6	7,859.0	44.7	61.9	-70.35	2,695.1	-1,885.7	4,154.4	4,065.6	46.814		
9,200.0	8,685.0	8,828.6	7,859.0	44.7	61.9	-70.35	2,695.1	-1,885.7	4,173.0	4,084.4	47.093		
9,224.0	8,709.0	8,828.6	7,859.0	44.7	61.9	-70.35	2,695.1	-1,885.7	4,177.8	4,089.3	47.169		



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-15W - Slot A6
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 0993-21-15W	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 Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)		
0.0	0.0	0.0	0.0	0.0	0.0	-58.04	27.0	-43.3	51.0			
100.0	100.0	100.0	100.0	0.8	0.8	-58.04	27.0	-43.3	51.0	49.4	32.188	
200.0	200.0	200.0	200.0	1.4	1.4	-58.04	27.0	-43.3	51.0	48.2	18.023	CC, ES
300.0	300.0	297.9	297.9	1.7	2.4	-113.88	28.6	-44.5	53.2	49.2	13.383	
400.0	399.9	395.3	395.1	3.0	3.9	-115.34	33.6	-48.3	61.0	55.1	10.321	
500.0	499.5	491.7	490.9	4.3	5.0	-117.99	41.7	-54.6	74.7	67.1	9.882	SF
600.0	598.6	586.5	584.7	5.4	5.9	-120.74	52.8	-63.1	94.3	85.4	10.530	
700.0	697.1	679.3	675.8	6.3	6.7	-123.04	66.6	-73.7	119.9	109.7	11.751	
800.0	794.7	769.5	763.7	7.1	7.4	-124.78	82.8	-86.2	151.3	140.0	13.344	
900.0	891.3	856.9	847.9	7.9	8.1	-126.00	101.1	-100.3	188.3	175.9	15.199	
1,000.0	986.7	941.1	928.2	8.6	8.6	-126.79	121.2	-115.7	230.7	217.3	17.245	
1,100.0	1,080.6	1,021.8	1,004.3	9.3	9.2	-127.21	142.6	-132.1	278.1	263.8	19.431	
1,200.0	1,173.0	1,100.0	1,077.0	9.9	9.7	-127.36	165.3	-149.6	330.2	315.0	21.691	
1,300.0	1,263.7	1,172.3	1,143.4	10.5	10.1	-127.21	188.1	-167.1	386.9	370.8	24.066	
1,400.0	1,353.3	1,242.7	1,207.1	10.9	10.6	-128.13	211.8	-185.4	446.7	429.8	26.529	
1,500.0	1,443.0	1,310.8	1,267.8	11.3	11.0	-128.64	236.3	-204.2	508.3	490.7	28.968	
1,600.0	1,532.7	1,376.7	1,325.7	11.6	11.4	-128.87	261.3	-223.4	571.6	553.3	31.305	
1,700.0	1,622.3	1,440.4	1,380.7	11.9	11.7	-128.91	286.7	-242.9	636.5	617.6	33.551	
1,800.0	1,712.0	1,500.0	1,431.4	12.3	12.1	-128.82	311.5	-262.0	703.0	683.4	35.787	
1,900.0	1,801.7	1,564.5	1,485.3	12.7	12.3	-128.62	339.6	-283.6	770.9	750.5	37.866	
2,000.0	1,891.3	1,633.0	1,542.0	13.0	12.5	-128.38	370.1	-307.0	839.6	818.4	39.750	
2,100.0	1,981.0	1,705.6	1,602.1	13.4	12.8	-128.16	402.4	-331.9	908.2	886.3	41.310	
2,200.0	2,070.7	1,778.3	1,662.3	13.8	13.0	-127.97	434.6	-356.7	976.9	954.0	42.688	
2,300.0	2,160.3	1,850.9	1,722.4	14.3	13.2	-127.81	466.9	-381.5	1,045.6	1,021.8	43.922	
2,400.0	2,250.0	1,923.5	1,782.6	14.7	13.5	-127.66	499.2	-406.4	1,114.3	1,089.6	45.029	
2,500.0	2,339.7	1,996.2	1,842.7	15.1	13.8	-127.54	531.5	-431.2	1,183.0	1,157.3	46.023	
2,600.0	2,429.4	2,068.8	1,902.8	15.8	14.0	-127.42	563.8	-456.0	1,251.7	1,225.1	46.919	
2,700.0	2,519.0	2,141.5	1,963.0	16.6	14.3	-127.32	596.1	-480.9	1,320.4	1,292.8	47.726	
2,800.0	2,608.7	2,214.1	2,023.1	17.4	15.0	-127.23	628.4	-505.7	1,389.1	1,360.5	48.448	
2,900.0	2,698.4	2,286.7	2,083.3	18.2	15.7	-127.15	660.7	-530.5	1,457.9	1,428.2	49.109	
3,000.0	2,788.0	2,359.4	2,143.4	19.0	16.5	-127.07	693.0	-555.4	1,526.6	1,495.9	49.708	
3,100.0	2,877.7	2,432.0	2,203.6	19.8	17.2	-127.01	725.3	-580.2	1,595.3	1,563.5	50.256	
3,200.0	2,967.4	2,504.7	2,263.7	20.6	18.0	-126.94	757.6	-605.0	1,664.0	1,631.2	50.757	
3,300.0	3,057.0	2,577.3	2,323.8	21.4	18.8	-126.88	789.9	-629.8	1,732.7	1,698.9	51.213	
3,400.0	3,146.7	2,649.9	2,384.0	22.2	19.5	-126.83	822.2	-654.7	1,801.4	1,766.5	51.631	
3,500.0	3,236.4	2,722.6	2,444.1	23.0	20.3	-126.78	854.5	-679.5	1,870.1	1,834.2	52.016	
3,600.0	3,326.1	2,795.2	2,504.3	23.8	21.1	-126.73	886.8	-704.3	1,938.9	1,901.8	52.371	
3,700.0	3,415.7	2,867.9	2,564.4	24.6	21.8	-126.69	919.1	-729.2	2,007.6	1,969.5	52.697	
3,800.0	3,505.4	2,940.5	2,624.5	25.4	22.6	-126.65	951.4	-754.0	2,076.3	2,037.1	52.998	
3,900.0	3,595.1	3,013.1	2,684.7	26.2	23.4	-126.61	983.7	-778.8	2,145.0	2,104.8	53.278	
4,000.0	3,684.7	3,085.8	2,744.8	27.1	24.1	-126.58	1,016.0	-803.7	2,213.7	2,172.4	53.538	
4,100.0	3,774.4	3,158.4	2,805.0	27.9	24.9	-126.55	1,048.3	-828.5	2,282.5	2,240.0	53.778	
4,200.0	3,864.1	3,231.1	2,865.1	28.7	25.7	-126.51	1,080.6	-853.3	2,351.2	2,307.6	54.002	
4,300.0	3,953.7	3,303.7	2,925.2	29.5	26.4	-126.49	1,112.9	-878.2	2,419.9	2,375.3	54.212	
4,400.0	4,043.4	3,376.3	2,985.4	30.3	27.2	-126.46	1,145.2	-903.0	2,488.6	2,442.9	54.406	
4,500.0	4,133.1	3,449.0	3,045.5	31.1	28.0	-126.43	1,177.5	-927.8	2,557.3	2,510.5	54.589	
4,600.0	4,222.7	3,521.6	3,105.7	31.9	28.8	-126.41	1,209.8	-952.7	2,626.1	2,578.1	54.760	
4,700.0	4,312.4	3,594.3	3,165.8	32.7	29.5	-126.38	1,242.1	-977.5	2,694.8	2,645.7	54.920	
4,800.0	4,402.1	3,666.9	3,225.9	33.5	30.3	-126.36	1,274.4	-1,002.3	2,763.5	2,713.3	55.069	
4,900.0	4,491.8	3,739.6	3,286.1	34.3	31.1	-126.34	1,306.7	-1,027.2	2,832.2	2,780.9	55.211	
5,000.0	4,581.4	3,812.2	3,346.2	35.1	31.8	-126.32	1,339.0	-1,052.0	2,901.0	2,848.5	55.343	

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 0993-21-15W - Slot A6
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 0993-21-15W	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 Centre +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,671.1	3,884.8	3,406.4	35.9	32.6	-126.30	1,371.2	-1,076.8	2,969.7	2,916.1	55.468	
5,200.0	4,760.8	3,957.5	3,466.5	36.7	33.4	-126.28	1,403.5	-1,101.6	3,038.4	2,983.7	55.586	
5,300.0	4,850.4	4,030.1	3,526.7	37.6	34.2	-126.26	1,435.8	-1,126.5	3,107.1	3,051.3	55.697	
5,400.0	4,940.1	4,102.8	3,586.8	38.4	34.9	-126.25	1,468.1	-1,151.3	3,175.9	3,118.9	55.802	
5,500.0	5,029.8	4,175.4	3,646.9	39.2	35.7	-126.23	1,500.4	-1,176.1	3,244.6	3,186.5	55.901	
5,600.0	5,119.5	4,248.1	3,707.1	40.0	36.5	-126.57	1,532.7	-1,201.0	3,313.3	3,254.1	55.999	
5,700.0	5,210.4	4,321.9	3,768.2	40.7	37.3	-128.31	1,565.6	-1,226.2	3,380.7	3,320.4	56.073	
5,800.0	5,303.1	4,397.2	3,830.6	41.4	38.1	-129.84	1,599.1	-1,252.0	3,446.1	3,384.6	56.117	
5,900.0	5,397.3	4,474.0	3,894.2	42.0	38.9	-131.19	1,633.2	-1,278.2	3,509.3	3,446.8	56.149	
6,000.0	5,492.9	4,552.1	3,958.8	42.5	39.7	-132.36	1,667.9	-1,304.9	3,570.4	3,506.8	56.170	
6,100.0	5,589.7	4,631.4	4,024.4	43.0	40.6	-133.38	1,703.2	-1,332.0	3,629.1	3,564.5	56.185	
6,200.0	5,687.5	4,711.6	4,090.8	43.3	41.4	-134.25	1,738.8	-1,359.4	3,685.5	3,620.0	56.194	
6,300.0	5,786.1	4,792.6	4,157.9	43.6	42.3	-134.99	1,774.8	-1,387.1	3,739.5	3,673.0	56.202	
6,400.0	5,885.3	4,874.3	4,225.6	43.8	43.2	-135.61	1,811.2	-1,415.1	3,791.0	3,723.6	56.210	
6,500.0	5,985.0	4,956.6	4,293.7	44.0	44.1	-136.12	1,847.7	-1,443.2	3,840.1	3,771.8	56.225	
6,600.0	6,085.0	5,039.2	4,362.1	44.0	44.9	-136.53	1,884.5	-1,471.4	3,886.6	3,817.5	56.254	
6,700.0	6,185.0	5,121.9	4,430.6	44.1	45.8	-80.15	1,921.3	-1,499.7	3,931.2	3,861.5	56.391	
6,800.0	6,285.0	5,204.7	4,499.2	44.1	46.7	-79.64	1,958.1	-1,528.0	3,976.0	3,905.6	56.533	
6,900.0	6,385.0	5,287.6	4,568.0	44.1	47.6	-79.95	2,000.0	-1,557.0	4,021.0	3,950.6	56.675	
7,000.0	6,485.0	5,370.9	4,637.0	44.1	48.5	-79.95	2,042.0	-1,586.0	4,066.0	3,995.6	56.817	
7,100.0	6,585.0	5,454.9	4,706.0	44.2	49.4	-79.95	2,084.0	-1,615.0	4,111.0	4,040.6	56.959	
7,200.0	6,685.0	5,539.9	4,775.0	44.2	50.3	-79.95	2,126.0	-1,644.0	4,156.0	4,085.6	57.101	
7,300.0	6,785.0	5,625.9	4,844.0	44.2	51.2	-79.95	2,168.0	-1,673.0	4,201.0	4,130.6	57.243	
7,400.0	6,885.0	5,711.9	4,913.0	44.2	52.1	-79.95	2,210.0	-1,702.0	4,246.0	4,175.6	57.385	
7,500.0	6,985.0	5,797.9	4,982.0	44.3	53.0	-79.95	2,252.0	-1,731.0	4,291.0	4,220.6	57.527	
7,600.0	7,085.0	5,883.9	5,051.0	44.3	53.9	-79.95	2,294.0	-1,760.0	4,336.0	4,265.6	57.669	
7,700.0	7,185.0	5,969.9	5,120.0	44.3	54.8	-79.95	2,336.0	-1,789.0	4,381.0	4,310.6	57.811	
7,800.0	7,285.0	6,055.9	5,189.0	44.3	55.7	-79.95	2,378.0	-1,818.0	4,426.0	4,355.6	57.953	
7,900.0	7,385.0	6,141.9	5,258.0	44.4	56.6	-79.95	2,420.0	-1,847.0	4,471.0	4,400.6	58.095	
8,000.0	7,485.0	6,227.9	5,327.0	44.4	57.5	-79.95	2,462.0	-1,876.0	4,516.0	4,445.6	58.237	
8,100.0	7,585.0	6,313.9	5,396.0	44.4	58.4	-79.95	2,504.0	-1,905.0	4,561.0	4,490.6	58.379	
8,200.0	7,685.0	6,399.9	5,465.0	44.4	59.3	-79.95	2,546.0	-1,934.0	4,606.0	4,535.6	58.521	
8,300.0	7,785.0	6,485.9	5,534.0	44.5	60.2	-79.95	2,588.0	-1,963.0	4,651.0	4,580.6	58.663	
8,400.0	7,885.0	6,571.9	5,603.0	44.5	61.1	-79.95	2,630.0	-1,992.0	4,696.0	4,625.6	58.805	
8,500.0	7,985.0	6,657.9	5,672.0	44.5	62.0	-79.95	2,672.0	-2,021.0	4,741.0	4,670.6	58.947	
8,600.0	8,085.0	6,743.9	5,741.0	44.5	62.9	-79.95	2,714.0	-2,050.0	4,786.0	4,715.6	59.089	
8,700.0	8,185.0	6,829.9	5,810.0	44.6	63.8	-79.95	2,756.0	-2,079.0	4,831.0	4,760.6	59.231	
8,800.0	8,285.0	6,915.9	5,879.0	44.6	64.7	-79.95	2,798.0	-2,108.0	4,876.0	4,805.6	59.373	
8,900.0	8,385.0	7,001.9	5,948.0	44.6	65.6	-79.95	2,840.0	-2,137.0	4,921.0	4,850.6	59.515	
9,000.0	8,485.0	7,087.9	6,017.0	44.6	66.5	-79.95	2,882.0	-2,166.0	4,966.0	4,895.6	59.657	
9,100.0	8,585.0	7,173.9	6,086.0	44.7	67.4	-79.95	2,924.0	-2,195.0	5,011.0	4,940.6	59.799	
9,111.3	8,596.2	7,185.0	6,097.0	44.7	67.5	-79.95	2,930.0	-2,197.0	5,015.0	4,943.0	59.808	
9,200.0	8,685.0	7,269.9	6,166.0	44.7	68.3	-79.95	2,972.0	-2,226.0	5,060.0	4,988.0	59.950	
9,224.0	8,709.0	7,281.0	6,177.0	44.7	68.4	-79.95	2,978.0	-2,228.0	5,064.0	4,990.0	59.959	

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 0993-21-15W - Slot A6
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 0993-21-15W	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	-60.78	20.1	-36.0	41.2			
100.0	100.0	100.0	100.0	0.8	0.8	-60.78	20.1	-36.0	41.2	39.7	26.030	
200.0	200.0	200.0	200.0	1.4	1.4	-60.78	20.1	-36.0	41.2	38.4	14.575	CC
204.4	204.4	204.4	204.4	1.4	1.4	-116.92	20.1	-36.0	41.2	38.4	14.490	ES
300.0	300.0	298.8	298.7	1.7	1.8	-117.80	20.5	-37.0	42.5	39.1	12.429	
400.0	399.9	396.4	396.3	3.0	3.2	-123.05	22.0	-41.7	49.8	44.3	9.008	SF
500.0	499.5	493.1	492.5	4.3	3.6	-129.39	25.2	-50.0	64.2	57.3	9.357	
600.0	598.6	588.4	587.0	5.4	4.3	-133.52	31.5	-60.6	85.2	76.7	10.072	
700.0	697.1	681.6	678.9	6.3	5.2	-135.85	40.8	-73.1	112.3	102.3	11.241	
800.0	794.7	772.5	767.9	7.1	6.0	-137.02	52.8	-87.3	145.3	133.9	12.829	
900.0	891.3	860.5	853.3	7.9	6.7	-137.49	67.2	-103.0	183.7	171.2	14.699	
1,000.0	986.7	945.4	934.8	8.6	7.4	-137.51	83.6	-119.9	227.5	213.9	16.763	
1,100.0	1,080.6	1,026.9	1,012.3	9.3	8.0	-137.24	101.6	-137.8	276.2	261.6	18.966	
1,200.0	1,173.0	1,104.9	1,085.5	9.9	8.6	-136.76	121.0	-156.3	329.6	314.1	21.272	
1,300.0	1,263.7	1,179.1	1,154.3	10.5	9.1	-136.10	141.4	-175.2	387.4	371.0	23.643	
1,400.0	1,353.3	1,250.4	1,219.5	10.9	9.5	-136.43	162.7	-194.6	448.1	431.0	26.150	
1,500.0	1,443.0	1,319.6	1,282.0	11.3	10.0	-136.45	185.0	-214.5	510.4	492.6	28.632	
1,600.0	1,532.7	1,386.8	1,341.7	11.6	10.4	-136.27	208.1	-234.8	574.1	555.6	31.002	
1,700.0	1,622.3	1,451.9	1,398.7	11.9	10.8	-135.95	231.8	-255.4	639.1	619.9	33.262	
1,800.0	1,712.0	1,514.9	1,453.0	12.3	11.1	-135.53	256.1	-276.2	705.6	685.7	35.488	
1,900.0	1,801.7	1,582.5	1,510.4	12.7	11.4	-135.03	283.3	-299.3	773.1	752.6	37.602	
2,000.0	1,891.3	1,655.9	1,572.6	13.0	11.6	-134.56	312.9	-324.5	840.8	819.5	39.354	
2,100.0	1,981.0	1,729.3	1,634.8	13.4	11.9	-134.16	342.6	-349.6	908.6	886.4	40.923	
2,200.0	2,070.7	1,802.7	1,697.1	13.8	12.1	-133.81	372.3	-374.8	976.4	953.3	42.329	
2,300.0	2,160.3	1,876.1	1,759.3	14.3	12.4	-133.50	402.0	-400.0	1,044.2	1,020.2	43.585	
2,400.0	2,250.0	1,949.5	1,821.5	14.7	12.7	-133.24	431.7	-425.2	1,112.0	1,087.1	44.717	
2,500.0	2,339.7	2,022.9	1,883.8	15.1	13.1	-133.00	461.3	-450.3	1,179.8	1,154.0	45.739	
2,600.0	2,429.4	2,096.3	1,946.0	15.8	13.5	-132.79	491.0	-475.5	1,247.7	1,220.9	46.661	
2,700.0	2,519.0	2,169.7	2,008.2	16.6	14.0	-132.60	520.7	-500.7	1,315.5	1,287.8	47.486	
2,800.0	2,608.7	2,243.1	2,070.5	17.4	14.6	-132.43	550.4	-525.8	1,383.4	1,354.7	48.247	
2,900.0	2,698.4	2,316.5	2,132.7	18.2	15.3	-132.28	580.0	-551.0	1,451.2	1,421.6	48.936	
3,000.0	2,788.0	2,389.9	2,194.9	19.0	16.0	-132.14	609.7	-576.2	1,519.1	1,488.4	49.562	
3,100.0	2,877.7	2,463.3	2,257.2	19.8	16.7	-132.01	639.4	-601.3	1,587.0	1,555.3	50.131	
3,200.0	2,967.4	2,536.7	2,319.4	20.6	17.4	-131.89	669.1	-626.5	1,654.8	1,622.2	50.654	
3,300.0	3,057.0	2,610.1	2,381.7	21.4	18.1	-131.78	698.7	-651.7	1,722.7	1,689.0	51.134	
3,400.0	3,146.7	2,683.5	2,443.9	22.2	18.8	-131.68	728.4	-676.8	1,790.6	1,755.9	51.573	
3,500.0	3,236.4	2,756.9	2,506.1	23.0	19.6	-131.59	758.1	-702.0	1,858.5	1,822.7	51.977	
3,600.0	3,326.1	2,830.3	2,568.4	23.8	20.3	-131.50	787.8	-727.2	1,926.3	1,889.5	52.350	
3,700.0	3,415.7	2,903.7	2,630.6	24.6	21.0	-131.42	817.5	-752.3	1,994.2	1,956.4	52.696	
3,800.0	3,505.4	2,977.1	2,692.8	25.4	21.7	-131.35	847.1	-777.5	2,062.1	2,023.2	53.014	
3,900.0	3,595.1	3,050.5	2,755.1	26.2	22.5	-131.28	876.8	-802.7	2,130.0	2,090.1	53.310	
4,000.0	3,684.7	3,123.9	2,817.3	27.1	23.2	-131.21	906.5	-827.9	2,197.9	2,156.9	53.585	
4,100.0	3,774.4	3,197.3	2,879.5	27.9	23.9	-131.15	936.2	-853.0	2,265.8	2,223.7	53.841	
4,200.0	3,864.1	3,270.7	2,941.8	28.7	24.6	-131.09	965.8	-878.2	2,333.7	2,290.5	54.078	
4,300.0	3,953.7	3,344.1	3,004.0	29.5	25.4	-131.03	995.5	-903.4	2,401.6	2,357.4	54.300	
4,400.0	4,043.4	3,417.5	3,066.3	30.3	26.1	-130.98	1,025.2	-928.5	2,469.5	2,424.2	54.508	
4,500.0	4,133.1	3,490.9	3,128.5	31.1	26.8	-130.93	1,054.9	-953.7	2,537.4	2,491.0	54.702	
4,600.0	4,222.7	3,564.3	3,190.7	31.9	27.6	-130.89	1,084.5	-978.9	2,605.3	2,557.8	54.884	
4,700.0	4,312.4	3,637.7	3,253.0	32.7	28.3	-130.84	1,114.2	-1,004.0	2,673.2	2,624.6	55.055	
4,800.0	4,402.1	3,711.1	3,315.2	33.5	29.0	-130.80	1,143.9	-1,029.2	2,741.1	2,691.4	55.215	
4,900.0	4,491.8	3,784.5	3,377.4	34.3	29.8	-130.76	1,173.6	-1,054.4	2,809.0	2,758.2	55.366	

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 0993-21-15W - Slot A6
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 0993-21-15W	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	4,581.4	3,857.8	3,439.7	35.1	30.5	-130.72	1,203.2	-1,079.5	2,876.9	2,825.0	55.508		
5,100.0	4,671.1	3,931.2	3,501.9	35.9	31.2	-130.68	1,232.9	-1,104.7	2,944.8	2,891.8	55.641		
5,200.0	4,760.8	4,004.6	3,564.1	36.7	32.0	-130.65	1,262.6	-1,129.9	3,012.7	2,958.6	55.768		
5,300.0	4,850.4	4,078.0	3,626.4	37.6	32.7	-130.62	1,292.3	-1,155.0	3,080.6	3,025.5	55.887		
5,400.0	4,940.1	4,151.4	3,688.6	38.4	33.5	-130.58	1,322.0	-1,180.2	3,148.5	3,092.3	55.999		
5,500.0	5,029.8	4,224.8	3,750.9	39.2	34.2	-130.55	1,351.6	-1,205.4	3,216.4	3,159.1	56.106		
5,600.0	5,119.5	4,298.3	3,813.1	40.0	34.9	-130.85	1,381.3	-1,230.6	3,284.2	3,225.8	56.211		
5,700.0	5,210.4	4,372.9	3,876.4	40.7	35.7	-132.43	1,411.5	-1,256.2	3,350.7	3,291.2	56.283		
5,800.0	5,303.1	4,449.3	3,941.2	41.4	36.4	-133.81	1,442.4	-1,282.3	3,414.9	3,354.3	56.313		
5,900.0	5,397.3	4,527.2	4,007.2	42.0	37.2	-135.01	1,473.9	-1,309.1	3,476.8	3,415.1	56.323		
6,000.0	5,492.9	4,606.5	4,074.5	42.5	38.0	-136.05	1,505.9	-1,336.2	3,536.3	3,473.5	56.316		
6,100.0	5,589.7	4,687.1	4,142.8	43.0	38.8	-136.93	1,538.5	-1,363.9	3,593.3	3,529.4	56.294		
6,200.0	5,687.5	4,768.7	4,212.0	43.3	39.6	-137.68	1,571.5	-1,391.9	3,647.7	3,582.9	56.262		
6,300.0	5,786.1	4,851.4	4,282.1	43.6	40.5	-138.31	1,604.9	-1,420.2	3,699.5	3,633.7	56.222		
6,400.0	5,885.3	4,934.8	4,352.8	43.8	41.3	-138.82	1,638.7	-1,448.8	3,748.7	3,681.9	56.178		
6,500.0	5,985.0	5,018.8	4,424.1	44.0	42.2	-139.22	1,672.6	-1,477.6	3,795.1	3,727.5	56.136		
6,600.0	6,085.0	5,103.3	4,495.7	44.0	43.0	-139.53	1,706.8	-1,506.6	3,838.9	3,770.4	56.107		
6,700.0	6,185.0	5,188.1	4,567.6	44.1	43.9	-83.14	1,741.1	-1,535.7	3,880.5	3,811.5	56.199		
6,800.0	6,285.0	5,272.9	4,639.5	44.1	44.7	-82.64	1,775.4	-1,564.8	3,922.4	3,852.7	56.297		
6,900.0	6,385.0	7,123.3	6,385.0	44.1	53.6	-77.87	2,145.9	-1,879.0	3,933.2	3,849.6	47.003		
7,000.0	6,485.0	7,223.3	6,485.0	44.1	53.7	-77.87	2,145.9	-1,879.0	3,933.2	3,849.5	46.980		
7,100.0	6,585.0	7,323.3	6,585.0	44.2	53.7	-77.87	2,145.9	-1,879.0	3,933.2	3,849.5	46.956		
7,200.0	6,685.0	7,423.3	6,685.0	44.2	53.7	-77.87	2,145.9	-1,879.0	3,933.2	3,849.4	46.933		
7,300.0	6,785.0	7,523.3	6,785.0	44.2	53.7	-77.87	2,145.9	-1,879.0	3,933.2	3,849.4	46.909		
7,400.0	6,885.0	7,623.3	6,885.0	44.2	53.7	-77.87	2,145.9	-1,879.0	3,933.2	3,849.4	46.886		
7,500.0	6,985.0	7,723.3	6,985.0	44.3	53.8	-77.87	2,145.9	-1,879.0	3,933.2	3,849.3	46.862		
7,600.0	7,085.0	7,823.3	7,085.0	44.3	53.8	-77.87	2,145.9	-1,879.0	3,933.2	3,849.3	46.838		
7,700.0	7,185.0	7,923.3	7,185.0	44.3	53.8	-77.87	2,145.9	-1,879.0	3,933.2	3,849.2	46.814		
7,800.0	7,285.0	8,023.3	7,285.0	44.3	53.8	-77.87	2,145.9	-1,879.0	3,933.2	3,849.2	46.790		
7,900.0	7,385.0	8,123.3	7,385.0	44.4	53.8	-77.87	2,145.9	-1,879.0	3,933.2	3,849.1	46.765		
8,000.0	7,485.0	8,223.3	7,485.0	44.4	53.9	-77.87	2,145.9	-1,879.0	3,933.2	3,849.1	46.741		
8,100.0	7,585.0	8,323.3	7,585.0	44.4	53.9	-77.87	2,145.9	-1,879.0	3,933.2	3,849.1	46.716		
8,200.0	7,685.0	8,423.3	7,685.0	44.4	53.9	-77.87	2,145.9	-1,879.0	3,933.2	3,849.0	46.691		
8,300.0	7,785.0	8,523.3	7,785.0	44.5	53.9	-77.87	2,145.9	-1,879.0	3,933.2	3,849.0	46.667		
8,310.0	7,795.0	8,533.3	7,795.0	44.5	53.9	-77.87	2,145.9	-1,879.0	3,933.2	3,849.0	46.664		
8,400.0	7,885.0	8,587.4	7,849.0	44.5	53.9	-77.87	2,145.9	-1,879.0	3,933.4	3,849.1	46.635		
8,500.0	7,985.0	8,587.4	7,849.0	44.5	53.9	-77.87	2,145.9	-1,879.0	3,935.6	3,851.2	46.627		
8,600.0	8,085.0	8,587.4	7,849.0	44.5	53.9	-77.87	2,145.9	-1,879.0	3,940.3	3,855.9	46.671		
8,700.0	8,185.0	8,587.4	7,849.0	44.6	53.9	-77.87	2,145.9	-1,879.0	3,947.6	3,863.2	46.768		
8,800.0	8,285.0	8,587.4	7,849.0	44.6	53.9	-77.87	2,145.9	-1,879.0	3,957.3	3,873.0	46.918		
8,900.0	8,385.0	8,587.4	7,849.0	44.6	53.9	-77.87	2,145.9	-1,879.0	3,969.6	3,885.3	47.119		
9,000.0	8,485.0	8,587.4	7,849.0	44.6	53.9	-77.87	2,145.9	-1,879.0	3,984.3	3,900.2	47.372		
9,100.0	8,585.0	8,587.4	7,849.0	44.7	53.9	-77.87	2,145.9	-1,879.0	4,001.5	3,917.6	47.674		
9,200.0	8,685.0	8,587.4	7,849.0	44.7	53.9	-77.87	2,145.9	-1,879.0	4,021.1	3,937.4	48.027		
9,224.0	8,709.0	8,587.4	7,849.0	44.7	53.9	-77.87	2,145.9	-1,879.0	4,026.2	3,942.5	48.121		

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 0993-21-15W - Slot A6
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 0993-21-15W	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	
204.4	204.4	204.4	204.4	1.4	1.4	-121.32	13.3	-28.7	31.6	28.8	11.089	ES	
300.0	300.0	299.5	299.5	1.7	1.7	-122.16	13.4	-29.0	32.2	28.9	9.753		
400.0	399.9	397.7	397.7	3.0	2.8	-127.86	14.6	-32.3	38.3	33.2	7.395		
500.0	499.5	494.8	494.4	4.3	4.1	-134.80	17.2	-39.5	52.0	44.4	6.851	SF	
600.0	598.6	590.1	589.0	5.4	4.5	-139.94	21.4	-50.2	73.3	64.4	8.275		
700.0	697.1	683.7	681.4	6.3	5.1	-142.44	28.2	-63.2	101.1	90.9	9.951		
800.0	794.7	774.7	770.7	7.1	5.8	-143.40	37.7	-78.1	134.8	123.3	11.743		
900.0	891.3	862.9	856.5	7.9	6.6	-143.57	49.5	-94.6	174.2	161.5	13.739		
1,000.0	986.7	947.8	938.4	8.6	7.2	-143.30	63.4	-112.5	218.9	205.1	15.910		
1,100.0	1,080.6	1,029.2	1,016.0	9.3	7.8	-142.77	78.9	-131.3	268.7	253.9	18.211		
1,200.0	1,173.0	1,106.8	1,089.3	9.9	8.4	-142.05	95.7	-150.8	323.2	307.6	20.613		
1,300.0	1,263.7	1,180.6	1,158.0	10.5	8.9	-141.21	113.6	-170.7	382.3	365.7	23.086		
1,400.0	1,353.3	1,251.3	1,223.1	10.9	9.4	-141.31	132.3	-191.1	444.3	427.0	25.705		
1,500.0	1,443.0	1,320.0	1,285.4	11.3	9.8	-141.16	152.0	-212.0	507.7	489.7	28.299		
1,600.0	1,532.7	1,386.5	1,345.0	11.6	10.2	-140.83	172.5	-233.3	572.5	553.9	30.781		
1,700.0	1,622.3	1,451.0	1,401.9	11.9	10.6	-140.40	193.7	-255.0	638.6	619.4	33.231		
1,800.0	1,712.0	1,519.5	1,461.6	12.3	10.8	-139.87	217.4	-278.9	705.9	686.0	35.513		
1,900.0	1,801.7	1,593.2	1,525.7	12.7	11.1	-139.39	243.1	-304.7	773.3	752.7	37.502		
2,000.0	1,891.3	1,666.9	1,589.8	13.0	11.3	-138.98	268.7	-330.5	840.8	819.4	39.289		
2,100.0	1,981.0	1,740.6	1,653.9	13.4	11.6	-138.63	294.3	-356.3	908.3	886.1	40.906		
2,200.0	2,070.7	1,814.3	1,718.0	13.8	11.9	-138.33	320.0	-382.1	975.8	952.8	42.368		
2,300.0	2,160.3	1,888.0	1,782.1	14.3	12.2	-138.07	345.6	-407.9	1,043.3	1,019.4	43.687		
2,400.0	2,250.0	1,961.7	1,846.1	14.7	12.5	-137.84	371.2	-433.7	1,110.8	1,086.1	44.878		
2,500.0	2,339.7	2,035.4	1,910.2	15.1	12.8	-137.63	396.9	-459.6	1,178.4	1,152.7	45.959		
2,600.0	2,429.4	2,109.0	1,974.3	15.8	13.2	-137.45	422.5	-485.4	1,245.9	1,219.4	46.942		
2,700.0	2,519.0	2,182.7	2,038.4	16.6	13.6	-137.29	448.1	-511.2	1,313.5	1,286.0	47.837		
2,800.0	2,608.7	2,256.4	2,102.5	17.4	14.1	-137.14	473.8	-537.0	1,381.0	1,352.6	48.649		
2,900.0	2,698.4	2,330.1	2,166.6	18.2	14.7	-137.01	499.4	-562.8	1,448.6	1,419.3	49.391		
3,000.0	2,788.0	2,403.8	2,230.6	19.0	15.4	-136.89	525.0	-588.6	1,516.1	1,485.9	50.071		
3,100.0	2,877.7	2,477.5	2,294.7	19.8	16.0	-136.77	550.7	-614.4	1,583.7	1,552.5	50.692		
3,200.0	2,967.4	2,551.2	2,358.8	20.6	16.7	-136.67	576.3	-640.2	1,651.3	1,619.1	51.263		
3,300.0	3,057.0	2,624.9	2,422.9	21.4	17.3	-136.58	601.9	-666.0	1,718.9	1,685.7	51.789		
3,400.0	3,146.7	2,698.5	2,487.0	22.2	18.0	-136.49	627.5	-691.8	1,786.4	1,752.3	52.274		
3,500.0	3,236.4	2,772.2	2,551.1	23.0	18.7	-136.41	653.2	-717.7	1,854.0	1,818.8	52.721		
3,600.0	3,326.1	2,845.9	2,615.1	23.8	19.3	-136.34	678.8	-743.5	1,921.6	1,885.4	53.135		
3,700.0	3,415.7	2,919.6	2,679.2	24.6	20.0	-136.27	704.4	-769.3	1,989.2	1,952.0	53.519		
3,800.0	3,505.4	2,993.3	2,743.3	25.4	20.7	-136.20	730.1	-795.1	2,056.7	2,018.6	53.875		
3,900.0	3,595.1	3,067.0	2,807.4	26.2	21.4	-136.14	755.7	-820.9	2,124.3	2,085.1	54.205		
4,000.0	3,684.7	3,140.7	2,871.5	27.1	22.1	-136.08	781.3	-846.7	2,191.9	2,151.7	54.514		
4,100.0	3,774.4	3,214.4	2,935.6	27.9	22.7	-136.03	807.0	-872.5	2,259.5	2,218.3	54.802		
4,200.0	3,864.1	3,288.0	2,999.6	28.7	23.4	-135.98	832.6	-898.3	2,327.1	2,284.8	55.070		
4,300.0	3,953.7	3,361.7	3,063.7	29.5	24.1	-135.93	858.2	-924.1	2,394.7	2,351.4	55.321		
4,400.0	4,043.4	3,435.4	3,127.8	30.3	24.8	-135.88	883.9	-949.9	2,462.3	2,417.9	55.556		
4,500.0	4,133.1	3,509.1	3,191.9	31.1	25.5	-135.84	909.5	-975.7	2,529.9	2,484.5	55.777		
4,600.0	4,222.7	3,582.8	3,256.0	31.9	26.1	-135.80	935.1	-1,001.6	2,597.4	2,551.0	55.984		
4,700.0	4,312.4	3,656.5	3,320.1	32.7	26.8	-135.76	960.8	-1,027.4	2,665.0	2,617.6	56.179		
4,800.0	4,402.1	3,730.2	3,384.1	33.5	27.5	-135.73	986.4	-1,053.2	2,732.6	2,684.1	56.363		
4,900.0	4,491.8	3,803.9	3,448.2	34.3	28.2	-135.69	1,012.0	-1,079.0	2,800.2	2,750.7	56.536		

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 0993-21-15W - Slot A6
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 0993-21-15W	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	4,581.4	3,877.5	3,512.3	35.1	28.9	-135.66	1,037.6	-1,104.8	2,867.8	2,817.2	56.698		
5,100.0	4,671.1	3,951.2	3,576.4	35.9	29.6	-135.63	1,063.3	-1,130.6	2,935.4	2,883.8	56.852		
5,200.0	4,760.8	4,024.9	3,640.5	36.7	30.3	-135.60	1,088.9	-1,156.4	3,003.0	2,950.3	56.998		
5,300.0	4,850.4	4,098.6	3,704.6	37.6	31.0	-135.57	1,114.5	-1,182.2	3,070.6	3,016.8	57.135		
5,400.0	4,940.1	4,172.3	3,768.6	38.4	31.6	-135.54	1,140.2	-1,208.0	3,138.2	3,083.4	57.266		
5,500.0	5,029.8	4,246.0	3,832.7	39.2	32.3	-135.51	1,165.8	-1,233.8	3,205.8	3,149.9	57.389		
5,600.0	5,119.5	4,319.7	3,896.8	40.0	33.0	-135.79	1,191.5	-1,259.7	3,273.3	3,216.4	57.510		
5,700.0	5,210.4	4,394.8	3,962.1	40.7	33.7	-137.22	1,217.6	-1,286.0	3,339.3	3,281.3	57.588		
5,800.0	5,303.1	4,471.7	4,029.1	41.4	34.4	-138.47	1,244.3	-1,312.9	3,402.9	3,343.8	57.606		
5,900.0	5,397.3	4,550.4	4,097.5	42.0	35.2	-139.54	1,271.7	-1,340.5	3,463.9	3,403.7	57.593		
6,000.0	5,492.9	4,630.7	4,167.3	42.5	35.9	-140.46	1,299.6	-1,368.6	3,522.3	3,461.1	57.555		
6,100.0	5,589.7	4,712.4	4,238.4	43.0	36.7	-141.24	1,328.1	-1,397.2	3,577.9	3,515.7	57.493		
6,200.0	5,687.5	4,795.5	4,310.6	43.3	37.5	-141.88	1,356.9	-1,426.3	3,630.8	3,567.6	57.413		
6,300.0	5,786.1	4,879.6	4,383.8	43.6	38.3	-142.41	1,386.2	-1,455.8	3,680.9	3,616.6	57.317		
6,400.0	5,885.3	4,964.7	4,457.8	43.8	39.0	-142.83	1,415.8	-1,485.6	3,728.0	3,662.8	57.211		
6,500.0	5,985.0	5,050.6	4,532.5	44.0	39.9	-143.15	1,445.7	-1,515.7	3,772.2	3,706.2	57.102		
6,600.0	6,085.0	5,137.2	4,607.8	44.0	40.7	-143.38	1,475.8	-1,546.0	3,813.5	3,746.6	57.003		
6,700.0	6,185.0	5,224.1	4,683.4	44.1	41.5	-86.99	1,506.1	-1,576.5	3,852.5	3,785.0	57.045		
6,800.0	6,285.0	6,915.1	6,285.0	44.1	49.6	-82.65	1,816.6	-1,889.2	3,887.6	3,806.9	48.187		
6,900.0	6,385.0	7,015.1	6,385.0	44.1	49.7	-82.65	1,816.6	-1,889.2	3,887.6	3,806.9	48.161		
7,000.0	6,485.0	7,115.1	6,485.0	44.1	49.7	-82.65	1,816.6	-1,889.2	3,887.6	3,806.8	48.136		
7,100.0	6,585.0	7,215.1	6,585.0	44.2	49.7	-82.65	1,816.6	-1,889.2	3,887.6	3,806.8	48.110		
7,200.0	6,685.0	7,315.1	6,685.0	44.2	49.7	-82.65	1,816.6	-1,889.2	3,887.6	3,806.7	48.084		
7,300.0	6,785.0	7,415.1	6,785.0	44.2	49.7	-82.65	1,816.6	-1,889.2	3,887.6	3,806.7	48.058		
7,400.0	6,885.0	7,515.1	6,885.0	44.2	49.8	-82.65	1,816.6	-1,889.2	3,887.6	3,806.6	48.032		
7,500.0	6,985.0	7,615.1	6,985.0	44.3	49.8	-82.65	1,816.6	-1,889.2	3,887.6	3,806.6	48.005		
7,600.0	7,085.0	7,715.1	7,085.0	44.3	49.8	-82.65	1,816.6	-1,889.2	3,887.6	3,806.6	47.979		
7,700.0	7,185.0	7,815.1	7,185.0	44.3	49.8	-82.65	1,816.6	-1,889.2	3,887.6	3,806.5	47.952		
7,800.0	7,285.0	7,915.1	7,285.0	44.3	49.9	-82.65	1,816.6	-1,889.2	3,887.6	3,806.5	47.925		
7,900.0	7,385.0	8,015.1	7,385.0	44.4	49.9	-82.65	1,816.6	-1,889.2	3,887.6	3,806.4	47.898		
8,000.0	7,485.0	8,115.1	7,485.0	44.4	49.9	-82.65	1,816.6	-1,889.2	3,887.6	3,806.4	47.871		
8,100.0	7,585.0	8,215.1	7,585.0	44.4	49.9	-82.65	1,816.6	-1,889.2	3,887.6	3,806.3	47.844		
8,200.0	7,685.0	8,315.1	7,685.0	44.4	49.9	-82.65	1,816.6	-1,889.2	3,887.6	3,806.3	47.816		
8,300.0	7,785.0	8,415.1	7,785.0	44.5	50.0	-82.65	1,816.6	-1,889.2	3,887.6	3,806.2	47.789		
8,400.0	7,885.0	8,515.1	7,885.0	44.5	50.0	-82.65	1,816.6	-1,889.2	3,887.6	3,806.2	47.761		
8,500.0	7,985.0	8,615.1	7,985.0	44.5	50.0	-82.65	1,816.6	-1,889.2	3,887.6	3,806.1	47.733		
8,600.0	8,085.0	8,715.1	8,085.0	44.5	50.0	-82.65	1,816.6	-1,889.2	3,887.6	3,806.1	47.705		
8,700.0	8,185.0	8,815.1	8,185.0	44.6	50.1	-82.65	1,816.6	-1,889.2	3,887.6	3,806.0	47.677		
8,800.0	8,285.0	8,915.1	8,285.0	44.6	50.1	-82.65	1,816.6	-1,889.2	3,887.6	3,806.0	47.649		
8,900.0	8,385.0	9,015.1	8,385.0	44.6	50.1	-82.65	1,816.6	-1,889.2	3,887.6	3,805.9	47.620		
9,000.0	8,485.0	9,115.1	8,485.0	44.6	50.1	-82.65	1,816.6	-1,889.2	3,887.6	3,805.9	47.592		
9,100.0	8,585.0	9,215.1	8,585.0	44.7	50.2	-82.65	1,816.6	-1,889.2	3,887.6	3,805.9	47.563		
9,103.7	8,588.7	9,218.8	8,588.7	44.7	50.2	-82.65	1,816.6	-1,889.2	3,887.6	3,805.8	47.562		
9,200.0	8,685.0	9,287.1	8,657.0	44.7	50.2	-82.65	1,816.6	-1,889.2	3,887.7	3,805.9	47.536		
9,224.0	8,709.0	9,287.1	8,657.0	44.7	50.2	-82.65	1,816.6	-1,889.2	3,887.9	3,806.1	47.535		

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 0993-21-15W - Slot A6
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 0993-21-15W	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 +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	-73.30	6.4	-21.4	22.4			
100.0	100.0	100.0	100.0	0.8	0.8	-73.30	6.4	-21.4	22.4	20.8	14.109	
200.0	200.0	200.0	200.0	1.4	1.4	-73.30	6.4	-21.4	22.4	19.5	7.900	CC
204.4	204.4	204.4	204.4	1.4	1.4	-129.44	6.4	-21.4	22.4	19.5	7.816	
300.0	300.0	300.0	300.0	1.7	1.9	-130.49	6.4	-21.4	22.7	19.2	6.471	ES
400.0	399.9	398.9	398.8	3.0	2.3	-137.65	6.7	-22.8	27.2	22.3	5.592	
500.0	499.5	496.2	495.9	4.3	3.9	-145.43	7.8	-29.0	40.4	32.7	5.256	SF
600.0	598.6	591.7	590.8	5.4	5.2	-150.11	9.7	-39.7	62.6	52.7	6.341	
700.0	697.1	684.8	682.8	6.3	5.6	-151.92	13.3	-53.7	92.1	81.0	8.341	
800.0	794.7	776.0	772.4	7.1	6.2	-152.03	19.8	-69.7	127.3	115.0	10.363	
900.0	891.3	864.2	858.3	7.9	6.8	-151.45	28.6	-87.3	168.1	154.7	12.506	
1,000.0	986.7	949.1	940.3	8.6	7.4	-150.57	39.5	-106.2	214.2	199.8	14.786	
1,100.0	1,080.6	1,030.3	1,018.1	9.3	7.9	-149.54	52.1	-126.2	265.4	250.0	17.183	
1,200.0	1,173.0	1,107.8	1,091.4	9.9	8.4	-148.44	66.1	-146.8	321.3	305.0	19.676	
1,300.0	1,263.7	1,181.2	1,160.1	10.5	8.9	-147.28	81.2	-167.7	381.8	364.6	22.236	
1,400.0	1,353.3	1,251.5	1,225.2	10.9	9.3	-147.04	97.3	-189.1	445.1	427.2	24.944	
1,500.0	1,443.0	1,319.8	1,287.5	11.3	9.7	-146.60	114.4	-211.0	509.7	491.2	27.632	
1,600.0	1,532.7	1,386.1	1,347.2	11.6	10.1	-146.06	132.4	-233.4	575.6	556.5	30.209	
1,700.0	1,622.3	1,455.9	1,409.5	11.9	10.4	-145.42	152.6	-257.9	642.5	622.9	32.712	
1,800.0	1,712.0	1,529.9	1,475.3	12.3	10.6	-144.85	174.1	-284.0	709.6	689.3	34.950	
1,900.0	1,801.7	1,603.9	1,541.1	12.7	10.9	-144.38	195.6	-310.1	776.7	755.8	36.997	
2,000.0	1,891.3	1,677.8	1,606.9	13.0	11.2	-143.99	217.1	-336.2	843.9	822.2	38.849	
2,100.0	1,981.0	1,751.8	1,672.7	13.4	11.4	-143.65	238.6	-362.2	911.1	888.6	40.538	
2,200.0	2,070.7	1,825.8	1,738.5	13.8	11.7	-143.36	260.1	-388.3	978.3	955.0	42.077	
2,300.0	2,160.3	1,899.8	1,804.3	14.3	12.0	-143.11	281.6	-414.4	1,045.5	1,021.5	43.483	
2,400.0	2,250.0	1,973.7	1,870.1	14.7	12.3	-142.88	303.1	-440.5	1,112.7	1,087.9	44.755	
2,500.0	2,339.7	2,047.7	1,935.9	15.1	12.7	-142.69	324.6	-466.5	1,179.9	1,154.2	45.916	
2,600.0	2,429.4	2,121.7	2,001.7	15.8	13.1	-142.51	346.1	-492.6	1,247.2	1,220.6	46.990	
2,700.0	2,519.0	2,195.7	2,067.5	16.6	13.5	-142.35	367.6	-518.7	1,314.4	1,287.0	47.966	
2,800.0	2,608.7	2,269.6	2,133.3	17.4	13.9	-142.21	389.1	-544.8	1,381.7	1,353.4	48.856	
2,900.0	2,698.4	2,343.6	2,199.1	18.2	14.5	-142.08	410.6	-570.9	1,448.9	1,419.7	49.674	
3,000.0	2,788.0	2,417.6	2,264.9	19.0	15.0	-141.96	432.1	-596.9	1,516.2	1,486.1	50.427	
3,100.0	2,877.7	2,491.5	2,330.7	19.8	15.6	-141.85	453.6	-623.0	1,583.4	1,552.4	51.121	
3,200.0	2,967.4	2,565.5	2,396.5	20.6	16.2	-141.75	475.1	-649.1	1,650.7	1,618.8	51.760	
3,300.0	3,057.0	2,639.5	2,462.3	21.4	16.8	-141.66	496.6	-675.2	1,717.9	1,685.1	52.350	
3,400.0	3,146.7	2,713.5	2,528.1	22.2	17.4	-141.58	518.1	-701.2	1,785.2	1,751.5	52.898	
3,500.0	3,236.4	2,787.4	2,593.9	23.0	18.0	-141.50	539.6	-727.3	1,852.5	1,817.8	53.404	
3,600.0	3,326.1	2,861.4	2,659.7	23.8	18.6	-141.43	561.1	-753.4	1,919.7	1,884.1	53.874	
3,700.0	3,415.7	2,935.4	2,725.5	24.6	19.2	-141.36	582.6	-779.5	1,987.0	1,950.4	54.312	
3,800.0	3,505.4	3,009.4	2,791.3	25.4	19.8	-141.30	604.1	-805.6	2,054.3	2,016.7	54.719	
3,900.0	3,595.1	3,083.3	2,857.1	26.2	20.4	-141.24	625.6	-831.6	2,121.5	2,083.0	55.099	
4,000.0	3,684.7	3,157.3	2,922.9	27.1	21.1	-141.18	647.1	-857.7	2,188.8	2,149.3	55.453	
4,100.0	3,774.4	3,231.3	2,988.7	27.9	21.7	-141.13	668.6	-883.8	2,256.1	2,215.6	55.785	
4,200.0	3,864.1	3,305.3	3,054.5	28.7	22.3	-141.08	690.1	-909.9	2,323.4	2,281.9	56.096	
4,300.0	3,953.7	3,379.2	3,120.3	29.5	22.9	-141.03	711.6	-936.0	2,390.6	2,348.2	56.387	
4,400.0	4,043.4	3,453.2	3,186.1	30.3	23.6	-140.99	733.1	-962.0	2,457.9	2,414.5	56.660	
4,500.0	4,133.1	3,527.2	3,251.9	31.1	24.2	-140.94	754.6	-988.1	2,525.2	2,480.8	56.917	
4,600.0	4,222.7	3,601.1	3,317.7	31.9	24.8	-140.91	776.1	-1,014.2	2,592.5	2,547.1	57.159	
4,700.0	4,312.4	3,675.1	3,383.5	32.7	25.4	-140.87	797.6	-1,040.3	2,659.7	2,613.4	57.386	
4,800.0	4,402.1	3,749.1	3,449.3	33.5	26.1	-140.83	819.1	-1,066.3	2,727.0	2,679.7	57.601	
4,900.0	4,491.8	3,823.1	3,515.1	34.3	26.7	-140.80	840.5	-1,092.4	2,794.3	2,746.0	57.803	

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 0993-21-15W - Slot A6
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 0993-21-15W	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 +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)			
5,000.0	4,581.4	3,897.0	3,580.9	35.1	27.3	-140.77	862.0	-1,118.5	2,861.6	2,812.2	57.995		
5,100.0	4,671.1	3,971.0	3,646.7	35.9	28.0	-140.73	883.5	-1,144.6	2,928.9	2,878.5	58.176		
5,200.0	4,760.8	4,045.0	3,712.5	36.7	28.6	-140.70	905.0	-1,170.7	2,996.1	2,944.8	58.348		
5,300.0	4,850.4	4,119.0	3,778.3	37.6	29.2	-140.68	926.5	-1,196.7	3,063.4	3,011.1	58.510		
5,400.0	4,940.1	4,192.9	3,844.1	38.4	29.9	-140.65	948.0	-1,222.8	3,130.7	3,077.3	58.664		
5,500.0	5,029.8	4,266.9	3,909.9	39.2	30.5	-140.62	969.5	-1,248.9	3,198.0	3,143.6	58.811		
5,600.0	5,119.5	4,340.9	3,975.7	40.0	31.1	-140.87	991.1	-1,275.0	3,265.2	3,209.8	58.954		
5,700.0	5,210.4	4,416.4	4,042.9	40.7	31.8	-142.15	1,013.0	-1,301.6	3,330.8	3,274.3	59.041		
5,800.0	5,303.1	4,493.9	4,111.8	41.4	32.4	-143.25	1,035.5	-1,328.9	3,393.7	3,336.2	59.051		
5,900.0	5,397.3	4,573.3	4,182.5	42.0	33.1	-144.19	1,058.6	-1,356.9	3,453.8	3,395.3	59.020		
6,000.0	5,492.9	4,654.5	4,254.7	42.5	33.8	-144.99	1,082.2	-1,385.6	3,511.1	3,451.6	58.953		
6,100.0	5,589.7	4,737.4	4,328.4	43.0	34.5	-145.65	1,106.3	-1,414.7	3,565.5	3,505.0	58.854		
6,200.0	5,687.5	4,821.6	4,403.3	43.3	35.3	-146.20	1,130.8	-1,444.4	3,616.9	3,555.4	58.729		
6,300.0	5,786.1	4,907.2	4,479.4	43.6	36.0	-146.64	1,155.6	-1,474.6	3,665.3	3,602.7	58.581		
6,400.0	5,885.3	4,993.8	4,556.5	43.8	36.7	-146.98	1,180.8	-1,505.2	3,710.5	3,647.0	58.417		
6,500.0	5,985.0	5,081.4	4,634.4	44.0	37.5	-147.22	1,206.3	-1,536.0	3,752.6	3,688.2	58.243		
6,600.0	6,085.0	5,169.9	4,713.1	44.0	38.3	-147.39	1,232.0	-1,567.2	3,791.5	3,726.2	58.077		
6,700.0	6,185.0	5,258.8	4,792.2	44.1	39.0	-90.99	1,257.8	-1,598.6	3,827.9	3,762.0	58.077		
6,800.0	6,285.0	5,348.2	4,871.5	44.1	40.0	-87.45	1,283.5	-1,630.0	3,863.3	3,797.5	49.527		
6,900.0	6,385.0	5,437.2	4,950.8	44.1	40.8	-87.45	1,309.2	-1,661.0	3,898.3	3,832.5	49.498		
7,000.0	6,485.0	5,526.2	5,030.1	44.1	41.5	-87.45	1,334.9	-1,691.0	3,932.8	3,867.0	49.470		
7,100.0	6,585.0	5,615.2	5,109.4	44.2	42.2	-87.45	1,360.6	-1,721.0	3,967.3	3,901.5	49.441		
7,200.0	6,685.0	5,704.2	5,188.7	44.2	42.9	-87.45	1,386.3	-1,751.0	3,999.8	3,934.5	49.412		
7,300.0	6,785.0	5,793.2	5,268.0	44.2	43.6	-87.45	1,412.0	-1,781.0	4,031.8	3,967.0	49.383		
7,400.0	6,885.0	5,882.2	5,347.3	44.2	44.3	-87.45	1,437.7	-1,811.0	4,063.3	3,998.5	49.354		
7,500.0	6,985.0	5,971.2	5,426.6	44.3	45.0	-87.45	1,463.4	-1,841.0	4,094.8	4,029.5	49.324		
7,600.0	7,085.0	6,060.2	5,505.9	44.3	45.7	-87.45	1,489.1	-1,871.0	4,125.8	4,060.0	49.295		
7,700.0	7,185.0	6,149.2	5,590.2	44.3	46.4	-87.45	1,514.8	-1,901.0	4,156.3	4,090.5	49.265		
7,800.0	7,285.0	6,238.2	5,674.5	44.3	47.1	-87.45	1,540.5	-1,931.0	4,186.8	4,121.0	49.235		
7,900.0	7,385.0	6,327.2	5,758.8	44.4	47.8	-87.45	1,566.2	-1,961.0	4,217.3	4,151.5	49.205		
8,000.0	7,485.0	6,416.2	5,843.1	44.4	48.5	-87.45	1,591.9	-1,991.0	4,247.8	4,182.0	49.175		
8,100.0	7,585.0	6,505.2	5,927.4	44.4	49.2	-87.45	1,617.6	-2,021.0	4,278.3	4,212.5	49.145		
8,200.0	7,685.0	6,594.2	6,011.7	44.4	49.9	-87.45	1,643.3	-2,051.0	4,308.8	4,243.0	49.114		
8,300.0	7,785.0	6,683.2	6,096.0	44.5	50.6	-87.45	1,669.0	-2,081.0	4,339.3	4,273.5	49.084		
8,310.0	7,795.0	6,693.2	6,106.0	44.5	50.7	-87.45	1,674.0	-2,086.0	4,344.3	4,278.5	49.081		
8,400.0	7,885.0	6,782.2	6,190.3	44.5	51.3	-87.45	1,700.0	-2,116.0	4,374.8	4,309.0	49.072		
8,500.0	7,985.0	6,871.2	6,274.6	44.5	52.0	-87.45	1,726.0	-2,146.0	4,405.3	4,339.5	49.117		
8,600.0	8,085.0	6,960.2	6,358.9	44.5	52.7	-87.45	1,752.0	-2,176.0	4,435.8	4,370.0	49.220		
8,700.0	8,185.0	7,049.2	6,443.2	44.6	53.4	-87.45	1,778.0	-2,206.0	4,466.3	4,400.5	49.381		
8,800.0	8,285.0	7,138.2	6,527.5	44.6	54.1	-87.45	1,804.0	-2,236.0	4,496.8	4,431.0	49.600		
8,900.0	8,385.0	7,227.2	6,611.8	44.6	54.8	-87.45	1,830.0	-2,266.0	4,527.3	4,461.5	49.876		
9,000.0	8,485.0	7,316.2	6,696.1	44.6	55.5	-87.45	1,856.0	-2,296.0	4,557.8	4,492.0	50.207		
9,100.0	8,585.0	7,405.2	6,780.4	44.7	56.2	-87.45	1,882.0	-2,326.0	4,588.3	4,522.5	50.594		
9,200.0	8,685.0	7,494.2	6,864.7	44.7	56.9	-87.45	1,908.0	-2,356.0	4,618.8	4,553.0	51.036		
9,224.0	8,709.0	7,518.2	6,888.7	44.7	57.1	-87.45	1,920.0	-2,366.0	4,630.0	4,564.0	51.153		

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 0993-21-15W - Slot A6
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 0993-21-15W	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	-136.76	-7.3	-6.8	10.0				
100.0	100.0	100.0	100.0	0.8	0.8	-136.76	-7.3	-6.8	10.0	8.4	6.312		
200.0	200.0	200.0	200.0	1.4	1.4	-136.76	-7.3	-6.8	10.0	7.2	3.534 CC		
204.4	204.4	204.4	204.4	1.4	1.4	167.10	-7.3	-6.8	10.0	7.1	3.507 ES		
300.0	300.0	299.9	299.9	1.7	1.7	169.19	-7.3	-7.2	10.8	7.4	3.242 SF		
400.0	399.9	399.1	399.0	3.0	2.8	-178.67	-6.9	-11.1	18.0	12.4	3.251		
500.0	499.5	496.9	496.5	4.3	4.2	-170.45	-6.2	-19.0	33.5	25.4	4.124		
600.0	598.6	592.5	591.3	5.4	4.9	-166.43	-5.2	-30.8	57.1	47.3	5.846		
700.0	697.1	686.4	684.0	6.3	5.3	-163.47	-2.3	-45.6	87.4	76.4	7.954		
800.0	794.7	777.5	773.4	7.1	6.0	-160.88	3.0	-62.5	123.6	111.3	10.056		
900.0	891.3	865.3	858.8	7.9	6.6	-158.66	10.4	-81.1	165.5	152.1	12.286		
1,000.0	986.7	949.5	940.0	8.6	7.2	-156.73	19.8	-101.2	213.0	198.4	14.656		
1,100.0	1,080.6	1,029.7	1,016.7	9.3	7.8	-155.01	30.7	-122.3	265.7	250.2	17.141		
1,200.0	1,173.0	1,105.7	1,088.5	9.9	8.3	-153.42	42.7	-144.0	323.3	306.9	19.720		
1,300.0	1,263.7	1,177.5	1,155.6	10.5	8.8	-151.92	55.7	-166.0	385.6	368.4	22.375		
1,400.0	1,353.3	1,246.0	1,218.8	10.9	9.3	-151.35	69.4	-188.4	450.8	432.9	25.163		
1,500.0	1,443.0	1,312.9	1,279.9	11.3	9.7	-150.70	84.2	-211.5	517.3	498.8	27.919		
1,600.0	1,532.7	1,386.9	1,347.0	11.6	10.0	-150.04	101.1	-237.7	584.4	565.3	30.480		
1,700.0	1,622.3	1,460.9	1,414.2	11.9	10.3	-149.51	118.0	-263.8	651.6	631.8	32.896		
1,800.0	1,712.0	1,534.9	1,481.3	12.3	10.5	-149.08	134.9	-290.0	718.7	698.3	35.132		
1,900.0	1,801.7	1,608.9	1,548.4	12.7	10.8	-148.73	151.8	-316.1	785.9	764.8	37.185		
2,000.0	1,891.3	1,682.9	1,615.5	13.0	11.1	-148.43	168.7	-342.2	853.1	831.3	39.061		
2,100.0	1,981.0	1,756.9	1,682.7	13.4	11.3	-148.17	185.6	-368.4	920.3	897.7	40.779		
2,200.0	2,070.7	1,830.9	1,749.8	13.8	11.6	-147.95	202.5	-394.5	987.5	964.2	42.355		
2,300.0	2,160.3	1,904.9	1,816.9	14.3	11.9	-147.76	219.4	-420.7	1,054.7	1,030.7	43.802		
2,400.0	2,250.0	1,978.9	1,884.0	14.7	12.2	-147.59	236.3	-446.8	1,122.0	1,097.1	45.124		
2,500.0	2,339.7	2,052.8	1,951.1	15.1	12.6	-147.44	253.2	-473.0	1,189.2	1,163.5	46.338		
2,600.0	2,429.4	2,126.8	2,018.3	15.8	12.9	-147.31	270.1	-499.1	1,256.4	1,230.0	47.445		
2,700.0	2,519.0	2,200.8	2,085.4	16.6	13.3	-147.19	287.0	-525.3	1,323.7	1,296.4	48.492		
2,800.0	2,608.7	2,274.8	2,152.5	17.4	13.7	-147.08	303.9	-551.4	1,390.9	1,362.8	49.444		
2,900.0	2,698.4	2,348.8	2,219.6	18.2	14.1	-146.98	320.8	-577.5	1,458.2	1,429.2	50.317		
3,000.0	2,788.0	2,422.8	2,286.8	19.0	14.5	-146.89	337.7	-603.7	1,525.4	1,495.6	51.127		
3,100.0	2,877.7	2,496.8	2,353.9	19.8	15.0	-146.80	354.6	-629.8	1,592.7	1,562.0	51.877		
3,200.0	2,967.4	2,570.8	2,421.0	20.6	15.6	-146.73	371.5	-656.0	1,659.9	1,628.3	52.572		
3,300.0	3,057.0	2,644.8	2,488.1	21.4	16.1	-146.66	388.4	-682.1	1,727.2	1,694.7	53.218		
3,400.0	3,146.7	2,718.8	2,555.3	22.2	16.6	-146.59	405.3	-708.3	1,794.4	1,761.1	53.818		
3,500.0	3,236.4	2,792.8	2,622.4	23.0	17.2	-146.53	422.2	-734.4	1,861.7	1,827.4	54.378		
3,600.0	3,326.1	2,866.8	2,689.5	23.8	17.8	-146.48	439.0	-760.6	1,928.9	1,893.8	54.899		
3,700.0	3,415.7	2,940.8	2,756.6	24.6	18.3	-146.43	455.9	-786.7	1,996.2	1,960.1	55.386		
3,800.0	3,505.4	3,014.7	2,823.8	25.4	18.9	-146.38	472.8	-812.9	2,063.4	2,026.5	55.842		
3,900.0	3,595.1	3,088.7	2,890.9	26.2	19.5	-146.33	489.7	-839.0	2,130.7	2,092.8	56.269		
4,000.0	3,684.7	3,162.7	2,958.0	27.1	20.0	-146.29	506.6	-865.1	2,198.0	2,159.2	56.669		
4,100.0	3,774.4	3,236.7	3,025.1	27.9	20.6	-146.25	523.5	-891.3	2,265.2	2,225.5	57.045		
4,200.0	3,864.1	3,310.7	3,092.3	28.7	21.2	-146.21	540.4	-917.4	2,332.5	2,291.8	57.398		
4,300.0	3,953.7	3,384.7	3,159.4	29.5	21.7	-146.17	557.3	-943.6	2,399.7	2,358.2	57.730		
4,400.0	4,043.4	3,458.7	3,226.5	30.3	22.3	-146.14	574.2	-969.7	2,467.0	2,424.5	58.043		
4,500.0	4,133.1	3,532.7	3,293.6	31.1	22.9	-146.11	591.1	-995.9	2,534.3	2,490.8	58.339		
4,600.0	4,222.7	3,606.7	3,360.8	31.9	23.5	-146.08	608.0	-1,022.0	2,601.5	2,557.1	58.618		
4,700.0	4,312.4	3,680.7	3,427.9	32.7	24.1	-146.05	624.9	-1,048.2	2,668.8	2,623.5	58.881		
4,800.0	4,402.1	3,754.7	3,495.0	33.5	24.6	-146.02	641.8	-1,074.3	2,736.1	2,689.8	59.131		
4,900.0	4,491.8	3,828.7	3,562.1	34.3	25.2	-145.99	658.7	-1,100.4	2,803.3	2,756.1	59.367		

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 0993-21-15W - Slot A6
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 0993-21-15W	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)
5,000.0	4,581.4	3,902.6	3,629.3	35.1	25.8	-145.97	675.6	-1,126.6	2,870.6	2,822.4	59.591		
5,100.0	4,671.1	3,976.6	3,696.4	35.9	26.4	-145.95	692.5	-1,152.7	2,937.8	2,888.7	59.803		
5,200.0	4,760.8	4,050.6	3,763.5	36.7	27.0	-145.92	709.4	-1,178.9	3,005.1	2,955.0	60.005		
5,300.0	4,850.4	4,124.6	3,830.6	37.6	27.5	-145.90	726.3	-1,205.0	3,072.4	3,021.3	60.197		
5,400.0	4,940.1	4,198.6	3,897.8	38.4	28.1	-145.88	743.2	-1,231.2	3,139.6	3,087.6	60.379		
5,500.0	5,029.8	4,272.6	3,964.9	39.2	28.7	-145.86	760.1	-1,257.3	3,206.9	3,153.9	60.553		
5,600.0	5,119.5	4,346.6	4,032.1	40.0	29.3	-146.08	777.0	-1,283.5	3,274.1	3,220.2	60.722		
5,700.0	5,210.4	4,422.2	4,100.6	40.7	29.9	-147.21	794.3	-1,310.2	3,339.5	3,284.6	60.823		
5,800.0	5,303.1	4,500.1	4,171.3	41.4	30.5	-148.18	812.1	-1,337.7	3,402.1	3,346.2	60.827		
5,900.0	5,397.3	4,580.0	4,243.8	42.0	31.1	-149.00	830.3	-1,365.9	3,461.7	3,404.8	60.780		
6,000.0	5,492.9	4,661.9	4,318.0	42.5	31.8	-149.68	849.0	-1,394.9	3,518.4	3,460.4	60.686		
6,100.0	5,589.7	4,745.5	4,393.9	43.0	32.4	-150.25	868.1	-1,424.4	3,571.9	3,512.9	60.552		
6,200.0	5,687.5	4,830.7	4,471.2	43.3	33.1	-150.71	887.6	-1,454.5	3,622.2	3,562.2	60.382		
6,300.0	5,786.1	4,917.4	4,549.9	43.6	33.8	-151.08	907.4	-1,485.2	3,669.3	3,608.3	60.182		
6,400.0	5,885.3	5,005.4	4,629.7	43.8	34.5	-151.35	927.5	-1,516.2	3,713.1	3,651.1	59.959		
6,500.0	5,985.0	5,094.5	4,710.5	44.0	35.2	-151.54	947.8	-1,547.7	3,753.4	3,690.6	59.722		
6,600.0	6,085.0	5,184.6	4,792.2	44.0	35.9	-151.65	968.4	-1,579.6	3,790.4	3,726.7	59.490		
6,700.0	6,185.0	5,275.3	4,874.5	44.1	36.6	-95.28	989.1	-1,611.6	3,824.8	3,760.5	59.451		
6,800.0	6,285.0	5,368.3	4,956.8	44.1	37.3	-92.41	1,157.8	-1,872.5	3,842.4	3,767.2	51.088		
6,900.0	6,385.0	5,461.3	5,039.1	44.1	38.0	-92.41	1,157.8	-1,872.5	3,842.4	3,767.2	51.056		
7,000.0	6,485.0	5,554.3	5,121.4	44.1	38.7	-92.41	1,157.8	-1,872.5	3,842.4	3,767.1	51.025		
7,100.0	6,585.0	5,647.3	5,203.7	44.2	39.4	-92.41	1,157.8	-1,872.5	3,842.4	3,767.1	50.993		
7,200.0	6,685.0	5,740.3	5,286.0	44.2	40.1	-92.41	1,157.8	-1,872.5	3,842.4	3,767.0	50.961		
7,300.0	6,785.0	5,833.3	5,368.3	44.2	40.8	-92.41	1,157.8	-1,872.5	3,842.4	3,767.0	50.928		
7,400.0	6,885.0	5,926.3	5,450.6	44.2	41.5	-92.41	1,157.8	-1,872.5	3,842.4	3,766.9	50.896		
7,500.0	6,985.0	6,019.3	5,532.9	44.3	42.2	-92.41	1,157.8	-1,872.5	3,842.4	3,766.9	50.863		
7,600.0	7,085.0	6,112.3	5,615.2	44.3	42.9	-92.41	1,157.8	-1,872.5	3,842.4	3,766.8	50.831		
7,700.0	7,185.0	6,205.3	5,697.5	44.3	43.6	-92.41	1,157.8	-1,872.5	3,842.4	3,766.8	50.798		
7,800.0	7,285.0	6,298.3	5,779.8	44.3	44.3	-92.41	1,157.8	-1,872.5	3,842.4	3,766.7	50.765		
7,900.0	7,385.0	6,391.3	5,862.1	44.4	45.0	-92.41	1,157.8	-1,872.5	3,842.4	3,766.7	50.731		
8,000.0	7,485.0	6,484.3	5,944.4	44.4	45.7	-92.41	1,157.8	-1,872.5	3,842.4	3,766.6	50.698		
8,100.0	7,585.0	6,577.3	6,026.7	44.4	46.4	-92.41	1,157.8	-1,872.5	3,842.4	3,766.6	50.664		
8,200.0	7,685.0	6,670.3	6,109.0	44.4	47.1	-92.41	1,157.8	-1,872.5	3,842.4	3,766.5	50.631		
8,300.0	7,785.0	6,763.3	6,191.3	44.5	47.8	-92.41	1,157.8	-1,872.5	3,842.4	3,766.5	50.597		
8,400.0	7,885.0	6,856.3	6,273.6	44.5	48.5	-92.41	1,157.8	-1,872.5	3,842.4	3,766.4	50.562		
8,500.0	7,985.0	6,949.3	6,355.9	44.5	49.2	-92.41	1,157.8	-1,872.5	3,842.4	3,766.4	50.528		
8,600.0	8,085.0	7,042.3	6,438.2	44.5	49.9	-92.41	1,157.8	-1,872.5	3,842.4	3,766.3	50.494		
8,700.0	8,185.0	7,135.3	6,520.5	44.6	50.6	-92.41	1,157.8	-1,872.5	3,842.4	3,766.3	50.459		
8,800.0	8,285.0	7,228.3	6,602.8	44.6	51.3	-92.41	1,157.8	-1,872.5	3,842.4	3,766.2	50.424		
8,900.0	8,385.0	7,321.3	6,685.1	44.6	52.0	-92.41	1,157.8	-1,872.5	3,842.4	3,766.2	50.389		
9,000.0	8,485.0	7,414.3	6,767.4	44.6	52.7	-92.41	1,157.8	-1,872.5	3,842.4	3,766.1	50.354		
9,100.0	8,585.0	7,507.3	6,849.7	44.7	53.4	-92.41	1,157.8	-1,872.5	3,842.4	3,766.1	50.319		
9,200.0	8,685.0	7,600.3	6,932.0	44.7	54.1	-92.41	1,157.8	-1,872.5	3,842.4	3,766.0	50.316		
9,300.0	8,785.0	7,693.3	7,014.3	44.7	54.8	-92.41	1,157.8	-1,872.5	3,842.4	3,766.3	50.302		
9,400.0	8,885.0	7,786.3	7,096.6	44.7	55.5	-92.41	1,157.8	-1,872.5	3,843.0	3,766.6	50.311		

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 0993-21-15W - Slot A6
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 0993-21-15W	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 0993-20-17E - 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 Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +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	178.28	-14.1	0.4	14.1					
100.0	100.0	100.0	100.0	0.8	0.8	178.28	-14.1	0.4	14.1	12.6	8.926			
200.0	200.0	200.0	200.0	1.4	1.4	178.28	-14.1	0.4	14.1	11.3	4.998	CC		
204.4	204.4	204.4	204.4	1.4	1.4	122.14	-14.1	0.4	14.1	11.3	4.945			
300.0	300.0	300.0	300.0	1.7	1.9	123.96	-14.1	0.4	14.4	10.9	4.109	ES		
400.0	399.9	399.7	399.7	3.0	2.2	139.88	-14.1	-0.8	17.6	12.9	3.737	SF		
500.0	499.5	498.3	498.2	4.3	3.5	162.43	-14.1	-6.1	27.9	20.8	3.936			
600.0	598.6	594.8	594.2	5.4	4.7	176.11	-14.1	-15.4	47.7	38.3	5.063			
700.0	697.1	688.3	686.7	6.3	5.6	-176.79	-14.1	-28.3	76.2	65.0	6.767			
800.0	794.7	779.2	776.3	7.1	6.0	-172.62	-13.7	-44.3	112.4	100.0	9.075			
900.0	891.3	867.6	862.7	7.9	6.4	-169.37	-11.2	-62.4	154.5	141.0	11.439			
1,000.0	986.7	952.3	944.9	8.6	6.9	-166.70	-6.8	-82.2	202.1	187.5	13.844			
1,100.0	1,080.6	1,033.0	1,022.6	9.3	7.5	-164.43	-0.6	-103.1	255.1	239.5	16.336			
1,200.0	1,173.0	1,109.4	1,095.6	9.9	8.0	-162.44	6.9	-124.8	313.1	296.6	18.934			
1,300.0	1,263.7	1,181.4	1,163.6	10.5	8.4	-160.63	15.5	-146.9	375.9	358.5	21.630			
1,400.0	1,353.3	1,250.1	1,227.7	10.9	8.9	-159.60	25.0	-169.4	441.6	423.6	24.507			
1,500.0	1,443.0	1,316.5	1,289.1	11.3	9.2	-158.60	35.5	-192.6	508.6	490.0	27.447			
1,600.0	1,532.7	1,388.2	1,354.8	11.6	9.5	-157.59	47.6	-218.5	576.4	557.4	30.288			
1,700.0	1,622.3	1,461.3	1,421.8	11.9	9.7	-156.78	60.0	-244.9	644.4	624.8	32.872			
1,800.0	1,712.0	1,534.4	1,488.9	12.3	9.9	-156.12	72.5	-271.4	712.4	692.2	35.260			
1,900.0	1,801.7	1,607.5	1,555.9	12.7	10.2	-155.58	84.9	-297.8	780.4	759.6	37.462			
2,000.0	1,891.3	1,680.6	1,622.9	13.0	10.5	-155.12	97.3	-324.2	848.5	827.0	39.485			
2,100.0	1,981.0	1,753.7	1,689.9	13.4	10.8	-154.73	109.7	-350.7	916.6	894.4	41.349			
2,200.0	2,070.7	1,826.8	1,756.9	13.8	11.0	-154.39	122.1	-377.1	984.7	961.8	43.067			
2,300.0	2,160.3	1,899.9	1,823.9	14.3	11.3	-154.10	134.6	-403.5	1,052.8	1,029.2	44.655			
2,400.0	2,250.0	1,973.0	1,890.9	14.7	11.7	-153.84	147.0	-430.0	1,121.0	1,096.6	46.098			
2,500.0	2,339.7	2,046.1	1,957.9	15.1	12.0	-153.62	159.4	-456.4	1,189.1	1,164.1	47.463			
2,600.0	2,429.4	2,119.2	2,024.9	15.8	12.3	-153.41	171.8	-482.8	1,257.3	1,231.5	48.698			
2,700.0	2,519.0	2,192.3	2,091.9	16.6	12.7	-153.23	184.2	-509.3	1,325.5	1,298.9	49.845			
2,800.0	2,608.7	2,265.4	2,159.0	17.4	13.0	-153.07	196.7	-535.7	1,393.6	1,366.3	50.905			
2,900.0	2,698.4	2,338.5	2,226.0	18.2	13.4	-152.92	209.1	-562.2	1,461.8	1,433.6	51.887			
3,000.0	2,788.0	2,411.6	2,293.0	19.0	13.8	-152.78	221.5	-588.6	1,530.0	1,501.0	52.798			
3,100.0	2,877.7	2,484.7	2,360.0	19.8	14.3	-152.66	233.9	-615.0	1,598.2	1,568.4	53.644			
3,200.0	2,967.4	2,557.8	2,427.0	20.6	14.7	-152.54	246.3	-641.5	1,666.4	1,635.8	54.430			
3,300.0	3,057.0	2,630.9	2,494.0	21.4	15.2	-152.44	258.7	-667.9	1,734.6	1,703.2	55.162			
3,400.0	3,146.7	2,704.0	2,561.0	22.2	15.7	-152.34	271.2	-694.3	1,802.8	1,770.5	55.846			
3,500.0	3,236.4	2,777.1	2,628.0	23.0	16.2	-152.25	283.6	-720.8	1,871.0	1,837.9	56.482			
3,600.0	3,326.1	2,850.2	2,695.0	23.8	16.7	-152.17	296.0	-747.2	1,939.2	1,905.2	57.078			
3,700.0	3,415.7	2,923.3	2,762.1	24.6	17.3	-152.09	308.4	-773.6	2,007.4	1,972.6	57.635			
3,800.0	3,505.4	2,996.4	2,829.1	25.4	17.8	-152.01	320.8	-800.1	2,075.6	2,040.0	58.158			
3,900.0	3,595.1	3,069.5	2,896.1	26.2	18.3	-151.95	333.3	-826.5	2,143.9	2,107.3	58.647			
4,000.0	3,684.7	3,142.6	2,963.1	27.1	18.8	-151.88	345.7	-852.9	2,212.1	2,174.7	59.107			
4,100.0	3,774.4	3,215.7	3,030.1	27.9	19.4	-151.82	358.1	-879.4	2,280.3	2,242.0	59.540			
4,200.0	3,864.1	3,288.8	3,097.1	28.7	19.9	-151.76	370.5	-905.8	2,348.5	2,309.3	59.948			
4,300.0	3,953.7	3,361.9	3,164.1	29.5	20.4	-151.71	382.9	-932.2	2,416.7	2,376.7	60.332			
4,400.0	4,043.4	3,435.0	3,231.1	30.3	21.0	-151.66	395.4	-958.7	2,485.0	2,444.0	60.694			
4,500.0	4,133.1	3,508.1	3,298.1	31.1	21.5	-151.61	407.8	-985.1	2,553.2	2,511.3	61.037			
4,600.0	4,222.7	3,581.2	3,365.1	31.9	22.0	-151.57	420.2	-1,011.5	2,621.4	2,578.7	61.360			
4,700.0	4,312.4	3,654.3	3,432.2	32.7	22.6	-151.52	432.6	-1,038.0	2,689.6	2,646.0	61.666			
4,800.0	4,402.1	3,727.4	3,499.2	33.5	23.1	-151.48	445.0	-1,064.4	2,757.8	2,713.3	61.956			
4,900.0	4,491.8	3,800.5	3,566.2	34.3	23.7	-151.44	457.5	-1,090.8	2,826.1	2,780.7	62.231			

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 0993-21-15W - Slot A6
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 0993-21-15W	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 +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)			
5,000.0	4,581.4	3,873.6	3,633.2	35.1	24.2	-151.41	469.9	-1,117.3	2,894.3	2,848.0	62.492		
5,100.0	4,671.1	3,946.7	3,700.2	35.9	24.8	-151.37	482.3	-1,143.7	2,962.5	2,915.3	62.740		
5,200.0	4,760.8	4,019.8	3,767.2	36.7	25.3	-151.34	494.7	-1,170.2	3,030.7	2,982.6	62.975		
5,300.0	4,850.4	4,092.9	3,834.2	37.6	25.8	-151.31	507.1	-1,196.6	3,099.0	3,049.9	63.200		
5,400.0	4,940.1	4,166.0	3,901.2	38.4	26.4	-151.27	519.6	-1,223.0	3,167.2	3,117.3	63.413		
5,500.0	5,029.8	4,239.1	3,968.2	39.2	26.9	-151.24	532.0	-1,249.5	3,235.4	3,184.6	63.616		
5,600.0	5,119.5	4,312.2	4,035.3	40.0	27.5	-151.42	544.4	-1,275.9	3,303.6	3,251.8	63.814		
5,700.0	5,210.4	4,387.1	4,103.9	40.7	28.0	-152.41	557.1	-1,303.0	3,369.9	3,317.2	63.930		
5,800.0	5,303.1	4,464.3	4,174.7	41.4	28.6	-153.24	570.2	-1,330.9	3,433.2	3,379.5	63.926		
5,900.0	5,397.3	4,543.8	4,247.6	42.0	29.2	-153.94	583.7	-1,359.7	3,493.5	3,438.8	63.860		
6,000.0	5,492.9	4,625.4	4,322.4	42.5	29.8	-154.52	597.6	-1,389.2	3,550.6	3,494.9	63.737		
6,100.0	5,589.7	4,709.0	4,399.0	43.0	30.4	-155.00	611.8	-1,419.4	3,604.5	3,547.8	63.565		
6,200.0	5,687.5	4,794.3	4,477.2	43.3	31.1	-155.39	626.3	-1,450.2	3,655.0	3,597.3	63.348		
6,300.0	5,786.1	4,881.3	4,557.0	43.6	31.7	-155.69	641.1	-1,481.7	3,702.1	3,643.5	63.095		
6,400.0	5,885.3	4,969.7	4,638.0	43.8	32.4	-155.91	656.1	-1,513.7	3,745.8	3,686.2	62.813		
6,500.0	5,985.0	5,059.5	4,720.3	44.0	33.1	-156.06	671.4	-1,546.1	3,785.9	3,725.3	62.513		
6,600.0	6,085.0	5,150.4	4,803.6	44.0	33.8	-156.14	686.8	-1,579.0	3,822.4	3,761.0	62.217		
6,700.0	6,185.0	5,242.0	4,887.6	44.1	34.4	-99.78	702.4	-1,612.1	3,856.2	3,794.2	62.152		
6,800.0	6,285.0	6,687.3	6,285.0	44.1	40.0	-97.29	827.8	-1,879.1	3,876.9	3,803.9	53.179		
6,900.0	6,385.0	6,787.3	6,385.0	44.1	40.0	-97.29	827.8	-1,879.1	3,876.9	3,803.9	53.144		
7,000.0	6,485.0	6,887.3	6,485.0	44.1	40.0	-97.29	827.8	-1,879.1	3,876.9	3,803.9	53.109		
7,100.0	6,585.0	6,987.3	6,585.0	44.2	40.0	-97.29	827.8	-1,879.1	3,876.9	3,803.8	53.073		
7,200.0	6,685.0	7,087.3	6,685.0	44.2	40.1	-97.29	827.8	-1,879.1	3,876.9	3,803.8	53.037		
7,300.0	6,785.0	7,187.3	6,785.0	44.2	40.1	-97.29	827.8	-1,879.1	3,876.9	3,803.7	53.002		
7,400.0	6,885.0	7,287.3	6,885.0	44.2	40.1	-97.29	827.8	-1,879.1	3,876.9	3,803.7	52.966		
7,500.0	6,985.0	7,387.3	6,985.0	44.3	40.2	-97.29	827.8	-1,879.1	3,876.9	3,803.6	52.929		
7,600.0	7,085.0	7,487.3	7,085.0	44.3	40.2	-97.29	827.8	-1,879.1	3,876.9	3,803.6	52.893		
7,700.0	7,185.0	7,587.3	7,185.0	44.3	40.2	-97.29	827.8	-1,879.1	3,876.9	3,803.5	52.856		
7,800.0	7,285.0	7,687.3	7,285.0	44.3	40.2	-97.29	827.8	-1,879.1	3,876.9	3,803.5	52.820		
7,900.0	7,385.0	7,787.3	7,385.0	44.4	40.3	-97.29	827.8	-1,879.1	3,876.9	3,803.4	52.783		
8,000.0	7,485.0	7,887.3	7,485.0	44.4	40.3	-97.29	827.8	-1,879.1	3,876.9	3,803.4	52.745		
8,100.0	7,585.0	7,987.3	7,585.0	44.4	40.3	-97.29	827.8	-1,879.1	3,876.9	3,803.3	52.708		
8,200.0	7,685.0	8,087.3	7,685.0	44.4	40.4	-97.29	827.8	-1,879.1	3,876.9	3,803.2	52.671		
8,300.0	7,785.0	8,187.3	7,785.0	44.5	40.4	-97.29	827.8	-1,879.1	3,876.9	3,803.2	52.633		
8,400.0	7,885.0	8,219.4	7,817.0	44.5	40.4	-97.29	827.8	-1,879.1	3,877.4	3,803.8	52.653		
8,500.0	7,985.0	8,219.4	7,817.0	44.5	40.4	-97.29	827.8	-1,879.1	3,880.5	3,806.9	52.749		
8,600.0	8,085.0	8,219.4	7,817.0	44.5	40.4	-97.29	827.8	-1,879.1	3,886.1	3,812.6	52.906		
8,700.0	8,185.0	8,219.4	7,817.0	44.6	40.4	-97.29	827.8	-1,879.1	3,894.3	3,821.0	53.125		
8,800.0	8,285.0	8,219.4	7,817.0	44.6	40.4	-97.29	827.8	-1,879.1	3,905.0	3,831.9	53.405		
8,900.0	8,385.0	8,219.4	7,817.0	44.6	40.4	-97.29	827.8	-1,879.1	3,918.2	3,845.3	53.746		
9,000.0	8,485.0	8,219.4	7,817.0	44.6	40.4	-97.29	827.8	-1,879.1	3,934.0	3,861.3	54.146		
9,100.0	8,585.0	8,219.4	7,817.0	44.7	40.4	-97.29	827.8	-1,879.1	3,952.2	3,879.8	54.604		
9,200.0	8,685.0	8,219.4	7,817.0	44.7	40.4	-97.29	827.8	-1,879.1	3,972.8	3,900.7	55.121		
9,224.0	8,709.0	8,219.4	7,817.0	44.7	40.4	-97.29	827.8	-1,879.1	3,978.1	3,906.2	55.257		

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 0993-21-15W - Slot A6
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 0993-21-15W	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	151.71	-27.8	15.0	31.6				
100.0	100.0	100.0	100.0	0.8	0.8	151.71	-27.8	15.0	31.6	30.0	19.959		
200.0	200.0	200.0	200.0	1.4	1.4	151.71	-27.8	15.0	31.6	28.8	11.176	CC	
204.4	204.4	204.4	204.4	1.4	1.4	95.58	-27.8	15.0	31.6	28.8	11.057		
300.0	300.0	300.0	300.0	1.7	1.9	96.55	-27.8	15.0	31.7	28.2	9.062		
400.0	399.9	400.1	400.1	3.0	2.1	105.13	-27.8	14.4	32.3	28.2	7.841	ES	
500.0	499.5	499.5	499.4	4.3	3.2	125.63	-27.8	10.1	35.5	29.9	6.432		
600.0	598.6	596.9	596.4	5.4	4.5	148.95	-27.8	1.7	47.4	39.5	6.008	SF	
700.0	697.1	691.3	690.1	6.3	5.4	165.18	-27.8	-10.4	70.7	60.4	6.848		
800.0	794.7	782.6	780.0	7.1	5.8	174.81	-27.7	-25.7	103.9	92.0	8.760		
900.0	891.3	870.9	866.5	7.9	6.2	-178.93	-26.3	-43.6	144.6	131.4	11.006		
1,000.0	986.7	955.1	948.3	8.6	6.8	-174.52	-23.4	-63.3	191.8	177.5	13.394		
1,100.0	1,080.6	1,034.7	1,025.0	9.3	7.4	-171.22	-19.3	-84.4	245.1	229.7	15.921		
1,200.0	1,173.0	1,109.6	1,096.4	9.9	7.9	-168.60	-14.3	-106.3	304.0	287.7	18.597		
1,300.0	1,263.7	1,179.5	1,162.4	10.5	8.4	-166.41	-8.5	-128.6	368.1	350.8	21.394		
1,400.0	1,353.3	1,245.7	1,224.2	10.9	8.8	-165.01	-2.1	-151.3	435.3	417.5	24.473		
1,500.0	1,443.0	1,313.6	1,287.1	11.3	9.0	-163.72	5.2	-176.0	503.9	485.7	27.583		
1,600.0	1,532.7	1,385.7	1,353.7	11.6	9.3	-162.64	13.2	-202.5	572.9	554.1	30.461		
1,700.0	1,622.3	1,457.8	1,420.3	11.9	9.5	-161.80	21.1	-228.9	641.9	622.5	33.134		
1,800.0	1,712.0	1,529.9	1,486.9	12.3	9.8	-161.11	29.1	-255.3	710.9	691.0	35.617		
1,900.0	1,801.7	1,602.0	1,553.5	12.7	10.0	-160.55	37.0	-281.7	780.0	759.5	37.920		
2,000.0	1,891.3	1,674.1	1,620.1	13.0	10.3	-160.08	45.0	-308.2	849.2	828.0	40.044		
2,100.0	1,981.0	1,746.2	1,686.7	13.4	10.5	-159.67	52.9	-334.6	918.3	896.5	42.011		
2,200.0	2,070.7	1,818.2	1,753.3	13.8	10.8	-159.33	60.9	-361.0	987.5	965.0	43.833		
2,300.0	2,160.3	1,890.3	1,819.8	14.3	11.1	-159.03	68.8	-387.4	1,056.7	1,033.5	45.518		
2,400.0	2,250.0	1,962.4	1,886.4	14.7	11.4	-158.77	76.7	-413.8	1,125.9	1,102.0	47.072		
2,500.0	2,339.7	2,034.5	1,953.0	15.1	11.7	-158.53	84.7	-440.3	1,195.1	1,170.5	48.511		
2,600.0	2,429.4	2,106.6	2,019.6	15.8	12.0	-158.32	92.6	-466.7	1,264.4	1,239.0	49.856		
2,700.0	2,519.0	2,178.7	2,086.2	16.6	12.3	-158.14	100.6	-493.1	1,333.6	1,307.5	51.106		
2,800.0	2,608.7	2,250.8	2,152.8	17.4	12.6	-157.97	108.5	-519.5	1,402.9	1,376.0	52.248		
2,900.0	2,698.4	2,322.8	2,219.4	18.2	13.0	-157.82	116.5	-546.0	1,472.1	1,444.5	53.318		
3,000.0	2,788.0	2,394.9	2,286.0	19.0	13.3	-157.68	124.4	-572.4	1,541.4	1,513.0	54.314		
3,100.0	2,877.7	2,467.0	2,352.6	19.8	13.7	-157.55	132.4	-598.8	1,610.6	1,581.5	55.242		
3,200.0	2,967.4	2,539.1	2,419.2	20.6	14.1	-157.44	140.3	-625.2	1,679.9	1,650.0	56.108		
3,300.0	3,057.0	2,611.2	2,485.8	21.4	14.5	-157.33	148.2	-651.7	1,749.2	1,718.4	56.917		
3,400.0	3,146.7	2,683.3	2,552.4	22.2	14.9	-157.23	156.2	-678.1	1,818.4	1,786.9	57.673		
3,500.0	3,236.4	2,755.4	2,619.0	23.0	15.4	-157.14	164.1	-704.5	1,887.7	1,855.4	58.381		
3,600.0	3,326.1	2,827.4	2,685.6	23.8	15.9	-157.06	172.1	-730.9	1,957.0	1,923.9	59.044		
3,700.0	3,415.7	2,899.5	2,752.2	24.6	16.4	-156.98	180.0	-757.3	2,026.3	1,992.3	59.668		
3,800.0	3,505.4	2,971.6	2,818.8	25.4	16.9	-156.90	188.0	-783.8	2,095.6	2,060.8	60.252		
3,900.0	3,595.1	3,043.7	2,885.4	26.2	17.4	-156.83	195.9	-810.2	2,164.8	2,129.2	60.803		
4,000.0	3,684.7	3,115.8	2,952.0	27.1	17.9	-156.77	203.8	-836.6	2,234.1	2,197.7	61.321		
4,100.0	3,774.4	3,187.9	3,018.6	27.9	18.4	-156.71	211.8	-863.0	2,303.4	2,266.2	61.810		
4,200.0	3,864.1	3,260.0	3,085.2	28.7	18.9	-156.65	219.7	-889.5	2,372.7	2,334.6	62.270		
4,300.0	3,953.7	3,332.1	3,151.8	29.5	19.4	-156.60	227.7	-915.9	2,442.0	2,403.0	62.706		
4,400.0	4,043.4	3,404.1	3,218.4	30.3	19.9	-156.55	235.6	-942.3	2,511.3	2,471.5	63.118		
4,500.0	4,133.1	3,476.2	3,285.0	31.1	20.4	-156.50	243.6	-968.7	2,580.6	2,539.9	63.508		
4,600.0	4,222.7	3,548.3	3,351.6	31.9	20.9	-156.45	251.5	-995.2	2,649.9	2,608.4	63.877		
4,700.0	4,312.4	3,620.4	3,418.2	32.7	21.4	-156.41	259.5	-1,021.6	2,719.2	2,676.8	64.227		
4,800.0	4,402.1	3,692.5	3,484.8	33.5	22.0	-156.37	267.4	-1,048.0	2,788.5	2,745.3	64.559		
4,900.0	4,491.8	3,764.6	3,551.4	34.3	22.5	-156.33	275.3	-1,074.4	2,857.7	2,813.7	64.875		

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 0993-21-15W - Slot A6
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 0993-21-15W	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 +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)			
5,000.0	4,581.4	3,836.7	3,618.0	35.1	23.0	-156.29	283.3	-1,100.8	2,927.0	2,882.1	65.175		
5,100.0	4,671.1	3,908.7	3,684.6	35.9	23.5	-156.25	291.2	-1,127.3	2,996.3	2,950.6	65.461		
5,200.0	4,760.8	3,980.8	3,751.2	36.7	24.0	-156.22	299.2	-1,153.7	3,065.6	3,019.0	65.732		
5,300.0	4,850.4	4,052.9	3,817.7	37.6	24.5	-156.19	307.1	-1,180.1	3,134.9	3,087.4	65.991		
5,400.0	4,940.1	4,125.0	3,884.3	38.4	25.1	-156.16	315.1	-1,206.5	3,204.2	3,155.8	66.238		
5,500.0	5,029.8	4,197.1	3,950.9	39.2	25.6	-156.13	323.0	-1,233.0	3,273.5	3,224.3	66.474		
5,600.0	5,119.5	4,269.2	4,017.6	40.0	26.1	-156.28	331.0	-1,259.4	3,342.8	3,292.7	66.703		
5,700.0	5,210.4	4,343.1	4,085.9	40.7	26.6	-157.12	339.1	-1,286.5	3,410.0	3,359.0	66.837		
5,800.0	5,303.1	4,419.6	4,156.6	41.4	27.2	-157.84	347.5	-1,314.5	3,474.3	3,422.3	66.832		
5,900.0	5,397.3	4,498.6	4,229.5	42.0	27.8	-158.43	356.2	-1,343.5	3,535.4	3,482.5	66.753		
6,000.0	5,492.9	4,579.8	4,304.5	42.5	28.3	-158.93	365.2	-1,373.2	3,593.3	3,539.4	66.609		
6,100.0	5,589.7	4,663.1	4,381.4	43.0	28.9	-159.34	374.4	-1,403.8	3,647.8	3,592.9	66.406		
6,200.0	5,687.5	4,748.3	4,460.2	43.3	29.6	-159.66	383.8	-1,435.0	3,698.9	3,643.0	66.152		
6,300.0	5,786.1	4,835.4	4,540.7	43.6	30.2	-159.91	393.4	-1,466.9	3,746.5	3,689.6	65.855		
6,400.0	5,885.3	4,924.1	4,622.6	43.8	30.8	-160.10	403.1	-1,499.4	3,790.4	3,732.6	65.523		
6,500.0	5,985.0	5,014.3	4,705.9	44.0	31.5	-160.22	413.1	-1,532.5	3,830.7	3,772.0	65.169		
6,600.0	6,085.0	5,105.7	4,790.4	44.0	32.1	-160.28	423.1	-1,566.0	3,867.3	3,807.7	64.819		
6,700.0	6,185.0	5,198.0	4,875.7	44.1	32.8	-103.95	433.3	-1,599.9	3,901.1	3,840.8	64.735		
6,800.0	6,285.0	6,653.5	6,285.0	44.1	38.3	-101.79	517.1	-1,878.5	3,927.8	3,856.6	55.162		
6,900.0	6,385.0	6,753.5	6,385.0	44.1	38.4	-101.79	517.1	-1,878.5	3,927.8	3,856.6	55.123		
7,000.0	6,485.0	6,853.5	6,485.0	44.1	38.4	-101.79	517.1	-1,878.5	3,927.8	3,856.5	55.085		
7,100.0	6,585.0	6,953.5	6,585.0	44.2	38.4	-101.79	517.1	-1,878.5	3,927.8	3,856.5	55.046		
7,200.0	6,685.0	7,053.5	6,685.0	44.2	38.5	-101.79	517.1	-1,878.5	3,927.8	3,856.4	55.008		
7,300.0	6,785.0	7,153.5	6,785.0	44.2	38.5	-101.79	517.1	-1,878.5	3,927.8	3,856.4	54.969		
7,400.0	6,885.0	7,253.5	6,885.0	44.2	38.5	-101.79	517.1	-1,878.5	3,927.8	3,856.3	54.929		
7,500.0	6,985.0	7,353.5	6,985.0	44.3	38.5	-101.79	517.1	-1,878.5	3,927.8	3,856.3	54.890		
7,600.0	7,085.0	7,453.5	7,085.0	44.3	38.6	-101.79	517.1	-1,878.5	3,927.8	3,856.2	54.850		
7,700.0	7,185.0	7,553.5	7,185.0	44.3	38.6	-101.79	517.1	-1,878.5	3,927.8	3,856.2	54.811		
7,800.0	7,285.0	7,653.5	7,285.0	44.3	38.6	-101.79	517.1	-1,878.5	3,927.8	3,856.1	54.771		
7,900.0	7,385.0	7,753.5	7,385.0	44.4	38.7	-101.79	517.1	-1,878.5	3,927.8	3,856.1	54.730		
8,000.0	7,485.0	7,853.5	7,485.0	44.4	38.7	-101.79	517.1	-1,878.5	3,927.8	3,856.0	54.690		
8,100.0	7,585.0	7,953.5	7,585.0	44.4	38.7	-101.79	517.1	-1,878.5	3,927.8	3,856.0	54.649		
8,200.0	7,685.0	8,053.5	7,685.0	44.4	38.8	-101.79	517.1	-1,878.5	3,927.8	3,855.9	54.609		
8,300.0	7,785.0	8,153.5	7,785.0	44.5	38.8	-101.79	517.1	-1,878.5	3,927.8	3,855.8	54.568		
8,400.0	7,885.0	8,253.5	7,885.0	44.5	38.8	-101.79	517.1	-1,878.5	3,927.8	3,855.8	54.527		
8,500.0	7,985.0	8,353.5	7,985.0	44.5	38.9	-101.79	517.1	-1,878.5	3,927.8	3,855.7	54.485		
8,600.0	8,085.0	8,453.5	8,085.0	44.5	38.9	-101.79	517.1	-1,878.5	3,927.8	3,855.7	54.444		
8,700.0	8,185.0	8,553.5	8,185.0	44.6	38.9	-101.79	517.1	-1,878.5	3,927.8	3,855.6	54.402		
8,800.0	8,285.0	8,653.5	8,285.0	44.6	39.0	-101.79	517.1	-1,878.5	3,927.8	3,855.6	54.360		
8,900.0	8,385.0	8,753.5	8,385.0	44.6	39.0	-101.79	517.1	-1,878.5	3,927.8	3,855.5	54.318		
9,000.0	8,485.0	8,853.5	8,485.0	44.6	39.0	-101.79	517.1	-1,878.5	3,927.8	3,855.5	54.276		
9,100.0	8,585.0	8,953.5	8,585.0	44.7	39.0	-101.79	517.1	-1,878.5	3,927.8	3,855.4	54.234		
9,110.0	8,595.0	8,963.5	8,595.0	44.7	39.0	-101.79	517.1	-1,878.5	3,927.8	3,855.4	54.230		
9,200.0	8,685.0	8,994.5	8,626.0	44.7	39.1	-101.79	517.1	-1,878.5	3,928.3	3,855.9	54.247		
9,224.0	8,709.0	8,994.5	8,626.0	44.7	39.1	-101.79	517.1	-1,878.5	3,928.7	3,856.3	54.268		

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 0993-21-15W - Slot A6
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 0993-21-15W	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 0993-21-11W - 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	-46.74	27.4	-29.1	40.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.74	27.4	-29.1	40.0	38.4	25.255	
200.0	200.0	200.0	200.0	1.4	1.4	-46.74	27.4	-29.1	40.0	37.2	14.141	CC
300.0	300.0	299.6	299.6	1.7	2.1	-101.48	28.8	-28.4	40.5	37.1	11.709	ES
400.0	399.9	399.1	398.9	3.0	3.6	-99.59	33.9	-25.5	43.0	38.6	9.850	
500.0	499.5	498.4	497.6	4.3	4.8	-98.12	42.7	-20.6	47.5	42.2	9.075	
600.0	598.6	597.4	595.7	5.4	5.8	-97.11	55.2	-13.6	53.9	47.9	8.962	SF
700.0	697.1	696.2	692.7	6.3	6.6	-96.50	71.3	-4.5	62.4	55.6	9.206	
800.0	794.7	794.7	788.5	7.1	7.4	-96.18	91.0	6.5	72.8	65.3	9.654	
900.0	891.3	892.8	883.0	7.9	8.1	-96.05	114.2	19.5	85.2	76.8	10.207	
1,000.0	986.7	990.5	975.7	8.6	8.8	-96.03	140.8	34.4	99.4	90.2	10.793	
1,100.0	1,080.6	1,087.7	1,066.7	9.3	9.4	-96.06	170.6	51.1	115.5	105.3	11.364	
1,200.0	1,173.0	1,184.4	1,155.7	9.9	10.1	-96.10	203.6	69.6	133.4	122.1	11.886	
1,300.0	1,263.7	1,280.5	1,242.6	10.5	10.6	-96.13	239.6	89.8	153.0	140.6	12.340	
1,400.0	1,353.3	1,376.2	1,327.1	10.9	11.2	-95.98	278.5	111.7	174.2	160.5	12.719	
1,500.0	1,443.0	1,471.1	1,409.1	11.3	11.8	-94.74	320.2	135.0	196.6	181.6	13.030	
1,600.0	1,532.7	1,565.4	1,488.6	11.6	12.2	-92.78	364.4	159.9	220.6	204.1	13.350	
1,700.0	1,622.3	1,661.9	1,569.2	11.9	12.5	-90.84	410.9	185.9	245.3	227.3	13.593	
1,800.0	1,712.0	1,758.5	1,649.8	12.3	12.8	-89.25	457.3	211.9	270.3	250.7	13.796	
1,900.0	1,801.7	1,855.1	1,730.4	12.7	13.1	-87.93	503.7	238.0	295.4	274.2	13.971	
2,000.0	1,891.3	1,951.7	1,811.0	13.0	13.4	-86.82	550.1	264.0	320.6	297.9	14.126	
2,100.0	1,981.0	2,048.3	1,891.6	13.4	13.8	-85.87	596.6	290.0	346.0	321.7	14.264	
2,200.0	2,070.7	2,144.9	1,972.2	13.8	14.2	-85.05	643.0	316.1	371.4	345.6	14.387	
2,300.0	2,160.3	2,241.5	2,052.8	14.3	14.5	-84.33	689.4	342.1	396.9	369.5	14.493	
2,400.0	2,250.0	2,338.1	2,133.4	14.7	15.0	-83.70	735.8	368.1	422.4	393.5	14.616	
2,500.0	2,339.7	2,434.7	2,214.0	15.1	15.8	-83.14	782.2	394.2	448.0	417.5	14.700	
2,600.0	2,429.4	2,531.2	2,294.6	15.8	16.7	-82.64	828.7	420.2	473.6	441.5	14.781	
2,700.0	2,519.0	2,627.8	2,375.2	16.6	17.6	-82.20	875.1	446.2	499.2	465.6	14.856	
2,800.0	2,608.7	2,724.4	2,455.8	17.4	18.6	-81.79	921.5	472.3	524.9	489.7	14.925	
2,900.0	2,698.4	2,821.0	2,536.4	18.2	19.5	-81.43	967.9	498.3	550.5	513.8	14.988	
3,000.0	2,788.0	2,917.6	2,617.0	19.0	20.4	-81.10	1,014.3	524.3	576.2	537.9	15.046	
3,100.0	2,877.7	3,014.2	2,697.6	19.8	21.3	-80.79	1,060.8	550.4	602.0	562.1	15.100	
3,200.0	2,967.4	3,110.8	2,778.2	20.6	22.2	-80.51	1,107.2	576.4	627.7	586.3	15.150	
3,300.0	3,057.0	3,207.4	2,858.8	21.4	23.1	-80.25	1,153.6	602.4	653.4	610.4	15.196	
3,400.0	3,146.7	3,304.0	2,939.4	22.2	24.0	-80.02	1,200.0	628.4	679.2	634.6	15.239	
3,500.0	3,236.4	3,400.5	3,020.1	23.0	24.9	-79.79	1,246.4	654.5	705.0	658.8	15.279	
3,600.0	3,326.1	3,497.1	3,100.7	23.8	25.8	-79.59	1,292.9	680.5	730.7	683.0	15.316	
3,700.0	3,415.7	3,593.7	3,181.3	24.6	26.8	-79.40	1,339.3	706.5	756.5	707.2	15.351	
3,800.0	3,505.4	3,690.3	3,261.9	25.4	27.7	-79.22	1,385.7	732.6	782.3	731.5	15.383	
3,900.0	3,595.1	3,786.9	3,342.5	26.2	28.6	-79.05	1,432.1	758.6	808.1	755.7	15.414	
4,000.0	3,684.7	3,883.5	3,423.1	27.1	29.5	-78.90	1,478.5	784.6	833.9	779.9	15.442	
4,100.0	3,774.4	3,980.1	3,503.7	27.9	30.4	-78.75	1,525.0	810.7	859.7	804.1	15.469	
4,200.0	3,864.1	4,076.7	3,584.3	28.7	31.3	-78.61	1,571.4	836.7	885.5	828.4	15.495	
4,300.0	3,953.7	4,173.3	3,664.9	29.5	32.2	-78.48	1,617.8	862.7	911.4	852.6	15.519	
4,400.0	4,043.4	4,269.8	3,745.5	30.3	33.2	-78.35	1,664.2	888.8	937.2	876.9	15.541	
4,500.0	4,133.1	4,366.4	3,826.1	31.1	34.1	-78.24	1,710.6	914.8	963.0	901.1	15.563	
4,600.0	4,222.7	4,463.0	3,906.7	31.9	35.0	-78.13	1,757.1	940.8	988.8	925.4	15.583	
4,700.0	4,312.4	4,559.6	3,987.3	32.7	35.9	-78.02	1,803.5	966.9	1,014.7	949.6	15.602	
4,800.0	4,402.1	4,656.2	4,067.9	33.5	36.8	-77.92	1,849.9	992.9	1,040.5	973.9	15.620	
4,900.0	4,491.8	4,752.8	4,148.5	34.3	37.7	-77.83	1,896.3	1,018.9	1,066.4	998.2	15.638	
5,000.0	4,581.4	4,849.4	4,229.1	35.1	38.7	-77.73	1,942.7	1,045.0	1,092.2	1,022.4	15.654	

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 0993-21-15W - Slot A6
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 0993-21-15W	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 0993-21-11W - 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	4,671.1	4,946.0	4,309.7	35.9	39.6	-77.65	1,989.2	1,071.0	1,118.0	1,046.7	15.670	
5,200.0	4,760.8	5,042.6	4,390.3	36.7	40.5	-77.57	2,035.6	1,097.0	1,143.9	1,071.0	15.685	
5,300.0	4,850.4	5,139.1	4,470.9	37.6	41.4	-77.49	2,082.0	1,123.1	1,169.7	1,095.2	15.699	
5,400.0	4,940.1	5,235.7	4,551.5	38.4	42.3	-77.41	2,128.4	1,149.1	1,195.6	1,119.5	15.713	
5,500.0	5,029.8	5,332.3	4,632.1	39.2	43.3	-77.34	2,174.8	1,175.1	1,221.4	1,143.8	15.726	
5,600.0	5,119.5	5,428.9	4,712.7	40.0	44.2	-77.39	2,221.3	1,201.2	1,247.3	1,168.1	15.740	
5,700.0	5,210.4	5,525.2	4,793.1	40.7	45.1	-77.86	2,267.6	1,227.1	1,273.8	1,193.1	15.776	
5,800.0	5,303.1	5,637.0	4,866.7	41.4	46.1	-78.10	2,320.9	1,257.0	1,301.0	1,218.6	15.792	
5,900.0	5,397.3	5,784.2	5,013.6	42.0	47.4	-78.16	2,385.9	1,293.5	1,326.3	1,241.9	15.705	
6,000.0	5,492.9	5,934.7	5,148.0	42.5	48.6	-78.22	2,444.9	1,326.6	1,348.7	1,262.5	15.630	
6,100.0	5,589.7	6,088.2	5,289.4	43.0	49.6	-78.26	2,497.0	1,355.8	1,368.1	1,280.3	15.569	
6,200.0	5,687.5	6,244.4	5,437.0	43.3	50.5	-78.30	2,541.4	1,380.7	1,384.4	1,295.2	15.525	
6,300.0	5,786.1	6,402.9	5,589.9	43.6	51.2	-78.33	2,577.4	1,400.9	1,397.3	1,307.1	15.497	
6,400.0	5,885.3	6,563.1	5,747.2	43.8	51.7	-78.36	2,604.3	1,416.0	1,406.8	1,316.0	15.489	
6,500.0	5,985.0	6,724.6	5,907.4	44.0	52.0	-78.38	2,621.7	1,425.7	1,412.9	1,321.8	15.498	
6,600.0	6,085.0	6,886.8	6,069.3	44.0	52.2	-78.40	2,629.2	1,429.9	1,415.5	1,324.4	15.528	
6,700.0	6,185.0	7,002.4	6,185.0	44.1	52.2	-22.27	2,629.5	1,430.1	1,415.6	1,324.5	15.537	
6,800.0	6,285.0	7,102.4	6,285.0	44.1	52.2	-22.27	2,629.5	1,430.1	1,415.6	1,324.4	15.530	
6,900.0	6,385.0	7,202.4	6,385.0	44.1	52.3	-22.27	2,629.5	1,430.1	1,415.6	1,324.4	15.522	
7,000.0	6,485.0	7,302.4	6,485.0	44.1	52.3	-22.27	2,629.5	1,430.1	1,415.6	1,324.4	15.514	
7,100.0	6,585.0	7,402.4	6,585.0	44.2	52.3	-22.27	2,629.5	1,430.1	1,415.6	1,324.3	15.505	
7,200.0	6,685.0	7,502.4	6,685.0	44.2	52.3	-22.27	2,629.5	1,430.1	1,415.6	1,324.3	15.497	
7,300.0	6,785.0	7,602.4	6,785.0	44.2	52.3	-22.27	2,629.5	1,430.1	1,415.6	1,324.2	15.489	
7,400.0	6,885.0	7,702.4	6,885.0	44.2	52.3	-22.27	2,629.5	1,430.1	1,415.6	1,324.2	15.481	
7,500.0	6,985.0	7,802.4	6,985.0	44.3	52.4	-22.27	2,629.5	1,430.1	1,415.6	1,324.1	15.473	
7,600.0	7,085.0	7,902.4	7,085.0	44.3	52.4	-22.27	2,629.5	1,430.1	1,415.6	1,324.1	15.465	
7,700.0	7,185.0	8,002.4	7,185.0	44.3	52.4	-22.27	2,629.5	1,430.1	1,415.6	1,324.0	15.456	
7,800.0	7,285.0	8,102.4	7,285.0	44.3	52.4	-22.27	2,629.5	1,430.1	1,415.6	1,324.0	15.448	
7,900.0	7,385.0	8,202.4	7,385.0	44.4	52.4	-22.27	2,629.5	1,430.1	1,415.6	1,323.9	15.440	
8,000.0	7,485.0	8,302.4	7,485.0	44.4	52.4	-22.27	2,629.5	1,430.1	1,415.6	1,323.9	15.431	
8,100.0	7,585.0	8,402.4	7,585.0	44.4	52.5	-22.27	2,629.5	1,430.1	1,415.6	1,323.8	15.423	
8,200.0	7,685.0	8,502.4	7,685.0	44.4	52.5	-22.27	2,629.5	1,430.1	1,415.6	1,323.8	15.414	
8,300.0	7,785.0	8,602.4	7,785.0	44.5	52.5	-22.27	2,629.5	1,430.1	1,415.6	1,323.7	15.406	
8,400.0	7,885.0	8,702.4	7,885.0	44.5	52.5	-22.27	2,629.5	1,430.1	1,415.6	1,323.7	15.397	
8,500.0	7,985.0	8,802.4	7,985.0	44.5	52.5	-22.27	2,629.5	1,430.1	1,415.6	1,323.6	15.389	
8,600.0	8,085.0	8,902.4	8,085.0	44.5	52.5	-22.27	2,629.5	1,430.1	1,415.6	1,323.6	15.380	
8,700.0	8,185.0	9,002.4	8,185.0	44.6	52.6	-22.27	2,629.5	1,430.1	1,415.6	1,323.5	15.371	
8,800.0	8,285.0	9,102.4	8,285.0	44.6	52.6	-22.27	2,629.5	1,430.1	1,415.6	1,323.5	15.363	
8,900.0	8,385.0	9,202.4	8,385.0	44.6	52.6	-22.27	2,629.5	1,430.1	1,415.6	1,323.4	15.354	
9,000.0	8,485.0	9,302.4	8,485.0	44.6	52.6	-22.27	2,629.5	1,430.1	1,415.6	1,323.4	15.345	
9,100.0	8,585.0	9,402.4	8,585.0	44.7	52.6	-22.27	2,629.5	1,430.1	1,415.6	1,323.3	15.336	
9,200.0	8,685.0	9,502.4	8,685.0	44.7	52.6	-22.27	2,629.5	1,430.1	1,415.6	1,323.2	15.328	
9,201.2	8,686.2	9,503.7	8,686.2	44.7	52.6	-22.27	2,629.5	1,430.1	1,415.6	1,323.2	15.328	
9,224.0	8,709.0	9,520.3	8,702.8	44.7	52.7	-22.27	2,629.5	1,430.1	1,415.6	1,323.2	15.319	

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 0993-21-15W - Slot A6
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 0993-21-15W	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)		
0.0	0.0	0.0	0.0	0.0	0.0	-46.74	20.6	-21.9	30.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.74	20.6	-21.9	30.0	28.4	18.944	
200.0	200.0	200.0	200.0	1.4	1.4	-46.74	20.6	-21.9	30.0	27.2	10.607	CC
300.0	300.0	299.7	299.7	1.7	2.5	-99.84	22.4	-20.6	30.5	27.0	8.632	ES
400.0	399.9	399.4	399.1	3.0	4.0	-96.15	27.7	-17.0	32.7	28.3	7.384	
500.0	499.5	498.8	498.0	4.3	5.1	-93.28	36.7	-10.9	36.6	31.4	6.925	
600.0	598.6	598.1	596.1	5.4	6.0	-91.33	49.1	-2.5	42.3	36.2	6.923	SF
700.0	697.1	697.1	693.2	6.3	6.9	-90.18	65.0	8.3	49.5	42.6	7.185	
800.0	794.7	795.9	789.2	7.1	7.6	-89.61	84.3	21.4	58.4	50.7	7.604	
900.0	891.3	894.3	883.7	7.9	8.3	-89.41	107.0	36.7	68.8	60.3	8.107	
1,000.0	986.7	992.4	976.7	8.6	9.0	-89.44	132.8	54.3	80.7	71.4	8.635	
1,100.0	1,080.6	1,090.2	1,068.0	9.3	9.6	-89.60	161.9	73.9	94.2	83.9	9.146	
1,200.0	1,173.0	1,187.5	1,157.3	9.9	10.2	-89.81	194.0	95.7	109.1	97.7	9.610	
1,300.0	1,263.7	1,284.5	1,244.5	10.5	10.8	-90.03	229.0	119.5	125.5	112.9	10.009	
1,400.0	1,353.3	1,381.0	1,329.4	10.9	11.4	-89.84	266.9	145.2	143.2	129.3	10.316	
1,500.0	1,443.0	1,478.6	1,413.9	11.3	11.9	-88.67	307.4	172.6	162.1	146.7	10.564	
1,600.0	1,532.7	1,576.7	1,498.7	11.6	12.2	-87.70	348.2	200.3	181.0	164.2	10.766	
1,700.0	1,622.3	1,674.9	1,583.6	11.9	12.5	-86.91	389.1	228.0	200.0	181.7	10.930	
1,800.0	1,712.0	1,773.0	1,668.4	12.3	12.8	-86.25	429.9	255.7	219.0	199.2	11.062	
1,900.0	1,801.7	1,871.2	1,753.3	12.7	13.2	-85.71	470.7	283.3	238.0	216.7	11.171	
2,000.0	1,891.3	1,969.3	1,838.1	13.0	13.5	-85.24	511.6	311.0	257.1	234.3	11.261	
2,100.0	1,981.0	2,067.5	1,923.0	13.4	13.9	-84.83	552.4	338.7	276.2	251.8	11.337	
2,200.0	2,070.7	2,165.6	2,007.8	13.8	14.3	-84.48	593.2	366.4	295.2	269.3	11.402	
2,300.0	2,160.3	2,263.8	2,092.7	14.3	14.7	-84.18	634.1	394.1	314.3	286.9	11.456	
2,400.0	2,250.0	2,361.9	2,177.5	14.7	15.1	-83.90	674.9	421.7	333.4	304.4	11.500	
2,500.0	2,339.7	2,460.1	2,262.4	15.1	15.6	-83.66	715.7	449.4	352.5	322.0	11.563	
2,600.0	2,429.4	2,558.2	2,347.2	15.8	16.4	-83.44	756.5	477.1	371.6	339.6	11.586	
2,700.0	2,519.0	2,656.4	2,432.1	16.6	17.3	-83.24	797.4	504.8	390.7	357.1	11.616	
2,800.0	2,608.7	2,754.5	2,516.9	17.4	18.1	-83.06	838.2	532.5	409.9	374.7	11.643	
2,900.0	2,698.4	2,852.7	2,601.8	18.2	19.0	-82.90	879.0	560.2	429.0	392.2	11.668	
3,000.0	2,788.0	2,950.8	2,686.6	19.0	19.8	-82.75	919.9	587.8	448.1	409.8	11.689	
3,100.0	2,877.7	3,049.0	2,771.5	19.8	20.7	-82.62	960.7	615.5	467.2	427.3	11.709	
3,200.0	2,967.4	3,147.1	2,856.3	20.6	21.5	-82.49	1,001.5	643.2	486.4	444.9	11.726	
3,300.0	3,057.0	3,245.3	2,941.2	21.4	22.4	-82.37	1,042.4	670.9	505.5	462.4	11.742	
3,400.0	3,146.7	3,343.4	3,026.0	22.2	23.2	-82.27	1,083.2	698.6	524.6	480.0	11.756	
3,500.0	3,236.4	3,441.6	3,110.9	23.0	24.1	-82.17	1,124.0	726.2	543.8	497.6	11.769	
3,600.0	3,326.1	3,539.7	3,195.7	23.8	24.9	-82.07	1,164.9	753.9	562.9	515.1	11.781	
3,700.0	3,415.7	3,637.9	3,280.6	24.6	25.8	-81.98	1,205.7	781.6	582.0	532.7	11.792	
3,800.0	3,505.4	3,736.0	3,365.4	25.4	26.6	-81.90	1,246.5	809.3	601.2	550.2	11.801	
3,900.0	3,595.1	3,834.2	3,450.3	26.2	27.5	-81.83	1,287.3	837.0	620.3	567.8	11.810	
4,000.0	3,684.7	3,932.3	3,535.1	27.1	28.3	-81.75	1,328.2	864.7	639.4	585.3	11.819	
4,100.0	3,774.4	4,030.4	3,620.0	27.9	29.2	-81.69	1,369.0	892.3	658.6	602.9	11.826	
4,200.0	3,864.1	4,128.6	3,704.8	28.7	30.1	-81.62	1,409.8	920.0	677.7	620.5	11.833	
4,300.0	3,953.7	4,226.7	3,789.7	29.5	30.9	-81.56	1,450.7	947.7	696.9	638.0	11.840	
4,400.0	4,043.4	4,324.9	3,874.5	30.3	31.8	-81.50	1,491.5	975.4	716.0	655.6	11.846	
4,500.0	4,133.1	4,423.0	3,959.4	31.1	32.6	-81.45	1,532.3	1,003.1	735.2	673.1	11.851	
4,600.0	4,222.7	4,521.2	4,044.2	31.9	33.5	-81.40	1,573.2	1,030.7	754.3	690.7	11.857	
4,700.0	4,312.4	4,619.3	4,129.1	32.7	34.3	-81.35	1,614.0	1,058.4	773.5	708.2	11.862	
4,800.0	4,402.1	4,717.5	4,213.9	33.5	35.2	-81.30	1,654.8	1,086.1	792.6	725.8	11.866	
4,900.0	4,491.8	4,815.6	4,298.8	34.3	36.1	-81.26	1,695.7	1,113.8	811.7	743.4	11.870	
5,000.0	4,581.4	4,913.8	4,383.6	35.1	36.9	-81.21	1,736.5	1,141.5	830.9	760.9	11.874	

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 0993-21-15W - Slot A6
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 0993-21-15W	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	
5,100.0	4,671.1	5,011.9	4,468.5	35.9	37.8	-81.17	1,777.3	1,169.2	850.0	778.5	11.878		
5,200.0	4,760.8	5,110.1	4,553.3	36.7	38.6	-81.14	1,818.1	1,196.8	869.2	796.0	11.881		
5,300.0	4,850.4	5,208.2	4,638.2	37.6	39.5	-81.10	1,859.0	1,224.5	888.3	813.6	11.885		
5,400.0	4,940.1	5,306.4	4,723.0	38.4	40.3	-81.06	1,899.8	1,252.2	907.5	831.1	11.888		
5,500.0	5,029.8	5,404.5	4,807.9	39.2	41.2	-81.03	1,940.6	1,279.9	926.6	848.7	11.891		
5,600.0	5,119.5	5,502.7	4,892.7	40.0	42.1	-81.08	1,981.5	1,307.6	945.8	866.3	11.895		
5,700.0	5,210.4	5,606.0	4,982.2	40.7	43.0	-81.36	2,024.4	1,336.6	965.3	884.2	11.902		
5,800.0	5,303.1	5,729.5	5,091.2	41.4	43.9	-81.49	2,072.3	1,369.1	983.8	900.9	11.870		
5,900.0	5,397.3	5,854.3	5,204.5	42.0	44.9	-81.61	2,115.7	1,398.6	1,000.3	915.8	11.841		
6,000.0	5,492.9	5,980.3	5,321.5	42.5	45.7	-81.72	2,154.3	1,424.7	1,014.9	929.0	11.817		
6,100.0	5,589.7	6,107.3	5,441.8	43.0	46.4	-81.82	2,187.8	1,447.4	1,027.4	940.3	11.799		
6,200.0	5,687.5	6,235.2	5,565.1	43.3	46.9	-81.90	2,215.8	1,466.5	1,037.8	949.7	11.787		
6,300.0	5,786.1	6,363.8	5,690.9	43.6	47.4	-81.97	2,238.3	1,481.7	1,046.0	957.2	11.780		
6,400.0	5,885.3	6,493.1	5,818.5	43.8	47.7	-82.03	2,254.9	1,492.9	1,052.1	962.7	11.777		
6,500.0	5,985.0	6,622.7	5,947.5	44.0	48.0	-82.07	2,265.6	1,500.2	1,056.0	966.3	11.780		
6,600.0	6,085.0	6,752.5	6,077.2	44.0	48.1	-82.10	2,270.2	1,503.3	1,057.6	967.9	11.789		
6,700.0	6,185.0	6,860.3	6,185.0	44.1	48.1	-25.96	2,270.4	1,503.5	1,057.7	967.9	11.788		
6,800.0	6,285.0	6,960.3	6,285.0	44.1	48.1	-25.96	2,270.4	1,503.5	1,057.7	967.9	11.782		
6,900.0	6,385.0	7,060.3	6,385.0	44.1	48.1	-25.96	2,270.4	1,503.5	1,057.7	967.9	11.775		
7,000.0	6,485.0	7,160.3	6,485.0	44.1	48.2	-25.96	2,270.4	1,503.5	1,057.7	967.8	11.769		
7,100.0	6,585.0	7,260.3	6,585.0	44.2	48.2	-25.96	2,270.4	1,503.5	1,057.7	967.8	11.763		
7,200.0	6,685.0	7,360.3	6,685.0	44.2	48.2	-25.96	2,270.4	1,503.5	1,057.7	967.7	11.757		
7,300.0	6,785.0	7,460.3	6,785.0	44.2	48.2	-25.96	2,270.4	1,503.5	1,057.7	967.7	11.750		
7,400.0	6,885.0	7,560.3	6,885.0	44.2	48.2	-25.96	2,270.4	1,503.5	1,057.7	967.6	11.744		
7,500.0	6,985.0	7,660.3	6,985.0	44.3	48.3	-25.96	2,270.4	1,503.5	1,057.7	967.6	11.738		
7,600.0	7,085.0	7,760.3	7,085.0	44.3	48.3	-25.96	2,270.4	1,503.5	1,057.7	967.5	11.731		
7,700.0	7,185.0	7,860.3	7,185.0	44.3	48.3	-25.96	2,270.4	1,503.5	1,057.7	967.5	11.725		
7,800.0	7,285.0	7,960.3	7,285.0	44.3	48.3	-25.96	2,270.4	1,503.5	1,057.7	967.4	11.718		
7,900.0	7,385.0	8,060.3	7,385.0	44.4	48.3	-25.96	2,270.4	1,503.5	1,057.7	967.4	11.712		
8,000.0	7,485.0	8,160.3	7,485.0	44.4	48.4	-25.96	2,270.4	1,503.5	1,057.7	967.3	11.705		
8,100.0	7,585.0	8,260.3	7,585.0	44.4	48.4	-25.96	2,270.4	1,503.5	1,057.7	967.3	11.699		
8,200.0	7,685.0	8,360.3	7,685.0	44.4	48.4	-25.96	2,270.4	1,503.5	1,057.7	967.2	11.692		
8,300.0	7,785.0	8,460.3	7,785.0	44.5	48.4	-25.96	2,270.4	1,503.5	1,057.7	967.2	11.686		
8,400.0	7,885.0	8,560.3	7,885.0	44.5	48.4	-25.96	2,270.4	1,503.5	1,057.7	967.1	11.680		
8,500.0	7,985.0	8,561.3	7,886.0	44.5	48.4	-25.96	2,270.4	1,503.5	1,062.3	971.3	11.671		
8,600.0	8,085.0	8,561.3	7,886.0	44.5	48.4	-25.96	2,270.4	1,503.5	1,076.2	985.4	11.846		
8,700.0	8,185.0	8,561.3	7,886.0	44.6	48.4	-25.96	2,270.4	1,503.5	1,099.1	1,009.0	12.199		
8,800.0	8,285.0	8,561.3	7,886.0	44.6	48.4	-25.96	2,270.4	1,503.5	1,130.4	1,041.5	12.721		
8,900.0	8,385.0	8,561.3	7,886.0	44.6	48.4	-25.96	2,270.4	1,503.5	1,169.5	1,082.2	13.402		
9,000.0	8,485.0	8,561.3	7,886.0	44.6	48.4	-25.96	2,270.4	1,503.5	1,215.5	1,130.1	14.233		
9,100.0	8,585.0	8,561.3	7,886.0	44.7	48.4	-25.96	2,270.4	1,503.5	1,267.8	1,184.4	15.202		
9,200.0	8,685.0	8,561.3	7,886.0	44.7	48.4	-25.96	2,270.4	1,503.5	1,325.5	1,244.2	16.298		
9,224.0	8,709.0	8,561.3	7,886.0	44.7	48.4	-25.96	2,270.4	1,503.5	1,340.1	1,259.3	16.580		

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 0993-21-15W - Slot A6
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 0993-21-15W	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 0993-21-13W - 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	-46.70	13.7	-14.5	20.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.70	13.7	-14.5	20.0	18.4	12.619	
200.0	200.0	200.0	200.0	1.4	1.4	-46.70	13.7	-14.5	20.0	17.2	7.066	CC
204.4	204.4	204.4	204.4	1.4	1.4	-102.85	13.7	-14.5	20.0	17.1	7.026	
300.0	300.0	300.0	300.0	1.7	1.9	-100.86	14.6	-13.7	20.1	16.8	6.067	ES
400.0	399.9	400.0	399.8	3.0	3.4	-97.63	18.4	-9.8	20.9	16.8	5.122	
500.0	499.5	499.9	499.2	4.3	4.6	-94.67	25.2	-2.8	22.6	17.8	4.696	
600.0	598.6	599.7	598.1	5.4	5.6	-92.20	35.1	7.3	25.1	19.6	4.561	SF
700.0	697.1	699.5	696.1	6.3	6.5	-90.32	48.0	20.4	28.5	22.2	4.575	
800.0	794.7	799.1	793.2	7.1	7.3	-88.98	63.8	36.6	32.6	25.6	4.673	
900.0	891.3	898.7	889.1	7.9	8.1	-88.08	82.5	55.7	37.6	29.8	4.815	
1,000.0	986.7	998.2	983.6	8.6	8.8	-87.50	104.1	77.7	43.3	34.6	4.972	
1,100.0	1,080.6	1,097.5	1,076.6	9.3	9.4	-87.17	128.5	102.7	49.7	40.0	5.124	
1,200.0	1,173.0	1,196.8	1,167.9	9.9	10.0	-87.00	155.7	130.4	56.9	46.0	5.256	
1,300.0	1,263.7	1,295.9	1,257.3	10.5	10.7	-86.94	185.6	161.0	64.8	52.7	5.360	
1,400.0	1,353.3	1,394.8	1,344.7	10.9	11.2	-85.50	218.1	194.1	73.5	59.9	5.422	
1,500.0	1,443.0	1,493.5	1,429.8	11.3	11.6	-81.62	253.1	229.8	83.4	68.2	5.479	
1,600.0	1,532.7	1,592.8	1,514.8	11.6	11.9	-77.87	288.9	266.4	94.1	77.1	5.540	
1,700.0	1,622.3	1,692.0	1,599.8	11.9	12.3	-74.89	324.8	303.1	105.1	86.4	5.618	
1,800.0	1,712.0	1,791.3	1,684.8	12.3	12.6	-72.48	360.7	339.7	116.3	96.0	5.708	
1,900.0	1,801.7	1,890.6	1,769.8	12.7	13.0	-70.50	396.6	376.3	127.7	105.7	5.803	
2,000.0	1,891.3	1,989.8	1,854.8	13.0	13.3	-68.84	432.4	412.9	139.3	115.6	5.898	
2,100.0	1,981.0	2,089.1	1,939.8	13.4	13.7	-67.44	468.3	449.6	150.9	125.7	5.991	
2,200.0	2,070.7	2,188.3	2,024.8	13.8	14.1	-66.23	504.2	486.2	162.6	135.8	6.080	
2,300.0	2,160.3	2,287.6	2,109.8	14.3	14.5	-65.19	540.0	522.8	174.3	146.0	6.163	
2,400.0	2,250.0	2,386.9	2,194.8	14.7	15.3	-64.28	575.9	559.4	186.1	156.3	6.249	
2,500.0	2,339.7	2,486.1	2,279.8	15.1	16.3	-63.48	611.8	596.1	198.0	166.7	6.321	
2,600.0	2,429.4	2,585.4	2,364.8	15.8	17.2	-62.77	647.6	632.7	209.9	177.0	6.392	
2,700.0	2,519.0	2,684.6	2,449.8	16.6	18.1	-62.14	683.5	669.3	221.8	187.4	6.458	
2,800.0	2,608.7	2,783.9	2,534.8	17.4	19.0	-61.57	719.4	705.9	233.7	197.9	6.520	
2,900.0	2,698.4	2,883.2	2,619.8	18.2	19.9	-61.06	755.3	742.5	245.7	208.3	6.578	
3,000.0	2,788.0	2,982.4	2,704.8	19.0	20.8	-60.59	791.1	779.2	257.6	218.8	6.632	
3,100.0	2,877.7	3,081.7	2,789.8	19.8	21.8	-60.16	827.0	815.8	269.6	229.3	6.683	
3,200.0	2,967.4	3,180.9	2,874.8	20.6	22.7	-59.78	862.9	852.4	281.6	239.8	6.731	
3,300.0	3,057.0	3,280.2	2,959.8	21.4	23.6	-59.42	898.7	889.0	293.6	250.3	6.775	
3,400.0	3,146.7	3,379.5	3,044.8	22.2	24.5	-59.09	934.6	925.7	305.7	260.8	6.817	
3,500.0	3,236.4	3,478.7	3,129.8	23.0	25.5	-58.79	970.5	962.3	317.7	271.4	6.857	
3,600.0	3,326.1	3,578.0	3,214.8	23.8	26.4	-58.50	1,006.4	998.9	329.7	281.9	6.894	
3,700.0	3,415.7	3,677.2	3,299.7	24.6	27.3	-58.24	1,042.2	1,035.5	341.8	292.4	6.929	
3,800.0	3,505.4	3,776.5	3,384.7	25.4	28.2	-58.00	1,078.1	1,072.1	353.8	303.0	6.962	
3,900.0	3,595.1	3,875.8	3,469.7	26.2	29.2	-57.77	1,114.0	1,108.8	365.9	313.6	6.994	
4,000.0	3,684.7	3,975.0	3,554.7	27.1	30.1	-57.56	1,149.8	1,145.4	377.9	324.1	7.024	
4,100.0	3,774.4	4,074.3	3,639.7	27.9	31.0	-57.36	1,185.7	1,182.0	390.0	334.7	7.052	
4,200.0	3,864.1	4,173.5	3,724.7	28.7	31.9	-57.17	1,221.6	1,218.6	402.1	345.3	7.078	
4,300.0	3,953.7	4,272.8	3,809.7	29.5	32.9	-56.99	1,257.4	1,255.3	414.2	355.9	7.104	
4,400.0	4,043.4	4,372.1	3,894.7	30.3	33.8	-56.82	1,293.3	1,291.9	426.3	366.4	7.128	
4,500.0	4,133.1	4,471.3	3,979.7	31.1	34.7	-56.67	1,329.2	1,328.5	438.3	377.0	7.151	
4,600.0	4,222.7	4,570.6	4,064.7	31.9	35.6	-56.52	1,365.1	1,365.1	450.4	387.6	7.172	
4,700.0	4,312.4	4,669.8	4,149.7	32.7	36.6	-56.37	1,400.9	1,401.7	462.5	398.2	7.193	
4,800.0	4,402.1	4,769.1	4,234.7	33.5	37.5	-56.24	1,436.8	1,438.4	474.6	408.8	7.213	
4,900.0	4,491.8	4,868.4	4,319.7	34.3	38.4	-56.11	1,472.7	1,475.0	486.7	419.4	7.232	

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 0993-21-15W - Slot A6
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 0993-21-15W	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	4,581.4	4,967.6	4,404.7	35.1	39.4	-55.99	1,508.5	1,511.6	498.8	430.0	7.250	
5,100.0	4,671.1	5,066.9	4,489.7	35.9	40.3	-55.87	1,544.4	1,548.2	510.9	440.6	7.268	
5,200.0	4,760.8	5,166.1	4,574.7	36.7	41.2	-55.76	1,580.3	1,584.9	523.0	451.2	7.284	
5,300.0	4,850.4	5,265.4	4,659.7	37.6	42.1	-55.66	1,616.2	1,621.5	535.1	461.8	7.300	
5,400.0	4,940.1	5,364.7	4,744.7	38.4	43.1	-55.56	1,652.0	1,658.1	547.2	472.4	7.315	
5,500.0	5,029.8	5,463.9	4,829.7	39.2	44.0	-55.46	1,687.9	1,694.7	559.3	483.0	7.330	
5,600.0	5,119.5	5,563.2	4,914.7	40.0	44.9	-55.41	1,723.8	1,731.4	571.5	493.7	7.346	
5,700.0	5,210.4	5,679.3	5,015.2	40.7	46.0	-55.42	1,764.5	1,773.0	584.1	504.6	7.347	
5,800.0	5,303.1	5,800.4	5,122.9	41.4	47.0	-55.42	1,803.2	1,812.4	595.7	514.5	7.338	
5,900.0	5,397.3	5,922.2	5,234.0	42.0	47.8	-55.43	1,838.0	1,848.0	606.0	523.3	7.334	
6,000.0	5,492.9	6,044.7	5,348.3	42.5	48.6	-55.43	1,868.8	1,879.5	615.0	531.2	7.333	
6,100.0	5,589.7	6,167.8	5,465.4	43.0	49.3	-55.44	1,895.5	1,906.6	622.8	537.9	7.336	
6,200.0	5,687.5	6,291.3	5,584.8	43.3	49.8	-55.45	1,917.7	1,929.4	629.3	543.6	7.342	
6,300.0	5,786.1	6,415.4	5,706.1	43.6	50.3	-55.46	1,935.5	1,947.5	634.5	548.2	7.352	
6,400.0	5,885.3	6,539.7	5,829.0	43.8	50.6	-55.47	1,948.7	1,961.0	638.3	551.6	7.366	
6,500.0	5,985.0	6,664.3	5,953.0	44.0	50.8	-55.48	1,957.2	1,969.7	640.7	553.9	7.383	
6,600.0	6,085.0	6,788.9	6,077.5	44.0	50.9	-55.48	1,961.0	1,973.6	641.7	555.1	7.406	
6,700.0	6,185.0	6,896.4	6,185.0	44.1	50.9	0.65	1,961.2	1,973.8	641.8	555.2	7.415	
6,800.0	6,285.0	6,996.4	6,285.0	44.1	50.9	0.65	1,961.2	1,973.8	641.8	555.2	7.410	
6,900.0	6,385.0	7,096.4	6,385.0	44.1	51.0	0.65	1,961.2	1,973.8	641.8	555.1	7.406	
7,000.0	6,485.0	7,196.4	6,485.0	44.1	51.0	0.65	1,961.2	1,973.8	641.8	555.1	7.401	
7,100.0	6,585.0	7,296.4	6,585.0	44.2	51.0	0.65	1,961.2	1,973.8	641.8	555.0	7.397	
7,200.0	6,685.0	7,396.4	6,685.0	44.2	51.0	0.65	1,961.2	1,973.8	641.8	555.0	7.392	
7,300.0	6,785.0	7,496.4	6,785.0	44.2	51.0	0.65	1,961.2	1,973.8	641.8	554.9	7.387	
7,400.0	6,885.0	7,596.4	6,885.0	44.2	51.1	0.65	1,961.2	1,973.8	641.8	554.9	7.383	
7,500.0	6,985.0	7,696.4	6,985.0	44.3	51.1	0.65	1,961.2	1,973.8	641.8	554.8	7.378	
7,600.0	7,085.0	7,796.4	7,085.0	44.3	51.1	0.65	1,961.2	1,973.8	641.8	554.8	7.374	
7,700.0	7,185.0	7,896.4	7,185.0	44.3	51.1	0.65	1,961.2	1,973.8	641.8	554.7	7.369	
7,800.0	7,285.0	7,996.4	7,285.0	44.3	51.1	0.65	1,961.2	1,973.8	641.8	554.6	7.364	
7,900.0	7,385.0	8,096.4	7,385.0	44.4	51.2	0.65	1,961.2	1,973.8	641.8	554.6	7.359	
8,000.0	7,485.0	8,196.4	7,485.0	44.4	51.2	0.65	1,961.2	1,973.8	641.8	554.5	7.355	
8,100.0	7,585.0	8,296.4	7,585.0	44.4	51.2	0.65	1,961.2	1,973.8	641.8	554.5	7.350	
8,200.0	7,685.0	8,396.4	7,685.0	44.4	51.2	0.65	1,961.2	1,973.8	641.8	554.4	7.345	
8,300.0	7,785.0	8,496.4	7,785.0	44.5	51.2	0.65	1,961.2	1,973.8	641.8	554.4	7.340	
8,400.0	7,885.0	8,596.4	7,885.0	44.5	51.3	0.65	1,961.2	1,973.8	641.8	554.3	7.336	
8,500.0	7,985.0	8,696.4	7,985.0	44.5	51.3	0.65	1,961.2	1,973.8	641.8	554.2	7.331	
8,600.0	8,085.0	8,796.4	8,085.0	44.5	51.3	0.65	1,961.2	1,973.8	641.8	554.2	7.326	
8,700.0	8,185.0	8,896.4	8,185.0	44.6	51.3	0.65	1,961.2	1,973.8	641.8	554.1	7.321	
8,800.0	8,285.0	8,996.4	8,285.0	44.6	51.3	0.65	1,961.2	1,973.8	641.8	554.1	7.316	
8,900.0	8,385.0	9,096.4	8,385.0	44.6	51.4	0.65	1,961.2	1,973.8	641.8	554.0	7.311	
9,000.0	8,485.0	9,196.4	8,485.0	44.6	51.4	0.65	1,961.2	1,973.8	641.8	554.0	7.306	
9,100.0	8,585.0	9,296.4	8,585.0	44.7	51.4	0.65	1,961.2	1,973.8	641.8	553.9	7.301	
9,200.0	8,685.0	9,396.4	8,685.0	44.7	51.4	0.65	1,961.2	1,973.8	641.8	553.8	7.297	
9,203.3	8,688.2	9,399.7	8,688.2	44.7	51.4	0.65	1,961.2	1,973.8	641.8	553.8	7.296	
9,224.0	8,709.0	9,418.4	8,707.0	44.7	51.4	0.65	1,961.2	1,973.8	641.8	553.8	7.292	

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 0993-21-15W - Slot A6
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 0993-21-15W	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	-46.72	6.8	-7.3	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.72	6.8	-7.3	10.0	8.4	6.307	
200.0	200.0	200.0	200.0	1.4	1.4	-46.72	6.8	-7.3	10.0	7.2	3.532	
273.9	273.9	274.0	274.0	1.6	1.9	-101.89	7.3	-6.7	10.0	6.7	3.043	
300.0	300.0	300.0	300.0	1.7	2.1	-96.92	7.9	-6.1	10.0	6.5	2.901	CC
400.0	399.9	400.0	399.8	3.0	3.6	-88.35	11.6	-1.5	10.5	6.3	2.493	Level 1, ES
500.0	499.5	499.9	499.1	4.3	4.8	-81.17	18.1	6.4	11.6	6.5	2.264	Level 1
600.0	598.6	599.7	597.9	5.4	5.8	-75.89	27.3	17.6	13.3	7.1	2.139	Level 1
700.0	697.1	699.4	695.8	6.3	6.6	-72.39	39.3	32.1	15.4	8.1	2.104	Level 1, SF
800.0	794.7	799.1	792.8	7.1	7.4	-70.30	53.9	49.9	18.0	9.6	2.137	Level 1
900.0	891.3	898.7	888.6	7.9	8.2	-69.20	71.2	70.9	21.0	11.5	2.214	Level 1
1,000.0	986.7	998.2	983.1	8.6	8.9	-68.79	91.1	95.1	24.3	13.8	2.318	Level 1
1,100.0	1,080.6	1,097.6	1,076.0	9.3	9.5	-68.83	113.5	122.4	28.0	16.5	2.433	Level 1
1,200.0	1,173.0	1,197.0	1,167.2	9.9	10.1	-69.17	138.5	152.7	32.0	19.5	2.548	
1,300.0	1,263.7	1,296.2	1,256.6	10.5	10.7	-69.69	165.9	186.0	36.4	22.7	2.653	
1,400.0	1,353.3	1,395.7	1,344.3	10.9	11.1	-68.10	195.6	222.2	41.8	26.6	2.759	
1,500.0	1,443.0	1,495.5	1,432.0	11.3	11.4	-66.07	225.9	259.0	47.5	30.8	2.849	
1,600.0	1,532.7	1,595.3	1,519.8	11.6	11.7	-64.47	256.2	295.7	53.2	35.1	2.932	
1,700.0	1,622.3	1,695.1	1,607.5	11.9	12.1	-63.19	286.4	332.5	59.0	39.4	3.008	
1,800.0	1,712.0	1,795.0	1,695.2	12.3	12.4	-62.14	316.7	369.3	64.8	43.8	3.077	
1,900.0	1,801.7	1,894.8	1,782.9	12.7	12.8	-61.26	347.0	406.1	70.7	48.2	3.139	
2,000.0	1,891.3	1,994.6	1,870.7	13.0	13.2	-60.51	377.2	442.9	76.5	52.6	3.194	
2,100.0	1,981.0	2,094.4	1,958.4	13.4	13.6	-59.87	407.5	479.6	82.4	57.0	3.244	
2,200.0	2,070.7	2,194.3	2,046.1	13.8	14.0	-59.32	437.8	516.4	88.3	61.4	3.289	
2,300.0	2,160.3	2,294.1	2,133.9	14.3	14.4	-58.83	468.0	553.2	94.1	65.9	3.329	
2,400.0	2,250.0	2,393.9	2,221.6	14.7	15.0	-58.41	498.3	590.0	100.0	70.3	3.366	
2,500.0	2,339.7	2,493.7	2,309.3	15.1	15.8	-58.03	528.6	626.8	105.9	74.8	3.399	
2,600.0	2,429.4	2,593.6	2,397.0	15.8	16.7	-57.69	558.8	663.5	111.8	79.2	3.428	
2,700.0	2,519.0	2,693.4	2,484.8	16.6	17.5	-57.38	589.1	700.3	117.7	83.7	3.456	
2,800.0	2,608.7	2,793.2	2,572.5	17.4	18.4	-57.10	619.4	737.1	123.6	88.1	3.480	
2,900.0	2,698.4	2,893.0	2,660.2	18.2	19.2	-56.85	649.6	773.9	129.5	92.5	3.503	
3,000.0	2,788.0	2,992.9	2,747.9	19.0	20.1	-56.62	679.9	810.7	135.4	97.0	3.524	
3,100.0	2,877.7	3,092.7	2,835.7	19.8	21.0	-56.41	710.2	847.5	141.3	101.4	3.543	
3,200.0	2,967.4	3,192.5	2,923.4	20.6	21.8	-56.22	740.4	884.2	147.2	105.9	3.561	
3,300.0	3,057.0	3,292.3	3,011.1	21.4	22.7	-56.04	770.7	921.0	153.2	110.3	3.577	
3,400.0	3,146.7	3,392.2	3,098.8	22.2	23.5	-55.87	801.0	957.8	159.1	114.8	3.592	
3,500.0	3,236.4	3,492.0	3,186.6	23.0	24.4	-55.72	831.2	994.6	165.0	119.2	3.606	
3,600.0	3,326.1	3,591.8	3,274.3	23.8	25.3	-55.58	861.5	1,031.4	170.9	123.7	3.619	
3,700.0	3,415.7	3,691.6	3,362.0	24.6	26.1	-55.44	891.8	1,068.1	176.8	128.1	3.632	
3,800.0	3,505.4	3,791.5	3,449.8	25.4	27.0	-55.32	922.0	1,104.9	182.7	132.6	3.643	
3,900.0	3,595.1	3,891.3	3,537.5	26.2	27.9	-55.20	952.3	1,141.7	188.6	137.0	3.654	
4,000.0	3,684.7	3,991.1	3,625.2	27.1	28.7	-55.09	982.6	1,178.5	194.6	141.5	3.664	
4,100.0	3,774.4	4,090.9	3,712.9	27.9	29.6	-54.99	1,012.8	1,215.3	200.5	145.9	3.673	
4,200.0	3,864.1	4,190.7	3,800.7	28.7	30.4	-54.89	1,043.1	1,252.0	206.4	150.3	3.682	
4,300.0	3,953.7	4,290.6	3,888.4	29.5	31.3	-54.80	1,073.3	1,288.8	212.3	154.8	3.690	
4,400.0	4,043.4	4,390.4	3,976.1	30.3	32.2	-54.71	1,103.6	1,325.6	218.2	159.2	3.698	
4,500.0	4,133.1	4,490.2	4,063.8	31.1	33.0	-54.63	1,133.9	1,362.4	224.2	163.7	3.705	
4,600.0	4,222.7	4,590.0	4,151.6	31.9	33.9	-54.55	1,164.1	1,399.2	230.1	168.1	3.712	
4,700.0	4,312.4	4,689.9	4,239.3	32.7	34.8	-54.48	1,194.4	1,436.0	236.0	172.5	3.719	
4,800.0	4,402.1	4,789.7	4,327.0	33.5	35.6	-54.41	1,224.7	1,472.7	241.9	177.0	3.725	
4,900.0	4,491.8	4,889.5	4,414.7	34.3	36.5	-54.34	1,254.9	1,509.5	247.9	181.4	3.731	

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 0993-21-15W - Slot A6
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 0993-21-15W	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 0993-21-14W - 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	4,581.4	4,989.3	4,502.5	35.1	37.4	-54.27	1,285.2	1,546.3	253.8	185.9	3.737		
5,100.0	4,671.1	5,089.2	4,590.2	35.9	38.2	-54.21	1,315.5	1,583.1	259.7	190.3	3.742		
5,200.0	4,760.8	5,189.0	4,677.9	36.7	39.1	-54.15	1,345.7	1,619.9	265.6	194.7	3.747		
5,300.0	4,850.4	5,288.8	4,765.7	37.6	40.0	-54.10	1,376.0	1,656.6	271.5	199.2	3.752		
5,400.0	4,940.1	5,388.6	4,853.4	38.4	40.8	-54.05	1,406.3	1,693.4	277.5	203.6	3.757		
5,500.0	5,029.8	5,488.5	4,941.1	39.2	41.7	-53.99	1,436.5	1,730.2	283.4	208.0	3.761		
5,600.0	5,119.5	5,589.0	5,029.5	40.0	42.6	-53.96	1,467.0	1,767.3	289.4	212.5	3.766		
5,700.0	5,210.4	5,698.0	5,126.7	40.7	43.5	-53.95	1,498.3	1,805.3	295.2	216.8	3.765		
5,800.0	5,303.1	5,807.2	5,226.3	41.4	44.3	-53.95	1,528.8	1,839.9	300.5	220.7	3.763		
5,900.0	5,397.3	5,916.6	5,328.1	42.0	45.0	-53.96	1,552.2	1,870.8	305.3	224.1	3.762		
6,000.0	5,492.9	6,026.3	5,432.0	42.5	45.6	-53.96	1,574.5	1,897.9	309.4	227.2	3.763		
6,100.0	5,589.7	6,136.1	5,537.5	43.0	46.1	-53.97	1,593.7	1,921.2	312.9	229.8	3.764		
6,200.0	5,687.5	6,246.0	5,644.5	43.3	46.5	-53.98	1,609.7	1,940.7	315.9	232.0	3.767		
6,300.0	5,786.1	6,356.1	5,752.8	43.6	46.9	-53.98	1,622.4	1,956.1	318.2	233.8	3.770		
6,400.0	5,885.3	6,466.3	5,861.9	43.8	47.1	-54.00	1,631.8	1,967.5	319.9	235.2	3.775		
6,500.0	5,985.0	6,576.5	5,971.7	44.0	47.3	-54.01	1,637.9	1,974.9	321.0	236.1	3.780		
6,600.0	6,085.0	6,686.7	6,081.9	44.0	47.4	-54.02	1,640.6	1,978.2	321.4	236.6	3.788		
6,700.0	6,185.0	6,789.8	6,185.0	44.1	47.4	2.12	1,640.7	1,978.3	321.5	236.7	3.791		
6,800.0	6,285.0	6,889.8	6,285.0	44.1	47.5	2.12	1,640.7	1,978.3	321.5	236.6	3.788		
6,900.0	6,385.0	6,989.8	6,385.0	44.1	47.5	2.12	1,640.7	1,978.3	321.5	236.5	3.786		
7,000.0	6,485.0	7,089.8	6,485.0	44.1	47.5	2.12	1,640.7	1,978.3	321.5	236.5	3.783		
7,100.0	6,585.0	7,189.8	6,585.0	44.2	47.5	2.12	1,640.7	1,978.3	321.5	236.4	3.781		
7,200.0	6,685.0	7,289.8	6,685.0	44.2	47.5	2.12	1,640.7	1,978.3	321.5	236.4	3.779		
7,300.0	6,785.0	7,389.8	6,785.0	44.2	47.6	2.12	1,640.7	1,978.3	321.5	236.3	3.776		
7,400.0	6,885.0	7,489.8	6,885.0	44.2	47.6	2.12	1,640.7	1,978.3	321.5	236.3	3.774		
7,500.0	6,985.0	7,589.8	6,985.0	44.3	47.6	2.12	1,640.7	1,978.3	321.5	236.2	3.771		
7,600.0	7,085.0	7,689.8	7,085.0	44.3	47.6	2.12	1,640.7	1,978.3	321.5	236.2	3.769		
7,700.0	7,185.0	7,789.8	7,185.0	44.3	47.6	2.12	1,640.7	1,978.3	321.5	236.1	3.766		
7,800.0	7,285.0	7,889.8	7,285.0	44.3	47.7	2.12	1,640.7	1,978.3	321.5	236.0	3.764		
7,900.0	7,385.0	7,989.8	7,385.0	44.4	47.7	2.12	1,640.7	1,978.3	321.5	236.0	3.761		
8,000.0	7,485.0	8,089.8	7,485.0	44.4	47.7	2.12	1,640.7	1,978.3	321.5	235.9	3.759		
8,100.0	7,585.0	8,189.8	7,585.0	44.4	47.7	2.12	1,640.7	1,978.3	321.5	235.9	3.756		
8,200.0	7,685.0	8,289.8	7,685.0	44.4	47.8	2.12	1,640.7	1,978.3	321.5	235.8	3.754		
8,300.0	7,785.0	8,389.8	7,785.0	44.5	47.8	2.12	1,640.7	1,978.3	321.5	235.8	3.751		
8,400.0	7,885.0	8,489.8	7,885.0	44.5	47.8	2.12	1,640.7	1,978.3	321.5	235.7	3.749		
8,500.0	7,985.0	8,494.9	7,890.0	44.5	47.8	2.12	1,640.7	1,978.3	335.2	248.0	3.846		
8,600.0	8,085.0	8,494.9	7,890.0	44.5	47.8	2.12	1,640.7	1,978.3	376.0	292.5	4.505		
8,700.0	8,185.0	8,494.9	7,890.0	44.6	47.8	2.12	1,640.7	1,978.3	436.3	358.5	5.612		
8,800.0	8,285.0	8,494.9	7,890.0	44.6	47.8	2.12	1,640.7	1,978.3	509.2	437.0	7.054		
8,900.0	8,385.0	8,494.9	7,890.0	44.6	47.8	2.12	1,640.7	1,978.3	590.2	522.6	8.736		
9,000.0	8,485.0	8,494.9	7,890.0	44.6	47.8	2.12	1,640.7	1,978.3	676.2	612.4	10.588		
9,100.0	8,585.0	8,494.9	7,890.0	44.7	47.8	2.12	1,640.7	1,978.3	765.7	704.7	12.558		
9,200.0	8,685.0	8,494.9	7,890.0	44.7	47.8	2.12	1,640.7	1,978.3	857.5	798.8	14.606		
9,224.0	8,709.0	8,494.9	7,890.0	44.7	47.8	2.12	1,640.7	1,978.3	879.8	821.6	15.107		

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 0993-21-15W - Slot A6
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 0993-21-15W	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	133.24	-6.8	7.3	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	133.24	-6.8	7.3	10.0	8.4	6.312	
200.0	200.0	200.0	200.0	1.4	1.4	133.24	-6.8	7.3	10.0	7.2	3.534	
300.0	300.0	300.0	300.0	1.7	1.9	80.18	-6.8	7.3	9.9	6.4	2.832	
337.9	337.9	337.8	337.8	2.1	2.1	84.99	-6.7	7.6	9.8	5.9	2.536	CC
400.0	399.9	399.9	399.9	3.0	2.7	92.92	-5.9	9.2	10.0	5.8	2.384	Level 1, ES
500.0	499.5	499.9	499.6	4.3	4.1	104.26	-2.9	15.0	11.1	6.0	2.178	Level 1
600.0	598.6	600.0	599.1	5.4	5.2	112.51	2.1	24.7	13.0	6.7	2.059	Level 1
700.0	697.1	700.1	698.1	6.3	6.1	117.73	9.1	38.3	15.6	7.9	2.037	Level 1, SF
800.0	794.7	800.4	796.4	7.1	7.0	120.67	18.0	55.7	18.7	9.8	2.097	Level 1
900.0	891.3	900.7	893.8	7.9	7.7	122.10	28.9	76.9	22.3	12.2	2.211	Level 1
1,000.0	986.7	1,001.1	990.2	8.6	8.4	122.54	41.7	101.9	26.3	15.1	2.358	Level 1
1,100.0	1,080.6	1,101.5	1,085.3	9.3	9.1	122.36	56.5	130.7	30.7	18.5	2.520	
1,200.0	1,173.0	1,202.0	1,178.9	9.9	9.8	121.79	73.2	163.2	35.5	22.3	2.687	
1,300.0	1,263.7	1,302.5	1,270.8	10.5	10.2	121.10	91.7	199.2	40.8	26.5	2.859	
1,400.0	1,353.3	1,402.3	1,361.6	10.9	10.5	121.45	110.6	236.1	46.6	31.1	3.016	
1,500.0	1,443.0	1,502.1	1,452.4	11.3	10.8	121.73	129.6	273.0	52.4	35.8	3.152	
1,600.0	1,532.7	1,601.9	1,543.2	11.6	11.2	121.95	148.5	309.9	58.2	40.4	3.263	
1,700.0	1,622.3	1,701.8	1,634.0	11.9	11.5	122.13	167.4	346.8	64.1	45.0	3.354	
1,800.0	1,712.0	1,801.6	1,724.8	12.3	11.9	122.28	186.4	383.7	69.9	49.5	3.429	
1,900.0	1,801.7	1,901.4	1,815.6	12.7	12.2	122.40	205.3	420.6	75.7	54.0	3.491	
2,000.0	1,891.3	2,001.3	1,906.4	13.0	12.6	122.51	224.3	457.5	81.6	58.5	3.542	
2,100.0	1,981.0	2,101.1	1,997.2	13.4	13.0	122.61	243.2	494.4	87.4	63.0	3.586	
2,200.0	2,070.7	2,200.9	2,088.1	13.8	13.4	122.69	262.2	531.3	93.2	67.5	3.623	
2,300.0	2,160.3	2,300.8	2,178.9	14.3	13.8	122.76	281.1	568.2	99.0	71.9	3.655	
2,400.0	2,250.0	2,400.6	2,269.7	14.7	14.2	122.83	300.1	605.1	104.9	76.4	3.682	
2,500.0	2,339.7	2,500.4	2,360.5	15.1	14.7	122.88	319.0	642.0	110.7	80.8	3.705	
2,600.0	2,429.4	2,600.2	2,451.3	15.8	15.1	122.94	338.0	678.9	116.5	85.2	3.725	
2,700.0	2,519.0	2,700.1	2,542.1	16.6	15.8	122.98	356.9	715.8	122.3	89.7	3.743	
2,800.0	2,608.7	2,799.9	2,632.9	17.4	16.5	123.03	375.9	752.7	128.2	94.1	3.759	
2,900.0	2,698.4	2,899.7	2,723.7	18.2	17.2	123.06	394.8	789.6	134.0	98.5	3.772	
3,000.0	2,788.0	2,999.6	2,814.5	19.0	18.0	123.10	413.8	826.5	139.8	102.9	3.784	
3,100.0	2,877.7	3,099.4	2,905.3	19.8	18.7	123.13	432.7	863.4	145.7	107.3	3.795	
3,200.0	2,967.4	3,199.2	2,996.1	20.6	19.5	123.16	451.7	900.3	151.5	111.7	3.805	
3,300.0	3,057.0	3,299.0	3,086.9	21.4	20.3	123.19	470.6	937.2	157.3	116.1	3.813	
3,400.0	3,146.7	3,398.9	3,177.7	22.2	21.0	123.22	489.5	974.1	163.1	120.5	3.821	
3,500.0	3,236.4	3,498.7	3,268.5	23.0	21.8	123.24	508.5	1,011.0	169.0	124.8	3.828	
3,600.0	3,326.1	3,598.5	3,359.3	23.8	22.5	123.26	527.4	1,048.0	174.8	129.2	3.834	
3,700.0	3,415.7	3,698.4	3,450.1	24.6	23.3	123.29	546.4	1,084.9	180.6	133.6	3.840	
3,800.0	3,505.4	3,798.2	3,540.9	25.4	24.0	123.31	565.3	1,121.8	186.5	138.0	3.845	
3,900.0	3,595.1	3,898.0	3,631.7	26.2	24.8	123.32	584.3	1,158.7	192.3	142.3	3.850	
4,000.0	3,684.7	3,997.9	3,722.5	27.1	25.6	123.34	603.2	1,195.6	198.1	146.7	3.854	
4,100.0	3,774.4	4,097.7	3,813.3	27.9	26.3	123.36	622.2	1,232.5	204.0	151.1	3.858	
4,200.0	3,864.1	4,197.5	3,904.1	28.7	27.1	123.37	641.1	1,269.4	209.8	155.5	3.862	
4,300.0	3,953.7	4,297.3	3,994.9	29.5	27.8	123.39	660.1	1,306.3	215.6	159.8	3.865	
4,400.0	4,043.4	4,397.2	4,085.7	30.3	28.6	123.40	679.0	1,343.2	221.4	164.2	3.868	
4,500.0	4,133.1	4,497.0	4,176.5	31.1	29.4	123.42	698.0	1,380.1	227.3	168.6	3.871	
4,600.0	4,222.7	4,596.8	4,267.3	31.9	30.1	123.43	716.9	1,417.0	233.1	172.9	3.873	
4,700.0	4,312.4	4,696.7	4,358.1	32.7	30.9	123.44	735.9	1,453.9	238.9	177.3	3.876	
4,800.0	4,402.1	4,796.5	4,448.9	33.5	31.7	123.45	754.8	1,490.8	244.8	181.6	3.878	
4,900.0	4,491.8	4,896.3	4,539.7	34.3	32.4	123.46	773.8	1,527.7	250.6	186.0	3.880	

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 0993-21-15W - Slot A6
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 0993-21-15W	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	4,581.4	4,996.2	4,630.5	35.1	33.2	123.47	792.7	1,564.6	256.4	190.4	3.882		
5,100.0	4,671.1	5,096.0	4,721.3	35.9	33.9	123.48	811.6	1,601.5	262.2	194.7	3.884		
5,200.0	4,760.8	5,195.8	4,812.1	36.7	34.7	123.49	830.6	1,638.4	268.1	199.1	3.885		
5,300.0	4,850.4	5,295.6	4,902.9	37.6	35.5	123.50	849.5	1,675.3	273.9	203.4	3.887		
5,400.0	4,940.1	5,395.5	4,993.7	38.4	36.2	123.51	868.5	1,712.2	279.7	207.8	3.888		
5,500.0	5,029.8	5,495.3	5,084.5	39.2	37.0	123.52	887.4	1,749.1	285.6	212.1	3.890		
5,600.0	5,119.5	5,594.4	5,174.7	40.0	37.7	123.54	906.2	1,785.8	291.4	216.5	3.892		
5,700.0	5,210.4	5,688.7	5,261.4	40.7	38.4	123.62	923.1	1,818.6	296.7	220.5	3.893		
5,800.0	5,303.1	5,782.9	5,349.6	41.4	39.0	123.70	938.3	1,848.3	301.6	224.1	3.894		
5,900.0	5,397.3	5,877.1	5,438.9	42.0	39.5	123.76	951.9	1,874.6	305.9	227.3	3.895		
6,000.0	5,492.9	5,971.2	5,529.4	42.5	40.0	123.82	963.7	1,897.7	309.7	230.2	3.896		
6,100.0	5,589.7	6,065.3	5,620.8	43.0	40.4	123.87	973.9	1,917.5	312.9	232.6	3.897		
6,200.0	5,687.5	6,159.3	5,713.0	43.3	40.7	123.91	982.3	1,933.9	315.6	234.6	3.899		
6,300.0	5,786.1	6,253.3	5,805.9	43.6	41.0	123.95	989.0	1,946.9	317.7	236.3	3.900		
6,400.0	5,885.3	6,347.3	5,899.2	43.8	41.2	123.97	993.9	1,956.5	319.3	237.5	3.902		
6,500.0	5,985.0	6,441.3	5,992.9	44.0	41.3	123.99	997.1	1,962.7	320.4	238.3	3.903		
6,600.0	6,085.0	6,535.3	6,086.8	44.0	41.4	124.01	998.5	1,965.5	320.8	238.7	3.905		
6,700.0	6,185.0	6,633.4	6,185.0	44.1	41.4	-179.85	998.6	1,965.7	320.9	238.7	3.905		
6,800.0	6,285.0	6,733.4	6,285.0	44.1	41.4	-179.85	998.6	1,965.7	320.9	238.7	3.902		
6,900.0	6,385.0	6,833.4	6,385.0	44.1	41.4	-179.85	998.6	1,965.7	320.9	238.6	3.900		
7,000.0	6,485.0	6,933.4	6,485.0	44.1	41.5	-179.85	998.6	1,965.7	320.9	238.5	3.897		
7,100.0	6,585.0	7,033.4	6,585.0	44.2	41.5	-179.85	998.6	1,965.7	320.9	238.5	3.895		
7,200.0	6,685.0	7,133.4	6,685.0	44.2	41.5	-179.85	998.6	1,965.7	320.9	238.4	3.892		
7,300.0	6,785.0	7,233.4	6,785.0	44.2	41.6	-179.85	998.6	1,965.7	320.9	238.4	3.889		
7,400.0	6,885.0	7,333.4	6,885.0	44.2	41.6	-179.85	998.6	1,965.7	320.9	238.3	3.886		
7,500.0	6,985.0	7,433.4	6,985.0	44.3	41.6	-179.85	998.6	1,965.7	320.9	238.3	3.884		
7,600.0	7,085.0	7,533.4	7,085.0	44.3	41.6	-179.85	998.6	1,965.7	320.9	238.2	3.881		
7,700.0	7,185.0	7,633.4	7,185.0	44.3	41.7	-179.85	998.6	1,965.7	320.9	238.1	3.878		
7,800.0	7,285.0	7,733.4	7,285.0	44.3	41.7	-179.85	998.6	1,965.7	320.9	238.1	3.876		
7,900.0	7,385.0	7,833.4	7,385.0	44.4	41.7	-179.85	998.6	1,965.7	320.9	238.0	3.873		
8,000.0	7,485.0	7,933.4	7,485.0	44.4	41.7	-179.85	998.6	1,965.7	320.9	238.0	3.870		
8,100.0	7,585.0	8,033.4	7,585.0	44.4	41.8	-179.85	998.6	1,965.7	320.9	237.9	3.867		
8,200.0	7,685.0	8,133.4	7,685.0	44.4	41.8	-179.85	998.6	1,965.7	320.9	237.8	3.865		
8,300.0	7,785.0	8,233.4	7,785.0	44.5	41.8	-179.85	998.6	1,965.7	320.9	237.8	3.862		
8,400.0	7,885.0	8,333.4	7,885.0	44.5	41.8	-179.85	998.6	1,965.7	320.9	237.7	3.859		
8,500.0	7,985.0	8,339.4	7,891.0	44.5	41.8	-179.85	998.6	1,965.7	334.3	257.0	4.321		
8,600.0	8,085.0	8,339.4	7,891.0	44.5	41.8	-179.85	998.6	1,965.7	374.9	306.7	5.498		
8,700.0	8,185.0	8,339.4	7,891.0	44.6	41.8	-179.85	998.6	1,965.7	435.2	375.7	7.317		
8,800.0	8,285.0	8,339.4	7,891.0	44.6	41.8	-179.85	998.6	1,965.7	508.1	455.3	9.633		
8,900.0	8,385.0	8,339.4	7,891.0	44.6	41.8	-179.85	998.6	1,965.7	589.0	541.0	12.267		
9,000.0	8,485.0	8,339.4	7,891.0	44.6	41.8	-179.85	998.6	1,965.7	675.1	630.3	15.057		
9,100.0	8,585.0	8,339.4	7,891.0	44.7	41.8	-179.85	998.6	1,965.7	764.5	721.8	17.889		
9,200.0	8,685.0	8,339.4	7,891.0	44.7	41.8	-179.85	998.6	1,965.7	856.3	815.0	20.695		
9,224.0	8,709.0	8,339.4	7,891.0	44.7	41.8	-179.85	998.6	1,965.7	878.7	837.6	21.362		

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 0993-21-15W - Slot A6
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 0993-21-15W	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 0993-21-17W - 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	-13.7	14.6	20.0			
100.0	100.0	100.0	100.0	0.8	0.8	133.28	-13.7	14.6	20.0	18.4	12.623	
200.0	200.0	200.0	200.0	1.4	1.4	133.28	-13.7	14.6	20.0	17.2	7.068	
265.1	265.1	265.1	265.1	1.6	1.6	78.31	-13.7	14.6	19.9	16.8	6.385	CC, ES
300.0	300.0	299.8	299.8	1.7	1.7	77.27	-13.5	15.1	20.1	16.9	6.184	
400.0	399.9	399.4	399.3	3.0	3.0	78.29	-12.1	19.1	21.1	16.9	4.977	
500.0	499.5	499.0	498.5	4.3	4.3	80.04	-9.2	27.3	23.2	18.0	4.460	
600.0	598.6	598.5	597.2	5.4	5.4	82.14	-4.9	39.5	26.3	20.4	4.433	SF
700.0	697.1	698.0	695.1	6.3	6.3	84.26	0.9	55.7	30.5	23.9	4.639	
800.0	794.7	797.4	792.2	7.1	7.1	86.19	8.1	75.9	35.7	28.5	4.963	
900.0	891.3	896.7	888.1	7.9	7.9	87.84	16.6	100.0	42.0	34.1	5.331	
1,000.0	986.7	995.9	982.8	8.6	8.6	89.20	26.6	127.9	49.4	40.7	5.693	
1,100.0	1,080.6	1,095.0	1,076.0	9.3	9.2	90.29	37.9	159.7	57.8	48.2	6.019	
1,200.0	1,173.0	1,194.2	1,167.8	9.9	9.6	91.43	50.4	195.0	67.1	56.5	6.343	
1,300.0	1,263.7	1,293.6	1,259.5	10.5	9.9	94.88	63.2	231.0	76.9	65.2	6.548	
1,400.0	1,353.3	1,392.8	1,351.2	10.9	10.2	99.18	76.0	267.0	87.3	74.2	6.651	
1,500.0	1,443.0	1,492.1	1,442.8	11.3	10.5	102.56	88.8	303.1	98.0	83.4	6.721	
1,600.0	1,532.7	1,591.4	1,534.4	11.6	10.9	105.26	101.6	339.1	109.1	93.0	6.784	
1,700.0	1,622.3	1,690.7	1,626.0	11.9	11.2	107.47	114.4	375.1	120.3	102.7	6.848	
1,800.0	1,712.0	1,789.9	1,717.6	12.3	11.6	109.29	127.2	411.1	131.7	112.6	6.913	
1,900.0	1,801.7	1,889.2	1,809.3	12.7	12.0	110.83	140.0	447.1	143.1	122.6	6.977	
2,000.0	1,891.3	1,988.5	1,900.9	13.0	12.4	112.14	152.8	483.2	154.7	132.7	7.040	
2,100.0	1,981.0	2,087.7	1,992.5	13.4	12.8	113.26	165.6	519.2	166.3	142.9	7.100	
2,200.0	2,070.7	2,187.0	2,084.1	13.8	13.2	114.24	178.4	555.2	178.0	153.1	7.158	
2,300.0	2,160.3	2,286.3	2,175.7	14.3	13.6	115.10	191.2	591.2	189.7	163.4	7.213	
2,400.0	2,250.0	2,385.6	2,267.3	14.7	14.1	115.85	204.0	627.2	201.5	173.8	7.264	
2,500.0	2,339.7	2,484.8	2,359.0	15.1	14.5	116.53	216.8	663.2	213.3	184.1	7.313	
2,600.0	2,429.4	2,584.1	2,450.6	15.8	14.9	117.13	229.6	699.3	225.1	194.6	7.358	
2,700.0	2,519.0	2,683.4	2,542.2	16.6	15.4	117.67	242.4	735.3	237.0	205.0	7.401	
2,800.0	2,608.7	2,782.6	2,633.8	17.4	16.0	118.16	255.2	771.3	248.9	215.4	7.441	
2,900.0	2,698.4	2,881.9	2,725.4	18.2	16.6	118.61	268.0	807.3	260.8	225.9	7.479	
3,000.0	2,788.0	2,981.2	2,817.1	19.0	17.3	119.01	280.8	843.3	272.6	236.4	7.514	
3,100.0	2,877.7	3,080.5	2,908.7	19.8	18.0	119.39	293.6	879.4	284.6	246.9	7.547	
3,200.0	2,967.4	3,179.7	3,000.3	20.6	18.7	119.73	306.4	915.4	296.5	257.4	7.577	
3,300.0	3,057.0	3,279.0	3,091.9	21.4	19.4	120.05	319.2	951.4	308.4	267.9	7.607	
3,400.0	3,146.7	3,378.3	3,183.5	22.2	20.1	120.34	332.0	987.4	320.4	278.4	7.634	
3,500.0	3,236.4	3,477.5	3,275.1	23.0	20.8	120.61	344.8	1,023.4	332.3	288.9	7.660	
3,600.0	3,326.1	3,576.8	3,366.8	23.8	21.5	120.87	357.6	1,059.4	344.3	299.5	7.684	
3,700.0	3,415.7	3,676.1	3,458.4	24.6	22.2	121.10	370.4	1,095.5	356.2	310.0	7.707	
3,800.0	3,505.4	3,775.4	3,550.0	25.4	22.9	121.32	383.2	1,131.5	368.2	320.6	7.729	
3,900.0	3,595.1	3,874.6	3,641.6	26.2	23.6	121.53	396.0	1,167.5	380.2	331.1	7.750	
4,000.0	3,684.7	3,973.9	3,733.2	27.1	24.3	121.72	408.8	1,203.5	392.1	341.7	7.769	
4,100.0	3,774.4	4,073.2	3,824.8	27.9	25.0	121.91	421.6	1,239.5	404.1	352.2	7.788	
4,200.0	3,864.1	4,172.5	3,916.5	28.7	25.7	122.08	434.4	1,275.5	416.1	362.8	7.805	
4,300.0	3,953.7	4,271.7	4,008.1	29.5	26.4	122.24	447.1	1,311.6	428.1	373.4	7.822	
4,400.0	4,043.4	4,371.0	4,099.7	30.3	27.1	122.40	459.9	1,347.6	440.1	383.9	7.838	
4,500.0	4,133.1	4,470.3	4,191.3	31.1	27.8	122.54	472.7	1,383.6	452.1	394.5	7.853	
4,600.0	4,222.7	4,569.5	4,282.9	31.9	28.6	122.68	485.5	1,419.6	464.1	405.1	7.867	
4,700.0	4,312.4	4,668.8	4,374.6	32.7	29.3	122.81	498.3	1,455.6	476.1	415.7	7.881	
4,800.0	4,402.1	4,768.1	4,466.2	33.5	30.0	122.93	511.1	1,491.7	488.1	426.2	7.894	
4,900.0	4,491.8	4,867.4	4,557.8	34.3	30.7	123.05	523.9	1,527.7	500.1	436.8	7.907	

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 0993-21-15W - Slot A6
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 0993-21-15W	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 0993-21-17W - 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 +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)			
5,000.0	4,581.4	4,966.6	4,649.4	35.1	31.4	123.17	536.7	1,563.7	512.1	447.4	7.919		
5,100.0	4,671.1	5,065.9	4,741.0	35.9	32.1	123.27	549.5	1,599.7	524.1	458.0	7.931		
5,200.0	4,760.8	5,165.2	4,832.6	36.7	32.8	123.38	562.3	1,635.7	536.1	468.6	7.942		
5,300.0	4,850.4	5,264.4	4,924.3	37.6	33.5	123.48	575.1	1,671.7	548.1	479.2	7.952		
5,400.0	4,940.1	5,363.7	5,015.9	38.4	34.2	123.57	587.9	1,707.8	560.1	489.8	7.962		
5,500.0	5,029.8	5,463.0	5,107.5	39.2	34.9	123.66	600.7	1,743.8	572.1	500.4	7.972		
5,600.0	5,119.5	5,562.3	5,199.1	40.0	35.6	123.79	613.5	1,779.8	584.1	510.9	7.982		
5,700.0	5,210.4	5,656.4	5,286.3	40.7	36.3	123.93	625.4	1,813.3	594.7	520.2	7.977		
5,800.0	5,303.1	5,747.6	5,371.9	41.4	36.9	124.04	635.9	1,842.8	604.3	528.5	7.973		
5,900.0	5,397.3	5,838.7	5,458.7	42.0	37.4	124.13	645.2	1,869.0	612.7	535.9	7.973		
6,000.0	5,492.9	5,929.9	5,546.5	42.5	37.8	124.22	653.4	1,892.0	620.2	542.4	7.973		
6,100.0	5,589.7	6,021.0	5,635.3	43.0	38.2	124.29	660.4	1,911.6	626.5	547.9	7.973		
6,200.0	5,687.5	6,112.2	5,724.8	43.3	38.5	124.35	666.2	1,927.9	631.8	552.6	7.973		
6,300.0	5,786.1	6,200.0	5,811.6	43.6	38.8	124.40	670.6	1,940.4	636.0	556.3	7.977		
6,400.0	5,885.3	6,294.6	5,905.5	43.8	38.9	124.44	674.1	1,950.4	639.1	559.0	7.971		
6,500.0	5,985.0	6,385.8	5,996.5	44.0	39.1	124.47	676.3	1,956.6	641.2	560.7	7.970		
6,600.0	6,085.0	6,476.9	6,087.6	44.0	39.2	124.49	677.3	1,959.3	642.1	561.5	7.966		
6,700.0	6,185.0	6,574.3	6,185.0	44.1	39.2	-179.37	677.4	1,959.4	642.2	561.5	7.960		
6,800.0	6,285.0	6,674.3	6,285.0	44.1	39.3	-179.37	677.4	1,959.4	642.2	561.4	7.954		
6,900.0	6,385.0	6,774.3	6,385.0	44.1	39.3	-179.37	677.4	1,959.4	642.2	561.4	7.948		
7,000.0	6,485.0	6,874.3	6,485.0	44.1	39.3	-179.37	677.4	1,959.4	642.2	561.3	7.943		
7,100.0	6,585.0	6,974.3	6,585.0	44.2	39.3	-179.37	677.4	1,959.4	642.2	561.2	7.937		
7,200.0	6,685.0	7,074.3	6,685.0	44.2	39.4	-179.37	677.4	1,959.4	642.2	561.2	7.931		
7,300.0	6,785.0	7,174.3	6,785.0	44.2	39.4	-179.37	677.4	1,959.4	642.2	561.1	7.926		
7,400.0	6,885.0	7,274.3	6,885.0	44.2	39.4	-179.37	677.4	1,959.4	642.2	561.1	7.920		
7,500.0	6,985.0	7,374.3	6,985.0	44.3	39.5	-179.37	677.4	1,959.4	642.2	561.0	7.915		
7,600.0	7,085.0	7,474.3	7,085.0	44.3	39.5	-179.37	677.4	1,959.4	642.2	561.0	7.909		
7,700.0	7,185.0	7,574.3	7,185.0	44.3	39.5	-179.37	677.4	1,959.4	642.2	560.9	7.903		
7,800.0	7,285.0	7,674.3	7,285.0	44.3	39.5	-179.37	677.4	1,959.4	642.2	560.8	7.898		
7,900.0	7,385.0	7,774.3	7,385.0	44.4	39.6	-179.37	677.4	1,959.4	642.2	560.8	7.892		
8,000.0	7,485.0	7,874.3	7,485.0	44.4	39.6	-179.37	677.4	1,959.4	642.2	560.7	7.886		
8,100.0	7,585.0	7,974.3	7,585.0	44.4	39.6	-179.37	677.4	1,959.4	642.2	560.7	7.880		
8,200.0	7,685.0	8,074.3	7,685.0	44.4	39.7	-179.37	677.4	1,959.4	642.2	560.6	7.875		
8,300.0	7,785.0	8,174.3	7,785.0	44.5	39.7	-179.37	677.4	1,959.4	642.2	560.5	7.869		
8,400.0	7,885.0	8,274.3	7,885.0	44.5	39.7	-179.37	677.4	1,959.4	642.2	560.5	7.863		
8,500.0	7,985.0	8,374.3	7,985.0	44.5	39.7	-179.37	677.4	1,959.4	642.2	560.4	7.857		
8,600.0	8,085.0	8,474.3	8,085.0	44.5	39.8	-179.37	677.4	1,959.4	642.2	560.4	7.851		
8,700.0	8,185.0	8,574.3	8,185.0	44.6	39.8	-179.37	677.4	1,959.4	642.2	560.3	7.845		
8,800.0	8,285.0	8,674.3	8,285.0	44.6	39.8	-179.37	677.4	1,959.4	642.2	560.2	7.840		
8,900.0	8,385.0	8,774.3	8,385.0	44.6	39.9	-179.37	677.4	1,959.4	642.2	560.2	7.834		
9,000.0	8,485.0	8,874.3	8,485.0	44.6	39.9	-179.37	677.4	1,959.4	642.2	560.1	7.828		
9,100.0	8,585.0	8,974.3	8,585.0	44.7	39.9	-179.37	677.4	1,959.4	642.2	560.1	7.822		
9,200.0	8,685.0	9,074.3	8,685.0	44.7	40.0	-179.37	677.4	1,959.4	642.2	560.0	7.816		
9,215.6	8,700.6	9,089.9	8,700.6	44.7	40.0	-179.37	677.4	1,959.4	642.2	560.0	7.815		
9,224.0	8,709.0	9,097.1	8,707.8	44.7	40.0	-179.37	677.4	1,959.4	642.2	560.0	7.817		

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 0993-21-15W - Slot A6
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 0993-21-15W	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)				
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			
291.5	291.5	291.4	291.4	1.7	1.7	78.75	-20.5	21.9	29.8	26.5	9.046	CC, ES		
300.0	300.0	299.8	299.8	1.7	1.7	77.94	-20.5	22.0	29.9	26.6	9.014			
400.0	399.9	399.1	399.0	3.0	2.7	80.80	-19.9	25.1	30.9	26.6	7.220			
500.0	499.5	498.4	498.0	4.3	4.2	84.33	-18.3	32.5	33.4	28.2	6.398			
600.0	598.6	597.6	596.5	5.4	5.2	87.91	-15.8	44.0	37.7	31.8	6.366	SF		
700.0	697.1	696.7	694.4	6.3	6.2	91.11	-12.4	59.7	43.7	37.1	6.679			
800.0	794.7	795.8	791.3	7.1	7.0	93.73	-8.2	79.4	51.3	44.1	7.152			
900.0	891.3	894.6	887.1	7.9	7.7	95.76	-3.0	103.2	60.7	52.8	7.683			
1,000.0	986.7	993.3	981.6	8.6	8.4	97.27	2.9	131.0	71.6	62.9	8.213			
1,100.0	1,080.6	1,091.8	1,074.6	9.3	9.1	98.36	9.7	162.6	84.1	74.5	8.701			
1,200.0	1,173.0	1,190.3	1,166.4	9.9	9.4	99.36	17.3	197.8	98.2	87.5	9.194			
1,300.0	1,263.7	1,289.1	1,258.0	10.5	9.7	101.87	25.0	233.6	113.1	101.2	9.505			
1,400.0	1,353.3	1,387.6	1,349.5	10.9	10.0	105.03	32.7	269.4	128.9	115.6	9.716			
1,500.0	1,443.0	1,486.1	1,441.0	11.3	10.4	107.51	40.4	305.1	145.0	130.3	9.890			
1,600.0	1,532.7	1,584.6	1,532.5	11.6	10.7	109.48	48.1	340.9	161.3	145.2	10.042			
1,700.0	1,622.3	1,683.2	1,624.0	11.9	11.1	111.10	55.8	376.6	177.7	160.2	10.177			
1,800.0	1,712.0	1,781.7	1,715.5	12.3	11.4	112.44	63.5	412.4	194.2	175.4	10.299			
1,900.0	1,801.7	1,880.2	1,807.0	12.7	11.8	113.57	71.2	448.2	210.9	190.6	10.410			
2,000.0	1,891.3	1,978.8	1,898.4	13.0	12.2	114.54	78.9	483.9	227.6	205.9	10.511			
2,100.0	1,981.0	2,077.3	1,989.9	13.4	12.6	115.37	86.6	519.7	244.3	221.3	10.603			
2,200.0	2,070.7	2,175.8	2,081.4	13.8	13.0	116.10	94.3	555.4	261.1	236.7	10.686			
2,300.0	2,160.3	2,274.3	2,172.9	14.3	13.4	116.73	102.0	591.2	278.0	252.1	10.763			
2,400.0	2,250.0	2,372.9	2,264.4	14.7	13.9	117.30	109.7	626.9	294.8	267.6	10.832			
2,500.0	2,339.7	2,471.4	2,355.9	15.1	14.3	117.80	117.4	662.7	311.7	283.1	10.896			
2,600.0	2,429.4	2,569.9	2,447.4	15.8	14.7	118.26	125.1	698.5	328.6	298.6	10.955			
2,700.0	2,519.0	2,668.5	2,538.9	16.6	15.2	118.66	132.8	734.2	345.5	314.2	11.008			
2,800.0	2,608.7	2,767.0	2,630.3	17.4	15.6	119.03	140.5	770.0	362.5	329.7	11.058			
2,900.0	2,698.4	2,865.5	2,721.8	18.2	16.1	119.37	148.2	805.7	379.4	345.3	11.104			
3,000.0	2,788.0	2,964.0	2,813.3	19.0	16.7	119.68	155.9	841.5	396.4	360.8	11.146			
3,100.0	2,877.7	3,062.6	2,904.8	19.8	17.4	119.96	163.6	877.2	413.4	376.4	11.185			
3,200.0	2,967.4	3,161.1	2,996.3	20.6	18.1	120.22	171.3	913.0	430.4	392.0	11.222			
3,300.0	3,057.0	3,259.6	3,087.8	21.4	18.7	120.46	179.0	948.7	447.4	407.6	11.256			
3,400.0	3,146.7	3,358.2	3,179.3	22.2	19.4	120.69	186.7	984.5	464.4	423.2	11.287			
3,500.0	3,236.4	3,456.7	3,270.8	23.0	20.1	120.89	194.4	1,020.3	481.4	438.9	11.317			
3,600.0	3,326.1	3,555.2	3,362.3	23.8	20.7	121.09	202.1	1,056.0	498.4	454.5	11.344			
3,700.0	3,415.7	3,653.7	3,453.7	24.6	21.4	121.27	209.8	1,091.8	515.4	470.1	11.370			
3,800.0	3,505.4	3,752.3	3,545.2	25.4	22.1	121.44	217.5	1,127.5	532.4	485.7	11.394			
3,900.0	3,595.1	3,850.8	3,636.7	26.2	22.8	121.60	225.2	1,163.3	549.5	501.4	11.417			
4,000.0	3,684.7	3,949.3	3,728.2	27.1	23.4	121.74	232.9	1,199.0	566.5	517.0	11.439			
4,100.0	3,774.4	4,047.9	3,819.7	27.9	24.1	121.88	240.6	1,234.8	583.5	532.6	11.459			
4,200.0	3,864.1	4,146.4	3,911.2	28.7	24.8	122.02	248.2	1,270.6	600.6	548.3	11.478			
4,300.0	3,953.7	4,244.9	4,002.7	29.5	25.5	122.14	255.9	1,306.3	617.6	563.9	11.496			
4,400.0	4,043.4	4,343.4	4,094.2	30.3	26.2	122.26	263.6	1,342.1	634.7	579.5	11.514			
4,500.0	4,133.1	4,442.0	4,185.6	31.1	26.8	122.37	271.3	1,377.8	651.7	595.2	11.530			
4,600.0	4,222.7	4,540.5	4,277.1	31.9	27.5	122.48	279.0	1,413.6	668.8	610.8	11.545			
4,700.0	4,312.4	4,639.0	4,368.6	32.7	28.2	122.58	286.7	1,449.3	685.8	626.5	11.560			
4,800.0	4,402.1	4,737.6	4,460.1	33.5	28.9	122.68	294.4	1,485.1	702.9	642.1	11.574			
4,900.0	4,491.8	4,836.1	4,551.6	34.3	29.5	122.77	302.1	1,520.9	719.9	657.8	11.587			

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 0993-21-15W - Slot A6
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 0993-21-15W	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	4,581.4	4,934.6	4,643.1	35.1	30.2	122.85	309.8	1,556.6	737.0	673.5	11.600		
5,100.0	4,671.1	5,033.1	4,734.6	35.9	30.9	122.94	317.5	1,592.4	754.0	689.1	11.612		
5,200.0	4,760.8	5,131.7	4,826.1	36.7	31.6	123.02	325.2	1,628.1	771.1	704.8	11.624		
5,300.0	4,850.4	5,230.2	4,917.5	37.6	32.3	123.09	332.9	1,663.9	788.2	720.4	11.635		
5,400.0	4,940.1	5,328.7	5,009.0	38.4	32.9	123.17	340.6	1,699.6	805.2	736.1	11.645		
5,500.0	5,029.8	5,427.3	5,100.5	39.2	33.6	123.24	348.3	1,735.4	822.3	751.7	11.655		
5,600.0	5,119.5	5,525.8	5,192.0	40.0	34.3	123.37	356.0	1,771.2	839.3	767.4	11.666		
5,700.0	5,210.4	5,622.9	5,282.2	40.7	35.0	123.60	363.6	1,806.3	854.8	781.5	11.659		
5,800.0	5,303.1	5,714.1	5,367.8	41.4	35.5	123.73	370.2	1,837.0	868.5	793.9	11.652		
5,900.0	5,397.3	5,805.4	5,454.7	42.0	36.1	123.86	376.1	1,864.5	880.7	805.1	11.646		
6,000.0	5,492.9	5,900.0	5,545.8	42.5	36.5	123.96	381.4	1,889.3	891.4	814.8	11.635		
6,100.0	5,589.7	5,988.4	5,631.9	43.0	36.9	124.06	385.7	1,909.1	900.5	823.1	11.636		
6,200.0	5,687.5	6,080.1	5,721.9	43.3	37.2	124.13	389.4	1,926.3	908.1	830.0	11.631		
6,300.0	5,786.1	6,171.9	5,812.6	43.6	37.4	124.20	392.3	1,939.9	914.2	835.5	11.625		
6,400.0	5,885.3	6,263.7	5,903.8	43.8	37.6	124.24	394.5	1,949.9	918.7	839.6	11.618		
6,500.0	5,985.0	6,355.6	5,995.5	44.0	37.7	124.28	395.9	1,956.4	921.5	842.2	11.609		
6,600.0	6,085.0	6,447.6	6,087.4	44.0	37.8	124.29	396.5	1,959.3	922.9	843.3	11.600		
6,700.0	6,185.0	6,545.1	6,185.0	44.1	37.9	-179.56	396.5	1,959.5	923.0	843.3	11.594		
6,800.0	6,285.0	6,645.1	6,285.0	44.1	37.9	-179.56	396.5	1,959.5	923.0	843.3	11.586		
6,900.0	6,385.0	6,745.1	6,385.0	44.1	37.9	-179.56	396.5	1,959.5	923.0	843.2	11.578		
7,000.0	6,485.0	6,845.1	6,485.0	44.1	37.9	-179.56	396.5	1,959.5	923.0	843.2	11.570		
7,100.0	6,585.0	6,945.1	6,585.0	44.2	38.0	-179.56	396.5	1,959.5	923.0	843.1	11.562		
7,200.0	6,685.0	7,045.1	6,685.0	44.2	38.0	-179.56	396.5	1,959.5	923.0	843.1	11.553		
7,300.0	6,785.0	7,145.1	6,785.0	44.2	38.0	-179.56	396.5	1,959.5	923.0	843.0	11.545		
7,400.0	6,885.0	7,245.1	6,885.0	44.2	38.1	-179.56	396.5	1,959.5	923.0	843.0	11.537		
7,500.0	6,985.0	7,345.1	6,985.0	44.3	38.1	-179.56	396.5	1,959.5	923.0	842.9	11.528		
7,600.0	7,085.0	7,445.1	7,085.0	44.3	38.1	-179.56	396.5	1,959.5	923.0	842.8	11.520		
7,700.0	7,185.0	7,545.1	7,185.0	44.3	38.1	-179.56	396.5	1,959.5	923.0	842.8	11.512		
7,800.0	7,285.0	7,645.1	7,285.0	44.3	38.2	-179.56	396.5	1,959.5	923.0	842.7	11.503		
7,900.0	7,385.0	7,745.1	7,385.0	44.4	38.2	-179.56	396.5	1,959.5	923.0	842.7	11.495		
8,000.0	7,485.0	7,845.1	7,485.0	44.4	38.2	-179.56	396.5	1,959.5	923.0	842.6	11.486		
8,100.0	7,585.0	7,945.1	7,585.0	44.4	38.3	-179.56	396.5	1,959.5	923.0	842.5	11.478		
8,200.0	7,685.0	8,045.1	7,685.0	44.4	38.3	-179.56	396.5	1,959.5	923.0	842.5	11.469		
8,300.0	7,785.0	8,145.1	7,785.0	44.5	38.3	-179.56	396.5	1,959.5	923.0	842.4	11.461		
8,400.0	7,885.0	8,245.1	7,885.0	44.5	38.3	-179.56	396.5	1,959.5	923.0	842.4	11.453		
8,500.0	7,985.0	8,250.2	7,890.0	44.5	38.3	-179.56	396.5	1,959.5	927.8	848.4	11.686		
8,600.0	8,085.0	8,250.2	7,890.0	44.5	38.3	-179.56	396.5	1,959.5	943.3	865.8	12.173		
8,700.0	8,185.0	8,250.2	7,890.0	44.6	38.3	-179.56	396.5	1,959.5	968.9	893.9	12.907		
8,800.0	8,285.0	8,250.2	7,890.0	44.6	38.3	-179.56	396.5	1,959.5	1,003.9	931.6	13.886		
8,900.0	8,385.0	8,250.2	7,890.0	44.6	38.3	-179.56	396.5	1,959.5	1,047.3	977.9	15.099		
9,000.0	8,485.0	8,250.2	7,890.0	44.6	38.3	-179.56	396.5	1,959.5	1,098.1	1,031.7	16.535		
9,100.0	8,585.0	8,250.2	7,890.0	44.7	38.3	-179.56	396.5	1,959.5	1,155.3	1,091.8	18.176		
9,200.0	8,685.0	8,250.2	7,890.0	44.7	38.3	-179.56	396.5	1,959.5	1,218.1	1,157.2	20.001		
9,224.0	8,709.0	8,250.2	7,890.0	44.7	38.3	-179.56	396.5	1,959.5	1,233.9	1,173.6	20.466		

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

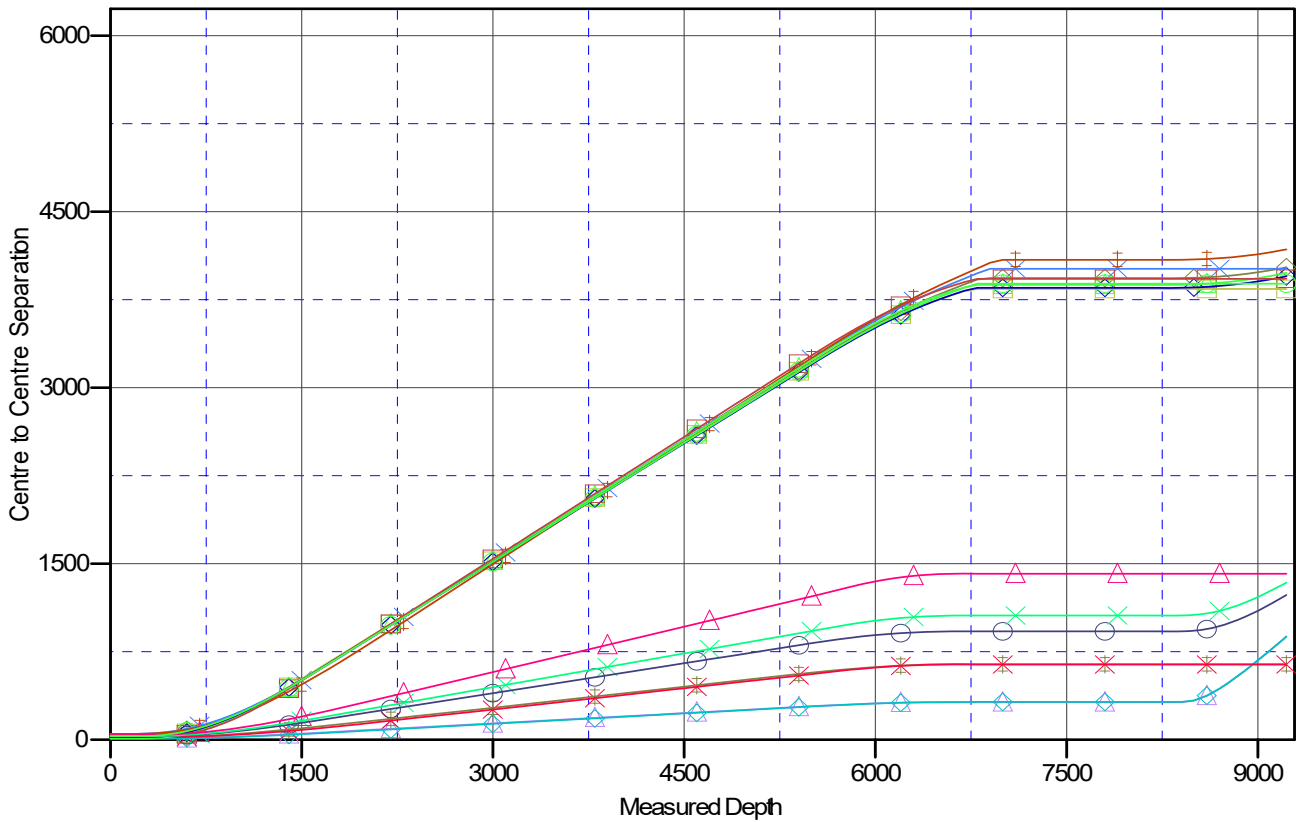


Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-15W - Slot A6
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-15W	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 0993-21-15W - Slot A6
 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 0993-20-12E, OH, Design #2 V0
- ◆ Laramie 29-01 Fed 0993-21-16W, OH, Design #2 V0
- ◆ Laramie 29-01 Fed 0993-21-17W, OH, Design #2 V0
- ◆ Laramie 29-01 0993-20-16E, OH, Design #2 V0
- ◆ Laramie 29-01 0993-20-11E, OH, Design #2 V0
- ◆ Laramie 29-01 Fed 0993-21-14W, OH, Design #2 V0
- ◆ Laramie 29-01 Fed 0993-21-13W, OH, Design #2 V0
- ◆ Laramie 29-01 Fed 0993-21-18W, OH, Design #2 V0
- ◆ Laramie 29-01 0993-20-18E, 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 0993-20-14E, OH, Design #2 V0
- ◆ Laramie 29-01 0993-20-15E, OH, Design #2 V0
- ◆ Laramie 29-01 0993-20-18E, OH, Design #2 V0
- ◆ Laramie 29-01 Fed 0993-21-12W, OH, Design #2 V0
- ◆ Laramie 29-01 Fed 0993-21-14E, OH, Design #2 V0

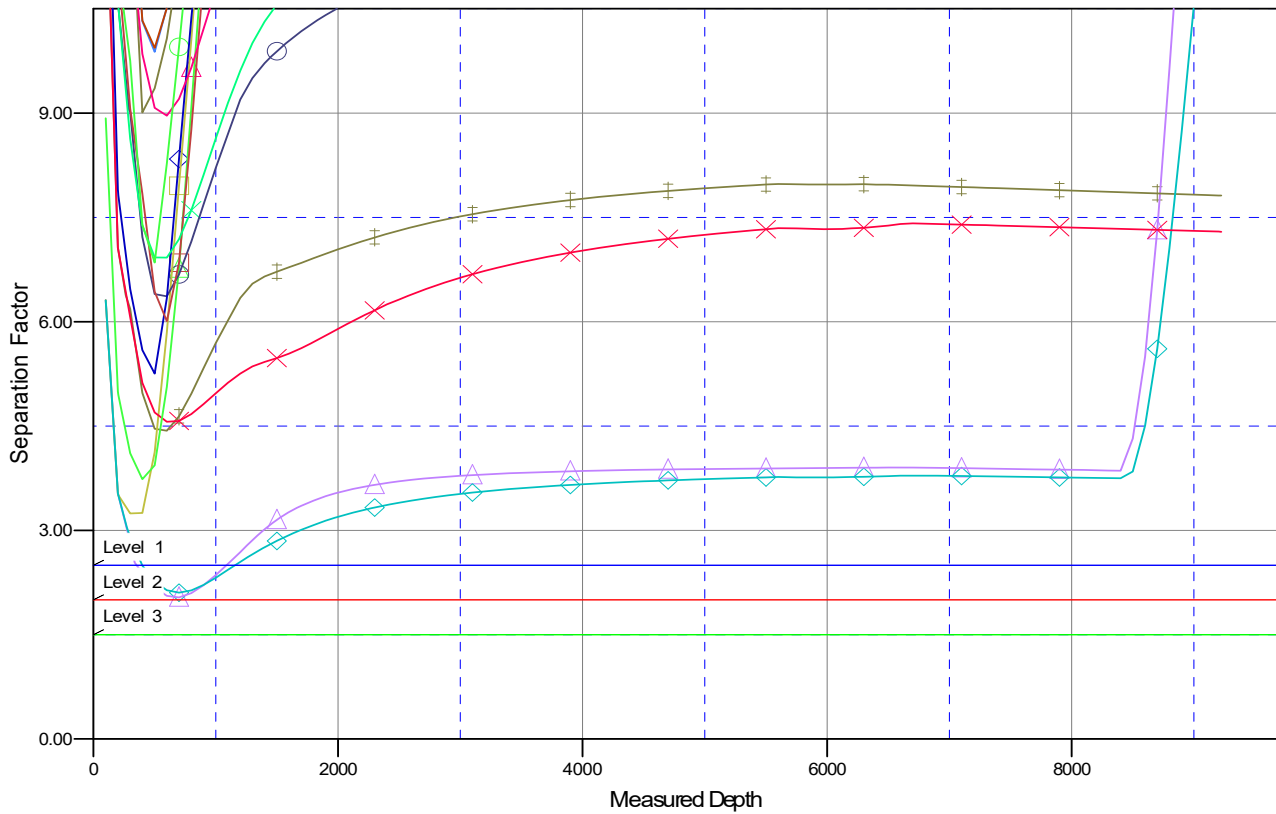


Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-15W - Slot A6
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-15W	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 0993-21-15W - Slot A6
 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 0993-21-14W, 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 0993-21-13W, 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