

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations Interval 100.00ft	Error Model:	ISCSWA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

RECEIVED
 MAR 28 2017

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

Survey Tool Program	Date	8/1/2016		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,625.14	Plan 1 (Wellbore #1)	MWD	MWD - Standard

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance		Separation Factor	Warning
			Between Centres (ft)	Between Ellipses (ft)		
Summary						
Offset Well - Wellbore - Design						
Dzurisin						
Thistle Unit 105H - Wellbore #1 - Plan 1	3,500.01	3,500.51	29.95	14.49	1.938 CC	
Thistle Unit 105H - Wellbore #1 - Plan 1	3,600.00	3,600.50	30.25	14.36	1.904 ES, SF	
Thistle Unit 108H - Wellbore #1 - Plan 1	3,466.63	3,466.73	63.59	48.28	4.154 CC	
Thistle Unit 108H - Wellbore #1 - Plan 1	3,500.00	3,500.00	63.59	48.13	4.114 ES	
Thistle Unit 108H - Wellbore #1 - Plan 1	17,626.12	17,144.06	970.39	541.95	2.265 SF	
Thistle Unit 119H - Wellbore #1 - Plan 1	3,500.00	3,499.00	50.02	34.57	3.237 CC, ES	
Thistle Unit 119H - Wellbore #1 - Plan 1	17,626.12	17,620.43	889.89	422.71	1.905 SF	

Offset Design													Dzurisin - Thistle Unit 105H - Wellbore #1 - Plan 1		Offset Site Error: 0.00 ft	
Survey Program: 0-MWD													Offset Well Error: 0.00 ft			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Distance			Separation Factor	Risked Separation Factor	Probability of Collision	Warning			
				Reference (ft)	Offset (ft)		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)							
0.00	0.00	0.50	0.50	0.00	0.00	179.52	29.95									
100.00	100.00	100.50	100.50	0.09	0.09	179.52	29.95	29.78	0.17	173.058	0					
200.00	200.00	200.50	200.50	0.31	0.31	179.52	29.95	29.33	0.62	48.106	0					
300.00	300.00	300.50	300.50	0.54	0.54	179.52	29.95	28.88	1.07	27.936	0					
400.00	400.00	400.50	400.50	0.76	0.76	179.52	29.95	28.43	1.52	19.683	0					
500.00	500.00	500.50	500.50	0.99	0.99	179.52	29.95	27.98	1.97	15.194	0					
600.00	600.00	600.50	600.50	1.21	1.21	179.52	29.95	27.53	2.42	12.373	0					
700.00	700.00	700.50	700.50	1.43	1.44	179.52	29.95	27.08	2.87	10.435	0					
800.00	800.00	800.50	800.50	1.66	1.66	179.52	29.95	26.63	3.32	9.022	0					
900.00	900.00	900.50	900.50	1.88	1.89	179.52	29.95	26.18	3.77	7.946	0					
1,000.00	1,000.00	1,000.50	1,000.50	2.11	2.11	179.52	29.95	25.73	4.22	7.099	0					
1,100.00	1,100.00	1,100.50	1,100.50	2.33	2.33	179.52	29.95	25.28	4.67	6.416	0					
1,200.00	1,200.00	1,200.50	1,200.50	2.56	2.56	179.52	29.95	24.83	5.12	5.852	0					
1,300.00	1,300.00	1,300.50	1,300.50	2.78	2.78	179.52	29.95	24.38	5.57	5.380	0					
1,400.00	1,400.00	1,400.50	1,400.50	3.01	3.01	179.52	29.95	23.93	6.02	4.978	0					
1,500.00	1,500.00	1,500.50	1,500.50	3.23	3.23	179.52	29.95	23.48	6.47	4.632	0					

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Dzurisin - Thistle Unit 105H - Wellbore #1 - Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-MWD															Offset Well Error:	0.00 ft
Reference				Offset		Semi Major Axis		Distance				Risked Separation Factor	Probability of Collision	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (")	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor						
1,600.00	1,600.00	1,600.50	1,600.50	3.46	3.46	179.52	29.95	23.04	6.92	4.331	0					
1,700.00	1,700.00	1,700.50	1,700.50	3.68	3.68	179.52	29.95	22.59	7.37	4.066	0					
1,800.00	1,800.00	1,800.50	1,800.50	3.91	3.91	179.52	29.95	22.14	7.82	3.832	0					
1,900.00	1,900.00	1,900.50	1,900.50	4.13	4.13	179.52	29.95	21.69	8.26	3.624	0					
2,000.00	2,000.00	2,000.50	2,000.50	4.36	4.36	179.52	29.95	21.24	8.71	3.437	0					
2,100.00	2,100.00	2,100.50	2,100.50	4.58	4.58	179.52	29.95	20.79	9.16	3.268	0					
2,200.00	2,200.00	2,200.50	2,200.50	4.81	4.81	179.52	29.95	20.34	9.61	3.116	0					
2,300.00	2,300.00	2,300.50	2,300.50	5.03	5.03	179.52	29.95	19.89	10.06	2.976	0					
2,400.00	2,400.00	2,400.50	2,400.50	5.26	5.26	179.52	29.95	19.44	10.51	2.849	0					
2,500.00	2,500.00	2,500.50	2,500.50	5.48	5.48	179.52	29.95	18.99	10.96	2.732	0					
2,600.00	2,600.00	2,600.50	2,600.50	5.71	5.71	179.52	29.95	18.54	11.41	2.625	0					
2,700.00	2,700.00	2,700.50	2,700.50	5.93	5.93	179.52	29.95	18.09	11.86	2.525	0					
2,800.00	2,800.00	2,800.50	2,800.50	6.15	6.16	179.52	29.95	17.64	12.31	2.433	0					
2,900.00	2,900.00	2,900.50	2,900.50	6.38	6.38	179.52	29.95	17.19	12.76	2.347	0					
3,000.00	3,000.00	3,000.50	3,000.50	6.60	6.61	179.52	29.95	16.74	13.21	2.267	0					
3,100.00	3,100.00	3,100.50	3,100.50	6.83	6.83	179.52	29.95	16.29	13.66	2.193	0					
3,200.00	3,200.00	3,200.50	3,200.50	7.05	7.05	179.52	29.95	15.84	14.11	2.123	0					
3,300.00	3,300.00	3,300.50	3,300.50	7.28	7.28	179.52	29.95	15.39	14.56	2.057	0					
3,400.00	3,400.00	3,400.50	3,400.50	7.50	7.50	179.52	29.95	14.94	15.01	1.996	0					
3,500.00	3,500.00	3,500.50	3,500.50	7.73	7.73	179.52	29.95	14.49	15.46	1.938	0					
3,500.01	3,500.01	3,500.51	3,500.51	7.73	7.73	179.52	29.95	14.49	15.46	1.938	0					
3,600.00	3,600.00	3,600.50	3,600.50	7.94	7.94	-110.35	30.25	14.36	15.88	1.904	0	CC				
3,700.00	3,699.96	3,700.50	3,700.46	8.16	8.14	-110.03	31.14	14.85	16.30	1.911	0	ES, SF				
3,800.00	3,799.86	3,800.49	3,800.35	8.37	8.35	-109.54	32.64	15.92	16.72	1.952	0					
3,900.00	3,899.68	3,900.46	3,900.13	8.59	8.56	-108.92	34.73	17.58	17.15	2.025	0					
4,000.00	3,999.37	4,000.41	3,999.77	8.82	8.79	-108.24	37.42	19.81	17.61	2.125	0					
4,100.00	4,098.99	4,100.36	4,099.34	9.06	9.03	-107.62	40.42	22.34	18.09	2.235	0					
4,200.00	4,198.60	4,200.31	4,198.92	9.31	9.27	-107.09	43.42	24.85	18.57	2.338	0					
4,300.00	4,298.22	4,300.27	4,298.49	9.56	9.52	-106.63	46.43	27.35	19.08	2.434	0					
4,400.00	4,397.84	4,400.22	4,398.06	9.82	9.77	-106.22	49.43	29.85	19.59	2.524	0					
4,500.00	4,497.46	4,500.18	4,497.64	10.09	10.04	-105.86	52.44	32.33	20.11	2.608	0					
4,600.00	4,597.08	4,600.13	4,597.21	10.36	10.30	-105.54	55.46	34.81	20.64	2.686	0					
4,700.00	4,696.70	4,700.08	4,696.79	10.63	10.57	-105.25	58.47	37.28	21.19	2.760	0					
4,800.00	4,796.32	4,800.04	4,796.36	10.91	10.85	-104.99	61.48	39.75	21.73	2.829	0					
4,900.00	4,895.94	4,899.99	4,895.93	11.19	11.13	-104.75	64.50	42.21	22.29	2.893	0					
5,000.00	4,995.56	4,999.95	4,995.51	11.47	11.41	-104.54	67.51	44.66	22.86	2.954	0					
5,100.00	5,095.18	5,099.90	5,095.08	11.76	11.70	-104.34	70.53	47.10	23.43	3.011	0					
5,200.00	5,194.80	5,199.86	5,194.66	12.05	11.99	-104.16	73.55	49.55	24.00	3.064	0					
5,300.00	5,294.42	5,299.81	5,294.23	12.34	12.28	-104.00	76.57	51.98	24.59	3.114	0					
5,400.00	5,394.04	5,399.76	5,393.80	12.64	12.58	-103.84	79.59	54.41	25.17	3.162	0					
5,500.00	5,493.66	5,499.72	5,493.38	12.93	12.87	-103.70	82.61	56.84	25.77	3.206	0					
5,600.00	5,593.28	5,599.67	5,592.95	13.23	13.18	-103.57	85.63	59.26	26.36	3.248	0					
5,700.00	5,692.90	5,699.63	5,692.52	13.54	13.48	-103.45	88.65	61.68	26.96	3.288	0					
5,800.00	5,792.52	5,799.58	5,792.10	13.84	13.78	-103.33	91.67	64.10	27.57	3.325	0					
5,900.00	5,892.14	5,899.54	5,891.67	14.15	14.09	-103.22	94.69	66.51	28.18	3.360	0					
6,000.00	5,991.76	5,999.49	5,991.25	14.46	14.40	-103.12	97.71	68.92	28.79	3.394	0					
6,100.00	6,091.37	6,099.44	6,090.82	14.77	14.71	-103.03	100.74	71.33	29.41	3.426	0					
6,200.00	6,190.99	6,199.40	6,190.39	15.08	15.02	-102.94	103.76	73.73	30.03	3.456	0					
6,300.00	6,290.61	6,299.35	6,289.97	15.39	15.34	-102.85	106.78	76.13	30.65	3.484	0					
6,400.00	6,390.23	6,399.31	6,389.54	15.70	15.65	-102.77	109.80	78.53	31.27	3.511	0					
6,500.00	6,489.85	6,499.26	6,489.12	16.02	15.97	-102.70	112.83	80.93	31.90	3.537	0					
6,600.00	6,589.47	6,599.21	6,588.69	16.34	16.29	-102.63	115.85	83.32	32.53	3.562	0					
6,700.00	6,689.09	6,699.17	6,688.26	16.65	16.61	-102.56	118.87	85.71	33.16	3.585	0					
6,800.00	6,788.71	6,799.12	6,787.84	16.97	16.93	-102.50	121.90	88.10	33.79	3.607	0					

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Thistle Unit 105H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
6,900.00	6,888.33	6,899.08	6,887.41	17.29	17.25	-102.43	124.92	90.49	34.43	3.628	0			
7,000.00	6,987.95	6,999.03	6,986.98	17.61	17.57	-102.38	127.94	92.88	35.07	3.649	0			
7,100.00	7,087.57	7,098.99	7,086.56	17.93	17.89	-102.32	130.97	95.26	35.71	3.668	0			
7,200.00	7,187.19	7,198.94	7,186.13	18.25	18.22	-102.27	133.99	97.64	36.35	3.686	0			
7,300.00	7,286.81	7,298.89	7,285.71	18.58	18.54	-102.22	137.02	100.03	36.99	3.704	0			
7,400.00	7,386.43	7,398.85	7,385.28	18.90	18.87	-102.17	140.04	102.41	37.63	3.721	0			
7,500.00	7,486.05	7,498.80	7,484.85	19.23	19.20	-102.12	143.06	104.78	38.28	3.737	0			
7,600.00	7,585.67	7,598.76	7,584.43	19.55	19.52	-102.08	146.09	107.16	38.93	3.753	0			
7,700.00	7,685.29	7,698.71	7,684.00	19.88	19.85	-102.03	149.11	109.54	39.58	3.768	0			
7,800.00	7,784.91	7,798.66	7,783.58	20.20	20.18	-101.99	152.14	111.91	40.23	3.782	0			
7,900.00	7,884.53	7,898.62	7,883.15	20.53	20.51	-101.95	155.16	114.29	40.88	3.796	0			
8,000.00	7,984.14	7,998.57	7,982.72	20.86	20.84	-101.91	158.19	116.66	41.53	3.809	0			
8,100.00	8,083.80	8,098.72	8,082.53	21.12	21.11	-101.89	161.06	119.01	42.06	3.830	0			
8,200.00	8,183.53	8,198.89	8,182.42	21.32	21.30	-101.87	163.64	121.18	42.46	3.854	0			
8,300.00	8,283.31	8,299.07	8,282.38	21.52	21.50	-101.85	165.91	123.06	42.85	3.872	0			
8,400.00	8,383.15	8,399.25	8,382.40	21.71	21.69	-101.83	167.88	124.64	43.23	3.883	0			
8,500.00	8,483.03	8,499.45	8,482.48	21.90	21.88	-101.82	169.54	125.93	43.61	3.888	0			
8,600.00	8,582.96	8,599.65	8,582.61	22.08	22.07	-101.81	170.91	126.93	43.98	3.886	0			
8,700.00	8,682.91	8,699.86	8,682.77	22.26	22.25	-101.81	171.97	127.63	44.34	3.879	0			
8,800.00	8,782.89	8,800.07	8,782.96	22.43	22.42	-101.80	172.72	128.04	44.68	3.865	0			
8,900.00	8,882.88	8,900.29	8,883.16	22.60	22.59	-101.80	173.18	128.16	45.02	3.847	0			
9,000.00	8,982.88	9,000.50	8,983.38	22.76	22.75	-171.80	173.33	127.98	45.34	3.823	0			
9,100.00	9,082.88	9,100.50	9,083.38	22.93	22.92	-171.80	173.33	127.64	45.69	3.794	0			
9,200.00	9,182.88	9,200.50	9,183.38	23.12	23.11	-171.80	173.33	127.26	46.07	3.762	0			
9,236.49	9,219.36	9,236.99	9,219.86	23.19	23.18	-171.80	173.33	127.12	46.21	3.751	0			
9,300.00	9,282.88	9,287.88	9,270.72	23.31	23.27	-171.86	175.05	128.63	46.42	3.771	0			
9,400.00	9,382.88	9,359.69	9,341.68	23.51	23.39	-172.32	189.73	143.01	46.72	4.061	0			
9,500.00	9,482.88	9,425.00	9,404.18	23.70	23.51	-173.01	218.57	171.58	46.99	4.651	0			
9,578.00	9,560.88	9,475.00	9,449.96	23.85	23.61	-173.62	249.85	202.65	47.20	5.293	0			
9,600.00	9,582.87	9,487.84	9,461.36	23.89	23.64	5.77	259.48	212.27	47.20	5.497	0			
9,625.00	9,607.80	9,500.00	9,472.01	23.92	23.67	5.51	269.98	222.86	47.12	5.730	0			
9,650.00	9,632.60	9,517.00	9,486.63	23.95	23.71	5.23	279.96	233.01	46.95	5.963	0			
9,675.00	9,657.21	9,531.50	9,498.85	23.98	23.74	5.01	289.45	242.76	46.69	6.200	0			
9,700.00	9,681.55	9,550.00	9,514.09	24.00	23.79	4.79	298.49	252.14	46.35	6.441	0			
9,725.00	9,705.56	9,560.35	9,522.44	24.02	23.82	4.64	306.91	261.00	45.91	6.685	0			
9,750.00	9,729.18	9,575.00	9,534.02	24.04	23.86	4.48	314.86	269.47	45.39	6.936	0			
9,775.00	9,752.33	9,589.05	9,544.86	24.06	23.90	4.34	322.28	277.48	44.80	7.193	0			
9,800.00	9,774.96	9,600.00	9,563.13	24.07	23.93	4.23	329.20	285.07	44.13	7.459	0			
9,825.00	9,797.01	9,617.61	9,566.07	24.08	23.99	4.11	335.52	292.12	43.40	7.731	0			
9,850.00	9,818.40	9,631.86	9,576.21	24.09	24.04	4.01	341.33	298.72	42.60	8.012	0			
9,875.00	9,839.09	9,650.00	9,588.69	24.10	24.11	3.91	346.62	304.87	41.75	8.302	0			
9,900.00	9,859.02	9,660.27	9,595.53	24.12	24.15	3.85	351.29	310.45	40.84	8.602	0			
9,925.00	9,878.13	9,675.00	9,605.04	24.13	24.21	3.78	355.44	315.55	39.89	8.910	0			
9,950.00	9,896.37	9,688.62	9,613.52	24.14	24.27	3.73	359.03	320.12	38.91	9.228	0			
9,975.00	9,913.69	9,700.00	9,620.38	24.16	24.32	3.69	362.07	324.18	37.89	9.555	0			
10,000.00	9,930.04	9,716.91	9,630.16	24.18	24.41	3.64	364.52	327.65	36.87	9.886	0			
10,025.00	9,945.38	9,731.04	9,637.96	24.20	24.49	3.61	366.42	330.58	35.84	10.223	0			
10,050.00	9,959.67	9,750.00	9,647.86	24.23	24.60	3.59	367.81	332.98	34.83	10.561	0			
10,075.00	9,972.86	9,759.28	9,652.48	24.27	24.65	3.57	368.52	334.69	33.83	10.895	0			
10,100.00	9,984.93	9,775.00	9,659.93	24.31	24.76	3.56	368.72	335.85	32.87	11.219	0			
10,125.00	9,995.83	9,787.52	9,665.54	24.37	24.85	3.56	368.34	336.39	31.96	11.526	0			
10,150.00	10,005.54	9,800.00	9,670.83	24.45	24.94	3.57	367.41	336.29	31.12	11.808	0			
10,175.00	10,014.04	9,815.77	9,677.10	24.54	25.06	3.58	365.89	335.53	30.36	12.051	0			
10,200.00	10,021.29	9,825.00	9,680.54	24.66	25.14	3.60	363.88	334.17	29.70	12.251	0			

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference				Offset		Semi Major Axis		Distance				Risked Separation Factor	Probability of Collision	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
10,225.00	10,027.27	9,844.05	9,687.13	24.80	25.30	3.63	361.18	332.01	29.17	12.381	0			
10,250.00	10,031.98	9,858.20	9,691.55	24.98	25.44	3.67	357.98	329.21	28.76	12.445	0			
10,275.00	10,035.40	9,875.00	9,696.29	25.18	25.60	3.72	354.23	325.72	28.50	12.427	0			
10,300.00	10,037.52	9,886.55	9,699.21	25.42	25.72	3.77	349.89	321.50	28.39	12.326	0			
10,321.50	10,038.30	9,900.00	9,702.27	25.65	25.87	3.82	345.73	317.32	28.41	12.167	0			
10,343.33	10,038.59	9,911.24	9,704.55	25.86	26.00	3.84	341.58	313.11	28.47	11.997	0			
10,400.00	10,039.37	9,944.13	9,709.72	26.43	26.40	3.88	333.44	304.81	28.63	11.647	0			
10,488.53	10,040.58	9,996.41	9,713.30	27.75	27.11	3.88	328.57	299.66	28.91	11.366	0			
10,500.00	10,040.73	10,004.04	9,713.34	27.93	27.22	3.88	328.64	299.70	28.95	11.353	0			
10,600.00	10,042.10	10,104.03	9,713.55	29.71	28.82	3.81	329.78	300.39	29.39	11.222	0			
10,700.00	10,043.46	10,204.02	9,713.76	31.71	30.67	3.74	330.91	301.02	29.89	11.070	0			
10,800.00	10,044.83	10,304.01	9,713.96	33.87	32.71	3.68	332.05	301.59	30.46	10.900	0			
10,900.00	10,046.19	10,404.00	9,714.17	36.16	34.91	3.61	333.19	302.09	31.09	10.715	0			
11,000.00	10,047.56	10,504.00	9,714.37	38.56	37.24	3.55	334.33	302.54	31.78	10.519	0			
11,100.00	10,048.92	10,603.99	9,714.58	41.04	39.67	3.48	335.46	302.94	32.52	10.315	0			
11,200.00	10,050.29	10,703.98	9,714.79	43.60	42.18	3.42	336.60	303.29	33.31	10.104	0			
11,300.00	10,051.65	10,803.98	9,714.99	46.22	44.75	3.35	337.74	303.59	34.15	9.891	0			
11,400.00	10,053.02	10,903.97	9,715.20	48.88	47.39	3.29	338.88	303.86	35.02	9.676	0			
11,500.00	10,054.38	11,003.96	9,715.40	51.59	50.07	3.22	340.02	304.08	35.94	9.461	0			
11,600.00	10,055.75	11,103.95	9,715.61	54.33	52.79	3.16	341.16	304.27	36.89	9.249	0			
11,700.00	10,057.12	11,203.95	9,715.81	57.10	55.54	3.10	342.30	304.43	37.87	9.039	0			
11,800.00	10,058.48	11,303.94	9,716.02	59.90	58.33	3.03	343.44	304.56	38.88	8.833	0			
11,900.00	10,059.85	11,403.93	9,716.22	62.72	61.13	2.97	344.58	304.66	39.92	8.632	0			
12,000.00	10,061.21	11,503.93	9,716.43	65.56	63.96	2.91	345.73	304.74	40.98	8.436	0			
12,100.00	10,062.58	11,603.92	9,716.64	68.42	66.81	2.85	346.87	304.80	42.07	8.245	0			
12,200.00	10,063.94	11,703.91	9,716.84	71.29	69.67	2.79	348.01	304.83	43.18	8.060	0			
12,300.00	10,065.31	11,803.90	9,717.05	74.18	72.55	2.73	349.15	304.85	44.31	7.880	0			
12,400.00	10,066.67	11,903.90	9,717.25	77.08	75.44	2.67	350.30	304.85	45.45	7.707	0			
12,500.00	10,068.04	12,003.89	9,717.46	79.98	78.35	2.61	351.44	304.83	46.61	7.539	0			
12,600.00	10,069.40	12,103.88	9,717.66	82.90	81.26	2.55	352.59	304.79	47.79	7.378	0			
12,700.00	10,070.77	12,203.87	9,717.87	85.83	84.18	2.49	353.73	304.75	48.98	7.222	0			
12,800.00	10,072.13	12,303.87	9,718.08	88.76	87.11	2.43	354.88	304.69	50.19	7.071	0			
12,900.00	10,073.50	12,403.86	9,718.28	91.70	90.05	2.37	356.02	304.62	51.40	6.926	0			
13,000.00	10,074.86	12,503.85	9,718.49	94.65	92.99	2.32	357.17	304.54	52.63	6.786	0			
13,100.00	10,076.23	12,603.85	9,718.69	97.60	95.94	2.26	358.31	304.44	53.87	6.652	0			
13,200.00	10,077.59	12,703.84	9,718.90	100.56	98.90	2.20	359.46	304.34	55.12	6.522	0			
13,300.00	10,078.96	12,803.83	9,719.10	103.52	101.86	2.15	360.61	304.23	56.37	6.397	0			
13,400.00	10,080.32	12,903.82	9,719.31	106.49	104.82	2.09	361.75	304.11	57.64	6.276	0			
13,500.00	10,081.69	13,003.82	9,719.52	109.46	107.79	2.03	362.90	303.99	58.91	6.160	0			
13,600.00	10,083.05	13,103.81	9,719.72	112.43	110.76	1.98	364.05	303.86	60.19	6.048	0			
13,700.00	10,084.42	13,203.80	9,719.93	115.41	113.74	1.92	365.20	303.72	61.48	5.940	0			
13,800.00	10,085.78	13,303.80	9,720.13	118.39	116.72	1.87	366.34	303.57	62.77	5.836	0			
13,900.00	10,087.15	13,403.79	9,720.34	121.38	119.70	1.81	367.49	303.42	64.07	5.736	0			
14,000.00	10,088.51	13,503.78	9,720.54	124.36	122.69	1.76	368.64	303.26	65.38	5.639	0			
14,100.00	10,089.88	13,603.77	9,720.75	127.35	125.67	1.70	369.79	303.10	66.69	5.545	0			
14,200.00	10,091.24	13,703.77	9,720.96	130.34	128.66	1.65	370.94	302.93	68.01	5.454	0			
14,300.00	10,092.61	13,803.76	9,721.16	133.34	131.66	1.60	372.09	302.76	69.33	5.367	0			
14,400.00	10,093.97	13,903.75	9,721.37	136.33	134.65	1.55	373.24	302.59	70.65	5.283	0			
14,500.00	10,095.34	14,003.75	9,721.57	139.33	137.65	1.49	374.39	302.41	71.99	5.201	0			
14,600.00	10,096.70	14,103.74	9,721.78	142.33	140.65	1.44	375.54	302.22	73.32	5.122	0			
14,700.00	10,098.07	14,203.73	9,721.98	145.33	143.65	1.39	376.70	302.04	74.66	5.046	0			
14,800.00	10,099.43	14,303.72	9,722.19	148.33	146.65	1.34	377.85	301.84	76.00	4.971	0			
14,900.00	10,100.80	14,403.72	9,722.40	151.34	149.65	1.29	379.00	301.65	77.35	4.900	0			
15,000.00	10,102.16	14,503.71	9,722.60	154.34	152.66	1.23	380.15	301.45	78.70	4.830	0			

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Dzurisin - Thistle Unit 105H - Wellbore #1 - Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-MWD															Offset Well Error:	0.00 ft
Reference				Offset		Semi Major Axis		Distance				Risked Separation Factor	Probability of Collision	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor						
15,100.00	10,103.53	14,603.70	9,722.81	157.35	155.66	1.18	381.30	301.25	80.05	4.763	0					
15,200.00	10,104.89	14,703.69	9,723.01	160.36	158.67	1.13	382.46	301.05	81.41	4.698	0					
15,300.00	10,106.26	14,803.69	9,723.22	163.37	161.68	1.08	383.61	300.84	82.77	4.635	0					
15,400.00	10,107.62	14,903.68	9,723.42	166.38	164.69	1.03	384.76	300.63	84.14	4.573	0					
15,500.00	10,108.99	15,003.67	9,723.63	169.39	167.70	0.98	385.92	300.42	85.50	4.514	0					
15,600.00	10,110.36	15,103.67	9,723.84	172.40	170.71	0.94	387.07	300.20	86.87	4.456	0					
15,700.00	10,111.72	15,203.66	9,724.04	175.41	173.72	0.89	388.23	299.98	88.24	4.399	0					
15,800.00	10,113.09	15,303.65	9,724.25	178.43	176.74	0.84	389.38	299.76	89.62	4.345	0					
15,900.00	10,114.45	15,403.64	9,724.45	181.44	179.75	0.79	390.54	299.54	91.00	4.292	0					
16,000.00	10,115.82	15,503.64	9,724.66	184.46	182.77	0.74	391.69	299.31	92.38	4.240	0					
16,100.00	10,117.18	15,603.63	9,724.86	187.48	185.78	0.69	392.85	299.08	93.76	4.190	0					
16,200.00	10,118.55	15,703.62	9,725.07	190.49	188.80	0.65	394.00	298.85	95.15	4.141	0					
16,300.00	10,119.91	15,803.62	9,725.28	193.51	191.82	0.60	395.16	298.62	96.54	4.093	0					
16,400.00	10,121.28	15,903.61	9,725.48	196.53	194.84	0.55	396.31	298.39	97.93	4.047	0					
16,500.00	10,122.64	16,003.60	9,725.69	199.55	197.86	0.51	397.47	298.15	99.32	4.002	0					
16,600.00	10,124.01	16,103.59	9,725.89	202.57	200.88	0.46	398.63	297.91	100.72	3.958	0					
16,700.00	10,125.37	16,203.59	9,726.10	205.59	203.90	0.41	399.78	297.67	102.11	3.915	0					
16,800.00	10,126.74	16,303.58	9,726.30	208.61	206.92	0.37	400.94	297.43	103.52	3.873	0					
16,900.00	10,128.10	16,403.57	9,726.51	211.63	209.94	0.32	402.10	297.18	104.92	3.833	0					
17,000.00	10,129.47	16,503.56	9,726.72	214.65	212.96	0.28	403.26	296.93	106.32	3.793	0					
17,100.00	10,130.83	16,603.56	9,726.92	217.68	215.98	0.23	404.41	296.68	107.73	3.754	0					
17,200.00	10,132.20	16,703.55	9,727.13	220.70	219.01	0.19	405.57	296.43	109.14	3.716	0					
17,300.00	10,133.56	16,803.54	9,727.33	223.72	222.03	0.14	406.73	296.18	110.55	3.679	0					
17,400.00	10,134.93	16,903.54	9,727.54	226.75	225.05	0.10	407.89	295.92	111.97	3.643	0					
17,500.00	10,136.29	17,003.53	9,727.74	229.77	228.08	0.05	409.05	295.67	113.38	3.608	0					
17,602.95	10,137.70	17,106.47	9,727.96	232.88	231.15	0.01	410.24	295.40	114.84	3.572	0					
17,625.14	10,138.00	17,127.81	9,728.00	233.55	231.62	0.00	410.50	295.35	115.15	3.565	0					
17,626.12	10,138.01	17,127.81	9,728.00	233.58	231.62	0.00	410.51	295.36	115.15	3.565	0					

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Thistle Unit 108H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance					Risked Separation Factor	Probability of Collision	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.00	0.00	0.10	0.10	0.00	0.00	117.79	63.59					0		
100.00	100.00	100.10	100.10	0.09	0.09	117.79	63.59	63.41	0.17	369.320		0		
200.00	200.00	200.10	200.10	0.31	0.31	117.79	63.59	62.96	0.62	102.277		0		
300.00	300.00	300.10	300.10	0.54	0.54	117.79	63.59	62.51	1.07	59.358		0		
400.00	400.00	400.10	400.10	0.76	0.76	117.79	63.59	62.07	1.52	41.812		0		
500.00	500.00	500.10	500.10	0.99	0.99	117.79	63.59	61.62	1.97	32.272		0		
600.00	600.00	600.10	600.10	1.21	1.21	117.79	63.59	61.17	2.42	26.277		0		
700.00	700.00	700.10	700.10	1.43	1.43	117.79	63.59	60.72	2.87	22.160		0		
800.00	800.00	800.10	800.10	1.66	1.66	117.79	63.59	60.27	3.32	19.159		0		
900.00	900.00	900.10	900.10	1.88	1.88	117.79	63.59	59.82	3.77	16.873		0		
1,000.00	1,000.00	1,000.10	1,000.10	2.11	2.11	117.79	63.59	59.37	4.22	15.075		0		
1,100.00	1,100.00	1,100.10	1,100.10	2.33	2.33	117.79	63.59	58.92	4.67	13.623		0		
1,200.00	1,200.00	1,200.10	1,200.10	2.56	2.56	117.79	63.59	58.47	5.12	12.426		0		
1,300.00	1,300.00	1,300.10	1,300.10	2.78	2.78	117.79	63.59	58.02	5.57	11.423		0		
1,400.00	1,400.00	1,400.10	1,400.10	3.01	3.01	117.79	63.59	57.57	6.02	10.569		0		
1,500.00	1,500.00	1,500.10	1,500.10	3.23	3.23	117.79	63.59	57.12	6.47	9.835		0		
1,600.00	1,600.00	1,600.10	1,600.10	3.46	3.46	117.79	63.59	56.67	6.92	9.195		0		
1,700.00	1,700.00	1,700.10	1,700.10	3.68	3.68	117.79	63.59	56.22	7.36	8.634		0		
1,800.00	1,800.00	1,800.10	1,800.10	3.91	3.91	117.79	63.59	55.77	7.81	8.137		0		
1,900.00	1,900.00	1,900.10	1,900.10	4.13	4.13	117.79	63.59	55.32	8.26	7.695		0		
2,000.00	2,000.00	2,000.10	2,000.10	4.36	4.36	117.79	63.59	54.87	8.71	7.298		0		
2,100.00	2,100.00	2,100.10	2,100.10	4.58	4.58	117.79	63.59	54.42	9.16	6.940		0		
2,200.00	2,200.00	2,200.10	2,200.10	4.81	4.81	117.79	63.59	53.97	9.61	6.615		0		
2,300.00	2,300.00	2,300.10	2,300.10	5.03	5.03	117.79	63.59	53.52	10.06	6.320		0		
2,400.00	2,400.00	2,400.10	2,400.10	5.26	5.26	117.79	63.59	53.07	10.51	6.049		0		
2,500.00	2,500.00	2,500.10	2,500.10	5.48	5.48	117.79	63.59	52.63	10.96	5.801		0		
2,600.00	2,600.00	2,600.10	2,600.10	5.71	5.71	117.79	63.59	52.18	11.41	5.573		0		
2,700.00	2,700.00	2,700.10	2,700.10	5.93	5.93	117.79	63.59	51.73	11.86	5.361		0		
2,800.00	2,800.00	2,800.10	2,800.10	6.15	6.15	117.79	63.59	51.28	12.31	5.166		0		
2,900.00	2,900.00	2,900.10	2,900.10	6.38	6.38	117.79	63.59	50.83	12.76	4.984		0		
3,000.00	3,000.00	3,000.10	3,000.10	6.60	6.60	117.79	63.59	50.38	13.21	4.814		0		
3,100.00	3,100.00	3,100.10	3,100.10	6.83	6.83	117.79	63.59	49.93	13.66	4.656		0		
3,200.00	3,200.00	3,200.10	3,200.10	7.05	7.05	117.79	63.59	49.48	14.11	4.507		0		
3,300.00	3,300.00	3,300.10	3,300.10	7.28	7.28	117.79	63.59	49.03	14.56	4.368		0		
3,400.00	3,400.00	3,400.10	3,400.10	7.50	7.50	117.79	63.59	48.58	15.01	4.237		0		
3,466.63	3,466.63	3,466.73	3,466.73	7.65	7.65	117.79	63.59	48.28	15.31	4.154		0		CC
3,500.00	3,500.00	3,500.00	3,500.00	7.73	7.73	117.79	63.59	48.13	15.46	4.114		0		ES
3,600.00	3,600.00	3,599.10	3,599.09	7.94	7.94	-172.66	65.22	49.34	15.88	4.107		0		
3,700.00	3,699.96	3,697.92	3,697.88	8.16	8.14	-173.89	70.13	53.86	16.27	4.309		0		
3,800.00	3,799.86	3,796.40	3,796.27	8.37	8.34	-175.59	78.37	61.70	16.67	4.702		0		
3,900.00	3,899.68	3,894.37	3,894.06	8.59	8.55	-177.44	89.97	72.92	17.06	5.275		0		
4,000.00	3,999.37	3,991.65	3,991.05	8.82	8.77	-179.22	104.96	87.52	17.44	6.017		0		
4,100.00	4,098.99	4,090.04	4,089.06	9.06	9.00	179.28	121.80	103.95	17.85	6.823		0		
4,200.00	4,198.60	4,188.56	4,187.21	9.31	9.24	178.13	138.71	120.45	18.26	7.595		0		
4,300.00	4,298.22	4,287.09	4,285.36	9.56	9.49	177.24	155.67	136.99	18.68	8.335		0		
4,400.00	4,397.84	4,385.62	4,383.52	9.82	9.74	176.52	172.65	153.56	19.09	9.044		0		
4,500.00	4,497.46	4,484.14	4,481.67	10.09	9.99	175.93	189.65	170.14	19.51	9.722		0		
4,600.00	4,597.08	4,582.67	4,579.82	10.36	10.26	175.44	206.67	186.75	19.93	10.372		0		
4,700.00	4,696.70	4,681.20	4,677.97	10.63	10.52	175.02	223.71	203.36	20.35	10.994		0		
4,800.00	4,796.32	4,779.72	4,776.12	10.91	10.79	174.66	240.75	219.98	20.77	11.591		0		
4,900.00	4,895.94	4,878.25	4,874.27	11.19	11.07	174.35	257.80	236.61	21.19	12.164		0		
5,000.00	4,995.56	4,976.78	4,972.43	11.47	11.35	174.08	274.86	253.24	21.62	12.713		0		
5,100.00	5,095.18	5,075.30	5,070.58	11.76	11.63	173.84	291.92	269.87	22.05	13.240		0		
5,200.00	5,194.80	5,173.83	5,168.73	12.05	11.91	173.62	308.99	286.51	22.48	13.747		0		

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Dzurisin - Thistle Unit 108H - Wellbore #1 - Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-MWD															Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance						Risked Separation Factor	Probability of Collision	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor						
5,300.00	5,294.42	5,272.36	5,266.88	12.34	12.20	173.43	326.06	303.15	22.91	14.234	0					
5,400.00	5,394.04	5,370.88	5,365.03	12.64	12.49	173.26	343.13	319.79	23.34	14.702	0					
5,500.00	5,493.66	5,469.41	5,463.18	12.93	12.78	173.10	360.21	336.44	23.77	15.153	0					
5,600.00	5,593.28	5,567.94	5,561.34	13.23	13.08	172.96	377.29	353.08	24.21	15.587	0					
5,700.00	5,692.90	5,666.46	5,659.49	13.54	13.38	172.83	394.37	369.73	24.64	16.005	0					
5,800.00	5,792.52	5,764.99	5,757.64	13.84	13.68	172.71	411.45	386.37	25.08	16.407	0					
5,900.00	5,892.14	5,863.52	5,855.79	14.15	13.98	172.60	428.54	403.02	25.51	16.796	0					
6,000.00	5,991.76	5,962.04	5,953.94	14.46	14.28	172.50	445.62	419.67	25.95	17.170	0					
6,100.00	6,091.37	6,060.57	6,052.09	14.77	14.59	172.40	462.71	436.32	26.39	17.532	0					
6,200.00	6,190.99	6,159.10	6,150.25	15.08	14.90	172.32	479.80	452.97	26.83	17.881	0					
6,300.00	6,290.61	6,257.62	6,248.40	15.39	15.21	172.24	496.89	469.61	27.27	18.219	0					
6,400.00	6,390.23	6,356.15	6,346.55	15.70	15.52	172.16	513.98	486.26	27.71	18.545	0					
6,500.00	6,489.85	6,454.68	6,444.70	16.02	15.83	172.09	531.07	502.91	28.16	18.861	0					
6,600.00	6,589.47	6,553.20	6,542.85	16.34	16.14	172.02	548.16	519.56	28.60	19.166	0					
6,700.00	6,689.09	6,651.73	6,641.00	16.65	16.45	171.96	565.25	536.21	29.04	19.462	0					
6,800.00	6,788.71	6,750.26	6,739.16	16.97	16.77	171.90	582.35	552.86	29.49	19.748	0					
6,900.00	6,888.33	6,848.78	6,837.31	17.29	17.09	171.85	599.44	569.51	29.93	20.025	0					
7,000.00	6,987.95	6,947.31	6,935.46	17.61	17.40	171.80	616.53	586.15	30.38	20.294	0					
7,100.00	7,087.57	7,045.84	7,033.61	17.93	17.72	171.75	633.63	602.80	30.83	20.554	0					
7,200.00	7,187.19	7,144.36	7,131.76	18.25	18.04	171.70	650.72	619.45	31.27	20.807	0					
7,300.00	7,286.81	7,242.89	7,229.91	18.58	18.36	171.65	667.82	636.10	31.72	21.052	0					
7,400.00	7,386.43	7,341.42	7,328.07	18.90	18.68	171.61	684.92	652.75	32.17	21.291	0					
7,500.00	7,486.05	7,439.94	7,426.22	19.23	19.00	171.57	702.01	669.39	32.62	21.522	0					
7,600.00	7,585.67	7,538.47	7,524.37	19.55	19.33	171.53	719.11	686.04	33.07	21.746	0					
7,700.00	7,685.29	7,637.00	7,622.52	19.88	19.65	171.50	736.21	702.69	33.52	21.965	0					
7,800.00	7,784.91	7,735.52	7,720.67	20.20	19.97	171.46	753.30	719.34	33.97	22.177	0					
7,900.00	7,884.53	7,834.05	7,818.82	20.53	20.30	171.43	770.40	735.98	34.42	22.383	0					
8,000.00	7,984.14	7,932.57	7,916.98	20.86	20.62	171.40	787.50	752.63	34.87	22.584	0					
8,100.00	8,083.80	8,033.48	8,017.50	21.12	20.93	171.37	804.13	768.81	35.32	22.768	0					
8,200.00	8,183.53	8,139.71	8,123.39	21.32	21.19	171.35	819.22	783.48	35.74	22.922	0					
8,300.00	8,283.31	8,246.35	8,229.77	21.52	21.40	171.33	832.55	796.40	36.15	23.031	0					
8,400.00	8,383.15	8,353.35	8,336.57	21.71	21.61	171.31	844.12	807.57	36.56	23.091	0					
8,500.00	8,483.03	8,460.66	8,443.74	21.90	21.81	171.30	853.93	816.96	36.96	23.103	0					
8,600.00	8,582.96	8,568.24	8,551.22	22.08	22.01	171.29	861.95	824.59	37.36	23.069	0					
8,700.00	8,682.91	8,676.02	8,658.94	22.26	22.20	171.28	868.20	830.44	37.77	22.989	0					
8,800.00	8,782.89	8,783.96	8,766.85	22.43	22.39	171.28	872.67	834.51	38.16	22.867	0					
8,900.00	8,882.88	8,892.01	8,874.89	22.60	22.58	171.27	875.35	836.79	38.56	22.702	0					
9,000.00	8,982.88	9,000.10	8,982.98	22.76	22.75	101.27	876.24	837.30	38.95	22.498	0					
9,100.00	9,082.88	9,100.10	9,082.98	22.93	22.92	101.27	876.24	836.89	39.35	22.269	0					
9,200.00	9,182.88	9,200.10	9,182.98	23.12	23.11	101.27	876.24	836.46	39.78	22.029	0					
9,255.51	9,238.39	9,255.61	9,238.49	23.23	23.22	101.27	876.24	836.23	40.02	21.897	0					
9,300.00	9,282.88	9,293.51	9,276.38	23.31	23.29	101.29	876.34	836.15	40.19	21.805	0					
9,400.00	9,382.88	9,366.18	9,348.50	23.51	23.41	101.83	878.64	838.12	40.52	21.683	0					
9,500.00	9,482.88	9,434.84	9,414.75	23.70	23.53	102.96	884.39	843.56	40.83	21.660	0					
9,578.00	9,560.88	9,484.15	9,460.40	23.85	23.62	104.13	891.76	850.70	41.06	21.716	0					
9,600.00	9,582.87	9,500.00	9,474.64	23.89	23.66	-75.50	894.25	853.11	41.13	21.741	0					
9,625.00	9,607.80	9,512.46	9,485.67	23.92	23.68	-74.86	897.04	855.85	41.19	21.778	0					
9,650.00	9,632.60	9,525.00	9,496.61	23.95	23.71	-74.25	899.81	858.57	41.24	21.820	0					
9,675.00	9,657.21	9,542.32	9,511.45	23.98	23.75	-73.55	902.51	861.22	41.29	21.860	0					
9,700.00	9,681.55	9,557.17	9,523.90	24.00	23.79	-72.94	905.15	863.82	41.32	21.905	0					
9,725.00	9,705.56	9,575.00	9,538.52	24.02	23.83	-72.30	907.71	866.35	41.35	21.950	0					
9,750.00	9,729.18	9,586.71	9,547.91	24.04	23.86	-71.81	910.15	868.78	41.37	22.000	0					
9,775.00	9,752.33	9,600.00	9,558.35	24.06	23.90	-71.32	912.49	871.11	41.38	22.051	0					
9,800.00	9,774.96	9,616.09	9,570.69	24.07	23.95	-70.83	914.70	873.31	41.39	22.098	0					

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Dzurisin - Thistle Unit 108H - Wellbore #1 - Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-MWD															Offset Well Error:	0.00 ft
Reference				Offset		Semi Major Axis		Distance				Risked Separation Factor	Probability of Collision	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor						
9,825.00	9,797.01	9,630.73	9,581.60	24.08	23.99	-70.39	916.78	875.38	41.40	22.144	0					
9,850.00	9,818.40	9,650.00	9,595.49	24.09	24.06	-69.93	918.72	877.31	41.42	22.183	0					
9,875.00	9,839.09	9,659.91	9,602.43	24.10	24.09	-69.62	920.47	879.05	41.42	22.224	0					
9,900.00	9,859.02	9,675.00	9,612.70	24.12	24.15	-69.29	922.07	880.64	41.43	22.254	0					
9,925.00	9,878.13	9,689.01	9,621.92	24.13	24.21	-69.01	923.49	882.03	41.46	22.275	0					
9,950.00	9,896.37	9,700.00	9,628.94	24.14	24.25	-68.78	924.74	883.26	41.48	22.292	0					
9,975.00	9,913.69	9,718.03	9,640.01	24.16	24.33	-68.55	925.78	884.23	41.55	22.279	0					
10,000.00	9,930.04	9,732.52	9,648.52	24.18	24.40	-68.39	926.64	885.01	41.63	22.258	0					
10,025.00	9,945.38	9,750.00	9,658.31	24.20	24.50	-68.25	927.31	885.56	41.75	22.211	0					
10,050.00	9,959.67	9,761.48	9,664.45	24.23	24.56	-68.18	927.76	885.89	41.87	22.159	0					
10,075.00	9,972.86	9,775.00	9,671.37	24.27	24.64	-68.14	928.02	885.99	42.03	22.082	0					
10,100.00	9,984.93	9,790.42	9,678.87	24.31	24.74	-68.13	928.07	885.83	42.24	21.972	0					
10,125.00	9,995.83	9,800.00	9,683.30	24.37	24.80	-68.16	927.94	885.50	42.44	21.866	0					
10,150.00	10,005.54	9,819.38	9,691.74	24.45	24.94	-68.25	927.57	884.80	42.77	21.690	0					
10,175.00	10,014.04	9,833.86	9,697.59	24.54	25.05	-68.37	927.01	883.92	43.09	21.511	0					
10,200.00	10,021.29	9,850.00	9,703.63	24.66	25.18	-68.54	926.26	882.78	43.48	21.301	0					
10,225.00	10,027.27	9,862.86	9,708.08	24.80	25.29	-68.73	925.31	881.42	43.89	21.084	0					
10,250.00	10,031.98	9,875.00	9,711.97	24.98	25.40	-68.95	924.18	879.86	44.32	20.853	0					
10,275.00	10,035.40	9,891.93	9,716.92	25.18	25.57	-69.26	922.86	878.00	44.86	20.571	0					
10,300.00	10,037.52	9,906.49	9,720.71	25.42	25.72	-69.58	921.36	875.95	45.41	20.288	0					
10,321.50	10,038.30	9,919.03	9,723.63	25.65	25.85	-69.88	919.94	874.02	45.92	20.033	0					
10,343.33	10,038.59	9,931.84	9,726.28	25.86	25.99	-70.03	918.55	872.25	46.30	19.839	0					
10,400.00	10,039.37	9,965.66	9,731.66	26.43	26.40	-70.32	915.92	868.58	47.35	19.345	0					
10,478.40	10,040.44	10,013.26	9,735.20	27.59	27.04	-70.50	914.61	865.29	49.32	18.544	0					
10,500.00	10,040.73	10,028.04	9,735.35	27.93	27.25	-70.49	914.70	864.81	49.89	18.334	0					
10,600.00	10,042.10	10,128.01	9,735.57	29.71	28.86	-70.43	915.45	862.07	53.38	17.151	0					
10,700.00	10,043.46	10,228.00	9,735.79	31.71	30.71	-70.37	916.20	858.99	57.21	16.016	0					
10,800.00	10,044.83	10,328.00	9,736.01	33.87	32.75	-70.32	916.95	855.62	61.33	14.951	0					
10,900.00	10,046.19	10,427.99	9,736.23	36.16	34.95	-70.26	917.70	852.00	65.70	13.969	0					
11,000.00	10,047.56	10,527.98	9,736.45	38.56	37.28	-70.20	918.45	848.20	70.25	13.074	0					
11,100.00	10,048.92	10,627.98	9,736.67	41.04	39.70	-70.14	919.21	844.24	74.97	12.261	0					
11,200.00	10,050.29	10,727.97	9,736.89	43.60	42.21	-70.08	919.96	840.15	79.81	11.527	0					
11,300.00	10,051.65	10,827.96	9,737.11	46.22	44.79	-70.02	920.71	835.96	84.76	10.863	0					
11,400.00	10,053.02	10,927.95	9,737.33	48.88	47.42	-69.96	921.47	831.68	89.79	10.262	0					
11,500.00	10,054.38	11,027.95	9,737.55	51.59	50.10	-69.90	922.23	827.33	94.90	9.718	0					
11,600.00	10,055.75	11,127.94	9,737.77	54.33	52.82	-69.85	922.99	822.92	100.07	9.224	0					
11,700.00	10,057.12	11,227.93	9,737.99	57.10	55.57	-69.79	923.74	818.46	105.29	8.774	0					
11,800.00	10,058.48	11,327.92	9,738.21	59.90	58.36	-69.73	924.50	813.95	110.55	8.363	0					
11,900.00	10,059.85	11,427.92	9,738.43	62.72	61.16	-69.67	925.26	809.42	115.85	7.987	0					
12,000.00	10,061.21	11,527.91	9,738.65	65.56	63.99	-69.61	926.03	804.85	121.18	7.642	0					
12,100.00	10,062.58	11,627.90	9,738.87	68.42	66.84	-69.55	926.79	800.25	126.54	7.324	0					
12,200.00	10,063.94	11,727.90	9,739.09	71.29	69.70	-69.50	927.55	795.64	131.92	7.031	0					
12,300.00	10,065.31	11,827.89	9,739.31	74.18	72.58	-69.44	928.32	791.00	137.32	6.760	0					
12,400.00	10,066.67	11,927.88	9,739.53	77.08	75.47	-69.38	929.08	786.35	142.74	6.509	0					
12,500.00	10,068.04	12,027.87	9,739.75	79.98	78.37	-69.32	929.85	781.68	148.17	6.276	0					
12,600.00	10,069.40	12,127.87	9,739.97	82.90	81.28	-69.27	930.62	777.00	153.61	6.058	0					
12,700.00	10,070.77	12,227.86	9,740.19	85.83	84.21	-69.21	931.39	772.32	159.07	5.855	0					
12,800.00	10,072.13	12,327.85	9,740.41	88.76	87.14	-69.15	932.15	767.62	164.53	5.665	0					
12,900.00	10,073.50	12,427.84	9,740.63	91.70	90.07	-69.09	932.92	762.92	170.01	5.488	0					
13,000.00	10,074.86	12,527.84	9,740.85	94.65	93.02	-69.04	933.70	758.21	175.49	5.321	0					
13,100.00	10,076.23	12,627.83	9,741.07	97.60	95.96	-68.98	934.47	753.50	180.97	5.164	0					
13,200.00	10,077.59	12,727.82	9,741.29	100.56	98.92	-68.92	935.24	748.78	186.46	5.016	0					
13,300.00	10,078.96	12,827.81	9,741.51	103.52	101.88	-68.87	936.02	744.06	191.96	4.876	0					
13,400.00	10,080.32	12,927.81	9,741.73	106.49	104.84	-68.81	936.79	739.33	197.46	4.744	0					

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Dzurisin - Thistle Unit 108H - Wellbore #1 - Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-MWD															Offset Well Error:	0.00 ft
Reference				Offset		Semi Major Axis		Distance					Risked Separation Factor	Probability of Collision	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor						
13,500.00	10,081.69	13,027.80	9,741.95	109.46	107.81	-68.75	937.57	734.61	202.96	4.619	0					
13,600.00	10,083.05	13,127.79	9,742.17	112.43	110.79	-68.70	938.34	729.88	208.46	4.501	0					
13,700.00	10,084.42	13,227.79	9,742.39	115.41	113.76	-68.64	939.12	725.15	213.97	4.389	0					
13,800.00	10,085.78	13,327.78	9,742.61	118.39	116.74	-68.58	939.90	720.42	219.48	4.282	0					
13,900.00	10,087.15	13,427.77	9,742.83	121.38	119.72	-68.53	940.68	715.69	224.99	4.181	0					
14,000.00	10,088.51	13,527.76	9,743.05	124.36	122.71	-68.47	941.46	710.96	230.49	4.085	0					
14,100.00	10,089.88	13,627.76	9,743.27	127.35	125.70	-68.41	942.24	706.24	236.00	3.992	0					
14,200.00	10,091.24	13,727.75	9,743.49	130.34	128.69	-68.36	943.02	701.51	241.51	3.905	0					
14,300.00	10,092.61	13,827.74	9,743.71	133.34	131.68	-68.30	943.80	696.78	247.02	3.821	0					
14,400.00	10,093.97	13,927.73	9,743.93	136.33	134.67	-68.25	944.59	692.06	252.53	3.741	0					
14,500.00	10,095.34	14,027.73	9,744.15	139.33	137.67	-68.19	945.37	687.34	258.04	3.664	0					
14,600.00	10,096.70	14,127.72	9,744.37	142.33	140.67	-68.13	946.16	682.62	263.54	3.590	0					
14,700.00	10,098.07	14,227.71	9,744.59	145.33	143.67	-68.08	946.95	677.90	269.05	3.520	0					
14,800.00	10,099.43	14,327.71	9,744.81	148.33	146.67	-68.02	947.73	673.18	274.55	3.452	0					
14,900.00	10,100.80	14,427.70	9,745.03	151.34	149.67	-67.97	948.52	668.47	280.05	3.387	0					
15,000.00	10,102.16	14,527.69	9,745.25	154.34	152.68	-67.91	949.31	663.76	285.55	3.324	0					
15,100.00	10,103.53	14,627.68	9,745.47	157.35	155.68	-67.86	950.10	659.05	291.05	3.264	0					
15,200.00	10,104.89	14,727.68	9,745.69	160.36	158.69	-67.80	950.89	654.35	296.54	3.207	0					
15,300.00	10,106.26	14,827.67	9,745.91	163.37	161.70	-67.75	951.68	649.65	302.04	3.151	0					
15,400.00	10,107.62	14,927.66	9,746.12	166.38	164.71	-67.69	952.48	644.95	307.53	3.097	0					
15,500.00	10,108.99	15,027.65	9,746.34	169.39	167.72	-67.64	953.27	640.25	313.02	3.045	0					
15,600.00	10,110.36	15,127.65	9,746.56	172.40	170.73	-67.58	954.06	635.56	318.50	2.995	0					
15,700.00	10,111.72	15,227.64	9,746.78	175.41	173.74	-67.53	954.86	630.87	323.99	2.947	0					
15,800.00	10,113.09	15,327.63	9,747.00	178.43	176.76	-67.47	955.66	626.19	329.47	2.901	0					
15,900.00	10,114.45	15,427.62	9,747.22	181.44	179.77	-67.42	956.45	621.51	334.95	2.856	0					
16,000.00	10,115.82	15,527.62	9,747.44	184.46	182.79	-67.36	957.25	616.83	340.42	2.812	0					
16,100.00	10,117.18	15,627.61	9,747.66	187.48	185.80	-67.31	958.05	612.16	345.90	2.770	0					
16,200.00	10,118.55	15,727.60	9,747.88	190.49	188.82	-67.26	958.85	607.49	351.36	2.729	0					
16,300.00	10,119.91	15,827.60	9,748.10	193.51	191.84	-67.20	959.65	602.82	356.83	2.689	0					
16,400.00	10,121.28	15,927.59	9,748.32	196.53	194.86	-67.15	960.45	598.16	362.30	2.651	0					
16,500.00	10,122.64	16,027.58	9,748.54	199.55	197.88	-67.09	961.25	593.50	367.76	2.614	0					
16,600.00	10,124.01	16,127.57	9,748.76	202.57	200.90	-67.04	962.06	588.85	373.21	2.578	0					
16,700.00	10,125.37	16,227.57	9,748.98	205.59	203.92	-66.99	962.86	584.20	378.67	2.543	0					
16,800.00	10,126.74	16,327.56	9,749.20	208.61	206.94	-66.93	963.67	579.55	384.12	2.509	0					
16,900.00	10,128.10	16,427.55	9,749.42	211.63	209.96	-66.88	964.47	574.91	389.56	2.476	0					
17,000.00	10,129.47	16,527.54	9,749.64	214.65	212.98	-66.83	965.28	570.27	395.01	2.444	0					
17,100.00	10,130.83	16,627.54	9,749.86	217.68	216.00	-66.77	966.09	565.64	400.45	2.413	0					
17,200.00	10,132.20	16,727.53	9,750.08	220.70	219.02	-66.72	966.89	561.01	405.89	2.382	0					
17,300.00	10,133.56	16,827.52	9,750.30	223.72	222.05	-66.67	967.70	556.38	411.32	2.353	0					
17,400.00	10,134.93	16,927.52	9,750.52	226.75	225.07	-66.61	968.51	551.76	416.75	2.324	0					
17,500.00	10,136.29	17,027.51	9,750.74	229.77	228.10	-66.56	969.32	547.15	422.18	2.296	0					
17,602.95	10,137.70	17,130.48	9,750.97	232.88	230.98	-66.51	970.16	542.60	427.55	2.269	0					
17,625.14	10,138.00	17,144.06	9,751.00	233.55	231.28	-66.50	970.38	541.96	428.42	2.265	0					
17,626.12	10,138.01	17,144.06	9,751.00	233.58	231.28	-66.50	970.39	541.95	428.44	2.265	0	SF				

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Thistle Unit 119H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance					Risked Separation Factor	Probability of Collision	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.00	0.00	0.00	0.00	0.00	0.00	89.62	50.03					0		
100.00	100.00	99.00	99.00	0.09	0.09	89.62	50.02	49.85	0.17	292.374		0		
200.00	200.00	199.00	199.00	0.31	0.31	89.62	50.02	49.40	0.62	80.780		0		
300.00	300.00	299.00	299.00	0.54	0.53	89.62	50.02	48.95	1.07	46.803		0		
400.00	400.00	399.00	399.00	0.76	0.76	89.62	50.02	48.50	1.52	32.946		0		
500.00	500.00	499.00	499.00	0.99	0.98	89.62	50.02	48.05	1.97	25.420		0		
600.00	600.00	599.00	599.00	1.21	1.21	89.62	50.02	47.60	2.42	20.692		0		
700.00	700.00	699.00	699.00	1.43	1.43	89.62	50.02	47.15	2.87	17.448		0		
800.00	800.00	799.00	799.00	1.66	1.66	89.62	50.02	46.70	3.32	15.083		0		
900.00	900.00	899.00	899.00	1.88	1.88	89.62	50.02	46.26	3.77	13.282		0		
1,000.00	1,000.00	999.00	999.00	2.11	2.11	89.62	50.02	45.81	4.22	11.866		0		
1,100.00	1,100.00	1,099.00	1,099.00	2.33	2.33	89.62	50.02	45.36	4.67	10.723		0		
1,200.00	1,200.00	1,199.00	1,199.00	2.56	2.56	89.62	50.02	44.91	5.11	9.780		0		
1,300.00	1,300.00	1,299.00	1,299.00	2.78	2.78	89.62	50.02	44.46	5.56	8.990		0		
1,400.00	1,400.00	1,399.00	1,399.00	3.01	3.01	89.62	50.02	44.01	6.01	8.318		0		
1,500.00	1,500.00	1,499.00	1,499.00	3.23	3.23	89.62	50.02	43.56	6.46	7.739		0		
1,600.00	1,600.00	1,599.00	1,599.00	3.46	3.46	89.62	50.02	43.11	6.91	7.236		0		
1,700.00	1,700.00	1,699.00	1,699.00	3.68	3.68	89.62	50.02	42.66	7.36	6.794		0		
1,800.00	1,800.00	1,799.00	1,799.00	3.91	3.90	89.62	50.02	42.21	7.81	6.403		0		
1,900.00	1,900.00	1,899.00	1,899.00	4.13	4.13	89.62	50.02	41.76	8.26	6.055		0		
2,000.00	2,000.00	1,999.00	1,999.00	4.36	4.35	89.62	50.02	41.31	8.71	5.742		0		
2,100.00	2,100.00	2,099.00	2,099.00	4.58	4.58	89.62	50.02	40.86	9.16	5.461		0		
2,200.00	2,200.00	2,199.00	2,199.00	4.81	4.80	89.62	50.02	40.41	9.61	5.205		0		
2,300.00	2,300.00	2,299.00	2,299.00	5.03	5.03	89.62	50.02	39.96	10.06	4.973		0		
2,400.00	2,400.00	2,399.00	2,399.00	5.26	5.25	89.62	50.02	39.51	10.51	4.760		0		
2,500.00	2,500.00	2,499.00	2,499.00	5.48	5.48	89.62	50.02	39.06	10.96	4.565		0		
2,600.00	2,600.00	2,599.00	2,599.00	5.71	5.70	89.62	50.02	38.61	11.41	4.385		0		
2,700.00	2,700.00	2,699.00	2,699.00	5.93	5.93	89.62	50.02	38.16	11.86	4.219		0		
2,800.00	2,800.00	2,799.00	2,799.00	6.15	6.15	89.62	50.02	37.71	12.31	4.064		0		
2,900.00	2,900.00	2,899.00	2,899.00	6.38	6.38	89.62	50.02	37.26	12.76	3.921		0		
3,000.00	3,000.00	2,999.00	2,999.00	6.60	6.60	89.62	50.02	36.82	13.21	3.788		0		
3,100.00	3,100.00	3,099.00	3,099.00	6.83	6.83	89.62	50.02	36.37	13.66	3.663		0		
3,200.00	3,200.00	3,199.00	3,199.00	7.05	7.05	89.62	50.02	35.92	14.11	3.546		0		
3,300.00	3,300.00	3,299.00	3,299.00	7.28	7.28	89.62	50.02	35.47	14.55	3.437		0		
3,400.00	3,400.00	3,399.00	3,399.00	7.50	7.50	89.62	50.02	35.02	15.00	3.334		0		
3,500.00	3,500.00	3,499.00	3,499.00	7.73	7.73	89.62	50.02	34.57	15.45	3.237		0		
3,600.00	3,600.00	3,598.17	3,598.16	7.94	7.94	159.64	51.64	35.76	15.88	3.252		0		
3,700.00	3,699.96	3,697.17	3,697.13	8.16	8.15	159.67	56.52	40.23	16.28	3.471		0		
3,800.00	3,799.86	3,795.85	3,795.72	8.37	8.36	159.70	64.65	47.97	16.69	3.875		0		
3,900.00	3,899.68	3,894.07	3,893.76	8.59	8.58	159.72	76.02	58.94	17.08	4.450		0		
4,000.00	3,999.37	3,991.67	3,991.06	8.82	8.80	159.74	90.61	73.13	17.48	5.184		0		
4,100.00	4,098.99	4,090.20	4,089.22	9.06	9.04	159.77	106.93	89.04	17.89	5.976		0		
4,200.00	4,198.60	4,188.86	4,187.51	9.31	9.28	159.79	123.26	104.94	18.31	6.730		0		
4,300.00	4,298.22	4,287.52	4,285.79	9.56	9.53	159.80	139.58	120.85	18.74	7.450		0		
4,400.00	4,397.84	4,386.18	4,384.07	9.82	9.79	159.82	155.91	136.75	19.16	8.137		0		
4,500.00	4,497.46	4,484.83	4,482.35	10.09	10.05	159.83	172.23	152.64	19.59	8.793		0		
4,600.00	4,597.08	4,583.49	4,580.64	10.36	10.31	159.84	188.56	168.54	20.02	9.419		0		
4,700.00	4,696.70	4,682.15	4,678.92	10.63	10.58	159.84	204.88	184.43	20.45	10.018		0		
4,800.00	4,796.32	4,780.81	4,777.20	10.91	10.85	159.85	221.21	200.32	20.89	10.591		0		
4,900.00	4,895.94	4,879.47	4,875.49	11.19	11.13	159.86	237.53	216.21	21.32	11.140		0		
5,000.00	4,995.56	4,978.13	4,973.77	11.47	11.41	159.86	253.86	232.10	21.76	11.665		0		
5,100.00	5,095.18	5,076.78	5,072.05	11.76	11.69	159.87	270.18	247.98	22.20	12.169		0		
5,200.00	5,194.80	5,175.44	5,170.34	12.05	11.98	159.87	286.51	263.86	22.64	12.652		0		
5,300.00	5,294.42	5,274.10	5,268.62	12.34	12.26	159.87	302.83	279.74	23.09	13.116		0		

CC, ES

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Dzurisin - Thistle Unit 119H - Wellbore #1 - Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-MWD															Offset Well Error:	0.00 ft
Reference				Offset		Semi Major Axis		Distance				Risked Separation Factor	Probability of Collision	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor						
5,400.00	5,394.04	5,372.76	5,366.90	12.64	12.56	159.88	319.16	295.62	23.54	13.561	0					
5,500.00	5,493.66	5,471.42	5,465.19	12.93	12.85	159.88	335.48	311.50	23.98	13.989	0					
5,600.00	5,593.28	5,570.08	5,563.47	13.23	13.15	159.88	351.81	327.37	24.43	14.400	0					
5,700.00	5,692.90	5,668.74	5,661.75	13.54	13.44	159.88	368.13	343.25	24.88	14.795	0					
5,800.00	5,792.52	5,767.39	5,760.03	13.84	13.74	159.88	384.46	359.12	25.33	15.176	0					
5,900.00	5,892.14	5,866.05	5,858.32	14.15	14.04	159.89	400.78	374.99	25.79	15.543	0					
6,000.00	5,991.76	5,964.71	5,956.60	14.46	14.35	159.89	417.11	390.87	26.24	15.896	0					
6,100.00	6,091.37	6,063.37	6,054.88	14.77	14.65	159.89	433.43	406.74	26.69	16.237	0					
6,200.00	6,190.99	6,162.03	6,153.17	15.08	14.96	159.89	449.76	422.60	27.15	16.565	0					
6,300.00	6,290.61	6,260.69	6,251.45	15.39	15.27	159.89	466.08	438.47	27.61	16.882	0					
6,400.00	6,390.23	6,359.35	6,349.73	15.70	15.58	159.89	482.41	454.34	28.07	17.189	0					
6,500.00	6,489.85	6,458.00	6,448.02	16.02	15.89	159.89	498.73	470.21	28.52	17.485	0					
6,600.00	6,589.47	6,556.66	6,546.30	16.34	16.20	159.90	515.05	486.07	28.98	17.770	0					
6,700.00	6,689.09	6,655.32	6,644.58	16.65	16.51	159.90	531.38	501.94	29.44	18.047	0					
6,800.00	6,788.71	6,753.98	6,742.87	16.97	16.82	159.90	547.70	517.80	29.91	18.314	0					
6,900.00	6,888.33	6,852.64	6,841.15	17.29	17.14	159.90	564.03	533.66	30.37	18.573	0					
7,000.00	6,987.95	6,951.30	6,939.43	17.61	17.46	159.90	580.35	549.52	30.83	18.824	0					
7,100.00	7,087.57	7,049.95	7,037.71	17.93	17.77	159.90	596.68	565.39	31.29	19.067	0					
7,200.00	7,187.19	7,148.61	7,136.00	18.25	18.09	159.90	613.00	581.25	31.76	19.302	0					
7,300.00	7,286.81	7,247.27	7,234.28	18.58	18.41	159.90	629.33	597.11	32.22	19.531	0					
7,400.00	7,386.43	7,345.93	7,332.56	18.90	18.73	159.90	645.65	612.97	32.69	19.752	0					
7,500.00	7,486.05	7,444.59	7,430.85	19.23	19.05	159.90	661.98	628.82	33.15	19.967	0					
7,600.00	7,585.67	7,543.25	7,529.13	19.55	19.37	159.90	678.30	644.68	33.62	20.175	0					
7,700.00	7,685.29	7,641.91	7,627.41	19.88	19.69	159.90	694.63	660.54	34.09	20.378	0					
7,800.00	7,784.91	7,740.56	7,725.70	20.20	20.01	159.91	710.95	676.40	34.56	20.574	0					
7,900.00	7,884.53	7,839.22	7,823.98	20.53	20.33	159.91	727.28	692.25	35.02	20.765	0					
8,000.00	7,984.14	7,937.88	7,922.26	20.86	20.65	159.91	743.60	708.11	35.49	20.951	0					
8,100.00	8,083.80	8,039.04	8,023.04	21.12	20.96	159.92	759.47	723.51	35.95	21.123	0					
8,200.00	8,183.53	8,144.64	8,128.31	21.32	21.21	159.94	773.83	737.45	36.38	21.271	0					
8,300.00	8,283.31	8,250.61	8,234.02	21.52	21.42	159.95	786.53	749.74	36.79	21.379	0					
8,400.00	8,383.15	8,356.90	8,340.11	21.71	21.63	159.95	797.54	760.35	37.20	21.442	0					
8,500.00	8,483.03	8,463.47	8,446.55	21.90	21.83	159.96	806.88	769.28	37.60	21.460	0					
8,600.00	8,582.96	8,570.28	8,553.26	22.08	22.03	159.97	814.52	776.52	38.00	21.435	0					
8,700.00	8,682.91	8,677.28	8,660.20	22.26	22.22	159.97	820.47	782.08	38.40	21.369	0					
8,800.00	8,782.89	8,784.42	8,767.31	22.43	22.41	159.97	824.73	785.94	38.79	21.263	0					
8,900.00	8,882.88	8,891.65	8,874.53	22.60	22.59	159.98	827.29	788.11	39.17	21.118	0					
9,000.00	8,982.88	8,998.93	8,981.80	22.76	22.76	89.98	828.14	788.59	39.56	20.936	0					
9,100.00	9,082.88	9,099.00	9,081.88	22.93	22.93	89.98	828.14	788.19	39.95	20.728	0					
9,200.00	9,182.88	9,199.00	9,181.88	23.12	23.12	89.98	828.14	787.77	40.38	20.510	0					
9,300.00	9,282.88	9,299.00	9,281.88	23.31	23.31	89.98	828.14	787.34	40.80	20.296	0					
9,400.00	9,382.88	9,399.00	9,381.88	23.51	23.50	89.98	828.14	786.91	41.23	20.086	0					
9,500.00	9,482.88	9,499.00	9,481.88	23.70	23.70	89.98	828.14	786.49	41.66	19.880	0					
9,578.00	9,560.88	9,577.00	9,559.88	23.85	23.85	89.98	828.14	786.15	41.99	19.723	0					
9,600.00	9,582.87	9,598.94	9,581.81	23.89	23.88	-90.36	828.15	786.08	42.07	19.684	0					
9,625.00	9,607.80	9,623.87	9,606.68	23.92	23.92	-90.36	828.16	786.02	42.15	19.649	0					
9,650.00	9,632.60	9,648.81	9,631.44	23.95	23.95	-90.37	828.19	785.98	42.21	19.620	0					
9,675.00	9,657.21	9,673.75	9,656.01	23.98	23.98	-90.37	828.22	785.96	42.26	19.597	0					
9,700.00	9,681.55	9,698.70	9,680.33	24.00	24.00	-90.38	828.27	785.96	42.31	19.578	0					
9,725.00	9,705.56	9,723.65	9,704.33	24.02	24.02	-90.38	828.32	785.98	42.34	19.563	0					
9,750.00	9,729.18	9,748.62	9,727.95	24.04	24.04	-90.38	828.39	786.02	42.37	19.551	0					
9,775.00	9,752.33	9,773.58	9,751.12	24.06	24.06	-90.38	828.46	786.06	42.40	19.540	0					
9,800.00	9,774.96	9,798.56	9,773.78	24.07	24.07	-90.38	828.55	786.12	42.43	19.529	0					
9,825.00	9,797.01	9,823.54	9,795.86	24.08	24.08	-90.37	828.64	786.18	42.46	19.517	0					
9,850.00	9,818.40	9,848.53	9,817.31	24.09	24.09	-90.37	828.74	786.25	42.49	19.502	0					

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance					Risked Separation Factor	Probability of Collision	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
9,875.00	9,839.09	9,873.52	9,838.07	24.10	24.10	-90.37	828.85	786.31	42.54	19.483	0			
9,900.00	9,859.02	9,898.52	9,858.08	24.12	24.11	-90.36	828.97	786.37	42.60	19.458	0			
9,925.00	9,878.13	9,923.53	9,877.28	24.13	24.12	-90.36	829.10	786.42	42.68	19.424	0			
9,950.00	9,896.37	9,948.54	9,895.61	24.14	24.14	-90.35	829.24	786.45	42.79	19.381	0			
9,975.00	9,913.69	9,973.56	9,913.04	24.16	24.15	-90.34	829.38	786.47	42.91	19.327	0			
10,000.00	9,930.04	9,998.59	9,929.51	24.18	24.17	-90.33	829.53	786.46	43.07	19.260	0			
10,025.00	9,945.38	10,023.63	9,944.97	24.20	24.19	-90.32	829.69	786.43	43.26	19.180	0			
10,050.00	9,959.67	10,048.67	9,959.38	24.23	24.22	-90.31	829.85	786.36	43.48	19.084	0			
10,075.00	9,972.86	10,073.71	9,972.70	24.27	24.26	-90.30	830.02	786.27	43.75	18.973	0			
10,100.00	9,984.93	10,098.77	9,984.90	24.31	24.30	-90.28	830.19	786.14	44.05	18.846	0			
10,125.00	9,995.83	10,123.83	9,995.93	24.37	24.36	-90.27	830.37	785.97	44.40	18.703	0			
10,150.00	10,005.54	10,148.89	10,005.77	24.45	24.43	-90.26	830.55	785.77	44.79	18.544	0			
10,175.00	10,014.04	10,173.96	10,014.39	24.54	24.52	-90.24	830.74	785.52	45.22	18.370	0			
10,200.00	10,021.29	10,199.04	10,021.76	24.66	24.63	-90.23	830.93	785.23	45.70	18.182	0			
10,225.00	10,027.27	10,224.12	10,027.87	24.80	24.77	-90.21	831.12	784.90	46.22	17.981	0			
10,250.00	10,031.98	10,249.21	10,032.69	24.98	24.95	-90.19	831.32	784.53	46.79	17.767	0			
10,275.00	10,035.40	10,274.30	10,036.21	25.18	25.15	-90.18	831.51	784.12	47.40	17.544	0			
10,300.00	10,037.52	10,299.40	10,038.42	25.42	25.39	-90.16	831.71	783.67	48.04	17.312	0			
10,321.50	10,038.30	10,320.99	10,039.27	25.65	25.62	-90.14	831.88	783.25	48.63	17.107	0			
10,343.33	10,038.59	10,342.82	10,039.60	25.86	25.87	-90.14	832.05	782.92	49.14	16.933	0			
10,400.00	10,039.37	10,399.49	10,040.43	26.43	26.62	-90.15	832.50	781.95	50.56	16.466	0			
10,500.00	10,040.73	10,499.49	10,041.91	27.93	28.22	-90.16	833.30	779.34	53.96	15.442	0			
10,600.00	10,042.10	10,599.48	10,043.39	29.71	30.07	-90.16	834.09	776.28	57.81	14.429	0			
10,700.00	10,043.46	10,699.48	10,044.86	31.71	32.12	-90.17	834.89	772.87	62.01	13.463	0			
10,800.00	10,044.83	10,799.48	10,046.34	33.87	34.32	-90.18	835.68	769.17	66.51	12.565	0			
10,900.00	10,046.19	10,899.47	10,047.81	36.16	36.65	-90.19	836.47	765.24	71.24	11.742	0			
11,000.00	10,047.56	10,999.47	10,049.29	38.56	39.07	-90.19	837.27	761.11	76.16	10.994	0			
11,100.00	10,048.92	11,099.47	10,050.76	41.04	41.58	-90.20	838.06	756.82	81.24	10.316	0			
11,200.00	10,050.29	11,199.46	10,052.24	43.60	44.15	-90.21	838.85	752.41	86.44	9.704	0			
11,300.00	10,051.65	11,299.46	10,053.72	46.22	46.78	-90.22	839.65	747.89	91.76	9.150	0			
11,400.00	10,053.02	11,399.46	10,055.19	48.88	49.46	-90.22	840.44	743.28	97.16	8.650	0			
11,500.00	10,054.38	11,499.45	10,056.67	51.59	52.17	-90.23	841.23	738.59	102.64	8.196	0			
11,600.00	10,055.75	11,599.45	10,058.14	54.33	54.92	-90.24	842.03	733.84	108.19	7.783	0			
11,700.00	10,057.12	11,699.45	10,059.62	57.10	57.70	-90.24	842.82	729.03	113.79	7.407	0			
11,800.00	10,058.48	11,799.44	10,061.09	59.90	60.51	-90.25	843.61	724.18	119.43	7.064	0			
11,900.00	10,059.85	11,899.44	10,062.57	62.72	63.33	-90.26	844.41	719.29	125.12	6.749	0			
12,000.00	10,061.21	11,999.44	10,064.05	65.56	66.18	-90.27	845.20	714.36	130.84	6.460	0			
12,100.00	10,062.58	12,099.43	10,065.52	68.42	69.04	-90.27	846.00	709.40	136.59	6.194	0			
12,200.00	10,063.94	12,199.43	10,067.00	71.29	71.92	-90.28	846.79	704.42	142.37	5.948	0			
12,300.00	10,065.31	12,299.43	10,068.47	74.18	74.80	-90.29	847.58	699.41	148.18	5.720	0			
12,400.00	10,066.67	12,399.43	10,069.95	77.08	77.71	-90.30	848.38	694.38	154.00	5.509	0			
12,500.00	10,068.04	12,499.42	10,071.42	79.98	80.62	-90.30	849.17	689.33	159.84	5.313	0			
12,600.00	10,069.40	12,599.42	10,072.90	82.90	83.54	-90.31	849.96	684.26	165.70	5.129	0			
12,700.00	10,070.77	12,699.42	10,074.38	85.83	86.46	-90.32	850.76	679.18	171.58	4.958	0			
12,800.00	10,072.13	12,799.41	10,075.85	88.76	89.40	-90.32	851.55	674.08	177.47	4.798	0			
12,900.00	10,073.50	12,899.41	10,077.33	91.70	92.34	-90.33	852.35	668.98	183.37	4.648	0			
13,000.00	10,074.86	12,999.41	10,078.80	94.65	95.29	-90.34	853.14	663.86	189.28	4.507	0			
13,100.00	10,076.23	13,099.40	10,080.28	97.60	98.24	-90.35	853.93	658.73	195.21	4.375	0			
13,200.00	10,077.59	13,199.40	10,081.75	100.56	101.20	-90.35	854.73	653.59	201.14	4.249	0			
13,300.00	10,078.96	13,299.40	10,083.23	103.52	104.16	-90.36	855.52	648.44	207.08	4.131	0			
13,400.00	10,080.32	13,399.39	10,084.71	106.49	107.13	-90.37	856.32	643.29	213.03	4.020	0			
13,500.00	10,081.69	13,499.39	10,086.18	109.46	110.10	-90.37	857.11	638.13	218.98	3.914	0			
13,600.00	10,083.05	13,599.39	10,087.66	112.43	113.08	-90.38	857.90	632.96	224.95	3.814	0			
13,700.00	10,084.42	13,699.38	10,089.13	115.41	116.06	-90.39	858.70	627.78	230.91	3.719	0			

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

Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Thistle Unit 119H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
13,800.00	10,085.78	13,799.38	10,090.61	118.39	119.04	-90.39	859.49	622.60	236.89	3.628	0			
13,900.00	10,087.15	13,899.38	10,092.09	121.38	122.02	-90.40	860.29	617.42	242.87	3.542	0			
14,000.00	10,088.51	13,999.37	10,093.56	124.36	125.01	-90.41	861.08	612.23	248.85	3.460	0			
14,100.00	10,089.88	14,099.37	10,095.04	127.35	128.00	-90.42	861.87	607.03	254.84	3.382	0			
14,200.00	10,091.24	14,199.37	10,096.51	130.34	130.99	-90.42	862.67	601.83	260.83	3.307	0			
14,300.00	10,092.61	14,299.36	10,097.99	133.34	133.98	-90.43	863.46	596.63	266.83	3.236	0			
14,400.00	10,093.97	14,399.36	10,099.46	136.33	136.98	-90.44	864.26	591.43	272.83	3.168	0			
14,500.00	10,095.34	14,499.36	10,100.94	139.33	139.98	-90.44	865.05	586.22	278.83	3.102	0			
14,600.00	10,096.70	14,599.35	10,102.42	142.33	142.98	-90.45	865.84	581.00	284.84	3.040	0			
14,700.00	10,098.07	14,699.35	10,103.89	145.33	145.98	-90.46	866.64	575.79	290.85	2.980	0			
14,800.00	10,099.43	14,799.35	10,105.37	148.33	148.98	-90.46	867.43	570.57	296.86	2.922	0			
14,900.00	10,100.80	14,899.35	10,106.84	151.34	151.98	-90.47	868.23	565.35	302.88	2.867	0			
15,000.00	10,102.16	14,999.34	10,108.32	154.34	154.99	-90.48	869.02	560.13	308.89	2.813	0			
15,100.00	10,103.53	15,099.34	10,109.79	157.35	158.00	-90.48	869.81	554.90	314.91	2.762	0			
15,200.00	10,104.89	15,199.34	10,111.27	160.36	161.00	-90.49	870.61	549.67	320.93	2.713	0			
15,300.00	10,106.26	15,299.33	10,112.75	163.37	164.01	-90.50	871.40	544.44	326.96	2.665	0			
15,400.00	10,107.62	15,399.33	10,114.22	166.38	167.02	-90.51	872.20	539.21	332.98	2.619	0			
15,500.00	10,108.99	15,499.33	10,115.70	169.39	170.04	-90.51	872.99	533.98	339.01	2.575	0			
15,600.00	10,110.36	15,599.32	10,117.17	172.40	173.05	-90.52	873.78	528.74	345.04	2.532	0			
15,700.00	10,111.72	15,699.32	10,118.65	175.41	176.06	-90.53	874.58	523.51	351.07	2.491	0			
15,800.00	10,113.09	15,799.32	10,120.12	178.43	179.08	-90.53	875.37	518.27	357.11	2.451	0			
15,900.00	10,114.45	15,899.31	10,121.60	181.44	182.09	-90.54	876.17	513.03	363.14	2.413	0			
16,000.00	10,115.82	15,999.31	10,123.08	184.46	185.11	-90.55	876.96	507.78	369.18	2.375	0			
16,100.00	10,117.18	16,099.31	10,124.55	187.48	188.12	-90.55	877.76	502.54	375.21	2.339	0			
16,200.00	10,118.55	16,199.30	10,126.03	190.49	191.14	-90.56	878.55	497.30	381.25	2.304	0			
16,300.00	10,119.91	16,299.30	10,127.50	193.51	194.16	-90.57	879.34	492.05	387.29	2.270	0			
16,400.00	10,121.28	16,399.30	10,128.98	196.53	197.18	-90.57	880.14	486.81	393.33	2.238	0			
16,500.00	10,122.64	16,499.29	10,130.45	199.55	200.20	-90.58	880.93	481.56	399.37	2.206	0			
16,600.00	10,124.01	16,599.29	10,131.93	202.57	203.22	-90.59	881.73	476.31	405.42	2.175	0			
16,700.00	10,125.37	16,699.29	10,133.41	205.59	206.24	-90.59	882.52	471.06	411.46	2.145	0			
16,800.00	10,126.74	16,799.28	10,134.88	208.61	209.26	-90.60	883.32	465.81	417.51	2.116	0			
16,900.00	10,128.10	16,899.28	10,136.36	211.63	212.28	-90.61	884.11	460.56	423.55	2.087	0			
17,000.00	10,129.47	16,999.28	10,137.83	214.65	215.30	-90.61	884.90	455.31	429.60	2.060	0			
17,100.00	10,130.83	17,099.27	10,139.31	217.68	218.32	-90.62	885.70	450.05	435.65	2.033	0			
17,200.00	10,132.20	17,199.27	10,140.78	220.70	221.35	-90.63	886.49	444.80	441.70	2.007	0			
17,300.00	10,133.56	17,299.27	10,142.26	223.72	224.37	-90.63	887.29	439.54	447.74	1.982	0			
17,400.00	10,134.93	17,399.27	10,143.74	226.75	227.39	-90.64	888.08	434.29	453.79	1.957	0			
17,500.00	10,136.29	17,499.26	10,145.21	229.77	230.42	-90.65	888.88	429.03	459.85	1.933	0			
17,602.95	10,137.70	17,602.21	10,146.73	232.88	233.53	-90.65	889.69	423.62	466.07	1.909	0			
17,625.14	10,138.00	17,620.43	10,147.00	233.55	233.95	-90.65	889.88	422.72	467.16	1.905	0			
17,626.12	10,138.01	17,620.43	10,147.00	233.58	233.95	-90.65	889.89	422.71	467.18	1.905	0	SF		

Devon Energy

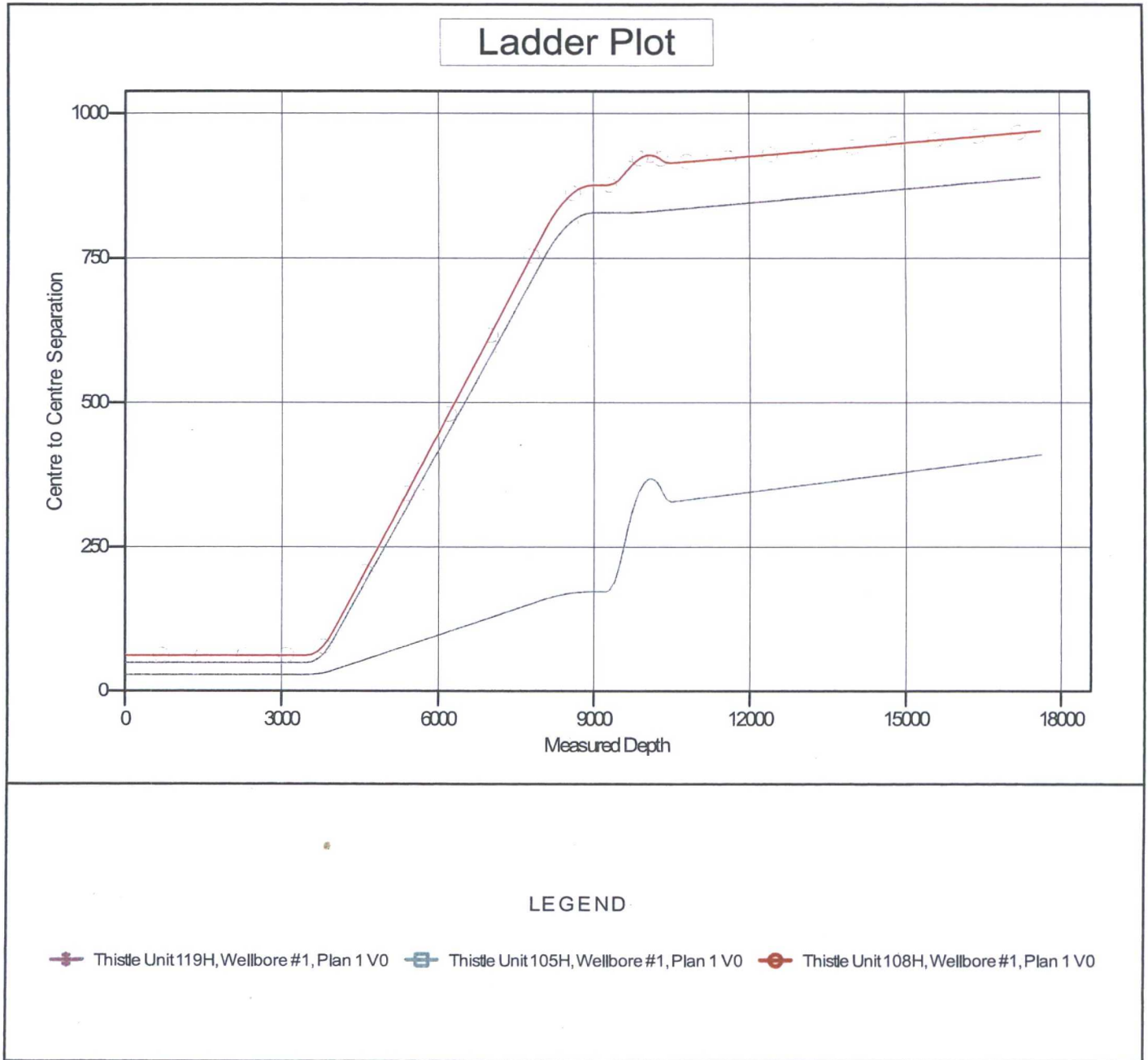
Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Reference Depths are relative to 1 @ 3746.90ft
 Offset Depths are relative to Offset Datum
 Central Meridian is

Coordinates are relative to: Thistle Unit 121H
 Coordinate System is Flat Earth, No Conversions
 Grid Convergence at Surface is: 0.00°



Devon Energy

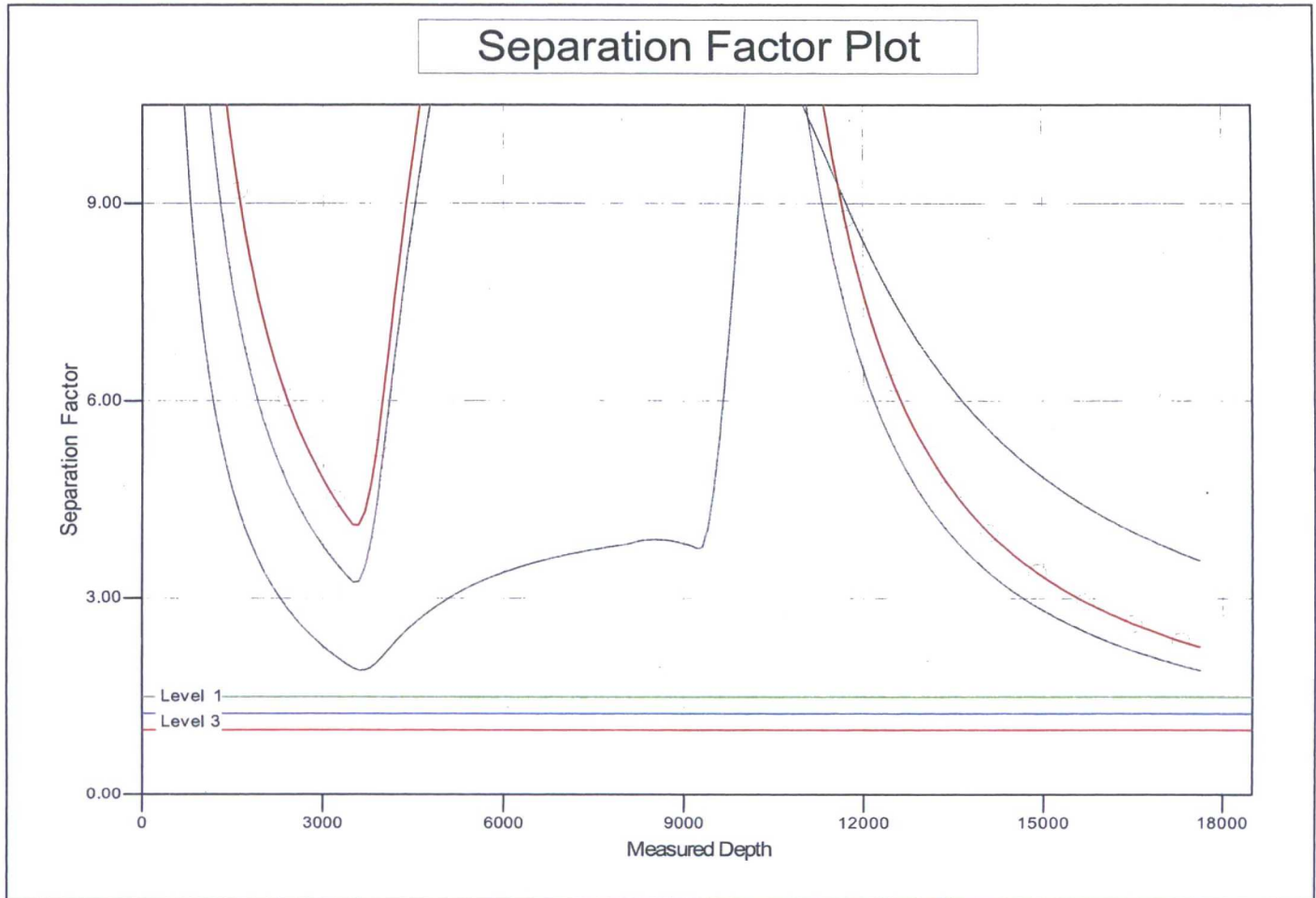
Anticollision Risk Report

Company: WESTERN DIVISION
Project: PBNM
Reference Site: Dzurisin
Site Error: 0.00
Reference Well: Thistle Unit 121H
Well Error: 0.00
Reference Wellbore: Wellbore #1
Reference Design: Plan 1

Local Co-ordinate Reference: Well Thistle Unit 121H
TVD Reference: 1 @ 3746.90ft
MD Reference: 1 @ 3746.90ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM r5000 US Production
Offset TVD Reference: Offset Datum

Reference Depths are relative to 1 @ 3746.90ft
 Offset Depths are relative to Offset Datum
 Central Meridian is

Coordinates are relative to: Thistle Unit 121H
 Coordinate System is Flat Earth, No Conversions
 Grid Convergence at Surface is: 0.00°



LEGEND

—●— Thistle Unit 119H, Wellbore #1, Plan 1 V0
 —●— Thistle Unit 105H, Wellbore #1, Plan 1 V0
 —●— Thistle Unit 108H, Wellbore #1, Plan 1 V0