



Extraction Oil & Gas

**Weld Co., Co
Sec.28-T07N-R67W
Nelson Farm #1**

**Original Hole
Rev 0**

Anticollision Risk Report

28 May, 2014



Schlumberger

Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Reference	Rev 0		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations Interval 1.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 25,000.00usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Risk Settings		
Vertical Depth for Analysis:	usft	(Below TVD Reference Datum)
Level of Acceptable Risk (1 in):		
Minimum Separation:	0 usft	

Survey Tool Program		Date	5/28/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	15,083.00	Rev 0 (Original Hole)	Pathfinder	Pathfinder MWD	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec.28-T07N-R67W						
George Nelson #1 - Original Hole - Original Hole	600.00	585.00	1,548.42	1,545.38	509.353 CC, ES	
George Nelson #1 - Original Hole - Original Hole	4,500.00	4,338.00	1,988.16	1,965.12	86.324 SF	
Nelson Farm #10 - Original Hole - Rev 0	600.00	589.00	252.13	250.11	124.855 CC, ES	
Nelson Farm #10 - Original Hole - Rev 0	15,083.00	15,136.94	1,950.21	1,833.82	16.756 SF	
Nelson Farm #11 - Original Hole - Rev 0	600.00	588.00	280.18	278.16	138.868 CC, ES	
Nelson Farm #11 - Original Hole - Rev 0	15,083.00	14,983.20	2,117.03	2,000.98	18.241 SF	
Nelson Farm #12 - Original Hole - Rev 0	500.00	487.00	308.24	306.57	184.928 CC, ES	
Nelson Farm #12 - Original Hole - Rev 0	15,083.00	15,054.18	2,446.10	2,329.87	21.045 SF	
Nelson Farm #2 - Original Hole - Rev 0	600.00	599.00	28.06	26.02	13.777 CC, ES	
Nelson Farm #2 - Original Hole - Rev 0	15,083.00	14,888.41	242.53	153.01	2.709 SF	
Nelson Farm #3 - Original Hole - Rev 0	600.00	598.00	56.12	54.09	27.578 CC, ES	
Nelson Farm #3 - Original Hole - Rev 0	15,083.00	14,866.48	522.37	411.62	4.717 SF	
Nelson Farm #4 - Original Hole - Rev 0	600.00	597.00	84.17	82.13	41.395 CC, ES	
Nelson Farm #4 - Original Hole - Rev 0	15,083.00	15,044.39	650.31	534.04	5.593 SF	
Nelson Farm #5 - Original Hole - Rev 0	600.00	595.00	112.22	110.19	55.288 CC, ES	
Nelson Farm #5 - Original Hole - Rev 0	15,083.00	14,861.70	829.56	715.51	7.274 SF	
Nelson Farm #6 - Original Hole - Rev 0	600.00	594.00	140.28	138.25	69.168 CC, ES	
Nelson Farm #6 - Original Hole - Rev 0	15,083.00	14,872.44	1,153.60	1,038.51	10.023 SF	
Nelson Farm #7 - Original Hole - Rev 0	600.00	593.00	167.97	165.94	82.892 CC, ES	
Nelson Farm #7 - Original Hole - Rev 0	15,083.00	15,063.07	1,300.26	1,183.97	11.181 SF	
Nelson Farm #8 - Original Hole - Rev 0	600.00	592.00	196.02	193.99	96.820 CC, ES	
Nelson Farm #8 - Original Hole - Rev 0	15,083.00	14,894.35	1,470.63	1,355.06	12.726 SF	
Nelson Farm #9 - Original Hole - Rev 0	600.00	591.00	224.07	222.05	110.772 CC, ES	
Nelson Farm #9 - Original Hole - Rev 0	15,083.00	14,935.73	1,798.68	1,682.83	15.526 SF	

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



Schlumberger

Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - George Nelson #1 - Original Hole - Original Hole		Offset Site Error: 0.00 usft	
Survey Program: 4338-INC_ONLY<10															Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision				
0.00	0.00	0.00	0.00	0.00	0.00	89.44	1,548.49					0				
100.00	100.00	85.00	85.00	0.15	0.29	89.44	1,548.42	1,547.98	0.44	3,517.424	0					
200.00	200.00	185.00	185.00	0.32	0.64	89.44	1,548.42	1,547.46	0.96	1,612.658	0					
300.00	300.00	285.00	285.00	0.50	0.98	89.44	1,548.42	1,546.94	1.48	1,046.146	0					
400.00	400.00	385.00	385.00	0.67	1.33	89.44	1,548.42	1,546.42	2.00	774.183	0					
500.00	500.00	485.00	485.00	0.84	1.68	89.44	1,548.42	1,545.90	2.52	614.447	0					
600.00	600.00	585.00	585.00	1.02	2.02	89.44	1,548.42	1,545.38	3.04	509.353	0		CC, ES			
700.00	699.98	684.98	684.98	1.19	2.37	129.11	1,549.52	1,545.96	3.56	435.353	0					
800.00	799.84	784.84	784.84	1.37	2.71	129.20	1,552.83	1,548.75	4.08	380.890	0					
900.00	899.45	884.45	884.45	1.55	3.06	129.37	1,558.36	1,553.77	4.59	339.323	0					
1,000.00	998.70	983.70	983.70	1.73	3.40	129.59	1,566.14	1,561.04	5.11	306.716	0					
1,074.99	1,072.82	1,057.82	1,057.82	1.86	3.65	129.79	1,573.48	1,567.99	5.49	286.624	0					
1,100.00	1,097.48	1,082.48	1,082.48	1.91	3.74	129.91	1,576.14	1,570.52	5.62	280.462	0					
1,200.00	1,196.11	1,181.11	1,181.11	2.10	4.08	130.36	1,586.87	1,580.73	6.14	258.414	0					
1,300.00	1,294.74	1,279.74	1,279.74	2.28	4.42	130.81	1,597.69	1,591.03	6.66	239.801	0					
1,400.00	1,393.37	1,378.37	1,378.37	2.47	4.76	131.25	1,608.61	1,601.43	7.18	223.889	0					
1,500.00	1,492.00	1,477.00	1,477.00	2.66	5.10	131.69	1,619.62	1,611.92	7.71	210.135	0					
1,600.00	1,590.63	1,575.63	1,575.63	2.85	5.44	132.12	1,630.73	1,622.50	8.23	198.133	0					
1,700.00	1,689.26	1,674.26	1,674.26	3.04	5.78	132.54	1,641.93	1,633.18	8.75	187.572	0					
1,800.00	1,787.88	1,772.88	1,772.88	3.23	6.12	132.96	1,653.22	1,643.94	9.28	178.210	0					
1,900.00	1,886.51	1,871.51	1,871.51	3.43	6.46	133.37	1,664.59	1,654.79	9.80	169.857	0					
2,000.00	1,985.14	1,970.14	1,970.14	3.62	6.81	133.78	1,676.05	1,665.72	10.32	162.358	0					
2,100.00	2,083.77	2,068.77	2,068.77	3.81	7.15	134.18	1,687.59	1,676.74	10.85	155.591	0					
2,200.00	2,182.40	2,167.40	2,167.40	4.00	7.49	134.58	1,699.21	1,687.84	11.37	149.455	0					
2,300.00	2,281.03	2,266.03	2,266.03	4.20	7.83	134.97	1,710.92	1,699.03	11.89	143.867	0					
2,400.00	2,379.66	2,364.66	2,364.66	4.39	8.17	135.35	1,722.70	1,710.29	12.42	138.757	0					
2,500.00	2,478.28	2,463.28	2,463.28	4.58	8.51	135.73	1,734.56	1,721.62	12.94	134.067	0					
2,600.00	2,576.91	2,561.91	2,561.91	4.78	8.85	136.11	1,746.50	1,733.04	13.46	129.748	0					
2,700.00	2,675.54	2,660.54	2,660.54	4.97	9.19	136.48	1,758.51	1,744.52	13.98	125.759	0					
2,800.00	2,774.17	2,759.17	2,759.17	5.16	9.53	136.84	1,770.59	1,756.08	14.51	122.063	0					
2,900.00	2,872.80	2,857.80	2,857.80	5.36	9.87	137.21	1,782.74	1,767.71	15.03	118.630	0					
3,000.00	2,971.43	2,956.43	2,956.43	5.55	10.21	137.56	1,794.96	1,779.41	15.55	115.433	0					
3,100.00	3,070.06	3,055.06	3,055.06	5.74	10.55	137.91	1,807.25	1,791.18	16.07	112.449	0					
3,200.00	3,168.68	3,153.68	3,153.68	5.94	10.89	138.26	1,819.61	1,803.02	16.59	109.658	0					
3,300.00	3,267.31	3,252.31	3,252.31	6.13	11.23	138.60	1,832.03	1,814.92	17.12	107.042	0					
3,400.00	3,365.94	3,350.94	3,350.94	6.33	11.57	138.94	1,844.52	1,826.88	17.64	104.585	0					
3,500.00	3,464.57	3,449.57	3,449.57	6.52	11.92	139.27	1,857.07	1,838.91	18.16	102.273	0					
3,600.00	3,563.20	3,548.20	3,548.20	6.71	12.26	139.60	1,869.68	1,851.00	18.68	100.095	0					
3,700.00	3,661.83	3,646.83	3,646.83	6.91	12.60	139.92	1,882.35	1,863.15	19.20	98.038	0					
3,800.00	3,760.46	3,745.46	3,745.46	7.10	12.94	140.24	1,895.08	1,875.36	19.72	96.095	0					
3,900.00	3,859.08	3,844.08	3,844.08	7.30	13.28	140.56	1,907.87	1,887.63	20.24	94.254	0					
4,000.00	3,957.71	3,942.71	3,942.71	7.49	13.62	140.87	1,920.71	1,899.95	20.76	92.509	0					
4,100.00	4,056.34	4,041.34	4,041.34	7.68	13.96	141.17	1,933.61	1,912.33	21.28	90.853	0					
4,200.00	4,154.97	4,139.97	4,139.97	7.88	14.30	141.48	1,946.57	1,924.76	21.80	89.279	0					
4,300.00	4,253.60	4,238.60	4,238.60	8.07	14.64	141.78	1,959.57	1,937.25	22.32	87.781	0					
4,400.00	4,352.23	4,337.23	4,337.23	8.27	14.98	142.07	1,972.63	1,949.79	22.84	86.355	0					
4,500.00	4,450.86	4,338.00	4,338.00	8.46	14.98	142.07	1,988.16	1,965.12	23.03	86.324	0		SF			
4,600.00	4,549.48	4,338.00	4,338.00	8.66	14.98	142.07	2,008.54	1,985.32	23.22	86.512	0					
4,700.00	4,648.11	4,338.00	4,338.00	8.85	14.98	142.07	2,033.65	2,010.24	23.40	86.900	0					
4,800.00	4,746.74	4,338.00	4,338.00	9.05	14.98	142.07	2,063.30	2,039.71	23.59	87.473	0					
4,900.00	4,845.37	4,338.00	4,338.00	9.24	14.98	142.07	2,097.30	2,073.53	23.77	88.222	0					
5,000.00	4,944.00	4,338.00	4,338.00	9.43	14.98	142.07	2,135.45	2,111.49	23.96	89.131	0					
5,100.00	5,042.63	4,338.00	4,338.00	9.63	14.98	142.07	2,177.52	2,153.38	24.14	90.189	0					
5,200.00	5,141.26	4,338.00	4,338.00	9.82	14.98	142.07	2,223.31	2,198.98	24.33	91.383	0					

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - George Nelson #1 - Original Hole - Original Hole		Offset Site Error: 0.00 usft	
Survey Program: 4338-INC_ONLY<10															Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision				
5,300.00	5,239.89	4,338.00	4,338.00	10.02	14.98	142.07	2,272.57	2,248.05	24.51	92.702	0					
5,400.00	5,338.51	4,338.00	4,338.00	10.21	14.98	142.07	2,325.09	2,300.39	24.70	94.132	0					
5,500.00	5,437.14	4,338.00	4,338.00	10.41	14.98	142.07	2,380.65	2,355.77	24.89	95.663	0					
5,600.00	5,535.77	4,338.00	4,338.00	10.60	14.98	142.07	2,439.05	2,413.98	25.07	97.285	0					
5,700.00	5,634.40	4,338.00	4,338.00	10.80	14.98	142.07	2,500.09	2,474.84	25.26	98.987	0					
5,800.00	5,733.03	4,338.00	4,338.00	10.99	14.98	142.07	2,563.58	2,538.14	25.44	100.761	0					
5,900.00	5,831.66	4,338.00	4,338.00	11.19	14.98	142.07	2,629.34	2,603.71	25.63	102.597	0					
6,000.00	5,930.29	4,338.00	4,338.00	11.38	14.98	142.07	2,697.20	2,671.39	25.81	104.489	0					
6,100.00	6,028.91	4,338.00	4,338.00	11.57	14.98	142.07	2,767.01	2,741.01	26.00	106.428	0					
6,139.18	6,067.56	4,338.00	4,338.00	11.65	14.98	142.07	2,794.87	2,768.80	26.07	107.200	0					
6,200.00	6,127.64	4,338.00	4,338.00	11.77	14.98	142.83	2,838.28	2,812.08	26.20	108.324	0					
6,300.00	6,226.83	4,338.00	4,338.00	11.95	14.98	144.04	2,909.48	2,883.07	26.40	110.202	0					
6,400.00	6,326.40	4,338.00	4,338.00	12.13	14.98	145.20	2,980.39	2,953.80	26.58	112.119	0					
6,500.00	6,426.23	4,338.00	4,338.00	12.29	14.98	146.32	3,050.95	3,024.20	26.74	114.082	0					
6,600.00	6,526.20	4,338.00	4,338.00	12.46	14.98	147.40	3,121.10	3,094.21	26.88	116.097	0					
6,614.18	6,540.38	4,338.00	4,338.00	12.48	14.98	107.91	3,131.01	3,103.77	27.24	114.945	0					
6,700.00	6,626.20	4,338.00	4,338.00	12.62	14.98	107.91	3,191.55	3,164.17	27.38	116.565	0					
6,714.18	6,640.38	4,338.00	4,338.00	12.64	14.98	107.91	3,201.67	3,174.26	27.40	116.835	0					
6,750.00	6,676.18	4,338.00	4,338.00	12.70	14.98	16.97	3,226.68	3,199.62	27.06	119.240	0					
6,800.00	6,725.94	4,338.00	4,338.00	12.77	14.98	15.86	3,259.58	3,232.54	27.03	120.585	0					
6,850.00	6,775.18	4,338.00	4,338.00	12.84	14.98	14.94	3,290.01	3,263.05	26.96	122.023	0					
6,900.00	6,823.58	4,338.00	4,338.00	12.90	14.98	14.18	3,317.87	3,291.10	26.76	123.964	0					
6,950.00	6,870.85	4,338.00	4,338.00	12.96	14.98	13.55	3,343.04	3,316.60	26.44	126.429	0					
7,000.00	6,916.70	4,338.00	4,338.00	13.02	14.98	13.04	3,365.43	3,339.43	26.00	129.445	0					
7,050.00	6,960.84	4,338.00	4,338.00	13.07	14.98	12.61	3,384.96	3,359.52	25.44	133.046	0					
7,100.00	7,003.01	4,338.00	4,338.00	13.12	14.98	12.27	3,401.56	3,376.78	24.78	137.266	0					
7,150.00	7,042.95	4,338.00	4,338.00	13.18	14.98	12.00	3,415.18	3,391.15	24.03	142.143	0					
7,200.00	7,080.40	4,338.00	4,338.00	13.23	14.98	11.80	3,425.76	3,402.56	23.19	147.715	0					
7,250.00	7,115.14	4,338.00	4,338.00	13.28	14.98	11.66	3,433.26	3,410.97	22.29	154.006	0					
7,300.00	7,146.96	4,338.00	4,338.00	13.34	14.98	11.58	3,437.66	3,416.31	21.35	161.021	0					
7,350.00	7,175.65	4,338.00	4,338.00	13.40	14.98	11.56	3,438.95	3,418.57	20.38	168.718	0					
7,400.00	7,201.04	4,338.00	4,338.00	13.46	14.98	11.59	3,437.12	3,417.70	19.42	176.983	0					
7,450.00	7,222.97	4,338.00	4,338.00	13.53	14.98	11.68	3,432.17	3,413.68	18.50	185.572	0					
7,500.00	7,241.31	4,338.00	4,338.00	13.60	14.98	11.83	3,424.13	3,406.49	17.65	194.042	0					
7,550.00	7,255.95	4,338.00	4,338.00	13.68	14.98	12.04	3,413.02	3,396.10	16.92	201.657	0					
7,600.00	7,266.79	4,338.00	4,338.00	13.76	14.98	12.32	3,398.89	3,382.49	16.39	207.317	0					
7,650.00	7,273.77	4,338.00	4,338.00	13.86	14.98	12.68	3,381.77	3,365.64	16.13	209.658	0					
7,700.00	7,276.84	4,338.00	4,338.00	13.97	14.98	13.12	3,361.73	3,345.53	16.20	207.536	0					
7,714.18	7,277.00	4,338.00	4,338.00	14.00	14.98	13.26	3,355.53	3,339.25	16.28	206.065	0					
7,800.00	7,277.00	4,338.00	4,338.00	14.21	14.98	13.26	3,318.18	3,301.54	16.64	199.396	0					
7,900.00	7,277.00	4,338.00	4,338.00	14.49	14.98	13.26	3,276.97	3,259.91	17.06	192.091	0					
8,000.00	7,277.00	4,338.00	4,338.00	14.81	14.98	13.26	3,238.31	3,220.83	17.48	185.262	0					
8,100.00	7,277.00	4,338.00	4,338.00	15.15	14.98	13.26	3,202.32	3,184.42	17.90	178.884	0					
8,200.00	7,277.00	4,338.00	4,338.00	15.52	14.98	13.26	3,169.07	3,150.75	18.33	172.935	0					
8,300.00	7,277.00	4,338.00	4,338.00	15.91	14.98	13.26	3,138.66	3,119.91	18.75	167.393	0					
8,400.00	7,277.00	4,338.00	4,338.00	16.32	14.98	13.26	3,111.17	3,091.99	19.18	162.238	0					
8,500.00	7,277.00	4,338.00	4,338.00	16.75	14.98	13.26	3,086.67	3,067.06	19.60	157.450	0					
8,600.00	7,277.00	4,338.00	4,338.00	17.20	14.98	13.26	3,065.24	3,045.21	20.03	153.012	0					
8,700.00	7,277.00	4,338.00	4,338.00	17.67	14.98	13.26	3,046.94	3,026.48	20.46	148.905	0					
8,800.00	7,277.00	4,338.00	4,338.00	18.15	14.98	13.26	3,031.84	3,010.94	20.89	145.113	0					
8,900.00	7,277.00	4,338.00	4,338.00	18.64	14.98	13.26	3,019.97	2,998.64	21.32	141.621	0					
9,000.00	7,277.00	4,338.00	4,338.00	19.15	14.98	13.26	3,011.37	2,989.62	21.76	138.413	0					
9,100.00	7,277.00	4,338.00	4,338.00	19.67	14.98	13.26	3,006.08	2,983.89	22.19	135.474	0					
9,200.00	7,277.00	4,338.00	4,338.00	20.20	14.98	13.26	3,004.11	2,981.49	22.62	132.791	0					

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



Schlumberger

Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 4338-INC_ONLY<10												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision	
9,209.16	7,277.00	4,338.00	4,338.00	20.25	14.98	13.26	3,004.10	2,981.35	22.75	132.028	0		
9,300.00	7,277.00	4,338.00	4,338.00	20.74	14.98	13.26	3,005.47	2,982.42	23.06	130.349	0		
9,400.00	7,277.00	4,338.00	4,338.00	21.29	14.98	13.26	3,010.16	2,986.66	23.49	128.136	0		
9,500.00	7,277.00	4,338.00	4,338.00	21.85	14.98	13.26	3,018.15	2,994.22	23.93	126.139	0		
9,600.00	7,277.00	4,338.00	4,338.00	22.42	14.98	13.26	3,029.42	3,005.06	24.36	124.345	0		
9,700.00	7,277.00	4,338.00	4,338.00	22.99	14.98	13.26	3,043.94	3,019.14	24.80	122.743	0		
9,800.00	7,277.00	4,338.00	4,338.00	23.57	14.98	13.26	3,061.65	3,036.42	25.24	121.321	0		
9,900.00	7,277.00	4,338.00	4,338.00	24.16	14.98	13.26	3,082.51	3,056.84	25.67	120.068	0		
10,000.00	7,277.00	4,338.00	4,338.00	24.75	14.98	13.26	3,106.45	3,080.34	26.11	118.973	0		
10,100.00	7,277.00	4,338.00	4,338.00	25.35	14.98	13.26	3,133.40	3,106.86	26.55	118.026	0		
10,200.00	7,277.00	4,338.00	4,338.00	25.96	14.98	13.26	3,163.29	3,136.30	26.99	117.217	0		
10,300.00	7,277.00	4,338.00	4,338.00	26.57	14.98	13.26	3,196.02	3,168.60	27.43	116.536	0		
10,400.00	7,277.00	4,338.00	4,338.00	27.18	14.98	13.26	3,231.52	3,203.66	27.86	115.975	0		
10,500.00	7,277.00	4,338.00	4,338.00	27.80	14.98	13.26	3,269.69	3,241.39	28.30	115.524	0		
10,600.00	7,277.00	4,338.00	4,338.00	28.42	14.98	13.26	3,310.45	3,281.71	28.74	115.176	0		
10,700.00	7,277.00	4,338.00	4,338.00	29.05	14.98	13.26	3,353.69	3,324.51	29.18	114.923	0		
10,800.00	7,277.00	4,338.00	4,338.00	29.68	14.98	13.26	3,399.33	3,369.70	29.62	114.757	0		
10,900.00	7,277.00	4,338.00	4,338.00	30.31	14.98	13.26	3,447.26	3,417.20	30.06	114.671	0		
11,000.00	7,277.00	4,338.00	4,338.00	30.94	14.98	13.26	3,497.39	3,466.89	30.50	114.659	0		
11,100.00	7,277.00	4,338.00	4,338.00	31.58	14.98	13.26	3,549.64	3,518.69	30.94	114.715	0		
11,200.00	7,277.00	4,338.00	4,338.00	32.22	14.98	13.26	3,603.90	3,572.52	31.38	114.834	0		
11,300.00	7,277.00	4,338.00	4,338.00	32.87	14.98	13.26	3,660.09	3,628.27	31.82	115.008	0		
11,400.00	7,277.00	4,338.00	4,338.00	33.51	14.98	13.26	3,718.12	3,685.86	32.27	115.235	0		
11,500.00	7,277.00	4,338.00	4,338.00	34.16	14.98	13.26	3,777.91	3,745.20	32.71	115.508	0		
11,600.00	7,277.00	4,338.00	4,338.00	34.81	14.98	13.26	3,839.37	3,806.22	33.15	115.824	0		
11,700.00	7,277.00	4,338.00	4,338.00	35.46	14.98	13.26	3,902.43	3,868.84	33.59	116.179	0		
11,800.00	7,277.00	4,338.00	4,338.00	36.12	14.98	13.26	3,967.00	3,932.97	34.03	116.569	0		
11,900.00	7,277.00	4,338.00	4,338.00	36.78	14.98	13.26	4,033.03	3,998.55	34.47	116.990	0		
12,000.00	7,277.00	4,338.00	4,338.00	37.43	14.98	13.26	4,100.42	4,065.51	34.92	117.439	0		
12,100.00	7,277.00	4,338.00	4,338.00	38.09	14.98	13.26	4,169.13	4,133.77	35.36	117.914	0		
12,200.00	7,277.00	4,338.00	4,338.00	38.75	14.98	13.26	4,239.08	4,203.28	35.80	118.412	0		
12,300.00	7,277.00	4,338.00	4,338.00	39.42	14.98	13.26	4,310.22	4,273.98	36.24	118.929	0		
12,400.00	7,277.00	4,338.00	4,338.00	40.08	14.98	13.26	4,382.48	4,345.80	36.68	119.465	0		
12,500.00	7,277.00	4,338.00	4,338.00	40.75	14.98	13.26	4,455.82	4,418.69	37.13	120.016	0		
12,600.00	7,277.00	4,338.00	4,338.00	41.41	14.98	13.26	4,530.18	4,492.61	37.57	120.581	0		
12,700.00	7,277.00	4,338.00	4,338.00	42.08	14.98	13.26	4,605.50	4,567.49	38.01	121.159	0		
12,800.00	7,277.00	4,338.00	4,338.00	42.75	14.98	13.26	4,681.76	4,643.30	38.45	121.747	0		
12,900.00	7,277.00	4,338.00	4,338.00	43.42	14.98	13.26	4,758.89	4,719.99	38.90	122.343	0		
13,000.00	7,277.00	4,338.00	4,338.00	44.09	14.98	13.26	4,836.86	4,797.52	39.34	122.947	0		
13,100.00	7,277.00	4,338.00	4,338.00	44.76	14.98	13.26	4,915.62	4,875.84	39.78	123.558	0		
13,200.00	7,277.00	4,338.00	4,338.00	45.44	14.98	13.26	4,995.15	4,954.92	40.23	124.174	0		
13,300.00	7,277.00	4,338.00	4,338.00	46.11	14.98	13.26	5,075.40	5,034.73	40.67	124.794	0		
13,400.00	7,277.00	4,338.00	4,338.00	46.78	14.98	13.26	5,156.34	5,115.23	41.11	125.417	0		
13,500.00	7,277.00	4,338.00	4,338.00	47.46	14.98	13.26	5,237.94	5,196.39	41.56	126.043	0		
13,600.00	7,277.00	4,338.00	4,338.00	48.14	14.98	13.26	5,320.17	5,278.17	42.00	126.670	0		
13,700.00	7,277.00	4,338.00	4,338.00	48.81	14.98	13.26	5,403.00	5,360.55	42.44	127.298	0		
13,800.00	7,277.00	4,338.00	4,338.00	49.49	14.98	13.26	5,486.40	5,443.51	42.89	127.926	0		
13,900.00	7,277.00	4,338.00	4,338.00	50.17	14.98	13.26	5,570.34	5,527.01	43.33	128.553	0		
14,000.00	7,277.00	4,338.00	4,338.00	50.85	14.98	13.26	5,654.81	5,611.04	43.77	129.180	0		
14,100.00	7,277.00	4,338.00	4,338.00	51.53	14.98	13.26	5,739.78	5,695.56	44.22	129.805	0		
14,200.00	7,277.00	4,338.00	4,338.00	52.21	14.98	13.26	5,825.23	5,780.56	44.66	130.429	0		
14,300.00	7,277.00	4,338.00	4,338.00	52.89	14.98	13.26	5,911.13	5,866.02	45.11	131.050	0		
14,400.00	7,277.00	4,338.00	4,338.00	53.57	14.98	13.26	5,997.47	5,951.92	45.55	131.668	0		
14,500.00	7,277.00	4,338.00	4,338.00	54.26	14.98	13.26	6,084.22	6,038.23	45.99	132.284	0		

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



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design		Sec.28-T07N-R67W - George Nelson #1 - Original Hole - Original Hole										Offset Site Error:	0.00 usft
Survey Program: 4338-INC_ONLY<10												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning
14,600.00	7,277.00	4,338.00	4,338.00	54.94	14.98	13.26	6,171.38	6,124.94	46.44	132.896	0		
14,700.00	7,277.00	4,338.00	4,338.00	55.62	14.98	13.26	6,258.92	6,212.04	46.88	133.504	0		
14,800.00	7,277.00	4,338.00	4,338.00	56.31	14.98	13.26	6,346.83	6,299.51	47.33	134.109	0		
14,900.00	7,277.00	4,338.00	4,338.00	56.99	14.98	13.26	6,435.10	6,387.33	47.77	134.710	0		
15,000.00	7,277.00	4,338.00	4,338.00	57.67	14.98	13.26	6,523.70	6,475.48	48.21	135.307	0		
15,083.00	7,277.00	4,338.00	4,338.00	58.24	14.98	13.26	6,597.49	6,548.90	48.58	135.799	0		



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision	
0.00	0.00	0.00	0.00	0.00	0.00	-179.75	252.37				0		
100.00	100.00	89.00	89.00	0.15	0.13	-179.75	252.13	251.85	0.28	909.910	0		
200.00	200.00	189.00	189.00	0.32	0.30	-179.75	252.13	251.50	0.62	404.643	0		
300.00	300.00	289.00	289.00	0.50	0.48	-179.75	252.13	251.15	0.97	259.349	0		
400.00	400.00	389.00	389.00	0.67	0.65	-179.75	252.13	250.80	1.32	190.829	0		
500.00	500.00	489.00	489.00	0.84	0.83	-179.75	252.13	250.46	1.67	150.948	0		
600.00	600.00	589.00	589.00	1.02	1.00	-179.75	252.13	250.11	2.02	124.855	0		CC, ES
700.00	699.98	688.98	688.98	1.19	1.17	-140.36	253.47	251.10	2.37	107.033	0		
800.00	799.84	782.48	782.47	1.37	1.34	-140.85	258.61	255.91	2.71	95.596	0		
900.00	899.45	874.64	874.53	1.55	1.50	-141.34	269.22	266.18	3.04	88.556	0		
1,000.00	998.70	965.82	965.44	1.73	1.66	-141.81	285.26	281.89	3.37	84.552	0		
1,074.99	1,072.82	1,033.33	1,032.58	1.86	1.78	-142.11	300.81	297.18	3.62	83.028	0		
1,100.00	1,097.48	1,055.67	1,054.76	1.91	1.82	-142.27	306.57	302.86	3.71	82.688	0		
1,200.00	1,196.11	1,144.34	1,142.56	2.10	1.98	-142.66	331.19	327.15	4.05	81.870	0		
1,300.00	1,294.74	1,231.85	1,228.80	2.28	2.14	-142.75	358.30	353.92	4.38	81.764	0		
1,400.00	1,393.37	1,318.05	1,313.27	2.47	2.31	-142.60	387.82	383.11	4.72	82.206	0		
1,500.00	1,492.00	1,412.42	1,405.41	2.66	2.49	-142.33	418.71	413.65	5.07	82.608	0		
1,600.00	1,590.63	1,507.51	1,498.24	2.85	2.68	-142.09	449.62	444.20	5.42	82.923	0		
1,700.00	1,689.26	1,602.60	1,591.08	3.04	2.86	-141.88	480.53	474.75	5.78	83.187	0		
1,800.00	1,787.88	1,697.69	1,683.92	3.23	3.05	-141.70	511.45	505.31	6.13	83.410	0		
1,900.00	1,886.51	1,792.78	1,776.76	3.43	3.24	-141.54	542.37	535.88	6.49	83.600	0		
2,000.00	1,985.14	1,887.87	1,869.60	3.62	3.43	-141.40	573.29	566.45	6.84	83.764	0		
2,100.00	2,083.77	1,982.96	1,962.44	3.81	3.62	-141.27	604.22	597.02	7.20	83.907	0		
2,200.00	2,182.40	2,078.04	2,055.28	4.00	3.82	-141.15	635.15	627.59	7.56	84.032	0		
2,300.00	2,281.03	2,173.13	2,148.12	4.20	4.01	-141.05	666.08	658.16	7.92	84.143	0		
2,400.00	2,379.66	2,268.22	2,240.96	4.39	4.20	-140.95	697.01	688.74	8.27	84.241	0		
2,500.00	2,478.28	2,363.31	2,333.80	4.58	4.40	-140.86	727.94	719.31	8.63	84.328	0		
2,600.00	2,576.91	2,458.40	2,426.64	4.78	4.59	-140.78	758.88	749.89	8.99	84.407	0		
2,700.00	2,675.54	2,553.49	2,519.48	4.97	4.78	-140.71	789.82	780.47	9.35	84.477	0		
2,800.00	2,774.17	2,648.58	2,612.31	5.16	4.98	-140.64	820.76	811.05	9.71	84.541	0		
2,900.00	2,872.80	2,743.67	2,705.15	5.36	5.17	-140.58	851.70	841.63	10.07	84.600	0		
3,000.00	2,971.43	2,838.76	2,797.99	5.55	5.37	-140.52	882.64	872.21	10.43	84.653	0		
3,100.00	3,070.06	2,933.85	2,890.83	5.74	5.56	-140.46	913.58	902.79	10.79	84.701	0		
3,200.00	3,168.68	3,028.94	2,983.67	5.94	5.76	-140.41	944.52	933.37	11.15	84.746	0		
3,300.00	3,267.31	3,124.03	3,076.51	6.13	5.95	-140.36	975.46	963.96	11.50	84.787	0		
3,400.00	3,365.94	3,219.12	3,169.35	6.33	6.15	-140.32	1,006.41	994.54	11.86	84.825	0		
3,500.00	3,464.57	3,314.21	3,262.19	6.52	6.35	-140.27	1,037.35	1,025.12	12.22	84.861	0		
3,600.00	3,563.20	3,409.29	3,355.03	6.71	6.54	-140.23	1,068.29	1,055.71	12.58	84.893	0		
3,700.00	3,661.83	3,504.38	3,447.87	6.91	6.74	-140.19	1,099.24	1,086.29	12.94	84.924	0		
3,800.00	3,760.46	3,599.47	3,540.71	7.10	6.94	-140.16	1,130.18	1,116.88	13.30	84.952	0		
3,900.00	3,859.08	3,694.56	3,633.55	7.30	7.13	-140.12	1,161.13	1,147.46	13.66	84.979	0		
4,000.00	3,957.71	3,789.65	3,726.38	7.49	7.33	-140.09	1,192.07	1,178.05	14.02	85.004	0		
4,100.00	4,056.34	3,884.74	3,819.22	7.68	7.53	-140.06	1,223.02	1,208.64	14.38	85.027	0		
4,200.00	4,154.97	3,979.83	3,912.06	7.88	7.72	-140.03	1,253.97	1,239.22	14.74	85.049	0		
4,300.00	4,253.60	4,074.92	4,004.90	8.07	7.92	-140.00	1,284.91	1,269.81	15.10	85.069	0		
4,400.00	4,352.23	4,170.01	4,097.74	8.27	8.12	-139.98	1,315.86	1,300.40	15.46	85.089	0		
4,500.00	4,450.86	4,265.10	4,190.58	8.46	8.31	-139.95	1,346.81	1,330.98	15.82	85.107	0		
4,600.00	4,549.48	4,360.19	4,283.42	8.66	8.51	-139.93	1,377.75	1,361.57	16.19	85.125	0		
4,700.00	4,648.11	4,455.28	4,376.26	8.85	8.71	-139.91	1,408.70	1,392.16	16.55	85.141	0		
4,800.00	4,746.74	4,550.37	4,469.10	9.05	8.90	-139.88	1,439.65	1,422.74	16.91	85.157	0		
4,900.00	4,845.37	4,645.45	4,561.94	9.24	9.10	-139.86	1,470.60	1,453.33	17.27	85.172	0		
5,000.00	4,944.00	4,740.54	4,654.78	9.43	9.30	-139.84	1,501.55	1,483.92	17.63	85.186	0		
5,100.00	5,042.63	4,835.63	4,747.62	9.63	9.49	-139.82	1,532.49	1,514.51	17.99	85.199	0		
5,200.00	5,141.26	4,930.72	4,840.45	9.82	9.69	-139.80	1,563.44	1,545.10	18.35	85.212	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #10 - Original Hole - Rev 0		Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision				
5,300.00	5,239.89	5,025.81	4,933.29	10.02	9.89	-139.79	1,594.39	1,575.68	18.71	85.224	0					
5,400.00	5,338.51	5,120.90	5,026.13	10.21	10.09	-139.77	1,625.34	1,606.27	19.07	85.236	0					
5,500.00	5,437.14	5,215.99	5,118.97	10.41	10.28	-139.75	1,656.29	1,636.86	19.43	85.247	0					
5,600.00	5,535.77	5,311.08	5,211.81	10.60	10.48	-139.74	1,687.24	1,667.45	19.79	85.258	0					
5,700.00	5,634.40	5,406.17	5,304.65	10.80	10.68	-139.72	1,718.19	1,698.04	20.15	85.268	0					
5,800.00	5,733.03	5,501.26	5,397.49	10.99	10.88	-139.71	1,749.14	1,728.63	20.51	85.278	0					
5,900.00	5,831.66	5,596.35	5,490.33	11.19	11.07	-139.69	1,780.09	1,759.21	20.87	85.287	0					
6,000.00	5,930.29	5,691.44	5,583.17	11.38	11.27	-139.68	1,811.04	1,789.80	21.23	85.296	0					
6,100.00	6,028.91	5,786.53	5,676.01	11.57	11.47	-139.66	1,841.98	1,820.39	21.59	85.305	0					
6,139.18	6,067.56	5,823.79	5,712.39	11.65	11.55	-139.66	1,854.11	1,832.38	21.73	85.308	0					
6,200.00	6,127.64	5,881.76	5,768.99	11.77	11.67	-139.89	1,872.46	1,850.48	21.98	85.177	0					
6,300.00	6,226.83	5,977.68	5,862.63	11.95	11.86	-140.17	1,900.59	1,878.21	22.38	84.917	0					
6,400.00	6,326.40	6,124.88	6,006.63	12.13	12.16	-140.28	1,925.66	1,902.79	22.86	84.226	0					
6,500.00	6,426.23	6,360.20	6,239.37	12.29	12.60	-140.23	1,942.59	1,919.11	23.48	82.733	0					
6,600.00	6,526.20	6,600.84	6,479.46	12.46	13.00	-140.19	1,949.77	1,925.69	24.07	80.989	0					
6,614.18	6,540.38	6,635.14	6,513.76	12.48	13.05	-179.82	1,949.98	1,925.08	24.90	78.303	0					
6,700.00	6,626.20	6,736.59	6,615.20	12.62	13.21	-179.82	1,950.02	1,924.82	25.21	77.364	0					
6,714.18	6,640.38	6,750.77	6,629.38	12.64	13.23	-179.82	1,950.02	1,924.77	25.25	77.224	0					
6,750.00	6,676.18	6,786.84	6,665.45	12.70	13.28	90.19	1,950.02	1,925.39	24.63	79.168	0					
6,800.00	6,725.94	6,837.39	6,715.83	12.77	13.36	90.22	1,950.03	1,925.25	24.78	78.685	0					
6,850.00	6,775.18	6,888.01	6,765.80	12.84	13.42	90.24	1,950.03	1,925.11	24.92	78.237	0					
6,900.00	6,823.58	6,938.69	6,815.03	12.90	13.49	90.26	1,950.03	1,924.98	25.06	77.821	0					
6,950.00	6,870.85	6,989.42	6,863.22	12.96	13.54	90.28	1,950.04	1,924.85	25.18	77.434	0					
7,000.00	6,916.70	7,040.21	6,910.03	13.02	13.60	90.30	1,950.04	1,924.74	25.30	77.069	0					
7,050.00	6,960.84	7,091.05	6,955.18	13.07	13.65	90.32	1,950.04	1,924.63	25.42	76.722	0					
7,100.00	7,003.01	7,141.93	6,998.35	13.12	13.71	90.33	1,950.05	1,924.52	25.53	76.387	0					
7,150.00	7,042.95	7,192.85	7,039.26	13.18	13.76	90.34	1,950.05	1,924.41	25.64	76.057	0					
7,200.00	7,080.40	7,243.79	7,077.65	13.23	13.81	90.35	1,950.05	1,924.30	25.75	75.725	0					
7,250.00	7,115.14	7,294.76	7,113.26	13.28	13.86	90.36	1,950.05	1,924.18	25.87	75.384	0					
7,300.00	7,146.96	7,345.75	7,145.84	13.34	13.92	90.37	1,950.05	1,924.06	25.99	75.028	0					
7,350.00	7,175.65	7,396.76	7,175.19	13.40	13.97	90.37	1,950.05	1,923.93	26.12	74.649	0					
7,400.00	7,201.04	7,447.76	7,201.12	13.46	14.03	90.37	1,950.05	1,923.79	26.27	74.241	0					
7,450.00	7,222.97	7,498.77	7,223.44	13.53	14.10	90.37	1,950.05	1,923.63	26.42	73.799	0					
7,500.00	7,241.31	7,549.77	7,242.03	13.60	14.17	90.36	1,950.05	1,923.46	26.60	73.321	0					
7,550.00	7,255.95	7,600.75	7,256.75	13.68	14.25	90.36	1,950.05	1,923.27	26.79	72.803	0					
7,600.00	7,266.79	7,651.72	7,267.51	13.76	14.33	90.35	1,950.05	1,923.06	26.99	72.246	0					
7,650.00	7,273.77	7,702.65	7,274.26	13.86	14.43	90.34	1,950.05	1,922.83	27.22	71.652	0					
7,700.00	7,276.84	7,753.56	7,276.95	13.97	14.53	90.33	1,950.05	1,922.59	27.46	71.024	0					
7,714.09	7,277.00	7,767.79	7,277.00	14.00	14.56	90.32	1,950.05	1,922.52	27.53	70.841	0					
7,714.18	7,277.00	7,767.88	7,277.00	14.00	14.56	90.32	1,950.05	1,922.52	27.53	70.840	0					
7,800.00	7,277.00	7,853.70	7,277.00	14.21	14.76	90.32	1,950.05	1,922.06	27.98	69.683	0					
7,900.00	7,277.00	7,953.70	7,277.00	14.49	15.02	90.32	1,950.05	1,921.48	28.57	68.259	0					
8,000.00	7,277.00	8,053.70	7,277.00	14.81	15.31	90.32	1,950.05	1,920.84	29.21	66.763	0					
8,100.00	7,277.00	8,153.70	7,277.00	15.15	15.64	90.32	1,950.05	1,920.15	29.90	65.217	0					
8,200.00	7,277.00	8,253.70	7,277.00	15.52	15.99	90.32	1,950.05	1,919.40	30.64	63.639	0					
8,300.00	7,277.00	8,353.70	7,277.00	15.91	16.37	90.32	1,950.05	1,918.62	31.43	62.045	0					
8,400.00	7,277.00	8,453.70	7,277.00	16.32	16.77	90.32	1,950.05	1,917.79	32.26	60.450	0					
8,500.00	7,277.00	8,553.70	7,277.00	16.75	17.19	90.32	1,950.05	1,916.92	33.13	58.866	0					
8,600.00	7,277.00	8,653.70	7,277.00	17.20	17.63	90.32	1,950.05	1,916.02	34.03	57.302	0					
8,700.00	7,277.00	8,753.70	7,277.00	17.67	18.08	90.32	1,950.05	1,915.08	34.97	55.765	0					
8,800.00	7,277.00	8,853.70	7,277.00	18.15	18.55	90.32	1,950.05	1,914.11	35.94	54.263	0					
8,900.00	7,277.00	8,953.70	7,277.00	18.64	19.04	90.32	1,950.05	1,913.12	36.93	52.799	0					
9,000.00	7,277.00	9,053.70	7,277.00	19.15	19.54	90.32	1,950.05	1,912.10	37.96	51.376	0					
9,100.00	7,277.00	9,153.70	7,277.00	19.67	20.05	90.32	1,950.05	1,911.05	39.00	49.998	0					

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #10 - Original Hole - Rev 0		Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision				
9,200.00	7,277.00	9,253.70	7,277.00	20.20	20.57	90.32	1,950.05	1,909.98	40.07	48.665	0					
9,300.00	7,277.00	9,353.70	7,277.00	20.74	21.10	90.32	1,950.05	1,908.89	41.16	47.377	0					
9,400.00	7,277.00	9,453.70	7,277.00	21.29	21.64	90.32	1,950.06	1,907.79	42.27	46.136	0					
9,500.00	7,277.00	9,553.70	7,277.00	21.85	22.20	90.32	1,950.06	1,906.66	43.39	44.939	0					
9,600.00	7,277.00	9,653.70	7,277.00	22.42	22.75	90.32	1,950.06	1,905.52	44.53	43.788	0					
9,700.00	7,277.00	9,753.70	7,277.00	22.99	23.32	90.32	1,950.06	1,904.37	45.69	42.680	0					
9,800.00	7,277.00	9,853.70	7,277.00	23.57	23.90	90.32	1,950.06	1,903.20	46.86	41.615	0					
9,900.00	7,277.00	9,953.70	7,277.00	24.16	24.48	90.32	1,950.06	1,902.02	48.04	40.590	0					
10,000.00	7,277.00	10,053.70	7,277.00	24.75	25.07	90.32	1,950.06	1,900.83	49.24	39.606	0					
10,100.00	7,277.00	10,153.70	7,277.00	25.35	25.66	90.32	1,950.06	1,899.62	50.44	38.660	0					
10,200.00	7,277.00	10,253.70	7,277.00	25.96	26.26	90.32	1,950.07	1,898.41	51.66	37.750	0					
10,300.00	7,277.00	10,353.70	7,277.00	26.57	26.86	90.32	1,950.07	1,897.19	52.88	36.876	0					
10,400.00	7,277.00	10,453.70	7,277.00	27.18	27.47	90.32	1,950.07	1,895.95	54.12	36.035	0					
10,500.00	7,277.00	10,553.70	7,277.00	27.80	28.08	90.32	1,950.07	1,894.71	55.36	35.226	0					
10,600.00	7,277.00	10,653.70	7,277.00	28.42	28.70	90.32	1,950.07	1,893.46	56.61	34.449	0					
10,700.00	7,277.00	10,753.70	7,277.00	29.05	29.32	90.32	1,950.07	1,892.21	57.87	33.700	0					
10,800.00	7,277.00	10,853.70	7,277.00	29.68	29.95	90.32	1,950.08	1,890.95	59.13	32.980	0					
10,900.00	7,277.00	10,953.70	7,277.00	30.31	30.57	90.32	1,950.08	1,889.68	60.40	32.287	0					
11,000.00	7,277.00	11,053.70	7,277.00	30.94	31.20	90.32	1,950.08	1,888.41	61.68	31.619	0					
11,100.00	7,277.00	11,153.70	7,277.00	31.58	31.84	90.32	1,950.08	1,887.13	62.96	30.975	0					
11,200.00	7,277.00	11,253.70	7,277.00	32.22	32.48	90.32	1,950.09	1,885.84	64.24	30.354	0					
11,300.00	7,277.00	11,353.70	7,277.00	32.87	33.12	90.32	1,950.09	1,884.55	65.54	29.756	0					
11,400.00	7,277.00	11,453.70	7,277.00	33.51	33.76	90.32	1,950.09	1,883.26	66.83	29.179	0					
11,500.00	7,277.00	11,553.70	7,277.00	34.16	34.40	90.32	1,950.09	1,881.96	68.13	28.622	0					
11,600.00	7,277.00	11,653.70	7,277.00	34.81	35.05	90.32	1,950.09	1,880.66	69.44	28.084	0					
11,700.00	7,277.00	11,753.70	7,277.00	35.46	35.70	90.32	1,950.10	1,879.35	70.75	27.564	0					
11,800.00	7,277.00	11,853.70	7,277.00	36.12	36.35	90.32	1,950.10	1,878.04	72.06	27.062	0					
11,900.00	7,277.00	11,953.70	7,277.00	36.78	37.00	90.32	1,950.10	1,876.73	73.38	26.577	0					
12,000.00	7,277.00	12,053.70	7,277.00	37.43	37.66	90.32	1,950.10	1,875.41	74.70	26.107	0					
12,100.00	7,277.00	12,153.70	7,277.00	38.09	38.31	90.32	1,950.11	1,874.09	76.02	25.653	0					
12,200.00	7,277.00	12,253.70	7,277.00	38.75	38.97	90.32	1,950.11	1,872.77	77.34	25.214	0					
12,300.00	7,277.00	12,353.70	7,277.00	39.42	39.63	90.32	1,950.11	1,871.44	78.67	24.788	0					
12,400.00	7,277.00	12,453.70	7,277.00	40.08	40.29	90.32	1,950.12	1,870.11	80.00	24.375	0					
12,500.00	7,277.00	12,553.70	7,277.00	40.75	40.95	90.32	1,950.12	1,868.78	81.34	23.976	0					
12,600.00	7,277.00	12,653.70	7,277.00	41.41	41.62	90.32	1,950.12	1,867.45	82.67	23.588	0					
12,700.00	7,277.00	12,753.70	7,277.00	42.08	42.28	90.32	1,950.13	1,866.11	84.01	23.213	0					
12,800.00	7,277.00	12,853.70	7,277.00	42.75	42.95	90.32	1,950.13	1,864.78	85.35	22.848	0					
12,900.00	7,277.00	12,953.70	7,277.00	43.42	43.62	90.32	1,950.13	1,863.44	86.69	22.494	0					
13,000.00	7,277.00	13,053.70	7,277.00	44.09	44.29	90.32	1,950.14	1,862.10	88.04	22.151	0					
13,100.00	7,277.00	13,153.70	7,277.00	44.76	44.96	90.32	1,950.14	1,860.75	89.39	21.817	0					
13,200.00	7,277.00	13,253.70	7,277.00	45.44	45.63	90.32	1,950.14	1,859.41	90.73	21.493	0					
13,300.00	7,277.00	13,353.70	7,277.00	46.11	46.30	90.32	1,950.15	1,858.06	92.09	21.178	0					
13,400.00	7,277.00	13,453.70	7,277.00	46.78	46.97	90.32	1,950.15	1,856.71	93.44	20.871	0					
13,500.00	7,277.00	13,553.70	7,277.00	47.46	47.65	90.32	1,950.15	1,855.36	94.79	20.573	0					
13,600.00	7,277.00	13,653.70	7,277.00	48.14	48.32	90.32	1,950.16	1,854.01	96.15	20.283	0					
13,700.00	7,277.00	13,753.70	7,277.00	48.81	48.99	90.32	1,950.16	1,852.66	97.50	20.001	0					
13,800.00	7,277.00	13,853.70	7,277.00	49.49	49.67	90.32	1,950.16	1,851.30	98.86	19.726	0					
13,900.00	7,277.00	13,953.70	7,277.00	50.17	50.35	90.32	1,950.17	1,849.95	100.22	19.459	0					
14,000.00	7,277.00	14,053.70	7,277.00	50.85	51.03	90.32	1,950.17	1,848.59	101.58	19.198	0					
14,100.00	7,277.00	14,153.70	7,277.00	51.53	51.70	90.32	1,950.18	1,847.23	102.94	18.944	0					
14,200.00	7,277.00	14,253.70	7,277.00	52.21	52.38	90.32	1,950.18	1,845.87	104.31	18.697	0					
14,300.00	7,277.00	14,353.70	7,277.00	52.89	53.06	90.32	1,950.18	1,844.51	105.67	18.455	0					
14,400.00	7,277.00	14,453.70	7,277.00	53.57	53.74	90.32	1,950.19	1,843.15	107.03	18.220	0					
14,500.00	7,277.00	14,553.70	7,277.00	54.26	54.42	90.32	1,950.19	1,841.79	108.40	17.990	0					

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



Schlumberger
Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #10 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
14,600.00	7,277.00	14,653.70	7,277.00	54.94	55.10	90.32	1,950.20	1,840.43	109.77	17.766	0			
14,700.00	7,277.00	14,753.70	7,277.00	55.62	55.79	90.32	1,950.20	1,839.06	111.14	17.548	0			
14,800.00	7,277.00	14,853.70	7,277.00	56.31	56.47	90.32	1,950.20	1,837.70	112.51	17.334	0			
14,900.00	7,277.00	14,953.70	7,277.00	56.99	57.15	90.32	1,950.21	1,836.33	113.88	17.126	0			
15,000.00	7,277.00	15,053.70	7,277.00	57.67	57.83	90.32	1,950.21	1,834.97	115.25	16.922	0			
15,083.00	7,277.00	15,136.94	7,277.00	58.24	58.40	90.32	1,950.21	1,833.82	116.39	16.756	0		SF	



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
0.00	0.00	0.00	0.00	0.00	0.00	-179.76	280.44							
100.00	100.00	88.00	88.00	0.15	0.13	-179.76	280.18	279.90	0.28	1,016.532	0			
200.00	200.00	188.00	188.00	0.32	0.30	-179.76	280.18	279.56	0.62	450.929	0			
300.00	300.00	288.00	288.00	0.50	0.47	-179.76	280.18	279.21	0.97	288.724	0			
400.00	400.00	388.00	388.00	0.67	0.65	-179.76	280.18	278.86	1.32	212.342	0			
500.00	500.00	488.00	488.00	0.84	0.82	-179.76	280.18	278.51	1.67	167.919	0			
600.00	600.00	588.00	588.00	1.02	1.00	-179.76	280.18	278.16	2.02	138.868	0		CC, ES	
700.00	699.98	680.91	680.90	1.19	1.16	-140.20	282.62	280.27	2.35	120.062	0			
800.00	799.84	772.47	772.36	1.37	1.32	-140.33	290.56	287.88	2.69	108.111	0			
900.00	899.45	863.22	862.85	1.55	1.48	-140.51	303.98	300.96	3.02	100.655	0			
1,000.00	998.70	952.78	951.89	1.73	1.64	-140.71	322.82	319.47	3.35	96.329	0			
1,074.99	1,072.82	1,018.92	1,017.43	1.86	1.76	-140.86	340.44	336.84	3.60	94.607	0			
1,100.00	1,097.48	1,040.78	1,039.04	1.91	1.80	-140.98	346.89	343.21	3.68	94.201	0			
1,200.00	1,196.11	1,127.42	1,124.45	2.10	1.96	-141.29	374.30	370.28	4.02	93.163	0			
1,300.00	1,294.74	1,212.76	1,208.10	2.28	2.13	-141.36	404.21	399.86	4.35	92.885	0			
1,400.00	1,393.37	1,296.66	1,289.81	2.47	2.29	-141.26	436.57	431.88	4.68	93.195	0			
1,500.00	1,492.00	1,389.47	1,379.82	2.66	2.48	-141.06	470.39	465.35	5.03	93.445	0			
1,600.00	1,590.63	1,483.56	1,471.07	2.85	2.67	-140.87	504.23	498.84	5.39	93.608	0			
1,700.00	1,689.26	1,577.65	1,562.31	3.04	2.86	-140.72	538.07	532.33	5.74	93.735	0			
1,800.00	1,787.88	1,671.74	1,653.55	3.23	3.05	-140.58	571.92	565.83	6.09	93.837	0			
1,900.00	1,886.51	1,765.83	1,744.80	3.43	3.25	-140.45	605.77	599.32	6.45	93.918	0			
2,000.00	1,985.14	1,859.91	1,836.04	3.62	3.45	-140.34	639.63	632.82	6.81	93.984	0			
2,100.00	2,083.77	1,954.00	1,927.28	3.81	3.64	-140.24	673.48	666.32	7.16	94.037	0			
2,200.00	2,182.40	2,048.09	2,018.53	4.00	3.84	-140.15	707.34	699.82	7.52	94.081	0			
2,300.00	2,281.03	2,142.18	2,109.77	4.20	4.04	-140.07	741.20	733.32	7.88	94.116	0			
2,400.00	2,379.66	2,236.27	2,201.02	4.39	4.24	-140.00	775.06	766.83	8.23	94.146	0			
2,500.00	2,478.28	2,330.36	2,292.26	4.58	4.44	-139.93	808.92	800.33	8.59	94.170	0			
2,600.00	2,576.91	2,424.45	2,383.50	4.78	4.64	-139.86	842.78	833.83	8.95	94.190	0			
2,700.00	2,675.54	2,518.53	2,474.75	4.97	4.84	-139.81	876.64	867.34	9.31	94.207	0			
2,800.00	2,774.17	2,612.62	2,565.99	5.16	5.04	-139.75	910.51	900.84	9.66	94.220	0			
2,900.00	2,872.80	2,706.71	2,657.23	5.36	5.24	-139.70	944.37	934.35	10.02	94.232	0			
3,000.00	2,971.43	2,800.80	2,748.48	5.55	5.44	-139.66	978.24	967.86	10.38	94.241	0			
3,100.00	3,070.06	2,894.89	2,839.72	5.74	5.64	-139.61	1,012.10	1,001.36	10.74	94.249	0			
3,200.00	3,168.68	2,988.98	2,930.96	5.94	5.84	-139.57	1,045.97	1,034.87	11.10	94.255	0			
3,300.00	3,267.31	3,083.07	3,022.21	6.13	6.04	-139.53	1,079.83	1,068.38	11.46	94.260	0			
3,400.00	3,365.94	3,177.15	3,113.45	6.33	6.24	-139.50	1,113.70	1,101.89	11.81	94.264	0			
3,500.00	3,464.57	3,271.24	3,204.69	6.52	6.44	-139.47	1,147.57	1,135.39	12.17	94.267	0			
3,600.00	3,563.20	3,365.33	3,295.94	6.71	6.65	-139.43	1,181.43	1,168.90	12.53	94.269	0			
3,700.00	3,661.83	3,459.42	3,387.18	6.91	6.85	-139.40	1,215.30	1,202.41	12.89	94.271	0			
3,800.00	3,760.46	3,553.51	3,478.42	7.10	7.05	-139.38	1,249.17	1,235.92	13.25	94.272	0			
3,900.00	3,859.08	3,647.60	3,569.67	7.30	7.25	-139.35	1,283.04	1,269.43	13.61	94.273	0			
4,000.00	3,957.71	3,741.69	3,660.91	7.49	7.45	-139.32	1,316.91	1,302.94	13.97	94.273	0			
4,100.00	4,056.34	3,835.77	3,752.16	7.68	7.66	-139.30	1,350.77	1,336.45	14.33	94.273	0			
4,200.00	4,154.97	3,929.86	3,843.40	7.88	7.86	-139.28	1,384.64	1,369.95	14.69	94.273	0			
4,300.00	4,253.60	4,023.95	3,934.64	8.07	8.06	-139.25	1,418.51	1,403.46	15.05	94.272	0			
4,400.00	4,352.23	4,118.04	4,025.89	8.27	8.26	-139.23	1,452.38	1,436.97	15.41	94.272	0			
4,500.00	4,450.86	4,212.13	4,117.13	8.46	8.47	-139.21	1,486.25	1,470.48	15.77	94.271	0			
4,600.00	4,549.48	4,306.22	4,208.37	8.66	8.67	-139.19	1,520.12	1,503.99	16.13	94.270	0			
4,700.00	4,648.11	4,400.30	4,299.62	8.85	8.87	-139.18	1,553.99	1,537.50	16.48	94.269	0			
4,800.00	4,746.74	4,494.39	4,390.86	9.05	9.07	-139.16	1,587.86	1,571.01	16.84	94.267	0			
4,900.00	4,845.37	4,588.48	4,482.10	9.24	9.28	-139.14	1,621.73	1,604.52	17.20	94.266	0			
5,000.00	4,944.00	4,682.57	4,573.35	9.43	9.48	-139.13	1,655.60	1,638.03	17.56	94.264	0			
5,100.00	5,042.63	4,776.66	4,664.59	9.63	9.68	-139.11	1,689.47	1,671.54	17.92	94.263	0			
5,200.00	5,141.26	4,870.75	4,755.83	9.82	9.89	-139.10	1,723.34	1,705.05	18.28	94.261	0			

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16")
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16")
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #11 - Original Hole - Rev 0		Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision				
5,300.00	5,239.89	4,964.84	4,847.08	10.02	10.09	-139.08	1,757.21	1,738.56	18.64	94.259	0					
5,400.00	5,338.51	5,058.92	4,938.32	10.21	10.29	-139.07	1,791.08	1,772.08	19.00	94.258	0					
5,500.00	5,437.14	5,153.01	5,029.56	10.41	10.50	-139.06	1,824.95	1,805.59	19.36	94.256	0					
5,600.00	5,535.77	5,247.10	5,120.81	10.60	10.70	-139.04	1,858.82	1,839.10	19.72	94.254	0					
5,700.00	5,634.40	5,341.19	5,212.05	10.80	10.90	-139.03	1,892.69	1,872.61	20.08	94.252	0					
5,800.00	5,733.03	5,435.28	5,303.30	10.99	11.10	-139.02	1,926.56	1,906.12	20.44	94.251	0					
5,900.00	5,831.66	5,529.37	5,394.54	11.19	11.31	-139.01	1,960.43	1,939.63	20.80	94.249	0					
6,000.00	5,930.29	5,623.46	5,485.78	11.38	11.51	-139.00	1,994.30	1,973.14	21.16	94.247	0					
6,100.00	6,028.91	5,717.54	5,577.03	11.57	11.71	-138.99	2,028.17	2,006.65	21.52	94.245	0					
6,139.18	6,067.56	5,754.41	5,612.78	11.65	11.79	-138.98	2,041.44	2,019.78	21.66	94.245	0					
6,200.00	6,127.64	5,830.45	5,686.56	11.77	11.96	-139.23	2,061.53	2,039.59	21.95	93.939	0					
6,300.00	6,226.83	6,101.42	5,952.60	11.95	12.49	-139.56	2,087.76	2,065.11	22.66	92.144	0					
6,400.00	6,326.40	6,383.92	6,233.78	12.13	12.96	-139.89	2,102.99	2,079.63	23.36	90.010	0					
6,500.00	6,426.23	6,564.42	6,414.23	12.29	13.24	-140.12	2,108.21	2,084.34	23.87	88.321	0					
6,600.00	6,526.20	6,664.84	6,514.58	12.46	13.38	-140.25	2,109.92	2,085.70	24.22	87.111	0					
6,614.18	6,540.38	6,679.02	6,528.69	12.48	13.40	-179.93	2,109.95	2,084.68	25.27	83.507	0					
6,635.37	6,561.58	6,700.08	6,549.58	12.51	13.43	180.00	2,109.95	2,084.61	25.33	83.288	0					
6,700.00	6,626.20	6,762.90	6,611.18	12.62	13.51	179.67	2,109.98	2,084.45	25.53	82.640	0					
6,714.18	6,640.38	6,776.32	6,624.17	12.64	13.52	179.58	2,110.01	2,084.43	25.58	82.502	0					
6,750.00	6,676.18	6,809.81	6,656.25	12.70	13.56	89.33	2,110.10	2,085.43	24.67	85.519	0					
6,800.00	6,725.94	6,855.85	6,699.42	12.77	13.61	89.00	2,110.29	2,085.49	24.81	85.068	0					
6,850.00	6,775.18	6,900.00	6,739.64	12.84	13.66	88.67	2,110.55	2,085.62	24.93	84.656	0					
6,900.00	6,823.58	6,945.68	6,779.82	12.90	13.71	88.35	2,110.88	2,085.83	25.05	84.267	0					
6,950.00	6,870.85	6,989.58	6,816.88	12.96	13.75	88.04	2,111.26	2,086.09	25.16	83.907	0					
7,000.00	6,916.70	7,032.89	6,851.77	13.02	13.79	87.74	2,111.68	2,086.41	25.27	83.567	0					
7,050.00	6,960.84	7,075.66	6,884.42	13.07	13.83	87.45	2,112.13	2,086.76	25.37	83.241	0					
7,100.00	7,003.01	7,117.93	6,914.81	13.12	13.87	87.18	2,112.61	2,087.13	25.48	82.924	0					
7,150.00	7,042.95	7,159.76	6,942.89	13.18	13.92	86.92	2,113.10	2,087.52	25.58	82.610	0					
7,200.00	7,080.40	7,200.00	6,967.93	13.23	13.96	86.68	2,113.60	2,087.92	25.68	82.296	0					
7,250.00	7,115.14	7,242.25	6,992.03	13.28	14.00	86.46	2,114.09	2,088.30	25.79	81.961	0					
7,300.00	7,146.96	7,282.99	7,013.04	13.34	14.05	86.25	2,114.57	2,088.66	25.91	81.613	0					
7,350.00	7,175.65	7,323.46	7,031.65	13.40	14.10	86.06	2,115.01	2,088.98	26.03	81.242	0					
7,400.00	7,201.04	7,363.67	7,047.85	13.46	14.15	85.90	2,115.43	2,089.26	26.17	80.844	0					
7,450.00	7,222.97	7,400.00	7,060.46	13.53	14.20	85.76	2,115.81	2,089.50	26.30	80.435	0					
7,500.00	7,241.31	7,443.51	7,072.98	13.60	14.27	85.63	2,116.13	2,089.66	26.47	79.947	0					
7,550.00	7,255.95	7,483.19	7,081.89	13.68	14.33	85.53	2,116.40	2,089.76	26.64	79.438	0					
7,600.00	7,266.79	7,522.76	7,088.36	13.76	14.40	85.45	2,116.62	2,089.79	26.83	78.897	0					
7,650.00	7,273.77	7,562.25	7,092.39	13.86	14.47	85.40	2,116.77	2,089.74	27.03	78.318	0					
7,700.00	7,276.84	7,601.68	7,093.97	13.97	14.55	85.37	2,116.86	2,089.61	27.24	77.705	0					
7,714.18	7,277.00	7,614.27	7,094.00	14.00	14.58	85.37	2,116.87	2,089.56	27.31	77.512	0					
7,800.00	7,277.00	7,700.10	7,094.00	14.21	14.77	85.37	2,116.87	2,089.10	27.76	76.244	0					
7,900.00	7,277.00	7,800.10	7,094.00	14.49	15.02	85.37	2,116.87	2,088.52	28.35	74.669	0					
8,000.00	7,277.00	7,900.10	7,094.00	14.81	15.31	85.37	2,116.87	2,087.87	28.99	73.015	0					
8,100.00	7,277.00	8,000.10	7,094.00	15.15	15.63	85.37	2,116.87	2,087.18	29.69	71.307	0					
8,200.00	7,277.00	8,100.10	7,094.00	15.52	15.97	85.37	2,116.87	2,086.44	30.43	69.566	0					
8,300.00	7,277.00	8,200.10	7,094.00	15.91	16.35	85.37	2,116.87	2,085.65	31.22	67.808	0					
8,400.00	7,277.00	8,300.10	7,094.00	16.32	16.74	85.37	2,116.87	2,084.82	32.05	66.050	0					
8,500.00	7,277.00	8,400.10	7,094.00	16.75	17.16	85.37	2,116.87	2,083.95	32.92	64.305	0					
8,600.00	7,277.00	8,500.10	7,094.00	17.20	17.59	85.37	2,116.87	2,083.04	33.82	62.583	0					
8,700.00	7,277.00	8,600.10	7,094.00	17.67	18.04	85.37	2,116.87	2,082.11	34.76	60.894	0					
8,800.00	7,277.00	8,700.10	7,094.00	18.15	18.51	85.37	2,116.87	2,081.14	35.73	59.242	0					
8,900.00	7,277.00	8,800.10	7,094.00	18.64	19.00	85.37	2,116.87	2,080.14	36.73	57.634	0					
9,000.00	7,277.00	8,900.10	7,094.00	19.15	19.49	85.37	2,116.87	2,079.12	37.75	56.072	0					
9,100.00	7,277.00	9,000.10	7,094.00	19.67	20.00	85.37	2,116.87	2,078.07	38.80	54.559	0					

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision	
9,200.00	7,277.00	9,100.10	7,094.00	20.20	20.52	85.37	2,116.87	2,077.00	39.87	53.096	0		
9,300.00	7,277.00	9,200.10	7,094.00	20.74	21.05	85.37	2,116.87	2,075.92	40.96	51.685	0		
9,400.00	7,277.00	9,300.10	7,094.00	21.29	21.60	85.37	2,116.88	2,074.81	42.07	50.324	0		
9,500.00	7,277.00	9,400.10	7,094.00	21.85	22.15	85.37	2,116.88	2,073.69	43.19	49.013	0		
9,600.00	7,277.00	9,500.10	7,094.00	22.42	22.70	85.37	2,116.88	2,072.55	44.33	47.752	0		
9,700.00	7,277.00	9,600.10	7,094.00	22.99	23.27	85.37	2,116.88	2,071.39	45.49	46.539	0		
9,800.00	7,277.00	9,700.10	7,094.00	23.57	23.84	85.37	2,116.88	2,070.22	46.66	45.373	0		
9,900.00	7,277.00	9,800.10	7,094.00	24.16	24.43	85.37	2,116.88	2,069.04	47.84	44.252	0		
10,000.00	7,277.00	9,900.10	7,094.00	24.75	25.01	85.37	2,116.88	2,067.85	49.03	43.175	0		
10,100.00	7,277.00	10,000.10	7,094.00	25.35	25.60	85.37	2,116.88	2,066.65	50.23	42.140	0		
10,200.00	7,277.00	10,100.10	7,094.00	25.96	26.20	85.37	2,116.89	2,065.44	51.45	41.146	0		
10,300.00	7,277.00	10,200.10	7,094.00	26.57	26.81	85.37	2,116.89	2,064.22	52.67	40.190	0		
10,400.00	7,277.00	10,300.10	7,094.00	27.18	27.41	85.37	2,116.89	2,062.98	53.90	39.271	0		
10,500.00	7,277.00	10,400.10	7,094.00	27.80	28.03	85.37	2,116.89	2,061.75	55.15	38.387	0		
10,600.00	7,277.00	10,500.10	7,094.00	28.42	28.64	85.37	2,116.89	2,060.50	56.39	37.538	0		
10,700.00	7,277.00	10,600.10	7,094.00	29.05	29.26	85.37	2,116.89	2,059.25	57.65	36.720	0		
10,800.00	7,277.00	10,700.10	7,094.00	29.68	29.89	85.37	2,116.90	2,057.99	58.91	35.934	0		
10,900.00	7,277.00	10,800.10	7,094.00	30.31	30.52	85.37	2,116.90	2,056.72	60.18	35.176	0		
11,000.00	7,277.00	10,900.10	7,094.00	30.94	31.15	85.37	2,116.90	2,055.45	61.45	34.447	0		
11,100.00	7,277.00	11,000.10	7,094.00	31.58	31.78	85.37	2,116.90	2,054.17	62.73	33.744	0		
11,200.00	7,277.00	11,100.10	7,094.00	32.22	32.42	85.37	2,116.91	2,052.89	64.02	33.067	0		
11,300.00	7,277.00	11,200.10	7,094.00	32.87	33.06	85.37	2,116.91	2,051.60	65.31	32.414	0		
11,400.00	7,277.00	11,300.10	7,094.00	33.51	33.70	85.37	2,116.91	2,050.31	66.60	31.784	0		
11,500.00	7,277.00	11,400.10	7,094.00	34.16	34.34	85.37	2,116.91	2,049.01	67.90	31.176	0		
11,600.00	7,277.00	11,500.10	7,094.00	34.81	34.99	85.37	2,116.91	2,047.71	69.20	30.589	0		
11,700.00	7,277.00	11,600.10	7,094.00	35.46	35.64	85.37	2,116.92	2,046.41	70.51	30.023	0		
11,800.00	7,277.00	11,700.10	7,094.00	36.12	36.29	85.37	2,116.92	2,045.10	71.82	29.475	0		
11,900.00	7,277.00	11,800.10	7,094.00	36.78	36.94	85.37	2,116.92	2,043.79	73.14	28.945	0		
12,000.00	7,277.00	11,900.10	7,094.00	37.43	37.60	85.37	2,116.92	2,042.47	74.45	28.433	0		
12,100.00	7,277.00	12,000.10	7,094.00	38.09	38.25	85.37	2,116.93	2,041.16	75.77	27.938	0		
12,200.00	7,277.00	12,100.10	7,094.00	38.75	38.91	85.37	2,116.93	2,039.83	77.10	27.459	0		
12,300.00	7,277.00	12,200.10	7,094.00	39.42	39.57	85.37	2,116.93	2,038.51	78.42	26.994	0		
12,400.00	7,277.00	12,300.10	7,094.00	40.08	40.23	85.37	2,116.94	2,037.19	79.75	26.545	0		
12,500.00	7,277.00	12,400.10	7,094.00	40.75	40.89	85.37	2,116.94	2,035.86	81.08	26.109	0		
12,600.00	7,277.00	12,500.10	7,094.00	41.41	41.56	85.37	2,116.94	2,034.53	82.41	25.687	0		
12,700.00	7,277.00	12,600.10	7,094.00	42.08	42.22	85.37	2,116.95	2,033.19	83.75	25.277	0		
12,800.00	7,277.00	12,700.10	7,094.00	42.75	42.89	85.37	2,116.95	2,031.86	85.09	24.879	0		
12,900.00	7,277.00	12,800.10	7,094.00	43.42	43.56	85.37	2,116.95	2,030.52	86.43	24.494	0		
13,000.00	7,277.00	12,900.10	7,094.00	44.09	44.23	85.37	2,116.95	2,029.18	87.77	24.119	0		
13,100.00	7,277.00	13,000.10	7,094.00	44.76	44.90	85.37	2,116.96	2,027.84	89.11	23.756	0		
13,200.00	7,277.00	13,100.10	7,094.00	45.44	45.57	85.37	2,116.96	2,026.50	90.46	23.402	0		
13,300.00	7,277.00	13,200.10	7,094.00	46.11	46.24	85.37	2,116.97	2,025.16	91.81	23.059	0		
13,400.00	7,277.00	13,300.10	7,094.00	46.78	46.91	85.37	2,116.97	2,023.81	93.16	22.725	0		
13,500.00	7,277.00	13,400.10	7,094.00	47.46	47.58	85.37	2,116.97	2,022.47	94.51	22.400	0		
13,600.00	7,277.00	13,500.10	7,094.00	48.14	48.26	85.37	2,116.98	2,021.12	95.86	22.084	0		
13,700.00	7,277.00	13,600.10	7,094.00	48.81	48.93	85.37	2,116.98	2,019.77	97.21	21.777	0		
13,800.00	7,277.00	13,700.10	7,094.00	49.49	49.61	85.37	2,116.98	2,018.42	98.57	21.477	0		
13,900.00	7,277.00	13,800.10	7,094.00	50.17	50.29	85.37	2,116.99	2,017.06	99.92	21.186	0		
14,000.00	7,277.00	13,900.10	7,094.00	50.85	50.96	85.37	2,116.99	2,015.71	101.28	20.902	0		
14,100.00	7,277.00	14,000.10	7,094.00	51.53	51.64	85.37	2,117.00	2,014.35	102.64	20.625	0		
14,200.00	7,277.00	14,100.10	7,094.00	52.21	52.32	85.37	2,117.00	2,013.00	104.00	20.356	0		
14,300.00	7,277.00	14,200.10	7,094.00	52.89	53.00	85.37	2,117.00	2,011.64	105.36	20.093	0		
14,400.00	7,277.00	14,300.10	7,094.00	53.57	53.68	85.37	2,117.01	2,010.28	106.72	19.836	0		
14,500.00	7,277.00	14,400.10	7,094.00	54.26	54.36	85.37	2,117.01	2,008.92	108.09	19.586	0		

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



Schlumberger
Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #11 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
14,600.00	7,277.00	14,500.10	7,094.00	54.94	55.04	85.37	2,117.02	2,007.56	109.45	19.342	0			
14,700.00	7,277.00	14,600.10	7,094.00	55.62	55.72	85.37	2,117.02	2,006.20	110.82	19.104	0			
14,800.00	7,277.00	14,700.10	7,094.00	56.31	56.41	85.37	2,117.02	2,004.84	112.18	18.871	0			
14,900.00	7,277.00	14,800.10	7,094.00	56.99	57.09	85.37	2,117.03	2,003.48	113.55	18.644	0			
15,000.00	7,277.00	14,900.20	7,094.00	57.67	57.77	85.37	2,117.03	2,002.11	114.92	18.422	0			
15,083.00	7,277.00	14,983.20	7,094.00	58.24	58.34	85.37	2,117.03	2,000.98	116.06	18.241	0		SF	



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #12 - Original Hole - Rev 0		Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision				
0.00	0.00	0.00	0.00	0.00	0.00	-179.71	308.51					0	CC, ES			
100.00	100.00	87.00	87.00	0.15	0.13	-179.71	308.24	307.96	0.27	1,124.305	0					
200.00	200.00	187.00	187.00	0.32	0.30	-179.71	308.24	307.62	0.62	497.481	0					
300.00	300.00	287.00	287.00	0.50	0.47	-179.71	308.24	307.27	0.97	318.209	0					
400.00	400.00	387.00	387.00	0.67	0.65	-179.71	308.24	306.92	1.32	233.915	0					
500.00	500.00	487.00	487.00	0.84	0.82	-179.71	308.24	306.57	1.67	184.928	0					
600.00	600.00	579.10	579.09	1.02	0.98	-179.64	309.35	307.35	2.00	154.508	0					
700.00	699.98	669.79	669.69	1.19	1.14	-139.85	314.71	312.37	2.33	134.800	0					
800.00	799.84	759.86	759.50	1.37	1.30	-139.80	325.65	322.98	2.67	122.161	0					
900.00	899.45	848.88	848.01	1.55	1.46	-139.84	342.10	339.10	3.00	114.208	0					
1,000.00	998.70	936.45	934.76	1.73	1.62	-139.93	363.98	360.65	3.32	109.513	0					
1,074.99	1,072.82	1,000.00	997.47	1.86	1.74	-140.02	383.88	380.31	3.57	107.628	0					
1,100.00	1,097.48	1,022.24	1,019.35	1.91	1.78	-140.14	391.09	387.44	3.65	107.100	0					
1,200.00	1,196.11	1,106.49	1,101.97	2.10	1.94	-140.49	421.56	417.58	3.98	105.825	0					
1,300.00	1,294.74	1,189.29	1,182.66	2.28	2.11	-140.66	454.58	450.26	4.31	105.366	0					
1,400.00	1,393.37	1,270.54	1,261.28	2.47	2.27	-140.69	490.06	485.41	4.64	105.535	0					
1,500.00	1,492.00	1,350.15	1,337.73	2.66	2.44	-140.61	527.92	522.95	4.97	106.204	0					
1,600.00	1,590.63	1,440.48	1,424.02	2.85	2.64	-140.46	567.23	561.91	5.32	106.661	0					
1,700.00	1,689.26	1,532.42	1,511.85	3.04	2.84	-140.33	606.55	600.88	5.67	106.996	0					
1,800.00	1,787.88	1,624.35	1,599.68	3.23	3.04	-140.21	645.88	639.86	6.02	107.277	0					
1,900.00	1,886.51	1,716.29	1,687.51	3.43	3.24	-140.11	685.20	678.83	6.37	107.515	0					
2,000.00	1,985.14	1,808.22	1,775.33	3.62	3.45	-140.02	724.53	717.81	6.73	107.720	0					
2,100.00	2,083.77	1,900.16	1,863.16	3.81	3.65	-139.93	763.86	756.78	7.08	107.897	0					
2,200.00	2,182.40	1,992.09	1,950.99	4.00	3.86	-139.86	803.20	795.76	7.43	108.051	0					
2,300.00	2,281.03	2,084.03	2,038.81	4.20	4.07	-139.79	842.53	834.74	7.79	108.186	0					
2,400.00	2,379.66	2,175.96	2,126.64	4.39	4.28	-139.73	881.86	873.72	8.14	108.305	0					
2,500.00	2,478.28	2,267.90	2,214.47	4.58	4.48	-139.67	921.20	912.70	8.50	108.411	0					
2,600.00	2,576.91	2,359.83	2,302.30	4.78	4.69	-139.62	960.53	951.68	8.85	108.505	0					
2,700.00	2,675.54	2,451.77	2,390.12	4.97	4.90	-139.57	999.87	990.66	9.21	108.590	0					
2,800.00	2,774.17	2,543.71	2,477.95	5.16	5.11	-139.53	1,039.20	1,029.64	9.56	108.667	0					
2,900.00	2,872.80	2,635.64	2,565.78	5.36	5.33	-139.49	1,078.54	1,068.62	9.92	108.736	0					
3,000.00	2,971.43	2,727.58	2,653.60	5.55	5.54	-139.45	1,117.88	1,107.60	10.27	108.799	0					
3,100.00	3,070.06	2,819.51	2,741.43	5.74	5.75	-139.42	1,157.22	1,146.59	10.63	108.857	0					
3,200.00	3,168.68	2,911.45	2,829.26	5.94	5.96	-139.38	1,196.55	1,185.57	10.99	108.909	0					
3,300.00	3,267.31	3,003.38	2,917.09	6.13	6.17	-139.35	1,235.89	1,224.55	11.34	108.957	0					
3,400.00	3,365.94	3,095.32	3,004.91	6.33	6.38	-139.32	1,275.23	1,263.53	11.70	109.002	0					
3,500.00	3,464.57	3,187.25	3,092.74	6.52	6.60	-139.30	1,314.57	1,302.51	12.06	109.043	0					
3,600.00	3,563.20	3,279.19	3,180.57	6.71	6.81	-139.27	1,353.91	1,341.50	12.41	109.081	0					
3,700.00	3,661.83	3,371.12	3,268.39	6.91	7.02	-139.25	1,393.25	1,380.48	12.77	109.116	0					
3,800.00	3,760.46	3,463.06	3,356.22	7.10	7.23	-139.22	1,432.59	1,419.46	13.13	109.149	0					
3,900.00	3,859.08	3,555.00	3,444.05	7.30	7.45	-139.20	1,471.93	1,458.45	13.48	109.179	0					
4,000.00	3,957.71	3,646.93	3,531.88	7.49	7.66	-139.18	1,511.27	1,497.43	13.84	109.208	0					
4,100.00	4,056.34	3,738.87	3,619.70	7.68	7.87	-139.16	1,550.61	1,536.41	14.20	109.234	0					
4,200.00	4,154.97	3,830.80	3,707.53	7.88	8.09	-139.14	1,589.95	1,575.40	14.55	109.259	0					
4,300.00	4,253.60	3,922.74	3,795.36	8.07	8.30	-139.13	1,629.29	1,614.38	14.91	109.283	0					
4,400.00	4,352.23	4,014.67	3,883.18	8.27	8.51	-139.11	1,668.63	1,653.36	15.27	109.305	0					
4,500.00	4,450.86	4,106.61	3,971.01	8.46	8.73	-139.09	1,707.97	1,692.35	15.62	109.326	0					
4,600.00	4,549.48	4,198.54	4,058.84	8.66	8.94	-139.08	1,747.31	1,731.33	15.98	109.345	0					
4,700.00	4,648.11	4,290.48	4,146.67	8.85	9.15	-139.06	1,786.65	1,770.31	16.34	109.364	0					
4,800.00	4,746.74	4,382.42	4,234.49	9.05	9.37	-139.05	1,825.99	1,809.30	16.69	109.381	0					
4,900.00	4,845.37	4,474.35	4,322.32	9.24	9.58	-139.03	1,865.33	1,848.28	17.05	109.398	0					
5,000.00	4,944.00	4,566.29	4,410.15	9.43	9.79	-139.02	1,904.67	1,887.26	17.41	109.414	0					
5,100.00	5,042.63	4,658.22	4,497.97	9.63	10.01	-139.01	1,944.01	1,926.25	17.77	109.429	0					
5,200.00	5,141.26	4,750.16	4,585.80	9.82	10.22	-139.00	1,983.35	1,965.23	18.12	109.443	0					

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor		
5,300.00	5,239.89	4,842.09	4,673.63	10.02	10.44	-138.99	2,022.70	2,004.22	18.48	109.457	0		
5,400.00	5,338.51	4,934.03	4,761.46	10.21	10.65	-138.98	2,062.04	2,043.20	18.84	109.469	0		
5,500.00	5,437.14	5,025.96	4,849.28	10.41	10.86	-138.96	2,101.38	2,082.18	19.19	109.482	0		
5,600.00	5,535.77	5,117.90	4,937.11	10.60	11.08	-138.95	2,140.72	2,121.17	19.55	109.493	0		
5,700.00	5,634.40	5,209.83	5,024.94	10.80	11.29	-138.94	2,180.06	2,160.15	19.91	109.505	0		
5,800.00	5,733.03	5,301.77	5,112.76	10.99	11.51	-138.94	2,219.40	2,199.14	20.27	109.515	0		
5,900.00	5,831.66	5,393.71	5,200.59	11.19	11.72	-138.93	2,258.74	2,238.12	20.62	109.526	0		
6,000.00	5,930.29	5,485.64	5,288.42	11.38	11.93	-138.92	2,298.09	2,277.11	20.98	109.536	0		
6,100.00	6,028.91	5,577.58	5,376.25	11.57	12.15	-138.91	2,337.43	2,316.09	21.34	109.545	0		
6,139.18	6,067.56	5,613.60	5,410.66	11.65	12.23	-138.91	2,352.84	2,331.37	21.48	109.549	0		
6,200.00	6,127.64	5,669.70	5,464.25	11.77	12.36	-139.22	2,376.32	2,354.59	21.73	109.339	0		
6,300.00	6,226.83	5,920.46	5,705.76	11.95	12.91	-139.56	2,411.50	2,389.07	22.43	107.525	0		
6,400.00	6,326.40	6,371.74	6,151.46	12.13	13.73	-139.87	2,432.42	2,408.97	23.44	103.762	0		
6,500.00	6,426.23	6,633.69	6,413.23	12.29	14.12	-140.13	2,438.28	2,414.18	24.10	101.193	0		
6,600.00	6,526.20	6,734.19	6,513.66	12.46	14.26	-140.25	2,439.99	2,415.53	24.46	99.761	0		
6,614.18	6,540.38	6,748.39	6,527.79	12.48	14.28	-179.91	2,440.01	2,413.86	26.16	93.287	0		
6,641.98	6,568.19	6,776.03	6,555.19	12.52	14.31	-180.00	2,440.01	2,413.77	26.24	92.986	0		
6,700.00	6,626.20	6,832.42	6,610.45	12.62	14.38	179.74	2,440.04	2,413.62	26.41	92.376	0		
6,714.18	6,640.38	6,845.87	6,623.47	12.64	14.39	179.66	2,440.06	2,413.60	26.46	92.231	0		
6,750.00	6,676.18	6,879.43	6,655.62	12.70	14.43	89.45	2,440.13	2,415.22	24.91	97.939	0		
6,800.00	6,725.94	6,925.56	6,698.90	12.77	14.48	89.16	2,440.29	2,415.24	25.05	97.419	0		
6,850.00	6,775.18	6,970.91	6,740.21	12.84	14.52	88.87	2,440.51	2,415.34	25.18	96.937	0		
6,900.00	6,823.58	7,015.56	6,779.48	12.90	14.56	88.60	2,440.79	2,415.49	25.30	96.489	0		
6,950.00	6,870.85	7,059.55	6,816.63	12.96	14.61	88.33	2,441.10	2,415.69	25.41	96.068	0		
7,000.00	6,916.70	7,102.94	6,851.59	13.02	14.65	88.07	2,441.46	2,415.94	25.52	95.671	0		
7,050.00	6,960.84	7,145.78	6,884.31	13.07	14.69	87.82	2,441.85	2,416.22	25.63	95.289	0		
7,100.00	7,003.01	7,188.13	6,914.76	13.12	14.73	87.59	2,442.26	2,416.53	25.73	94.915	0		
7,150.00	7,042.95	7,230.03	6,942.89	13.18	14.77	87.37	2,442.68	2,416.84	25.84	94.544	0		
7,200.00	7,080.40	7,271.53	6,968.68	13.23	14.81	87.16	2,443.11	2,417.16	25.94	94.168	0		
7,250.00	7,115.14	7,312.66	6,992.11	13.28	14.85	86.96	2,443.53	2,417.47	26.06	93.781	0		
7,300.00	7,146.96	7,350.00	7,011.44	13.34	14.89	86.80	2,443.94	2,417.77	26.17	93.394	0		
7,350.00	7,175.65	7,394.00	7,031.77	13.40	14.94	86.62	2,444.32	2,418.02	26.30	92.944	0		
7,400.00	7,201.04	7,434.28	7,047.98	13.46	14.99	86.48	2,444.68	2,418.24	26.43	92.481	0		
7,450.00	7,222.97	7,474.35	7,061.75	13.53	15.04	86.36	2,445.00	2,418.42	26.58	91.982	0		
7,500.00	7,241.31	7,514.23	7,073.09	13.60	15.10	86.25	2,445.28	2,418.54	26.74	91.447	0		
7,550.00	7,255.95	7,550.00	7,081.21	13.68	15.16	86.17	2,445.53	2,418.62	26.90	90.897	0		
7,600.00	7,266.79	7,593.59	7,088.43	13.76	15.23	86.09	2,445.71	2,418.61	27.10	90.248	0		
7,650.00	7,273.77	7,633.13	7,092.43	13.86	15.29	86.05	2,445.84	2,418.54	27.30	89.586	0		
7,700.00	7,276.84	7,672.61	7,093.98	13.97	15.37	86.02	2,445.92	2,418.40	27.52	88.892	0		
7,714.18	7,277.00	7,685.40	7,094.00	14.00	15.39	86.01	2,445.93	2,418.34	27.58	88.675	0		
7,800.00	7,277.00	7,771.22	7,094.00	14.21	15.57	86.01	2,445.93	2,417.89	28.04	87.233	0		
7,900.00	7,277.00	7,871.22	7,094.00	14.49	15.81	86.01	2,445.93	2,417.31	28.62	85.457	0		
8,000.00	7,277.00	7,971.22	7,094.00	14.81	16.08	86.01	2,445.93	2,416.67	29.26	83.592	0		
8,100.00	7,277.00	8,071.22	7,094.00	15.15	16.37	86.01	2,445.93	2,415.98	29.95	81.664	0		
8,200.00	7,277.00	8,171.22	7,094.00	15.52	16.70	86.01	2,445.93	2,415.24	30.69	79.695	0		
8,300.00	7,277.00	8,271.22	7,094.00	15.91	17.04	86.01	2,445.93	2,414.45	31.48	77.708	0		
8,400.00	7,277.00	8,371.22	7,094.00	16.32	17.42	86.01	2,445.93	2,413.63	32.30	75.718	0		
8,500.00	7,277.00	8,471.22	7,094.00	16.75	17.81	86.01	2,445.93	2,412.76	33.17	73.742	0		
8,600.00	7,277.00	8,571.22	7,094.00	17.20	18.23	86.01	2,445.93	2,411.86	34.07	71.790	0		
8,700.00	7,277.00	8,671.22	7,094.00	17.67	18.66	86.01	2,445.93	2,410.93	35.01	69.873	0		
8,800.00	7,277.00	8,771.22	7,094.00	18.15	19.12	86.01	2,445.93	2,409.96	35.97	67.997	0		
8,900.00	7,277.00	8,871.22	7,094.00	18.64	19.58	86.01	2,445.93	2,408.97	36.96	66.170	0		
9,000.00	7,277.00	8,971.22	7,094.00	19.15	20.06	86.01	2,445.93	2,407.95	37.98	64.393	0		
9,100.00	7,277.00	9,071.22	7,094.00	19.67	20.56	86.01	2,445.93	2,406.91	39.03	62.672	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #12 - Original Hole - Rev 0		Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision				
9,200.00	7,277.00	9,171.22	7,094.00	20.20	21.07	86.01	2,445.94	2,405.84	40.09	61.006	0					
9,300.00	7,277.00	9,271.22	7,094.00	20.74	21.58	86.01	2,445.94	2,404.76	41.18	59.398	0					
9,400.00	7,277.00	9,371.22	7,094.00	21.29	22.11	86.01	2,445.94	2,403.65	42.28	57.846	0					
9,500.00	7,277.00	9,471.22	7,094.00	21.85	22.65	86.01	2,445.94	2,402.53	43.41	56.351	0					
9,600.00	7,277.00	9,571.22	7,094.00	22.42	23.20	86.01	2,445.94	2,401.40	44.54	54.911	0					
9,700.00	7,277.00	9,671.22	7,094.00	22.99	23.75	86.01	2,445.94	2,400.24	45.70	53.526	0					
9,800.00	7,277.00	9,771.22	7,094.00	23.57	24.32	86.01	2,445.94	2,399.08	46.86	52.193	0					
9,900.00	7,277.00	9,871.22	7,094.00	24.16	24.89	86.01	2,445.94	2,397.90	48.04	50.912	0					
10,000.00	7,277.00	9,971.22	7,094.00	24.75	25.46	86.01	2,445.94	2,396.71	49.23	49.681	0					
10,100.00	7,277.00	10,071.22	7,094.00	25.35	26.05	86.01	2,445.95	2,395.51	50.44	48.497	0					
10,200.00	7,277.00	10,171.22	7,094.00	25.96	26.64	86.01	2,445.95	2,394.30	51.65	47.358	0					
10,300.00	7,277.00	10,271.22	7,094.00	26.57	27.23	86.01	2,445.95	2,393.08	52.87	46.264	0					
10,400.00	7,277.00	10,371.22	7,094.00	27.18	27.83	86.01	2,445.95	2,391.85	54.10	45.212	0					
10,500.00	7,277.00	10,471.22	7,094.00	27.80	28.44	86.01	2,445.95	2,390.61	55.34	44.199	0					
10,600.00	7,277.00	10,571.22	7,094.00	28.42	29.04	86.01	2,445.95	2,389.37	56.59	43.226	0					
10,700.00	7,277.00	10,671.22	7,094.00	29.05	29.66	86.01	2,445.96	2,388.12	57.84	42.289	0					
10,800.00	7,277.00	10,771.22	7,094.00	29.68	30.27	86.01	2,445.96	2,386.86	59.10	41.387	0					
10,900.00	7,277.00	10,871.22	7,094.00	30.31	30.90	86.01	2,445.96	2,385.59	60.37	40.518	0					
11,000.00	7,277.00	10,971.22	7,094.00	30.94	31.52	86.01	2,445.96	2,384.32	61.64	39.681	0					
11,100.00	7,277.00	11,071.22	7,094.00	31.58	32.15	86.01	2,445.96	2,383.05	62.92	38.875	0					
11,200.00	7,277.00	11,171.22	7,094.00	32.22	32.78	86.01	2,445.97	2,381.76	64.20	38.098	0					
11,300.00	7,277.00	11,271.22	7,094.00	32.87	33.41	86.01	2,445.97	2,380.48	65.49	37.348	0					
11,400.00	7,277.00	11,371.22	7,094.00	33.51	34.05	86.01	2,445.97	2,379.19	66.78	36.625	0					
11,500.00	7,277.00	11,471.22	7,094.00	34.16	34.69	86.01	2,445.97	2,377.89	68.08	35.926	0					
11,600.00	7,277.00	11,571.22	7,094.00	34.81	35.33	86.01	2,445.98	2,376.59	69.38	35.252	0					
11,700.00	7,277.00	11,671.22	7,094.00	35.46	35.97	86.01	2,445.98	2,375.29	70.69	34.601	0					
11,800.00	7,277.00	11,771.22	7,094.00	36.12	36.62	86.01	2,445.98	2,373.98	72.00	33.972	0					
11,900.00	7,277.00	11,871.22	7,094.00	36.78	37.26	86.01	2,445.98	2,372.67	73.31	33.363	0					
12,000.00	7,277.00	11,971.22	7,094.00	37.43	37.91	86.01	2,445.99	2,371.36	74.63	32.775	0					
12,100.00	7,277.00	12,071.22	7,094.00	38.09	38.57	86.01	2,445.99	2,370.04	75.95	32.206	0					
12,200.00	7,277.00	12,171.22	7,094.00	38.75	39.22	86.01	2,445.99	2,368.72	77.27	31.654	0					
12,300.00	7,277.00	12,271.22	7,094.00	39.42	39.87	86.01	2,446.00	2,367.40	78.60	31.121	0					
12,400.00	7,277.00	12,371.22	7,094.00	40.08	40.53	86.01	2,446.00	2,366.07	79.93	30.603	0					
12,500.00	7,277.00	12,471.22	7,094.00	40.75	41.19	86.01	2,446.00	2,364.74	81.26	30.102	0					
12,600.00	7,277.00	12,571.22	7,094.00	41.41	41.85	86.01	2,446.00	2,363.41	82.59	29.616	0					
12,700.00	7,277.00	12,671.22	7,094.00	42.08	42.51	86.01	2,446.01	2,362.08	83.92	29.145	0					
12,800.00	7,277.00	12,771.22	7,094.00	42.75	43.17	86.01	2,446.01	2,360.75	85.26	28.688	0					
12,900.00	7,277.00	12,871.22	7,094.00	43.42	43.84	86.01	2,446.01	2,359.41	86.60	28.244	0					
13,000.00	7,277.00	12,971.22	7,094.00	44.09	44.50	86.01	2,446.02	2,358.07	87.94	27.813	0					
13,100.00	7,277.00	13,071.22	7,094.00	44.76	45.17	86.01	2,446.02	2,356.73	89.29	27.395	0					
13,200.00	7,277.00	13,171.22	7,094.00	45.44	45.83	86.01	2,446.02	2,355.39	90.63	26.988	0					
13,300.00	7,277.00	13,271.22	7,094.00	46.11	46.50	86.01	2,446.03	2,354.05	91.98	26.593	0					
13,400.00	7,277.00	13,371.22	7,094.00	46.78	47.17	86.01	2,446.03	2,352.70	93.33	26.208	0					
13,500.00	7,277.00	13,471.22	7,094.00	47.46	47.84	86.01	2,446.03	2,351.35	94.68	25.835	0					
13,600.00	7,277.00	13,571.22	7,094.00	48.14	48.51	86.01	2,446.04	2,350.01	96.03	25.471	0					
13,700.00	7,277.00	13,671.22	7,094.00	48.81	49.19	86.01	2,446.04	2,348.66	97.39	25.117	0					
13,800.00	7,277.00	13,771.22	7,094.00	49.49	49.86	86.01	2,446.05	2,347.30	98.74	24.772	0					
13,900.00	7,277.00	13,871.22	7,094.00	50.17	50.53	86.01	2,446.05	2,345.95	100.10	24.437	0					
14,000.00	7,277.00	13,971.22	7,094.00	50.85	51.21	86.01	2,446.05	2,344.60	101.46	24.110	0					
14,100.00	7,277.00	14,071.22	7,094.00	51.53	51.88	86.01	2,446.06	2,343.24	102.81	23.791	0					
14,200.00	7,277.00	14,171.22	7,094.00	52.21	52.56	86.01	2,446.06	2,341.89	104.17	23.480	0					
14,300.00	7,277.00	14,271.22	7,094.00	52.89	53.24	86.01	2,446.07	2,340.53	105.54	23.178	0					
14,400.00	7,277.00	14,371.22	7,094.00	53.57	53.91	86.01	2,446.07	2,339.17	106.90	22.882	0					
14,500.00	7,277.00	14,471.22	7,094.00	54.26	54.59	86.01	2,446.07	2,337.81	108.26	22.594	0					

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



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #12 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
14,600.00	7,277.00	14,571.22	7,094.00	54.94	55.27	86.01	2,446.08	2,336.45	109.63	22.313	0			
14,700.00	7,277.00	14,671.22	7,094.00	55.62	55.95	86.01	2,446.08	2,335.09	110.99	22.038	0			
14,800.00	7,277.00	14,771.22	7,094.00	56.31	56.63	86.01	2,446.09	2,333.73	112.36	21.770	0			
14,900.00	7,277.00	14,871.22	7,094.00	56.99	57.31	86.01	2,446.09	2,332.37	113.73	21.509	0			
15,000.00	7,277.00	14,971.22	7,094.00	57.67	57.99	86.01	2,446.10	2,331.00	115.09	21.253	0			
15,083.00	7,277.00	15,054.18	7,094.00	58.24	58.56	86.01	2,446.10	2,329.87	116.23	21.045	0		SF	



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-179.82	28.08					0	
100.00	100.00	99.00	99.00	0.15	0.15	-179.82	28.06	27.77	0.29	96.183	0		
200.00	200.00	199.00	199.00	0.32	0.32	-179.82	28.06	27.42	0.64	43.809	0		
300.00	300.00	299.00	299.00	0.50	0.49	-179.82	28.06	27.07	0.99	28.356	0		
400.00	400.00	399.00	399.00	0.67	0.67	-179.82	28.06	26.72	1.34	20.962	0		
500.00	500.00	499.00	499.00	0.84	0.84	-179.82	28.06	26.37	1.69	16.627	0		
600.00	600.00	599.00	599.00	1.02	1.02	-179.82	28.06	26.02	2.04	13.777	0		CC, ES
700.00	699.98	698.98	698.98	1.19	1.19	-142.34	29.42	27.04	2.39	12.334	0		
800.00	799.84	799.72	799.70	1.37	1.37	-145.90	32.38	29.65	2.73	11.841	0		
900.00	899.45	900.59	900.43	1.55	1.54	-148.33	35.63	32.54	3.08	11.554	0		
1,000.00	998.70	1,001.58	1,001.03	1.73	1.72	-149.88	39.09	35.66	3.43	11.388	0		
1,074.99	1,072.82	1,077.39	1,076.30	1.86	1.86	-150.57	41.82	38.12	3.70	11.316	0		
1,100.00	1,097.48	1,102.69	1,101.37	1.91	1.91	-150.66	42.65	38.87	3.79	11.267	0		
1,200.00	1,196.11	1,203.20	1,200.71	2.10	2.09	-149.80	44.66	40.52	4.15	10.774	0		
1,300.00	1,294.74	1,303.18	1,299.48	2.28	2.27	-148.78	46.43	41.93	4.51	10.302	0		
1,400.00	1,393.37	1,403.16	1,398.25	2.47	2.46	-147.84	48.21	43.34	4.87	9.900	0		
1,500.00	1,492.00	1,503.14	1,497.03	2.66	2.65	-146.96	50.01	44.77	5.23	9.554	0		
1,600.00	1,590.63	1,603.12	1,595.80	2.85	2.83	-146.14	51.81	46.21	5.60	9.252	0		
1,700.00	1,689.26	1,703.10	1,694.58	3.04	3.02	-145.38	53.63	47.66	5.97	8.987	0		
1,800.00	1,787.88	1,803.08	1,793.35	3.23	3.21	-144.67	55.45	49.12	6.34	8.753	0		
1,900.00	1,886.51	1,903.06	1,892.12	3.43	3.40	-144.00	57.29	50.58	6.70	8.545	0		
2,000.00	1,985.14	2,003.05	1,990.90	3.62	3.59	-143.38	59.12	52.05	7.07	8.359	0		
2,100.00	2,083.77	2,103.03	2,089.67	3.81	3.78	-142.79	60.97	53.53	7.44	8.191	0		
2,200.00	2,182.40	2,203.01	2,188.44	4.00	3.97	-142.24	62.82	55.01	7.81	8.039	0		
2,300.00	2,281.03	2,302.99	2,287.22	4.20	4.16	-141.72	64.68	56.49	8.19	7.901	0		
2,400.00	2,379.66	2,402.97	2,385.99	4.39	4.35	-141.23	66.54	57.98	8.56	7.776	0		
2,500.00	2,478.28	2,502.95	2,484.77	4.58	4.54	-140.76	68.41	59.48	8.93	7.660	0		
2,600.00	2,576.91	2,602.93	2,583.54	4.78	4.73	-140.32	70.28	60.98	9.30	7.555	0		
2,700.00	2,675.54	2,702.91	2,682.31	4.97	4.92	-139.90	72.15	62.48	9.68	7.457	0		
2,800.00	2,774.17	2,802.89	2,781.09	5.16	5.11	-139.51	74.03	63.98	10.05	7.367	0		
2,900.00	2,872.80	2,902.88	2,879.86	5.36	5.30	-139.13	75.92	65.49	10.42	7.283	0		
3,000.00	2,971.43	3,002.86	2,978.64	5.55	5.49	-138.77	77.80	67.00	10.80	7.205	0		
3,100.00	3,070.06	3,102.84	3,077.41	5.74	5.68	-138.43	79.69	68.52	11.17	7.133	0		
3,200.00	3,168.68	3,202.82	3,176.18	5.94	5.88	-138.11	81.58	70.03	11.55	7.065	0		
3,300.00	3,267.31	3,302.80	3,274.96	6.13	6.07	-137.80	83.47	71.55	11.92	7.002	0		
3,400.00	3,365.94	3,402.78	3,373.73	6.33	6.26	-137.50	85.37	73.07	12.30	6.942	0		
3,500.00	3,464.57	3,502.76	3,472.50	6.52	6.45	-137.22	87.27	74.59	12.67	6.886	0		
3,600.00	3,563.20	3,602.74	3,571.28	6.71	6.64	-136.94	89.17	76.12	13.05	6.834	0		
3,700.00	3,661.83	3,702.72	3,670.05	6.91	6.83	-136.68	91.07	77.64	13.42	6.784	0		
3,800.00	3,760.46	3,802.70	3,768.83	7.10	7.03	-136.43	92.97	79.17	13.80	6.737	0		
3,900.00	3,859.08	3,902.69	3,867.60	7.30	7.22	-136.19	94.88	80.70	14.18	6.693	0		
4,000.00	3,957.71	4,002.67	3,966.37	7.49	7.41	-135.96	96.78	82.23	14.55	6.651	0		
4,100.00	4,056.34	4,102.65	4,065.15	7.68	7.60	-135.74	98.69	83.76	14.93	6.611	0		
4,200.00	4,154.97	4,202.63	4,163.92	7.88	7.79	-135.53	100.60	85.30	15.31	6.573	0		
4,300.00	4,253.60	4,302.61	4,262.70	8.07	7.99	-135.32	102.51	86.83	15.68	6.537	0		
4,400.00	4,352.23	4,402.59	4,361.47	8.27	8.18	-135.13	104.43	88.37	16.06	6.503	0		
4,500.00	4,450.86	4,502.57	4,460.24	8.46	8.37	-134.94	106.34	89.90	16.44	6.470	0		
4,600.00	4,549.48	4,602.55	4,559.02	8.66	8.56	-134.75	108.26	91.44	16.81	6.439	0		
4,700.00	4,648.11	4,702.53	4,657.79	8.85	8.75	-134.57	110.17	92.98	17.19	6.409	0		
4,800.00	4,746.74	4,802.52	4,756.56	9.05	8.95	-134.40	112.09	94.52	17.57	6.380	0		
4,900.00	4,845.37	4,902.50	4,855.34	9.24	9.14	-134.24	114.01	96.06	17.94	6.353	0		
5,000.00	4,944.00	5,002.48	4,954.11	9.43	9.33	-134.08	115.92	97.60	18.32	6.327	0		
5,100.00	5,042.63	5,102.46	5,052.89	9.63	9.52	-133.92	117.84	99.14	18.70	6.302	0		
5,200.00	5,141.26	5,202.44	5,151.66	9.82	9.71	-133.77	119.76	100.69	19.08	6.278	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #2 - Original Hole - Rev 0	Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning		
5,300.00	5,239.89	5,302.42	5,250.43	10.02	9.91	-133.63	121.69	102.23	19.46	6.255	0				
5,400.00	5,338.51	5,402.40	5,349.21	10.21	10.10	-133.49	123.61	103.78	19.83	6.233	0				
5,500.00	5,437.14	5,502.38	5,447.98	10.41	10.29	-133.35	125.53	105.32	20.21	6.211	0				
5,600.00	5,535.77	5,602.36	5,546.75	10.60	10.48	-133.22	127.45	106.87	20.59	6.191	0				
5,700.00	5,634.40	5,702.35	5,645.53	10.80	10.68	-133.09	129.38	108.41	20.97	6.171	0				
5,800.00	5,733.03	5,802.33	5,744.30	10.99	10.87	-132.96	131.30	109.96	21.34	6.152	0				
5,900.00	5,831.66	5,902.31	5,843.08	11.19	11.06	-132.84	133.23	111.51	21.72	6.133	0				
6,000.00	5,930.29	6,001.50	5,941.09	11.38	11.25	-132.77	135.24	113.14	22.10	6.120	0				
6,100.00	6,028.91	6,100.00	6,038.77	11.57	11.43	-133.54	138.79	116.34	22.45	6.183	0				
6,139.18	6,067.56	6,136.58	6,075.15	11.65	11.50	-134.09	140.74	118.17	22.57	6.235	0				
6,200.00	6,127.64	6,195.42	6,133.76	11.77	11.60	-135.12	144.01	121.24	22.77	6.325	0				
6,300.00	6,226.83	6,292.02	6,230.17	11.95	11.76	-136.76	149.21	126.13	23.07	6.466	0				
6,400.00	6,326.40	6,388.41	6,326.52	12.13	11.92	-138.34	154.18	130.82	23.36	6.599	0				
6,500.00	6,426.23	6,487.12	6,425.23	12.29	12.08	-139.71	158.39	134.74	23.65	6.698	0				
6,600.00	6,526.20	6,586.87	6,524.86	12.46	12.24	-141.53	160.14	136.24	23.89	6.702	0				
6,614.18	6,540.38	6,600.86	6,538.75	12.48	12.26	178.24	160.21	136.06	24.15	6.634	0				
6,700.00	6,626.20	6,683.43	6,619.73	12.62	12.37	172.62	161.56	137.01	24.55	6.580	0				
6,714.18	6,640.38	6,696.62	6,632.45	12.64	12.39	171.39	162.10	137.48	24.62	6.583	0				
6,750.00	6,676.18	6,729.53	6,663.84	12.70	12.43	78.12	163.91	139.84	24.07	6.810	0				
6,800.00	6,725.94	6,774.75	6,706.06	12.77	12.48	73.77	167.27	143.20	24.07	6.950	0				
6,850.00	6,775.18	6,819.21	6,746.35	12.84	12.53	69.69	171.46	147.42	24.04	7.132	0				
6,900.00	6,823.58	6,862.98	6,784.63	12.90	12.58	65.92	176.32	152.35	23.98	7.354	0				
6,950.00	6,870.85	6,906.10	6,820.85	12.96	12.62	62.48	181.68	157.81	23.87	7.610	0				
7,000.00	6,916.70	6,950.00	6,855.99	13.02	12.67	59.28	187.38	163.66	23.72	7.900	0				
7,050.00	6,960.84	6,990.67	6,886.87	13.07	12.71	56.56	193.24	169.73	23.52	8.217	0				
7,100.00	7,003.01	7,032.21	6,916.60	13.12	12.76	54.06	199.16	175.89	23.27	8.560	0				
7,150.00	7,042.95	7,073.32	6,944.09	13.18	12.80	51.85	205.00	182.03	22.97	8.923	0				
7,200.00	7,080.40	7,114.05	6,969.33	13.23	12.85	49.89	210.66	188.01	22.65	9.301	0				
7,250.00	7,115.14	7,150.00	6,989.87	13.28	12.89	48.32	216.09	193.79	22.31	9.688	0				
7,300.00	7,146.96	7,194.52	7,012.95	13.34	12.94	46.70	221.07	199.12	21.95	10.072	0				
7,350.00	7,175.65	7,234.34	7,031.30	13.40	13.00	45.42	225.67	204.06	21.61	10.444	0				
7,400.00	7,201.04	7,273.93	7,047.31	13.46	13.05	44.34	229.80	208.51	21.29	10.793	0				
7,450.00	7,222.97	7,313.32	7,060.98	13.53	13.11	43.44	233.40	212.38	21.02	11.105	0				
7,500.00	7,241.31	7,350.00	7,071.63	13.60	13.17	42.74	236.45	215.65	20.80	11.368	0				
7,550.00	7,255.95	7,391.65	7,081.25	13.68	13.24	42.14	238.87	218.21	20.66	11.561	0				
7,600.00	7,266.79	7,430.66	7,087.84	13.76	13.31	41.73	240.68	220.07	20.61	11.677	0				
7,650.00	7,273.77	7,469.59	7,092.06	13.86	13.39	41.47	241.86	221.20	20.66	11.709	0				
7,700.00	7,276.84	7,508.48	7,093.91	13.97	13.48	41.35	242.39	221.59	20.80	11.655	0				
7,714.18	7,277.00	7,519.58	7,094.00	14.00	13.51	41.34	242.42	221.56	20.86	11.623	0				
7,800.00	7,277.00	7,605.40	7,094.00	14.21	13.73	41.34	242.42	221.08	21.34	11.362	0				
7,900.00	7,277.00	7,705.40	7,094.00	14.49	14.03	41.34	242.42	220.49	21.93	11.055	0				
8,000.00	7,277.00	7,805.40	7,094.00	14.81	14.35	41.34	242.42	219.86	22.55	10.748	0				
8,100.00	7,277.00	7,905.40	7,094.00	15.15	14.70	41.34	242.42	219.21	23.21	10.445	0				
8,200.00	7,277.00	8,005.40	7,094.00	15.52	15.08	41.34	242.42	218.53	23.89	10.147	0				
8,300.00	7,277.00	8,105.40	7,094.00	15.91	15.48	41.34	242.42	217.82	24.60	9.855	0				
8,400.00	7,277.00	8,205.40	7,094.00	16.32	15.90	41.34	242.42	217.09	25.33	9.570	0				
8,500.00	7,277.00	8,305.40	7,094.00	16.75	16.33	41.34	242.42	216.34	26.08	9.294	0				
8,600.00	7,277.00	8,405.40	7,094.00	17.20	16.79	41.34	242.42	215.57	26.85	9.027	0				
8,700.00	7,277.00	8,505.40	7,094.00	17.67	17.26	41.34	242.42	214.78	27.64	8.769	0				
8,800.00	7,277.00	8,605.40	7,094.00	18.15	17.75	41.34	242.42	213.97	28.45	8.521	0				
8,900.00	7,277.00	8,705.40	7,094.00	18.64	18.25	41.34	242.42	213.15	29.27	8.282	0				
9,000.00	7,277.00	8,805.40	7,094.00	19.15	18.76	41.34	242.42	212.32	30.10	8.053	0				
9,100.00	7,277.00	8,905.40	7,094.00	19.67	19.29	41.34	242.42	211.47	30.95	7.832	0				
9,200.00	7,277.00	9,005.40	7,094.00	20.20	19.83	41.34	242.42	210.61	31.81	7.621	0				

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



Schlumberger

Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #2 - Original Hole - Rev 0		Offset Site Error:		0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis		Distance							Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision					
9,300.00	7,277.00	9,105.40	7,094.00	20.74	20.37	41.34	242.42	209.74	32.68	7.418	0						
9,400.00	7,277.00	9,205.40	7,094.00	21.29	20.93	41.34	242.42	208.86	33.56	7.224	0						
9,500.00	7,277.00	9,305.40	7,094.00	21.85	21.50	41.34	242.42	207.98	34.45	7.037	0						
9,600.00	7,277.00	9,405.40	7,094.00	22.42	22.07	41.34	242.43	207.08	35.34	6.859	0						
9,700.00	7,277.00	9,505.40	7,094.00	22.99	22.65	41.35	242.43	206.18	36.25	6.688	0						
9,800.00	7,277.00	9,605.40	7,094.00	23.57	23.24	41.35	242.43	205.27	37.16	6.524	0						
9,900.00	7,277.00	9,705.40	7,094.00	24.16	23.83	41.35	242.43	204.35	38.08	6.366	0						
10,000.00	7,277.00	9,805.40	7,094.00	24.75	24.43	41.35	242.43	203.42	39.00	6.215	0						
10,100.00	7,277.00	9,905.40	7,094.00	25.35	25.03	41.35	242.43	202.49	39.94	6.071	0						
10,200.00	7,277.00	10,005.40	7,094.00	25.96	25.64	41.35	242.43	201.56	40.87	5.931	0						
10,300.00	7,277.00	10,105.40	7,094.00	26.57	26.26	41.35	242.43	200.62	41.81	5.798	0						
10,400.00	7,277.00	10,205.40	7,094.00	27.18	26.87	41.35	242.43	199.67	42.76	5.670	0						
10,500.00	7,277.00	10,305.40	7,094.00	27.80	27.50	41.35	242.43	198.73	43.71	5.547	0						
10,600.00	7,277.00	10,405.40	7,094.00	28.42	28.12	41.35	242.44	197.77	44.66	5.428	0						
10,700.00	7,277.00	10,505.40	7,094.00	29.05	28.75	41.35	242.44	196.81	45.62	5.314	0						
10,800.00	7,277.00	10,605.40	7,094.00	29.68	29.39	41.35	242.44	195.85	46.58	5.204	0						
10,900.00	7,277.00	10,705.40	7,094.00	30.31	30.02	41.35	242.44	194.89	47.55	5.099	0						
11,000.00	7,277.00	10,805.40	7,094.00	30.94	30.66	41.35	242.44	193.92	48.52	4.997	0						
11,100.00	7,277.00	10,905.40	7,094.00	31.58	31.30	41.35	242.44	192.95	49.49	4.899	0						
11,200.00	7,277.00	11,005.40	7,094.00	32.22	31.95	41.35	242.44	191.98	50.46	4.804	0						
11,300.00	7,277.00	11,105.40	7,094.00	32.87	32.60	41.35	242.45	191.00	51.44	4.713	0						
11,400.00	7,277.00	11,205.40	7,094.00	33.51	33.25	41.35	242.45	190.03	52.42	4.625	0						
11,500.00	7,277.00	11,305.40	7,094.00	34.16	33.90	41.35	242.45	189.04	53.40	4.540	0						
11,600.00	7,277.00	11,405.40	7,094.00	34.81	34.55	41.35	242.45	188.06	54.39	4.458	0						
11,700.00	7,277.00	11,505.40	7,094.00	35.46	35.21	41.35	242.45	187.08	55.37	4.378	0						
11,800.00	7,277.00	11,605.40	7,094.00	36.12	35.86	41.35	242.45	186.09	56.36	4.302	0						
11,900.00	7,277.00	11,705.40	7,094.00	36.78	36.52	41.35	242.46	185.10	57.35	4.227	0						
12,000.00	7,277.00	11,805.40	7,094.00	37.43	37.18	41.35	242.46	184.11	58.35	4.155	0						
12,100.00	7,277.00	11,905.40	7,094.00	38.09	37.85	41.35	242.46	183.12	59.34	4.086	0						
12,200.00	7,277.00	12,005.40	7,094.00	38.75	38.51	41.35	242.46	182.12	60.34	4.018	0						
12,300.00	7,277.00	12,105.40	7,094.00	39.42	39.17	41.35	242.46	181.13	61.33	3.953	0						
12,400.00	7,277.00	12,205.40	7,094.00	40.08	39.84	41.36	242.46	180.13	62.33	3.890	0						
12,500.00	7,277.00	12,305.40	7,094.00	40.75	40.51	41.36	242.47	179.13	63.33	3.828	0						
12,600.00	7,277.00	12,405.40	7,094.00	41.41	41.18	41.36	242.47	178.13	64.34	3.769	0						
12,700.00	7,277.00	12,505.40	7,094.00	42.08	41.85	41.36	242.47	177.13	65.34	3.711	0						
12,800.00	7,277.00	12,605.40	7,094.00	42.75	42.52	41.36	242.47	176.13	66.34	3.655	0						
12,900.00	7,277.00	12,705.40	7,094.00	43.42	43.19	41.36	242.47	175.13	67.35	3.600	0						
13,000.00	7,277.00	12,805.40	7,094.00	44.09	43.86	41.36	242.48	174.12	68.36	3.547	0						
13,100.00	7,277.00	12,905.40	7,094.00	44.76	44.54	41.36	242.48	173.12	69.36	3.496	0						
13,200.00	7,277.00	13,005.40	7,094.00	45.44	45.21	41.36	242.48	172.11	70.37	3.446	0						
13,300.00	7,277.00	13,105.40	7,094.00	46.11	45.89	41.36	242.48	171.10	71.38	3.397	0						
13,400.00	7,277.00	13,205.40	7,094.00	46.78	46.57	41.36	242.49	170.09	72.39	3.350	0						
13,500.00	7,277.00	13,305.40	7,094.00	47.46	47.24	41.36	242.49	169.08	73.40	3.303	0						
13,600.00	7,277.00	13,405.40	7,094.00	48.14	47.92	41.36	242.49	168.07	74.42	3.259	0						
13,700.00	7,277.00	13,505.40	7,094.00	48.81	48.60	41.36	242.49	167.06	75.43	3.215	0						
13,800.00	7,277.00	13,605.40	7,094.00	49.49	49.28	41.36	242.50	166.05	76.45	3.172	0						
13,900.00	7,277.00	13,705.40	7,094.00	50.17	49.96	41.36	242.50	165.04	77.46	3.131	0						
14,000.00	7,277.00	13,805.40	7,094.00	50.85	50.64	41.37	242.50	164.02	78.48	3.090	0						
14,100.00	7,277.00	13,905.40	7,094.00	51.53	51.32	41.37	242.50	163.01	79.49	3.051	0						
14,200.00	7,277.00	14,005.40	7,094.00	52.21	52.00	41.37	242.51	162.00	80.51	3.012	0						
14,300.00	7,277.00	14,105.40	7,094.00	52.89	52.69	41.37	242.51	160.98	81.53	2.975	0						
14,400.00	7,277.00	14,205.40	7,094.00	53.57	53.37	41.37	242.51	159.96	82.55	2.938	0						
14,500.00	7,277.00	14,305.40	7,094.00	54.26	54.05	41.37	242.51	158.95	83.57	2.902	0						
14,600.00	7,277.00	14,405.40	7,094.00	54.94	54.74	41.37	242.52	157.93	84.59	2.867	0						

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



Schlumberger
Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #2 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Riskd Separation Factor	Probability of Collision		
14,700.00	7,277.00	14,505.40	7,094.00	55.62	55.42	41.37	242.52	156.91	85.61	2.833	0			
14,800.00	7,277.00	14,605.40	7,094.00	56.31	56.11	41.37	242.52	155.89	86.63	2.800	0			
14,900.00	7,277.00	14,705.40	7,094.00	56.99	56.79	41.37	242.53	154.88	87.65	2.767	0			
15,000.00	7,277.00	14,805.41	7,094.00	57.67	57.48	41.37	242.53	153.86	88.67	2.735	0			
15,083.00	7,277.00	14,888.41	7,094.00	58.24	58.05	41.37	242.53	153.01	89.52	2.709	0		SF	



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
0.00	0.00	0.00	0.00	0.00	0.00	-179.82	56.16				0			
100.00	100.00	98.00	98.00	0.15	0.14	-179.82	56.12	55.83	0.29	193.337	0			
200.00	200.00	198.00	198.00	0.32	0.32	-179.82	56.12	55.48	0.64	87.858	0			
300.00	300.00	298.00	298.00	0.50	0.49	-179.82	56.12	55.13	0.99	56.813	0			
400.00	400.00	398.00	398.00	0.67	0.67	-179.82	56.12	54.79	1.34	41.979	0			
500.00	500.00	498.00	498.00	0.84	0.84	-179.82	56.12	54.44	1.69	33.288	0			
600.00	600.00	598.00	598.00	1.02	1.02	-179.82	56.12	54.09	2.04	27.578	0			
700.00	699.98	697.98	697.98	1.19	1.19	-141.28	57.47	55.09	2.38	24.110	0			
800.00	799.84	797.84	797.84	1.37	1.36	-144.27	61.64	58.91	2.73	22.566	0			
900.00	899.45	898.71	898.69	1.55	1.54	-147.28	68.01	64.93	3.08	22.077	0			
1,000.00	998.70	999.77	999.61	1.73	1.72	-148.87	75.57	72.14	3.43	22.037	0			
1,074.99	1,072.82	1,075.65	1,075.22	1.86	1.85	-149.32	81.95	78.26	3.69	22.203	0			
1,100.00	1,097.48	1,100.97	1,100.42	1.91	1.90	-149.34	84.11	80.33	3.78	22.248	0			
1,200.00	1,196.11	1,201.53	1,200.27	2.10	2.08	-148.46	91.77	87.63	4.14	22.170	0			
1,300.00	1,294.74	1,301.25	1,299.23	2.28	2.26	-147.50	99.19	94.70	4.50	22.051	0			
1,400.00	1,393.37	1,400.96	1,398.19	2.47	2.44	-146.67	106.65	101.79	4.86	21.947	0			
1,500.00	1,492.00	1,500.67	1,497.14	2.66	2.62	-145.96	114.12	108.90	5.22	21.857	0			
1,600.00	1,590.63	1,600.38	1,596.10	2.85	2.80	-145.33	121.60	116.02	5.58	21.776	0			
1,700.00	1,689.26	1,700.09	1,695.05	3.04	2.98	-144.77	129.10	123.15	5.95	21.703	0			
1,800.00	1,787.88	1,799.80	1,794.01	3.23	3.16	-144.27	136.61	130.30	6.31	21.638	0			
1,900.00	1,886.51	1,899.51	1,892.97	3.43	3.35	-143.83	144.13	137.45	6.68	21.578	0			
2,000.00	1,985.14	1,999.22	1,991.92	3.62	3.53	-143.43	151.66	144.61	7.05	21.525	0			
2,100.00	2,083.77	2,098.93	2,090.88	3.81	3.71	-143.07	159.19	151.78	7.41	21.476	0			
2,200.00	2,182.40	2,198.64	2,189.84	4.00	3.90	-142.74	166.73	158.95	7.78	21.432	0			
2,300.00	2,281.03	2,298.36	2,288.79	4.20	4.08	-142.44	174.28	166.13	8.15	21.391	0			
2,400.00	2,379.66	2,398.07	2,387.75	4.39	4.26	-142.16	181.83	173.31	8.51	21.354	0			
2,500.00	2,478.28	2,497.78	2,486.70	4.58	4.45	-141.91	189.38	180.50	8.88	21.319	0			
2,600.00	2,576.91	2,597.49	2,585.66	4.78	4.63	-141.68	196.94	187.68	9.25	21.287	0			
2,700.00	2,675.54	2,697.20	2,684.62	4.97	4.82	-141.46	204.50	194.88	9.62	21.257	0			
2,800.00	2,774.17	2,796.91	2,783.57	5.16	5.00	-141.26	212.06	202.07	9.99	21.230	0			
2,900.00	2,872.80	2,896.62	2,882.53	5.36	5.19	-141.07	219.62	209.26	10.36	21.204	0			
3,000.00	2,971.43	2,996.33	2,981.48	5.55	5.37	-140.89	227.19	216.46	10.73	21.180	0			
3,100.00	3,070.06	3,096.04	3,080.44	5.74	5.55	-140.73	234.76	223.66	11.10	21.157	0			
3,200.00	3,168.68	3,195.75	3,179.40	5.94	5.74	-140.58	242.33	230.86	11.47	21.135	0			
3,300.00	3,267.31	3,295.47	3,278.35	6.13	5.92	-140.43	249.90	238.06	11.83	21.115	0			
3,400.00	3,365.94	3,395.18	3,377.31	6.33	6.11	-140.30	257.47	245.27	12.20	21.096	0			
3,500.00	3,464.57	3,494.89	3,476.26	6.52	6.29	-140.17	265.05	252.47	12.57	21.079	0			
3,600.00	3,563.20	3,594.60	3,575.22	6.71	6.48	-140.05	272.62	259.68	12.94	21.062	0			
3,700.00	3,661.83	3,694.31	3,674.18	6.91	6.66	-139.93	280.20	266.89	13.31	21.046	0			
3,800.00	3,760.46	3,794.02	3,773.13	7.10	6.85	-139.82	287.78	274.09	13.68	21.030	0			
3,900.00	3,859.08	3,893.73	3,872.09	7.30	7.03	-139.72	295.36	281.30	14.05	21.016	0			
4,000.00	3,957.71	3,993.44	3,971.04	7.49	7.22	-139.62	302.94	288.51	14.42	21.002	0			
4,100.00	4,056.34	4,093.15	4,070.00	7.68	7.40	-139.53	310.52	295.72	14.79	20.989	0			
4,200.00	4,154.97	4,192.86	4,168.96	7.88	7.59	-139.44	318.10	302.94	15.16	20.977	0			
4,300.00	4,253.60	4,292.58	4,267.91	8.07	7.77	-139.36	325.68	310.15	15.53	20.965	0			
4,400.00	4,352.23	4,392.29	4,366.87	8.27	7.96	-139.28	333.27	317.36	15.91	20.953	0			
4,500.00	4,450.86	4,492.00	4,465.82	8.46	8.14	-139.20	340.85	324.57	16.28	20.942	0			
4,600.00	4,549.48	4,591.71	4,564.78	8.66	8.33	-139.13	348.43	331.79	16.65	20.932	0			
4,700.00	4,648.11	4,691.42	4,663.74	8.85	8.51	-139.06	356.02	339.00	17.02	20.922	0			
4,800.00	4,746.74	4,791.13	4,762.69	9.05	8.70	-138.99	363.60	346.22	17.39	20.912	0			
4,900.00	4,845.37	4,890.84	4,861.65	9.24	8.88	-138.92	371.19	353.43	17.76	20.903	0			
5,000.00	4,944.00	4,990.55	4,960.60	9.43	9.07	-138.86	378.78	360.65	18.13	20.894	0			
5,100.00	5,042.63	5,090.26	5,059.56	9.63	9.25	-138.80	386.36	367.86	18.50	20.886	0			
5,200.00	5,141.26	5,189.97	5,158.52	9.82	9.44	-138.75	393.95	375.08	18.87	20.878	0			

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #3 - Original Hole - Rev 0		Offset Site Error:		0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis			Distance						Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision					
5,300.00	5,239.89	5,289.69	5,257.47	10.02	9.63	-138.69	401.54	382.30	19.24	20.870	0						
5,400.00	5,338.51	5,389.40	5,356.43	10.21	9.81	-138.64	409.13	389.51	19.61	20.862	0						
5,500.00	5,437.14	5,489.11	5,455.38	10.41	10.00	-138.59	416.71	396.73	19.98	20.855	0						
5,600.00	5,535.77	5,588.82	5,554.34	10.60	10.18	-138.54	424.30	403.95	20.35	20.848	0						
5,700.00	5,634.40	5,688.53	5,653.30	10.80	10.37	-138.49	431.89	411.17	20.72	20.841	0						
5,800.00	5,733.03	5,788.24	5,752.25	10.99	10.55	-138.44	439.48	418.39	21.09	20.834	0						
5,900.00	5,831.66	5,887.95	5,851.21	11.19	10.74	-138.40	447.07	425.60	21.46	20.828	0						
6,000.00	5,930.29	5,987.66	5,950.16	11.38	10.92	-138.35	454.66	432.82	21.84	20.822	0						
6,100.00	6,028.91	6,084.76	6,046.56	11.57	11.10	-138.35	462.37	440.17	22.20	20.828	0						
6,139.18	6,067.56	6,121.47	6,083.08	11.65	11.17	-138.42	465.67	443.33	22.34	20.847	0						
6,200.00	6,127.64	6,178.39	6,139.79	11.77	11.27	-138.65	470.69	448.13	22.56	20.868	0						
6,300.00	6,226.83	6,271.92	6,233.15	11.95	11.43	-139.07	477.89	454.99	22.90	20.870	0						
6,400.00	6,326.40	6,365.34	6,326.53	12.13	11.59	-139.54	483.79	460.57	23.22	20.834	0						
6,500.00	6,426.23	6,463.05	6,424.23	12.29	11.75	-140.01	488.09	464.56	23.54	20.738	0						
6,600.00	6,526.20	6,562.92	6,523.99	12.46	11.91	-140.60	489.82	465.99	23.83	20.556	0						
6,614.18	6,540.38	6,576.94	6,537.91	12.48	11.93	179.57	489.85	466.08	23.78	20.603	0						
6,700.00	6,626.20	6,659.70	6,619.10	12.62	12.04	177.73	490.25	466.16	24.09	20.351	0						
6,714.18	6,640.38	6,672.92	6,631.85	12.64	12.06	177.32	490.42	466.28	24.14	20.314	0						
6,750.00	6,676.18	6,705.90	6,663.32	12.70	12.10	86.22	490.99	466.79	24.20	20.291	0						
6,800.00	6,725.94	6,750.00	6,704.52	12.77	12.16	84.76	492.08	467.79	24.29	20.259	0						
6,850.00	6,775.18	6,795.79	6,746.04	12.84	12.21	83.26	493.48	469.11	24.37	20.249	0						
6,900.00	6,823.58	6,839.65	6,784.42	12.90	12.26	81.85	495.15	470.71	24.44	20.260	0						
6,950.00	6,870.85	6,882.87	6,820.72	12.96	12.30	80.50	497.04	472.55	24.50	20.289	0						
7,000.00	6,916.70	6,925.51	6,854.89	13.02	12.35	79.21	499.12	474.57	24.54	20.336	0						
7,050.00	6,960.84	6,967.61	6,886.88	13.07	12.39	77.98	501.32	476.74	24.58	20.396	0						
7,100.00	7,003.01	7,009.24	6,916.67	13.12	12.44	76.83	503.60	478.99	24.60	20.467	0						
7,150.00	7,042.95	7,050.00	6,943.93	13.18	12.49	75.77	505.91	481.29	24.62	20.547	0						
7,200.00	7,080.40	7,091.23	6,969.49	13.23	12.54	74.76	508.21	483.57	24.64	20.629	0						
7,250.00	7,115.14	7,131.69	6,992.47	13.28	12.59	73.85	510.44	485.80	24.65	20.711	0						
7,300.00	7,146.96	7,171.85	7,013.15	13.34	12.64	73.03	512.58	487.92	24.66	20.786	0						
7,350.00	7,175.65	7,211.73	7,031.50	13.40	12.69	72.29	514.57	489.90	24.68	20.851	0						
7,400.00	7,201.04	7,250.00	7,046.99	13.46	12.74	71.66	516.40	491.69	24.71	20.899	0						
7,450.00	7,222.97	7,290.84	7,061.17	13.53	12.80	71.09	518.01	493.25	24.76	20.922	0						
7,500.00	7,241.31	7,330.13	7,072.46	13.60	12.86	70.63	519.39	494.56	24.83	20.918	0						
7,550.00	7,255.95	7,369.29	7,081.39	13.68	12.94	70.26	520.51	495.59	24.93	20.883	0						
7,600.00	7,266.79	7,408.35	7,087.95	13.76	13.03	69.99	521.36	496.31	25.05	20.813	0						
7,650.00	7,273.77	7,450.00	7,092.32	13.86	13.13	69.80	521.93	496.72	25.21	20.702	0						
7,700.00	7,276.84	7,486.27	7,093.92	13.97	13.23	69.73	522.19	496.79	25.40	20.563	0						
7,714.18	7,277.00	7,497.63	7,094.00	14.00	13.26	69.72	522.21	496.75	25.45	20.515	0						
7,800.00	7,277.00	7,583.46	7,094.00	14.21	13.50	69.72	522.21	496.30	25.91	20.152	0						
7,900.00	7,277.00	7,683.46	7,094.00	14.49	13.80	69.72	522.21	495.71	26.50	19.708	0						
8,000.00	7,277.00	7,783.46	7,094.00	14.81	14.13	69.72	522.21	495.07	27.14	19.244	0						
8,100.00	7,277.00	7,883.46	7,094.00	15.15	14.48	69.72	522.21	494.39	27.82	18.769	0						
8,200.00	7,277.00	7,983.46	7,094.00	15.52	14.86	69.72	522.21	493.65	28.56	18.287	0						
8,300.00	7,277.00	8,083.46	7,094.00	15.91	15.26	69.72	522.21	492.88	29.33	17.802	0						
8,400.00	7,277.00	8,183.46	7,094.00	16.32	15.68	69.72	522.21	492.06	30.15	17.321	0						
8,500.00	7,277.00	8,283.46	7,094.00	16.75	16.12	69.72	522.21	491.21	31.00	16.845	0						
8,600.00	7,277.00	8,383.46	7,094.00	17.20	16.58	69.72	522.21	490.33	31.89	16.377	0						
8,700.00	7,277.00	8,483.46	7,094.00	17.67	17.06	69.72	522.21	489.41	32.80	15.919	0						
8,800.00	7,277.00	8,583.46	7,094.00	18.15	17.55	69.72	522.21	488.47	33.75	15.474	0						
8,900.00	7,277.00	8,683.46	7,094.00	18.64	18.06	69.72	522.21	487.50	34.72	15.042	0						
9,000.00	7,277.00	8,783.46	7,094.00	19.15	18.58	69.72	522.22	486.50	35.71	14.623	0						
9,100.00	7,277.00	8,883.46	7,094.00	19.67	19.11	69.72	522.22	485.49	36.73	14.218	0						
9,200.00	7,277.00	8,983.46	7,094.00	20.20	19.65	69.72	522.22	484.45	37.76	13.828	0						

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #3 - Original Hole - Rev 0	Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision			
9,300.00	7,277.00	9,083.46	7,094.00	20.74	20.20	69.72	522.22	483.40	38.82	13.453	0				
9,400.00	7,277.00	9,183.46	7,094.00	21.29	20.76	69.72	522.22	482.33	39.89	13.092	0				
9,500.00	7,277.00	9,283.46	7,094.00	21.85	21.33	69.72	522.22	481.24	40.98	12.744	0				
9,600.00	7,277.00	9,383.46	7,094.00	22.42	21.90	69.72	522.22	480.14	42.08	12.411	0				
9,700.00	7,277.00	9,483.46	7,094.00	22.99	22.49	69.72	522.22	479.03	43.19	12.090	0				
9,800.00	7,277.00	9,583.46	7,094.00	23.57	23.08	69.72	522.22	477.90	44.32	11.783	0				
9,900.00	7,277.00	9,683.46	7,094.00	24.16	23.68	69.72	522.23	476.77	45.46	11.488	0				
10,000.00	7,277.00	9,783.46	7,094.00	24.75	24.28	69.72	522.23	475.62	46.61	11.205	0				
10,100.00	7,277.00	9,883.46	7,094.00	25.35	24.89	69.72	522.23	474.46	47.77	10.933	0				
10,200.00	7,277.00	9,983.46	7,094.00	25.96	25.50	69.72	522.23	473.29	48.94	10.672	0				
10,300.00	7,277.00	10,083.46	7,094.00	26.57	26.12	69.72	522.23	472.12	50.11	10.421	0				
10,400.00	7,277.00	10,183.46	7,094.00	27.18	26.74	69.72	522.23	470.94	51.30	10.181	0				
10,500.00	7,277.00	10,283.46	7,094.00	27.80	27.36	69.72	522.23	469.75	52.49	9.949	0				
10,600.00	7,277.00	10,383.46	7,094.00	28.42	27.99	69.72	522.24	468.55	53.69	9.727	0				
10,700.00	7,277.00	10,483.46	7,094.00	29.05	28.62	69.72	522.24	467.35	54.89	9.514	0				
10,800.00	7,277.00	10,583.46	7,094.00	29.68	29.26	69.72	522.24	466.14	56.10	9.308	0				
10,900.00	7,277.00	10,683.46	7,094.00	30.31	29.90	69.72	522.24	464.92	57.32	9.111	0				
11,000.00	7,277.00	10,783.46	7,094.00	30.94	30.54	69.72	522.24	463.70	58.54	8.921	0				
11,100.00	7,277.00	10,883.46	7,094.00	31.58	31.18	69.72	522.25	462.48	59.77	8.738	0				
11,200.00	7,277.00	10,983.46	7,094.00	32.22	31.83	69.72	522.25	461.25	61.00	8.561	0				
11,300.00	7,277.00	11,083.46	7,094.00	32.87	32.48	69.72	522.25	460.01	62.24	8.391	0				
11,400.00	7,277.00	11,183.46	7,094.00	33.51	33.13	69.72	522.25	458.77	63.48	8.227	0				
11,500.00	7,277.00	11,283.46	7,094.00	34.16	33.79	69.72	522.25	457.53	64.72	8.069	0				
11,600.00	7,277.00	11,383.46	7,094.00	34.81	34.44	69.72	522.26	456.29	65.97	7.917	0				
11,700.00	7,277.00	11,483.46	7,094.00	35.46	35.10	69.72	522.26	455.04	67.22	7.769	0				
11,800.00	7,277.00	11,583.46	7,094.00	36.12	35.76	69.72	522.26	453.78	68.48	7.627	0				
11,900.00	7,277.00	11,683.46	7,094.00	36.78	36.42	69.72	522.26	452.53	69.73	7.489	0				
12,000.00	7,277.00	11,783.46	7,094.00	37.43	37.08	69.72	522.27	451.27	70.99	7.356	0				
12,100.00	7,277.00	11,883.46	7,094.00	38.09	37.74	69.72	522.27	450.01	72.26	7.228	0				
12,200.00	7,277.00	11,983.46	7,094.00	38.75	38.41	69.72	522.27	448.75	73.52	7.103	0				
12,300.00	7,277.00	12,083.46	7,094.00	39.42	39.08	69.72	522.27	447.48	74.79	6.983	0				
12,400.00	7,277.00	12,183.46	7,094.00	40.08	39.74	69.72	522.28	446.21	76.06	6.866	0				
12,500.00	7,277.00	12,283.46	7,094.00	40.75	40.41	69.72	522.28	444.94	77.34	6.753	0				
12,600.00	7,277.00	12,383.46	7,094.00	41.41	41.08	69.72	522.28	443.67	78.61	6.644	0				
12,700.00	7,277.00	12,483.46	7,094.00	42.08	41.75	69.72	522.29	442.40	79.89	6.538	0				
12,800.00	7,277.00	12,583.46	7,094.00	42.75	42.43	69.72	522.29	441.12	81.17	6.435	0				
12,900.00	7,277.00	12,683.46	7,094.00	43.42	43.10	69.72	522.29	439.84	82.45	6.335	0				
13,000.00	7,277.00	12,783.46	7,094.00	44.09	43.78	69.72	522.29	438.56	83.73	6.238	0				
13,100.00	7,277.00	12,883.46	7,094.00	44.76	44.45	69.72	522.30	437.28	85.02	6.143	0				
13,200.00	7,277.00	12,983.46	7,094.00	45.44	45.13	69.72	522.30	436.00	86.30	6.052	0				
13,300.00	7,277.00	13,083.46	7,094.00	46.11	45.80	69.72	522.30	434.71	87.59	5.963	0				
13,400.00	7,277.00	13,183.46	7,094.00	46.78	46.48	69.72	522.31	433.43	88.88	5.877	0				
13,500.00	7,277.00	13,283.46	7,094.00	47.46	47.16	69.72	522.31	432.14	90.17	5.792	0				
13,600.00	7,277.00	13,383.46	7,094.00	48.14	47.84	69.72	522.31	430.85	91.46	5.711	0				
13,700.00	7,277.00	13,483.46	7,094.00	48.81	48.52	69.72	522.32	429.56	92.76	5.631	0				
13,800.00	7,277.00	13,583.46	7,094.00	49.49	49.20	69.72	522.32	428.27	94.05	5.554	0				
13,900.00	7,277.00	13,683.46	7,094.00	50.17	49.88	69.72	522.32	426.98	95.35	5.478	0				
14,000.00	7,277.00	13,783.46	7,094.00	50.85	50.56	69.73	522.33	425.68	96.64	5.405	0				
14,100.00	7,277.00	13,883.46	7,094.00	51.53	51.24	69.73	522.33	424.39	97.94	5.333	0				
14,200.00	7,277.00	13,983.46	7,094.00	52.21	51.93	69.73	522.34	423.09	99.24	5.263	0				
14,300.00	7,277.00	14,083.46	7,094.00	52.89	52.61	69.73	522.34	421.80	100.54	5.195	0				
14,400.00	7,277.00	14,183.46	7,094.00	53.57	53.30	69.73	522.34	420.50	101.84	5.129	0				
14,500.00	7,277.00	14,283.46	7,094.00	54.26	53.98	69.73	522.35	419.20	103.14	5.064	0				
14,600.00	7,277.00	14,383.46	7,094.00	54.94	54.66	69.73	522.35	417.90	104.45	5.001	0				

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



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #3 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Riskd Separation Factor	Probability of Collision		
14,700.00	7,277.00	14,483.46	7,094.00	55.62	55.35	69.73	522.36	416.60	105.75	4.939	0			
14,800.00	7,277.00	14,583.46	7,094.00	56.31	56.04	69.73	522.36	415.30	107.06	4.879	0			
14,900.00	7,277.00	14,683.46	7,094.00	56.99	56.72	69.73	522.36	414.00	108.36	4.821	0			
15,000.00	7,277.00	14,783.46	7,094.00	57.67	57.41	69.73	522.37	412.70	109.67	4.763	0			
15,083.00	7,277.00	14,866.48	7,094.00	58.24	57.98	69.73	522.37	411.62	110.75	4.717	0		SF	



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision	
0.00	0.00	0.00	0.00	0.00	0.00	-179.82	84.22				0		
100.00	100.00	97.00	97.00	0.15	0.14	-179.82	84.17	83.88	0.29	291.422	0		
200.00	200.00	197.00	197.00	0.32	0.32	-179.82	84.17	83.53	0.64	132.122	0		
300.00	300.00	297.00	297.00	0.50	0.49	-179.82	84.17	83.18	0.99	85.353	0		
400.00	400.00	397.00	397.00	0.67	0.66	-179.82	84.17	82.83	1.34	63.039	0		
500.00	500.00	497.00	497.00	0.84	0.84	-179.82	84.17	82.48	1.68	49.974	0		
600.00	600.00	597.00	597.00	1.02	1.01	-179.82	84.17	82.13	2.03	41.395	0		CC, ES
700.00	699.98	696.98	696.98	1.19	1.19	-140.91	85.52	83.13	2.38	35.900	0		
800.00	799.84	796.84	796.84	1.37	1.36	-142.97	89.64	86.91	2.73	32.833	0		
900.00	899.45	896.45	896.45	1.55	1.54	-146.00	96.75	93.67	3.08	31.438	0		
1,000.00	998.70	997.07	997.05	1.73	1.71	-148.77	106.47	103.04	3.43	31.082	0		
1,074.99	1,072.82	1,072.65	1,072.55	1.86	1.84	-150.02	114.97	111.28	3.69	31.192	0		
1,100.00	1,097.48	1,097.89	1,097.73	1.91	1.89	-150.31	117.92	114.15	3.77	31.238	0		
1,200.00	1,196.11	1,199.03	1,198.49	2.10	2.07	-150.41	128.87	124.74	4.13	31.187	0		
1,300.00	1,294.74	1,298.94	1,297.77	2.28	2.25	-149.56	138.84	134.35	4.49	30.924	0		
1,400.00	1,393.37	1,398.42	1,396.63	2.47	2.42	-148.78	148.81	143.96	4.85	30.693	0		
1,500.00	1,492.00	1,497.90	1,495.48	2.66	2.60	-148.11	158.80	153.59	5.21	30.491	0		
1,600.00	1,590.63	1,597.39	1,594.33	2.85	2.78	-147.51	168.80	163.23	5.57	30.313	0		
1,700.00	1,689.26	1,696.87	1,693.19	3.04	2.96	-146.98	178.82	172.89	5.93	30.155	0		
1,800.00	1,787.88	1,796.36	1,792.04	3.23	3.14	-146.51	188.86	182.57	6.29	30.013	0		
1,900.00	1,886.51	1,895.84	1,890.90	3.43	3.32	-146.09	198.91	192.25	6.66	29.886	0		
2,000.00	1,985.14	1,995.32	1,989.75	3.62	3.50	-145.70	208.97	201.95	7.02	29.771	0		
2,100.00	2,083.77	2,094.81	2,088.60	3.81	3.68	-145.35	219.03	211.65	7.38	29.666	0		
2,200.00	2,182.40	2,194.29	2,187.46	4.00	3.87	-145.03	229.11	221.36	7.75	29.571	0		
2,300.00	2,281.03	2,293.77	2,286.31	4.20	4.05	-144.74	239.19	231.07	8.11	29.484	0		
2,400.00	2,379.66	2,393.26	2,385.17	4.39	4.23	-144.48	249.27	240.79	8.48	29.403	0		
2,500.00	2,478.28	2,492.74	2,484.02	4.58	4.41	-144.23	259.36	250.52	8.84	29.329	0		
2,600.00	2,576.91	2,592.22	2,582.87	4.78	4.59	-144.00	269.46	260.25	9.21	29.259	0		
2,700.00	2,675.54	2,691.71	2,681.73	4.97	4.77	-143.79	279.55	269.98	9.58	29.195	0		
2,800.00	2,774.17	2,791.19	2,780.58	5.16	4.96	-143.59	289.66	279.72	9.94	29.135	0		
2,900.00	2,872.80	2,890.68	2,879.44	5.36	5.14	-143.41	299.76	289.45	10.31	29.079	0		
3,000.00	2,971.43	2,990.16	2,978.29	5.55	5.32	-143.23	309.87	299.20	10.68	29.027	0		
3,100.00	3,070.06	3,089.64	3,077.14	5.74	5.50	-143.07	319.98	308.94	11.04	28.978	0		
3,200.00	3,168.68	3,189.13	3,176.00	5.94	5.69	-142.92	330.09	318.69	11.41	28.933	0		
3,300.00	3,267.31	3,288.61	3,274.85	6.13	5.87	-142.78	340.21	328.43	11.78	28.890	0		
3,400.00	3,365.94	3,388.09	3,373.71	6.33	6.05	-142.65	350.33	338.18	12.14	28.849	0		
3,500.00	3,464.57	3,487.58	3,472.56	6.52	6.23	-142.52	360.45	347.94	12.51	28.811	0		
3,600.00	3,563.20	3,587.06	3,571.41	6.71	6.42	-142.40	370.57	357.69	12.88	28.775	0		
3,700.00	3,661.83	3,686.54	3,670.27	6.91	6.60	-142.29	380.69	367.44	13.25	28.740	0		
3,800.00	3,760.46	3,786.03	3,769.12	7.10	6.78	-142.18	390.81	377.20	13.61	28.708	0		
3,900.00	3,859.08	3,885.51	3,867.98	7.30	6.96	-142.08	400.94	386.96	13.98	28.677	0		
4,000.00	3,957.71	3,985.00	3,966.83	7.49	7.15	-141.98	411.06	396.72	14.35	28.648	0		
4,100.00	4,056.34	4,084.48	4,065.68	7.68	7.33	-141.89	421.19	406.47	14.72	28.620	0		
4,200.00	4,154.97	4,183.96	4,164.54	7.88	7.51	-141.80	431.32	416.24	15.08	28.594	0		
4,300.00	4,253.60	4,283.45	4,263.39	8.07	7.69	-141.72	441.45	426.00	15.45	28.568	0		
4,400.00	4,352.23	4,382.93	4,362.25	8.27	7.88	-141.64	451.58	435.76	15.82	28.544	0		
4,500.00	4,450.86	4,482.41	4,461.10	8.46	8.06	-141.56	461.71	445.52	16.19	28.521	0		
4,600.00	4,549.48	4,581.90	4,559.95	8.66	8.24	-141.49	471.84	455.29	16.56	28.499	0		
4,700.00	4,648.11	4,681.38	4,658.81	8.85	8.43	-141.42	481.97	465.05	16.92	28.478	0		
4,800.00	4,746.74	4,780.86	4,757.66	9.05	8.61	-141.35	492.11	474.81	17.29	28.458	0		
4,900.00	4,845.37	4,880.35	4,856.52	9.24	8.79	-141.28	502.24	484.58	17.66	28.438	0		
5,000.00	4,944.00	4,979.83	4,955.37	9.43	8.97	-141.22	512.38	494.35	18.03	28.420	0		
5,100.00	5,042.63	5,079.32	5,054.22	9.63	9.16	-141.16	522.51	504.11	18.40	28.402	0		
5,200.00	5,141.26	5,178.80	5,153.08	9.82	9.34	-141.11	532.65	513.88	18.77	28.384	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #4 - Original Hole - Rev 0	Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision			
5,300.00	5,239.89	5,278.28	5,251.93	10.02	9.52	-141.05	542.78	523.65	19.13	28.368	0				
5,400.00	5,338.51	5,377.77	5,350.79	10.21	9.71	-141.00	552.92	533.42	19.50	28.352	0				
5,500.00	5,437.14	5,477.25	5,449.64	10.41	9.89	-140.95	563.06	543.18	19.87	28.336	0				
5,600.00	5,535.77	5,576.73	5,548.49	10.60	10.07	-140.90	573.19	552.95	20.24	28.321	0				
5,700.00	5,634.40	5,676.22	5,647.35	10.80	10.26	-140.85	583.33	562.72	20.61	28.307	0				
5,800.00	5,733.03	5,775.70	5,746.20	10.99	10.44	-140.80	593.47	572.49	20.98	28.293	0				
5,900.00	5,831.66	5,875.18	5,845.06	11.19	10.62	-140.76	603.61	582.26	21.34	28.280	0				
6,000.00	5,930.29	5,974.67	5,943.91	11.38	10.80	-140.71	613.75	592.03	21.71	28.267	0				
6,100.00	6,028.91	6,074.15	6,042.76	11.57	10.99	-140.67	623.89	601.80	22.08	28.254	0				
6,139.18	6,067.56	6,113.13	6,081.50	11.65	11.06	-140.66	627.86	605.63	22.23	28.250	0				
6,200.00	6,127.64	6,173.68	6,141.66	11.77	11.17	-140.67	633.53	611.07	22.46	28.206	0				
6,300.00	6,226.83	6,272.26	6,239.63	11.95	11.35	-140.51	640.71	617.88	22.84	28.057	0				
6,400.00	6,326.40	6,367.14	6,334.13	12.13	11.52	-140.34	645.76	622.58	23.18	27.853	0				
6,500.00	6,426.23	6,462.15	6,428.99	12.29	11.69	-140.24	648.90	625.39	23.51	27.596	0				
6,600.00	6,526.20	6,557.23	6,524.04	12.46	11.85	-140.19	650.11	626.29	23.82	27.288	0				
6,614.18	6,540.38	6,570.72	6,537.53	12.48	11.87	-179.82	650.13	626.44	23.69	27.441	0				
6,643.82	6,570.02	6,600.21	6,567.02	12.53	11.92	-179.82	650.13	626.34	23.79	27.325	0				
6,700.00	6,626.20	6,656.39	6,623.20	12.62	12.01	-179.82	650.13	626.15	23.98	27.109	0				
6,714.18	6,640.38	6,670.57	6,637.38	12.64	12.04	-179.82	650.13	626.10	24.03	27.054	0				
6,750.00	6,676.18	6,706.50	6,673.30	12.70	12.10	90.19	650.13	625.81	24.32	26.734	0				
6,800.00	6,725.94	6,756.68	6,723.26	12.77	12.17	90.21	650.13	625.66	24.47	26.568	0				
6,850.00	6,775.18	6,806.88	6,772.72	12.84	12.24	90.23	650.13	625.52	24.61	26.415	0				
6,900.00	6,823.58	6,857.09	6,821.37	12.90	12.31	90.25	650.13	625.39	24.75	26.273	0				
6,950.00	6,870.85	6,907.32	6,868.92	12.96	12.37	90.26	650.13	625.26	24.87	26.140	0				
7,000.00	6,916.70	6,957.56	6,915.05	13.02	12.43	90.28	650.13	625.14	24.99	26.015	0				
7,050.00	6,960.84	7,007.81	6,959.48	13.07	12.49	90.29	650.14	625.03	25.11	25.896	0				
7,100.00	7,003.01	7,058.08	7,001.93	13.12	12.54	90.30	650.14	624.92	25.22	25.782	0				
7,150.00	7,042.95	7,108.35	7,042.14	13.18	12.60	90.31	650.14	624.81	25.33	25.669	0				
7,200.00	7,080.40	7,158.62	7,079.85	13.23	12.66	90.31	650.14	624.70	25.44	25.555	0				
7,250.00	7,115.14	7,208.90	7,114.82	13.28	12.71	90.32	650.14	624.58	25.56	25.439	0				
7,300.00	7,146.96	7,259.19	7,146.83	13.34	12.77	90.32	650.14	624.46	25.68	25.317	0				
7,350.00	7,175.65	7,309.48	7,175.69	13.40	12.84	90.32	650.14	624.33	25.81	25.187	0				
7,400.00	7,201.04	7,359.76	7,201.21	13.46	12.91	90.32	650.14	624.18	25.96	25.048	0				
7,450.00	7,222.97	7,410.04	7,223.23	13.53	12.98	90.31	650.14	624.02	26.11	24.897	0				
7,500.00	7,241.31	7,460.32	7,241.62	13.60	13.07	90.31	650.14	623.85	26.29	24.734	0				
7,550.00	7,255.95	7,510.60	7,256.25	13.68	13.16	90.30	650.14	623.66	26.47	24.558	0				
7,600.00	7,266.79	7,560.86	7,267.05	13.76	13.26	90.29	650.14	623.46	26.68	24.368	0				
7,650.00	7,273.77	7,611.12	7,273.94	13.86	13.38	90.28	650.14	623.23	26.90	24.165	0				
7,700.00	7,276.84	7,661.36	7,276.88	13.97	13.50	90.27	650.14	622.99	27.14	23.952	0				
7,714.07	7,277.00	7,675.49	7,277.00	14.00	13.54	90.26	650.13	622.92	27.21	23.890	0				
7,714.18	7,277.00	7,675.60	7,277.00	14.00	13.54	90.26	650.13	622.92	27.21	23.889	0				
7,800.00	7,277.00	7,761.42	7,277.00	14.21	13.77	90.26	650.13	622.46	27.67	23.492	0				
7,900.00	7,277.00	7,861.42	7,277.00	14.49	14.07	90.26	650.14	621.87	28.26	23.004	0				
8,000.00	7,277.00	7,961.42	7,277.00	14.81	14.39	90.26	650.14	621.23	28.91	22.491	0				
8,100.00	7,277.00	8,061.42	7,277.00	15.15	14.74	90.26	650.14	620.53	29.60	21.961	0				
8,200.00	7,277.00	8,161.42	7,277.00	15.52	15.11	90.26	650.14	619.79	30.35	21.421	0				
8,300.00	7,277.00	8,261.42	7,277.00	15.91	15.51	90.26	650.14	618.99	31.14	20.876	0				
8,400.00	7,277.00	8,361.42	7,277.00	16.32	15.93	90.26	650.14	618.16	31.98	20.332	0				
8,500.00	7,277.00	8,461.42	7,277.00	16.75	16.37	90.26	650.14	617.29	32.85	19.791	0				
8,600.00	7,277.00	8,561.42	7,277.00	17.20	16.82	90.26	650.14	616.38	33.76	19.258	0				
8,700.00	7,277.00	8,661.42	7,277.00	17.67	17.30	90.26	650.14	615.44	34.70	18.735	0				
8,800.00	7,277.00	8,761.42	7,277.00	18.15	17.79	90.26	650.14	614.46	35.68	18.223	0				
8,900.00	7,277.00	8,861.42	7,277.00	18.64	18.29	90.26	650.14	613.46	36.68	17.726	0				
9,000.00	7,277.00	8,961.42	7,277.00	19.15	18.80	90.26	650.14	612.44	37.71	17.243	0				

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #4 - Original Hole - Rev 0		Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision				
9,100.00	7,277.00	9,061.42	7,277.00	19.67	19.33	90.26	650.14	611.39	38.76	16.775	0					
9,200.00	7,277.00	9,161.42	7,277.00	20.20	19.87	90.26	650.14	610.31	39.83	16.323	0					
9,300.00	7,277.00	9,261.42	7,277.00	20.74	20.41	90.26	650.14	609.22	40.92	15.887	0					
9,400.00	7,277.00	9,361.42	7,277.00	21.29	20.97	90.26	650.14	608.11	42.04	15.466	0					
9,500.00	7,277.00	9,461.42	7,277.00	21.85	21.54	90.26	650.15	606.98	43.17	15.062	0					
9,600.00	7,277.00	9,561.42	7,277.00	22.42	22.11	90.26	650.15	605.84	44.31	14.672	0					
9,700.00	7,277.00	9,661.42	7,277.00	22.99	22.69	90.26	650.15	604.68	45.47	14.298	0					
9,800.00	7,277.00	9,761.42	7,277.00	23.57	23.28	90.26	650.15	603.51	46.64	13.938	0					
9,900.00	7,277.00	9,861.42	7,277.00	24.16	23.87	90.26	650.15	602.32	47.83	13.593	0					
10,000.00	7,277.00	9,961.42	7,277.00	24.75	24.47	90.26	650.15	601.12	49.03	13.261	0					
10,100.00	7,277.00	10,061.42	7,277.00	25.35	25.08	90.26	650.15	599.92	50.24	12.942	0					
10,200.00	7,277.00	10,161.42	7,277.00	25.96	25.69	90.26	650.16	598.70	51.46	12.635	0					
10,300.00	7,277.00	10,261.42	7,277.00	26.57	26.30	90.26	650.16	597.47	52.68	12.341	0					
10,400.00	7,277.00	10,361.42	7,277.00	27.18	26.92	90.26	650.16	596.24	53.92	12.057	0					
10,500.00	7,277.00	10,461.42	7,277.00	27.80	27.54	90.26	650.16	594.99	55.17	11.785	0					
10,600.00	7,277.00	10,561.42	7,277.00	28.42	28.17	90.26	650.16	593.74	56.42	11.524	0					
10,700.00	7,277.00	10,661.42	7,277.00	29.05	28.80	90.26	650.16	592.48	57.68	11.272	0					
10,800.00	7,277.00	10,761.42	7,277.00	29.68	29.44	90.26	650.17	591.22	58.95	11.030	0					
10,900.00	7,277.00	10,861.42	7,277.00	30.31	30.07	90.26	650.17	589.95	60.22	10.797	0					
11,000.00	7,277.00	10,961.42	7,277.00	30.94	30.71	90.26	650.17	588.67	61.50	10.572	0					
11,100.00	7,277.00	11,061.42	7,277.00	31.58	31.35	90.26	650.17	587.39	62.78	10.356	0					
11,200.00	7,277.00	11,161.42	7,277.00	32.22	32.00	90.26	650.17	586.10	64.07	10.148	0					
11,300.00	7,277.00	11,261.42	7,277.00	32.87	32.65	90.26	650.18	584.81	65.37	9.947	0					
11,400.00	7,277.00	11,361.42	7,277.00	33.51	33.30	90.26	650.18	583.52	66.66	9.753	0					
11,500.00	7,277.00	11,461.42	7,277.00	34.16	33.95	90.26	650.18	582.21	67.97	9.566	0					
11,600.00	7,277.00	11,561.42	7,277.00	34.81	34.60	90.26	650.18	580.91	69.27	9.386	0					
11,700.00	7,277.00	11,661.42	7,277.00	35.46	35.26	90.26	650.19	579.60	70.59	9.211	0					
11,800.00	7,277.00	11,761.42	7,277.00	36.12	35.92	90.26	650.19	578.29	71.90	9.043	0					
11,900.00	7,277.00	11,861.42	7,277.00	36.78	36.58	90.26	650.19	576.97	73.22	8.880	0					
12,000.00	7,277.00	11,961.42	7,277.00	37.43	37.24	90.26	650.19	575.66	74.54	8.723	0					
12,100.00	7,277.00	12,061.42	7,277.00	38.09	37.90	90.26	650.20	574.33	75.86	8.571	0					
12,200.00	7,277.00	12,161.42	7,277.00	38.75	38.56	90.26	650.20	573.01	77.19	8.423	0					
12,300.00	7,277.00	12,261.42	7,277.00	39.42	39.23	90.26	650.20	571.68	78.52	8.281	0					
12,400.00	7,277.00	12,361.42	7,277.00	40.08	39.90	90.26	650.21	570.35	79.85	8.142	0					
12,500.00	7,277.00	12,461.42	7,277.00	40.75	40.56	90.26	650.21	569.02	81.19	8.009	0					
12,600.00	7,277.00	12,561.42	7,277.00	41.41	41.23	90.26	650.21	567.68	82.53	7.879	0					
12,700.00	7,277.00	12,661.42	7,277.00	42.08	41.90	90.26	650.22	566.35	83.87	7.753	0					
12,800.00	7,277.00	12,761.42	7,277.00	42.75	42.57	90.26	650.22	565.01	85.21	7.631	0					
12,900.00	7,277.00	12,861.42	7,277.00	43.42	43.25	90.26	650.22	563.67	86.55	7.512	0					
13,000.00	7,277.00	12,961.42	7,277.00	44.09	43.92	90.26	650.22	562.33	87.90	7.397	0					
13,100.00	7,277.00	13,061.42	7,277.00	44.76	44.59	90.26	650.23	560.98	89.25	7.286	0					
13,200.00	7,277.00	13,161.42	7,277.00	45.44	45.27	90.26	650.23	559.63	90.60	7.177	0					
13,300.00	7,277.00	13,261.42	7,277.00	46.11	45.95	90.26	650.24	558.29	91.95	7.072	0					
13,400.00	7,277.00	13,361.42	7,277.00	46.78	46.62	90.26	650.24	556.94	93.30	6.969	0					
13,500.00	7,277.00	13,461.42	7,277.00	47.46	47.30	90.26	650.24	555.59	94.66	6.869	0					
13,600.00	7,277.00	13,561.42	7,277.00	48.14	47.98	90.26	650.25	554.23	96.01	6.772	0					
13,700.00	7,277.00	13,661.42	7,277.00	48.81	48.66	90.26	650.25	552.88	97.37	6.678	0					
13,800.00	7,277.00	13,761.42	7,277.00	49.49	49.34	90.26	650.25	551.52	98.73	6.586	0					
13,900.00	7,277.00	13,861.42	7,277.00	50.17	50.02	90.26	650.26	550.17	100.09	6.497	0					
14,000.00	7,277.00	13,961.42	7,277.00	50.85	50.70	90.26	650.26	548.81	101.45	6.410	0					
14,100.00	7,277.00	14,061.42	7,277.00	51.53	51.38	90.26	650.27	547.45	102.81	6.325	0					
14,200.00	7,277.00	14,161.42	7,277.00	52.21	52.06	90.26	650.27	546.09	104.18	6.242	0					
14,300.00	7,277.00	14,261.42	7,277.00	52.89	52.75	90.26	650.27	544.73	105.54	6.161	0					
14,400.00	7,277.00	14,361.42	7,277.00	53.57	53.43	90.26	650.28	543.37	106.91	6.082	0					

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



Schlumberger
Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #4 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
14,500.00	7,277.00	14,461.42	7,277.00	54.26	54.11	90.26	650.28	542.00	108.28	6.006	0			
14,600.00	7,277.00	14,561.42	7,277.00	54.94	54.80	90.26	650.29	540.64	109.65	5.931	0			
14,700.00	7,277.00	14,661.42	7,277.00	55.62	55.48	90.26	650.29	539.28	111.02	5.858	0			
14,800.00	7,277.00	14,761.42	7,277.00	56.31	56.17	90.26	650.29	537.91	112.39	5.786	0			
14,900.00	7,277.00	14,861.42	7,277.00	56.99	56.85	90.26	650.30	536.54	113.76	5.717	0			
15,000.00	7,277.00	14,961.42	7,277.00	57.67	57.54	90.26	650.30	535.18	115.13	5.648	0			
15,083.00	7,277.00	15,044.39	7,277.00	58.24	58.11	90.26	650.31	534.04	116.27	5.593	0		SF	



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference				Offset				Semi Major Axis				Distance	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-179.67	112.34				0		
100.00	100.00	95.00	95.00	0.15	0.14	-179.67	112.22	111.94	0.29	392.550	0		
200.00	200.00	195.00	195.00	0.32	0.31	-179.67	112.22	111.59	0.63	177.134	0		
300.00	300.00	295.00	295.00	0.50	0.49	-179.67	112.22	111.24	0.98	114.209	0		
400.00	400.00	395.00	395.00	0.67	0.66	-179.67	112.22	110.89	1.33	84.272	0		
500.00	500.00	495.00	495.00	0.84	0.84	-179.67	112.22	110.54	1.68	66.770	0		
600.00	600.00	595.00	595.00	1.02	1.01	-179.67	112.22	110.19	2.03	55.288	0		CC, ES
700.00	699.98	694.98	694.98	1.19	1.19	-140.59	113.57	111.19	2.38	47.746	0		
800.00	799.84	794.84	794.84	1.37	1.36	-142.16	117.66	114.93	2.73	43.149	0		
900.00	899.45	894.45	894.45	1.55	1.53	-144.53	124.66	121.59	3.07	40.550	0		
1,000.00	998.70	993.70	993.70	1.73	1.71	-147.42	134.79	131.37	3.42	39.406	0		
1,074.99	1,072.82	1,068.43	1,068.42	1.86	1.84	-149.45	144.41	140.73	3.68	39.246	0		
1,100.00	1,097.48	1,093.38	1,093.37	1.91	1.88	-150.00	147.87	144.10	3.77	39.239	0		
1,200.00	1,196.11	1,193.48	1,193.33	2.10	2.06	-151.20	161.33	157.21	4.12	39.127	0		
1,300.00	1,294.74	1,293.85	1,293.33	2.28	2.23	-151.07	174.12	169.64	4.48	38.873	0		
1,400.00	1,393.37	1,393.52	1,392.36	2.47	2.41	-150.11	186.37	181.53	4.84	38.538	0		
1,500.00	1,492.00	1,492.72	1,490.90	2.66	2.59	-149.20	198.62	193.43	5.19	38.242	0		
1,600.00	1,590.63	1,591.92	1,589.43	2.85	2.77	-148.40	210.92	205.36	5.55	37.983	0		
1,700.00	1,689.26	1,691.12	1,687.97	3.04	2.94	-147.68	223.25	217.33	5.91	37.755	0		
1,800.00	1,787.88	1,790.32	1,786.50	3.23	3.12	-147.04	235.61	229.34	6.27	37.552	0		
1,900.00	1,886.51	1,889.52	1,885.04	3.43	3.30	-146.47	248.00	241.36	6.64	37.371	0		
2,000.00	1,985.14	1,988.72	1,983.57	3.62	3.48	-145.95	260.41	253.41	7.00	37.208	0		
2,100.00	2,083.77	2,087.92	2,082.11	3.81	3.66	-145.47	272.84	265.48	7.36	37.060	0		
2,200.00	2,182.40	2,187.12	2,180.64	4.00	3.84	-145.04	285.29	277.56	7.73	36.924	0		
2,300.00	2,281.03	2,286.32	2,279.18	4.20	4.03	-144.64	297.75	289.66	8.09	36.798	0		
2,400.00	2,379.66	2,385.52	2,377.71	4.39	4.21	-144.28	310.22	301.77	8.46	36.683	0		
2,500.00	2,478.28	2,484.72	2,476.25	4.58	4.39	-143.94	322.71	313.89	8.82	36.578	0		
2,600.00	2,576.91	2,583.92	2,574.78	4.78	4.57	-143.63	335.20	326.02	9.19	36.481	0		
2,700.00	2,675.54	2,683.12	2,673.32	4.97	4.75	-143.34	347.71	338.15	9.55	36.391	0		
2,800.00	2,774.17	2,782.32	2,771.85	5.16	4.93	-143.07	360.22	350.30	9.92	36.308	0		
2,900.00	2,872.80	2,881.52	2,870.39	5.36	5.11	-142.82	372.74	362.45	10.29	36.231	0		
3,000.00	2,971.43	2,980.72	2,968.92	5.55	5.30	-142.59	385.27	374.62	10.66	36.159	0		
3,100.00	3,070.06	3,079.92	3,067.46	5.74	5.48	-142.37	397.80	386.78	11.02	36.091	0		
3,200.00	3,168.68	3,179.12	3,165.99	5.94	5.66	-142.16	410.34	398.95	11.39	36.028	0		
3,300.00	3,267.31	3,278.32	3,264.53	6.13	5.84	-141.96	422.89	411.13	11.76	35.969	0		
3,400.00	3,365.94	3,377.53	3,363.06	6.33	6.03	-141.78	435.43	423.31	12.12	35.914	0		
3,500.00	3,464.57	3,476.73	3,461.59	6.52	6.21	-141.61	447.99	435.49	12.49	35.862	0		
3,600.00	3,563.20	3,575.93	3,560.13	6.71	6.39	-141.45	460.54	447.68	12.86	35.813	0		
3,700.00	3,661.83	3,675.13	3,658.66	6.91	6.57	-141.29	473.10	459.87	13.23	35.766	0		
3,800.00	3,760.46	3,774.33	3,757.20	7.10	6.76	-141.14	485.66	472.07	13.60	35.722	0		
3,900.00	3,859.08	3,873.53	3,855.73	7.30	6.94	-141.01	498.23	484.27	13.96	35.681	0		
4,000.00	3,957.71	3,972.73	3,954.27	7.49	7.12	-140.87	510.80	496.47	14.33	35.641	0		
4,100.00	4,056.34	4,071.93	4,052.80	7.68	7.30	-140.75	523.37	508.67	14.70	35.603	0		
4,200.00	4,154.97	4,171.13	4,151.34	7.88	7.49	-140.63	535.94	520.87	15.07	35.568	0		
4,300.00	4,253.60	4,270.33	4,249.87	8.07	7.67	-140.51	548.52	533.08	15.44	35.534	0		
4,400.00	4,352.23	4,369.53	4,348.41	8.27	7.85	-140.40	561.09	545.29	15.80	35.501	0		
4,500.00	4,450.86	4,468.73	4,446.94	8.46	8.03	-140.30	573.67	557.50	16.17	35.470	0		
4,600.00	4,549.48	4,567.93	4,545.48	8.66	8.22	-140.20	586.25	569.71	16.54	35.441	0		
4,700.00	4,648.11	4,667.13	4,644.01	8.85	8.40	-140.10	598.84	581.93	16.91	35.412	0		
4,800.00	4,746.74	4,766.33	4,742.55	9.05	8.58	-140.01	611.42	594.14	17.28	35.385	0		
4,900.00	4,845.37	4,865.53	4,841.08	9.24	8.77	-139.92	624.01	606.36	17.65	35.359	0		
5,000.00	4,944.00	4,964.73	4,939.62	9.43	8.95	-139.84	636.60	618.58	18.02	35.335	0		
5,100.00	5,042.63	5,063.93	5,038.15	9.63	9.13	-139.75	649.18	630.80	18.38	35.311	0		
5,200.00	5,141.26	5,163.13	5,136.69	9.82	9.31	-139.68	661.77	643.02	18.75	35.288	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #5 - Original Hole - Rev 0		Offset Site Error:		0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis			Distance						Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision					
5,300.00	5,239.89	5,262.33	5,235.22	10.02	9.50	-139.60	674.37	655.24	19.12	35.266	0						
5,400.00	5,338.51	5,361.53	5,333.76	10.21	9.68	-139.53	686.96	667.47	19.49	35.244	0						
5,500.00	5,437.14	5,460.73	5,432.29	10.41	9.86	-139.46	699.55	679.69	19.86	35.224	0						
5,600.00	5,535.77	5,559.93	5,530.83	10.60	10.05	-139.39	712.15	691.92	20.23	35.204	0						
5,700.00	5,634.40	5,659.13	5,629.36	10.80	10.23	-139.32	724.74	704.14	20.60	35.185	0						
5,800.00	5,733.03	5,758.33	5,727.90	10.99	10.41	-139.26	737.34	716.37	20.97	35.167	0						
5,900.00	5,831.66	5,857.53	5,826.43	11.19	10.59	-139.20	749.93	728.60	21.34	35.149	0						
6,000.00	5,930.29	5,956.73	5,924.96	11.38	10.78	-139.14	762.53	740.83	21.70	35.132	0						
6,100.00	6,028.91	6,055.93	6,023.50	11.57	10.96	-139.08	775.13	753.06	22.07	35.116	0						
6,139.18	6,067.56	6,094.85	6,062.18	11.65	11.03	-139.08	780.07	757.85	22.22	35.111	0						
6,200.00	6,127.64	6,155.31	6,122.38	11.77	11.14	-139.21	787.24	764.79	22.45	35.066	0						
6,300.00	6,226.83	6,254.91	6,221.77	11.95	11.31	-139.47	796.91	774.09	22.82	34.926	0						
6,400.00	6,326.40	6,354.62	6,321.42	12.13	11.48	-139.77	803.93	780.77	23.16	34.706	0						
6,500.00	6,426.23	6,454.43	6,421.23	12.29	11.65	-140.08	808.32	784.82	23.50	34.403	0						
6,600.00	6,526.20	6,554.42	6,521.12	12.46	11.81	-140.43	810.04	786.23	23.80	34.030	0						
6,614.18	6,540.38	6,568.47	6,535.08	12.48	11.83	179.83	810.07	786.40	23.67	34.226	0						
6,700.00	6,626.20	6,651.49	6,616.59	12.62	11.95	178.74	810.27	786.31	23.96	33.812	0						
6,714.18	6,640.38	6,664.75	6,629.39	12.64	11.97	178.49	810.37	786.35	24.01	33.747	0						
6,750.00	6,676.18	6,697.86	6,661.02	12.70	12.01	87.84	810.68	786.47	24.21	33.480	0						
6,800.00	6,725.94	6,743.36	6,703.58	12.77	12.06	86.94	811.31	786.98	24.33	33.349	0						
6,850.00	6,775.18	6,788.10	6,744.19	12.84	12.11	86.06	812.11	787.68	24.43	33.240	0						
6,900.00	6,823.58	6,832.14	6,782.79	12.90	12.16	85.21	813.08	788.56	24.53	33.151	0						
6,950.00	6,870.85	6,875.53	6,819.30	12.96	12.21	84.39	814.19	789.58	24.61	33.078	0						
7,000.00	6,916.70	6,918.34	6,853.67	13.02	12.26	83.60	815.41	790.71	24.70	33.019	0						
7,050.00	6,960.84	6,960.62	6,885.86	13.07	12.30	82.85	816.71	791.94	24.77	32.971	0						
7,100.00	7,003.01	7,000.00	6,914.15	13.12	12.35	82.17	818.07	793.23	24.84	32.933	0						
7,150.00	7,042.95	7,043.77	6,943.54	13.18	12.40	81.47	819.44	794.53	24.91	32.894	0						
7,200.00	7,080.40	7,084.75	6,968.97	13.23	12.45	80.85	820.82	795.84	24.98	32.857	0						
7,250.00	7,115.14	7,125.37	6,992.09	13.28	12.50	80.27	822.17	797.11	25.05	32.816	0						
7,300.00	7,146.96	7,165.69	7,012.88	13.34	12.56	79.75	823.46	798.33	25.13	32.767	0						
7,350.00	7,175.65	7,205.73	7,031.33	13.40	12.62	79.28	824.67	799.45	25.22	32.705	0						
7,400.00	7,201.04	7,250.00	7,049.08	13.46	12.69	78.83	825.79	800.48	25.32	32.620	0						
7,450.00	7,222.97	7,285.15	7,061.14	13.53	12.76	78.51	826.77	801.35	25.42	32.524	0						
7,500.00	7,241.31	7,324.60	7,072.49	13.60	12.83	78.21	827.62	802.07	25.55	32.398	0						
7,550.00	7,255.95	7,363.90	7,081.44	13.68	12.91	77.97	828.31	802.63	25.69	32.245	0						
7,600.00	7,266.79	7,400.00	7,087.57	13.76	12.99	77.80	828.85	803.01	25.84	32.072	0						
7,650.00	7,273.77	7,442.24	7,092.17	13.86	13.09	77.67	829.20	803.17	26.03	31.851	0						
7,700.00	7,276.84	7,481.33	7,093.93	13.97	13.18	77.61	829.37	803.14	26.24	31.611	0						
7,714.18	7,277.00	7,492.92	7,094.00	14.00	13.21	77.61	829.39	803.09	26.30	31.536	0						
7,800.00	7,277.00	7,578.75	7,094.00	14.21	13.44	77.61	829.39	802.63	26.76	30.995	0						
7,900.00	7,277.00	7,678.75	7,094.00	14.49	13.74	77.61	829.39	802.04	27.35	30.329	0						
8,000.00	7,277.00	7,778.75	7,094.00	14.81	14.07	77.61	829.39	801.40	27.99	29.632	0						
8,100.00	7,277.00	7,878.75	7,094.00	15.15	14.42	77.61	829.39	800.70	28.68	28.914	0						
8,200.00	7,277.00	7,978.75	7,094.00	15.52	14.80	77.61	829.39	799.96	29.43	28.183	0						
8,300.00	7,277.00	8,078.75	7,094.00	15.91	15.20	77.61	829.39	799.17	30.22	27.447	0						
8,400.00	7,277.00	8,178.75	7,094.00	16.32	15.62	77.61	829.39	798.34	31.05	26.714	0						
8,500.00	7,277.00	8,278.75	7,094.00	16.75	16.07	77.61	829.39	797.48	31.92	25.987	0						
8,600.00	7,277.00	8,378.75	7,094.00	17.20	16.53	77.61	829.39	796.57	32.82	25.272	0						
8,700.00	7,277.00	8,478.75	7,094.00	17.67	17.00	77.61	829.39	795.64	33.75	24.571	0						
8,800.00	7,277.00	8,578.75	7,094.00	18.15	17.50	77.61	829.39	794.67	34.72	23.888	0						
8,900.00	7,277.00	8,678.75	7,094.00	18.64	18.00	77.61	829.39	793.68	35.71	23.224	0						
9,000.00	7,277.00	8,778.75	7,094.00	19.15	18.52	77.61	829.39	792.66	36.73	22.580	0						
9,100.00	7,277.00	8,878.75	7,094.00	19.67	19.05	77.61	829.40	791.62	37.77	21.958	0						
9,200.00	7,277.00	8,978.75	7,094.00	20.20	19.59	77.61	829.40	790.56	38.83	21.358	0						

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision	
9,300.00	7,277.00	9,078.75	7,094.00	20.74	20.15	77.61	829.40	789.48	39.92	20.779	0		
9,400.00	7,277.00	9,178.75	7,094.00	21.29	20.71	77.61	829.40	788.38	41.02	20.222	0		
9,500.00	7,277.00	9,278.75	7,094.00	21.85	21.28	77.61	829.40	787.27	42.13	19.686	0		
9,600.00	7,277.00	9,378.75	7,094.00	22.42	21.86	77.61	829.40	786.14	43.26	19.171	0		
9,700.00	7,277.00	9,478.75	7,094.00	22.99	22.44	77.61	829.40	784.99	44.41	18.677	0		
9,800.00	7,277.00	9,578.75	7,094.00	23.57	23.03	77.61	829.40	783.84	45.57	18.202	0		
9,900.00	7,277.00	9,678.75	7,094.00	24.16	23.63	77.61	829.40	782.67	46.74	17.746	0		
10,000.00	7,277.00	9,778.75	7,094.00	24.75	24.23	77.61	829.41	781.49	47.92	17.308	0		
10,100.00	7,277.00	9,878.75	7,094.00	25.35	24.84	77.61	829.41	780.30	49.11	16.888	0		
10,200.00	7,277.00	9,978.75	7,094.00	25.96	25.45	77.61	829.41	779.10	50.31	16.485	0		
10,300.00	7,277.00	10,078.75	7,094.00	26.57	26.07	77.61	829.41	777.89	51.53	16.097	0		
10,400.00	7,277.00	10,178.75	7,094.00	27.18	26.69	77.61	829.41	776.67	52.74	15.725	0		
10,500.00	7,277.00	10,278.75	7,094.00	27.80	27.32	77.61	829.41	775.44	53.97	15.368	0		
10,600.00	7,277.00	10,378.75	7,094.00	28.42	27.95	77.61	829.42	774.21	55.21	15.024	0		
10,700.00	7,277.00	10,478.75	7,094.00	29.05	28.58	77.61	829.42	772.97	56.45	14.694	0		
10,800.00	7,277.00	10,578.75	7,094.00	29.68	29.22	77.61	829.42	771.73	57.69	14.376	0		
10,900.00	7,277.00	10,678.75	7,094.00	30.31	29.86	77.61	829.42	770.47	58.95	14.070	0		
11,000.00	7,277.00	10,778.75	7,094.00	30.94	30.50	77.61	829.42	769.22	60.21	13.776	0		
11,100.00	7,277.00	10,878.75	7,094.00	31.58	31.15	77.61	829.43	767.95	61.47	13.493	0		
11,200.00	7,277.00	10,978.75	7,094.00	32.22	31.79	77.61	829.43	766.69	62.74	13.220	0		
11,300.00	7,277.00	11,078.75	7,094.00	32.87	32.44	77.61	829.43	765.42	64.01	12.957	0		
11,400.00	7,277.00	11,178.75	7,094.00	33.51	33.10	77.61	829.43	764.14	65.29	12.703	0		
11,500.00	7,277.00	11,278.75	7,094.00	34.16	33.75	77.61	829.43	762.86	66.57	12.459	0		
11,600.00	7,277.00	11,378.75	7,094.00	34.81	34.41	77.61	829.44	761.58	67.86	12.223	0		
11,700.00	7,277.00	11,478.75	7,094.00	35.46	35.06	77.61	829.44	760.29	69.15	11.995	0		
11,800.00	7,277.00	11,578.75	7,094.00	36.12	35.72	77.61	829.44	759.00	70.44	11.774	0		
11,900.00	7,277.00	11,678.75	7,094.00	36.78	36.39	77.61	829.44	757.70	71.74	11.562	0		
12,000.00	7,277.00	11,778.75	7,094.00	37.43	37.05	77.61	829.45	756.41	73.04	11.356	0		
12,100.00	7,277.00	11,878.75	7,094.00	38.09	37.71	77.61	829.45	755.11	74.34	11.157	0		
12,200.00	7,277.00	11,978.75	7,094.00	38.75	38.38	77.61	829.45	753.80	75.65	10.965	0		
12,300.00	7,277.00	12,078.75	7,094.00	39.42	39.05	77.61	829.46	752.50	76.96	10.778	0		
12,400.00	7,277.00	12,178.75	7,094.00	40.08	39.71	77.61	829.46	751.19	78.27	10.598	0		
12,500.00	7,277.00	12,278.75	7,094.00	40.75	40.38	77.61	829.46	749.88	79.58	10.423	0		
12,600.00	7,277.00	12,378.75	7,094.00	41.41	41.05	77.61	829.46	748.57	80.90	10.254	0		
12,700.00	7,277.00	12,478.75	7,094.00	42.08	41.73	77.61	829.47	747.25	82.21	10.089	0		
12,800.00	7,277.00	12,578.75	7,094.00	42.75	42.40	77.61	829.47	745.94	83.53	9.930	0		
12,900.00	7,277.00	12,678.75	7,094.00	43.42	43.07	77.61	829.47	744.62	84.85	9.775	0		
13,000.00	7,277.00	12,778.75	7,094.00	44.09	43.75	77.61	829.48	743.30	86.18	9.625	0		
13,100.00	7,277.00	12,878.75	7,094.00	44.76	44.42	77.61	829.48	741.98	87.50	9.480	0		
13,200.00	7,277.00	12,978.75	7,094.00	45.44	45.10	77.61	829.48	740.66	88.83	9.338	0		
13,300.00	7,277.00	13,078.75	7,094.00	46.11	45.78	77.61	829.49	739.33	90.16	9.201	0		
13,400.00	7,277.00	13,178.75	7,094.00	46.78	46.45	77.61	829.49	738.00	91.49	9.067	0		
13,500.00	7,277.00	13,278.75	7,094.00	47.46	47.13	77.61	829.49	736.68	92.82	8.937	0		
13,600.00	7,277.00	13,378.75	7,094.00	48.14	47.81	77.61	829.50	735.35	94.15	8.810	0		
13,700.00	7,277.00	13,478.75	7,094.00	48.81	48.49	77.61	829.50	734.02	95.48	8.687	0		
13,800.00	7,277.00	13,578.75	7,094.00	49.49	49.17	77.61	829.50	732.68	96.82	8.567	0		
13,900.00	7,277.00	13,678.75	7,094.00	50.17	49.85	77.61	829.51	731.35	98.16	8.451	0		
14,000.00	7,277.00	13,778.75	7,094.00	50.85	50.54	77.61	829.51	730.02	99.49	8.337	0		
14,100.00	7,277.00	13,878.75	7,094.00	51.53	51.22	77.61	829.52	728.68	100.83	8.227	0		
14,200.00	7,277.00	13,978.75	7,094.00	52.21	51.90	77.61	829.52	727.35	102.17	8.119	0		
14,300.00	7,277.00	14,078.75	7,094.00	52.89	52.59	77.61	829.52	726.01	103.52	8.014	0		
14,400.00	7,277.00	14,178.75	7,094.00	53.57	53.27	77.61	829.53	724.67	104.86	7.911	0		
14,500.00	7,277.00	14,278.75	7,094.00	54.26	53.96	77.61	829.53	723.33	106.20	7.811	0		
14,600.00	7,277.00	14,378.75	7,094.00	54.94	54.64	77.61	829.54	721.99	107.55	7.713	0		

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



Schlumberger
Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
14,700.00	7,277.00	14,478.75	7,094.00	55.62	55.33	77.61	829.54	720.65	108.89	7.618	0			
14,800.00	7,277.00	14,578.75	7,094.00	56.31	56.01	77.61	829.54	719.31	110.24	7.525	0			
14,900.00	7,277.00	14,678.75	7,094.00	56.99	56.70	77.61	829.55	717.97	111.58	7.434	0			
15,000.00	7,277.00	14,778.75	7,094.00	57.67	57.39	77.61	829.55	716.62	112.93	7.346	0			
15,083.00	7,277.00	14,861.70	7,094.00	58.24	57.96	77.61	829.56	715.51	114.05	7.274	0		SF	



Schlumberger

Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-179.70	140.41				0	CC, ES	
100.00	100.00	94.00	94.00	0.15	0.14	-179.70	140.28	139.99	0.28	493.206	0		
200.00	200.00	194.00	194.00	0.32	0.31	-179.70	140.28	139.65	0.63	222.025	0		
300.00	300.00	294.00	294.00	0.50	0.49	-179.70	140.28	139.30	0.98	143.012	0		
400.00	400.00	394.00	394.00	0.67	0.66	-179.70	140.28	138.95	1.33	105.476	0		
500.00	500.00	494.00	494.00	0.84	0.83	-179.70	140.28	138.60	1.68	83.548	0		
600.00	600.00	594.00	594.00	1.02	1.01	-179.70	140.28	138.25	2.03	69.168	0		
700.00	699.98	693.98	693.98	1.19	1.18	-140.51	141.62	139.24	2.38	59.583	0		
800.00	799.84	793.84	793.84	1.37	1.36	-141.76	145.70	142.97	2.73	53.466	0		
900.00	899.45	893.45	893.45	1.55	1.53	-143.70	152.64	149.57	3.07	49.677	0		
1,000.00	998.70	992.70	992.70	1.73	1.70	-146.13	162.64	159.22	3.42	47.563	0		
1,074.99	1,072.82	1,066.82	1,066.82	1.86	1.83	-148.13	172.26	168.58	3.68	46.831	0		
1,100.00	1,097.48	1,091.48	1,091.48	1.91	1.88	-148.84	175.79	172.03	3.77	46.673	0		
1,200.00	1,196.11	1,188.53	1,188.53	2.10	2.05	-150.97	190.53	186.41	4.12	46.288	0		
1,300.00	1,294.74	1,285.45	1,285.32	2.28	2.22	-151.90	206.32	201.86	4.47	46.200	0		
1,400.00	1,393.37	1,382.20	1,381.74	2.47	2.39	-151.87	222.99	218.18	4.82	46.306	0		
1,500.00	1,492.00	1,478.55	1,477.45	2.66	2.56	-151.09	240.54	235.37	5.17	46.567	0		
1,600.00	1,590.63	1,576.68	1,574.70	2.85	2.73	-150.01	258.64	253.12	5.52	46.850	0		
1,700.00	1,689.26	1,674.91	1,672.06	3.04	2.91	-149.07	276.82	270.94	5.88	47.100	0		
1,800.00	1,787.88	1,773.15	1,769.42	3.23	3.09	-148.24	295.07	288.83	6.24	47.322	0		
1,900.00	1,886.51	1,871.39	1,866.78	3.43	3.27	-147.51	313.36	306.77	6.59	47.521	0		
2,000.00	1,985.14	1,969.63	1,964.13	3.62	3.45	-146.86	331.71	324.75	6.95	47.700	0		
2,100.00	2,083.77	2,067.86	2,061.49	3.81	3.63	-146.28	350.08	342.77	7.31	47.861	0		
2,200.00	2,182.40	2,166.10	2,158.85	4.00	3.81	-145.75	368.49	360.82	7.68	48.008	0		
2,300.00	2,281.03	2,264.34	2,256.21	4.20	3.99	-145.28	386.93	378.89	8.04	48.141	0		
2,400.00	2,379.66	2,362.58	2,353.57	4.39	4.17	-144.85	405.39	396.99	8.40	48.262	0		
2,500.00	2,478.28	2,460.82	2,450.93	4.58	4.35	-144.46	423.87	415.11	8.76	48.369	0		
2,600.00	2,576.91	2,559.05	2,548.29	4.78	4.53	-144.10	442.37	433.24	9.13	48.467	0		
2,700.00	2,675.54	2,657.29	2,645.65	4.97	4.72	-143.77	460.88	451.39	9.49	48.559	0		
2,800.00	2,774.17	2,755.53	2,743.01	5.16	4.90	-143.46	479.41	469.55	9.86	48.643	0		
2,900.00	2,872.80	2,853.77	2,840.37	5.36	5.08	-143.18	497.95	487.73	10.22	48.722	0		
3,000.00	2,971.43	2,952.01	2,937.73	5.55	5.26	-142.91	516.50	505.91	10.58	48.796	0		
3,100.00	3,070.06	3,050.24	3,035.09	5.74	5.45	-142.67	535.06	524.11	10.95	48.864	0		
3,200.00	3,168.68	3,148.48	3,132.45	5.94	5.63	-142.44	553.62	542.31	11.31	48.929	0		
3,300.00	3,267.31	3,246.72	3,229.80	6.13	5.81	-142.23	572.20	560.52	11.68	48.989	0		
3,400.00	3,365.94	3,344.96	3,327.16	6.33	5.99	-142.03	590.78	578.74	12.05	49.046	0		
3,500.00	3,464.57	3,443.19	3,424.52	6.52	6.18	-141.84	609.37	596.96	12.41	49.100	0		
3,600.00	3,563.20	3,541.43	3,521.88	6.71	6.36	-141.66	627.97	615.19	12.78	49.150	0		
3,700.00	3,661.83	3,639.67	3,619.24	6.91	6.54	-141.50	646.57	633.43	13.14	49.198	0		
3,800.00	3,760.46	3,737.91	3,716.60	7.10	6.73	-141.34	665.18	651.67	13.51	49.243	0		
3,900.00	3,859.08	3,836.15	3,813.96	7.30	6.91	-141.19	683.79	669.92	13.87	49.286	0		
4,000.00	3,957.71	3,934.38	3,911.32	7.49	7.10	-141.05	702.40	688.16	14.24	49.327	0		
4,100.00	4,056.34	4,032.62	4,008.68	7.68	7.28	-140.92	721.02	706.42	14.61	49.366	0		
4,200.00	4,154.97	4,130.86	4,106.04	7.88	7.46	-140.79	739.65	724.67	14.97	49.402	0		
4,300.00	4,253.60	4,229.10	4,203.40	8.07	7.65	-140.67	758.27	742.93	15.34	49.438	0		
4,400.00	4,352.23	4,327.34	4,300.76	8.27	7.83	-140.55	776.90	761.20	15.70	49.471	0		
4,500.00	4,450.86	4,425.57	4,398.12	8.46	8.01	-140.45	795.53	779.46	16.07	49.503	0		
4,600.00	4,549.48	4,523.81	4,495.47	8.66	8.20	-140.34	814.17	797.73	16.44	49.534	0		
4,700.00	4,648.11	4,622.05	4,592.83	8.85	8.38	-140.24	832.81	816.00	16.80	49.563	0		
4,800.00	4,746.74	4,720.29	4,690.19	9.05	8.57	-140.15	851.44	834.28	17.17	49.591	0		
4,900.00	4,845.37	4,818.52	4,787.55	9.24	8.75	-140.05	870.09	852.55	17.54	49.618	0		
5,000.00	4,944.00	4,916.76	4,884.91	9.43	8.93	-139.97	888.73	870.83	17.90	49.644	0		
5,100.00	5,042.63	5,015.00	4,982.27	9.63	9.12	-139.88	907.38	889.11	18.27	49.668	0		
5,200.00	5,141.26	5,113.24	5,079.63	9.82	9.30	-139.80	926.02	907.39	18.64	49.692	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor		
5,300.00	5,239.89	5,211.48	5,176.99	10.02	9.49	-139.73	944.67	925.67	19.00	49.715	0		
5,400.00	5,338.51	5,309.71	5,274.35	10.21	9.67	-139.65	963.32	943.95	19.37	49.737	0		
5,500.00	5,437.14	5,407.95	5,371.71	10.41	9.85	-139.58	981.98	962.24	19.73	49.758	0		
5,600.00	5,535.77	5,506.19	5,469.07	10.60	10.04	-139.51	1,000.63	980.53	20.10	49.779	0		
5,700.00	5,634.40	5,604.43	5,566.43	10.80	10.22	-139.45	1,019.28	998.82	20.47	49.798	0		
5,800.00	5,733.03	5,702.67	5,663.79	10.99	10.41	-139.38	1,037.94	1,017.11	20.83	49.817	0		
5,900.00	5,831.66	5,800.90	5,761.14	11.19	10.59	-139.32	1,056.60	1,035.40	21.20	49.836	0		
6,000.00	5,930.29	5,899.14	5,858.50	11.38	10.78	-139.26	1,075.26	1,053.69	21.57	49.854	0		
6,100.00	6,028.91	5,997.38	5,955.86	11.57	10.96	-139.20	1,093.92	1,071.98	21.93	49.871	0		
6,139.18	6,067.56	6,039.97	5,998.09	11.65	11.04	-139.18	1,101.19	1,079.11	22.09	49.861	0		
6,200.00	6,127.64	6,112.84	6,070.49	11.77	11.17	-139.32	1,111.49	1,089.14	22.35	49.736	0		
6,300.00	6,226.83	6,233.59	6,190.85	11.95	11.38	-139.57	1,124.78	1,102.01	22.76	49.412	0		
6,400.00	6,326.40	6,355.08	6,312.25	12.13	11.59	-139.85	1,133.50	1,110.34	23.16	48.943	0		
6,500.00	6,426.23	6,463.07	6,420.23	12.29	11.77	-140.10	1,138.02	1,114.51	23.52	48.394	0		
6,600.00	6,526.20	6,563.18	6,520.24	12.46	11.93	-140.35	1,139.74	1,115.90	23.84	47.816	0		
6,614.18	6,540.38	6,577.26	6,534.24	12.48	11.95	179.94	1,139.77	1,115.98	23.79	47.919	0		
6,700.00	6,626.20	6,660.46	6,615.94	12.62	12.06	179.17	1,139.89	1,115.82	24.07	47.354	0		
6,714.18	6,640.38	6,673.75	6,628.78	12.64	12.08	178.99	1,139.96	1,115.84	24.12	47.264	0		
6,750.00	6,676.18	6,706.94	6,660.49	12.70	12.12	88.53	1,140.17	1,115.90	24.27	46.986	0		
6,800.00	6,725.94	6,752.55	6,703.16	12.77	12.18	87.89	1,140.59	1,116.21	24.39	46.766	0		
6,850.00	6,775.18	6,797.39	6,743.88	12.84	12.23	87.27	1,141.15	1,116.65	24.50	46.571	0		
6,900.00	6,823.58	6,841.52	6,782.57	12.90	12.28	86.66	1,141.82	1,117.21	24.61	46.398	0		
6,950.00	6,870.85	6,885.01	6,819.17	12.96	12.33	86.08	1,142.60	1,117.89	24.71	46.242	0		
7,000.00	6,916.70	6,927.91	6,853.62	13.02	12.37	85.51	1,143.45	1,118.65	24.80	46.101	0		
7,050.00	6,960.84	6,970.27	6,885.88	13.07	12.42	84.98	1,144.36	1,119.47	24.89	45.970	0		
7,100.00	7,003.01	7,012.15	6,915.90	13.12	12.46	84.47	1,145.32	1,120.33	24.98	45.847	0		
7,150.00	7,042.95	7,050.00	6,941.33	13.18	12.50	84.02	1,146.30	1,121.23	25.06	45.734	0		
7,200.00	7,080.40	7,094.64	6,969.12	13.23	12.56	83.54	1,147.27	1,122.11	25.16	45.605	0		
7,250.00	7,115.14	7,135.34	6,992.27	13.28	12.61	83.13	1,148.22	1,122.97	25.25	45.475	0		
7,300.00	7,146.96	7,175.73	7,013.08	13.34	12.66	82.75	1,149.14	1,123.79	25.35	45.336	0		
7,350.00	7,175.65	7,215.84	7,031.54	13.40	12.71	82.41	1,150.01	1,124.55	25.45	45.181	0		
7,400.00	7,201.04	7,255.72	7,047.62	13.46	12.77	82.11	1,150.80	1,125.23	25.57	45.007	0		
7,450.00	7,222.97	7,300.00	7,062.78	13.53	12.83	81.82	1,151.52	1,125.82	25.71	44.797	0		
7,500.00	7,241.31	7,334.89	7,072.66	13.60	12.89	81.62	1,152.12	1,126.28	25.84	44.584	0		
7,550.00	7,255.95	7,374.26	7,081.58	13.68	12.96	81.45	1,152.63	1,126.63	26.00	44.330	0		
7,600.00	7,266.79	7,413.52	7,088.11	13.76	13.05	81.31	1,153.02	1,126.84	26.18	44.048	0		
7,650.00	7,273.77	7,450.00	7,092.02	13.86	13.14	81.23	1,153.28	1,126.92	26.36	43.749	0		
7,700.00	7,276.84	7,491.84	7,093.94	13.97	13.25	81.18	1,153.41	1,126.84	26.58	43.397	0		
7,714.18	7,277.00	7,503.69	7,094.00	14.00	13.28	81.17	1,153.43	1,126.78	26.64	43.292	0		
7,800.00	7,277.00	7,589.51	7,094.00	14.21	13.51	81.17	1,153.43	1,126.33	27.10	42.560	0		
7,900.00	7,277.00	7,689.51	7,094.00	14.49	13.82	81.17	1,153.43	1,125.74	27.69	41.655	0		
8,000.00	7,277.00	7,789.51	7,094.00	14.81	14.14	81.17	1,153.43	1,125.09	28.33	40.707	0		
8,100.00	7,277.00	7,889.51	7,094.00	15.15	14.50	81.17	1,153.43	1,124.40	29.03	39.729	0		
8,200.00	7,277.00	7,989.51	7,094.00	15.52	14.88	81.17	1,153.43	1,123.65	29.78	38.733	0		
8,300.00	7,277.00	8,089.51	7,094.00	15.91	15.28	81.17	1,153.43	1,122.86	30.57	37.730	0		
8,400.00	7,277.00	8,189.51	7,094.00	16.32	15.70	81.17	1,153.43	1,122.02	31.40	36.728	0		
8,500.00	7,277.00	8,289.51	7,094.00	16.75	16.14	81.17	1,153.43	1,121.15	32.28	35.735	0		
8,600.00	7,277.00	8,389.51	7,094.00	17.20	16.60	81.17	1,153.43	1,120.25	33.19	34.757	0		
8,700.00	7,277.00	8,489.51	7,094.00	17.67	17.08	81.17	1,153.43	1,119.31	34.13	33.799	0		
8,800.00	7,277.00	8,589.51	7,094.00	18.15	17.57	81.17	1,153.43	1,118.33	35.10	32.864	0		
8,900.00	7,277.00	8,689.51	7,094.00	18.64	18.07	81.17	1,153.43	1,117.34	36.10	31.954	0		
9,000.00	7,277.00	8,789.51	7,094.00	19.15	18.59	81.17	1,153.43	1,116.31	37.12	31.073	0		
9,100.00	7,277.00	8,889.51	7,094.00	19.67	19.12	81.17	1,153.43	1,115.27	38.17	30.220	0		
9,200.00	7,277.00	8,989.51	7,094.00	20.20	19.66	81.17	1,153.44	1,114.20	39.24	29.396	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor		
9,300.00	7,277.00	9,089.51	7,094.00	20.74	20.21	81.17	1,153.44	1,113.11	40.33	28.603	0		
9,400.00	7,277.00	9,189.51	7,094.00	21.29	20.77	81.17	1,153.44	1,112.00	41.43	27.838	0		
9,500.00	7,277.00	9,289.51	7,094.00	21.85	21.34	81.17	1,153.44	1,110.88	42.56	27.103	0		
9,600.00	7,277.00	9,389.51	7,094.00	22.42	21.92	81.17	1,153.44	1,109.74	43.70	26.396	0		
9,700.00	7,277.00	9,489.51	7,094.00	22.99	22.50	81.17	1,153.44	1,108.59	44.85	25.717	0		
9,800.00	7,277.00	9,589.51	7,094.00	23.57	23.09	81.17	1,153.44	1,107.42	46.02	25.065	0		
9,900.00	7,277.00	9,689.51	7,094.00	24.16	23.69	81.17	1,153.44	1,106.25	47.20	24.438	0		
10,000.00	7,277.00	9,789.51	7,094.00	24.75	24.29	81.17	1,153.45	1,105.06	48.39	23.837	0		
10,100.00	7,277.00	9,889.51	7,094.00	25.35	24.90	81.17	1,153.45	1,103.86	49.59	23.259	0		
10,200.00	7,277.00	9,989.51	7,094.00	25.96	25.51	81.17	1,153.45	1,102.65	50.80	22.705	0		
10,300.00	7,277.00	10,089.51	7,094.00	26.57	26.13	81.17	1,153.45	1,101.43	52.02	22.172	0		
10,400.00	7,277.00	10,189.51	7,094.00	27.18	26.75	81.17	1,153.45	1,100.20	53.25	21.660	0		
10,500.00	7,277.00	10,289.51	7,094.00	27.80	27.37	81.17	1,153.45	1,098.96	54.49	21.169	0		
10,600.00	7,277.00	10,389.51	7,094.00	28.42	28.00	81.17	1,153.46	1,097.72	55.73	20.696	0		
10,700.00	7,277.00	10,489.51	7,094.00	29.05	28.63	81.17	1,153.46	1,096.47	56.98	20.242	0		
10,800.00	7,277.00	10,589.51	7,094.00	29.68	29.27	81.17	1,153.46	1,095.22	58.24	19.804	0		
10,900.00	7,277.00	10,689.51	7,094.00	30.31	29.91	81.17	1,153.46	1,093.95	59.51	19.384	0		
11,000.00	7,277.00	10,789.51	7,094.00	30.94	30.55	81.17	1,153.46	1,092.69	60.78	18.979	0		
11,100.00	7,277.00	10,889.51	7,094.00	31.58	31.19	81.17	1,153.47	1,091.41	62.05	18.589	0		
11,200.00	7,277.00	10,989.51	7,094.00	32.22	31.84	81.17	1,153.47	1,090.14	63.33	18.213	0		
11,300.00	7,277.00	11,089.51	7,094.00	32.87	32.49	81.17	1,153.47	1,088.85	64.61	17.851	0		
11,400.00	7,277.00	11,189.51	7,094.00	33.51	33.14	81.17	1,153.47	1,087.57	65.90	17.502	0		
11,500.00	7,277.00	11,289.51	7,094.00	34.16	33.79	81.17	1,153.47	1,086.28	67.20	17.166	0		
11,600.00	7,277.00	11,389.51	7,094.00	34.81	34.45	81.17	1,153.48	1,084.98	68.49	16.840	0		
11,700.00	7,277.00	11,489.51	7,094.00	35.46	35.11	81.17	1,153.48	1,083.68	69.80	16.527	0		
11,800.00	7,277.00	11,589.51	7,094.00	36.12	35.77	81.17	1,153.48	1,082.38	71.10	16.223	0		
11,900.00	7,277.00	11,689.51	7,094.00	36.78	36.43	81.17	1,153.48	1,081.08	72.41	15.930	0		
12,000.00	7,277.00	11,789.51	7,094.00	37.43	37.09	81.17	1,153.49	1,079.77	73.72	15.647	0		
12,100.00	7,277.00	11,889.51	7,094.00	38.09	37.75	81.17	1,153.49	1,078.46	75.03	15.373	0		
12,200.00	7,277.00	11,989.51	7,094.00	38.75	38.42	81.17	1,153.49	1,077.14	76.35	15.108	0		
12,300.00	7,277.00	12,089.51	7,094.00	39.42	39.08	81.17	1,153.50	1,075.83	77.67	14.852	0		
12,400.00	7,277.00	12,189.51	7,094.00	40.08	39.75	81.17	1,153.50	1,074.51	78.99	14.603	0		
12,500.00	7,277.00	12,289.51	7,094.00	40.75	40.42	81.17	1,153.50	1,073.19	80.31	14.362	0		
12,600.00	7,277.00	12,389.51	7,094.00	41.41	41.09	81.17	1,153.50	1,071.86	81.64	14.129	0		
12,700.00	7,277.00	12,489.51	7,094.00	42.08	41.76	81.17	1,153.51	1,070.54	82.97	13.903	0		
12,800.00	7,277.00	12,589.51	7,094.00	42.75	42.43	81.17	1,153.51	1,069.21	84.30	13.683	0		
12,900.00	7,277.00	12,689.51	7,094.00	43.42	43.11	81.17	1,153.51	1,067.88	85.63	13.470	0		
13,000.00	7,277.00	12,789.51	7,094.00	44.09	43.78	81.17	1,153.52	1,066.55	86.97	13.264	0		
13,100.00	7,277.00	12,889.51	7,094.00	44.76	44.46	81.17	1,153.52	1,065.21	88.31	13.063	0		
13,200.00	7,277.00	12,989.51	7,094.00	45.44	45.13	81.17	1,153.52	1,063.88	89.64	12.868	0		
13,300.00	7,277.00	13,089.51	7,094.00	46.11	45.81	81.17	1,153.53	1,062.54	90.98	12.678	0		
13,400.00	7,277.00	13,189.51	7,094.00	46.78	46.49	81.17	1,153.53	1,061.20	92.33	12.494	0		
13,500.00	7,277.00	13,289.51	7,094.00	47.46	47.17	81.17	1,153.53	1,059.86	93.67	12.315	0		
13,600.00	7,277.00	13,389.51	7,094.00	48.14	47.84	81.17	1,153.54	1,058.52	95.01	12.141	0		
13,700.00	7,277.00	13,489.51	7,094.00	48.81	48.52	81.17	1,153.54	1,057.18	96.36	11.971	0		
13,800.00	7,277.00	13,589.51	7,094.00	49.49	49.20	81.17	1,153.54	1,055.84	97.71	11.806	0		
13,900.00	7,277.00	13,689.51	7,094.00	50.17	49.89	81.17	1,153.55	1,054.49	99.06	11.645	0		
14,000.00	7,277.00	13,789.51	7,094.00	50.85	50.57	81.17	1,153.55	1,053.15	100.41	11.489	0		
14,100.00	7,277.00	13,889.51	7,094.00	51.53	51.25	81.17	1,153.56	1,051.80	101.76	11.336	0		
14,200.00	7,277.00	13,989.51	7,094.00	52.21	51.93	81.17	1,153.56	1,050.45	103.11	11.188	0		
14,300.00	7,277.00	14,089.51	7,094.00	52.89	52.62	81.17	1,153.56	1,049.10	104.46	11.043	0		
14,400.00	7,277.00	14,189.51	7,094.00	53.57	53.30	81.17	1,153.57	1,047.75	105.82	10.901	0		
14,500.00	7,277.00	14,289.51	7,094.00	54.26	53.98	81.17	1,153.57	1,046.40	107.17	10.764	0		
14,600.00	7,277.00	14,389.51	7,094.00	54.94	54.67	81.17	1,153.58	1,045.05	108.53	10.629	0		

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



Schlumberger
Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #6 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
14,700.00	7,277.00	14,489.51	7,094.00	55.62	55.35	81.17	1,153.58	1,043.69	109.89	10.498	0			
14,800.00	7,277.00	14,589.51	7,094.00	56.31	56.04	81.17	1,153.59	1,042.34	111.24	10.370	0			
14,900.00	7,277.00	14,689.51	7,094.00	56.99	56.73	81.17	1,153.59	1,040.99	112.60	10.245	0			
15,000.00	7,277.00	14,789.51	7,094.00	57.67	57.41	81.17	1,153.59	1,039.63	113.96	10.122	0			
15,083.00	7,277.00	14,872.44	7,094.00	58.24	57.98	81.17	1,153.60	1,038.51	115.09	10.023	0		SF	



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-179.72	168.11				0	CC, ES	
100.00	100.00	93.00	93.00	0.15	0.14	-179.72	167.97	167.68	0.28	593.619	0		
200.00	200.00	193.00	193.00	0.32	0.31	-179.72	167.97	167.34	0.63	266.586	0		
300.00	300.00	293.00	293.00	0.50	0.48	-179.72	167.97	166.99	0.98	171.546	0		
400.00	400.00	393.00	393.00	0.67	0.66	-179.72	167.97	166.64	1.33	126.462	0		
500.00	500.00	493.00	493.00	0.84	0.83	-179.72	167.97	166.29	1.68	100.143	0		
600.00	600.00	593.00	593.00	1.02	1.01	-179.72	167.97	165.94	2.03	82.892	0		
700.00	699.98	692.98	692.98	1.19	1.18	-140.45	169.31	166.93	2.38	71.285	0		
800.00	799.84	792.84	792.84	1.37	1.36	-141.50	173.38	170.65	2.72	63.663	0		
900.00	899.45	892.45	892.45	1.55	1.53	-143.14	180.29	177.21	3.07	58.702	0		
1,000.00	998.70	991.70	991.70	1.73	1.70	-145.22	190.19	186.78	3.42	55.640	0		
1,074.99	1,072.82	1,063.65	1,063.64	1.86	1.83	-146.74	200.06	196.38	3.67	54.454	0		
1,100.00	1,097.48	1,087.49	1,087.48	1.91	1.87	-147.20	203.85	200.09	3.76	54.204	0		
1,200.00	1,196.11	1,182.73	1,182.61	2.10	2.04	-148.41	220.08	215.98	4.11	53.575	0		
1,300.00	1,294.74	1,277.64	1,277.20	2.28	2.20	-148.77	237.89	233.43	4.45	53.399	0		
1,400.00	1,393.37	1,372.00	1,370.95	2.47	2.37	-148.45	257.19	252.38	4.80	53.565	0		
1,500.00	1,492.00	1,468.54	1,466.57	2.66	2.55	-147.71	277.66	272.50	5.15	53.879	0		
1,600.00	1,590.63	1,566.34	1,563.41	2.85	2.72	-147.03	298.25	292.74	5.51	54.139	0		
1,700.00	1,689.26	1,664.14	1,660.25	3.04	2.90	-146.44	318.88	313.01	5.87	54.362	0		
1,800.00	1,787.88	1,761.94	1,757.08	3.23	3.08	-145.92	339.53	333.31	6.22	54.556	0		
1,900.00	1,886.51	1,859.74	1,853.92	3.43	3.26	-145.46	360.21	353.63	6.58	54.725	0		
2,000.00	1,985.14	1,957.54	1,950.76	3.62	3.44	-145.05	380.91	373.97	6.94	54.874	0		
2,100.00	2,083.77	2,055.34	2,047.60	3.81	3.62	-144.69	401.63	394.33	7.30	55.006	0		
2,200.00	2,182.40	2,153.14	2,144.44	4.00	3.80	-144.36	422.36	414.69	7.66	55.124	0		
2,300.00	2,281.03	2,250.94	2,241.27	4.20	3.98	-144.06	443.10	435.08	8.02	55.230	0		
2,400.00	2,379.66	2,348.74	2,338.11	4.39	4.17	-143.78	463.85	455.47	8.38	55.326	0		
2,500.00	2,478.28	2,446.54	2,434.95	4.58	4.35	-143.53	484.61	475.87	8.75	55.413	0		
2,600.00	2,576.91	2,544.34	2,531.79	4.78	4.53	-143.30	505.38	496.28	9.11	55.492	0		
2,700.00	2,675.54	2,642.14	2,628.63	4.97	4.71	-143.09	526.16	516.69	9.47	55.564	0		
2,800.00	2,774.17	2,739.94	2,725.46	5.16	4.90	-142.90	546.94	537.11	9.83	55.631	0		
2,900.00	2,872.80	2,837.74	2,822.30	5.36	5.08	-142.72	567.73	557.54	10.19	55.692	0		
3,000.00	2,971.43	2,935.54	2,919.14	5.55	5.26	-142.55	588.53	577.97	10.56	55.748	0		
3,100.00	3,070.06	3,033.34	3,015.98	5.74	5.45	-142.39	609.32	598.40	10.92	55.801	0		
3,200.00	3,168.68	3,131.14	3,112.82	5.94	5.63	-142.25	630.13	618.84	11.28	55.849	0		
3,300.00	3,267.31	3,228.94	3,209.65	6.13	5.81	-142.11	650.93	639.29	11.65	55.895	0		
3,400.00	3,365.94	3,326.74	3,306.49	6.33	6.00	-141.98	671.74	659.73	12.01	55.935	0		
3,500.00	3,464.57	3,424.54	3,403.33	6.52	6.18	-141.86	692.55	680.18	12.37	55.973	0		
3,600.00	3,563.20	3,522.34	3,500.17	6.71	6.36	-141.75	713.37	700.63	12.74	56.009	0		
3,700.00	3,661.83	3,620.14	3,597.01	6.91	6.55	-141.64	734.19	721.09	13.10	56.043	0		
3,800.00	3,760.46	3,717.95	3,693.84	7.10	6.73	-141.54	755.01	741.54	13.46	56.075	0		
3,900.00	3,859.08	3,815.75	3,790.68	7.30	6.92	-141.44	775.83	762.00	13.83	56.105	0		
4,000.00	3,957.71	3,913.55	3,887.52	7.49	7.10	-141.35	796.65	782.46	14.19	56.133	0		
4,100.00	4,056.34	4,011.35	3,984.36	7.68	7.28	-141.27	817.48	802.92	14.56	56.160	0		
4,200.00	4,154.97	4,109.15	4,081.20	7.88	7.47	-141.18	838.31	823.39	14.92	56.185	0		
4,300.00	4,253.60	4,206.95	4,178.03	8.07	7.65	-141.11	859.14	843.85	15.28	56.209	0		
4,400.00	4,352.23	4,304.75	4,274.87	8.27	7.84	-141.03	879.97	864.32	15.65	56.232	0		
4,500.00	4,450.86	4,402.55	4,371.71	8.46	8.02	-140.96	900.80	884.79	16.01	56.254	0		
4,600.00	4,549.48	4,500.35	4,468.55	8.66	8.21	-140.89	921.63	905.26	16.38	56.275	0		
4,700.00	4,648.11	4,598.15	4,565.39	8.85	8.39	-140.83	942.47	925.73	16.74	56.294	0		
4,800.00	4,746.74	4,695.95	4,662.22	9.05	8.57	-140.77	963.30	946.20	17.11	56.313	0		
4,900.00	4,845.37	4,793.75	4,759.06	9.24	8.76	-140.71	984.14	966.67	17.47	56.331	0		
5,000.00	4,944.00	4,891.55	4,855.90	9.43	8.94	-140.65	1,004.98	987.14	17.84	56.349	0		
5,100.00	5,042.63	4,989.35	4,952.74	9.63	9.13	-140.60	1,025.82	1,007.62	18.20	56.365	0		
5,200.00	5,141.26	5,087.15	5,049.58	9.82	9.31	-140.54	1,046.66	1,028.09	18.56	56.381	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #7 - Original Hole - Rev 0		Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision				
5,300.00	5,239.89	5,184.95	5,146.41	10.02	9.50	-140.49	1,067.50	1,048.57	18.93	56.396	0					
5,400.00	5,338.51	5,282.75	5,243.25	10.21	9.68	-140.44	1,088.34	1,069.04	19.29	56.411	0					
5,500.00	5,437.14	5,380.55	5,340.09	10.41	9.87	-140.40	1,109.18	1,089.52	19.66	56.425	0					
5,600.00	5,535.77	5,478.35	5,436.93	10.60	10.05	-140.35	1,130.02	1,110.00	20.02	56.438	0					
5,700.00	5,634.40	5,576.15	5,533.77	10.80	10.24	-140.31	1,150.87	1,130.48	20.39	56.451	0					
5,800.00	5,733.03	5,673.95	5,630.60	10.99	10.42	-140.27	1,171.71	1,150.96	20.75	56.464	0					
5,900.00	5,831.66	5,771.75	5,727.44	11.19	10.61	-140.23	1,192.55	1,171.44	21.12	56.476	0					
6,000.00	5,930.29	5,869.55	5,824.28	11.38	10.79	-140.19	1,213.40	1,191.92	21.48	56.488	0					
6,100.00	6,028.91	5,967.35	5,921.12	11.57	10.98	-140.15	1,234.24	1,212.40	21.85	56.499	0					
6,139.18	6,067.56	6,005.67	5,959.06	11.65	11.05	-140.14	1,242.41	1,220.42	21.99	56.503	0					
6,200.00	6,127.64	6,065.24	6,018.05	11.77	11.16	-140.26	1,254.60	1,232.37	22.23	56.432	0					
6,300.00	6,226.83	6,163.56	6,115.40	11.95	11.35	-140.34	1,272.54	1,249.91	22.62	56.252	0					
6,400.00	6,326.40	6,289.01	6,239.84	12.13	11.58	-140.28	1,287.06	1,264.02	23.04	55.851	0					
6,500.00	6,426.23	6,424.63	6,375.01	12.29	11.82	-140.22	1,296.26	1,272.80	23.46	55.248	0					
6,600.00	6,526.20	6,561.15	6,511.43	12.46	12.05	-140.19	1,299.99	1,276.13	23.86	54.483	0					
6,614.18	6,540.38	6,580.53	6,530.81	12.48	12.08	-179.82	1,300.07	1,276.17	23.91	54.384	0					
6,700.00	6,626.20	6,668.92	6,619.20	12.62	12.22	-179.82	1,300.08	1,275.88	24.20	53.727	0					
6,714.18	6,640.38	6,683.10	6,633.38	12.64	12.25	-179.82	1,300.08	1,275.84	24.25	53.621	0					
6,750.00	6,676.18	6,719.12	6,669.39	12.70	12.30	90.19	1,300.08	1,275.71	24.37	53.345	0					
6,800.00	6,725.94	6,769.48	6,719.56	12.77	12.38	90.22	1,300.08	1,275.56	24.52	53.015	0					
6,850.00	6,775.18	6,819.89	6,769.28	12.84	12.45	90.24	1,300.09	1,275.42	24.67	52.709	0					
6,900.00	6,823.58	6,870.34	6,818.22	12.90	12.52	90.26	1,300.09	1,275.29	24.80	52.425	0					
6,950.00	6,870.85	6,920.82	6,866.08	12.96	12.58	90.28	1,300.09	1,275.16	24.92	52.161	0					
7,000.00	6,916.70	6,971.34	6,912.56	13.02	12.64	90.29	1,300.09	1,275.05	25.04	51.912	0					
7,050.00	6,960.84	7,021.88	6,957.34	13.07	12.70	90.31	1,300.09	1,274.93	25.16	51.675	0					
7,100.00	7,003.01	7,072.45	7,000.15	13.12	12.75	90.32	1,300.10	1,274.82	25.27	51.447	0					
7,150.00	7,042.95	7,123.04	7,040.71	13.18	12.80	90.33	1,300.10	1,274.71	25.38	51.222	0					
7,200.00	7,080.40	7,173.65	7,078.76	13.23	12.86	90.34	1,300.10	1,274.60	25.49	50.996	0					
7,250.00	7,115.14	7,224.28	7,114.04	13.28	12.92	90.35	1,300.10	1,274.49	25.61	50.764	0					
7,300.00	7,146.96	7,274.91	7,146.34	13.34	12.97	90.35	1,300.10	1,274.37	25.73	50.521	0					
7,350.00	7,175.65	7,325.55	7,175.45	13.40	13.03	90.36	1,300.10	1,274.23	25.87	50.262	0					
7,400.00	7,201.04	7,376.20	7,201.17	13.46	13.10	90.36	1,300.10	1,274.09	26.01	49.984	0					
7,450.00	7,222.97	7,426.84	7,223.34	13.53	13.17	90.35	1,300.10	1,273.93	26.17	49.684	0					
7,500.00	7,241.31	7,477.47	7,241.82	13.60	13.24	90.35	1,300.10	1,273.76	26.34	49.358	0					
7,550.00	7,255.95	7,528.10	7,256.50	13.68	13.32	90.34	1,300.10	1,273.57	26.53	49.005	0					
7,600.00	7,266.79	7,578.71	7,267.28	13.76	13.41	90.34	1,300.10	1,273.36	26.74	48.627	0					
7,650.00	7,273.77	7,629.31	7,274.10	13.86	13.52	90.32	1,300.10	1,273.14	26.96	48.222	0					
7,700.00	7,276.84	7,679.88	7,276.92	13.97	13.64	90.31	1,300.09	1,272.89	27.20	47.796	0					
7,714.09	7,277.00	7,694.08	7,277.00	14.00	13.68	90.31	1,300.09	1,272.82	27.27	47.673	0					
7,714.18	7,277.00	7,694.17	7,277.00	14.00	13.68	90.31	1,300.09	1,272.82	27.27	47.672	0					
7,800.00	7,277.00	7,779.99	7,277.00	14.21	13.91	90.31	1,300.09	1,272.36	27.73	46.884	0					
7,900.00	7,277.00	7,879.99	7,277.00	14.49	14.21	90.31	1,300.09	1,271.78	28.32	45.912	0					
8,000.00	7,277.00	7,979.99	7,277.00	14.81	14.54	90.31	1,300.09	1,271.13	28.96	44.892	0					
8,100.00	7,277.00	8,079.99	7,277.00	15.15	14.89	90.31	1,300.09	1,270.44	29.66	43.838	0					
8,200.00	7,277.00	8,179.99	7,277.00	15.52	15.26	90.31	1,300.09	1,269.69	30.40	42.763	0					
8,300.00	7,277.00	8,279.99	7,277.00	15.91	15.66	90.31	1,300.10	1,268.90	31.19	41.678	0					
8,400.00	7,277.00	8,379.99	7,277.00	16.32	16.07	90.31	1,300.10	1,268.07	32.03	40.593	0					
8,500.00	7,277.00	8,479.99	7,277.00	16.75	16.51	90.31	1,300.10	1,267.20	32.90	39.517	0					
8,600.00	7,277.00	8,579.99	7,277.00	17.20	16.96	90.31	1,300.10	1,266.29	33.81	38.455	0					
8,700.00	7,277.00	8,679.99	7,277.00	17.67	17.43	90.31	1,300.10	1,265.35	34.75	37.412	0					
8,800.00	7,277.00	8,779.99	7,277.00	18.15	17.92	90.31	1,300.10	1,264.37	35.72	36.394	0					
8,900.00	7,277.00	8,879.99	7,277.00	18.64	18.42	90.31	1,300.10	1,263.37	36.72	35.402	0					
9,000.00	7,277.00	8,979.99	7,277.00	19.15	18.93	90.31	1,300.10	1,262.35	37.75	34.439	0					
9,100.00	7,277.00	9,079.99	7,277.00	19.67	19.46	90.31	1,300.10	1,261.30	38.80	33.507	0					

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #7 - Original Hole - Rev 0		Offset Site Error:		0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis		Distance							Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Riskd Separation Factor	Probability of Collision					
9,200.00	7,277.00	9,179.99	7,277.00	20.20	19.99	90.31	1,300.10	1,260.23	39.87	32.606	0						
9,300.00	7,277.00	9,279.99	7,277.00	20.74	20.54	90.31	1,300.10	1,259.14	40.97	31.736	0						
9,400.00	7,277.00	9,379.99	7,277.00	21.29	21.09	90.31	1,300.10	1,258.03	42.08	30.898	0						
9,500.00	7,277.00	9,479.99	7,277.00	21.85	21.65	90.31	1,300.10	1,256.90	43.21	30.090	0						
9,600.00	7,277.00	9,579.99	7,277.00	22.42	22.22	90.31	1,300.11	1,255.75	44.35	29.314	0						
9,700.00	7,277.00	9,679.99	7,277.00	22.99	22.80	90.31	1,300.11	1,254.60	45.51	28.567	0						
9,800.00	7,277.00	9,779.99	7,277.00	23.57	23.39	90.31	1,300.11	1,253.43	46.68	27.849	0						
9,900.00	7,277.00	9,879.99	7,277.00	24.16	23.98	90.31	1,300.11	1,252.24	47.87	27.160	0						
10,000.00	7,277.00	9,979.99	7,277.00	24.75	24.58	90.31	1,300.11	1,251.05	49.07	26.497	0						
10,100.00	7,277.00	10,079.99	7,277.00	25.35	25.18	90.31	1,300.11	1,249.84	50.27	25.860	0						
10,200.00	7,277.00	10,179.99	7,277.00	25.96	25.79	90.31	1,300.11	1,248.62	51.49	25.248	0						
10,300.00	7,277.00	10,279.99	7,277.00	26.57	26.40	90.31	1,300.12	1,247.40	52.72	24.661	0						
10,400.00	7,277.00	10,379.99	7,277.00	27.18	27.02	90.31	1,300.12	1,246.16	53.96	24.095	0						
10,500.00	7,277.00	10,479.99	7,277.00	27.80	27.64	90.31	1,300.12	1,244.92	55.20	23.552	0						
10,600.00	7,277.00	10,579.99	7,277.00	28.42	28.27	90.31	1,300.12	1,243.67	56.45	23.030	0						
10,700.00	7,277.00	10,679.99	7,277.00	29.05	28.89	90.31	1,300.12	1,242.41	57.71	22.527	0						
10,800.00	7,277.00	10,779.99	7,277.00	29.68	29.53	90.31	1,300.13	1,241.15	58.98	22.044	0						
10,900.00	7,277.00	10,879.99	7,277.00	30.31	30.16	90.31	1,300.13	1,239.88	60.25	21.578	0						
11,000.00	7,277.00	10,979.99	7,277.00	30.94	30.80	90.31	1,300.13	1,238.60	61.53	21.130	0						
11,100.00	7,277.00	11,079.99	7,277.00	31.58	31.44	90.31	1,300.13	1,237.32	62.81	20.698	0						
11,200.00	7,277.00	11,179.99	7,277.00	32.22	32.09	90.31	1,300.13	1,236.03	64.10	20.282	0						
11,300.00	7,277.00	11,279.99	7,277.00	32.87	32.73	90.31	1,300.14	1,234.74	65.40	19.881	0						
11,400.00	7,277.00	11,379.99	7,277.00	33.51	33.38	90.31	1,300.14	1,233.44	66.69	19.494	0						
11,500.00	7,277.00	11,479.99	7,277.00	34.16	34.03	90.31	1,300.14	1,232.14	68.00	19.120	0						
11,600.00	7,277.00	11,579.99	7,277.00	34.81	34.68	90.31	1,300.14	1,230.84	69.30	18.760	0						
11,700.00	7,277.00	11,679.99	7,277.00	35.46	35.34	90.31	1,300.15	1,229.53	70.61	18.412	0						
11,800.00	7,277.00	11,779.99	7,277.00	36.12	35.99	90.31	1,300.15	1,228.22	71.93	18.075	0						
11,900.00	7,277.00	11,879.99	7,277.00	36.78	36.65	90.31	1,300.15	1,226.90	73.25	17.750	0						
12,000.00	7,277.00	11,979.99	7,277.00	37.43	37.31	90.31	1,300.15	1,225.59	74.57	17.436	0						
12,100.00	7,277.00	12,079.99	7,277.00	38.09	37.97	90.31	1,300.16	1,224.26	75.89	17.132	0						
12,200.00	7,277.00	12,179.99	7,277.00	38.75	38.64	90.31	1,300.16	1,222.94	77.22	16.837	0						
12,300.00	7,277.00	12,279.99	7,277.00	39.42	39.30	90.31	1,300.16	1,221.61	78.55	16.552	0						
12,400.00	7,277.00	12,379.99	7,277.00	40.08	39.97	90.31	1,300.16	1,220.28	79.88	16.276	0						
12,500.00	7,277.00	12,479.99	7,277.00	40.75	40.63	90.31	1,300.17	1,218.95	81.22	16.009	0						
12,600.00	7,277.00	12,579.99	7,277.00	41.41	41.30	90.31	1,300.17	1,217.62	82.55	15.749	0						
12,700.00	7,277.00	12,679.99	7,277.00	42.08	41.97	90.31	1,300.17	1,216.28	83.89	15.498	0						
12,800.00	7,277.00	12,779.99	7,277.00	42.75	42.64	90.31	1,300.18	1,214.94	85.23	15.254	0						
12,900.00	7,277.00	12,879.99	7,277.00	43.42	43.31	90.31	1,300.18	1,213.60	86.58	15.017	0						
13,000.00	7,277.00	12,979.99	7,277.00	44.09	43.99	90.31	1,300.18	1,212.26	87.92	14.787	0						
13,100.00	7,277.00	13,079.99	7,277.00	44.76	44.66	90.31	1,300.19	1,210.91	89.27	14.564	0						
13,200.00	7,277.00	13,179.99	7,277.00	45.44	45.33	90.31	1,300.19	1,209.57	90.62	14.347	0						
13,300.00	7,277.00	13,279.99	7,277.00	46.11	46.01	90.31	1,300.19	1,208.22	91.97	14.137	0						
13,400.00	7,277.00	13,379.99	7,277.00	46.78	46.69	90.31	1,300.20	1,206.87	93.33	13.932	0						
13,500.00	7,277.00	13,479.99	7,277.00	47.46	47.36	90.31	1,300.20	1,205.52	94.68	13.732	0						
13,600.00	7,277.00	13,579.99	7,277.00	48.14	48.04	90.31	1,300.20	1,204.17	96.04	13.539	0						
13,700.00	7,277.00	13,679.99	7,277.00	48.81	48.72	90.31	1,300.21	1,202.81	97.39	13.350	0						
13,800.00	7,277.00	13,779.99	7,277.00	49.49	49.40	90.31	1,300.21	1,201.46	98.75	13.166	0						
13,900.00	7,277.00	13,879.99	7,277.00	50.17	50.08	90.31	1,300.22	1,200.10	100.11	12.987	0						
14,000.00	7,277.00	13,979.99	7,277.00	50.85	50.76	90.31	1,300.22	1,198.75	101.47	12.813	0						
14,100.00	7,277.00	14,079.99	7,277.00	51.53	51.44	90.31	1,300.22	1,197.39	102.84	12.643	0						
14,200.00	7,277.00	14,179.99	7,277.00	52.21	52.12	90.31	1,300.23	1,196.03	104.20	12.478	0						
14,300.00	7,277.00	14,279.99	7,277.00	52.89	52.80	90.31	1,300.23	1,194.67	105.57	12.317	0						
14,400.00	7,277.00	14,379.99	7,277.00	53.57	53.49	90.31	1,300.24	1,193.30	106.93	12.159	0						
14,500.00	7,277.00	14,479.99	7,277.00	54.26	54.17	90.31	1,300.24	1,191.94	108.30	12.006	0						

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



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #7 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
14,600.00	7,277.00	14,579.99	7,277.00	54.94	54.85	90.31	1,300.24	1,190.58	109.67	11.856	0			
14,700.00	7,277.00	14,679.99	7,277.00	55.62	55.54	90.31	1,300.25	1,189.21	111.04	11.710	0			
14,800.00	7,277.00	14,779.99	7,277.00	56.31	56.22	90.31	1,300.25	1,187.85	112.41	11.567	0			
14,900.00	7,277.00	14,879.99	7,277.00	56.99	56.91	90.31	1,300.26	1,186.48	113.78	11.428	0			
15,000.00	7,277.00	14,979.99	7,277.00	57.67	57.59	90.31	1,300.26	1,185.11	115.15	11.292	0			
15,083.00	7,277.00	15,063.07	7,277.00	58.24	58.16	90.31	1,300.26	1,183.97	116.29	11.181	0		SF	



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-179.73	196.18					0	
100.00	100.00	92.00	92.00	0.15	0.13	-179.73	196.02	195.74	0.28	696.371	0		
200.00	200.00	192.00	192.00	0.32	0.31	-179.73	196.02	195.39	0.63	311.975	0		
300.00	300.00	292.00	292.00	0.50	0.48	-179.73	196.02	195.04	0.98	200.555	0		
400.00	400.00	392.00	392.00	0.67	0.66	-179.73	196.02	194.69	1.33	147.777	0		
500.00	500.00	492.00	492.00	0.84	0.83	-179.73	196.02	194.34	1.68	116.991	0		
600.00	600.00	592.00	592.00	1.02	1.01	-179.73	196.02	193.99	2.02	96.820	0		CC, ES
700.00	699.98	691.98	691.98	1.19	1.18	-140.41	197.36	194.99	2.37	83.157	0		
800.00	799.84	791.84	791.84	1.37	1.35	-141.31	201.42	198.70	2.72	74.008	0		
900.00	899.45	891.45	891.45	1.55	1.53	-142.72	208.30	205.23	3.07	67.861	0		
1,000.00	998.70	986.51	986.50	1.73	1.69	-144.18	219.01	215.60	3.41	64.233	0		
1,074.99	1,072.82	1,057.05	1,056.97	1.86	1.82	-145.05	230.34	226.68	3.66	62.880	0		
1,100.00	1,097.48	1,080.48	1,080.36	1.91	1.86	-145.34	234.65	230.90	3.75	62.583	0		
1,200.00	1,196.11	1,173.84	1,173.42	2.10	2.02	-146.02	253.15	249.06	4.09	61.837	0		
1,300.00	1,294.74	1,266.55	1,265.55	2.28	2.19	-146.09	273.61	269.17	4.44	61.655	0		
1,400.00	1,393.37	1,358.43	1,356.47	2.47	2.35	-145.69	295.99	291.21	4.78	61.907	0		
1,500.00	1,492.00	1,455.42	1,452.22	2.66	2.53	-145.08	319.40	314.26	5.14	62.199	0		
1,600.00	1,590.63	1,552.59	1,548.13	2.85	2.71	-144.55	342.84	337.35	5.49	62.441	0		
1,700.00	1,689.26	1,649.76	1,644.04	3.04	2.89	-144.09	366.31	360.46	5.85	62.646	0		
1,800.00	1,787.88	1,746.93	1,739.95	3.23	3.07	-143.69	389.79	383.59	6.20	62.821	0		
1,900.00	1,886.51	1,844.10	1,835.87	3.43	3.25	-143.33	413.29	406.73	6.56	62.971	0		
2,000.00	1,985.14	1,941.27	1,931.78	3.62	3.44	-143.01	436.81	429.89	6.92	63.102	0		
2,100.00	2,083.77	2,038.44	2,027.69	3.81	3.62	-142.72	460.33	453.05	7.28	63.217	0		
2,200.00	2,182.40	2,135.60	2,123.60	4.00	3.80	-142.47	483.87	476.23	7.64	63.319	0		
2,300.00	2,281.03	2,232.77	2,219.52	4.20	3.99	-142.23	507.42	499.41	8.00	63.409	0		
2,400.00	2,379.66	2,329.94	2,315.43	4.39	4.17	-142.02	530.97	522.60	8.36	63.490	0		
2,500.00	2,478.28	2,427.11	2,411.34	4.58	4.36	-141.82	554.53	545.80	8.72	63.563	0		
2,600.00	2,576.91	2,524.28	2,507.25	4.78	4.54	-141.64	578.09	569.00	9.09	63.628	0		
2,700.00	2,675.54	2,621.45	2,603.16	4.97	4.73	-141.47	601.66	592.21	9.45	63.688	0		
2,800.00	2,774.17	2,718.62	2,699.08	5.16	4.91	-141.32	625.23	615.42	9.81	63.741	0		
2,900.00	2,872.80	2,815.78	2,794.99	5.36	5.10	-141.18	648.81	638.64	10.17	63.788	0		
3,000.00	2,971.43	2,912.95	2,890.90	5.55	5.29	-141.05	672.39	661.86	10.53	63.831	0		
3,100.00	3,070.06	3,010.12	2,986.81	5.74	5.47	-140.92	695.97	685.08	10.90	63.870	0		
3,200.00	3,168.68	3,107.29	3,082.73	5.94	5.66	-140.81	719.56	708.30	11.26	63.907	0		
3,300.00	3,267.31	3,204.46	3,178.64	6.13	5.85	-140.70	743.15	731.53	11.62	63.941	0		
3,400.00	3,365.94	3,301.63	3,274.55	6.33	6.03	-140.60	766.74	754.76	11.99	63.973	0		
3,500.00	3,464.57	3,398.80	3,370.46	6.52	6.22	-140.50	790.34	777.99	12.35	64.002	0		
3,600.00	3,563.20	3,495.97	3,466.38	6.71	6.41	-140.41	813.93	801.22	12.71	64.029	0		
3,700.00	3,661.83	3,593.13	3,562.29	6.91	6.59	-140.33	837.53	824.46	13.08	64.055	0		
3,800.00	3,760.46	3,690.30	3,658.20	7.10	6.78	-140.25	861.13	847.69	13.44	64.079	0		
3,900.00	3,859.08	3,787.47	3,754.11	7.30	6.97	-140.17	884.73	870.93	13.80	64.102	0		
4,000.00	3,957.71	3,884.64	3,850.03	7.49	7.15	-140.10	908.33	894.17	14.17	64.123	0		
4,100.00	4,056.34	3,981.81	3,945.94	7.68	7.34	-140.03	931.94	917.41	14.53	64.143	0		
4,200.00	4,154.97	4,078.98	4,041.85	7.88	7.53	-139.97	955.54	940.65	14.89	64.162	0		
4,300.00	4,253.60	4,176.15	4,137.76	8.07	7.71	-139.91	979.15	963.89	15.26	64.180	0		
4,400.00	4,352.23	4,273.31	4,233.67	8.27	7.90	-139.85	1,002.75	987.13	15.62	64.197	0		
4,500.00	4,450.86	4,370.48	4,329.59	8.46	8.09	-139.79	1,026.36	1,010.38	15.98	64.213	0		
4,600.00	4,549.48	4,467.65	4,425.50	8.66	8.28	-139.74	1,049.97	1,033.62	16.35	64.229	0		
4,700.00	4,648.11	4,564.82	4,521.41	8.85	8.46	-139.69	1,073.58	1,056.87	16.71	64.243	0		
4,800.00	4,746.74	4,661.99	4,617.32	9.05	8.65	-139.64	1,097.19	1,080.11	17.07	64.257	0		
4,900.00	4,845.37	4,759.16	4,713.24	9.24	8.84	-139.59	1,120.80	1,103.36	17.44	64.270	0		
5,000.00	4,944.00	4,856.33	4,809.15	9.43	9.03	-139.55	1,144.41	1,126.61	17.80	64.283	0		
5,100.00	5,042.63	4,953.50	4,905.06	9.63	9.21	-139.50	1,168.02	1,149.86	18.17	64.295	0		
5,200.00	5,141.26	5,050.66	5,000.97	9.82	9.40	-139.46	1,191.64	1,173.11	18.53	64.307	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor		
5,300.00	5,239.89	5,147.83	5,096.89	10.02	9.59	-139.42	1,215.25	1,196.36	18.89	64.318	0		
5,400.00	5,338.51	5,245.00	5,192.80	10.21	9.78	-139.38	1,238.86	1,219.61	19.26	64.328	0		
5,500.00	5,437.14	5,342.17	5,288.71	10.41	9.97	-139.35	1,262.48	1,242.86	19.62	64.338	0		
5,600.00	5,535.77	5,439.34	5,384.62	10.60	10.15	-139.31	1,286.09	1,266.11	19.99	64.348	0		
5,700.00	5,634.40	5,536.51	5,480.54	10.80	10.34	-139.28	1,309.71	1,289.36	20.35	64.357	0		
5,800.00	5,733.03	5,633.68	5,576.45	10.99	10.53	-139.24	1,333.32	1,312.61	20.71	64.366	0		
5,900.00	5,831.66	5,730.84	5,672.36	11.19	10.72	-139.21	1,356.94	1,335.86	21.08	64.375	0		
6,000.00	5,930.29	5,828.01	5,768.27	11.38	10.90	-139.18	1,380.56	1,359.11	21.44	64.383	0		
6,100.00	6,028.91	5,925.18	5,864.19	11.57	11.09	-139.15	1,404.17	1,382.37	21.81	64.391	0		
6,139.18	6,067.56	5,965.15	5,903.63	11.65	11.17	-139.14	1,413.43	1,391.47	21.95	64.384	0		
6,200.00	6,127.64	6,055.83	5,993.39	11.77	11.34	-139.31	1,426.58	1,404.33	22.25	64.107	0		
6,300.00	6,226.83	6,207.25	6,144.01	11.95	11.61	-139.59	1,443.24	1,420.50	22.73	63.485	0		
6,400.00	6,326.40	6,360.61	6,297.18	12.13	11.87	-139.88	1,453.59	1,430.40	23.19	62.671	0		
6,500.00	6,426.23	6,481.66	6,418.23	12.29	12.06	-140.10	1,458.27	1,434.69	23.58	61.838	0		
6,600.00	6,526.20	6,581.90	6,518.37	12.46	12.22	-140.30	1,459.98	1,436.07	23.91	61.055	0		
6,614.18	6,540.38	6,596.01	6,532.41	12.48	12.24	-179.99	1,460.01	1,435.92	24.08	60.625	0		
6,616.14	6,542.34	6,597.96	6,534.34	12.48	12.25	-180.00	1,460.01	1,435.92	24.09	60.609	0		
6,700.00	6,626.20	6,679.46	6,614.39	12.62	12.35	179.41	1,460.09	1,435.73	24.36	59.933	0		
6,714.18	6,640.38	6,692.80	6,627.28	12.64	12.37	179.28	1,460.13	1,435.72	24.41	59.823	0		
6,750.00	6,676.18	6,726.09	6,659.12	12.70	12.41	88.92	1,460.29	1,435.93	24.35	59.964	0		
6,800.00	6,725.94	6,771.85	6,701.96	12.77	12.47	88.42	1,460.60	1,436.12	24.48	59.663	0		
6,850.00	6,775.18	6,816.83	6,742.85	12.84	12.52	87.94	1,461.01	1,436.41	24.60	59.390	0		
6,900.00	6,823.58	6,861.11	6,781.71	12.90	12.57	87.47	1,461.52	1,436.81	24.71	59.142	0		
6,950.00	6,870.85	6,904.74	6,818.46	12.96	12.61	87.01	1,462.10	1,437.29	24.82	58.914	0		
7,000.00	6,916.70	6,950.00	6,854.79	13.02	12.66	86.56	1,462.75	1,437.83	24.92	58.697	0		
7,050.00	6,960.84	6,990.29	6,885.45	13.07	12.70	86.16	1,463.44	1,438.43	25.02	58.502	0		
7,100.00	7,003.01	7,032.30	6,915.59	13.12	12.74	85.76	1,464.17	1,439.06	25.11	58.309	0		
7,150.00	7,042.95	7,073.87	6,943.45	13.18	12.79	85.39	1,464.92	1,439.71	25.21	58.118	0		
7,200.00	7,080.40	7,115.05	6,969.01	13.23	12.84	85.04	1,465.66	1,440.36	25.30	57.925	0		
7,250.00	7,115.14	7,155.87	6,992.23	13.28	12.88	84.71	1,466.40	1,441.00	25.40	57.724	0		
7,300.00	7,146.96	7,200.00	7,014.86	13.34	12.94	84.40	1,467.11	1,441.60	25.52	57.499	0		
7,350.00	7,175.65	7,236.61	7,031.61	13.40	12.99	84.15	1,467.78	1,442.15	25.63	57.276	0		
7,400.00	7,201.04	7,276.60	7,047.73	13.46	13.04	83.91	1,468.39	1,442.64	25.75	57.020	0		
7,450.00	7,222.97	7,316.39	7,061.46	13.53	13.10	83.70	1,468.94	1,443.05	25.89	56.739	0		
7,500.00	7,241.31	7,356.00	7,072.79	13.60	13.16	83.53	1,469.42	1,443.38	26.04	56.429	0		
7,550.00	7,255.95	7,400.00	7,082.57	13.68	13.24	83.38	1,469.83	1,443.61	26.21	56.069	0		
7,600.00	7,266.79	7,434.83	7,088.20	13.76	13.31	83.28	1,470.12	1,443.73	26.39	55.712	0		
7,650.00	7,273.77	7,474.12	7,092.29	13.86	13.39	83.21	1,470.33	1,443.75	26.58	55.307	0		
7,700.00	7,276.84	7,513.35	7,093.96	13.97	13.48	83.17	1,470.45	1,443.65	26.80	54.874	0		
7,714.18	7,277.00	7,525.48	7,094.00	14.00	13.51	83.17	1,470.46	1,443.60	26.86	54.740	0		
7,800.00	7,277.00	7,611.31	7,094.00	14.21	13.73	83.17	1,470.46	1,443.14	27.32	53.822	0		
7,900.00	7,277.00	7,711.31	7,094.00	14.49	14.03	83.17	1,470.46	1,442.55	27.91	52.687	0		
8,000.00	7,277.00	7,811.31	7,094.00	14.81	14.35	83.17	1,470.46	1,441.90	28.55	51.497	0		
8,100.00	7,277.00	7,911.31	7,094.00	15.15	14.71	83.17	1,470.46	1,441.21	29.25	50.268	0		
8,200.00	7,277.00	8,011.31	7,094.00	15.52	15.08	83.17	1,470.46	1,440.46	30.00	49.017	0		
8,300.00	7,277.00	8,111.31	7,094.00	15.91	15.48	83.17	1,470.46	1,439.67	30.79	47.755	0		
8,400.00	7,277.00	8,211.31	7,094.00	16.32	15.90	83.17	1,470.46	1,438.83	31.63	46.495	0		
8,500.00	7,277.00	8,311.31	7,094.00	16.75	16.34	83.17	1,470.46	1,437.96	32.50	45.246	0		
8,600.00	7,277.00	8,411.31	7,094.00	17.20	16.79	83.17	1,470.46	1,437.05	33.41	44.015	0		
8,700.00	7,277.00	8,511.31	7,094.00	17.67	17.27	83.17	1,470.46	1,436.11	34.35	42.808	0		
8,800.00	7,277.00	8,611.31	7,094.00	18.15	17.75	83.17	1,470.46	1,435.14	35.32	41.630	0		
8,900.00	7,277.00	8,711.31	7,094.00	18.64	18.25	83.17	1,470.46	1,434.14	36.32	40.483	0		
9,000.00	7,277.00	8,811.31	7,094.00	19.15	18.77	83.17	1,470.46	1,433.12	37.35	39.371	0		
9,100.00	7,277.00	8,911.31	7,094.00	19.67	19.30	83.17	1,470.47	1,432.07	38.40	38.295	0		

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor		
9,200.00	7,277.00	9,011.31	7,094.00	20.20	19.83	83.17	1,470.47	1,431.00	39.47	37.256	0		
9,300.00	7,277.00	9,111.31	7,094.00	20.74	20.38	83.17	1,470.47	1,429.91	40.56	36.254	0		
9,400.00	7,277.00	9,211.31	7,094.00	21.29	20.94	83.17	1,470.47	1,428.80	41.67	35.289	0		
9,500.00	7,277.00	9,311.31	7,094.00	21.85	21.50	83.17	1,470.47	1,427.67	42.80	34.360	0		
9,600.00	7,277.00	9,411.31	7,094.00	22.42	22.07	83.17	1,470.47	1,426.53	43.94	33.467	0		
9,700.00	7,277.00	9,511.31	7,094.00	22.99	22.65	83.17	1,470.47	1,425.38	45.10	32.608	0		
9,800.00	7,277.00	9,611.31	7,094.00	23.57	23.24	83.17	1,470.47	1,424.21	46.27	31.784	0		
9,900.00	7,277.00	9,711.31	7,094.00	24.16	23.83	83.17	1,470.47	1,423.03	47.45	30.992	0		
10,000.00	7,277.00	9,811.31	7,094.00	24.75	24.43	83.17	1,470.48	1,421.83	48.64	30.231	0		
10,100.00	7,277.00	9,911.31	7,094.00	25.35	25.04	83.17	1,470.48	1,420.63	49.85	29.500	0		
10,200.00	7,277.00	10,011.31	7,094.00	25.96	25.65	83.17	1,470.48	1,419.42	51.06	28.799	0		
10,300.00	7,277.00	10,111.31	7,094.00	26.57	26.26	83.17	1,470.48	1,418.20	52.28	28.125	0		
10,400.00	7,277.00	10,211.31	7,094.00	27.18	26.88	83.17	1,470.48	1,416.97	53.52	27.477	0		
10,500.00	7,277.00	10,311.31	7,094.00	27.80	27.50	83.17	1,470.48	1,415.73	54.76	26.855	0		
10,600.00	7,277.00	10,411.31	7,094.00	28.42	28.13	83.17	1,470.49	1,414.48	56.01	26.256	0		
10,700.00	7,277.00	10,511.31	7,094.00	29.05	28.76	83.17	1,470.49	1,413.23	57.26	25.681	0		
10,800.00	7,277.00	10,611.31	7,094.00	29.68	29.39	83.17	1,470.49	1,411.97	58.52	25.127	0		
10,900.00	7,277.00	10,711.31	7,094.00	30.31	30.03	83.17	1,470.49	1,410.70	59.79	24.595	0		
11,000.00	7,277.00	10,811.31	7,094.00	30.94	30.67	83.17	1,470.49	1,409.43	61.06	24.082	0		
11,100.00	7,277.00	10,911.31	7,094.00	31.58	31.31	83.17	1,470.50	1,408.16	62.34	23.588	0		
11,200.00	7,277.00	11,011.31	7,094.00	32.22	31.96	83.17	1,470.50	1,406.87	63.62	23.112	0		
11,300.00	7,277.00	11,111.31	7,094.00	32.87	32.60	83.17	1,470.50	1,405.59	64.91	22.653	0		
11,400.00	7,277.00	11,211.31	7,094.00	33.51	33.25	83.17	1,470.50	1,404.30	66.21	22.211	0		
11,500.00	7,277.00	11,311.31	7,094.00	34.16	33.90	83.17	1,470.51	1,403.00	67.50	21.784	0		
11,600.00	7,277.00	11,411.31	7,094.00	34.81	34.56	83.17	1,470.51	1,401.70	68.80	21.372	0		
11,700.00	7,277.00	11,511.31	7,094.00	35.46	35.21	83.17	1,470.51	1,400.40	70.11	20.974	0		
11,800.00	7,277.00	11,611.31	7,094.00	36.12	35.87	83.17	1,470.51	1,399.09	71.42	20.590	0		
11,900.00	7,277.00	11,711.31	7,094.00	36.78	36.53	83.17	1,470.52	1,397.78	72.73	20.219	0		
12,000.00	7,277.00	11,811.31	7,094.00	37.43	37.19	83.17	1,470.52	1,396.47	74.05	19.860	0		
12,100.00	7,277.00	11,911.31	7,094.00	38.09	37.85	83.17	1,470.52	1,395.16	75.36	19.512	0		
12,200.00	7,277.00	12,011.31	7,094.00	38.75	38.52	83.17	1,470.52	1,393.84	76.68	19.176	0		
12,300.00	7,277.00	12,111.31	7,094.00	39.42	39.18	83.17	1,470.53	1,392.52	78.01	18.851	0		
12,400.00	7,277.00	12,211.31	7,094.00	40.08	39.85	83.17	1,470.53	1,391.19	79.33	18.536	0		
12,500.00	7,277.00	12,311.31	7,094.00	40.75	40.52	83.17	1,470.53	1,389.87	80.66	18.230	0		
12,600.00	7,277.00	12,411.31	7,094.00	41.41	41.18	83.17	1,470.54	1,388.54	81.99	17.935	0		
12,700.00	7,277.00	12,511.31	7,094.00	42.08	41.85	83.17	1,470.54	1,387.21	83.33	17.648	0		
12,800.00	7,277.00	12,611.31	7,094.00	42.75	42.53	83.17	1,470.54	1,385.88	84.66	17.369	0		
12,900.00	7,277.00	12,711.31	7,094.00	43.42	43.20	83.17	1,470.54	1,384.54	86.00	17.099	0		
13,000.00	7,277.00	12,811.31	7,094.00	44.09	43.87	83.17	1,470.55	1,383.21	87.34	16.837	0		
13,100.00	7,277.00	12,911.31	7,094.00	44.76	44.54	83.17	1,470.55	1,381.87	88.68	16.582	0		
13,200.00	7,277.00	13,011.31	7,094.00	45.44	45.22	83.17	1,470.55	1,380.53	90.02	16.335	0		
13,300.00	7,277.00	13,111.31	7,094.00	46.11	45.90	83.17	1,470.56	1,379.19	91.37	16.095	0		
13,400.00	7,277.00	13,211.31	7,094.00	46.78	46.57	83.17	1,470.56	1,377.85	92.72	15.861	0		
13,500.00	7,277.00	13,311.31	7,094.00	47.46	47.25	83.17	1,470.57	1,376.50	94.06	15.634	0		
13,600.00	7,277.00	13,411.31	7,094.00	48.14	47.93	83.17	1,470.57	1,375.16	95.41	15.413	0		
13,700.00	7,277.00	13,511.31	7,094.00	48.81	48.61	83.17	1,470.57	1,373.81	96.76	15.198	0		
13,800.00	7,277.00	13,611.31	7,094.00	49.49	49.29	83.17	1,470.58	1,372.46	98.12	14.988	0		
13,900.00	7,277.00	13,711.31	7,094.00	50.17	49.97	83.17	1,470.58	1,371.11	99.47	14.784	0		
14,000.00	7,277.00	13,811.31	7,094.00	50.85	50.65	83.17	1,470.58	1,369.76	100.82	14.586	0		
14,100.00	7,277.00	13,911.31	7,094.00	51.53	51.33	83.17	1,470.59	1,368.41	102.18	14.392	0		
14,200.00	7,277.00	14,011.31	7,094.00	52.21	52.01	83.17	1,470.59	1,367.05	103.54	14.204	0		
14,300.00	7,277.00	14,111.31	7,094.00	52.89	52.69	83.17	1,470.60	1,365.70	104.90	14.020	0		
14,400.00	7,277.00	14,211.31	7,094.00	53.57	53.38	83.17	1,470.60	1,364.35	106.25	13.840	0		
14,500.00	7,277.00	14,311.31	7,094.00	54.26	54.06	83.17	1,470.60	1,362.99	107.61	13.665	0		

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



Schlumberger
Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #8 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
14,600.00	7,277.00	14,411.31	7,094.00	54.94	54.74	83.17	1,470.61	1,361.63	108.98	13.495	0			
14,700.00	7,277.00	14,511.31	7,094.00	55.62	55.43	83.17	1,470.61	1,360.27	110.34	13.328	0			
14,800.00	7,277.00	14,611.31	7,094.00	56.31	56.11	83.17	1,470.62	1,358.92	111.70	13.166	0			
14,900.00	7,277.00	14,711.31	7,094.00	56.99	56.80	83.17	1,470.62	1,357.56	113.07	13.007	0			
15,000.00	7,277.00	14,811.35	7,094.00	57.67	57.49	83.17	1,470.63	1,356.20	114.43	12.852	0			
15,083.00	7,277.00	14,894.35	7,094.00	58.24	58.06	83.17	1,470.63	1,355.06	115.56	12.726	0		SF	



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risk Separation Factor	Probability of Collision		
0.00	0.00	0.00	0.00	0.00	0.00	-179.74	224.25				0			
100.00	100.00	91.00	91.00	0.15	0.13	-179.74	224.07	223.79	0.28	800.200	0			
200.00	200.00	191.00	191.00	0.32	0.31	-179.74	224.07	223.45	0.63	357.616	0			
300.00	300.00	291.00	291.00	0.50	0.48	-179.74	224.07	223.10	0.98	229.668	0			
400.00	400.00	391.00	391.00	0.67	0.65	-179.74	224.07	222.75	1.32	169.149	0			
500.00	500.00	491.00	491.00	0.84	0.83	-179.74	224.07	222.40	1.67	133.873	0			
600.00	600.00	591.00	591.00	1.02	1.00	-179.74	224.07	222.05	2.02	110.772	0			
700.00	699.98	690.98	690.98	1.19	1.18	-140.38	225.41	223.04	2.37	95.047	0			
800.00	799.84	790.84	790.84	1.37	1.35	-141.16	229.47	226.75	2.72	84.367	0			
900.00	899.45	884.80	884.79	1.55	1.52	-142.13	237.41	234.35	3.06	77.635	0			
1,000.00	998.70	977.48	977.36	1.73	1.68	-142.99	250.76	247.37	3.39	73.882	0			
1,074.99	1,072.82	1,046.27	1,045.97	1.86	1.80	-143.54	264.29	260.65	3.65	72.508	0			
1,100.00	1,097.48	1,069.07	1,068.67	1.91	1.84	-143.76	269.38	265.65	3.73	72.215	0			
1,200.00	1,196.11	1,159.68	1,158.74	2.10	2.00	-144.30	291.27	287.20	4.07	71.553	0			
1,300.00	1,294.74	1,249.31	1,247.47	2.28	2.16	-144.44	315.55	311.14	4.41	71.551	0			
1,400.00	1,393.37	1,337.80	1,334.65	2.47	2.33	-144.25	342.18	337.43	4.75	72.058	0			
1,500.00	1,492.00	1,428.19	1,423.21	2.66	2.50	-143.82	370.96	365.87	5.09	72.856	0			
1,600.00	1,590.63	1,523.77	1,516.75	2.85	2.68	-143.37	400.22	394.78	5.44	73.504	0			
1,700.00	1,689.26	1,619.35	1,610.28	3.04	2.87	-142.99	429.51	423.71	5.80	74.061	0			
1,800.00	1,787.88	1,714.93	1,703.81	3.23	3.05	-142.65	458.81	452.66	6.15	74.545	0			
1,900.00	1,886.51	1,810.50	1,797.35	3.43	3.24	-142.36	488.13	481.62	6.51	74.969	0			
2,000.00	1,985.14	1,906.08	1,890.88	3.62	3.43	-142.10	517.45	510.58	6.87	75.343	0			
2,100.00	2,083.77	2,001.66	1,984.41	3.81	3.62	-141.86	546.79	539.56	7.23	75.675	0			
2,200.00	2,182.40	2,097.24	2,077.95	4.00	3.81	-141.65	576.13	568.54	7.58	75.973	0			
2,300.00	2,281.03	2,192.82	2,171.48	4.20	4.00	-141.47	605.48	597.53	7.94	76.240	0			
2,400.00	2,379.66	2,288.40	2,265.01	4.39	4.19	-141.29	634.83	626.53	8.30	76.482	0			
2,500.00	2,478.28	2,383.97	2,358.55	4.58	4.38	-141.14	664.19	655.53	8.66	76.702	0			
2,600.00	2,576.91	2,479.55	2,452.08	4.78	4.57	-140.99	693.55	684.53	9.02	76.902	0			
2,700.00	2,675.54	2,575.13	2,545.61	4.97	4.76	-140.86	722.91	713.54	9.38	77.086	0			
2,800.00	2,774.17	2,670.71	2,639.15	5.16	4.96	-140.74	752.28	742.54	9.74	77.254	0			
2,900.00	2,872.80	2,766.29	2,732.68	5.36	5.15	-140.63	781.65	771.56	10.10	77.410	0			
3,000.00	2,971.43	2,861.87	2,826.22	5.55	5.34	-140.52	811.03	800.57	10.46	77.554	0			
3,100.00	3,070.06	2,957.45	2,919.75	5.74	5.53	-140.43	840.41	829.59	10.82	77.687	0			
3,200.00	3,168.68	3,053.02	3,013.28	5.94	5.73	-140.34	869.78	858.61	11.18	77.811	0			
3,300.00	3,267.31	3,148.60	3,106.82	6.13	5.92	-140.25	899.16	887.63	11.54	77.927	0			
3,400.00	3,365.94	3,244.18	3,200.35	6.33	6.12	-140.17	928.55	916.65	11.90	78.035	0			
3,500.00	3,464.57	3,339.76	3,293.88	6.52	6.31	-140.10	957.93	945.67	12.26	78.136	0			
3,600.00	3,563.20	3,435.34	3,387.42	6.71	6.50	-140.03	987.31	974.69	12.62	78.231	0			
3,700.00	3,661.83	3,530.92	3,480.95	6.91	6.70	-139.96	1,016.70	1,003.72	12.98	78.320	0			
3,800.00	3,760.46	3,626.49	3,574.48	7.10	6.89	-139.90	1,046.09	1,032.75	13.34	78.405	0			
3,900.00	3,859.08	3,722.07	3,668.02	7.30	7.09	-139.84	1,075.48	1,061.77	13.70	78.484	0			
4,000.00	3,957.71	3,817.65	3,761.55	7.49	7.28	-139.79	1,104.87	1,090.80	14.06	78.559	0			
4,100.00	4,056.34	3,913.23	3,855.08	7.68	7.48	-139.73	1,134.26	1,119.83	14.43	78.630	0			
4,200.00	4,154.97	4,008.81	3,948.62	7.88	7.67	-139.68	1,163.65	1,148.86	14.79	78.697	0			
4,300.00	4,253.60	4,104.39	4,042.15	8.07	7.87	-139.64	1,193.04	1,177.89	15.15	78.761	0			
4,400.00	4,352.23	4,199.97	4,135.69	8.27	8.06	-139.59	1,222.43	1,206.92	15.51	78.822	0			
4,500.00	4,450.86	4,295.54	4,229.22	8.46	8.26	-139.55	1,251.83	1,235.96	15.87	78.880	0			
4,600.00	4,549.48	4,391.12	4,322.75	8.66	8.45	-139.51	1,281.22	1,264.99	16.23	78.935	0			
4,700.00	4,648.11	4,486.70	4,416.29	8.85	8.65	-139.47	1,310.61	1,294.02	16.59	78.987	0			
4,800.00	4,746.74	4,582.28	4,509.82	9.05	8.84	-139.43	1,340.01	1,323.06	16.95	79.037	0			
4,900.00	4,845.37	4,677.86	4,603.35	9.24	9.04	-139.39	1,369.41	1,352.09	17.32	79.085	0			
5,000.00	4,944.00	4,773.44	4,696.89	9.43	9.23	-139.36	1,398.80	1,381.12	17.68	79.131	0			
5,100.00	5,042.63	4,869.01	4,790.42	9.63	9.43	-139.33	1,428.20	1,410.16	18.04	79.175	0			
5,200.00	5,141.26	4,964.59	4,883.95	9.82	9.62	-139.30	1,457.59	1,439.19	18.40	79.217	0			

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16")
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16")
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design													Sec.28-T07N-R67W - Nelson Farm #9 - Original Hole - Rev 0		Offset Site Error:		0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis		Distance							Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision					
5,300.00	5,239.89	5,060.17	4,977.49	10.02	9.82	-139.26	1,486.99	1,468.23	18.76	79.258	0						
5,400.00	5,338.51	5,155.75	5,071.02	10.21	10.01	-139.24	1,516.39	1,497.27	19.12	79.296	0						
5,500.00	5,437.14	5,251.33	5,164.56	10.41	10.21	-139.21	1,545.79	1,526.30	19.48	79.334	0						
5,600.00	5,535.77	5,346.91	5,258.09	10.60	10.40	-139.18	1,575.19	1,555.34	19.85	79.369	0						
5,700.00	5,634.40	5,442.48	5,351.62	10.80	10.60	-139.15	1,604.58	1,584.38	20.21	79.403	0						
5,800.00	5,733.03	5,538.06	5,445.16	10.99	10.79	-139.13	1,633.98	1,613.41	20.57	79.436	0						
5,900.00	5,831.66	5,633.64	5,538.69	11.19	10.99	-139.10	1,663.38	1,642.45	20.93	79.468	0						
6,000.00	5,930.29	5,729.22	5,632.22	11.38	11.19	-139.08	1,692.78	1,671.49	21.29	79.499	0						
6,100.00	6,028.91	5,824.80	5,725.76	11.57	11.38	-139.06	1,722.18	1,700.53	21.65	79.528	0						
6,139.18	6,067.56	5,862.25	5,762.41	11.65	11.46	-139.05	1,733.70	1,711.91	21.80	79.539	0						
6,200.00	6,127.64	5,974.69	5,872.82	11.77	11.68	-139.26	1,750.30	1,728.16	22.14	79.040	0						
6,300.00	6,226.83	6,174.45	6,070.72	11.95	12.04	-139.58	1,771.08	1,748.36	22.72	77.943	0						
6,400.00	6,326.40	6,378.92	6,274.73	12.13	12.39	-139.90	1,783.46	1,760.18	23.28	76.599	0						
6,500.00	6,426.23	6,521.44	6,417.23	12.29	12.61	-140.12	1,788.33	1,764.61	23.72	75.402	0						
6,600.00	6,526.20	6,621.75	6,517.46	12.46	12.76	-140.28	1,790.05	1,765.99	24.06	74.404	0						
6,614.18	6,540.38	6,635.89	6,531.52	12.48	12.78	-179.96	1,790.07	1,765.44	24.63	72.665	0						
6,623.84	6,550.04	6,645.49	6,541.04	12.49	12.80	180.00	1,790.07	1,765.41	24.67	72.574	0						
6,700.00	6,626.20	6,719.49	6,613.67	12.62	12.89	179.55	1,790.13	1,765.22	24.91	71.874	0						
6,714.18	6,640.38	6,732.85	6,626.59	12.64	12.91	179.44	1,790.16	1,765.21	24.95	71.748	0						
6,750.00	6,676.18	6,766.21	6,658.50	12.70	12.95	89.15	1,790.28	1,765.78	24.51	73.054	0						
6,800.00	6,725.94	6,812.06	6,701.44	12.77	13.00	88.75	1,790.53	1,765.89	24.64	72.675	0						
6,850.00	6,775.18	6,857.13	6,742.43	12.84	13.05	88.36	1,790.86	1,766.10	24.76	72.328	0						
6,900.00	6,823.58	6,900.00	6,780.08	12.90	13.09	87.98	1,791.26	1,766.39	24.87	72.013	0						
6,950.00	6,870.85	6,945.21	6,818.21	12.96	13.14	87.60	1,791.73	1,766.74	24.99	71.712	0						
7,000.00	6,916.70	6,988.33	6,852.88	13.02	13.18	87.25	1,792.24	1,767.15	25.09	71.433	0						
7,050.00	6,960.84	7,030.91	6,885.34	13.07	13.23	86.91	1,792.80	1,767.61	25.19	71.168	0						
7,100.00	7,003.01	7,073.00	6,915.54	13.12	13.27	86.58	1,793.39	1,768.10	25.29	70.910	0						
7,150.00	7,042.95	7,114.65	6,943.46	13.18	13.31	86.28	1,793.99	1,768.60	25.39	70.654	0						
7,200.00	7,080.40	7,155.90	6,969.05	13.23	13.36	85.99	1,794.59	1,769.10	25.49	70.395	0						
7,250.00	7,115.14	7,200.00	6,994.05	13.28	13.41	85.71	1,795.19	1,769.59	25.60	70.117	0						
7,300.00	7,146.96	7,237.36	7,013.21	13.34	13.45	85.48	1,795.76	1,770.05	25.71	69.842	0						
7,350.00	7,175.65	7,277.66	7,031.73	13.40	13.50	85.26	1,796.31	1,770.47	25.83	69.537	0						
7,400.00	7,201.04	7,317.71	7,047.86	13.46	13.56	85.07	1,796.81	1,770.84	25.96	69.207	0						
7,450.00	7,222.97	7,357.55	7,061.58	13.53	13.61	84.90	1,797.26	1,771.15	26.10	68.849	0						
7,500.00	7,241.31	7,400.00	7,073.60	13.60	13.68	84.75	1,797.65	1,771.39	26.26	68.444	0						
7,550.00	7,255.95	7,436.75	7,081.80	13.68	13.74	84.64	1,797.97	1,771.54	26.43	68.028	0						
7,600.00	7,266.79	7,476.17	7,088.28	13.76	13.81	84.55	1,798.22	1,771.61	26.61	67.567	0						
7,650.00	7,273.77	7,515.50	7,092.33	13.86	13.89	84.49	1,798.40	1,771.59	26.81	67.072	0						
7,700.00	7,276.84	7,554.79	7,093.96	13.97	13.97	84.45	1,798.50	1,771.47	27.03	66.546	0						
7,714.18	7,277.00	7,567.11	7,094.00	14.00	14.00	84.45	1,798.51	1,771.42	27.09	66.383	0						
7,800.00	7,277.00	7,652.93	7,094.00	14.21	14.20	84.45	1,798.51	1,770.96	27.55	65.276	0						
7,900.00	7,277.00	7,752.93	7,094.00	14.49	14.48	84.45	1,798.51	1,770.37	28.14	63.914	0						
8,000.00	7,277.00	7,852.93	7,094.00	14.81	14.78	84.45	1,798.51	1,769.73	28.78	62.485	0						
8,100.00	7,277.00	7,952.93	7,094.00	15.15	15.12	84.45	1,798.51	1,769.03	29.48	61.010	0						
8,200.00	7,277.00	8,052.93	7,094.00	15.52	15.48	84.45	1,798.51	1,768.28	30.22	59.505	0						
8,300.00	7,277.00	8,152.93	7,094.00	15.91	15.87	84.45	1,798.51	1,767.49	31.01	57.989	0						
8,400.00	7,277.00	8,252.93	7,094.00	16.32	16.28	84.45	1,798.51	1,766.66	31.85	56.472	0						
8,500.00	7,277.00	8,352.93	7,094.00	16.75	16.71	84.45	1,798.51	1,765.79	32.72	54.968	0						
8,600.00	7,277.00	8,452.93	7,094.00	17.20	17.16	84.45	1,798.51	1,764.88	33.63	53.485	0						
8,700.00	7,277.00	8,552.93	7,094.00	17.67	17.62	84.45	1,798.51	1,763.94	34.57	52.029	0						
8,800.00	7,277.00	8,652.93	7,094.00	18.15	18.10	84.45	1,798.51	1,762.97	35.54	50.608	0						
8,900.00	7,277.00	8,752.93	7,094.00	18.64	18.59	84.45	1,798.51	1,761.98	36.54	49.224	0						
9,000.00	7,277.00	8,852.93	7,094.00	19.15	19.10	84.45	1,798.51	1,760.95	37.56	47.881	0						
9,100.00	7,277.00	8,952.93	7,094.00	19.67	19.62	84.45	1,798.51	1,759.90	38.61	46.581	0						

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



Schlumberger

Anticollision Risk Report



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error: 0.00 usft	
Survey Program: 0-Pathfinder												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision	
9,200.00	7,277.00	9,052.93	7,094.00	20.20	20.15	84.45	1,798.52	1,758.84	39.68	45.325	0		
9,300.00	7,277.00	9,152.93	7,094.00	20.74	20.69	84.45	1,798.52	1,757.75	40.77	44.113	0		
9,400.00	7,277.00	9,252.93	7,094.00	21.29	21.24	84.45	1,798.52	1,756.64	41.88	42.945	0		
9,500.00	7,277.00	9,352.93	7,094.00	21.85	21.80	84.45	1,798.52	1,755.51	43.01	41.820	0		
9,600.00	7,277.00	9,452.93	7,094.00	22.42	22.36	84.45	1,798.52	1,754.37	44.15	40.739	0		
9,700.00	7,277.00	9,552.93	7,094.00	22.99	22.94	84.45	1,798.52	1,753.22	45.30	39.699	0		
9,800.00	7,277.00	9,652.93	7,094.00	23.57	23.52	84.45	1,798.52	1,752.05	46.47	38.699	0		
9,900.00	7,277.00	9,752.93	7,094.00	24.16	24.10	84.45	1,798.52	1,750.87	47.66	37.739	0		
10,000.00	7,277.00	9,852.93	7,094.00	24.75	24.70	84.45	1,798.53	1,749.67	48.85	36.817	0		
10,100.00	7,277.00	9,952.93	7,094.00	25.35	25.30	84.45	1,798.53	1,748.47	50.06	35.931	0		
10,200.00	7,277.00	10,052.93	7,094.00	25.96	25.90	84.45	1,798.53	1,747.26	51.27	35.079	0		
10,300.00	7,277.00	10,152.93	7,094.00	26.57	26.51	84.45	1,798.53	1,746.04	52.49	34.261	0		
10,400.00	7,277.00	10,252.93	7,094.00	27.18	27.12	84.45	1,798.53	1,744.80	53.73	33.475	0		
10,500.00	7,277.00	10,352.93	7,094.00	27.80	27.74	84.45	1,798.53	1,743.57	54.97	32.719	0		
10,600.00	7,277.00	10,452.93	7,094.00	28.42	28.36	84.45	1,798.54	1,742.32	56.22	31.993	0		
10,700.00	7,277.00	10,552.93	7,094.00	29.05	28.99	84.45	1,798.54	1,741.06	57.47	31.294	0		
10,800.00	7,277.00	10,652.93	7,094.00	29.68	29.62	84.45	1,798.54	1,739.80	58.74	30.621	0		
10,900.00	7,277.00	10,752.93	7,094.00	30.31	30.25	84.45	1,798.54	1,738.54	60.00	29.974	0		
11,000.00	7,277.00	10,852.93	7,094.00	30.94	30.89	84.45	1,798.54	1,737.27	61.28	29.351	0		
11,100.00	7,277.00	10,952.93	7,094.00	31.58	31.52	84.45	1,798.55	1,735.99	62.56	28.750	0		
11,200.00	7,277.00	11,052.93	7,094.00	32.22	32.17	84.45	1,798.55	1,734.71	63.84	28.172	0		
11,300.00	7,277.00	11,152.93	7,094.00	32.87	32.81	84.45	1,798.55	1,733.42	65.13	27.614	0		
11,400.00	7,277.00	11,252.93	7,094.00	33.51	33.46	84.45	1,798.55	1,732.13	66.43	27.076	0		
11,500.00	7,277.00	11,352.93	7,094.00	34.16	34.10	84.45	1,798.55	1,730.83	67.72	26.557	0		
11,600.00	7,277.00	11,452.93	7,094.00	34.81	34.75	84.45	1,798.56	1,729.53	69.03	26.056	0		
11,700.00	7,277.00	11,552.93	7,094.00	35.46	35.41	84.45	1,798.56	1,728.23	70.33	25.572	0		
11,800.00	7,277.00	11,652.93	7,094.00	36.12	36.06	84.45	1,798.56	1,726.92	71.64	25.104	0		
11,900.00	7,277.00	11,752.93	7,094.00	36.78	36.72	84.45	1,798.56	1,725.61	72.96	24.652	0		
12,000.00	7,277.00	11,852.93	7,094.00	37.43	37.37	84.45	1,798.57	1,724.29	74.27	24.215	0		
12,100.00	7,277.00	11,952.93	7,094.00	38.09	38.03	84.45	1,798.57	1,722.98	75.59	23.793	0		
12,200.00	7,277.00	12,052.93	7,094.00	38.75	38.70	84.45	1,798.57	1,721.66	76.92	23.384	0		
12,300.00	7,277.00	12,152.93	7,094.00	39.42	39.36	84.45	1,798.58	1,720.33	78.24	22.988	0		
12,400.00	7,277.00	12,252.93	7,094.00	40.08	40.02	84.45	1,798.58	1,719.01	79.57	22.604	0		
12,500.00	7,277.00	12,352.93	7,094.00	40.75	40.69	84.45	1,798.58	1,717.68	80.90	22.232	0		
12,600.00	7,277.00	12,452.93	7,094.00	41.41	41.35	84.45	1,798.58	1,716.35	82.23	21.872	0		
12,700.00	7,277.00	12,552.93	7,094.00	42.08	42.02	84.45	1,798.59	1,715.02	83.57	21.523	0		
12,800.00	7,277.00	12,652.93	7,094.00	42.75	42.69	84.45	1,798.59	1,713.69	84.91	21.184	0		
12,900.00	7,277.00	12,752.93	7,094.00	43.42	43.36	84.45	1,798.59	1,712.35	86.24	20.855	0		
13,000.00	7,277.00	12,852.93	7,094.00	44.09	44.03	84.45	1,798.60	1,711.01	87.59	20.535	0		
13,100.00	7,277.00	12,952.93	7,094.00	44.76	44.70	84.45	1,798.60	1,709.67	88.93	20.225	0		
13,200.00	7,277.00	13,052.93	7,094.00	45.44	45.38	84.45	1,798.60	1,708.33	90.27	19.924	0		
13,300.00	7,277.00	13,152.93	7,094.00	46.11	46.05	84.45	1,798.61	1,706.99	91.62	19.631	0		
13,400.00	7,277.00	13,252.93	7,094.00	46.78	46.72	84.45	1,798.61	1,705.64	92.97	19.346	0		
13,500.00	7,277.00	13,352.93	7,094.00	47.46	47.40	84.45	1,798.61	1,704.30	94.32	19.070	0		
13,600.00	7,277.00	13,452.93	7,094.00	48.14	48.08	84.45	1,798.62	1,702.95	95.67	18.800	0		
13,700.00	7,277.00	13,552.93	7,094.00	48.81	48.75	84.45	1,798.62	1,701.60	97.02	18.538	0		
13,800.00	7,277.00	13,652.93	7,094.00	49.49	49.43	84.45	1,798.63	1,700.25	98.38	18.283	0		
13,900.00	7,277.00	13,752.93	7,094.00	50.17	50.11	84.45	1,798.63	1,698.90	99.73	18.035	0		
14,000.00	7,277.00	13,852.93	7,094.00	50.85	50.79	84.45	1,798.63	1,697.54	101.09	17.793	0		
14,100.00	7,277.00	13,952.93	7,094.00	51.53	51.47	84.45	1,798.64	1,696.19	102.45	17.557	0		
14,200.00	7,277.00	14,052.93	7,094.00	52.21	52.15	84.45	1,798.64	1,694.84	103.81	17.327	0		
14,300.00	7,277.00	14,152.93	7,094.00	52.89	52.83	84.45	1,798.65	1,693.48	105.17	17.103	0		
14,400.00	7,277.00	14,252.93	7,094.00	53.57	53.51	84.45	1,798.65	1,692.12	106.53	16.884	0		
14,500.00	7,277.00	14,352.93	7,094.00	54.26	54.20	84.45	1,798.65	1,690.76	107.89	16.671	0		

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



Schlumberger
Anticollision Risk Report

PATHFINDER
A Schlumberger Company

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Offset Design Sec.28-T07N-R67W - Nelson Farm #9 - Original Hole - Rev 0													Offset Site Error:	0.00 usft
Survey Program: 0-Pathfinder													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Risked Separation Factor	Probability of Collision		
14,600.00	7,277.00	14,452.93	7,094.00	54.94	54.88	84.45	1,798.66	1,689.41	109.25	16.463	0			
14,700.00	7,277.00	14,552.93	7,094.00	55.62	55.56	84.45	1,798.66	1,688.05	110.62	16.260	0			
14,800.00	7,277.00	14,652.93	7,094.00	56.31	56.25	84.45	1,798.67	1,686.68	111.98	16.062	0			
14,900.00	7,277.00	14,752.93	7,094.00	56.99	56.93	84.45	1,798.67	1,685.32	113.35	15.868	0			
15,000.00	7,277.00	14,852.93	7,094.00	57.67	57.61	84.45	1,798.68	1,683.96	114.72	15.679	0			
15,083.00	7,277.00	14,935.73	7,094.00	58.24	58.18	84.45	1,798.68	1,682.83	115.85	15.526	0		SF	

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 4991.00usft (Xtreme 7 - 16')

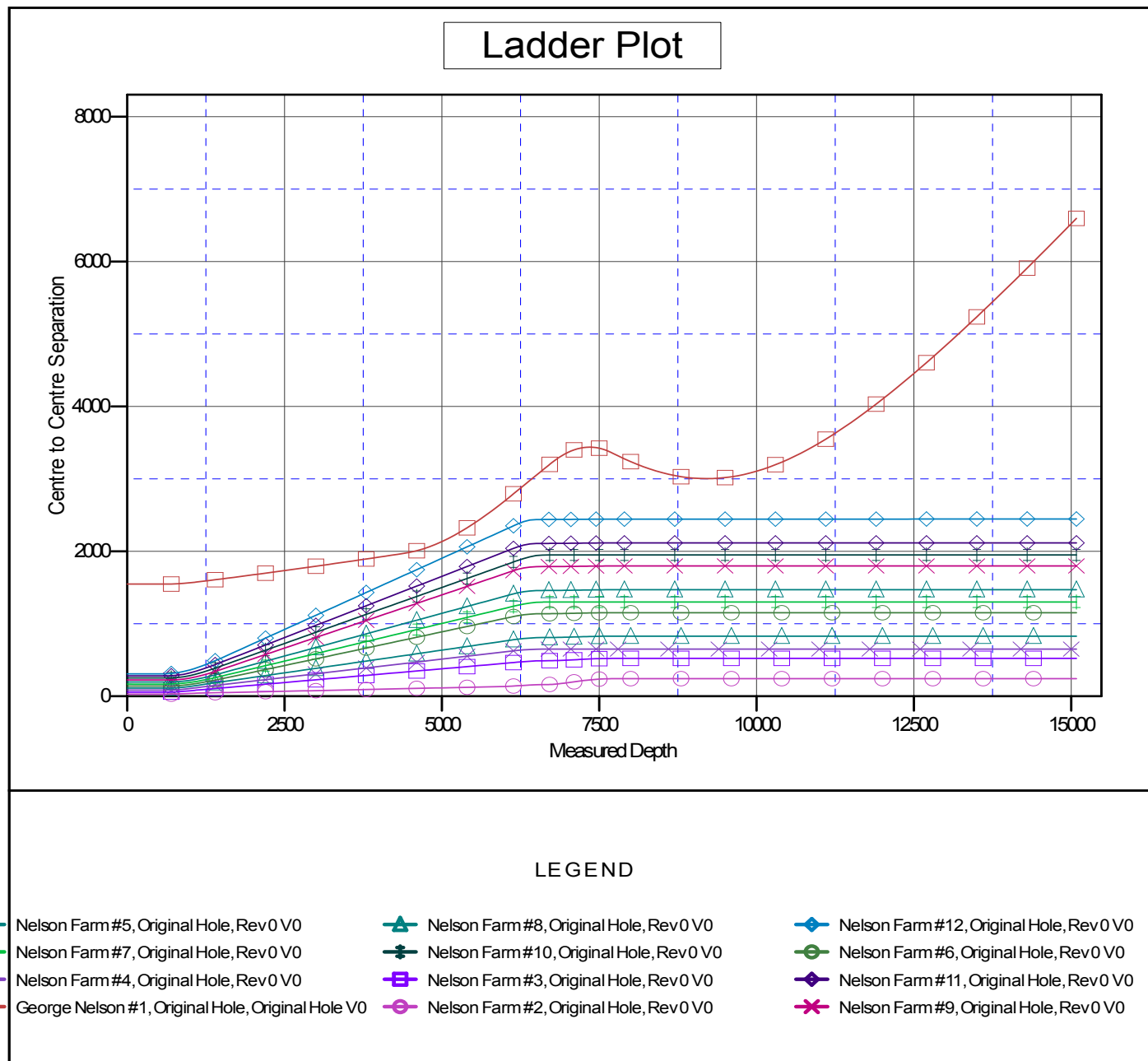
Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W °

Coordinates are relative to: Nelson Farm #1

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.38°



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Nelson Farm #1
Project:	Weld Co., Co	TVD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Reference Site:	Sec.28-T07N-R67W	MD Reference:	KB @ 4991.00usft (Xtreme 7 - 16')
Site Error:	0.00	North Reference:	Grid
Reference Well:	Nelson Farm #1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	EDM 5000.1 Single User Db
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 4991.00usft (Xtreme 7 - 16')

Offset Depths are relative to Offset Datum

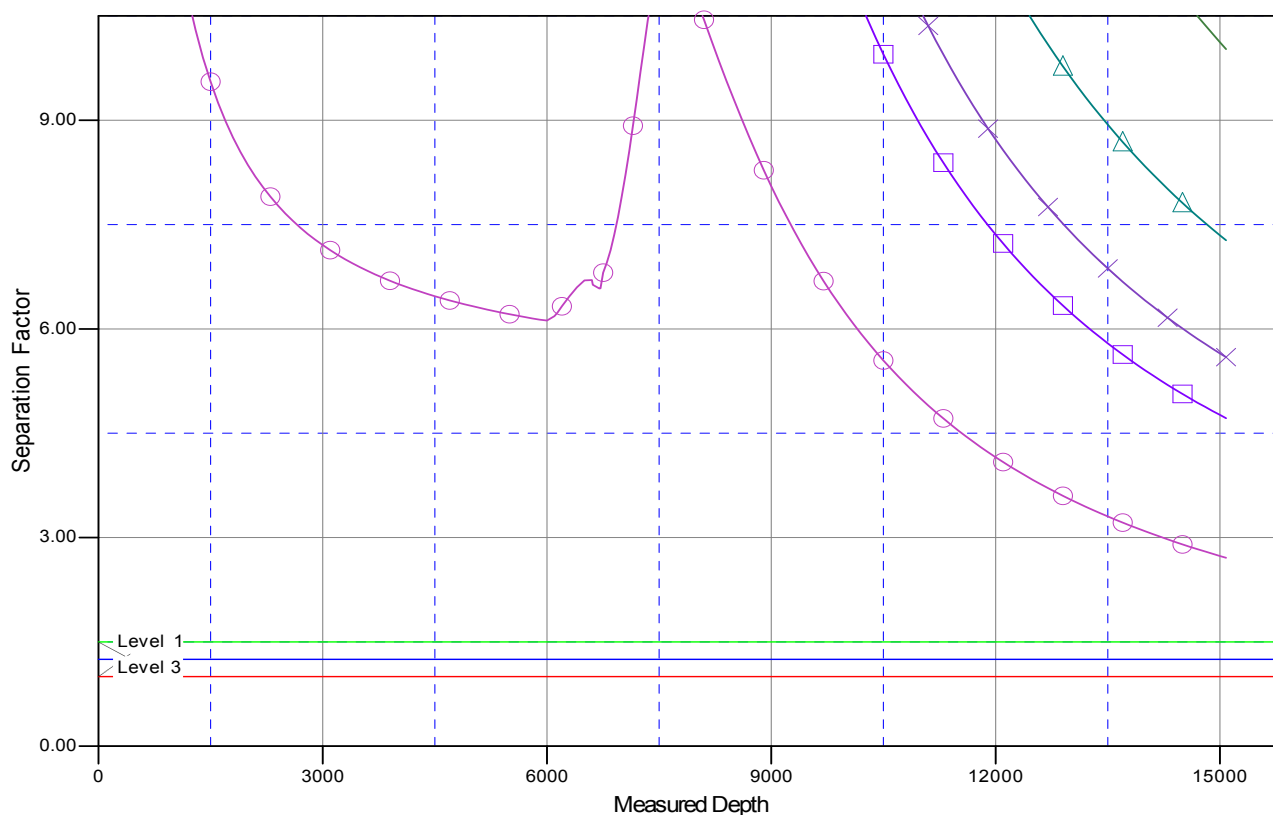
Central Meridian is 105° 30' 0.000 W °

Coordinates are relative to: Nelson Farm #1

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.38°

Separation Factor Plot



LEGEND

- | | | |
|---|---|---|
| Nelson Farm #5, Original Hole, Rev0 V0 | Nelson Farm #8, Original Hole, Rev0 V0 | Nelson Farm #12, Original Hole, Rev0 V0 |
| Nelson Farm #7, Original Hole, Rev0 V0 | Nelson Farm #10, Original Hole, Rev0 V0 | Nelson Farm #6, Original Hole, Rev0 V0 |
| Nelson Farm #4, Original Hole, Rev0 V0 | Nelson Farm #3, Original Hole, Rev0 V0 | Nelson Farm #11, Original Hole, Rev0 V0 |
| George Nelson #1, Original Hole, Original Hole V0 | Nelson Farm #2, Original Hole, Rev0 V0 | Nelson Farm #9, Original Hole, Rev0 V0 |