

WESTERN DIVISION

PBNM

Dzurisin

Jayhawk 7-6 Fed Com 85H

Wellbore #1

Plan: Plan 1

Standard Planning Report

13 October, 2016

Devon Energy

Planning Report

Database:	EDM r5000 US Production	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3390.70ft
Project:	PBNM	MD Reference:	1 @ 3390.70ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Project	PBNM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Dzurisin		
Site Position:		Northing:	429,922.27 usft
From:	Map	Easting:	725,391.41 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	32.180535
		Longitude:	-103.738424
		Grid Convergence:	0.32 °

Well	Jayhawk 7-6 Fed Com 85H		
Well Position	+N/-S	-47,153.32 ft	Northing:
	+E/-W	72,887.22 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft
		Latitude:	32.049599
		Longitude:	-103.504026
		Ground Level:	3,367.20 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.71	60.09	48,695

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	358.58

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.00	5.00	315.00	3,499.37	15.42	-15.42	1.00	1.00	0.00	315.00	
7,000.00	5.00	315.00	6,986.05	231.12	-231.12	0.00	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,984.78	261.95	-261.95	0.50	-0.50	0.00	180.00	
12,358.80	0.00	0.00	12,343.58	261.95	-261.95	0.00	0.00	0.00	0.00	
13,108.05	89.91	359.99	12,821.04	738.67	-262.03	12.00	12.00	0.00	359.99	Jayhawk 7-6 Fed 85H
13,141.79	89.91	359.99	12,821.10	772.40	-262.04	0.01	0.01	0.00	0.00	
22,965.36	89.91	359.99	12,835.95	10,595.96	-263.76	0.00	0.00	0.00	0.00	
22,999.10	89.91	359.99	12,836.00	10,629.70	-263.77	0.01	-0.01	0.00	178.98	Jayhawk 7-6 Fed 85H

Devon Energy

Planning Report

Database: EDM r5000 US Production
Company: WESTERN DIVISION
Project: PBNM
Site: Dzurisin
Well: Jayhawk 7-6 Fed Com 85H
Wellbore: Wellbore #1
Design: Plan 1

Local Co-ordinate Reference: Well Jayhawk 7-6 Fed Com 85H
TVD Reference: 1 @ 3390.70ft
MD Reference: 1 @ 3390.70ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	1.00	315.00	3,099.99	0.62	-0.62	0.63	1.00	1.00	0.00
3,200.00	2.00	315.00	3,199.96	2.47	-2.47	2.53	1.00	1.00	0.00
3,300.00	3.00	315.00	3,299.86	5.55	-5.55	5.69	1.00	1.00	0.00
3,400.00	4.00	315.00	3,399.68	9.87	-9.87	10.11	1.00	1.00	0.00
3,500.00	5.00	315.00	3,499.37	15.42	-15.42	15.79	1.00	1.00	0.00
3,600.00	5.00	315.00	3,598.99	21.58	-21.58	22.11	0.00	0.00	0.00
3,700.00	5.00	315.00	3,698.60	27.74	-27.74	28.42	0.00	0.00	0.00
3,800.00	5.00	315.00	3,798.22	33.91	-33.91	34.74	0.00	0.00	0.00
3,900.00	5.00	315.00	3,897.84	40.07	-40.07	41.05	0.00	0.00	0.00
4,000.00	5.00	315.00	3,997.46	46.23	-46.23	47.36	0.00	0.00	0.00
4,100.00	5.00	315.00	4,097.08	52.39	-52.39	53.68	0.00	0.00	0.00
4,200.00	5.00	315.00	4,196.70	58.56	-58.56	59.99	0.00	0.00	0.00
4,300.00	5.00	315.00	4,296.32	64.72	-64.72	66.31	0.00	0.00	0.00
4,400.00	5.00	315.00	4,395.94	70.88	-70.88	72.62	0.00	0.00	0.00
4,500.00	5.00	315.00	4,495.56	77.05	-77.05	78.93	0.00	0.00	0.00
4,600.00	5.00	315.00	4,595.18	83.21	-83.21	85.25	0.00	0.00	0.00
4,700.00	5.00	315.00	4,694.80	89.37	-89.37	91.56	0.00	0.00	0.00
4,800.00	5.00	315.00	4,794.42	95.53	-95.53	97.87	0.00	0.00	0.00
4,900.00	5.00	315.00	4,894.04	101.70	-101.70	104.19	0.00	0.00	0.00
5,000.00	5.00	315.00	4,993.66	107.86	-107.86	110.50	0.00	0.00	0.00
5,100.00	5.00	315.00	5,093.28	114.02	-114.02	116.82	0.00	0.00	0.00
5,200.00	5.00	315.00	5,192.90	120.19	-120.19	123.13	0.00	0.00	0.00
5,300.00	5.00	315.00	5,292.52	126.35	-126.35	129.44	0.00	0.00	0.00

Devon Energy

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 Project: PBNM
 Site: Dzurisin
 Well: Jayhawk 7-6 Fed Com 85H
 Wellbore: Wellbore #1
 Design: Plan 1

Local Co-ordinate Reference: Well Jayhawk 7-6 Fed Com 85H
 TVD Reference: 1 @ 3390.70ft
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 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	5.00	315.00	5,392.14	132.51	-132.51	135.76	0.00	0.00	0.00
5,500.00	5.00	315.00	5,491.76	138.67	-138.67	142.07	0.00	0.00	0.00
5,600.00	5.00	315.00	5,591.37	144.84	-144.84	148.38	0.00	0.00	0.00
5,700.00	5.00	315.00	5,690.99	151.00	-151.00	154.70	0.00	0.00	0.00
5,800.00	5.00	315.00	5,790.61	157.16	-157.16	161.01	0.00	0.00	0.00
5,900.00	5.00	315.00	5,890.23	163.33	-163.33	167.33	0.00	0.00	0.00
6,000.00	5.00	315.00	5,989.85	169.49	-169.49	173.64	0.00	0.00	0.00
6,100.00	5.00	315.00	6,089.47	175.65	-175.65	179.95	0.00	0.00	0.00
6,200.00	5.00	315.00	6,189.09	181.81	-181.81	186.27	0.00	0.00	0.00
6,300.00	5.00	315.00	6,288.71	187.98	-187.98	192.58	0.00	0.00	0.00
6,400.00	5.00	315.00	6,388.33	194.14	-194.14	198.90	0.00	0.00	0.00
6,500.00	5.00	315.00	6,487.95	200.30	-200.30	205.21	0.00	0.00	0.00
6,600.00	5.00	315.00	6,587.57	206.46	-206.46	211.52	0.00	0.00	0.00
6,700.00	5.00	315.00	6,687.19	212.63	-212.63	217.84	0.00	0.00	0.00
6,800.00	5.00	315.00	6,786.81	218.79	-218.79	224.15	0.00	0.00	0.00
6,900.00	5.00	315.00	6,886.43	224.95	-224.95	230.46	0.00	0.00	0.00
7,000.00	5.00	315.00	6,986.05	231.12	-231.12	236.78	0.00	0.00	0.00
7,100.00	4.50	315.00	7,085.70	236.97	-236.97	242.78	0.50	-0.50	0.00
7,200.00	4.00	315.00	7,185.43	242.21	-242.21	248.15	0.50	-0.50	0.00
7,300.00	3.50	315.00	7,285.21	246.84	-246.84	252.88	0.50	-0.50	0.00
7,400.00	3.00	315.00	7,385.05	250.85	-250.85	256.99	0.50	-0.50	0.00
7,500.00	2.50	315.00	7,484.94	254.24	-254.24	260.47	0.50	-0.50	0.00
7,600.00	2.00	315.00	7,584.86	257.01	-257.01	263.31	0.50	-0.50	0.00
7,700.00	1.50	315.00	7,684.81	259.17	-259.17	265.52	0.50	-0.50	0.00
7,800.00	1.00	315.00	7,784.79	260.72	-260.72	267.10	0.50	-0.50	0.00
7,900.00	0.50	315.00	7,884.78	261.64	-261.64	268.05	0.50	-0.50	0.00
8,000.00	0.00	0.00	7,984.78	261.95	-261.95	268.37	0.50	-0.50	0.00
8,100.00	0.00	0.00	8,084.78	261.95	-261.95	268.37	0.00	0.00	0.00
8,200.00	0.00	0.00	8,184.78	261.95	-261.95	268.37	0.00	0.00	0.00
8,300.00	0.00	0.00	8,284.78	261.95	-261.95	268.37	0.00	0.00	0.00
8,400.00	0.00	0.00	8,384.78	261.95	-261.95	268.37	0.00	0.00	0.00
8,500.00	0.00	0.00	8,484.78	261.95	-261.95	268.37	0.00	0.00	0.00
8,600.00	0.00	0.00	8,584.78	261.95	-261.95	268.37	0.00	0.00	0.00
8,700.00	0.00	0.00	8,684.78	261.95	-261.95	268.37	0.00	0.00	0.00
8,800.00	0.00	0.00	8,784.78	261.95	-261.95	268.37	0.00	0.00	0.00
8,900.00	0.00	0.00	8,884.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,000.00	0.00	0.00	8,984.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,100.00	0.00	0.00	9,084.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,200.00	0.00	0.00	9,184.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,300.00	0.00	0.00	9,284.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,400.00	0.00	0.00	9,384.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,500.00	0.00	0.00	9,484.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,600.00	0.00	0.00	9,584.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,700.00	0.00	0.00	9,684.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,800.00	0.00	0.00	9,784.78	261.95	-261.95	268.37	0.00	0.00	0.00
9,900.00	0.00	0.00	9,884.78	261.95	-261.95	268.37	0.00	0.00	0.00
10,000.00	0.00	0.00	9,984.78	261.95	-261.95	268.37	0.00	0.00	0.00
10,100.00	0.00	0.00	10,084.78	261.95	-261.95	268.37	0.00	0.00	0.00
10,200.00	0.00	0.00	10,184.78	261.95	-261.95	268.37	0.00	0.00	0.00
10,300.00	0.00	0.00	10,284.78	261.95	-261.95	268.37	0.00	0.00	0.00
10,400.00	0.00	0.00	10,384.78	261.95	-261.95	268.37	0.00	0.00	0.00
10,500.00	0.00	0.00	10,484.78	261.95	-261.95	268.37	0.00	0.00	0.00
10,600.00	0.00	0.00	10,584.78	261.95	-261.95	268.37	0.00	0.00	0.00
10,700.00	0.00	0.00	10,684.78	261.95	-261.95	268.37	0.00	0.00	0.00

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Site:	Dzurisin	North Reference:	Grid
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Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,800.00	0.00	0.00	10,784.78	261.95	-261.95	268.37	0.00	0.00	0.00
10,900.00	0.00	0.00	10,884.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,000.00	0.00	0.00	10,984.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,100.00	0.00	0.00	11,084.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,200.00	0.00	0.00	11,184.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,300.00	0.00	0.00	11,284.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,400.00	0.00	0.00	11,384.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,500.00	0.00	0.00	11,484.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,600.00	0.00	0.00	11,584.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,700.00	0.00	0.00	11,684.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,800.00	0.00	0.00	11,784.78	261.95	-261.95	268.37	0.00	0.00	0.00
11,900.00	0.00	0.00	11,884.78	261.95	-261.95	268.37	0.00	0.00	0.00
12,000.00	0.00	0.00	11,984.78	261.95	-261.95	268.37	0.00	0.00	0.00
12,100.00	0.00	0.00	12,084.78	261.95	-261.95	268.37	0.00	0.00	0.00
12,200.00	0.00	0.00	12,184.78	261.95	-261.95	268.37	0.00	0.00	0.00
12,300.00	0.00	0.00	12,284.78	261.95	-261.95	268.37	0.00	0.00	0.00
12,358.80	0.00	0.00	12,343.58	261.95	-261.95	268.37	0.00	0.00	0.00
12,375.00	1.94	359.99	12,359.78	262.22	-261.95	268.64	12.00	12.00	0.00
12,400.00	4.94	359.99	12,384.73	263.73	-261.95	270.14	12.00	12.00	0.00
12,425.00	7.94	359.99	12,409.57	266.53	-261.95	272.95	12.00	12.00	0.00
12,450.00	10.94	359.99	12,434.23	270.63	-261.95	277.05	12.00	12.00	0.00
12,475.00	13.94	359.99	12,458.63	276.02	-261.95	282.43	12.00	12.00	0.00
12,500.00	16.94	359.99	12,482.73	282.68	-261.95	289.09	12.00	12.00	0.00
12,525.00	19.94	359.99	12,506.44	290.59	-261.96	296.99	12.00	12.00	0.00
12,550.00	22.94	359.99	12,529.71	299.72	-261.96	306.13	12.00	12.00	0.00
12,575.00	25.94	359.99	12,552.47	310.07	-261.96	316.47	12.00	12.00	0.00
12,600.00	28.94	359.99	12,574.65	321.59	-261.96	327.99	12.00	12.00	0.00
12,625.00	31.94	359.99	12,596.20	334.25	-261.96	340.65	12.00	12.00	0.00
12,650.00	34.94	359.99	12,617.06	348.03	-261.97	354.42	12.00	12.00	0.00
12,675.00	37.94	359.99	12,637.17	362.88	-261.97	369.27	12.00	12.00	0.00
12,700.00	40.94	359.99	12,656.47	378.76	-261.97	385.14	12.00	12.00	0.00
12,725.00	43.94	359.99	12,674.92	395.63	-261.97	402.01	12.00	12.00	0.00
12,750.00	46.94	359.99	12,692.46	413.44	-261.98	419.81	12.00	12.00	0.00
12,775.00	49.94	359.99	12,709.04	432.15	-261.98	438.51	12.00	12.00	0.00
12,800.00	52.94	359.99	12,724.62	451.70	-261.98	458.06	12.00	12.00	0.00
12,825.00	55.94	359.99	12,739.15	472.03	-261.99	478.39	12.00	12.00	0.00
12,850.00	58.94	359.99	12,752.61	493.10	-261.99	499.45	12.00	12.00	0.00
12,875.00	61.94	359.99	12,764.94	514.85	-261.99	521.19	12.00	12.00	0.00
12,900.00	64.94	359.99	12,776.11	537.21	-262.00	543.54	12.00	12.00	0.00
12,925.00	67.94	359.99	12,786.10	560.12	-262.00	566.45	12.00	12.00	0.00
12,950.00	70.94	359.99	12,794.88	583.53	-262.01	589.85	12.00	12.00	0.00
12,975.00	73.94	359.99	12,802.42	607.36	-262.01	613.67	12.00	12.00	0.00
13,000.00	76.94	359.99	12,808.70	631.55	-262.02	637.86	12.00	12.00	0.00
13,025.00	79.94	359.99	12,813.71	656.04	-262.02	662.34	12.00	12.00	0.00
13,050.00	82.94	359.99	12,817.43	680.76	-262.02	687.05	12.00	12.00	0.00
13,075.00	85.94	359.99	12,819.85	705.64	-262.03	711.93	12.00	12.00	0.00
13,100.00	88.94	359.99	12,820.96	730.61	-262.03	736.89	12.00	12.00	0.00
13,108.05	89.91	359.99	12,821.04	738.67	-262.03	744.94	12.00	12.00	0.00
13,141.79	89.91	359.99	12,821.10	772.40	-262.04	778.66	0.01	0.01	0.00
13,200.00	89.91	359.99	12,821.18	830.61	-262.05	836.86	0.00	0.00	0.00
13,300.00	89.91	359.99	12,821.33	930.61	-262.07	936.83	0.00	0.00	0.00
13,400.00	89.91	359.99	12,821.49	1,030.61	-262.09	1,036.80	0.00	0.00	0.00
13,500.00	89.91	359.99	12,821.64	1,130.61	-262.10	1,136.77	0.00	0.00	0.00
13,600.00	89.91	359.99	12,821.79	1,230.61	-262.12	1,236.74	0.00	0.00	0.00

Devon Energy

Planning Report

Database:	EDM r5000 US Production	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3390.70ft
Project:	PBNM	MD Reference:	1 @ 3390.70ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,700.00	89.91	359.99	12,821.94	1,330.61	-262.14	1,336.71	0.00	0.00	0.00
13,800.00	89.91	359.99	12,822.09	1,430.61	-262.16	1,436.68	0.00	0.00	0.00
13,900.00	89.91	359.99	12,822.24	1,530.61	-262.17	1,536.65	0.00	0.00	0.00
14,000.00	89.91	359.99	12,822.39	1,630.61	-262.19	1,636.62	0.00	0.00	0.00
14,100.00	89.91	359.99	12,822.54	1,730.61	-262.21	1,736.59	0.00	0.00	0.00
14,200.00	89.91	359.99	12,822.70	1,830.61	-262.23	1,836.55	0.00	0.00	0.00
14,300.00	89.91	359.99	12,822.85	1,930.61	-262.24	1,936.52	0.00	0.00	0.00
14,400.00	89.91	359.99	12,823.00	2,030.61	-262.26	2,036.49	0.00	0.00	0.00
14,500.00	89.91	359.99	12,823.15	2,130.61	-262.28	2,136.46	0.00	0.00	0.00
14,600.00	89.91	359.99	12,823.30	2,230.61	-262.30	2,236.43	0.00	0.00	0.00
14,700.00	89.91	359.99	12,823.45	2,330.61	-262.31	2,336.40	0.00	0.00	0.00
14,800.00	89.91	359.99	12,823.60	2,430.61	-262.33	2,436.37	0.00	0.00	0.00
14,900.00	89.91	359.99	12,823.75	2,530.61	-262.35	2,536.34	0.00	0.00	0.00
15,000.00	89.91	359.99	12,823.91	2,630.61	-262.37	2,636.31	0.00	0.00	0.00
15,100.00	89.91	359.99	12,824.06	2,730.61	-262.38	2,736.28	0.00	0.00	0.00
15,200.00	89.91	359.99	12,824.21	2,830.61	-262.40	2,836.25	0.00	0.00	0.00
15,300.00	89.91	359.99	12,824.36	2,930.61	-262.42	2,936.22	0.00	0.00	0.00
15,400.00	89.91	359.99	12,824.51	3,030.61	-262.44	3,036.19	0.00	0.00	0.00
15,500.00	89.91	359.99	12,824.66	3,130.61	-262.45	3,136.16	0.00	0.00	0.00
15,600.00	89.91	359.99	12,824.81	3,230.61	-262.47	3,236.13	0.00	0.00	0.00
15,700.00	89.91	359.99	12,824.96	3,330.61	-262.49	3,336.10	0.00	0.00	0.00
15,800.00	89.91	359.99	12,825.11	3,430.61	-262.51	3,436.07	0.00	0.00	0.00
15,900.00	89.91	359.99	12,825.27	3,530.61	-262.52	3,536.04	0.00	0.00	0.00
16,000.00	89.91	359.99	12,825.42	3,630.61	-262.54	3,636.01	0.00	0.00	0.00
16,100.00	89.91	359.99	12,825.57	3,730.61	-262.56	3,735.98	0.00	0.00	0.00
16,200.00	89.91	359.99	12,825.72	3,830.61	-262.58	3,835.95	0.00	0.00	0.00
16,300.00	89.91	359.99	12,825.87	3,930.61	-262.59	3,935.92	0.00	0.00	0.00
16,400.00	89.91	359.99	12,826.02	4,030.61	-262.61	4,035.88	0.00	0.00	0.00
16,500.00	89.91	359.99	12,826.17	4,130.61	-262.63	4,135.85	0.00	0.00	0.00
16,600.00	89.91	359.99	12,826.32	4,230.61	-262.65	4,235.82	0.00	0.00	0.00
16,700.00	89.91	359.99	12,826.48	4,330.61	-262.66	4,335.79	0.00	0.00	0.00
16,800.00	89.91	359.99	12,826.63	4,430.61	-262.68	4,435.76	0.00	0.00	0.00
16,900.00	89.91	359.99	12,826.78	4,530.61	-262.70	4,535.73	0.00	0.00	0.00
17,000.00	89.91	359.99	12,826.93	4,630.61	-262.72	4,635.70	0.00	0.00	0.00
17,100.00	89.91	359.99	12,827.08	4,730.61	-262.73	4,735.67	0.00	0.00	0.00
17,200.00	89.91	359.99	12,827.23	4,830.61	-262.75	4,835.64	0.00	0.00	0.00
17,300.00	89.91	359.99	12,827.38	4,930.61	-262.77	4,935.61	0.00	0.00	0.00
17,400.00	89.91	359.99	12,827.53	5,030.61	-262.79	5,035.58	0.00	0.00	0.00
17,500.00	89.91	359.99	12,827.69	5,130.61	-262.80	5,135.55	0.00	0.00	0.00
17,600.00	89.91	359.99	12,827.84	5,230.61	-262.82	5,235.52	0.00	0.00	0.00
17,700.00	89.91	359.99	12,827.99	5,330.61	-262.84	5,335.49	0.00	0.00	0.00
17,800.00	89.91	359.99	12,828.14	5,430.61	-262.86	5,435.46	0.00	0.00	0.00
17,900.00	89.91	359.99	12,828.29	5,530.61	-262.88	5,535.43	0.00	0.00	0.00
18,000.00	89.91	359.99	12,828.44	5,630.61	-262.89	5,635.40	0.00	0.00	0.00
18,100.00	89.91	359.99	12,828.59	5,730.61	-262.91	5,735.37	0.00	0.00	0.00
18,200.00	89.91	359.99	12,828.74	5,830.61	-262.93	5,835.34	0.00	0.00	0.00
18,300.00	89.91	359.99	12,828.89	5,930.61	-262.95	5,935.31	0.00	0.00	0.00
18,400.00	89.91	359.99	12,829.05	6,030.61	-262.96	6,035.28	0.00	0.00	0.00
18,500.00	89.91	359.99	12,829.20	6,130.61	-262.98	6,135.25	0.00	0.00	0.00
18,600.00	89.91	359.99	12,829.35	6,230.61	-263.00	6,235.21	0.00	0.00	0.00
18,700.00	89.91	359.99	12,829.50	6,330.61	-263.02	6,335.18	0.00	0.00	0.00
18,800.00	89.91	359.99	12,829.65	6,430.61	-263.03	6,435.15	0.00	0.00	0.00
18,900.00	89.91	359.99	12,829.80	6,530.61	-263.05	6,535.12	0.00	0.00	0.00
19,000.00	89.91	359.99	12,829.95	6,630.61	-263.07	6,635.09	0.00	0.00	0.00

Devon Energy

Planning Report

Database:	EDM r5000 US Production	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3390.70ft
Project:	PBNM	MD Reference:	1 @ 3390.70ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,100.00	89.91	359.99	12,830.10	6,730.61	-263.09	6,735.06	0.00	0.00	0.00
19,200.00	89.91	359.99	12,830.26	6,830.61	-263.10	6,835.03	0.00	0.00	0.00
19,300.00	89.91	359.99	12,830.41	6,930.61	-263.12	6,935.00	0.00	0.00	0.00
19,400.00	89.91	359.99	12,830.56	7,030.61	-263.14	7,034.97	0.00	0.00	0.00
19,500.00	89.91	359.99	12,830.71	7,130.61	-263.16	7,134.94	0.00	0.00	0.00
19,600.00	89.91	359.99	12,830.86	7,230.61	-263.17	7,234.91	0.00	0.00	0.00
19,700.00	89.91	359.99	12,831.01	7,330.61	-263.19	7,334.88	0.00	0.00	0.00
19,800.00	89.91	359.99	12,831.16	7,430.61	-263.21	7,434.85	0.00	0.00	0.00
19,900.00	89.91	359.99	12,831.31	7,530.61	-263.23	7,534.82	0.00	0.00	0.00
20,000.00	89.91	359.99	12,831.46	7,630.61	-263.24	7,634.79	0.00	0.00	0.00
20,100.00	89.91	359.99	12,831.62	7,730.61	-263.26	7,734.76	0.00	0.00	0.00
20,200.00	89.91	359.99	12,831.77	7,830.61	-263.28	7,834.73	0.00	0.00	0.00
20,300.00	89.91	359.99	12,831.92	7,930.61	-263.30	7,934.70	0.00	0.00	0.00
20,400.00	89.91	359.99	12,832.07	8,030.61	-263.31	8,034.67	0.00	0.00	0.00
20,500.00	89.91	359.99	12,832.22	8,130.61	-263.33	8,134.64	0.00	0.00	0.00
20,600.00	89.91	359.99	12,832.37	8,230.61	-263.35	8,234.61	0.00	0.00	0.00
20,700.00	89.91	359.99	12,832.52	8,330.61	-263.37	8,334.58	0.00	0.00	0.00
20,800.00	89.91	359.99	12,832.67	8,430.61	-263.38	8,434.55	0.00	0.00	0.00
20,900.00	89.91	359.99	12,832.83	8,530.61	-263.40	8,534.51	0.00	0.00	0.00
21,000.00	89.91	359.99	12,832.98	8,630.61	-263.42	8,634.48	0.00	0.00	0.00
21,100.00	89.91	359.99	12,833.13	8,730.61	-263.44	8,734.45	0.00	0.00	0.00
21,200.00	89.91	359.99	12,833.28	8,830.61	-263.45	8,834.42	0.00	0.00	0.00
21,300.00	89.91	359.99	12,833.43	8,930.61	-263.47	8,934.39	0.00	0.00	0.00
21,400.00	89.91	359.99	12,833.58	9,030.61	-263.49	9,034.36	0.00	0.00	0.00
21,500.00	89.91	359.99	12,833.73	9,130.60	-263.51	9,134.33	0.00	0.00	0.00
21,600.00	89.91	359.99	12,833.88	9,230.60	-263.52	9,234.30	0.00	0.00	0.00
21,700.00	89.91	359.99	12,834.04	9,330.60	-263.54	9,334.27	0.00	0.00	0.00
21,800.00	89.91	359.99	12,834.19	9,430.60	-263.56	9,434.24	0.00	0.00	0.00
21,900.00	89.91	359.99	12,834.34	9,530.60	-263.58	9,534.21	0.00	0.00	0.00
22,000.00	89.91	359.99	12,834.49	9,630.60	-263.60	9,634.18	0.00	0.00	0.00
22,100.00	89.91	359.99	12,834.64	9,730.60	-263.61	9,734.15	0.00	0.00	0.00
22,200.00	89.91	359.99	12,834.79	9,830.60	-263.63	9,834.12	0.00	0.00	0.00
22,300.00	89.91	359.99	12,834.94	9,930.60	-263.65	9,934.09	0.00	0.00	0.00
22,400.00	89.91	359.99	12,835.09	10,030.60	-263.67	10,034.06	0.00	0.00	0.00
22,500.00	89.91	359.99	12,835.24	10,130.60	-263.68	10,134.03	0.00	0.00	0.00
22,600.00	89.91	359.99	12,835.40	10,230.60	-263.70	10,234.00	0.00	0.00	0.00
22,700.00	89.91	359.99	12,835.55	10,330.60	-263.72	10,333.97	0.00	0.00	0.00
22,800.00	89.91	359.99	12,835.70	10,430.60	-263.74	10,433.94	0.00	0.00	0.00
22,900.00	89.91	359.99	12,835.85	10,530.60	-263.75	10,533.91	0.00	0.00	0.00
22,965.36	89.91	359.99	12,835.95	10,595.96	-263.76	10,599.25	0.00	0.00	0.00
22,999.10	89.91	359.99	12,836.00	10,629.70	-263.77	10,632.97	0.01	-0.01	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Jayhawk 7-6 Fed 85H B	0.00	0.00	12,836.00	10,629.70	-263.77	393,398.73	798,014.71	32.078823	-103.504614
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Devon Energy
Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	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:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Combined Covariances
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

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 8/29/2016	
From (ft)	To (ft)	Survey (Wellbore)
0.00	22,999.10	Plan 1 (Wellbore #1)
		Tool Name
		MWD
		Description
		MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Dzurisin						
Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1	1,966.33	1,967.33	58.30	52.25	9.628 CC	
Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1	2,000.00	2,000.99	58.30	52.14	9.461 ES	
Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1	2,300.00	2,299.18	62.66	55.60	8.868 SF	
Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1	3,000.00	3,000.40	50.02	40.68	5.355 CC, ES	
Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1	3,100.00	3,100.39	50.65	40.99	5.245 SF	
Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1	1,966.50	1,967.00	58.29	52.24	9.627 CC	
Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1	2,000.00	2,000.50	58.29	52.13	9.460 ES	
Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1	2,300.00	2,298.64	62.73	55.67	8.879 SF	
Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1	1,966.53	1,966.93	30.04	23.99	4.961 CC	
Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1	2,000.00	2,000.40	30.04	23.88	4.875 ES	
Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1	22,999.10	22,944.98	903.81	627.21	3.268 SF	
Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1	2,000.00	1,999.90	29.95	23.79	4.862 CC, ES	
Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1	22,999.10	23,028.45	903.88	628.11	3.278 SF	

Offset Design												
Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1												
Survey Program: 0-MWD												
Reference	Offset	Semi Major Axis		Distance				Minimum Separation	Separation Factor	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)				
0.00	0.00	1.00	1.00	0.00	0.00	-149.47	58.30					
100.00	100.00	101.00	101.00	0.09	0.09	-149.47	58.30	58.18	0.12	473.312	0	
200.00	200.00	201.00	201.00	0.31	0.31	-149.47	58.30	57.86	0.44	132.196	0	
300.00	300.00	301.00	301.00	0.54	0.54	-149.47	58.30	57.55	0.76	76.827	0	
400.00	400.00	401.00	401.00	0.76	0.76	-149.47	58.30	57.23	1.08	54.147	0	
500.00	500.00	501.00	501.00	0.99	0.99	-149.47	58.30	56.91	1.39	41.806	0	
600.00	600.00	601.00	601.00	1.21	1.21	-149.47	58.30	56.59	1.71	34.046	0	
700.00	700.00	701.00	701.00	1.43	1.44	-149.47	58.30	56.27	2.03	28.716	0	
800.00	800.00	801.00	801.00	1.66	1.66	-149.47	58.30	55.96	2.35	24.829	0	
900.00	900.00	901.00	901.00	1.88	1.89	-149.47	58.30	55.64	2.67	21.869	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 84H - 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	
1,000.00	1,000.00	1,001.00	1,001.00	2.11	2.11	-149.47	58.30	55.32	2.98	19.539	0			
1,100.00	1,100.00	1,101.00	1,101.00	2.33	2.34	-149.47	58.30	55.00	3.30	17.658	0			
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.56	-149.47	58.30	54.68	3.62	16.107	0			
1,300.00	1,300.00	1,301.00	1,301.00	2.78	2.79	-149.47	58.30	54.37	3.94	14.807	0			
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.01	-149.47	58.30	54.05	4.26	13.701	0			
1,500.00	1,500.00	1,501.00	1,501.00	3.23	3.23	-149.47	58.30	53.73	4.57	12.749	0			
1,600.00	1,600.00	1,601.00	1,601.00	3.46	3.46	-149.47	58.30	53.41	4.89	11.920	0			
1,700.00	1,700.00	1,701.00	1,701.00	3.68	3.68	-149.47	58.30	53.10	5.21	11.193	0			
1,800.00	1,800.00	1,801.00	1,801.00	3.91	3.91	-149.47	58.30	52.78	5.53	10.549	0			
1,900.00	1,900.00	1,901.00	1,901.00	4.13	4.13	-149.47	58.30	52.46	5.84	9.975	0			
1,966.33	1,966.33	1,967.33	1,967.33	4.28	4.28	-149.47	58.30	52.25	6.06	9.628	0		CC	
2,000.00	2,000.00	2,000.99	2,000.99	4.36	4.36	-149.47	58.30	52.14	6.16	9.461	0		ES	
2,100.00	2,100.00	2,100.47	2,100.47	4.58	4.57	-148.73	58.76	52.29	6.47	9.083	0		SF	
2,200.00	2,200.00	2,200.00	2,199.96	4.81	4.77	-146.60	60.16	53.39	6.77	8.889	0			
2,300.00	2,300.00	2,299.18	2,299.04	5.03	4.97	-143.30	62.66	55.60	7.07	8.868	0			
2,400.00	2,400.00	2,398.29	2,397.97	5.26	5.17	-139.13	66.48	59.12	7.37	9.025	0			
2,500.00	2,500.00	2,497.17	2,496.55	5.48	5.39	-134.46	71.84	64.17	7.67	9.372	0			
2,600.00	2,600.00	2,596.77	2,595.76	5.71	5.61	-130.00	78.31	70.34	7.97	9.825	0			
2,700.00	2,700.00	2,696.39	2,695.00	5.93	5.83	-126.23	85.18	76.90	8.28	10.291	0			
2,800.00	2,800.00	2,796.00	2,794.24	6.15	6.06	-123.04	92.36	83.78	8.58	10.760	0			
2,900.00	2,900.00	2,895.62	2,893.48	6.38	6.29	-120.31	99.79	90.90	8.89	11.222	0			
3,000.00	3,000.00	2,995.24	2,992.72	6.60	6.53	-117.97	107.41	98.21	9.20	11.674	0			
3,100.00	3,099.99	3,094.91	3,092.01	6.82	6.77	-71.27	114.91	105.40	9.51	12.085	0			
3,200.00	3,199.96	3,194.66	3,191.38	7.04	7.01	-70.56	121.89	112.08	9.82	12.419	0			
3,300.00	3,299.86	3,294.45	3,290.79	7.26	7.25	-70.65	128.31	118.18	10.12	12.673	0			
3,400.00	3,399.68	3,394.26	3,390.22	7.48	7.50	-71.44	134.16	123.72	10.44	12.853	0			
3,500.00	3,499.37	3,494.05	3,489.64	7.71	7.74	-72.85	139.52	128.76	10.76	12.970	0			
3,600.00	3,598.99	3,593.83	3,589.03	7.93	7.99	-74.53	144.72	133.64	11.08	13.061	0			
3,700.00	3,698.60	3,693.61	3,688.43	8.16	8.24	-76.09	150.04	138.64	11.41	13.153	0			
3,800.00	3,798.22	3,793.39	3,787.83	8.39	8.50	-77.55	155.47	143.73	11.74	13.245	0			
3,900.00	3,897.84	3,893.16	3,887.23	8.63	8.75	-78.90	160.99	148.91	12.07	13.336	0			
4,000.00	3,997.46	3,992.94	3,986.62	8.87	9.01	-80.17	166.59	154.18	12.41	13.425	0			
4,100.00	4,097.08	4,092.72	4,086.02	9.10	9.26	-81.35	172.27	159.52	12.75	13.513	0			
4,200.00	4,196.70	4,192.50	4,185.42	9.34	9.52	-82.46	178.01	164.92	13.09	13.599	0			
4,300.00	4,296.32	4,292.27	4,284.82	9.59	9.78	-83.49	183.82	170.39	13.43	13.683	0			
4,400.00	4,395.94	4,392.05	4,384.22	9.83	10.03	-84.47	189.69	175.91	13.78	13.765	0			
4,500.00	4,495.56	4,491.83	4,483.61	10.08	10.29	-85.38	195.60	181.48	14.13	13.845	0			
4,600.00	4,495.18	4,491.61	4,483.01	10.32	10.55	-86.24	201.57	187.09	14.48	13.922	0			
4,700.00	4,494.80	4,491.38	4,482.41	10.57	10.82	-87.06	207.57	192.74	14.83	13.997	0			
4,800.00	4,494.42	4,491.16	4,481.81	10.82	11.08	-87.82	213.62	198.44	15.18	14.070	0			
4,900.00	4,494.04	4,490.94	4,481.21	11.07	11.34	-88.54	219.70	204.16	15.54	14.140	0			
5,000.00	4,993.66	4,990.72	4,980.60	11.32	11.60	-89.23	225.82	209.92	15.89	14.208	0			
5,100.00	5,093.28	5,090.49	5,080.00	11.57	11.87	-89.88	231.96	215.71	16.25	14.274	0			
5,200.00	5,192.90	5,190.27	5,179.40	11.82	12.13	-90.49	238.13	221.53	16.61	14.338	0			
5,300.00	5,292.52	5,290.05	5,278.80	12.08	12.39	-91.08	244.33	227.37	16.97	14.400	0			
5,400.00	5,392.14	5,389.83	5,378.19	12.33	12.66	-91.63	250.56	233.23	17.33	14.460	0			
5,500.00	5,491.76	5,489.60	5,477.59	12.59	12.92	-92.16	256.80	239.11	17.69	14.518	0			
5,600.00	5,591.37	5,589.38	5,576.99	12.84	13.19	-92.66	263.07	245.02	18.05	14.574	0			
5,700.00	5,690.99	5,689.16	5,676.39	13.10	13.45	-93.14	269.35	250.94	18.41	14.628	0			
5,800.00	5,790.61	5,788.94	5,775.79	13.36	13.72	-93.60	275.66	256.88	18.78	14.681	0			
5,900.00	5,890.23	5,888.71	5,875.18	13.62	13.99	-94.04	281.98	262.84	19.14	14.732	0			
6,000.00	5,989.85	5,988.49	5,974.58	13.87	14.25	-94.45	288.31	268.81	19.51	14.781	0			
6,100.00	6,089.47	6,088.27	6,073.98	14.13	14.52	-94.85	294.66	274.79	19.87	14.829	0			
6,200.00	6,189.09	6,188.05	6,173.38	14.39	14.79	-95.24	301.03	280.79	20.24	14.876	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 84H - 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	
6,300.00	6,288.71	6,287.82	6,272.78	14.65	15.06	-95.60	307.40	286.80	20.60	14.921	0			
6,400.00	6,388.33	6,387.60	6,372.17	14.91	15.32	-95.96	313.79	292.82	20.97	14.964	0			
6,500.00	6,487.95	6,487.38	6,471.57	15.17	15.59	-96.29	320.19	298.85	21.34	15.007	0			
6,600.00	6,587.57	6,587.16	6,570.97	15.43	15.86	-96.62	326.60	304.90	21.70	15.048	0			
6,700.00	6,687.19	6,686.93	6,670.37	15.70	16.13	-96.93	333.02	310.95	22.07	15.088	0			
6,800.00	6,786.81	6,786.71	6,769.76	15.96	16.40	-97.23	339.45	317.01	22.44	15.126	0			
6,900.00	6,886.43	6,886.49	6,869.16	16.22	16.66	-97.52	345.89	323.08	22.81	15.164	0			
7,000.00	6,986.05	6,986.27	6,968.56	16.48	16.93	-97.80	352.34	329.16	23.18	15.201	0			
7,100.00	7,085.70	7,086.05	7,067.97	16.72	17.20	-98.03	358.74	335.21	23.53	15.249	0			
7,200.00	7,185.43	7,185.86	7,167.39	16.92	17.47	-98.12	365.01	341.16	23.85	15.306	0			
7,300.00	7,285.21	7,285.66	7,266.82	17.11	17.74	-98.07	371.16	347.00	24.17	15.359	0			
7,400.00	7,385.05	7,385.47	7,366.25	17.31	18.01	-97.89	377.20	352.72	24.48	15.409	0			
7,500.00	7,484.94	7,485.27	7,465.67	17.50	18.28	-97.59	383.12	358.33	24.79	15.456	0			
7,600.00	7,584.86	7,585.06	7,565.07	17.69	18.55	-97.17	388.95	363.86	25.09	15.502	0			
7,700.00	7,684.81	7,684.82	7,664.45	17.87	18.82	-96.64	394.69	369.31	25.39	15.546	0			
7,800.00	7,784.79	7,784.55	7,763.80	18.05	19.09	-96.00	400.39	374.71	25.68	15.591	0			
7,900.00	7,884.78	7,884.24	7,863.12	18.23	19.36	-95.26	406.05	380.08	25.97	15.637	0			
8,000.00	7,984.78	7,983.88	7,962.38	18.40	19.63	-139.41	411.72	385.47	26.25	15.686	0			
8,100.00	8,084.78	8,083.50	8,061.62	18.59	19.90	-138.51	417.46	390.92	26.54	15.731	0			
8,200.00	8,184.78	8,183.12	8,160.86	18.80	20.17	-137.63	423.29	396.45	26.84	15.771	0			
8,300.00	8,284.78	8,282.74	8,260.10	19.01	20.44	-136.77	429.23	402.08	27.14	15.814	0			
8,400.00	8,384.78	8,382.36	8,359.34	19.22	20.71	-135.93	435.25	407.81	27.44	15.859	0			
8,500.00	8,484.78	8,481.98	8,458.58	19.43	20.98	-135.12	441.37	413.63	27.75	15.907	0			
8,600.00	8,584.78	8,581.60	8,557.82	19.64	21.25	-134.33	447.58	419.53	28.05	15.957	0			
8,700.00	8,684.78	8,681.22	8,657.06	19.85	21.52	-133.57	453.86	425.51	28.35	16.009	0			
8,800.00	8,784.78	8,780.84	8,756.30	20.06	21.79	-132.82	460.23	431.58	28.65	16.063	0			
8,900.00	8,884.78	8,880.46	8,855.55	20.27	22.06	-132.09	466.67	437.72	28.95	16.118	0			
9,000.00	8,984.78	8,980.08	8,954.79	20.48	22.33	-131.39	473.18	443.93	29.26	16.174	0			
9,100.00	9,084.78	9,079.70	9,054.03	20.69	22.60	-130.70	479.77	450.21	29.56	16.232	0			
9,200.00	9,184.78	9,179.32	9,153.27	20.90	22.88	-130.03	486.42	456.56	29.86	16.291	0			
9,300.00	9,284.78	9,278.94	9,252.51	21.11	23.15	-129.38	493.14	462.97	30.16	16.350	0			
9,400.00	9,384.78	9,378.56	9,351.75	21.32	23.42	-128.75	499.91	469.45	30.46	16.410	0			
9,500.00	9,484.78	9,478.18	9,450.99	21.54	23.69	-128.13	506.75	475.98	30.77	16.471	0			
9,600.00	9,584.78	9,577.80	9,550.23	21.75	23.96	-127.53	513.64	482.57	31.07	16.533	0			
9,700.00	9,684.78	9,677.42	9,649.47	21.96	24.23	-126.95	520.59	489.22	31.37	16.594	0			
9,800.00	9,784.78	9,777.03	9,748.71	22.17	24.50	-126.38	527.59	495.92	31.67	16.657	0			
9,900.00	9,884.78	9,876.65	9,847.95	22.39	24.77	-125.83	534.64	502.66	31.98	16.719	0			
10,000.00	9,984.78	9,976.27	9,947.19	22.60	25.05	-125.29	541.74	509.46	32.28	16.782	0			
10,100.00	10,084.78	10,075.89	10,046.43	22.82	25.32	-124.76	548.89	516.30	32.59	16.845	0			
10,200.00	10,184.78	10,175.51	10,145.67	23.03	25.59	-124.25	556.08	523.19	32.89	16.908	0			
10,300.00	10,284.78	10,275.13	10,244.91	23.24	25.86	-123.75	563.31	530.12	33.19	16.970	0			
10,400.00	10,384.78	10,374.75	10,344.15	23.46	26.13	-123.27	570.59	537.09	33.50	17.033	0			
10,500.00	10,484.78	10,474.37	10,443.39	23.67	26.40	-122.80	577.90	544.10	33.80	17.096	0			
10,600.00	10,584.78	10,573.99	10,542.63	23.89	26.67	-122.33	585.26	551.15	34.11	17.158	0			
10,700.00	10,684.78	10,673.61	10,641.87	24.10	26.95	-121.88	592.65	558.23	34.41	17.221	0			
10,800.00	10,784.78	10,773.23	10,741.11	24.32	27.22	-121.44	600.07	565.35	34.72	17.283	0			
10,900.00	10,884.78	10,872.85	10,840.35	24.53	27.49	-121.02	607.53	572.51	35.03	17.345	0			
11,000.00	10,984.78	10,972.47	10,939.59	24.75	27.76	-120.60	615.03	579.69	35.33	17.407	0			
11,100.00	11,084.78	11,072.09	11,038.83	24.96	28.03	-120.19	622.55	586.91	35.64	17.468	0			
11,200.00	11,184.78	11,171.71	11,138.07	25.18	28.30	-119.79	630.11	594.16	35.95	17.529	0			
11,300.00	11,284.78	11,271.33	11,237.31	25.39	28.58	-119.40	637.69	601.44	36.25	17.590	0			
11,400.00	11,384.78	11,370.95	11,336.56	25.61	28.85	-119.02	645.31	608.75	36.56	17.650	0			
11,500.00	11,484.78	11,470.57	11,435.80	25.83	29.12	-118.65	652.95	616.08	36.87	17.710	0			
11,600.00	11,584.78	11,570.19	11,535.04	26.04	29.39	-118.29	660.62	623.44	37.18	17.769	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error: 0.00 ft	
Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1													Offset Well Error: 0.00 ft	
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance							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	Riskd Separation Factor	Probability of Collision		
11,700.00	11,684.78	11,669.80	11,634.28	26.26	29.66	-117.94	668.31	630.82	37.49	17.828	0			
11,800.00	11,784.78	11,769.42	11,733.52	26.48	29.94	-117.59	676.03	638.23	37.79	17.887	0			
11,900.00	11,884.78	11,869.04	11,832.76	26.69	30.21	-117.25	683.77	645.67	38.10	17.945	0			
12,000.00	11,984.78	11,968.66	11,932.00	26.91	30.48	-116.92	691.54	653.12	38.41	18.003	0			
12,100.00	12,084.78	12,068.28	12,031.24	27.13	30.75	-116.60	699.33	660.60	38.72	18.060	0			
12,200.00	12,184.78	12,167.90	12,130.48	27.34	31.03	-116.28	707.14	668.10	39.03	18.117	0			
12,300.00	12,284.78	12,267.52	12,229.72	27.56	31.30	-115.97	714.97	675.62	39.34	18.173	0			
12,358.80	12,343.58	12,326.10	12,288.07	27.69	31.46	-115.80	719.58	680.06	39.52	18.206	0			
12,375.00	12,359.78	12,342.23	12,304.15	27.72	31.50	-115.61	720.97	681.40	39.58	18.217	0			
12,400.00	12,384.73	12,364.80	12,326.63	27.78	31.56	-115.35	723.59	683.93	39.66	18.247	0			
12,425.00	12,409.57	12,380.99	12,342.75	27.84	31.60	-115.08	726.95	687.23	39.72	18.302	0			
12,450.00	12,434.23	12,400.00	12,361.66	27.91	31.65	-114.86	731.24	691.44	39.80	18.374	0			
12,475.00	12,458.63	12,409.61	12,371.20	27.98	31.67	-114.47	736.37	696.52	39.85	18.479	0			
12,500.00	12,482.73	12,425.00	12,386.44	28.05	31.71	-114.16	742.42	702.49	39.93	18.595	0			
12,525.00	12,506.44	12,436.10	12,397.39	28.12	31.74	-113.70	749.35	709.37	39.99	18.739	0			
12,550.00	12,529.71	12,450.00	12,411.05	28.20	31.77	-113.27	757.20	717.13	40.07	18.897	0			
12,575.00	12,552.47	12,459.73	12,420.57	28.28	31.79	-112.64	765.92	725.79	40.14	19.083	0			
12,600.00	12,574.65	12,475.00	12,435.43	28.36	31.83	-112.17	775.57	735.34	40.23	19.277	0			
12,625.00	12,596.20	12,475.00	12,435.43	28.44	31.83	-110.88	786.08	745.82	40.26	19.525	0			
12,650.00	12,617.06	12,488.94	12,448.90	28.53	31.87	-110.18	797.41	757.04	40.36	19.756	0			
12,675.00	12,637.17	12,500.00	12,459.51	28.63	31.89	-109.25	809.62	769.16	40.46	20.012	0			
12,700.00	12,656.47	12,500.00	12,459.51	28.72	31.89	-107.51	822.63	782.14	40.49	20.315	0			
12,725.00	12,674.92	12,510.31	12,469.34	28.82	31.92	-106.29	836.39	795.79	40.60	20.603	0			
12,750.00	12,692.46	12,515.75	12,474.50	28.93	31.93	-104.61	850.89	810.22	40.68	20.919	0			
12,775.00	12,709.04	12,525.00	12,483.23	29.04	31.95	-103.06	866.10	825.32	40.78	21.236	0			
12,800.00	12,724.62	12,525.00	12,483.23	29.16	31.95	-100.67	881.88	841.04	40.84	21.592	0			
12,825.00	12,739.15	12,525.00	12,483.23	29.28	31.95	-98.11	898.27	857.36	40.91	21.958	0			
12,850.00	12,752.61	12,525.00	12,483.23	29.41	31.95	-95.37	915.17	874.20	40.98	22.333	0			
12,875.00	12,764.94	12,525.00	12,483.23	29.54	31.95	-92.48	932.53	891.48	41.05	22.715	0			
12,900.00	12,776.11	12,532.85	12,490.59	29.68	31.97	-90.14	950.19	909.01	41.18	23.073	0			
12,925.00	12,786.10	12,533.44	12,491.14	29.82	31.97	-87.06	968.23	926.96	41.27	23.460	0			
12,950.00	12,794.88	12,533.48	12,491.18	29.97	31.97	-83.85	986.53	945.17	41.36	23.851	0			
12,975.00	12,802.42	12,533.01	12,490.74	30.13	31.97	-80.55	1,005.02	963.57	41.46	24.244	0			
13,000.00	12,808.70	12,525.00	12,483.23	30.29	31.95	-76.60	1,023.71	982.20	41.51	24.665	0			
13,025.00	12,813.71	12,525.00	12,483.23	30.46	31.95	-73.34	1,042.39	1,000.78	41.61	25.052	0			
13,050.00	12,817.43	12,525.00	12,483.23	30.63	31.95	-70.13	1,061.08	1,019.36	41.72	25.436	0			
13,075.00	12,819.85	12,525.00	12,483.23	30.81	31.95	-67.00	1,079.73	1,037.91	41.83	25.815	0			
13,100.00	12,820.96	12,525.00	12,483.23	30.99	31.95	-63.97	1,098.31	1,056.37	41.94	26.189	0			
13,108.05	12,821.04	12,525.00	12,483.23	31.05	31.95	-63.02	1,104.26	1,062.29	41.97	26.309	0			
13,141.79	12,821.10	12,525.00	12,483.23	31.30	31.95	-63.02	1,129.42	1,087.29	42.12	26.812	0			
13,200.00	12,821.18	12,513.14	12,472.03	31.76	31.92	-62.22	1,173.66	1,131.35	42.31	27.742	0			
13,300.00	12,821.33	12,500.00	12,459.51	32.61	31.89	-61.34	1,252.22	1,209.59	42.63	29.377	0			
13,400.00	12,821.49	12,500.00	12,459.51	33.55	31.89	-61.34	1,333.45	1,290.49	42.97	31.035	0			
13,500.00	12,821.64	12,487.76	12,447.76	34.55	31.86	-60.52	1,416.90	1,373.70	43.21	32.793	0			
13,600.00	12,821.79	12,475.00	12,435.43	35.62	31.83	-59.68	1,502.33	1,458.92	43.42	34.604	0			
13,700.00	12,821.94	12,475.00	12,435.43	36.75	31.83	-59.68	1,589.27	1,545.63	43.65	36.411	0			
13,800.00	12,822.09	12,475.00	12,435.43	37.94	31.83	-59.68	1,677.67	1,633.82	43.85	38.258	0			
13,900.00	12,822.24	12,464.80	12,425.52	39.17	31.81	-59.00	1,767.18	1,723.18	44.00	40.167	0			
14,000.00	12,822.39	12,460.33	12,421.16	40.45	31.80	-58.71	1,857.73	1,813.59	44.14	42.085	0			
14,100.00	12,822.54	12,450.00	12,411.05	41.76	31.77	-58.04	1,949.22	1,904.96	44.25	44.046	0			
14,200.00	12,822.70	12,450.00	12,411.05	43.12	31.77	-58.04	2,041.38	1,996.99	44.39	45.992	0			
14,300.00	12,822.85	12,450.00	12,411.05	44.51	31.77	-58.04	2,134.25	2,089.74	44.51	47.955	0			
14,400.00	12,823.00	12,450.00	12,411.05	45.93	31.77	-58.04	2,227.74	2,183.12	44.61	49.934	0			
14,500.00	12,823.15	12,450.00	12,411.05	47.38	31.77	-58.04	2,321.76	2,277.05	44.71	51.926	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error: 0.00 ft	
Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1													Offset Well Error: 0.00 ft	
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance							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	Risked Separation Factor	Probability of Collision		
14,600.00	12,823.30	12,450.00	12,411.05	48.85	31.77	-58.04	2,416.27	2,371.47	44.80	53.929	0			
14,700.00	12,823.45	12,437.55	12,398.82	50.34	31.74	-57.23	2,511.02	2,466.16	44.86	55.978	0			
14,800.00	12,823.60	12,425.00	12,386.44	51.86	31.71	-56.43	2,606.38	2,561.47	44.90	58.043	0			
14,900.00	12,823.75	12,425.00	12,386.44	53.40	31.71	-56.43	2,701.90	2,656.91	44.98	60.068	0			
15,000.00	12,823.91	12,425.00	12,386.44	54.95	31.71	-56.43	2,797.73	2,752.67	45.05	62.100	0			
15,100.00	12,824.06	12,425.00	12,386.44	56.52	31.71	-56.43	2,893.84	2,848.72	45.12	64.138	0			
15,200.00	12,824.21	12,425.00	12,386.44	58.11	31.71	-56.43	2,990.21	2,945.02	45.18	66.180	0			
15,300.00	12,824.36	12,425.00	12,386.44	59.70	31.71	-56.43	3,086.81	3,041.56	45.24	68.226	0			
15,400.00	12,824.51	12,425.00	12,386.44	61.31	31.71	-56.43	3,183.62	3,138.31	45.30	70.275	0			
15,500.00	12,824.66	12,425.00	12,386.44	62.94	31.71	-56.43	3,280.62	3,235.26	45.36	72.326	0			
15,600.00	12,824.81	12,425.00	12,386.44	64.57	31.71	-56.43	3,377.79	3,332.38	45.41	74.379	0			
15,700.00	12,824.96	12,425.00	12,386.44	66.21	31.71	-56.43	3,475.13	3,429.66	45.47	76.434	0			
15,800.00	12,825.11	12,425.00	12,386.44	67.87	31.71	-56.43	3,572.61	3,527.09	45.52	78.489	0			
15,900.00	12,825.27	12,425.00	12,386.44	69.53	31.71	-56.43	3,670.23	3,624.66	45.57	80.545	0			
16,000.00	12,825.42	12,425.00	12,386.44	71.20	31.71	-56.43	3,767.97	3,722.35	45.62	82.601	0			
16,100.00	12,825.57	12,425.00	12,386.44	72.87	31.71	-56.43	3,865.83	3,820.17	45.66	84.657	0			
16,200.00	12,825.72	12,412.99	12,374.55	74.56	31.68	-55.67	3,963.63	3,917.94	45.69	86.753	0			
16,300.00	12,825.87	12,411.93	12,373.50	76.25	31.68	-55.60	4,061.66	4,015.93	45.73	88.810	0			
16,400.00	12,826.02	12,400.00	12,361.66	77.95	31.65	-54.86	4,159.93	4,114.17	45.76	90.911	0			
16,500.00	12,826.17	12,400.00	12,361.66	79.65	31.65	-54.86	4,258.11	4,212.31	45.80	92.962	0			
16,600.00	12,826.32	12,400.00	12,361.66	81.35	31.65	-54.86	4,356.38	4,310.53	45.85	95.012	0			
16,700.00	12,826.48	12,400.00	12,361.66	83.07	31.65	-54.86	4,454.73	4,408.83	45.90	97.059	0			
16,800.00	12,826.63	12,400.00	12,361.66	84.78	31.65	-54.86	4,553.15	4,507.20	45.94	99.105	0			
16,900.00	12,826.78	12,400.00	12,361.66	86.51	31.65	-54.86	4,651.63	4,605.65	45.99	101.148	0			
17,000.00	12,826.93	12,400.00	12,361.66	88.23	31.65	-54.86	4,750.18	4,704.15	46.03	103.188	0			
17,100.00	12,827.08	12,400.00	12,361.66	89.96	31.65	-54.86	4,848.79	4,802.71	46.08	105.226	0			
17,200.00	12,827.23	12,400.00	12,361.66	91.69	31.65	-54.86	4,947.46	4,901.33	46.13	107.261	0			
17,300.00	12,827.38	12,400.00	12,361.66	93.43	31.65	-54.86	5,046.17	5,000.00	46.17	109.293	0			
17,400.00	12,827.53	12,400.00	12,361.66	95.17	31.65	-54.86	5,144.94	5,098.72	46.22	111.322	0			
17,500.00	12,827.69	12,400.00	12,361.66	96.91	31.65	-54.86	5,243.75	5,197.49	46.26	113.347	0			
17,600.00	12,827.84	12,400.00	12,361.66	98.66	31.65	-54.86	5,342.61	5,296.30	46.31	115.369	0			
17,700.00	12,827.99	12,400.00	12,361.66	100.41	31.65	-54.86	5,441.51	5,395.15	46.36	117.387	0			
17,800.00	12,828.14	12,400.00	12,361.66	102.16	31.65	-54.86	5,540.45	5,494.05	46.40	119.401	0			
17,900.00	12,828.29	12,400.00	12,361.66	103.91	31.65	-54.86	5,639.43	5,592.98	46.45	121.411	0			
18,000.00	12,828.44	12,400.00	12,361.66	105.67	31.65	-54.86	5,738.44	5,691.94	46.50	123.417	0			
18,100.00	12,828.59	12,400.00	12,361.66	107.43	31.65	-54.86	5,837.48	5,790.94	46.54	125.419	0			
18,200.00	12,828.74	12,400.00	12,361.66	109.19	31.65	-54.86	5,936.56	5,889.97	46.59	127.417	0			
18,300.00	12,828.89	12,400.00	12,361.66	110.95	31.65	-54.86	6,035.67	5,989.03	46.64	129.411	0			
18,400.00	12,829.05	12,400.00	12,361.66	112.72	31.65	-54.86	6,134.80	6,088.12	46.69	131.399	0			
18,500.00	12,829.20	12,400.00	12,361.66	114.49	31.65	-54.86	6,233.97	6,187.23	46.74	133.384	0			
18,600.00	12,829.35	12,400.00	12,361.66	116.25	31.65	-54.86	6,333.16	6,286.37	46.79	135.363	0			
18,700.00	12,829.50	12,400.00	12,361.66	118.02	31.65	-54.86	6,432.38	6,385.54	46.84	137.338	0			
18,800.00	12,829.65	12,400.00	12,361.66	119.80	31.65	-54.86	6,531.62	6,484.73	46.89	139.307	0			
18,900.00	12,829.80	12,400.00	12,361.66	121.57	31.65	-54.86	6,630.88	6,583.94	46.94	141.272	0			
19,000.00	12,829.95	12,400.00	12,361.66	123.34	31.65	-54.86	6,730.16	6,683.17	46.99	143.232	0			
19,100.00	12,830.10	12,400.00	12,361.66	125.12	31.65	-54.86	6,829.47	6,782.43	47.04	145.186	0			
19,200.00	12,830.26	12,400.00	12,361.66	126.90	31.65	-54.86	6,928.79	6,881.70	47.09	147.135	0			
19,300.00	12,830.41	12,400.00	12,361.66	128.68	31.65	-54.86	7,028.14	6,980.99	47.14	149.079	0			
19,400.00	12,830.56	12,400.00	12,361.66	130.46	31.65	-54.86	7,127.50	7,080.30	47.20	151.018	0			
19,500.00	12,830.71	12,400.00	12,361.66	132.24	31.65	-54.86	7,226.88	7,179.63	47.25	152.950	0			
19,600.00	12,830.86	12,400.00	12,361.66	134.02	31.65	-54.86	7,326.28	7,278.97	47.30	154.878	0			
19,700.00	12,831.01	12,400.00	12,361.66	135.81	31.65	-54.86	7,425.69	7,378.33	47.36	156.800	0			
19,800.00	12,831.16	12,400.00	12,361.66	137.59	31.65	-54.86	7,525.12	7,477.71	47.41	158.716	0			
19,900.00	12,831.31	12,400.00	12,361.66	139.38	31.65	-54.86	7,624.56	7,577.10	47.47	160.626	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 84H - 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	
20,000.00	12,831.46	12,400.00	12,361.66	141.16	31.65	-54.86	7,724.02	7,676.50	47.52	162.530	0			
20,100.00	12,831.62	12,400.00	12,361.66	142.95	31.65	-54.86	7,823.49	7,775.91	47.58	164.429	0			
20,200.00	12,831.77	12,400.00	12,361.66	144.74	31.65	-54.86	7,922.98	7,875.34	47.64	166.321	0			
20,300.00	12,831.92	12,400.00	12,361.66	146.53	31.65	-54.86	8,022.48	7,974.78	47.69	168.208	0			
20,400.00	12,832.07	12,400.00	12,361.66	148.32	31.65	-54.86	8,121.99	8,074.24	47.75	170.088	0			
20,500.00	12,832.22	12,400.00	12,361.66	150.11	31.65	-54.86	8,221.51	8,173.70	47.81	171.962	0			
20,600.00	12,832.37	12,400.00	12,361.66	151.90	31.65	-54.86	8,321.04	8,273.17	47.87	173.830	0			
20,700.00	12,832.52	12,400.00	12,361.66	153.70	31.65	-54.86	8,420.59	8,372.66	47.93	175.692	0			
20,800.00	12,832.67	12,400.00	12,361.66	155.49	31.65	-54.86	8,520.14	8,472.16	47.99	177.548	0			
20,900.00	12,832.83	12,400.00	12,361.66	157.29	31.65	-54.86	8,619.71	8,571.66	48.05	179.397	0			
21,000.00	12,832.98	12,400.00	12,361.66	159.08	31.65	-54.86	8,719.29	8,671.18	48.11	181.239	0			
21,100.00	12,833.13	12,387.94	12,349.67	160.88	31.62	-54.12	8,818.71	8,770.56	48.15	183.139	0			
21,200.00	12,833.28	12,387.70	12,349.43	162.67	31.62	-54.10	8,918.30	8,870.08	48.21	184.971	0			
21,300.00	12,833.43	12,387.46	12,349.20	164.47	31.62	-54.09	9,017.90	8,969.62	48.26	186.796	0			
21,400.00	12,833.58	12,387.23	12,348.97	166.27	31.62	-54.07	9,117.50	9,069.16	48.34	188.614	0			
21,500.00	12,833.73	12,387.01	12,348.74	168.07	31.62	-54.06	9,217.12	9,168.71	48.40	190.425	0			
21,600.00	12,833.88	12,375.00	12,336.79	169.86	31.59	-53.33	9,316.89	9,268.44	48.45	192.301	0			
21,700.00	12,834.04	12,375.00	12,336.79	171.66	31.59	-53.33	9,416.52	9,368.00	48.51	194.098	0			
21,800.00	12,834.19	12,375.00	12,336.79	173.46	31.59	-53.33	9,516.15	9,467.57	48.58	195.888	0			
21,900.00	12,834.34	12,375.00	12,336.79	175.26	31.59	-53.33	9,615.79	9,567.14	48.65	197.672	0			
22,000.00	12,834.49	12,375.00	12,336.79	177.07	31.59	-53.33	9,715.44	9,666.73	48.71	199.449	0			
22,100.00	12,834.64	12,375.00	12,336.79	178.87	31.59	-53.33	9,815.09	9,766.31	48.78	201.219	0			
22,200.00	12,834.79	12,375.00	12,336.79	180.67	31.59	-53.33	9,914.75	9,865.91	48.85	202.983	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Fighting Okra 18-19 Fed 85H - 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							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	Riskd Separation Factor	Probability of Collision				
0.00	0.00	0.40	0.40	0.00	0.00	179.54	50.02					0				
100.00	100.00	100.40	100.40	0.09	0.09	179.54	50.02	49.90	0.12	409.270	0					
200.00	200.00	200.40	200.40	0.31	0.31	179.54	50.02	49.58	0.44	113.663	0					
300.00	300.00	300.40	300.40	0.54	0.54	179.54	50.02	49.26	0.76	65.996	0					
400.00	400.00	400.40	400.40	0.76	0.76	179.54	50.02	48.95	1.08	46.496	0					
500.00	500.00	500.40	500.40	0.99	0.99	179.54	50.02	48.63	1.39	35.892	0					
600.00	600.00	600.40	600.40	1.21	1.21	179.54	50.02	48.31	1.71	29.226	0					
700.00	700.00	700.40	700.40	1.43	1.44	179.54	50.02	47.99	2.03	24.648	0					
800.00	800.00	800.40	800.40	1.66	1.66	179.54	50.02	47.67	2.35	21.310	0					
900.00	900.00	900.40	900.40	1.88	1.89	179.54	50.02	47.36	2.67	18.769	0					
1,000.00	1,000.00	1,000.40	1,000.40	2.11	2.11	179.54	50.02	47.04	2.98	16.769	0					
1,100.00	1,100.00	1,100.40	1,100.40	2.33	2.33	179.54	50.02	46.72	3.30	15.154	0					
1,200.00	1,200.00	1,200.40	1,200.40	2.56	2.56	179.54	50.02	46.40	3.62	13.823	0					
1,300.00	1,300.00	1,300.40	1,300.40	2.78	2.78	179.54	50.02	46.09	3.94	12.707	0					
1,400.00	1,400.00	1,400.40	1,400.40	3.01	3.01	179.54	50.02	45.77	4.25	11.757	0					
1,500.00	1,500.00	1,500.40	1,500.40	3.23	3.23	179.54	50.02	45.45	4.57	10.940	0					
1,600.00	1,600.00	1,600.40	1,600.40	3.46	3.46	179.54	50.02	45.13	4.89	10.229	0					
1,700.00	1,700.00	1,700.40	1,700.40	3.68	3.68	179.54	50.02	44.81	5.21	9.605	0					
1,800.00	1,800.00	1,800.40	1,800.40	3.91	3.91	179.54	50.02	44.50	5.53	9.052	0					
1,900.00	1,900.00	1,900.40	1,900.40	4.13	4.13	179.54	50.02	44.18	5.84	8.560	0					
2,000.00	2,000.00	2,000.40	2,000.40	4.36	4.36	179.54	50.02	43.86	6.16	8.118	0					
2,100.00	2,100.00	2,100.40	2,100.40	4.58	4.58	179.54	50.02	43.54	6.48	7.720	0					
2,200.00	2,200.00	2,200.40	2,200.40	4.81	4.81	179.54	50.02	43.22	6.80	7.359	0					
2,300.00	2,300.00	2,300.40	2,300.40	5.03	5.03	179.54	50.02	42.91	7.12	7.030	0					
2,400.00	2,400.00	2,400.40	2,400.40	5.26	5.26	179.54	50.02	42.59	7.43	6.730	0					
2,500.00	2,500.00	2,500.40	2,500.40	5.48	5.48	179.54	50.02	42.27	7.75	6.454	0					
2,600.00	2,600.00	2,600.40	2,600.40	5.71	5.71	179.54	50.02	41.95	8.07	6.199	0					
2,700.00	2,700.00	2,700.40	2,700.40	5.93	5.93	179.54	50.02	41.63	8.39	5.964	0					
2,800.00	2,800.00	2,800.40	2,800.40	6.15	6.16	179.54	50.02	41.32	8.70	5.747	0					
2,900.00	2,900.00	2,900.40	2,900.40	6.38	6.38	179.54	50.02	41.00	9.02	5.544	0					
3,000.00	3,000.00	3,000.40	3,000.40	6.60	6.61	179.54	50.02	40.68	9.34	5.355	0			CC, ES		
3,100.00	3,099.99	3,100.39	3,100.39	6.82	6.83	-136.15	50.65	40.99	9.66	5.245	0			SF		
3,200.00	3,199.96	3,200.36	3,200.36	7.04	7.05	-138.11	52.57	42.60	9.97	5.273	0					
3,300.00	3,299.86	3,300.26	3,300.26	7.26	7.28	-141.08	55.89	45.61	10.28	5.436	0					
3,400.00	3,399.68	3,400.08	3,400.08	7.48	7.50	-144.66	60.76	50.17	10.60	5.735	0					
3,500.00	3,499.37	3,499.77	3,499.77	7.71	7.73	-148.49	67.32	56.41	10.91	6.170	0					
3,600.00	3,598.99	3,599.39	3,599.39	7.93	7.95	-151.97	74.90	63.67	11.23	6.672	0					
3,700.00	3,698.60	3,699.00	3,699.00	8.16	8.18	-154.81	82.70	71.16	11.54	7.166	0					
3,800.00	3,798.22	3,798.62	3,798.62	8.39	8.40	-157.15	90.67	78.81	11.86	7.648	0					
3,900.00	3,897.84	3,898.24	3,898.24	8.63	8.62	-159.12	98.76	86.59	12.17	8.114	0					
4,000.00	3,997.46	3,997.86	3,997.86	8.87	8.85	-160.78	106.95	94.47	12.49	8.565	0					
4,100.00	4,097.08	4,097.48	4,097.48	9.10	9.07	-162.21	115.22	102.42	12.80	9.000	0					
4,200.00	4,196.70	4,197.10	4,197.10	9.34	9.29	-163.44	123.55	110.43	13.12	9.418	0					
4,300.00	4,296.32	4,296.72	4,296.72	9.59	9.52	-164.52	131.93	118.50	13.43	9.820	0					
4,400.00	4,395.94	4,396.34	4,396.34	9.83	9.74	-165.47	140.35	126.60	13.75	10.207	0					
4,500.00	4,495.56	4,495.96	4,495.96	10.08	9.97	-166.31	148.81	134.74	14.07	10.578	0					
4,600.00	4,595.18	4,595.58	4,595.58	10.32	10.19	-167.06	157.29	142.90	14.38	10.934	0					
4,700.00	4,694.80	4,695.20	4,695.20	10.57	10.41	-167.74	165.80	151.09	14.70	11.277	0					
4,800.00	4,794.42	4,794.82	4,794.82	10.82	10.64	-168.35	174.33	159.31	15.02	11.606	0					
4,900.00	4,894.04	4,894.44	4,894.44	11.07	10.86	-168.90	182.87	167.53	15.34	11.923	0					
5,000.00	4,993.66	4,994.06	4,994.06	11.32	11.09	-169.40	191.43	175.78	15.66	12.228	0					
5,100.00	5,093.28	5,093.68	5,093.68	11.57	11.31	-169.86	200.01	184.03	15.97	12.521	0					
5,200.00	5,192.90	5,193.30	5,193.30	11.82	11.53	-170.28	208.59	192.30	16.29	12.804	0					
5,300.00	5,292.52	5,292.92	5,292.92	12.08	11.76	-170.67	217.19	200.58	16.61	13.076	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design											Dzurisin - Fighting Okra 18-19 Fed 85H - 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									
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	Riskd Separation Factor	Probability of Collision	Warning		
5,400.00	5,392.14	5,392.54	5,392.54	12.33	11.98	-171.03	225.79	208.87	16.93	13.338	0				
5,500.00	5,491.76	5,492.16	5,492.16	12.59	12.21	-171.36	234.41	217.16	17.25	13.591	0				
5,600.00	5,591.37	5,591.77	5,591.77	12.84	12.43	-171.67	243.03	225.46	17.57	13.836	0				
5,700.00	5,690.99	5,691.39	5,691.39	13.10	12.65	-171.96	251.66	233.77	17.88	14.071	0				
5,800.00	5,790.61	5,791.01	5,791.01	13.36	12.88	-172.22	260.29	242.09	18.20	14.299	0				
5,900.00	5,890.23	5,890.63	5,890.63	13.62	13.10	-172.48	268.93	250.40	18.52	14.519	0				
6,000.00	5,989.85	5,990.25	5,990.25	13.87	13.33	-172.71	277.57	258.73	18.84	14.731	0				
6,100.00	6,089.47	6,089.87	6,089.87	14.13	13.55	-172.93	286.22	267.06	19.16	14.937	0				
6,200.00	6,189.09	6,189.49	6,189.49	14.39	13.77	-173.14	294.87	275.39	19.48	15.136	0				
6,300.00	6,288.71	6,289.11	6,289.11	14.65	14.00	-173.34	303.53	283.73	19.80	15.329	0				
6,400.00	6,388.33	6,388.73	6,388.73	14.91	14.22	-173.52	312.18	292.06	20.12	15.516	0				
6,500.00	6,487.95	6,488.35	6,488.35	15.17	14.44	-173.70	320.85	300.41	20.44	15.697	0				
6,600.00	6,587.57	6,587.97	6,587.97	15.43	14.67	-173.86	329.51	308.75	20.76	15.872	0				
6,700.00	6,687.19	6,687.59	6,687.59	15.70	14.89	-174.02	338.18	317.10	21.08	16.042	0				
6,800.00	6,786.81	6,787.21	6,787.21	15.96	15.12	-174.17	346.85	325.45	21.40	16.207	0				
6,900.00	6,886.43	6,886.83	6,886.83	16.22	15.34	-174.31	355.52	333.80	21.72	16.368	0				
7,000.00	6,986.05	6,986.45	6,986.45	16.48	15.56	-174.45	364.19	342.15	22.04	16.523	0				
7,100.00	7,085.70	7,086.10	7,086.10	16.72	15.79	-174.58	372.44	350.09	22.34	16.669	0				
7,200.00	7,185.43	7,185.83	7,185.83	16.92	16.01	-174.69	379.82	357.19	22.63	16.786	0				
7,300.00	7,285.21	7,285.61	7,285.61	17.11	16.24	-174.78	386.33	363.42	22.91	16.862	0				
7,400.00	7,385.05	7,385.45	7,385.45	17.31	16.46	-174.86	391.97	368.78	23.20	16.899	0				
7,500.00	7,484.94	7,485.34	7,485.34	17.50	16.69	-174.92	396.75	373.27	23.48	16.897	0				
7,600.00	7,584.86	7,585.26	7,585.26	17.69	16.91	-174.97	400.66	376.90	23.77	16.858	0				
7,700.00	7,684.81	7,685.21	7,685.21	17.87	17.13	-175.01	403.71	379.65	24.05	16.785	0				
7,800.00	7,784.79	7,785.19	7,785.19	18.05	17.36	-175.04	405.88	381.54	24.34	16.677	0				
7,900.00	7,884.78	7,885.18	7,885.18	18.23	17.58	-175.06	407.18	382.56	24.62	16.536	0				
8,000.00	7,984.78	7,985.18	7,985.18	18.40	17.81	139.94	407.62	382.71	24.91	16.364	0				
8,100.00	8,084.78	8,085.18	8,085.18	18.59	18.03	139.94	407.62	382.41	25.21	16.169	0				
8,200.00	8,184.78	8,185.18	8,185.18	18.80	18.26	139.94	407.62	382.09	25.52	15.970	0				
8,300.00	8,284.78	8,285.18	8,285.18	19.01	18.48	139.94	407.62	381.78	25.84	15.776	0				
8,400.00	8,384.78	8,385.18	8,385.18	19.22	18.71	139.94	407.62	381.47	26.15	15.587	0				
8,500.00	8,484.78	8,485.18	8,485.18	19.43	18.93	139.94	407.62	381.15	26.47	15.402	0				
8,600.00	8,584.78	8,585.18	8,585.18	19.64	19.16	139.94	407.62	380.84	26.78	15.221	0				
8,700.00	8,684.78	8,685.18	8,685.18	19.85	19.38	139.94	407.62	380.52	27.09	15.045	0				
8,800.00	8,784.78	8,785.18	8,785.18	20.06	19.61	139.94	407.62	380.21	27.41	14.872	0				
8,900.00	8,884.78	8,885.18	8,885.18	20.27	19.83	139.94	407.62	379.90	27.72	14.703	0				
9,000.00	8,984.78	8,985.18	8,985.18	20.48	20.06	139.94	407.62	379.58	28.04	14.538	0				
9,100.00	9,084.78	9,085.18	9,085.18	20.69	20.28	139.94	407.62	379.27	28.35	14.377	0				
9,200.00	9,184.78	9,185.18	9,185.18	20.90	20.51	139.94	407.62	378.95	28.67	14.219	0				
9,300.00	9,284.78	9,285.18	9,285.18	21.11	20.73	139.94	407.62	378.64	28.98	14.065	0				
9,400.00	9,384.78	9,385.18	9,385.18	21.32	20.96	139.94	407.62	378.32	29.30	13.914	0				
9,500.00	9,484.78	9,485.18	9,485.18	21.54	21.18	139.94	407.62	378.01	29.61	13.766	0				
9,600.00	9,584.78	9,585.18	9,585.18	21.75	21.41	139.94	407.62	377.69	29.93	13.621	0				
9,700.00	9,684.78	9,685.18	9,685.18	21.96	21.63	139.94	407.62	377.38	30.24	13.479	0				
9,800.00	9,784.78	9,785.18	9,785.18	22.17	21.85	139.94	407.62	377.06	30.56	13.340	0				
9,900.00	9,884.78	9,885.18	9,885.18	22.39	22.08	139.94	407.62	376.75	30.87	13.204	0				
10,000.00	9,984.78	9,985.18	9,985.18	22.60	22.30	139.94	407.62	376.43	31.19	13.071	0				
10,100.00	10,084.78	10,085.18	10,085.18	22.82	22.53	139.94	407.62	376.12	31.50	12.940	0				
10,200.00	10,184.78	10,185.18	10,185.18	23.03	22.75	139.94	407.62	375.80	31.82	12.812	0				
10,300.00	10,284.78	10,285.18	10,285.18	23.24	22.98	139.94	407.62	375.49	32.13	12.686	0				
10,400.00	10,384.78	10,385.18	10,385.18	23.46	23.20	139.94	407.62	375.17	32.45	12.563	0				
10,500.00	10,484.78	10,485.18	10,485.18	23.67	23.43	139.94	407.62	374.86	32.76	12.442	0				
10,600.00	10,584.78	10,585.18	10,585.18	23.89	23.65	139.94	407.62	374.54	33.08	12.323	0				
10,700.00	10,684.78	10,685.18	10,685.18	24.10	23.88	139.94	407.62	374.23	33.39	12.207	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD													Offset Well Error: 0.00 ft	
Dzurisin - Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1														
Reference		Offset		Semi Major Axis		Distance							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	Risked Separation Factor	Probability of Collision		
10,800.00	10,784.78	10,785.18	10,785.18	24.32	24.10	139.94	407.62	373.91	33.71	12.092	0			
10,900.00	10,884.78	10,885.18	10,885.18	24.53	24.33	139.94	407.62	373.59	34.02	11.980	0			
11,000.00	10,984.78	10,985.18	10,985.18	24.75	24.55	139.94	407.62	373.28	34.34	11.870	0			
11,100.00	11,084.78	11,085.18	11,085.18	24.96	24.78	139.94	407.62	372.96	34.66	11.762	0			
11,200.00	11,184.78	11,185.18	11,185.18	25.18	25.00	139.94	407.62	372.65	34.97	11.656	0			
11,300.00	11,284.78	11,285.18	11,285.18	25.39	25.23	139.94	407.62	372.33	35.29	11.551	0			
11,400.00	11,384.78	11,385.18	11,385.18	25.61	25.45	139.94	407.62	372.02	35.60	11.449	0			
11,500.00	11,484.78	11,485.18	11,485.18	25.83	25.68	139.94	407.62	371.70	35.92	11.348	0			
11,600.00	11,584.78	11,585.18	11,585.18	26.04	25.90	139.94	407.62	371.38	36.23	11.249	0			
11,700.00	11,684.78	11,685.18	11,685.18	26.26	26.13	139.94	407.62	371.07	36.55	11.152	0			
11,800.00	11,784.78	11,785.18	11,785.18	26.48	26.35	139.94	407.62	370.75	36.87	11.057	0			
11,900.00	11,884.78	11,885.18	11,885.18	26.69	26.58	139.94	407.62	370.44	37.18	10.963	0			
12,000.00	11,984.78	11,985.18	11,985.18	26.91	26.80	139.94	407.62	370.12	37.50	10.870	0			
12,100.00	12,084.78	12,085.18	12,085.18	27.13	27.02	139.94	407.62	369.80	37.81	10.779	0			
12,200.00	12,184.78	12,185.18	12,185.18	27.34	27.25	139.94	407.62	369.49	38.13	10.690	0			
12,300.00	12,284.78	12,285.18	12,285.18	27.56	27.47	139.94	407.62	369.17	38.45	10.602	0			
12,358.80	12,343.58	12,343.98	12,343.98	27.69	27.61	139.94	407.62	368.99	38.63	10.551	0			
12,375.00	12,359.78	12,350.00	12,350.00	27.72	27.62	139.93	407.98	369.32	38.66	10.554	0			
12,400.00	12,384.73	12,369.11	12,369.10	27.78	27.65	139.94	409.77	371.07	38.71	10.586	0			
12,425.00	12,409.57	12,383.94	12,383.89	27.84	27.67	139.91	413.20	374.46	38.74	10.666	0			
12,450.00	12,434.23	12,400.00	12,399.88	27.91	27.70	139.90	418.22	379.45	38.77	10.786	0			
12,475.00	12,458.63	12,412.35	12,412.12	27.98	27.72	139.75	424.81	386.02	38.78	10.953	0			
12,500.00	12,482.73	12,425.00	12,424.62	28.05	27.74	139.56	432.95	394.16	38.79	11.161	0			
12,525.00	12,506.44	12,438.35	12,437.75	28.12	27.77	139.34	442.61	403.81	38.80	11.408	0			
12,550.00	12,529.71	12,450.00	12,449.15	28.20	27.79	138.96	453.75	414.96	38.79	11.696	0			
12,575.00	12,552.47	12,461.29	12,460.13	28.28	27.80	138.47	466.31	427.52	38.79	12.022	0			
12,600.00	12,574.65	12,475.00	12,473.39	28.36	27.83	138.04	480.25	441.45	38.80	12.377	0			
12,625.00	12,596.20	12,475.00	12,473.39	28.44	27.83	136.47	495.49	456.78	38.71	12.800	0			
12,650.00	12,617.06	12,489.23	12,487.02	28.53	27.85	135.79	511.83	473.09	38.74	13.212	0			
12,675.00	12,637.17	12,500.00	12,497.27	28.63	27.87	134.68	529.35	490.60	38.75	13.661	0			
12,700.00	12,656.47	12,500.00	12,497.27	28.72	27.87	132.28	547.88	509.20	38.67	14.167	0			
12,725.00	12,674.92	12,509.26	12,506.01	28.82	27.88	130.48	567.29	528.61	38.69	14.664	0			
12,750.00	12,692.46	12,514.26	12,510.71	28.93	27.89	127.86	587.54	548.88	38.67	15.194	0			
12,775.00	12,709.04	12,525.00	12,520.74	29.04	27.91	125.60	608.59	569.88	38.71	15.721	0			
12,800.00	12,724.62	12,525.00	12,520.74	29.16	27.91	121.35	630.13	591.45	38.67	16.294	0			
12,825.00	12,739.15	12,525.00	12,520.74	29.28	27.91	116.38	652.23	613.59	38.64	16.879	0			
12,850.00	12,752.61	12,525.00	12,520.74	29.41	27.91	110.63	674.78	636.16	38.62	17.473	0			
12,875.00	12,764.94	12,525.00	12,520.74	29.54	27.91	104.07	697.69	659.08	38.61	18.071	0			
12,900.00	12,776.11	12,525.00	12,520.74	29.68	27.91	96.81	720.85	682.25	38.60	18.673	0			
12,925.00	12,786.10	12,525.00	12,520.74	29.82	27.91	89.01	744.19	705.58	38.61	19.275	0			
12,950.00	12,794.88	12,525.00	12,520.74	29.97	27.91	80.97	767.63	729.01	38.62	19.876	0			
12,975.00	12,802.42	12,525.00	12,520.74	30.13	27.91	73.03	791.09	752.45	38.64	20.474	0			
13,000.00	12,808.70	12,525.00	12,520.74	30.29	27.91	65.51	814.51	775.85	38.66	21.067	0			
13,025.00	12,813.71	12,525.00	12,520.74	30.46	27.91	58.64	837.84	799.15	38.69	21.653	0			
13,050.00	12,817.43	12,525.00	12,520.74	30.63	27.91	52.51	861.02	822.30	38.73	22.232	0			
13,075.00	12,819.85	12,525.00	12,520.74	30.81	27.91	47.16	884.01	845.24	38.77	22.803	0			
13,100.00	12,820.96	12,525.00	12,520.74	30.99	27.91	42.53	906.74	867.94	38.81	23.364	0			
13,108.05	12,821.04	12,516.88	12,513.16	31.05	27.90	40.48	913.91	875.14	38.77	23.572	0			
13,141.79	12,821.10	12,512.78	12,509.33	31.30	27.89	40.13	944.26	905.45	38.81	24.331	0			
13,200.00	12,821.18	12,500.00	12,497.27	31.76	27.87	39.06	997.11	958.28	38.84	25.675	0			
13,300.00	12,821.33	12,500.00	12,497.27	32.61	27.87	39.06	1,088.80	1,049.81	38.99	27.926	0			
13,400.00	12,821.49	12,486.74	12,484.65	33.55	27.85	37.99	1,181.58	1,142.52	39.05	30.255	0			
13,500.00	12,821.64	12,475.00	12,473.39	34.55	27.83	37.08	1,275.29	1,236.18	39.12	32.603	0			
13,600.00	12,821.79	12,475.00	12,473.39	35.62	27.83	37.08	1,369.73	1,330.51	39.21	34.930	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference														
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	Risk Separation Factor	Probability of Collision	Warning	
13,700.00	12,821.94	12,464.91	12,463.64	36.75	27.81	36.32	1,464.76	1,425.50	39.26	37.305	0			
13,800.00	12,822.09	12,450.00	12,449.15	37.94	27.79	35.24	1,560.44	1,521.15	39.29	39.711	0			
13,900.00	12,822.24	12,450.00	12,449.15	39.17	27.79	35.24	1,656.37	1,617.00	39.37	42.077	0			
14,000.00	12,822.39	12,450.00	12,449.15	40.45	27.79	35.24	1,752.75	1,713.32	39.43	44.454	0			
14,100.00	12,822.54	12,450.00	12,449.15	41.76	27.79	35.24	1,849.51	1,810.02	39.49	46.840	0			
14,200.00	12,822.70	12,450.00	12,449.15	43.12	27.79	35.24	1,946.60	1,907.06	39.54	49.233	0			
14,300.00	12,822.85	12,436.52	12,435.95	44.51	27.76	34.31	2,043.74	2,004.18	39.56	51.663	0			
14,400.00	12,823.00	12,425.00	12,424.62	45.93	27.74	33.54	2,141.30	2,101.72	39.58	54.096	0			
14,500.00	12,823.15	12,425.00	12,424.62	47.38	27.74	33.54	2,238.92	2,199.29	39.63	56.496	0			
14,600.00	12,823.30	12,425.00	12,424.62	48.85	27.74	33.54	2,336.74	2,297.07	39.67	58.900	0			
14,700.00	12,823.45	12,425.00	12,424.62	50.34	27.74	33.54	2,434.74	2,395.03	39.71	61.305	0			
14,800.00	12,823.60	12,425.00	12,424.62	51.86	27.74	33.54	2,532.90	2,493.15	39.76	63.712	0			
14,900.00	12,823.75	12,425.00	12,424.62	53.40	27.74	33.54	2,631.20	2,591.40	39.79	66.120	0			
15,000.00	12,823.91	12,425.00	12,424.62	54.95	27.74	33.54	2,729.62	2,689.78	39.83	68.527	0			
15,100.00	12,824.06	12,425.00	12,424.62	56.52	27.74	33.54	2,828.15	2,788.28	39.87	70.934	0			
15,200.00	12,824.21	12,412.44	12,412.21	58.11	27.72	32.73	2,926.58	2,886.69	39.89	73.365	0			
15,300.00	12,824.36	12,400.00	12,399.88	59.70	27.70	31.96	3,025.38	2,985.46	39.91	75.800	0			
15,400.00	12,824.51	12,400.00	12,399.88	61.31	27.70	31.96	3,124.07	3,084.12	39.95	78.199	0			
15,500.00	12,824.66	12,400.00	12,399.88	62.94	27.70	31.96	3,222.84	3,182.85	39.99	80.596	0			
15,600.00	12,824.81	12,400.00	12,399.88	64.57	27.70	31.96	3,321.69	3,281.66	40.02	82.991	0			
15,700.00	12,824.96	12,400.00	12,399.88	66.21	27.70	31.96	3,420.60	3,380.54	40.06	85.382	0			
15,800.00	12,825.11	12,400.00	12,399.88	67.87	27.70	31.96	3,519.58	3,479.48	40.10	87.771	0			
15,900.00	12,825.27	12,400.00	12,399.88	69.53	27.70	31.96	3,618.61	3,578.47	40.14	90.157	0			
16,000.00	12,825.42	12,400.00	12,399.88	71.20	27.70	31.96	3,717.69	3,677.52	40.17	92.538	0			
16,100.00	12,825.57	12,400.00	12,399.88	72.87	27.70	31.96	3,816.82	3,776.61	40.21	94.916	0			
16,200.00	12,825.72	12,400.00	12,399.88	74.56	27.70	31.96	3,916.00	3,875.75	40.25	97.290	0			
16,300.00	12,825.87	12,400.00	12,399.88	76.25	27.70	31.96	4,015.22	3,974.93	40.29	99.660	0			
16,400.00	12,826.02	12,400.00	12,399.88	77.95	27.70	31.96	4,114.47	4,074.14	40.33	102.025	0			
16,500.00	12,826.17	12,400.00	12,399.88	79.65	27.70	31.96	4,213.76	4,173.39	40.37	104.385	0			
16,600.00	12,826.32	12,400.00	12,399.88	81.35	27.70	31.96	4,313.08	4,272.67	40.41	106.741	0			
16,700.00	12,826.48	12,400.00	12,399.88	83.07	27.70	31.96	4,412.43	4,371.99	40.45	109.091	0			
16,800.00	12,826.63	12,400.00	12,399.88	84.78	27.70	31.96	4,511.82	4,471.33	40.49	111.436	0			
16,900.00	12,826.78	12,400.00	12,399.88	86.51	27.70	31.96	4,611.22	4,570.69	40.53	113.776	0			
17,000.00	12,826.93	12,400.00	12,399.88	88.23	27.70	31.96	4,710.66	4,670.09	40.57	116.110	0			
17,100.00	12,827.08	12,388.35	12,388.29	89.96	27.68	31.27	4,809.96	4,769.35	40.60	118.459	0			
17,200.00	12,827.23	12,387.55	12,387.49	91.69	27.68	31.22	4,909.42	4,868.77	40.65	120.782	0			
17,300.00	12,827.38	12,386.78	12,386.72	93.43	27.68	31.17	5,008.89	4,968.20	40.69	123.099	0			
17,400.00	12,827.53	12,375.00	12,374.98	95.17	27.66	30.50	5,108.53	5,067.80	40.73	125.437	0			
17,500.00	12,827.69	12,375.00	12,374.98	96.91	27.66	30.50	5,208.02	5,167.25	40.77	127.739	0			
17,600.00	12,827.84	12,375.00	12,374.98	98.66	27.66	30.50	5,307.54	5,266.72	40.82	130.036	0			
17,700.00	12,827.99	12,375.00	12,374.98	100.41	27.66	30.50	5,407.07	5,366.21	40.86	132.325	0			
17,800.00	12,828.14	12,375.00	12,374.98	102.16	27.66	30.50	5,506.62	5,465.72	40.91	134.608	0			
17,900.00	12,828.29	12,375.00	12,374.98	103.91	27.66	30.50	5,606.19	5,565.24	40.96	136.884	0			
18,000.00	12,828.44	12,375.00	12,374.98	105.67	27.66	30.50	5,705.77	5,664.77	41.00	139.154	0			
18,100.00	12,828.59	12,375.00	12,374.98	107.43	27.66	30.50	5,805.37	5,764.32	41.05	141.416	0			
18,200.00	12,828.74	12,375.00	12,374.98	109.19	27.66	30.50	5,904.98	5,863.88	41.10	143.671	0			
18,300.00	12,828.89	12,375.00	12,374.98	110.95	27.66	30.50	6,004.60	5,963.45	41.15	145.919	0			
18,400.00	12,829.05	12,375.00	12,374.98	112.72	27.66	30.50	6,104.24	6,063.04	41.20	148.159	0			
18,500.00	12,829.20	12,375.00	12,374.98	114.49	27.66	30.50	6,203.88	6,162.63	41.25	150.392	0			
18,600.00	12,829.35	12,375.00	12,374.98	116.25	27.66	30.50	6,303.54	6,262.24	41.30	152.618	0			
18,700.00	12,829.50	12,375.00	12,374.98	118.02	27.66	30.50	6,403.21	6,361.86	41.35	154.836	0			
18,800.00	12,829.65	12,375.00	12,374.98	119.80	27.66	30.50	6,502.89	6,461.48	41.41	157.046	0			
18,900.00	12,829.80	12,375.00	12,374.98	121.57	27.66	30.50	6,602.58	6,561.12	41.46	159.248	0			
19,000.00	12,829.95	12,375.00	12,374.98	123.34	27.66	30.50	6,702.28	6,660.76	41.51	161.443	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Dzurisin - Fighting Okra 18-19 Fed 85H - 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										
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	Risk Separation Factor	Probability of Collision	Warning	
19,100.00	12,830.10	12,375.00	12,374.98	125.12	27.66	30.50	6,801.98	6,760.41	41.57	163.629	0			
19,200.00	12,830.26	12,375.00	12,374.98	126.90	27.66	30.50	6,901.70	6,860.07	41.62	165.807	0			
19,300.00	12,830.41	12,375.00	12,374.98	128.68	27.66	30.50	7,001.42	6,959.74	41.68	167.977	0			
19,400.00	12,830.56	12,375.00	12,374.98	130.46	27.66	30.50	7,101.15	7,059.41	41.74	170.139	0			
19,500.00	12,830.71	12,375.00	12,374.98	132.24	27.66	30.50	7,200.89	7,159.10	41.79	172.293	0			
19,600.00	12,830.86	12,375.00	12,374.98	134.02	27.66	30.50	7,300.64	7,258.78	41.85	174.438	0			
19,700.00	12,831.01	12,375.00	12,374.98	135.81	27.66	30.50	7,400.39	7,358.48	41.91	176.575	0			
19,800.00	12,831.16	12,375.00	12,374.98	137.59	27.66	30.50	7,500.15	7,458.18	41.97	178.703	0			
19,900.00	12,831.31	12,375.00	12,374.98	139.38	27.66	30.50	7,599.91	7,557.88	42.03	180.823	0			
20,000.00	12,831.46	12,375.00	12,374.98	141.16	27.66	30.50	7,699.68	7,657.59	42.09	182.934	0			
20,100.00	12,831.62	12,375.00	12,374.98	142.95	27.66	30.50	7,799.46	7,757.31	42.15	185.036	0			
20,200.00	12,831.77	12,375.00	12,374.98	144.74	27.66	30.50	7,899.24	7,857.03	42.21	187.129	0			
20,300.00	12,831.92	12,375.00	12,374.98	146.53	27.66	30.50	7,999.03	7,956.76	42.28	189.214	0			
20,400.00	12,832.07	12,375.00	12,374.98	148.32	27.66	30.50	8,098.83	8,056.49	42.34	191.290	0			
20,500.00	12,832.22	12,375.00	12,374.98	150.11	27.66	30.50	8,198.63	8,156.22	42.40	193.357	0			
20,600.00	12,832.37	12,375.00	12,374.98	151.90	27.66	30.50	8,298.43	8,255.96	42.47	195.415	0			
20,700.00	12,832.52	12,375.00	12,374.98	153.70	27.66	30.50	8,398.24	8,355.71	42.53	197.463	0			
20,800.00	12,832.67	12,375.00	12,374.98	155.49	27.66	30.50	8,498.05	8,455.45	42.60	199.503	0			
20,900.00	12,832.83	12,375.00	12,374.98	157.29	27.66	30.50	8,597.87	8,555.20	42.66	201.534	0			
21,000.00	12,832.98	12,375.00	12,374.98	159.08	27.66	30.50	8,697.69	8,654.96	42.73	203.555	0			
21,100.00	12,833.13	12,375.00	12,374.98	160.88	27.66	30.50	8,797.51	8,754.72	42.80	205.568	0			
21,200.00	12,833.28	12,375.00	12,374.98	162.67	27.66	30.50	8,897.34	8,854.48	42.86	207.571	0			
21,300.00	12,833.43	12,375.00	12,374.98	164.47	27.66	30.50	8,997.18	8,954.24	42.93	209.565	0			
21,400.00	12,833.58	12,375.00	12,374.98	166.27	27.66	30.50	9,097.01	9,054.01	43.00	211.549	0			
21,500.00	12,833.73	12,375.00	12,374.98	168.07	27.66	30.50	9,196.85	9,153.78	43.07	213.524	0			
21,600.00	12,833.88	12,375.00	12,374.98	169.86	27.66	30.50	9,296.70	9,253.55	43.14	215.490	0			
21,700.00	12,834.04	12,375.00	12,374.98	171.66	27.66	30.50	9,396.54	9,353.33	43.21	217.446	0			
21,800.00	12,834.19	12,375.00	12,374.98	173.46	27.66	30.50	9,496.39	9,453.11	43.28	219.393	0			
21,900.00	12,834.34	12,375.00	12,374.98	175.26	27.66	30.50	9,596.25	9,552.89	43.36	221.331	0			
22,000.00	12,834.49	12,375.00	12,374.98	177.07	27.66	30.50	9,696.10	9,652.67	43.43	223.259	0			
22,100.00	12,834.64	12,375.00	12,374.98	178.87	27.66	30.50	9,795.96	9,752.46	43.50	225.177	0			
22,200.00	12,834.79	12,375.00	12,374.98	180.67	27.66	30.50	9,895.83	9,852.25	43.58	227.086	0			
22,300.00	12,834.94	12,375.00	12,374.98	182.47	27.66	30.50	9,995.69	9,952.04	43.65	228.986	0			

Devon Energy
Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 86H - 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
0.00	0.00	0.50	0.50	0.00	0.00	148.59	58.29				0		
100.00	100.00	100.50	100.50	0.09	0.09	148.59	58.29	58.17	0.12	476.318	0		
200.00	200.00	200.50	200.50	0.31	0.31	148.59	58.29	57.85	0.44	132.409	0		
300.00	300.00	300.50	300.50	0.54	0.54	148.59	58.29	57.53	0.76	76.892	0		
400.00	400.00	400.50	400.50	0.76	0.76	148.59	58.29	57.22	1.08	54.176	0		
500.00	500.00	500.50	500.50	0.99	0.99	148.59	58.29	56.90	1.39	41.821	0		
600.00	600.00	600.50	600.50	1.21	1.21	148.59	58.29	56.58	1.71	34.055	0		
700.00	700.00	700.50	700.50	1.43	1.44	148.59	58.29	56.26	2.03	28.721	0		
800.00	800.00	800.50	800.50	1.66	1.66	148.59	58.29	55.95	2.35	24.832	0		
900.00	900.00	900.50	900.50	1.88	1.89	148.59	58.29	55.63	2.67	21.871	0		
1,000.00	1,000.00	1,000.50	1,000.50	2.11	2.11	148.59	58.29	55.31	2.98	19.540	0		
1,100.00	1,100.00	1,100.50	1,100.50	2.33	2.33	148.59	58.29	54.99	3.30	17.659	0		
1,200.00	1,200.00	1,200.50	1,200.50	2.56	2.56	148.59	58.29	54.67	3.62	16.108	0		
1,300.00	1,300.00	1,300.50	1,300.50	2.78	2.78	148.59	58.29	54.36	3.94	14.807	0		
1,400.00	1,400.00	1,400.50	1,400.50	3.01	3.01	148.59	58.29	54.04	4.25	13.701	0		
1,500.00	1,500.00	1,500.50	1,500.50	3.23	3.23	148.59	58.29	53.72	4.57	12.748	0		
1,600.00	1,600.00	1,600.50	1,600.50	3.46	3.46	148.59	58.29	53.40	4.89	11.920	0		
1,700.00	1,700.00	1,700.50	1,700.50	3.68	3.68	148.59	58.29	53.08	5.21	11.192	0		
1,800.00	1,800.00	1,800.50	1,800.50	3.91	3.91	148.59	58.29	52.77	5.53	10.549	0		
1,900.00	1,900.00	1,900.50	1,900.50	4.13	4.13	148.59	58.29	52.45	5.84	9.975	0		
1,966.50	1,966.50	1,967.00	1,967.00	4.28	4.28	148.59	58.29	52.24	6.06	9.627	0		CC
2,000.00	2,000.00	2,000.50	2,000.50	4.36	4.36	148.59	58.29	52.13	6.16	9.460	0		ES
2,100.00	2,100.00	2,100.00	2,099.99	4.58	4.57	147.86	58.75	52.29	6.47	9.083	0		
2,200.00	2,200.00	2,199.36	2,199.32	4.81	4.77	145.77	60.18	53.42	6.77	8.894	0		
2,300.00	2,300.00	2,298.64	2,298.51	5.03	4.97	142.51	62.73	55.67	7.07	8.879	0		SF
2,400.00	2,400.00	2,397.75	2,397.43	5.26	5.17	138.39	66.61	59.24	7.36	9.044	0		
2,500.00	2,500.00	2,496.61	2,495.99	5.48	5.39	133.79	72.03	64.36	7.66	9.399	0		
2,600.00	2,600.00	2,596.20	2,595.20	5.71	5.61	129.40	78.56	70.59	7.97	9.860	0		
2,700.00	2,700.00	2,695.82	2,694.44	5.93	5.83	125.69	85.48	77.21	8.27	10.332	0		
2,800.00	2,800.00	2,795.44	2,793.68	6.15	6.06	122.55	92.71	84.13	8.58	10.804	0		
2,900.00	2,900.00	2,895.06	2,892.92	6.38	6.29	119.87	100.17	91.28	8.89	11.270	0		
3,000.00	3,000.00	2,994.68	2,992.16	6.60	6.52	117.57	107.82	98.63	9.20	11.723	0		
3,100.00	3,099.99	3,094.24	3,091.34	6.82	6.76	160.68	116.45	106.94	9.50	12.252	0		
3,200.00	3,199.96	3,193.66	3,190.39	7.04	7.00	159.33	126.80	116.99	9.81	12.926	0		
3,300.00	3,299.86	3,292.92	3,289.27	7.26	7.24	158.44	138.82	128.70	10.12	13.723	0		
3,400.00	3,399.68	3,391.97	3,387.94	7.48	7.49	157.93	152.47	142.04	10.42	14.627	0		
3,500.00	3,499.37	3,490.80	3,486.40	7.71	7.73	157.71	167.72	156.99	10.73	15.628	0		
3,600.00	3,598.99	3,589.50	3,584.72	7.93	7.98	157.69	183.77	172.73	11.04	16.645	0		
3,700.00	3,698.60	3,688.21	3,683.05	8.16	8.22	157.67	199.82	188.47	11.35	17.604	0		
3,800.00	3,798.22	3,786.91	3,781.38	8.39	8.47	157.65	215.88	204.21	11.66	18.511	0		
3,900.00	3,897.84	3,885.61	3,879.71	8.63	8.72	157.63	231.93	219.95	11.97	19.369	0		
4,000.00	3,997.46	3,984.32	3,978.03	8.87	8.97	157.62	247.98	235.69	12.29	20.181	0		
4,100.00	4,097.08	4,083.02	4,076.36	9.10	9.23	157.61	264.03	251.43	12.60	20.952	0		
4,200.00	4,196.70	4,181.72	4,174.69	9.34	9.48	157.60	280.08	267.17	12.92	21.683	0		
4,300.00	4,296.32	4,280.43	4,273.02	9.59	9.73	157.59	296.13	282.90	13.23	22.378	0		
4,400.00	4,395.94	4,379.13	4,371.35	9.83	9.99	157.58	312.19	298.64	13.55	23.039	0		
4,500.00	4,495.56	4,477.83	4,469.67	10.08	10.24	157.57	328.24	314.37	13.87	23.669	0		
4,600.00	4,495.18	4,476.54	4,468.00	10.32	10.50	157.56	344.29	330.10	14.19	24.269	0		
4,700.00	4,494.80	4,475.24	4,466.33	10.57	10.76	157.56	360.34	345.84	14.51	24.842	0		
4,800.00	4,494.42	4,473.94	4,464.66	10.82	11.02	157.55	376.39	361.57	14.83	25.389	0		
4,900.00	4,494.04	4,472.65	4,462.98	11.07	11.27	157.55	392.45	377.30	15.15	25.911	0		
5,000.00	4,493.66	4,471.35	4,461.31	11.32	11.53	157.54	408.50	393.03	15.47	26.412	0		
5,100.00	5,093.28	5,070.05	5,059.64	11.57	11.79	157.54	424.55	408.76	15.79	26.891	0		
5,200.00	5,192.90	5,168.76	5,157.97	11.82	12.05	157.53	440.60	424.49	16.11	27.350	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 86H - 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
5,300.00	5,292.52	5,267.46	5,256.29	12.08	12.31	157.53	456.65	440.22	16.43	27.790	0		
5,400.00	5,392.14	5,366.16	5,354.62	12.33	12.57	157.53	472.71	455.95	16.75	28.213	0		
5,500.00	5,491.76	5,464.87	5,452.95	12.59	12.83	157.52	488.76	471.68	17.08	28.619	0		
5,600.00	5,591.37	5,563.57	5,551.28	12.84	13.10	157.52	504.81	487.41	17.40	29.009	0		
5,700.00	5,690.99	5,662.27	5,649.61	13.10	13.36	157.52	520.86	503.14	17.73	29.385	0		
5,800.00	5,790.61	5,760.98	5,747.93	13.36	13.62	157.51	536.91	518.86	18.05	29.746	0		
5,900.00	5,890.23	5,859.68	5,846.26	13.62	13.88	157.51	552.97	534.59	18.37	30.094	0		
6,000.00	5,989.85	5,958.38	5,944.59	13.87	14.14	157.51	569.02	550.32	18.70	30.429	0		
6,100.00	6,089.47	6,057.09	6,042.92	14.13	14.41	157.51	585.07	566.05	19.02	30.753	0		
6,200.00	6,189.09	6,155.79	6,141.24	14.39	14.67	157.50	601.12	581.77	19.35	31.065	0		
6,300.00	6,288.71	6,254.49	6,239.57	14.65	14.93	157.50	617.17	597.50	19.68	31.366	0		
6,400.00	6,388.33	6,353.20	6,337.90	14.91	15.20	157.50	633.23	613.22	20.00	31.657	0		
6,500.00	6,487.95	6,451.90	6,436.23	15.17	15.46	157.50	649.28	628.95	20.33	31.939	0		
6,600.00	6,587.57	6,550.60	6,534.55	15.43	15.73	157.50	665.33	644.67	20.66	32.211	0		
6,700.00	6,687.19	6,649.31	6,632.88	15.70	15.99	157.49	681.38	660.40	20.98	32.474	0		
6,800.00	6,786.81	6,748.01	6,731.21	15.96	16.26	157.49	697.43	676.12	21.31	32.729	0		
6,900.00	6,886.43	6,846.71	6,829.54	16.22	16.52	157.49	713.49	691.85	21.64	32.976	0		
7,000.00	6,986.05	6,945.42	6,927.86	16.48	16.79	157.49	729.54	707.57	21.96	33.215	0		
7,100.00	7,085.70	7,044.18	7,026.26	16.72	17.05	157.51	745.19	722.92	22.27	33.455	0		
7,200.00	7,185.43	7,143.07	7,124.77	16.92	17.32	157.49	760.05	737.48	22.57	33.678	0		
7,300.00	7,285.21	7,242.07	7,223.39	17.11	17.58	157.46	774.11	751.25	22.86	33.861	0		
7,400.00	7,385.05	7,341.18	7,322.13	17.31	17.85	157.40	787.37	764.22	23.16	34.004	0		
7,500.00	7,484.94	7,440.39	7,420.96	17.50	18.12	157.32	799.84	776.39	23.45	34.111	0		
7,600.00	7,584.86	7,539.69	7,519.88	17.69	18.38	157.21	811.51	787.77	23.74	34.181	0		
7,700.00	7,684.81	7,639.08	7,618.89	17.87	18.65	157.09	822.38	798.35	24.03	34.217	0		
7,800.00	7,784.79	7,738.54	7,717.97	18.05	18.92	156.94	832.47	808.14	24.33	34.221	0		
7,900.00	7,884.78	7,838.07	7,817.12	18.23	19.19	156.77	841.76	817.14	24.62	34.192	0		
8,000.00	7,984.78	7,937.66	7,916.33	18.40	19.46	111.58	850.26	825.35	24.91	34.134	0		
8,100.00	8,084.78	8,037.28	8,015.57	18.59	19.73	111.37	858.38	833.16	25.21	34.043	0		
8,200.00	8,184.78	8,136.90	8,114.81	18.80	19.99	111.16	866.50	840.97	25.53	33.938	0		
8,300.00	8,284.78	8,236.52	8,214.05	19.01	20.26	110.95	874.64	848.79	25.85	33.836	0		
8,400.00	8,384.78	8,336.14	8,313.29	19.22	20.53	110.75	882.79	856.62	26.17	33.737	0		
8,500.00	8,484.78	8,435.76	8,412.53	19.43	20.80	110.55	890.95	864.46	26.48	33.640	0		
8,600.00	8,584.78	8,535.38	8,511.77	19.64	21.07	110.36	899.12	872.32	26.80	33.546	0		
8,700.00	8,684.78	8,635.00	8,611.02	19.85	21.34	110.16	907.30	880.18	27.12	33.454	0		
8,800.00	8,784.78	8,734.61	8,710.26	20.06	21.61	109.98	915.49	888.05	27.44	33.365	0		
8,900.00	8,884.78	8,834.23	8,809.50	20.27	21.88	109.79	923.69	895.93	27.76	33.278	0		
9,000.00	8,984.78	8,933.85	8,908.74	20.48	22.15	109.61	931.90	903.82	28.08	33.193	0		
9,100.00	9,084.78	9,033.47	9,007.98	20.69	22.42	109.43	940.11	911.72	28.39	33.110	0		
9,200.00	9,184.78	9,133.09	9,107.22	20.90	22.69	109.26	948.34	919.63	28.71	33.030	0		
9,300.00	9,284.78	9,232.71	9,206.46	21.11	22.96	109.08	956.58	927.55	29.03	32.951	0		
9,400.00	9,384.78	9,332.33	9,305.70	21.32	23.23	108.92	964.82	935.47	29.35	32.875	0		
9,500.00	9,484.78	9,431.95	9,404.94	21.54	23.50	108.75	973.07	943.41	29.67	32.800	0		
9,600.00	9,584.78	9,531.57	9,504.18	21.75	23.77	108.59	981.33	951.35	29.99	32.727	0		
9,700.00	9,684.78	9,631.19	9,603.42	21.96	24.04	108.42	989.60	959.30	30.30	32.655	0		
9,800.00	9,784.78	9,730.81	9,702.66	22.17	24.31	108.27	997.88	967.25	30.62	32.586	0		
9,900.00	9,884.78	9,830.43	9,801.90	22.39	24.58	108.11	1,006.16	975.22	30.94	32.518	0		
10,000.00	9,984.78	9,930.05	9,901.14	22.60	24.85	107.96	1,014.45	983.19	31.26	32.451	0		
10,100.00	10,084.78	10,029.67	10,000.38	22.82	25.12	107.81	1,022.75	991.17	31.58	32.386	0		
10,200.00	10,184.78	10,129.29	10,099.62	23.03	25.39	107.66	1,031.05	999.15	31.90	32.322	0		
10,300.00	10,284.78	10,228.91	10,198.86	23.24	25.66	107.51	1,039.36	1,007.15	32.22	32.260	0		
10,400.00	10,384.78	10,328.53	10,298.10	23.46	25.93	107.37	1,047.68	1,015.14	32.54	32.199	0		
10,500.00	10,484.78	10,428.15	10,397.34	23.67	26.20	107.23	1,056.01	1,023.15	32.86	32.140	0		
10,600.00	10,584.78	10,527.77	10,496.58	23.89	26.47	107.09	1,064.34	1,031.16	33.18	32.082	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 86H - 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	
10,700.00	10,684.78	10,627.38	10,595.82	24.10	26.74	106.95	1,072.67	1,039.18	33.50	32.025	0			
10,800.00	10,784.78	10,727.00	10,695.06	24.32	27.01	106.82	1,081.02	1,047.20	33.81	31.969	0			
10,900.00	10,884.78	10,834.30	10,801.98	24.53	27.27	106.68	1,089.09	1,054.96	34.14	31.905	0			
11,000.00	10,984.78	10,944.05	10,911.42	24.75	27.49	106.56	1,096.29	1,061.84	34.44	31.828	0			
11,100.00	11,084.78	11,053.95	11,021.08	24.96	27.71	106.45	1,102.57	1,067.82	34.75	31.728	0			
11,200.00	11,184.78	11,163.97	11,130.93	25.18	27.92	106.36	1,107.93	1,072.88	35.06	31.605	0			
11,300.00	11,284.78	11,274.11	11,240.95	25.39	28.13	106.29	1,112.38	1,077.02	35.36	31.461	0			
11,400.00	11,384.78	11,384.33	11,351.09	25.61	28.33	106.23	1,115.90	1,080.24	35.66	31.295	0			
11,500.00	11,484.78	11,494.62	11,461.34	25.83	28.53	106.19	1,118.50	1,082.55	35.96	31.108	0			
11,600.00	11,584.78	11,604.95	11,571.66	26.04	28.71	106.16	1,120.18	1,083.93	36.25	30.900	0			
11,700.00	11,684.78	11,715.32	11,682.02	26.26	28.89	106.15	1,120.94	1,084.39	36.55	30.672	0			
11,800.00	11,784.78	11,818.58	11,785.28	26.48	29.07	106.14	1,120.98	1,084.14	36.84	30.427	0			
11,900.00	11,884.78	11,918.58	11,885.28	26.69	29.26	106.14	1,120.98	1,083.84	37.14	30.183	0			
12,000.00	11,984.78	12,018.58	11,985.28	26.91	29.44	106.14	1,120.98	1,083.54	37.44	29.942	0			
12,100.00	12,084.78	12,118.58	12,085.28	27.13	29.63	106.14	1,120.98	1,083.24	37.74	29.705	0			
12,200.00	12,184.78	12,218.58	12,185.28	27.34	29.82	106.14	1,120.98	1,082.94	38.04	29.472	0			
12,300.00	12,284.78	12,318.58	12,285.28	27.56	30.00	106.14	1,120.98	1,082.65	38.34	29.242	0			
12,358.80	12,343.58	12,377.38	12,344.08	27.69	30.11	106.14	1,120.98	1,082.47	38.51	29.108	0			
12,375.00	12,359.78	12,392.90	12,359.60	27.72	30.14	106.16	1,121.06	1,082.50	38.56	29.073	0			
12,400.00	12,384.73	12,408.36	12,375.06	27.78	30.17	106.15	1,121.59	1,082.97	38.62	29.039	0			
12,425.00	12,409.57	12,425.00	12,391.68	27.84	30.20	106.16	1,122.72	1,084.03	38.69	29.019	0			
12,450.00	12,434.23	12,437.73	12,404.36	27.91	30.22	106.11	1,124.44	1,085.69	38.75	29.018	0			
12,475.00	12,458.63	12,450.00	12,416.57	27.98	30.24	106.03	1,126.77	1,087.96	38.81	29.032	0			
12,500.00	12,482.73	12,465.23	12,431.65	28.05	30.27	105.98	1,129.73	1,090.85	38.88	29.059	0			
12,525.00	12,506.44	12,475.00	12,441.30	28.12	30.28	105.78	1,133.33	1,094.39	38.93	29.109	0			
12,550.00	12,529.71	12,490.05	12,456.08	28.20	30.31	105.68	1,137.57	1,098.57	39.00	29.168	0			
12,575.00	12,552.47	12,500.00	12,465.81	28.28	30.33	105.39	1,142.49	1,103.43	39.06	29.250	0			
12,600.00	12,574.65	12,511.64	12,477.13	28.36	30.35	105.10	1,148.08	1,108.96	39.12	29.346	0			
12,625.00	12,596.20	12,525.00	12,490.02	28.44	30.37	104.82	1,154.37	1,115.19	39.19	29.456	0			
12,650.00	12,617.06	12,525.00	12,490.02	28.53	30.37	103.98	1,161.35	1,122.12	39.23	29.604	0			
12,675.00	12,637.17	12,537.48	12,501.98	28.63	30.40	103.54	1,169.00	1,129.70	39.30	29.748	0			
12,700.00	12,656.47	12,550.00	12,513.88	28.72	30.42	103.04	1,177.36	1,138.00	39.37	29.908	0			
12,725.00	12,674.92	12,550.00	12,513.88	28.82	30.42	101.91	1,186.35	1,146.94	39.41	30.104	0			
12,750.00	12,692.46	12,550.00	12,513.88	28.93	30.42	100.68	1,196.03	1,156.58	39.45	30.317	0			
12,775.00	12,709.04	12,559.90	12,523.22	29.04	30.44	99.81	1,206.29	1,166.77	39.52	30.524	0			
12,800.00	12,724.62	12,563.53	12,526.63	29.16	30.44	98.56	1,217.18	1,177.60	39.58	30.756	0			
12,825.00	12,739.15	12,566.44	12,529.34	29.28	30.45	97.17	1,228.63	1,189.00	39.63	31.002	0			
12,850.00	12,752.61	12,575.00	12,537.32	29.41	30.46	95.99	1,240.65	1,200.94	39.70	31.248	0			
12,875.00	12,764.94	12,575.00	12,537.32	29.54	30.46	94.27	1,253.10	1,213.34	39.75	31.521	0			
12,900.00	12,776.11	12,575.00	12,537.32	29.68	30.46	92.47	1,266.01	1,226.20	39.81	31.802	0			
12,925.00	12,786.10	12,575.00	12,537.32	29.82	30.46	90.58	1,279.32	1,239.45	39.86	32.091	0			
12,950.00	12,794.88	12,575.00	12,537.32	29.97	30.46	88.62	1,292.99	1,253.07	39.92	32.387	0			
12,975.00	12,802.42	12,575.00	12,537.32	30.13	30.46	86.60	1,306.97	1,266.98	39.98	32.688	0			
13,000.00	12,808.70	12,575.00	12,537.32	30.29	30.46	84.53	1,321.21	1,281.16	40.05	32.992	0			
13,025.00	12,813.71	12,575.00	12,537.32	30.46	30.46	82.42	1,335.67	1,295.56	40.11	33.300	0			
13,050.00	12,817.43	12,566.05	12,528.98	30.63	30.45	79.83	1,350.21	1,310.06	40.15	33.628	0			
13,075.00	12,819.85	12,563.67	12,526.76	30.81	30.44	77.57	1,364.91	1,324.70	40.21	33.943	0			
13,100.00	12,820.96	12,560.93	12,524.18	30.99	30.44	75.31	1,379.67	1,339.39	40.27	34.257	0			
13,108.05	12,821.04	12,559.97	12,523.28	31.05	30.44	74.58	1,384.43	1,344.13	40.29	34.358	0			
13,141.79	12,821.10	12,550.00	12,513.88	31.30	30.42	74.11	1,404.64	1,364.28	40.36	34.801	0			
13,200.00	12,821.18	12,550.00	12,513.88	31.76	30.42	74.11	1,440.55	1,400.02	40.53	35.545	0			
13,300.00	12,821.33	12,539.51	12,503.92	32.61	30.40	73.62	1,505.38	1,464.60	40.78	36.919	0			
13,400.00	12,821.49	12,525.00	12,490.02	33.55	30.37	72.95	1,573.75	1,532.74	41.00	38.382	0			
13,500.00	12,821.64	12,525.00	12,490.02	34.55	30.37	72.95	1,645.15	1,603.90	41.25	39.880	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 86H - 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				
13,600.00	12,821.79	12,525.00	12,490.02	35.62	30.37	72.95	1,719.41	1,677.92	41.48	41.447	0			
13,700.00	12,821.94	12,509.48	12,475.03	36.75	30.35	72.22	1,795.90	1,754.23	41.67	43.102	0			
13,800.00	12,822.09	12,500.00	12,465.81	37.94	30.33	71.78	1,874.62	1,832.78	41.85	44.798	0			
13,900.00	12,822.24	12,500.00	12,465.81	39.17	30.33	71.78	1,955.20	1,913.17	42.03	46.516	0			
14,000.00	12,822.39	12,500.00	12,465.81	40.45	30.33	71.78	2,037.51	1,995.30	42.20	48.278	0			
14,100.00	12,822.54	12,489.56	12,455.61	41.76	30.31	71.29	2,121.21	2,078.86	42.34	50.096	0			
14,200.00	12,822.70	12,485.60	12,451.72	43.12	30.30	71.10	2,206.27	2,163.78	42.48	51.934	0			
14,300.00	12,822.85	12,475.00	12,441.30	44.51	30.28	70.61	2,292.55	2,249.95	42.60	53.816	0			
14,400.00	12,823.00	12,475.00	12,441.30	45.93	30.28	70.61	2,379.80	2,337.07	42.73	55.697	0			
14,500.00	12,823.15	12,475.00	12,441.30	47.38	30.28	70.61	2,468.01	2,425.16	42.85	57.602	0			
14,600.00	12,823.30	12,475.00	12,441.30	48.85	30.28	70.61	2,557.09	2,514.13	42.96	59.528	0			
14,700.00	12,823.45	12,475.00	12,441.30	50.34	30.28	70.61	2,646.95	2,603.89	43.06	61.473	0			
14,800.00	12,823.60	12,475.00	12,441.30	51.86	30.28	70.61	2,737.51	2,694.36	43.16	63.434	0			
14,900.00	12,823.75	12,475.00	12,441.30	53.40	30.28	70.61	2,828.71	2,785.47	43.25	65.409	0			
15,000.00	12,823.91	12,462.68	12,429.13	54.95	30.26	70.03	2,920.31	2,877.00	43.32	67.418	0			
15,100.00	12,824.06	12,450.00	12,416.57	56.52	30.24	69.44	3,012.68	2,969.29	43.38	69.444	0			
15,200.00	12,824.21	12,450.00	12,416.57	58.11	30.24	69.44	3,105.34	3,061.88	43.46	71.450	0			
15,300.00	12,824.36	12,450.00	12,416.57	59.70	30.24	69.44	3,198.44	3,154.91	43.54	73.465	0			
15,400.00	12,824.51	12,450.00	12,416.57	61.31	30.24	69.44	3,291.95	3,248.35	43.61	75.487	0			
15,500.00	12,824.66	12,450.00	12,416.57	62.94	30.24	69.44	3,385.84	3,342.16	43.68	77.517	0			
15,600.00	12,824.81	12,450.00	12,416.57	64.57	30.24	69.44	3,480.06	3,436.31	43.75	79.552	0			
15,700.00	12,824.96	12,450.00	12,416.57	66.21	30.24	69.44	3,574.59	3,530.78	43.81	81.593	0			
15,800.00	12,825.11	12,450.00	12,416.57	67.87	30.24	69.44	3,669.42	3,625.54	43.87	83.637	0			
15,900.00	12,825.27	12,450.00	12,416.57	69.53	30.24	69.44	3,764.51	3,720.58	43.93	85.686	0			
16,000.00	12,825.42	12,450.00	12,416.57	71.20	30.24	69.44	3,859.85	3,815.86	43.99	87.737	0			
16,100.00	12,825.57	12,450.00	12,416.57	72.87	30.24	69.44	3,955.42	3,911.37	44.05	89.791	0			
16,200.00	12,825.72	12,450.00	12,416.57	74.56	30.24	69.44	4,051.21	4,007.10	44.11	91.846	0			
16,300.00	12,825.87	12,450.00	12,416.57	76.25	30.24	69.44	4,147.19	4,103.03	44.16	93.903	0			
16,400.00	12,826.02	12,450.00	12,416.57	77.95	30.24	69.44	4,243.36	4,199.14	44.22	95.961	0			
16,500.00	12,826.17	12,450.00	12,416.57	79.65	30.24	69.44	4,339.70	4,295.43	44.27	98.020	0			
16,600.00	12,826.32	12,450.00	12,416.57	81.35	30.24	69.44	4,436.21	4,391.88	44.33	100.078	0			
16,700.00	12,826.48	12,438.70	12,405.33	83.07	30.22	68.92	4,532.72	4,488.35	44.37	102.155	0			
16,800.00	12,826.63	12,437.79	12,404.43	84.78	30.22	68.88	4,629.49	4,585.07	44.42	104.214	0			
16,900.00	12,826.78	12,436.92	12,403.57	86.51	30.22	68.84	4,726.40	4,681.93	44.47	106.271	0			
17,000.00	12,826.93	12,425.00	12,391.68	88.23	30.20	68.29	4,823.57	4,779.05	44.52	108.353	0			
17,100.00	12,827.08	12,425.00	12,391.68	89.96	30.20	68.29	4,920.70	4,876.13	44.57	110.406	0			
17,200.00	12,827.23	12,425.00	12,391.68	91.69	30.20	68.29	5,017.94	4,973.32	44.62	112.457	0			
17,300.00	12,827.38	12,425.00	12,391.68	93.43	30.20	68.29	5,115.29	5,070.62	44.67	114.505	0			
17,400.00	12,827.53	12,425.00	12,391.68	95.17	30.20	68.29	5,212.74	5,168.02	44.72	116.552	0			
17,500.00	12,827.69	12,425.00	12,391.68	96.91	30.20	68.29	5,310.28	5,265.51	44.78	118.596	0			
17,600.00	12,827.84	12,425.00	12,391.68	98.66	30.20	68.29	5,407.92	5,363.09	44.83	120.637	0			
17,700.00	12,827.99	12,425.00	12,391.68	100.41	30.20	68.29	5,505.64	5,460.76	44.88	122.676	0			
17,800.00	12,828.14	12,425.00	12,391.68	102.16	30.20	68.29	5,603.44	5,558.50	44.93	124.711	0			
17,900.00	12,828.29	12,425.00	12,391.68	103.91	30.20	68.29	5,701.31	5,656.33	44.98	126.743	0			
18,000.00	12,828.44	12,425.00	12,391.68	105.67	30.20	68.29	5,799.26	5,754.22	45.04	128.771	0			
18,100.00	12,828.59	12,425.00	12,391.68	107.43	30.20	68.29	5,897.28	5,852.19	45.09	130.796	0			
18,200.00	12,828.74	12,425.00	12,391.68	109.19	30.20	68.29	5,995.36	5,950.22	45.14	132.817	0			
18,300.00	12,828.89	12,425.00	12,391.68	110.95	30.20	68.29	6,093.50	6,048.31	45.19	134.834	0			
18,400.00	12,829.05	12,425.00	12,391.68	112.72	30.20	68.29	6,191.71	6,146.46	45.25	136.846	0			
18,500.00	12,829.20	12,425.00	12,391.68	114.49	30.20	68.29	6,289.97	6,244.67	45.30	138.855	0			
18,600.00	12,829.35	12,425.00	12,391.68	116.25	30.20	68.29	6,388.28	6,342.93	45.35	140.859	0			
18,700.00	12,829.50	12,425.00	12,391.68	118.02	30.20	68.29	6,486.65	6,441.24	45.41	142.858	0			
18,800.00	12,829.65	12,425.00	12,391.68	119.80	30.20	68.29	6,585.06	6,539.60	45.46	144.853	0			
18,900.00	12,829.80	12,425.00	12,391.68	121.57	30.20	68.29	6,683.53	6,638.01	45.51	146.843	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Dzurisin - Fighting Okra 18-19 Fed 86H - 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										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	Riskd Separation Factor	Probability of Collision		
19,000.00	12,829.95	12,425.00	12,391.68	123.34	30.20	68.29	6,782.03	6,736.46	45.57	148.827	0			
19,100.00	12,830.10	12,425.00	12,391.68	125.12	30.20	68.29	6,880.58	6,834.96	45.63	150.807	0			
19,200.00	12,830.26	12,425.00	12,391.68	126.90	30.20	68.29	6,979.17	6,933.49	45.68	152.782	0			
19,300.00	12,830.41	12,425.00	12,391.68	128.68	30.20	68.29	7,077.81	7,032.07	45.74	154.751	0			
19,400.00	12,830.56	12,425.00	12,391.68	130.46	30.20	68.29	7,176.47	7,130.68	45.79	156.715	0			
19,500.00	12,830.71	12,425.00	12,391.68	132.24	30.20	68.29	7,275.18	7,229.33	45.85	158.674	0			
19,600.00	12,830.86	12,425.00	12,391.68	134.02	30.20	68.29	7,373.92	7,328.01	45.91	160.627	0			
19,700.00	12,831.01	12,425.00	12,391.68	135.81	30.20	68.29	7,472.69	7,426.73	45.96	162.574	0			
19,800.00	12,831.16	12,425.00	12,391.68	137.59	30.20	68.29	7,571.50	7,525.48	46.02	164.516	0			
19,900.00	12,831.31	12,425.00	12,391.68	139.38	30.20	68.29	7,670.34	7,624.26	46.08	166.451	0			
20,000.00	12,831.46	12,425.00	12,391.68	141.16	30.20	68.29	7,769.20	7,723.06	46.14	168.381	0			
20,100.00	12,831.62	12,425.00	12,391.68	142.95	30.20	68.29	7,868.10	7,821.90	46.20	170.305	0			
20,200.00	12,831.77	12,425.00	12,391.68	144.74	30.20	68.29	7,967.02	7,920.76	46.26	172.223	0			
20,300.00	12,831.92	12,425.00	12,391.68	146.53	30.20	68.29	8,065.97	8,019.65	46.32	174.134	0			
20,400.00	12,832.07	12,425.00	12,391.68	148.32	30.20	68.29	8,164.95	8,118.57	46.38	176.039	0			
20,500.00	12,832.22	12,425.00	12,391.68	150.11	30.20	68.29	8,263.95	8,217.50	46.44	177.938	0			
20,600.00	12,832.37	12,425.00	12,391.68	151.90	30.20	68.29	8,362.97	8,316.47	46.50	179.831	0			
20,700.00	12,832.52	12,425.00	12,391.68	153.70	30.20	68.29	8,462.02	8,415.45	46.57	181.717	0			
20,800.00	12,832.67	12,425.00	12,391.68	155.49	30.20	68.29	8,561.09	8,514.46	46.63	183.597	0			
20,900.00	12,832.83	12,425.00	12,391.68	157.29	30.20	68.29	8,660.18	8,613.48	46.69	185.470	0			
21,000.00	12,832.98	12,425.00	12,391.68	159.08	30.20	68.29	8,759.29	8,712.53	46.76	187.337	0			
21,100.00	12,833.13	12,425.00	12,391.68	160.88	30.20	68.29	8,858.42	8,811.60	46.82	189.196	0			
21,200.00	12,833.28	12,425.00	12,391.68	162.67	30.20	68.29	8,957.57	8,910.68	46.89	191.050	0			
21,300.00	12,833.43	12,425.00	12,391.68	164.47	30.20	68.29	9,056.74	9,009.78	46.95	192.896	0			
21,400.00	12,833.58	12,425.00	12,391.68	166.27	30.20	68.29	9,155.92	9,108.91	47.02	194.735	0			
21,500.00	12,833.73	12,425.00	12,391.68	168.07	30.20	68.29	9,255.13	9,208.04	47.08	196.568	0			
21,600.00	12,833.88	12,425.00	12,391.68	169.86	30.20	68.29	9,354.35	9,307.20	47.15	198.394	0			
21,700.00	12,834.04	12,425.00	12,391.68	171.66	30.20	68.29	9,453.59	9,406.37	47.22	200.213	0			
21,800.00	12,834.19	12,425.00	12,391.68	173.46	30.20	68.29	9,552.84	9,505.55	47.29	202.024	0			
21,900.00	12,834.34	12,425.00	12,391.68	175.26	30.20	68.29	9,652.11	9,604.75	47.35	203.829	0			
22,000.00	12,834.49	12,425.00	12,391.68	177.07	30.20	68.29	9,751.39	9,703.97	47.42	205.627	0			
22,100.00	12,834.64	12,425.00	12,391.68	178.87	30.20	68.29	9,850.69	9,803.20	47.49	207.417	0			
22,200.00	12,834.79	12,425.00	12,391.68	180.67	30.20	68.29	9,950.00	9,902.44	47.56	209.201	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Jayhawk 7-6 Fed Com 84H - 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							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	Riskd Separation Factor	Probability of Collision				
0.00	0.00	0.40	0.40	0.00	0.00	-88.49	30.04									
100.00	100.00	100.40	100.40	0.09	0.09	-88.49	30.04	29.92	0.12	245.786	0					
200.00	200.00	200.40	200.40	0.31	0.31	-88.49	30.04	29.60	0.44	68.260	0					
300.00	300.00	300.40	300.40	0.54	0.54	-88.49	30.04	29.28	0.76	39.634	0					
400.00	400.00	400.40	400.40	0.76	0.76	-88.49	30.04	28.96	1.08	27.923	0					
500.00	500.00	500.40	500.40	0.99	0.99	-88.49	30.04	28.65	1.39	21.555	0					
600.00	600.00	600.40	600.40	1.21	1.21	-88.49	30.04	28.33	1.71	17.552	0					
700.00	700.00	700.40	700.40	1.43	1.44	-88.49	30.04	28.01	2.03	14.802	0					
800.00	800.00	800.40	800.40	1.66	1.66	-88.49	30.04	27.69	2.35	12.798	0					
900.00	900.00	900.40	900.40	1.88	1.89	-88.49	30.04	27.38	2.67	11.272	0					
1,000.00	1,000.00	1,000.40	1,000.40	2.11	2.11	-88.49	30.04	27.06	2.98	10.070	0					
1,100.00	1,100.00	1,100.40	1,100.40	2.33	2.33	-88.49	30.04	26.74	3.30	9.101	0					
1,200.00	1,200.00	1,200.40	1,200.40	2.56	2.56	-88.49	30.04	26.42	3.62	8.301	0					
1,300.00	1,300.00	1,300.40	1,300.40	2.78	2.78	-88.49	30.04	26.10	3.94	7.631	0					
1,400.00	1,400.00	1,400.40	1,400.40	3.01	3.01	-88.49	30.04	25.79	4.25	7.061	0					
1,500.00	1,500.00	1,500.40	1,500.40	3.23	3.23	-88.49	30.04	25.47	4.57	6.570	0					
1,600.00	1,600.00	1,600.40	1,600.40	3.46	3.46	-88.49	30.04	25.15	4.89	6.143	0					
1,700.00	1,700.00	1,700.40	1,700.40	3.68	3.68	-88.49	30.04	24.83	5.21	5.768	0					
1,800.00	1,800.00	1,800.40	1,800.40	3.91	3.91	-88.49	30.04	24.51	5.53	5.436	0					
1,900.00	1,900.00	1,900.40	1,900.40	4.13	4.13	-88.49	30.04	24.20	5.84	5.141	0					
1,966.53	1,966.53	1,966.93	1,966.93	4.28	4.28	-88.49	30.04	23.99	6.06	4.961	0		CC			
2,000.00	2,000.00	2,000.40	2,000.40	4.36	4.36	-88.49	30.04	23.88	6.16	4.875	0		ES			
2,100.00	2,100.00	2,100.00	2,099.99	4.58	4.57	-87.98	30.87	24.40	6.47	4.770	0					
2,200.00	2,200.00	2,199.33	2,199.29	4.81	4.78	-86.60	33.36	26.59	6.77	4.926	0					
2,300.00	2,300.00	2,298.64	2,298.51	5.03	4.99	-84.72	37.55	30.47	7.07	5.307	0					
2,400.00	2,400.00	2,397.78	2,397.46	5.26	5.20	-82.70	43.45	36.08	7.38	5.892	0					
2,500.00	2,500.00	2,496.68	2,496.05	5.48	5.42	-80.79	51.09	43.41	7.67	6.658	0					
2,600.00	2,600.00	2,596.27	2,595.27	5.71	5.65	-79.22	59.67	51.69	7.98	7.476	0					
2,700.00	2,700.00	2,695.89	2,694.51	5.93	5.88	-78.05	68.29	60.00	8.29	8.236	0					
2,800.00	2,800.00	2,795.51	2,793.75	6.15	6.11	-77.14	76.93	68.33	8.60	8.944	0					
2,900.00	2,900.00	2,895.13	2,892.99	6.38	6.35	-76.42	85.59	76.67	8.91	9.602	0					
3,000.00	3,000.00	2,994.74	2,992.23	6.60	6.59	-75.82	94.25	85.03	9.23	10.217	0					
3,100.00	3,099.99	3,094.43	3,091.53	6.82	6.83	-30.54	102.18	92.64	9.53	10.716	0					
3,200.00	3,199.96	3,194.22	3,190.94	7.04	7.07	-30.76	108.60	98.76	9.84	11.034	0					
3,300.00	3,299.86	3,294.09	3,290.43	7.26	7.32	-31.42	113.54	103.39	10.15	11.185	0					
3,400.00	3,399.68	3,394.00	3,389.97	7.48	7.57	-32.48	117.02	106.56	10.46	11.186	0					
3,500.00	3,499.37	3,493.93	3,489.52	7.71	7.82	-33.95	119.09	108.32	10.77	11.054	0					
3,600.00	3,598.99	3,593.86	3,589.06	7.93	8.07	-35.62	120.52	109.44	11.09	10.870	0					
3,700.00	3,698.60	3,693.79	3,688.61	8.16	8.32	-37.24	122.06	110.65	11.40	10.703	0					
3,800.00	3,798.22	3,793.72	3,788.16	8.39	8.57	-38.83	123.69	111.97	11.72	10.551	0					
3,900.00	3,897.84	3,893.65	3,887.71	8.63	8.83	-40.37	125.41	113.37	12.05	10.412	0					
4,000.00	3,997.46	3,993.58	3,987.26	8.87	9.09	-41.87	127.22	114.85	12.37	10.285	0					
4,100.00	4,097.08	4,093.51	4,086.81	9.10	9.34	-43.33	129.12	116.42	12.70	10.170	0					
4,200.00	4,196.70	4,193.43	4,186.36	9.34	9.60	-44.75	131.09	118.07	13.03	10.064	0					
4,300.00	4,296.32	4,293.36	4,285.90	9.59	9.86	-46.12	133.15	119.79	13.36	9.968	0					
4,400.00	4,395.94	4,393.29	4,385.45	9.83	10.12	-47.45	135.28	121.59	13.69	9.880	0					
4,500.00	4,495.56	4,493.22	4,485.00	10.08	10.38	-48.73	137.48	123.45	14.03	9.800	0					
4,600.00	4,595.18	4,593.15	4,584.55	10.32	10.64	-49.98	139.74	125.37	14.37	9.726	0					
4,700.00	4,694.80	4,693.08	4,684.10	10.57	10.90	-51.19	142.07	127.36	14.71	9.659	0					
4,800.00	4,794.42	4,793.01	4,783.65	10.82	11.17	-52.35	144.46	129.41	15.05	9.597	0					
4,900.00	4,894.04	4,892.94	4,883.20	11.07	11.43	-53.48	146.91	131.51	15.40	9.541	0					
5,000.00	4,993.66	4,992.86	4,982.74	11.32	11.69	-54.57	149.42	133.67	15.75	9.489	0					
5,100.00	5,093.28	5,092.79	5,082.29	11.57	11.95	-55.63	151.97	135.88	16.10	9.442	0					
5,200.00	5,192.90	5,192.72	5,181.84	11.82	12.22	-56.65	154.58	138.13	16.45	9.398	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Jayhawk 7-6 Fed Com 84H - 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							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	Risked Separation Factor	Probability of Collision				
5,300.00	5,292.52	5,292.65	5,281.39	12.08	12.48	-57.63	157.23	140.43	16.80	9.358	0					
5,400.00	5,392.14	5,392.58	5,380.94	12.33	12.75	-58.58	159.93	142.77	17.16	9.322	0					
5,500.00	5,491.76	5,492.51	5,480.49	12.59	13.01	-59.50	162.67	145.16	17.51	9.288	0					
5,600.00	5,591.37	5,592.44	5,580.04	12.84	13.28	-60.39	165.45	147.58	17.87	9.258	0					
5,700.00	5,690.99	5,692.37	5,679.58	13.10	13.54	-61.25	168.27	150.04	18.23	9.230	0					
5,800.00	5,790.61	5,792.30	5,779.13	13.36	13.81	-62.09	171.13	152.54	18.59	9.204	0					
5,900.00	5,890.23	5,892.22	5,878.68	13.62	14.08	-62.89	174.02	155.07	18.96	9.181	0					
6,000.00	5,989.85	5,992.15	5,978.23	13.87	14.34	-63.67	176.95	157.63	19.32	9.159	0					
6,100.00	6,089.47	6,092.08	6,077.78	14.13	14.61	-64.42	179.91	160.22	19.68	9.140	0					
6,200.00	6,189.09	6,192.01	6,177.33	14.39	14.88	-65.15	182.89	162.84	20.05	9.122	0					
6,300.00	6,288.71	6,291.94	6,276.88	14.65	15.15	-65.85	185.91	165.49	20.42	9.106	0					
6,400.00	6,388.33	6,391.87	6,376.42	14.91	15.41	-66.53	188.95	168.17	20.78	9.091	0					
6,500.00	6,487.95	6,491.80	6,475.97	15.17	15.68	-67.19	192.02	170.87	21.15	9.078	0					
6,600.00	6,587.57	6,591.73	6,575.52	15.43	15.95	-67.83	195.11	173.59	21.52	9.065	0					
6,700.00	6,687.19	6,691.65	6,675.07	15.70	16.22	-68.45	198.23	176.33	21.89	9.054	0					
6,800.00	6,786.81	6,791.58	6,774.62	15.96	16.48	-69.05	201.37	179.10	22.26	9.045	0					
6,900.00	6,886.43	6,891.51	6,874.17	16.22	16.75	-69.63	204.53	181.89	22.64	9.036	0					
7,000.00	6,986.05	6,991.44	6,973.72	16.48	17.02	-70.20	207.71	184.70	23.01	9.028	0					
7,100.00	7,085.70	7,091.37	7,073.27	16.72	17.29	-70.65	211.05	187.69	23.36	9.035	0					
7,200.00	7,185.43	7,191.30	7,172.82	16.92	17.56	-70.87	214.69	191.01	23.68	9.066	0					
7,300.00	7,285.21	7,291.23	7,272.36	17.11	17.83	-70.86	218.62	194.62	24.00	9.110	0					
7,400.00	7,385.05	7,391.13	7,371.89	17.31	18.10	-70.65	222.84	198.53	24.31	9.168	0					
7,500.00	7,484.94	7,491.02	7,471.39	17.50	18.37	-70.24	227.35	202.74	24.60	9.240	0					
7,600.00	7,584.86	7,590.87	7,570.86	17.69	18.64	-69.64	232.18	207.28	24.90	9.326	0					
7,700.00	7,684.81	7,690.68	7,670.30	17.87	18.90	-68.88	237.34	212.16	25.18	9.426	0					
7,800.00	7,784.79	7,790.45	7,769.68	18.05	19.17	-67.96	242.88	217.42	25.45	9.542	0					
7,900.00	7,884.78	7,890.16	7,869.02	18.23	19.44	-66.90	248.82	223.10	25.72	9.674	0					
8,000.00	7,984.78	7,989.82	7,968.29	18.40	19.71	-110.71	255.20	229.22	25.98	9.824	0					
8,100.00	8,084.78	8,089.44	8,067.53	18.59	19.98	-109.47	261.88	235.63	26.25	9.978	0					
8,200.00	8,184.78	8,189.06	8,166.77	18.80	20.25	-108.29	268.67	242.14	26.53	10.128	0					
8,300.00	8,284.78	8,288.67	8,266.01	19.01	20.52	-107.17	275.58	248.76	26.81	10.278	0					
8,400.00	8,384.78	8,388.29	8,365.25	19.22	20.79	-106.10	282.58	255.48	27.10	10.429	0					
8,500.00	8,484.78	8,487.91	8,464.49	19.43	21.06	-105.09	289.68	262.29	27.38	10.579	0					
8,600.00	8,584.78	8,587.53	8,563.73	19.64	21.33	-104.12	296.86	269.19	27.67	10.728	0					
8,700.00	8,684.78	8,687.15	8,662.97	19.85	21.60	-103.20	304.12	276.16	27.96	10.877	0					
8,800.00	8,784.78	8,786.77	8,762.21	20.06	21.87	-102.32	311.46	283.21	28.25	11.025	0					
8,900.00	8,884.78	8,886.39	8,861.46	20.27	22.14	-101.49	318.87	290.32	28.54	11.171	0					
9,000.00	8,984.78	8,986.01	8,960.70	20.48	22.41	-100.69	326.34	297.50	28.84	11.317	0					
9,100.00	9,084.78	9,085.63	9,059.94	20.69	22.68	-99.93	333.87	304.74	29.13	11.461	0					
9,200.00	9,184.78	9,185.25	9,159.18	20.90	22.95	-99.20	341.46	312.03	29.43	11.604	0					
9,300.00	9,284.78	9,284.87	9,258.42	21.11	23.22	-98.50	349.10	319.37	29.72	11.745	0					
9,400.00	9,384.78	9,384.49	9,357.66	21.32	23.49	-97.83	356.79	326.77	30.02	11.885	0					
9,500.00	9,484.78	9,484.11	9,456.90	21.54	23.76	-97.19	364.52	334.20	30.32	12.023	0					
9,600.00	9,584.78	9,583.73	9,556.14	21.75	24.03	-96.58	372.30	341.68	30.62	12.159	0					
9,700.00	9,684.78	9,683.35	9,655.38	21.96	24.30	-95.99	380.12	349.20	30.92	12.294	0					
9,800.00	9,784.78	9,782.97	9,754.62	22.17	24.57	-95.43	387.98	356.76	31.22	12.427	0					
9,900.00	9,884.78	9,882.59	9,853.86	22.39	24.84	-94.89	395.88	364.35	31.52	12.558	0					
10,000.00	9,984.78	9,982.21	9,953.10	22.60	25.11	-94.37	403.80	371.98	31.83	12.687	0					
10,100.00	10,084.78	10,081.83	10,052.34	22.82	25.38	-93.87	411.76	379.63	32.13	12.815	0					
10,200.00	10,184.78	10,181.44	10,151.58	23.03	25.65	-93.39	419.75	387.32	32.44	12.941	0					
10,300.00	10,284.78	10,281.06	10,250.82	23.24	25.92	-92.92	427.77	395.03	32.74	13.065	0					
10,400.00	10,384.78	10,380.68	10,350.06	23.46	26.19	-92.48	435.82	402.77	33.05	13.188	0					
10,500.00	10,484.78	10,480.30	10,449.30	23.67	26.46	-92.05	443.89	410.53	33.35	13.308	0					
10,600.00	10,584.78	10,579.92	10,548.54	23.89	26.73	-91.63	451.98	418.32	33.66	13.427	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Jayhawk 7-6 Fed Com 84H - 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						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	Risk Separation Factor		Probability of Collision			
10,700.00	10,684.78	10,679.54	10,647.78	24.10	27.00	-91.23	460.10	426.13	33.97	13.545	0					
10,800.00	10,784.78	10,779.16	10,747.02	24.32	27.27	-90.85	468.24	433.96	34.28	13.660	0					
10,900.00	10,884.78	10,878.78	10,846.26	24.53	27.54	-90.48	476.40	441.81	34.59	13.774	0					
11,000.00	10,984.78	10,978.40	10,945.50	24.75	27.81	-90.12	484.57	449.68	34.90	13.886	0					
11,100.00	11,084.78	11,078.02	11,044.74	24.96	28.08	-89.77	492.77	457.56	35.21	13.997	0					
11,200.00	11,184.78	11,177.64	11,143.98	25.18	28.35	-89.43	500.98	465.47	35.52	14.106	0					
11,300.00	11,284.78	11,277.26	11,243.22	25.39	28.62	-89.10	509.22	473.39	35.83	14.213	0					
11,400.00	11,384.78	11,376.88	11,342.47	25.61	28.89	-88.79	517.46	481.32	36.14	14.319	0					
11,500.00	11,484.78	11,476.50	11,441.71	25.83	29.17	-88.48	525.72	489.27	36.45	14.423	0					
11,600.00	11,584.78	11,576.12	11,540.95	26.04	29.44	-88.19	534.00	497.24	36.76	14.526	0					
11,700.00	11,684.78	11,675.74	11,640.19	26.26	29.71	-87.90	542.29	505.22	37.07	14.627	0					
11,800.00	11,784.78	11,775.36	11,739.43	26.48	29.98	-87.62	550.59	513.21	37.39	14.727	0					
11,900.00	11,884.78	11,874.98	11,838.67	26.69	30.25	-87.35	558.91	521.21	37.70	14.825	0					
12,000.00	11,984.78	11,974.60	11,937.91	26.91	30.52	-87.09	567.24	529.22	38.01	14.922	0					
12,100.00	12,084.78	12,074.21	12,037.15	27.13	30.79	-86.83	575.58	537.25	38.33	15.018	0					
12,200.00	12,184.78	12,173.83	12,136.39	27.34	31.06	-86.58	583.93	545.29	38.64	15.112	0					
12,300.00	12,284.78	12,273.45	12,235.63	27.56	31.33	-86.34	592.29	553.33	38.95	15.205	0					
12,358.80	12,343.58	12,332.03	12,293.98	27.69	31.49	-86.21	597.21	558.07	39.14	15.259	0					
12,375.00	12,359.78	12,348.17	12,310.06	27.72	31.54	-86.02	598.55	559.35	39.19	15.272	0					
12,400.00	12,384.73	12,373.08	12,334.87	27.78	31.60	-85.87	600.54	561.26	39.28	15.290	0					
12,425.00	12,409.57	12,396.09	12,357.78	27.84	31.67	-85.80	602.46	563.10	39.36	15.306	0					
12,450.00	12,434.23	12,418.50	12,380.03	27.91	31.73	-85.75	604.40	564.95	39.45	15.322	0					
12,475.00	12,458.63	12,440.98	12,402.22	27.98	31.79	-85.70	606.35	566.81	39.54	15.335	0					
12,500.00	12,482.73	12,463.54	12,424.33	28.05	31.86	-85.66	608.30	568.66	39.64	15.347	0					
12,525.00	12,506.44	12,486.19	12,446.30	28.12	31.93	-85.64	610.25	570.51	39.74	15.357	0					
12,550.00	12,529.71	12,508.93	12,468.08	28.20	32.00	-85.62	612.20	572.35	39.84	15.365	0					
12,575.00	12,552.47	12,531.76	12,489.63	28.28	32.08	-85.62	614.14	574.18	39.96	15.370	0					
12,600.00	12,574.65	12,554.70	12,510.91	28.36	32.15	-85.62	616.07	575.99	40.08	15.372	0					
12,625.00	12,596.20	12,577.75	12,531.86	28.44	32.23	-85.64	617.98	577.78	40.20	15.371	0					
12,650.00	12,617.06	12,600.92	12,552.43	28.53	32.32	-85.67	619.88	579.54	40.34	15.367	0					
12,675.00	12,637.17	12,624.21	12,572.58	28.63	32.40	-85.71	621.75	581.27	40.48	15.360	0					
12,700.00	12,656.47	12,647.64	12,592.25	28.72	32.49	-85.75	623.59	582.97	40.63	15.349	0					
12,725.00	12,674.92	12,671.20	12,611.39	28.82	32.58	-85.81	625.40	584.62	40.78	15.335	0					
12,750.00	12,692.46	12,694.90	12,629.94	28.93	32.68	-85.88	627.18	586.23	40.95	15.316	0					
12,775.00	12,709.04	12,718.76	12,647.86	29.04	32.78	-85.96	628.92	587.80	41.12	15.294	0					
12,800.00	12,724.62	12,742.77	12,665.08	29.16	32.88	-86.06	630.61	589.31	41.30	15.268	0					
12,825.00	12,739.15	12,766.94	12,681.55	29.28	32.98	-86.16	632.26	590.76	41.49	15.238	0					
12,850.00	12,752.61	12,791.28	12,697.22	29.41	33.09	-86.27	633.85	592.16	41.69	15.203	0					
12,875.00	12,764.94	12,815.79	12,712.02	29.54	33.21	-86.39	635.39	593.49	41.90	15.165	0					
12,900.00	12,776.11	12,840.49	12,725.91	29.68	33.33	-86.52	636.87	594.76	42.11	15.123	0					
12,925.00	12,786.10	12,865.36	12,738.81	29.82	33.45	-86.66	638.29	595.96	42.34	15.077	0					
12,950.00	12,794.88	12,890.43	12,750.68	29.97	33.58	-86.81	639.64	597.08	42.57	15.027	0					
12,975.00	12,802.42	12,915.68	12,761.46	30.13	33.71	-86.97	640.92	598.12	42.80	14.974	0					
13,000.00	12,808.70	12,941.13	12,771.09	30.29	33.86	-87.13	642.13	599.08	43.05	14.917	0					
13,025.00	12,813.71	12,966.78	12,779.52	30.46	34.00	-87.31	643.25	599.96	43.29	14.858	0					
13,050.00	12,817.43	12,992.63	12,786.69	30.63	34.16	-87.49	644.30	600.75	43.55	14.795	0					
13,075.00	12,819.85	13,018.68	12,792.54	30.81	34.32	-87.68	645.25	601.45	43.81	14.729	0					
13,100.00	12,820.96	13,044.93	12,797.05	30.99	34.48	-87.88	646.12	602.05	44.07	14.662	0					
13,108.05	12,821.04	13,053.43	12,798.20	31.05	34.54	-87.94	646.38	602.23	44.15	14.639	0					
13,141.79	12,821.10	13,089.35	12,801.41	31.30	34.77	-88.22	647.40	602.89	44.52	14.543	0					
13,200.00	12,821.18	13,149.19	12,802.14	31.76	35.19	-88.28	648.94	603.77	45.17	14.367	0					
13,300.00	12,821.33	13,249.16	12,802.34	32.61	35.95	-88.30	651.54	605.14	46.40	14.042	0					
13,400.00	12,821.49	13,349.12	12,802.54	33.55	36.79	-88.31	654.14	606.41	47.73	13.705	0					
13,500.00	12,821.64	13,449.09	12,802.75	34.55	37.71	-88.32	656.74	607.58	49.16	13.360	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Dzurisin - Jayhawk 7-6 Fed Com 84H - 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)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
13,600.00	12,821.79	13,549.05	12,802.95	35.62	38.69	-88.33	659.34	608.66	50.68	13.010	0			
13,700.00	12,821.94	13,649.02	12,803.15	36.75	39.74	-88.34	661.94	609.66	52.29	12.660	0			
13,800.00	12,822.09	13,748.99	12,803.35	37.94	40.85	-88.35	664.54	610.58	53.97	12.314	0			
13,900.00	12,822.24	13,848.95	12,803.56	39.17	42.01	-88.36	667.14	611.43	55.72	11.973	0			
14,000.00	12,822.39	13,948.92	12,803.76	40.45	43.21	-88.37	669.74	612.21	57.53	11.641	0			
14,100.00	12,822.54	14,048.88	12,803.96	41.76	44.46	-88.38	672.34	612.94	59.40	11.318	0			
14,200.00	12,822.70	14,148.85	12,804.16	43.12	45.75	-88.39	674.94	613.62	61.33	11.006	0			
14,300.00	12,822.85	14,248.82	12,804.37	44.51	47.08	-88.40	677.55	614.25	63.30	10.704	0			
14,400.00	12,823.00	14,348.78	12,804.57	45.93	48.44	-88.42	680.15	614.84	65.31	10.414	0			
14,500.00	12,823.15	14,448.75	12,804.77	47.38	49.83	-88.43	682.75	615.38	67.36	10.136	0			
14,600.00	12,823.30	14,548.72	12,804.97	48.85	51.25	-88.44	685.35	615.90	69.45	9.868	0			
14,700.00	12,823.45	14,648.68	12,805.17	50.34	52.69	-88.45	687.95	616.38	71.57	9.612	0			
14,800.00	12,823.60	14,748.65	12,805.38	51.86	54.16	-88.46	690.55	616.83	73.72	9.367	0			
14,900.00	12,823.75	14,848.61	12,805.58	53.40	55.65	-88.47	693.15	617.25	75.90	9.133	0			
15,000.00	12,823.91	14,948.58	12,805.78	54.95	57.16	-88.48	695.75	617.65	78.10	8.909	0			
15,100.00	12,824.06	15,048.55	12,805.98	56.52	58.69	-88.49	698.35	618.02	80.32	8.694	0			
15,200.00	12,824.21	15,148.51	12,806.19	58.11	60.24	-88.50	700.95	618.38	82.57	8.489	0			
15,300.00	12,824.36	15,248.48	12,806.39	59.70	61.80	-88.51	703.55	618.71	84.83	8.293	0			
15,400.00	12,824.51	15,348.44	12,806.59	61.31	63.37	-88.52	706.15	619.03	87.12	8.106	0			
15,500.00	12,824.66	15,448.41	12,806.79	62.94	64.96	-88.52	708.75	619.33	89.42	7.926	0			
15,600.00	12,824.81	15,548.38	12,807.00	64.57	66.57	-88.53	711.35	619.62	91.73	7.755	0			
15,700.00	12,824.96	15,648.34	12,807.20	66.21	68.18	-88.54	713.95	619.89	94.06	7.590	0			
15,800.00	12,825.11	15,748.31	12,807.40	67.87	69.80	-88.55	716.55	620.15	96.40	7.433	0			
15,900.00	12,825.27	15,848.27	12,807.60	69.53	71.44	-88.56	719.15	620.39	98.76	7.282	0			
16,000.00	12,825.42	15,948.24	12,807.80	71.20	73.08	-88.57	721.75	620.63	101.12	7.137	0			
16,100.00	12,825.57	16,048.21	12,808.01	72.87	74.74	-88.58	724.35	620.85	103.50	6.999	0			
16,200.00	12,825.72	16,148.17	12,808.21	74.56	76.40	-88.59	726.95	621.07	105.89	6.865	0			
16,300.00	12,825.87	16,248.14	12,808.41	76.25	78.07	-88.60	729.56	621.27	108.28	6.738	0			
16,400.00	12,826.02	16,348.11	12,808.61	77.95	79.74	-88.61	732.16	621.47	110.68	6.615	0			
16,500.00	12,826.17	16,448.07	12,808.82	79.65	81.43	-88.62	734.76	621.66	113.10	6.497	0			
16,600.00	12,826.32	16,548.04	12,809.02	81.35	83.12	-88.63	737.36	621.84	115.52	6.383	0			
16,700.00	12,826.48	16,648.00	12,809.22	83.07	84.81	-88.63	739.96	622.02	117.94	6.274	0			
16,800.00	12,826.63	16,747.97	12,809.42	84.78	86.51	-88.64	742.56	622.18	120.37	6.169	0			
16,900.00	12,826.78	16,847.94	12,809.63	86.51	88.22	-88.65	745.16	622.35	122.81	6.067	0			
17,000.00	12,826.93	16,947.90	12,809.83	88.23	89.93	-88.66	747.76	622.50	125.26	5.970	0			
17,100.00	12,827.08	17,047.87	12,810.03	89.96	91.65	-88.67	750.36	622.65	127.71	5.876	0			
17,200.00	12,827.23	17,147.83	12,810.23	91.69	93.37	-88.68	752.96	622.80	130.17	5.785	0			
17,300.00	12,827.38	17,247.80	12,810.43	93.43	95.09	-88.69	755.56	622.94	132.63	5.697	0			
17,400.00	12,827.53	17,347.77	12,810.64	95.17	96.82	-88.69	758.16	623.07	135.09	5.612	0			
17,500.00	12,827.69	17,447.73	12,810.84	96.91	98.55	-88.70	760.76	623.20	137.56	5.530	0			
17,600.00	12,827.84	17,547.70	12,811.04	98.66	100.29	-88.71	763.37	623.33	140.04	5.451	0			
17,700.00	12,827.99	17,647.66	12,811.24	100.41	102.03	-88.72	765.97	623.45	142.51	5.375	0			
17,800.00	12,828.14	17,747.63	12,811.45	102.16	103.77	-88.73	768.57	623.57	145.00	5.301	0			
17,900.00	12,828.29	17,847.60	12,811.65	103.91	105.52	-88.74	771.17	623.69	147.48	5.229	0			
18,000.00	12,828.44	17,947.56	12,811.85	105.67	107.27	-88.74	773.77	623.80	149.97	5.159	0			
18,100.00	12,828.59	18,047.53	12,812.05	107.43	109.02	-88.75	776.37	623.91	152.46	5.092	0			
18,200.00	12,828.74	18,147.50	12,812.26	109.19	110.77	-88.76	778.97	624.01	154.96	5.027	0			
18,300.00	12,828.89	18,247.46	12,812.46	110.95	112.53	-88.77	781.57	624.12	157.46	4.964	0			
18,400.00	12,829.05	18,347.43	12,812.66	112.72	114.29	-88.78	784.17	624.22	159.96	4.902	0			
18,500.00	12,829.20	18,447.39	12,812.86	114.49	116.05	-88.78	786.77	624.31	162.46	4.843	0			
18,600.00	12,829.35	18,547.36	12,813.06	116.25	117.81	-88.79	789.38	624.41	164.97	4.785	0			
18,700.00	12,829.50	18,647.33	12,813.27	118.02	119.58	-88.80	791.98	624.50	167.47	4.729	0			
18,800.00	12,829.65	18,747.29	12,813.47	119.80	121.34	-88.81	794.58	624.59	169.99	4.674	0			
18,900.00	12,829.80	18,847.26	12,813.67	121.57	123.11	-88.81	797.18	624.68	172.50	4.621	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Dzurisin - Jayhawk 7-6 Fed Com 84H - 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				Minimum Separation (ft)	Separation Factor	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)						
19,000.00	12,829.95	18,947.22	12,813.87	123.34	124.89	-88.82	799.78	624.77	175.01	4.570	0			
19,100.00	12,830.10	19,047.19	12,814.08	125.12	126.66	-88.83	802.38	624.85	177.53	4.520	0			
19,200.00	12,830.26	19,147.16	12,814.28	126.90	128.43	-88.84	804.98	624.93	180.05	4.471	0			
19,300.00	12,830.41	19,247.12	12,814.48	128.68	130.21	-88.84	807.58	625.01	182.57	4.423	0			
19,400.00	12,830.56	19,347.09	12,814.68	130.46	131.99	-88.85	810.18	625.09	185.09	4.377	0			
19,500.00	12,830.71	19,447.05	12,814.89	132.24	133.77	-88.86	812.79	625.17	187.62	4.332	0			
19,600.00	12,830.86	19,547.02	12,815.09	134.02	135.55	-88.87	815.39	625.24	190.14	4.288	0			
19,700.00	12,831.01	19,646.99	12,815.29	135.81	137.33	-88.87	817.99	625.32	192.67	4.245	0			
19,800.00	12,831.16	19,746.95	12,815.49	137.59	139.11	-88.88	820.59	625.39	195.20	4.204	0			
19,900.00	12,831.31	19,846.92	12,815.70	139.38	140.90	-88.89	823.19	625.46	197.73	4.163	0			
20,000.00	12,831.46	19,946.89	12,815.90	141.16	142.69	-88.89	825.79	625.53	200.27	4.123	0			
20,100.00	12,831.62	20,046.85	12,816.10	142.95	144.47	-88.90	828.39	625.59	202.80	4.085	0			
20,200.00	12,831.77	20,146.82	12,816.30	144.74	146.26	-88.91	830.99	625.66	205.33	4.047	0			
20,300.00	12,831.92	20,246.78	12,816.50	146.53	148.05	-88.91	833.60	625.73	207.87	4.010	0			
20,400.00	12,832.07	20,346.75	12,816.71	148.32	149.84	-88.92	836.20	625.79	210.41	3.974	0			
20,500.00	12,832.22	20,446.72	12,816.91	150.11	151.63	-88.93	838.80	625.85	212.95	3.939	0			
20,600.00	12,832.37	20,546.68	12,817.11	151.90	153.43	-88.94	841.40	625.91	215.49	3.905	0			
20,700.00	12,832.52	20,646.65	12,817.31	153.70	155.22	-88.94	844.00	625.97	218.03	3.871	0			
20,800.00	12,832.67	20,746.61	12,817.52	155.49	157.01	-88.95	846.60	626.03	220.57	3.838	0			
20,900.00	12,832.83	20,846.58	12,817.72	157.29	158.81	-88.96	849.20	626.09	223.11	3.806	0			
21,000.00	12,832.98	20,946.55	12,817.92	159.08	160.61	-88.96	851.81	626.15	225.66	3.775	0			
21,100.00	12,833.13	21,046.51	12,818.12	160.88	162.40	-88.97	854.41	626.21	228.20	3.744	0			
21,200.00	12,833.28	21,146.48	12,818.33	162.67	164.20	-88.98	857.01	626.26	230.75	3.714	0			
21,300.00	12,833.43	21,246.44	12,818.53	164.47	166.00	-88.98	859.61	626.32	233.29	3.685	0			
21,400.00	12,833.58	21,346.41	12,818.73	166.27	167.80	-88.99	862.21	626.37	235.84	3.656	0			
21,500.00	12,833.73	21,446.38	12,818.93	168.07	169.60	-88.99	864.81	626.42	238.39	3.628	0			
21,600.00	12,833.88	21,546.34	12,819.13	169.86	171.40	-89.00	867.41	626.48	240.94	3.600	0			
21,700.00	12,834.04	21,646.31	12,819.34	171.66	173.20	-89.01	870.02	626.53	243.49	3.573	0			
21,800.00	12,834.19	21,746.28	12,819.54	173.46	175.00	-89.01	872.62	626.58	246.04	3.547	0			
21,900.00	12,834.34	21,846.24	12,819.74	175.26	176.81	-89.02	875.22	626.63	248.59	3.521	0			
22,000.00	12,834.49	21,946.21	12,819.94	177.07	178.61	-89.03	877.82	626.68	251.14	3.495	0			
22,100.00	12,834.64	22,046.17	12,820.15	178.87	180.41	-89.03	880.42	626.73	253.69	3.470	0			
22,200.00	12,834.79	22,146.14	12,820.35	180.67	182.22	-89.04	883.02	626.77	256.25	3.446	0			
22,300.00	12,834.94	22,246.11	12,820.55	182.47	184.02	-89.04	885.62	626.82	258.80	3.422	0			
22,400.00	12,835.09	22,346.07	12,820.75	184.27	185.83	-89.05	888.23	626.87	261.36	3.399	0			
22,500.00	12,835.24	22,446.04	12,820.96	186.08	187.63	-89.06	890.83	626.92	263.91	3.375	0			
22,600.00	12,835.40	22,546.00	12,821.16	187.88	189.44	-89.06	893.43	626.96	266.47	3.353	0			
22,700.00	12,835.55	22,645.97	12,821.36	189.68	191.25	-89.07	896.03	627.01	269.02	3.331	0			
22,800.00	12,835.70	22,745.94	12,821.56	191.49	193.06	-89.08	898.63	627.05	271.58	3.309	0			
22,900.00	12,835.85	22,845.90	12,821.76	193.29	194.86	-89.08	901.23	627.09	274.14	3.287	0			
22,965.36	12,835.95	22,911.24	12,821.90	194.47	196.05	-89.08	902.93	627.12	275.81	3.274	0			
22,999.10	12,836.00	22,944.98	12,821.97	195.02	196.61	-89.09	903.81	627.21	276.60	3.268	0		SF	

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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Jayhawk 7-6 Fed Com 86H - 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							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	Riskd Separation Factor	Probability of Collision				
0.00	0.00	0.00	0.00	0.00	0.00	89.48	29.95							0		
100.00	100.00	99.90	99.90	0.09	0.09	89.48	29.95	29.83	0.12	246.465	0					
200.00	200.00	199.90	199.90	0.31	0.31	89.48	29.95	29.51	0.44	68.181	0					
300.00	300.00	299.90	299.90	0.54	0.54	89.48	29.95	29.19	0.76	39.557	0					
400.00	400.00	399.90	399.90	0.76	0.76	89.48	29.95	28.88	1.08	27.861	0					
500.00	500.00	499.90	499.90	0.99	0.98	89.48	29.95	28.56	1.39	21.503	0					
600.00	600.00	599.90	599.90	1.21	1.21	89.48	29.95	28.24	1.71	17.508	0					
700.00	700.00	699.90	699.90	1.43	1.43	89.48	29.95	27.92	2.03	14.764	0					
800.00	800.00	799.90	799.90	1.66	1.66	89.48	29.95	27.60	2.35	12.764	0					
900.00	900.00	899.90	899.90	1.88	1.88	89.48	29.95	27.29	2.66	11.241	0					
1,000.00	1,000.00	999.90	999.90	2.11	2.11	89.48	29.95	26.97	2.98	10.043	0					
1,100.00	1,100.00	1,099.90	1,099.90	2.33	2.33	89.48	29.95	26.65	3.30	9.076	0					
1,200.00	1,200.00	1,199.90	1,199.90	2.56	2.56	89.48	29.95	26.33	3.62	8.278	0					
1,300.00	1,300.00	1,299.90	1,299.90	2.78	2.78	89.48	29.95	26.02	3.94	7.610	0					
1,400.00	1,400.00	1,399.90	1,399.90	3.01	3.01	89.48	29.95	25.70	4.25	7.041	0					
1,500.00	1,500.00	1,499.90	1,499.90	3.23	3.23	89.48	29.95	25.38	4.57	6.552	0					
1,600.00	1,600.00	1,599.90	1,599.90	3.46	3.46	89.48	29.95	25.06	4.89	6.126	0					
1,700.00	1,700.00	1,699.90	1,699.90	3.68	3.68	89.48	29.95	24.74	5.21	5.752	0					
1,800.00	1,800.00	1,799.90	1,799.90	3.91	3.91	89.48	29.95	24.43	5.53	5.421	0					
1,900.00	1,900.00	1,899.90	1,899.90	4.13	4.13	89.48	29.95	24.11	5.84	5.126	0					
2,000.00	2,000.00	1,999.90	1,999.90	4.36	4.36	89.48	29.95	23.79	6.16	4.862	0		CC, ES			
2,100.00	2,100.00	2,099.41	2,099.40	4.58	4.57	88.87	30.75	24.28	6.47	4.752	0					
2,200.00	2,200.00	2,198.86	2,198.82	4.81	4.78	87.20	33.18	26.41	6.77	4.898	0					
2,300.00	2,300.00	2,298.19	2,298.05	5.03	4.99	84.91	37.28	30.21	7.08	5.269	0					
2,400.00	2,400.00	2,397.34	2,397.02	5.26	5.21	82.45	43.10	35.72	7.38	5.842	0					
2,500.00	2,500.00	2,496.25	2,495.63	5.48	5.42	80.12	50.65	42.97	7.68	6.598	0					
2,600.00	2,600.00	2,595.84	2,594.84	5.71	5.65	78.20	59.17	51.19	7.99	7.410	0					
2,700.00	2,700.00	2,695.46	2,694.08	5.93	5.88	76.77	67.74	59.45	8.30	8.166	0					
2,800.00	2,800.00	2,795.08	2,793.32	6.15	6.11	75.66	76.35	67.74	8.61	8.871	0					
2,900.00	2,900.00	2,894.70	2,892.56	6.38	6.35	74.78	84.97	76.06	8.92	9.528	0					
3,000.00	3,000.00	2,994.32	2,991.80	6.60	6.59	74.05	93.62	84.39	9.23	10.142	0					
3,100.00	3,099.99	3,093.90	3,091.01	6.82	6.83	118.80	102.69	93.15	9.54	10.763	0					
3,200.00	3,199.96	3,193.40	3,190.13	7.04	7.07	119.36	112.61	102.76	9.85	11.433	0					
3,300.00	3,299.86	3,292.78	3,289.13	7.26	7.31	120.51	123.41	113.25	10.16	12.148	0					
3,400.00	3,399.68	3,392.02	3,387.99	7.48	7.56	122.08	135.18	124.71	10.47	12.912	0					
3,500.00	3,499.37	3,491.07	3,486.67	7.71	7.81	123.95	148.00	137.22	10.78	13.727	0					
3,600.00	3,598.99	3,590.03	3,585.24	7.93	8.06	125.86	161.48	150.38	11.10	14.552	0					
3,700.00	3,698.60	3,688.98	3,683.82	8.16	8.31	127.47	175.10	163.69	11.41	15.343	0					
3,800.00	3,798.22	3,787.94	3,782.40	8.39	8.56	128.85	188.84	177.11	11.73	16.099	0					
3,900.00	3,897.84	3,886.89	3,880.98	8.63	8.81	130.05	202.68	190.63	12.05	16.820	0					
4,000.00	3,997.46	3,985.85	3,979.56	8.87	9.06	131.09	216.59	204.22	12.37	17.508	0					
4,100.00	4,097.08	4,084.81	4,078.14	9.10	9.32	132.00	230.56	217.87	12.69	18.164	0					
4,200.00	4,196.70	4,183.76	4,176.72	9.34	9.57	132.81	244.59	231.57	13.02	18.791	0					
4,300.00	4,296.32	4,282.72	4,275.30	9.59	9.83	133.53	258.65	245.31	13.34	19.388	0					
4,400.00	4,395.94	4,381.67	4,373.88	9.83	10.08	134.18	272.76	259.09	13.67	19.959	0					
4,500.00	4,495.56	4,480.63	4,472.46	10.08	10.34	134.77	286.89	272.90	13.99	20.503	0					
4,600.00	4,595.18	4,579.59	4,571.04	10.32	10.60	135.30	301.05	286.73	14.32	21.024	0					
4,700.00	4,694.80	4,678.54	4,669.62	10.57	10.86	135.78	315.23	300.59	14.65	21.522	0					
4,800.00	4,794.42	4,777.50	4,768.20	10.82	11.12	136.22	329.44	314.46	14.98	21.998	0					
4,900.00	4,894.04	4,876.45	4,866.78	11.07	11.37	136.62	343.66	328.35	15.30	22.454	0					
5,000.00	4,993.66	4,975.41	4,965.35	11.32	11.63	136.99	357.89	342.26	15.63	22.891	0					
5,100.00	5,093.28	5,074.36	5,063.93	11.57	11.89	137.34	372.14	356.18	15.96	23.310	0					
5,200.00	5,192.90	5,173.32	5,162.51	11.82	12.16	137.66	386.40	370.11	16.30	23.712	0					
5,300.00	5,292.52	5,272.28	5,261.09	12.08	12.42	137.95	400.68	384.05	16.63	24.098	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Dzurisin - Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1														
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	
5,400.00	5,392.14	5,371.23	5,359.67	12.33	12.68	138.23	414.96	398.00	16.96	24.468	0			
5,500.00	5,491.76	5,470.19	5,458.25	12.59	12.94	138.48	429.25	411.96	17.29	24.824	0			
5,600.00	5,591.37	5,569.14	5,556.83	12.84	13.20	138.72	443.55	425.93	17.62	25.167	0			
5,700.00	5,690.99	5,668.10	5,655.41	13.10	13.46	138.95	457.86	439.90	17.96	25.497	0			
5,800.00	5,790.61	5,767.06	5,753.99	13.36	13.73	139.16	472.17	453.88	18.29	25.814	0			
5,900.00	5,890.23	5,866.01	5,852.57	13.62	13.99	139.36	486.49	467.86	18.62	26.120	0			
6,000.00	5,989.85	5,964.97	5,951.15	13.87	14.25	139.55	500.81	481.85	18.96	26.415	0			
6,100.00	6,089.47	6,063.92	6,049.73	14.13	14.52	139.72	515.14	495.85	19.29	26.700	0			
6,200.00	6,189.09	6,162.88	6,148.31	14.39	14.78	139.89	529.47	509.85	19.63	26.975	0			
6,300.00	6,288.71	6,261.83	6,246.89	14.65	15.04	140.05	543.81	523.85	19.96	27.240	0			
6,400.00	6,388.33	6,360.79	6,345.46	14.91	15.31	140.20	558.15	537.85	20.30	27.496	0			
6,500.00	6,487.95	6,459.75	6,444.04	15.17	15.57	140.34	572.50	551.86	20.63	27.744	0			
6,600.00	6,587.57	6,558.70	6,542.62	15.43	15.84	140.48	586.85	565.88	20.97	27.984	0			
6,700.00	6,687.19	6,657.66	6,641.20	15.70	16.10	140.61	601.20	579.89	21.31	28.216	0			
6,800.00	6,786.81	6,756.61	6,739.78	15.96	16.37	140.73	615.55	593.91	21.64	28.440	0			
6,900.00	6,886.43	6,855.57	6,838.36	16.22	16.63	140.85	629.91	607.93	21.98	28.658	0			
7,000.00	6,986.05	6,954.53	6,936.94	16.48	16.90	140.97	644.27	621.95	22.32	28.869	0			
7,100.00	7,085.70	7,053.53	7,035.57	16.72	17.16	141.09	658.30	635.66	22.64	29.081	0			
7,200.00	7,185.43	7,152.64	7,134.30	16.92	17.43	141.17	671.65	648.71	22.94	29.280	0			
7,300.00	7,285.21	7,251.83	7,233.11	17.11	17.69	141.19	684.33	661.09	23.24	29.446	0			
7,400.00	7,385.05	7,351.10	7,332.01	17.31	17.96	141.17	696.34	672.80	23.54	29.581	0			
7,500.00	7,484.94	7,450.45	7,430.98	17.50	18.23	141.11	707.67	683.83	23.84	29.685	0			
7,600.00	7,584.86	7,549.86	7,530.01	17.69	18.49	141.00	718.33	694.19	24.14	29.760	0			
7,700.00	7,684.81	7,649.34	7,629.11	17.87	18.76	140.85	728.32	703.89	24.43	29.807	0			
7,800.00	7,784.79	7,748.86	7,728.25	18.05	19.03	140.66	737.65	712.92	24.73	29.828	0			
7,900.00	7,884.78	7,848.43	7,827.44	18.23	19.30	140.43	746.32	721.29	25.02	29.823	0			
8,000.00	7,984.78	7,948.03	7,926.67	18.40	19.57	95.16	754.33	729.01	25.32	29.795	0			
8,100.00	8,084.78	8,047.65	8,025.91	18.59	19.83	94.85	762.03	736.41	25.62	29.741	0			
8,200.00	8,184.78	8,147.27	8,125.15	18.80	20.10	94.55	769.76	743.82	25.94	29.675	0			
8,300.00	8,284.78	8,246.89	8,224.39	19.01	20.37	94.25	777.50	751.24	26.26	29.611	0			
8,400.00	8,384.78	8,346.51	8,323.63	19.22	20.64	93.96	785.26	758.69	26.57	29.549	0			
8,500.00	8,484.78	8,446.13	8,422.87	19.43	20.91	93.67	793.05	766.16	26.89	29.490	0			
8,600.00	8,584.78	8,545.75	8,522.11	19.64	21.18	93.39	800.85	773.64	27.21	29.432	0			
8,700.00	8,684.78	8,645.37	8,621.35	19.85	21.44	93.12	808.67	781.15	27.53	29.377	0			
8,800.00	8,784.78	8,744.99	8,720.59	20.06	21.71	92.85	816.51	788.67	27.85	29.323	0			
8,900.00	8,884.78	8,844.61	8,819.83	20.27	21.98	92.59	824.37	796.21	28.16	29.271	0			
9,000.00	8,984.78	8,944.23	8,919.07	20.48	22.25	92.33	832.25	803.77	28.48	29.221	0			
9,100.00	9,084.78	9,043.85	9,018.31	20.69	22.52	92.07	840.14	811.34	28.80	29.173	0			
9,200.00	9,184.78	9,143.47	9,117.55	20.90	22.79	91.82	848.05	818.93	29.12	29.126	0			
9,300.00	9,284.78	9,243.09	9,216.79	21.11	23.06	91.58	855.97	826.54	29.43	29.081	0			
9,400.00	9,384.78	9,342.70	9,316.03	21.32	23.33	91.34	863.91	834.16	29.75	29.037	0			
9,500.00	9,484.78	9,445.49	9,418.43	21.54	23.59	91.10	871.79	841.71	30.07	28.990	0			
9,600.00	9,584.78	9,552.66	9,525.27	21.75	23.83	90.87	879.66	848.58	30.38	28.929	0			
9,700.00	9,684.78	9,659.98	9,632.34	21.96	24.05	90.68	885.30	854.62	30.68	28.852	0			
9,800.00	9,784.78	9,767.44	9,739.60	22.17	24.26	90.51	890.79	859.80	30.98	28.752	0			
9,900.00	9,884.78	9,875.01	9,847.03	22.39	24.46	90.37	895.42	864.14	31.28	28.628	0			
10,000.00	9,984.78	9,982.66	9,954.60	22.60	24.66	90.26	899.20	867.62	31.57	28.481	0			
10,100.00	10,084.78	10,090.40	10,062.27	22.82	24.86	90.18	902.11	870.25	31.86	28.311	0			
10,200.00	10,184.78	10,198.18	10,170.03	23.03	25.04	90.12	904.16	872.01	32.15	28.120	0			
10,300.00	10,284.78	10,306.01	10,277.85	23.24	25.22	90.08	905.35	872.91	32.44	27.907	0			
10,400.00	10,384.78	10,412.84	10,384.68	23.46	25.40	90.07	905.68	872.95	32.73	27.672	0			
10,500.00	10,484.78	10,512.84	10,484.68	23.67	25.58	90.07	905.68	872.66	33.02	27.427	0			
10,600.00	10,584.78	10,612.84	10,584.68	23.89	25.78	90.07	905.68	872.36	33.32	27.180	0			
10,700.00	10,684.78	10,712.84	10,684.68	24.10	25.97	90.07	905.68	872.06	33.62	26.937	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Dzurisin - Jayhawk 7-6 Fed Com 86H - 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)	Reference (ft)	Offset (ft)	Semi Major Axis (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning
10,800.00	10,784.78	10,812.84	10,784.68	24.32	26.16	90.07	905.68	871.76	33.92	26.698	0			
10,900.00	10,884.78	10,912.84	10,884.68	24.53	26.36	90.07	905.68	871.45	34.22	26.463	0			
11,000.00	10,984.78	11,012.84	10,984.68	24.75	26.55	90.07	905.68	871.15	34.52	26.233	0			
11,100.00	11,084.78	11,112.84	11,084.68	24.96	26.74	90.07	905.68	870.85	34.83	26.005	0			
11,200.00	11,184.78	11,212.84	11,184.68	25.18	26.94	90.07	905.68	870.55	35.13	25.782	0			
11,300.00	11,284.78	11,312.84	11,284.68	25.39	27.14	90.07	905.68	870.25	35.43	25.562	0			
11,400.00	11,384.78	11,412.84	11,384.68	25.61	27.33	90.07	905.68	869.95	35.73	25.346	0			
11,500.00	11,484.78	11,512.84	11,484.68	25.83	27.53	90.07	905.68	869.64	36.04	25.133	0			
11,600.00	11,584.78	11,612.84	11,584.68	26.04	27.72	90.07	905.68	869.34	36.34	24.923	0			
11,700.00	11,684.78	11,712.84	11,684.68	26.26	27.92	90.07	905.68	869.04	36.64	24.717	0			
11,800.00	11,784.78	11,812.84	11,784.68	26.48	28.12	90.07	905.68	868.73	36.95	24.514	0			
11,900.00	11,884.78	11,912.84	11,884.68	26.69	28.32	90.07	905.68	868.43	37.25	24.314	0			
12,000.00	11,984.78	12,012.84	11,984.68	26.91	28.52	90.07	905.68	868.13	37.55	24.118	0			
12,100.00	12,084.78	12,112.84	12,084.68	27.13	28.72	90.07	905.68	867.82	37.86	23.924	0			
12,200.00	12,184.78	12,212.84	12,184.68	27.34	28.92	90.07	905.68	867.52	38.16	23.733	0			
12,300.00	12,284.78	12,312.84	12,284.68	27.56	29.12	90.07	905.68	867.21	38.47	23.545	0			
12,358.80	12,343.58	12,371.64	12,343.48	27.69	29.23	90.07	905.68	867.03	38.64	23.436	0			
12,375.00	12,359.78	12,387.84	12,359.68	27.72	29.27	90.10	905.68	866.98	38.69	23.406	0			
12,400.00	12,384.73	12,412.94	12,384.77	27.78	29.32	90.15	905.68	866.90	38.78	23.357	0			
12,425.00	12,409.57	12,438.08	12,409.82	27.84	29.37	90.20	905.68	866.82	38.86	23.305	0			
12,450.00	12,434.23	12,463.26	12,434.78	27.91	29.43	90.25	905.68	866.73	38.95	23.252	0			
12,475.00	12,458.63	12,488.49	12,459.56	27.98	29.49	90.30	905.69	866.64	39.05	23.196	0			
12,500.00	12,482.73	12,513.75	12,484.10	28.05	29.56	90.34	905.69	866.55	39.14	23.137	0			
12,525.00	12,506.44	12,539.06	12,508.33	28.12	29.62	90.39	905.69	866.45	39.25	23.076	0			
12,550.00	12,529.71	12,564.40	12,532.17	28.20	29.69	90.44	905.70	866.34	39.36	23.012	0			
12,575.00	12,552.47	12,589.78	12,555.56	28.28	29.77	90.48	905.70	866.23	39.47	22.946	0			
12,600.00	12,574.65	12,615.21	12,578.42	28.36	29.84	90.52	905.71	866.12	39.59	22.878	0			
12,625.00	12,596.20	12,640.66	12,600.70	28.44	29.92	90.56	905.71	866.00	39.71	22.806	0			
12,650.00	12,617.06	12,666.16	12,622.31	28.53	30.00	90.60	905.71	865.87	39.84	22.732	0			
12,675.00	12,637.17	12,691.68	12,643.20	28.63	30.08	90.64	905.72	865.74	39.98	22.655	0			
12,700.00	12,656.47	12,717.24	12,663.31	28.72	30.17	90.68	905.72	865.60	40.12	22.574	0			
12,725.00	12,674.92	12,742.83	12,682.56	28.82	30.26	90.71	905.72	865.45	40.27	22.491	0			
12,750.00	12,692.46	12,768.45	12,700.90	28.93	30.35	90.75	905.73	865.30	40.43	22.404	0			
12,775.00	12,709.04	12,794.10	12,718.28	29.04	30.45	90.78	905.73	865.14	40.59	22.313	0			
12,800.00	12,724.62	12,819.78	12,734.63	29.16	30.56	90.81	905.73	864.97	40.76	22.219	0			
12,825.00	12,739.15	12,845.48	12,749.91	29.28	30.66	90.83	905.74	864.79	40.94	22.122	0			
12,850.00	12,752.61	12,871.20	12,764.07	29.41	30.78	90.86	905.74	864.61	41.13	22.021	0			
12,875.00	12,764.94	12,896.94	12,777.06	29.54	30.90	90.88	905.74	864.41	41.33	21.916	0			
12,900.00	12,776.11	12,922.70	12,788.84	29.68	31.02	90.90	905.74	864.21	41.53	21.809	0			
12,925.00	12,786.10	12,948.47	12,799.38	29.82	31.15	90.91	905.74	864.00	41.74	21.698	0			
12,950.00	12,794.88	12,974.26	12,808.64	29.97	31.29	90.93	905.74	863.77	41.96	21.584	0			
12,975.00	12,802.42	13,000.06	12,816.59	30.13	31.44	90.94	905.74	863.54	42.19	21.467	0			
13,000.00	12,808.70	13,025.86	12,823.20	30.29	31.59	90.95	905.73	863.31	42.43	21.347	0			
13,025.00	12,813.71	13,051.68	12,828.46	30.46	31.75	90.95	905.73	863.06	42.67	21.226	0			
13,050.00	12,817.43	13,077.49	12,832.34	30.63	31.91	90.96	905.73	862.81	42.92	21.102	0			
13,075.00	12,819.85	13,103.31	12,834.84	30.81	32.08	90.96	905.72	862.55	43.18	20.977	0			
13,100.00	12,820.96	13,129.13	12,835.95	30.99	32.25	90.95	905.72	862.28	43.44	20.850	0			
13,108.05	12,821.04	13,137.40	12,836.01	31.05	32.31	90.95	905.72	862.19	43.52	20.810	0			
13,141.79	12,821.10	13,171.14	12,836.04	31.30	32.55	90.95	905.71	861.82	43.89	20.638	0			
13,200.00	12,821.18	13,229.35	12,836.10	31.76	32.99	90.95	905.70	861.15	44.55	20.331	0			
13,300.00	12,821.33	13,329.35	12,836.20	32.61	33.81	90.95	905.68	859.91	45.77	19.788	0			
13,400.00	12,821.49	13,429.35	12,836.30	33.55	34.71	90.94	905.66	858.56	47.10	19.229	0			
13,500.00	12,821.64	13,529.35	12,836.40	34.55	35.68	90.94	905.64	857.11	48.53	18.661	0			
13,600.00	12,821.79	13,629.35	12,836.50	35.62	36.72	90.94	905.62	855.57	50.05	18.093	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Dzurisin - Jayhawk 7-6 Fed Com 86H - 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								
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	Risk Separation Factor	Probability of Collision	Warning	
13,700.00	12,821.94	13,729.35	12,836.61	36.75	37.81	90.93	905.61	853.94	51.66	17.529	0			
13,800.00	12,822.09	13,829.35	12,836.71	37.94	38.96	90.93	905.59	852.24	53.35	16.976	0			
13,900.00	12,822.24	13,929.35	12,836.81	39.17	40.17	90.93	905.57	850.47	55.10	16.435	0			
14,000.00	12,822.39	14,029.35	12,836.91	40.45	41.42	90.92	905.55	848.63	56.92	15.910	0			
14,100.00	12,822.54	14,129.35	12,837.01	41.76	42.71	90.92	905.53	846.74	58.79	15.403	0			
14,200.00	12,822.70	14,229.35	12,837.11	43.12	44.03	90.92	905.51	844.80	60.72	14.914	0			
14,300.00	12,822.85	14,329.35	12,837.21	44.51	45.40	90.92	905.49	842.81	62.69	14.444	0			
14,400.00	12,823.00	14,429.35	12,837.31	45.93	46.79	90.91	905.48	840.77	64.70	13.994	0			
14,500.00	12,823.15	14,529.35	12,837.41	47.38	48.21	90.91	905.46	838.70	66.76	13.563	0			
14,600.00	12,823.30	14,629.35	12,837.51	48.85	49.66	90.91	905.44	836.59	68.85	13.151	0			
14,700.00	12,823.45	14,729.35	12,837.61	50.34	51.14	90.90	905.42	834.45	70.97	12.758	0			
14,800.00	12,823.60	14,829.35	12,837.72	51.86	52.63	90.90	905.40	832.28	73.12	12.382	0			
14,900.00	12,823.75	14,929.35	12,837.82	53.40	54.15	90.90	905.38	830.08	75.30	12.024	0			
15,000.00	12,823.91	15,029.35	12,837.92	54.95	55.68	90.89	905.36	827.86	77.50	11.682	0			
15,100.00	12,824.06	15,129.35	12,838.02	56.52	57.23	90.89	905.34	825.62	79.73	11.355	0			
15,200.00	12,824.21	15,229.35	12,838.12	58.11	58.80	90.89	905.33	823.35	81.98	11.044	0			
15,300.00	12,824.36	15,329.35	12,838.22	59.70	60.38	90.88	905.31	821.07	84.24	10.746	0			
15,400.00	12,824.51	15,429.35	12,838.32	61.31	61.98	90.88	905.29	818.76	86.53	10.463	0			
15,500.00	12,824.66	15,529.35	12,838.42	62.94	63.58	90.88	905.27	816.44	88.83	10.192	0			
15,600.00	12,824.81	15,629.35	12,838.52	64.57	65.20	90.87	905.25	814.11	91.14	9.932	0			
15,700.00	12,824.96	15,729.35	12,838.62	66.21	66.83	90.87	905.23	811.76	93.47	9.685	0			
15,800.00	12,825.11	15,829.35	12,838.73	67.87	68.47	90.87	905.21	809.40	95.81	9.448	0			
15,900.00	12,825.27	15,929.35	12,838.83	69.53	70.12	90.86	905.20	807.03	98.16	9.221	0			
16,000.00	12,825.42	16,029.35	12,838.93	71.20	71.77	90.86	905.18	804.65	100.53	9.004	0			
16,100.00	12,825.57	16,129.35	12,839.03	72.87	73.44	90.86	905.16	802.25	102.90	8.796	0			
16,200.00	12,825.72	16,229.35	12,839.13	74.56	75.11	90.86	905.14	799.85	105.29	8.597	0			
16,300.00	12,825.87	16,329.35	12,839.23	76.25	76.79	90.85	905.12	797.44	107.68	8.405	0			
16,400.00	12,826.02	16,429.35	12,839.33	77.95	78.48	90.85	905.10	795.02	110.09	8.222	0			
16,500.00	12,826.17	16,529.35	12,839.43	79.65	80.17	90.85	905.08	792.59	112.50	8.046	0			
16,600.00	12,826.32	16,629.35	12,839.53	81.35	81.87	90.84	905.07	790.15	114.91	7.876	0			
16,700.00	12,826.48	16,729.35	12,839.63	83.07	83.57	90.84	905.05	787.71	117.34	7.713	0			
16,800.00	12,826.63	16,829.35	12,839.73	84.78	85.28	90.84	905.03	785.26	119.77	7.556	0			
16,900.00	12,826.78	16,929.35	12,839.84	86.51	86.99	90.83	905.01	782.80	122.21	7.406	0			
17,000.00	12,826.93	17,029.35	12,839.94	88.23	88.71	90.83	904.99	780.34	124.65	7.260	0			
17,100.00	12,827.08	17,129.35	12,840.04	89.96	90.43	90.83	904.97	777.88	127.10	7.120	0			
17,200.00	12,827.23	17,229.35	12,840.14	91.69	92.15	90.82	904.95	775.40	129.55	6.985	0			
17,300.00	12,827.38	17,329.35	12,840.24	93.43	93.88	90.82	904.94	772.93	132.01	6.855	0			
17,400.00	12,827.53	17,429.35	12,840.34	95.17	95.61	90.82	904.92	770.44	134.47	6.729	0			
17,500.00	12,827.69	17,529.35	12,840.44	96.91	97.35	90.81	904.90	767.96	136.94	6.608	0			
17,600.00	12,827.84	17,629.35	12,840.54	98.66	99.09	90.81	904.88	765.47	139.41	6.491	0			
17,700.00	12,827.99	17,729.35	12,840.64	100.41	100.83	90.81	904.86	762.97	141.89	6.377	0			
17,800.00	12,828.14	17,829.35	12,840.74	102.16	102.58	90.80	904.84	760.48	144.37	6.268	0			
17,900.00	12,828.29	17,929.35	12,840.85	103.91	104.33	90.80	904.82	757.98	146.85	6.162	0			
18,000.00	12,828.44	18,029.35	12,840.95	105.67	106.08	90.80	904.81	755.47	149.33	6.059	0			
18,100.00	12,828.59	18,129.35	12,841.05	107.43	107.83	90.80	904.79	752.96	151.82	5.960	0			
18,200.00	12,828.74	18,229.35	12,841.15	109.19	109.58	90.79	904.77	750.45	154.31	5.863	0			
18,300.00	12,828.89	18,329.35	12,841.25	110.95	111.34	90.79	904.75	747.94	156.81	5.770	0			
18,400.00	12,829.05	18,429.35	12,841.35	112.72	113.10	90.79	904.73	745.42	159.31	5.679	0			
18,500.00	12,829.20	18,529.35	12,841.45	114.49	114.86	90.78	904.71	742.91	161.81	5.591	0			
18,600.00	12,829.35	18,629.35	12,841.55	116.25	116.63	90.78	904.69	740.38	164.31	5.506	0			
18,700.00	12,829.50	18,729.35	12,841.65	118.02	118.39	90.78	904.68	737.86	166.81	5.423	0			
18,800.00	12,829.65	18,829.35	12,841.75	119.80	120.16	90.77	904.66	735.33	169.32	5.343	0			
18,900.00	12,829.80	18,929.35	12,841.85	121.57	121.93	90.77	904.64	732.81	171.83	5.265	0			
19,000.00	12,829.95	19,029.35	12,841.96	123.34	123.70	90.77	904.62	730.28	174.34	5.189	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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Jayhawk 7-6 Fed Com 86H - 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							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	Risked Separation Factor	Probability of Collision				
19,100.00	12,830.10	19,129.35	12,842.06	125.12	125.47	90.76	904.60	727.74	176.86	5.115	0					
19,200.00	12,830.26	19,229.35	12,842.16	126.90	127.24	90.76	904.58	725.21	179.37	5.043	0					
19,300.00	12,830.41	19,329.35	12,842.26	128.68	129.02	90.76	904.56	722.67	181.89	4.973	0					
19,400.00	12,830.56	19,429.35	12,842.36	130.46	130.79	90.75	904.55	720.14	184.41	4.905	0					
19,500.00	12,830.71	19,529.35	12,842.46	132.24	132.57	90.75	904.53	717.60	186.93	4.839	0					
19,600.00	12,830.86	19,629.35	12,842.56	134.02	134.35	90.75	904.51	715.06	189.45	4.774	0					
19,700.00	12,831.01	19,729.35	12,842.66	135.81	136.13	90.74	904.49	712.51	191.98	4.711	0					
19,800.00	12,831.16	19,829.35	12,842.76	137.59	137.91	90.74	904.47	709.97	194.50	4.650	0					
19,900.00	12,831.31	19,929.35	12,842.86	139.38	139.70	90.74	904.45	707.42	197.03	4.590	0					
20,000.00	12,831.46	20,029.35	12,842.97	141.16	141.48	90.73	904.43	704.88	199.56	4.532	0					
20,100.00	12,831.62	20,129.35	12,843.07	142.95	143.26	90.73	904.42	702.33	202.09	4.475	0					
20,200.00	12,831.77	20,229.35	12,843.17	144.74	145.05	90.73	904.40	699.78	204.62	4.420	0					
20,300.00	12,831.92	20,329.35	12,843.27	146.53	146.84	90.73	904.38	697.23	207.15	4.366	0					
20,400.00	12,832.07	20,429.35	12,843.37	148.32	148.62	90.72	904.36	694.68	209.68	4.313	0					
20,500.00	12,832.22	20,529.35	12,843.47	150.11	150.41	90.72	904.34	692.13	212.22	4.261	0					
20,600.00	12,832.37	20,629.35	12,843.57	151.90	152.20	90.72	904.32	689.57	214.75	4.211	0					
20,700.00	12,832.52	20,729.35	12,843.67	153.70	153.99	90.71	904.30	687.02	217.29	4.162	0					
20,800.00	12,832.67	20,829.35	12,843.77	155.49	155.78	90.71	904.29	684.46	219.83	4.114	0					
20,900.00	12,832.83	20,929.35	12,843.87	157.29	157.57	90.71	904.27	681.90	222.36	4.067	0					
21,000.00	12,832.98	21,029.35	12,843.97	159.08	159.37	90.70	904.25	679.35	224.90	4.021	0					
21,100.00	12,833.13	21,129.35	12,844.08	160.88	161.16	90.70	904.23	676.79	227.44	3.976	0					
21,200.00	12,833.28	21,229.35	12,844.18	162.67	162.95	90.70	904.21	674.23	229.99	3.932	0					
21,300.00	12,833.43	21,329.35	12,844.28	164.47	164.75	90.69	904.19	671.67	232.53	3.889	0					
21,400.00	12,833.58	21,429.35	12,844.38	166.27	166.54	90.69	904.18	669.10	235.07	3.846	0					
21,500.00	12,833.73	21,529.35	12,844.48	168.07	168.34	90.69	904.16	666.54	237.62	3.805	0					
21,600.00	12,833.88	21,629.35	12,844.58	169.86	170.13	90.68	904.14	663.98	240.16	3.765	0					
21,700.00	12,834.04	21,729.35	12,844.68	171.66	171.93	90.68	904.12	661.41	242.71	3.725	0					
21,800.00	12,834.19	21,829.35	12,844.78	173.46	173.73	90.68	904.10	658.85	245.25	3.686	0					
21,900.00	12,834.34	21,929.35	12,844.88	175.26	175.53	90.67	904.08	656.28	247.80	3.648	0					
22,000.00	12,834.49	22,029.35	12,844.98	177.07	177.33	90.67	904.06	653.72	250.35	3.611	0					
22,100.00	12,834.64	22,129.35	12,845.09	178.87	179.13	90.67	904.05	651.15	252.89	3.575	0					
22,200.00	12,834.79	22,229.35	12,845.19	180.67	180.92	90.67	904.03	648.58	255.44	3.539	0					
22,300.00	12,834.94	22,329.35	12,845.29	182.47	182.73	90.66	904.01	646.02	257.99	3.504	0					
22,400.00	12,835.09	22,429.35	12,845.39	184.27	184.53	90.66	903.99	643.45	260.54	3.470	0					
22,500.00	12,835.24	22,529.35	12,845.49	186.08	186.33	90.66	903.97	640.88	263.09	3.436	0					
22,600.00	12,835.40	22,629.35	12,845.59	187.88	188.13	90.65	903.95	638.31	265.65	3.403	0					
22,700.00	12,835.55	22,729.35	12,845.69	189.68	189.93	90.65	903.94	635.74	268.20	3.370	0					
22,800.00	12,835.70	22,829.35	12,845.79	191.49	191.73	90.65	903.92	633.17	270.75	3.339	0					
22,900.00	12,835.85	22,929.35	12,845.89	193.29	193.54	90.64	903.90	630.60	273.30	3.307	0					
22,965.36	12,835.95	22,994.71	12,845.96	194.47	194.71	90.64	903.89	628.92	274.97	3.287	0					
22,999.10	12,836.00	23,028.45	12,845.99	195.02	195.30	90.64	903.88	628.11	275.77	3.278	0	SF				

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	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 1 @ 3390.70ft

Offset Depths are relative to Offset Datum

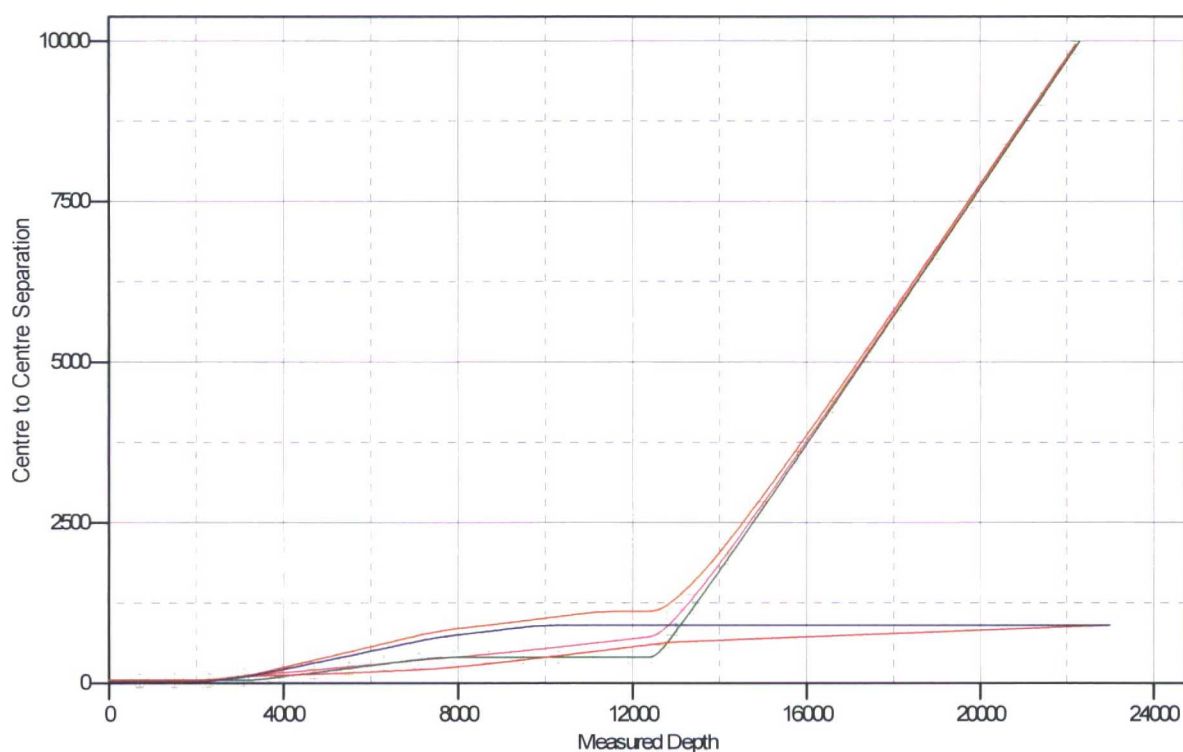
Central Meridian is -104.333334 °

Coordinates are relative to: Jayhawk 7-6 Fed Com 85H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.44°

Ladder Plot



LEGEND

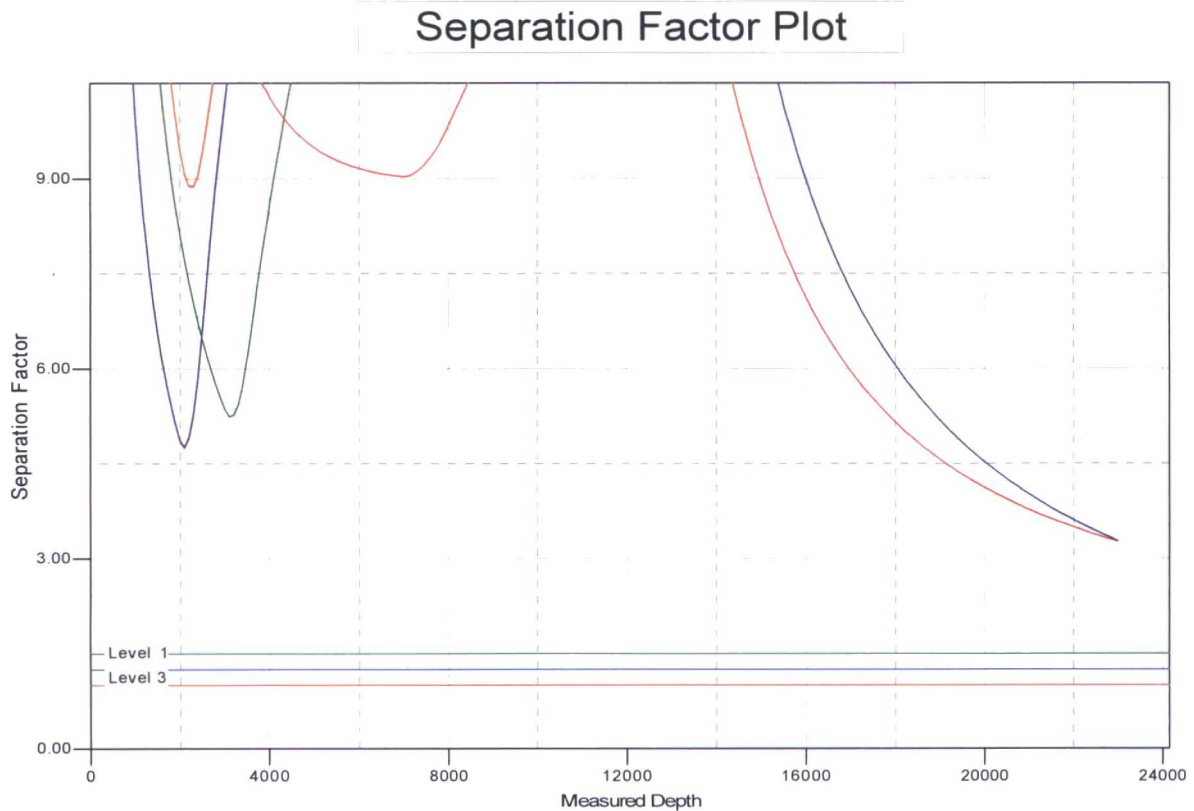
Fighting Okra 18-19 Fed 84H, Wellbore #1, Plan 1 V0
 Fighting Okra 18-19 Fed 86H, Wellbore #1, Plan 1 V0
 Jayhawk 7-6 Fed Com 86H, Wellbore #1, Plan 1 V0
 Fighting Okra 18-19 Fed 85H, Wellbore #1, Plan 1 V0
 Jayhawk 7-6 Fed Com 84H, Wellbore #1, Plan 1 V0

Devon Energy
Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 1 @ 3390.70ft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334 °

Coordinates are relative to: Jayhawk 7-6 Fed Com 85H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.44°



LEGEND

Fighting Okra 18-19 Fed 84H, Wellbore #1, Plan 1 V0 Fighting Okra 18-19 Fed 86H, Wellbore #1, Plan 1 V0 Jayhawk 7-6 Fed Com 86H, Wellbore #1, Plan 1 V0
Fighting Okra 18-19 Fed 85H, Wellbore #1, Plan 1 V0 Jayhawk 7-6 Fed Com 84H, Wellbore #1, Plan 1 V0